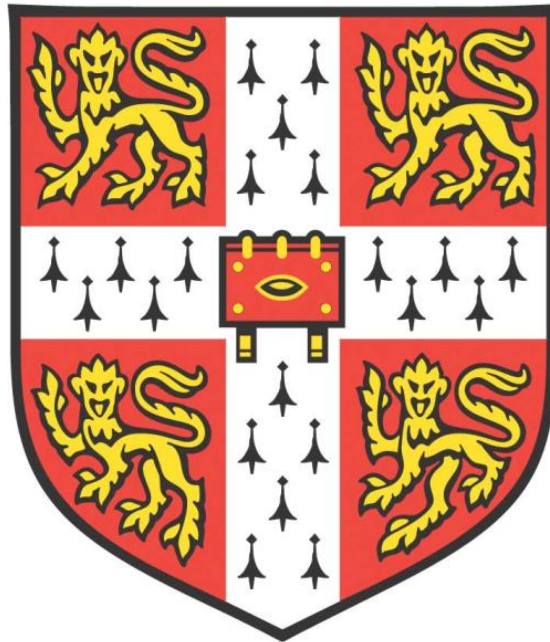
LISTENING TO BIRTH: METALLURGY, MATERNITY, AND VOCALITY IN THE REPRODUCTION OF THE PATRIARCHAL STATE



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Preface

This dissertation is the result of my own work and includes nothing which is the outcome of work done in collaboration except as declared in the Preface and specified in the text.

It is not substantially the same as any that I have submitted, or, is being concurrently submitted for a degree or diploma or other qualification at the University of Cambridge or any other University or similar institution except as declared in the Preface and specified in the text. I further state that no substantial part of my dissertation has already been submitted, or, is being concurrently submitted for any such degree, diploma or other qualification at the University of Cambridge or any other University or similar institution except as declared in the Preface and specified in the text.

It does not exceed the prescribed word limit for the relevant Degree Committee.

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Note on transliterations and primary sources

Words from ancient languages (Sumerian, Akkadian, Ugaritic, Hittite, Egyptian, Greek, Hebrew, etc.) have been presented in the simplest possible transliterations or normalisations. To the specialist, most of these terms are recognisable without special characters or differentiation of cuneiform signs. My transliteration choices are not intended to be technically consistent—instead, I have attempted to select the form of the word most commonly used in scholarship, to aid any non-specialists who wish to research these terms further. To prevent confusion, all names are presented in only one transliteration (I have also modified quotations and translations accordingly). In cases where the specific cuneiform sign or Semitic language root is an important consideration, I have retained specialist notations that enable the reader to engage with lexicographical sources.

The analyses within the thesis draw from many primary sources. These are listed according to author or edited collection in the Appendix. When citing these sources (especially the magical incantations), I have attempted to simplify as much as possible. For any primary text mentioned in the thesis, either the footnote or the 'Primary sources' list will direct the reader to the appropriate published source. The list in the Appendix cites published translations only for those texts directly quoted in the thesis.

Foreword

Putting a door on the female mouth has been an important project of patriarchal culture from antiquity to the present day. Its chief tactic is an ideological association of female sound with monstrosity, disorder and death. – Anne Carson[1]

The inspiration for this project stems from my time training in rape crisis support and birth attending while completing undergraduate studies in medieval and early modern music and graduate studies in medieval Arabic literature. In this project, I have drawn from each of these domains, applying the midwife and musician's intense preoccupation with sound to an archive of historical discourse on gender, gathered from a wide range of geographies and time periods.

During the first years of doctoral research, I experimented with social science methods, observing and interviewing midwives and mothers to investigate the ways in which they listen to women's bodies. I encountered discourse on birth sounds in midwifery literature, and interacted with many birth attendants who had carefully cultivated specific auditory skills.[2] I also investigated women's discussions about the sounds of birth on online forums. Since this work has been published, I will only briefly summarise my findings here.[3] Sifting through thousands of threads on *Mumsnet.org*, I gathered an archive of women's detailed discussions about the

[1] Anne Carson, 'The Gender of Sound', *Glass, Irony, and God* (New York: New Directions Book, 1995), 119, 121.

[2] For an explanation of the listening skills used in midwifery, see Liz Nightingale, 'Birth Noises and Normal Birth: Midwifery by Ear', *Essentially MIDIRS* 4, no. 4 (April 2013): 17–23.

[3] Anija Dokter, 'Audible Birth, Listening Women: Storytelling the Labouring Body on Mumsnet', in Jennifer Evans and Ciara Meehan, eds., *Perceptions of Pregnancy from the Seventeenth to the Twentieth Century* (Cham: Palgrave Macmillan, 2017).

soundscapes of birth. I found that women had strongly internalised that vocalising during labour rendered them subhuman: they heard their sounds as animalistic, demonic, primitive, monstrous, and pathological. They reported intense body-work and strategising during pregnancy to try to prevent this loss of their civilised humanity, and recalled feelings of shame during and after birth when this so often proved impossible. Husbands, midwives, and doctors harshly reprimanded and humiliated women during labour for their birth vocalisations. Some women engaged in active resistance to this sonic disciplining, shouting back or dismissing criticisms, while others deeply internalised the belief that they were at fault for losing control. Together, the women on the chat forums performed a remarkably thorough analysis of why women's sounds were so penalised, and attributed this to power dynamics within families and medical institutions. In the end, the women's analysis culminated in the question, *Who owns birth?* Some of the forum participants held to conservative notions that men owned birth because of their paternal claim over children, while other women strongly asserted that women owned their bodies, their right to vocal expression, and their birth experiences in entirety.

As my research progressed, I found myself returning more and more to my previous training in historical research: I wanted to know where this ubiquitous notion of subhuman female vocality came from. Using feminist social science methods, I could analyse this as the product of current social systems; however, I strongly suspected that these ideas were not new. As my historical research progressed, I began to confirm that I was hearing very ancient gender paradigms reverberating in the maternity ward. Had I persisted with the original project, my research question might have remained, *By which social mechanisms is the disciplining of women's sexual and reproductive voices produced and replicated?* On my return to historical research, I can now also ask, *Where did this disciplining originate? What was its original function? Why has this system been reproduced across temporal, linguistic, and geographical regions?*

Listening to Birth offers a feminist study of the representations of reproduction, ownership, sound, and vocality in ancient literature and iconography. While the thesis does not contain any ethnographic research, each page has been informed by the many women who have contributed their skills and knowledge to my project over the past five years.

1 METALLURGY AND MYTHOPOESIS: APPROACHES TO SOUND, GENDER, AND REPRODUCTION

Ideas, like waves, have fetches. They arrive with us having travelled vast distances, and their pasts are often invisible, or barely imaginable. – Robert MacFarlane[1]

Vulvar vocality and the audible construct of nature

In *Glass, Iron and God*, Anne Carson demonstrates, through examples ranging from Athenian *sophrosyne* to the characterisation of women's voices in twentieth-century politics, that sound is gendered—that human sound production and listening practices

[1] Robert MacFarlane, *The Wild Places* (London: Granta, 2007), 29-30.

are co-constructed with both gender and gendering.[2] To expand her analysis, we might also say that gender is sonic, that patriarchy and its constructs are audible. This exposes a tantalising possibility—one that has animated this thesis—that we might be able to listen for patriarchy as a way of knowing about it and discovering its inner workings.

Marilyn Strathern has defined gender as 'those categorisations of persons, artifacts, events, sequences, and so on which draw upon sexual imagery—upon the ways in which the distinctiveness of male and female relationships make concrete people's ideas about the nature of social relationships.' In emphasising the powerful ideological force of gender, Strathern adds that 'such categorisations have often appeared tautologous', that is, they are '[t]aken simply to be "about" men and women.'[3] With Carson's essay in mind, we might add that gendered categorisations operate, at least in part, through sound.

As a whole, *Listening to Birth* makes three assertions about the relationship between sound and gender: first, that structures of power are involved in producing modes of listening and sound production; second, that particular modes of sound-production and audition in turn contribute to the formation and reproduction of those systems of power; and third, that a critical analysis of sound and audition will enable us to gain deeper insights into those power structures. The preliminary implications for feminist research seem clear: we can listen for gender, paying particular attention to how the disciplining of aural and audible bodies plays a part in establishing and maintaining patriarchal institutions and ideologies. We can also locate gender in listening, observing how patterns of audition reveal the subtle ways in which patriarchal ideologies saturate our sensory perception. The focus of *Listening to Birth* is on the

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[2] Carson, 119ff.

[3] Marilyn Strathern, *The Gender of the Gift: Problems with Women and Problems with Society in Melanesia*, Studies in Melanesian Anthropology 6 (Berkeley, Calif.: University of California Press, 2001), ix–x.

soundscapes of antique power systems and the echoes of ancient gendered sound production and regulation still resonating in modern society.

One of the primary theoretical contributions of the thesis is the identification of 'vulvar vocality', a term I have coined to identify a specific sonic trend in patriarchal representations of women. Vulvar vocality defines 'woman' as an object of possession with two interconnected mouths—it is a comprehensive sexualisation of sound in which the illicit wetness of both mouth and vulva becomes audible in all female vocalities. This is an auditory phantasm that is also intensely tactile, filled with patriarchal fantasies of warm, wet, sonic bodies. In other words, vulvar vocality is the product of men listening to women—it is a listening strategy whereby sensory perception is made to reproduce patriarchal ideology.

When heard by patriarchal ears, female sounds exist in the realms of nature and wilderness. In antiquity, a strong tension existed between notions of wildness and nature. Robert MacFarlane, in his exploration of ancient concepts of the 'wild', defines wild land as wilful and uncontrollable, '[l]and that proceeds according to its own laws and principles, land whose habits... are of its own devising and own execution.'[4] MacFarlane notes different concepts of wildness that have existed in history: the wild that fascinates, chastises, or threatens, and the wild that is 'entirely, gradelessly indifferent... refus[ing] any imputation of meaning.'[5] In my understanding, wilderness, nature, and civilisation were conceptualised by ancient writers as distinct, gendered realms of meaning. Civilisation is the paternal realm of the city and its familiar, immediate periphery of control—the dwelling of citizens, peasants, and chattel, where state administration can directly intervene in labour and resource distribution.[6] Nature is the maternal realm of the land beyond the state's

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[4] MacFarlane, 30.

[5] *ibid.*, 157.

[6] While the distinction between 'periphery' and 'centre' continues to be debated, here I use it in the formal sense as understood by ancient near eastern administrators: the centre is the

immediate environs—a place of abundance that, given effort and enterprise, can be understood, penetrated (in the form of expeditions, colonial settlements, and raids), and extracted. Wilderness, on the other hand, is made up of the unknown, uncolonised lands beyond nature—lands that remain monstrous or ungendered, uncontrollable, unreachable, and unknown. Wilderness sets itself far apart from the accessible abundance of nature, for 'in full form it annihilates'.[7] These are realms of meaning—immediate meanings about the state itself, about realms that must be reached and conceptually accessed, and spaces immune to impositions of meaning.

Robert MacFarlane notes that 'wildness [was] a quality to be vanquished'.[8] However, when we consider the 'Urban Revolutions' of the ancient near east, the relationship between state and wilderness was more subtle: the process of urbanisation and state

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temple or royal administration which coordinates resource distribution and manufacture within the city; the periphery is the surrounding territory in which the administration holds direct power (i.e. where the adminstration can intervene directly in taking possession of all agricultural surplus, rather than relying on trade exchange). The areas where chains of trade occur indirectly are a second tier of periphery—in ancient Mesopotamian texts, these were termed 'foreign lands'. I term the regions beyond this periphery 'hinterlands', areas usually dominated by nomadic or semi-nomadic chiefdoms or tribal groups. (See discussion of the relationships between ancient states and chiefdoms below.) While this administrative structuring of territory is specific to the city-state system, it is relevant to understanding some of the conceptual precursors to the notions of 'core' and 'periphery' of the world economy in the modern era. For an example of the latter use, see Joan Smith and Immanuel Maurice Wallerstein, eds., *Creating and Transforming Households: The Constraints of the World-Economy*, Studies in Modern Capitalism (Cambridge: Cambridge University Press, 1992). For the debate regarding these terms in postcolonial studies, see, for example, Abdelkebir Khatibi, *Maghreb Pluriel* (Paris: Denoël, 1983). My notion of periphery and centre is not based on a binary relation—instead, I emphasise the constructedness of these concepts and prioritise notions of movement, exchange, and contestation.

[7] MacFarlane, 157.

[8] *ibid.*, 30.

expansion gradually turned wilderness into nature, and nature into state periphery.[9] State growth was a process of shifting conceptual boundaries regarding the earth, the controllability of land and peoples, and the power of the state over resource extraction and distribution. To vanquish wilderness, therefore, was to domesticate it. In the Uruk period, which saw the rise of the first states in ancient Mesopotamia, this domestication was accomplished by a centralised, hierarchical state administration that coordinated the establishment of colonial settlements in Iran, Anatolia, and Syria, and organised the channelling of raw materials from the colonial peripheries to the urban centre.[10]

Vulvar vocality captures the tension between the possibility of female wildness and the ideal of natural female exploitability: in chapter four, we will hear wild female sounds emitted by Babylonian witches trilling *illuru!* in the city streets, raining a sexually-charged destruction down on the city; in chapter three, we will witness the natural cries of the Sumerian birthing Cow, whose voice covers the horizon with echoes while she births the royal heir. The female vocalities in these texts are explicitly portrayed as causing terror among men—a fearful reaction to both sound and sexuality, to soundscapes associated with birth and midwifery. One of the primary goals of *Listening to Birth* is to trace mythopoeic representations of and responses to terrifying female vocalities, and to analyse the intricate strategies for controlling and containing these reproductive soundscapes. Domestication was a chief strategy for the containment of wild female vocalities: already in chapter three, we will encounter ancient Sumerian myths that idealise and naturalise silent, house-bound, sexually

[9] For information on the Urban Revolutions, see below.

[10] María Eugenia Aubet, *Commerce and Colonization in the Ancient near East* (Cambridge: Cambridge University Press, 2013), 158.

submissive women weavers whose reproductive labour, labour in textile factories, and labour within the household entirely belong to men.[11]

Central to my argument is the assertion that vulvar vocality was a *metallurgical concept*. Throughout the literary record, the reclassification of the voices and sexualities of women as indiscrete phenomena was accomplished in discourse replete with metallurgical symbolism. Women's genitals and subterranean mines become co-constituted realms of extraction—mining shafts and vaginal shafts provided access to valuable raw materials.[12] Furnaces and wombs were places of heat, transforming raw materials into valuable products. Both mines and women, therefore, existed within the feminised realm of nature—both human mothers and Mother Earth have shafts that could be penetrated to gain access to resources. When I use the term 'equate', I do not intend to suggest that metallurgy and maternity peacefully co-existed in ancient imaginations. On the contrary, we find countless narratives of competition and conflict. For example, the construction of vulvar vocality took place against a background of ancient near eastern myths concerning reproductive utterance. In chapters three and four, we will encounter many instances in which both the

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[11] As we will see below, the earliest Mesopotamian city-states featured large workshops for the production of textiles using female and child slave labour. The associations between women, slavery, and weaving were strong, with notions of submissive female labour extending far beyond the factories. However, these ideals were always somewhat unstable, with a few women in society taking up roles in business and trade. For discussion of women in the Assyrian textile trade, see Elizabeth J. W. Barber, *Women's Work: The First 20,000 Years: Women, Cloth, and Society in Early Times*, 1st ed (New York: Norton, 1994), 175ff.

[12] According to Mircea Eliade, terminologies for metallurgy and mining across ancient languages attest to a common belief in the 'gynecomorphic' birth of stones. River sources (which emerge from the earth as from untold depths), mines, and caves share cognates: Eliade's list includes Babylonian *pu* (source of river, vagina); Sumerian *buru* (vagina, river); Babylonian *nagbu* (stream); and Hebrew *neqeba* (female). See Mircea Eliade, *The Forge and the Crucible* (London: Rider and Company, 1962), 41.

goddesses and gods of fertility were believed to create through the power of the voice. Extensive mythic corpora elaborate the conflicts and battles between female and male reproductive powers: inevitably, male gods possessing metallurgical powers are hailed as heroes when they out-compete and banish divine female utterance.

These mythic depictions of vocality are examples of imagined gendered soundscapes. Here I am adapting a term from the field of acoustic ecology. 'Soundscape' is usually used to describe all of the sounds within an acoustic environment experienced or recorded in real-time, but here I am altering the meaning to refer to the depictions of sound within myths.[13] Mythic soundscapes are, in effect, silent—they are imaginary sonic profiles conjured up within narratives to create and enforce boundaries. In each instance of vulvar vocality, we are presented with a mythic soundscape of the simultaneous utterance of upper and lower mouths—an auditory signature drawing boundaries between female and male, possessed and possessor.[14]

Paying careful attention to ancient textual and iconographic depictions of sound is one of the ways in which the distant past can be brought, very intimately, into the present—into our very bodies and our perception of time. This intimacy with the past no longer seems bizarre when we recall that ancient Greeks measured long periods of time according to the lifespan of an oak tree: the temporal distance between Hellenic antiquity and our own time is but the lifespan of two oaks; the temporal span between

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[13] R. Murray Schafer, *The Soundscape: Our Sonic Environment and the Tuning of the World* (Simon and Schuster, 1993).

[14] Carson, 131: 'It is an axiom of ancient Greek and Roman medial theory and anatomical discussion that a woman has two mouths. The orifice through which vocal activity takes place and the orifice through which sexual activity takes place are both denoted by the word *stoma* in Greek (*os* in Latin) with the addition of adverbs *ano* or *kato* to differentiate upper mouth from lower mouth.' The same equivalence exists in Sumerian love poetry, where poems repeat the phrase 'like her mouth, her vulva' is sweet/wet. See examples in Bendt Alster, 'Sumerian Love Songs', *Revue d'Assyriologie et d'archéologie Orientale* 79, no. 2 (1985): 135, 142.

Hellenic antiquity and the beginnings of the patriarchal city-state system are but another three or four. MacFarlane, perhaps unintentionally, registers the same concepts of bending temporal perception: 'To conceive of the history of these millennia, you have to reset the chronometers of your imagination, and to think... in tree-time'.[15] He adds that '[t]ime is kept and curated in different ways by trees, and so it is experienced in different ways when one is among them.'[16] As we will see in chapter two, the ancients knew tree-time as an intimately audible process of gaining knowledge. In MacFarlane's words: 'anyone who has walked in woods knows [that] they are places of correspondence, of call and answer... knowledge [of arboreal temporalities], seriously considered, changes the gain of the mind.'[17]

Metallurgical ideology

'Metallurgical ideology' is a phrase that occurs frequently in this thesis. When I use the term 'ideology', I mean a system designed to make a social construct appear to be natural, inevitable, or inescapable. Within this understanding of the term, ideology is characterised by the effort required to reinforce its claims to naturalness—in other words, it must be continually performed into social existence.[18] There are several types of ideology we must consider here. Patriarchal ideology naturalises male superiority and authority to rule, men's ownership of women's bodies and labour, and fathers' ownership of children.[19] Class ideology naturalises social stratification, justifying the exploitation of workers and the hoarding of wealth and power by a

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[15] MacFarlane, 93.

[16] *ibid.*, 100.

[17] *ibid.*, 99-100.

[18] Similar uses of this term can be found in Sylvia Junko Yanagisako and Carol Lowery Delaney, eds., *Naturalizing Power: Essays in Feminist Cultural Analysis* (New York: Routledge, 1995).

[19] Gerda Lerner, *The Creation of Patriarchy*, Women and History, v. 1 (Oxford: Oxford University Press, 1986), 239.

small minority of the population.[20] Metallurgical ideology combines patriarchal and class ideologies. As we will consider in more detail below, metallurgical industries provide metal weaponry and metal luxury items, including bullion. The possession of metal goods by a small minority of the population (mostly men) needs to be justified, especially since the process of amassing this wealth is strongly correlated with the exploitation of women, colonial expansion, warfare, slave trading, and environmental destruction through mining, smelting, and fuel burning. This thesis considers metallurgical ideology to be the range of symbols, narratives, and ritual performances reproduced by the classes who control the metal industry and trade, in order to surround themselves and their actions with an aura of divine sanctions and natural rights. To naturalise this hegemonic position, metallurgical processes themselves are construed as virile sexual and paternal acts—the bodies of women and the depths of the earth are elided by construing them as interconnected realms of extraction.[21] I will elucidate archaeological and historical examples of these concepts below.

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[20] In chapter three, I will analyse Mesopotamian cosmogonies that integrate *corvée* into the model of the pantheon and humanity: in the original design of the cosmos, the senior gods (tutelary deities of major cities) lived in leisure while the junior gods (deities of towns and villages) toiled ceaselessly. After a revolt of the minor gods, the pantheon collaborates to produce humankind, who bear the burden of *corvée* instead. This naturalises not only the hierarchy between dominant cities and peripheral settlements, but also the demands of the ruling classes (who had a direct relationship with the gods by controlling temple complexes) that the common people provide the state with labour and all agricultural surplus.

[21] I use the term 'hegemony' to refer to cultural hegemony: the ideological manipulation of culture by the ruling classes in order to establish their values and beliefs as the norm across the diverse peoples living within the society (a definition proposed and refined within various writings of Antonio Gramsci, see *The Antonio Gramsci Reader*, ed. David Forgacs (Baltimore, Maryland: Project Muse, 2014)). In the ancient near eastern context, the urban state hegemony is always unstable due to the chiefdoms, tribes, rival elites, and ordinary households who resist the ruling classes' impositions.

We can identify metallurgical ideology across both ancient and early modern European discourse on nature, gender, and reproduction. In the early stages of this research project, I attributed the strong parallels between these seemingly disparate histories to a structural similarity: both European states and antique states needed mines to equip their armies and enrich their dominant classes, and thus both developed ideologies that justified their expansion in search of mineral resources. However, as my research acquired depth and detail, I noted a *chain of transmission* of metallurgical symbology and ideology, from the ancient near east, to Mediterranean antiquity, Byzantium, the Caliphates, and medieval and early modern Europe. Thus, *Listening to Birth* is not a comparative study; rather, it presents an argument for the *reproduction* of metallurgical ideology across millennia.

Here I use the term 'reproduction' in two senses, both to emphasise the reproduction of stratified societies, and also to argue for prioritising human reproduction (i.e. women's bodies and representations thereof) at the very centre of analysis.[22] While my attention in this study is on mythic representations of female reproduction rather than on women's daily lives in antiquity, I understand that ideologies weigh heavily on bodies, intervening in their growth, mobility, and interactions.[23, 24] The profound

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[22] For feminist studies of the connections between production, biological reproduction, and social reproduction see: Maria Mies, *Patriarchy and Accumulation on a World Scale: Women in the International Division of Labour*, Third World Books (London: Zed Books, 1986); Silvia Federici, *Caliban and the Witch*, 2nd revised edition (New York, NY: Autonomedia, 2014); Meg Luxton and Kate Bezanson, eds., *Social Reproduction: Feminist Political Economy Challenges Neo-Liberalism* (Montreal: McGill-Queen's University Press, 2006). To my knowledge, critical feminist studies of biological reproduction and social reproduction in the ancient near east have not yet been published.

[23] For studies of women's daily lived realities (focusing on marriage, concubinage, ownership, and legal status), see: Marten Stol, *Women in the Ancient Near East* (Boston Berlin: de Gruyter, 2016); Hennie J. Marsman, *Women in Ugarit and Israel: Their Social and Religious Position in the Context of the Ancient Near East*, Oudtestamentische Studiën = Old

weight of metallurgical ideology rests on the bodies of women—here I use the word 'profound' in its literal sense (Latin *profundo*, meaning deep, vast, bottomless), which carries associations both of mines and caverns and of uterine depths. These impacts are not restricted to a single generation, but, like ideas themselves, ripple through time and births. In other words, female bodies carry history encoded in their very substance—women of the Bronze Age carried these temporal burdens, just as we do today. The image of carrying a heavy burden is in itself reproductive: the word 'bear' (as in childbearing), derives from the Proto-Indo-European root for 'carrying a heavy weight' and 'giving birth'. Interestingly, the cognates of 'bear' include 'inference',

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Testament Studies, d. 49 (Leiden: Brill, 2003); Beth Alpert Nakhai, ed., *The World of Women in the Ancient and Classical Near East* (Newcastle: Cambridge Scholars, 2009); Brigitte Lion and Cécile Michel, eds., *The Role of Women in Work and Society in the Ancient Near East*, Studies in Ancient Near Eastern Records, volume 13 (Boston ; Berlin: De Gruyter, 2016); Sharon L. James and Sheila Dillon, eds., *A Companion to Women in the Ancient World*, Blackwell Companions to the Ancient World (Malden, MA: Wiley-Blackwell, 2012); Sue Hamilton, Ruth Whitehouse, and Katherine I. Wright, eds., *Archaeology and Women: Ancient and Modern Issues*, Publications of the Institute of Archaeology, University College London (Walnut Creek, Calif: Left Coast Press, 2007); Elisabeth Meier Tetlow, *Women, Crime, and Punishment in Ancient Law and Society*, vol. 1: the Ancient Near East, vol. 2: Ancient Greece and Rome (New York: Continuum, 2004).

[24] Tikva Frymer-Kensky believes that myth reflects the role of women in society. In noting the gradual demotion of goddesses in Mesopotamia (who disappeared as powerful figures around 1600 BCE), she states: 'the eclipse of the goddesses was undoubtedly part of the same process that witnessed a decline in the public role of women.' Tikva Frymer-Kensky, *In the Wake of the Goddesses: Women, Culture, and the Biblical Transformation of Pagan Myth* (New York, N.Y.: Fawcett Columbine, 1994), 80. Marsman emphasises that '[t]he world of the deities is in many respects a magnified reflection of the human world.' (Marsman, 43-45) The relation between divine and mortal women is very complex, but there are identifiable correlations between the divine world and the ancient state systems where myth is used as a method for stripping women of authority and access to the public realm.

'metaphor', and 'differentiate', which bring our attention to women's roles in bearing not only infants, but also concepts. 'Reproduction' has a different, although related, set of etymological associations, deriving from the Proto-Indo-European root for 'leading' (hence the cognates of 'produce' include duke, duchy, and aqueduct).[25] Women's bodies are tied between production and bearing: carrying heavy weights of pregnancy and meaning, and labouring intensively to bring forth products deemed valuable by society.

Limits of the project

The entire project of tracing metallurgical ideology from antiquity to early modern Europe cannot be accomplished within the confines of a doctoral thesis. There are several reasons for this. First, the lack of scholarship on this topic: to my knowledge, there are no existing feminist studies of metallurgy, sound, and reproduction; neither are there any studies of mythic soundscapes in broader antiquity—the limited number of studies in archaeomusicology shed little light on the topic at hand.[26] I have therefore amassed my archive of sound, reproduction, and gender 'the hard way', sifting through ancient literature as well as scholarship in related areas, gradually collecting the necessary materials. It was only in this process of collection that I noted continual allusions to mining and metallurgy.

[25] All etymologies and cognates discussed in this thesis were compiled from the Chambers, Skeat, and Oxford etymology dictionaries. My use of etymology is creative rather than empirical: I use word connections to guide conceptualisation, and make no linguistic arguments. Robert K. Barnhart and Sol Steinmetz, eds., *Chambers Dictionary of Etymology* (Edinburgh: Chambers, 1999); Walter W. Skeat, *The Concise Dictionary of English Etymology*, Reprinted, Wordsworth Reference (Ware: Wordsworth, 1994); Charles T. Onions, ed., *The Oxford Dictionary of English Etymology* (Oxford: Oxford University Press, 1996).
[26] For archaeomusicology, see Richard J. Dumbrill, *The Archaeomusicology of the Ancient Near East* (Victoria, BC: Trafford Publ, 2005).

Second, my arguments and analyses are, by necessity, inductive. To be confident in my conclusions, I have to demonstrate both the *ubiquity* of metallurgical ideology and its *reproduction* over time. Ubiquity demands a dense cluster of instances within a particular region and time period. Reproduction, in contrast, suggests a chain of transmission, where the ideologies of one set of rulers are maintained and adapted by the next. In writing chapters two through seven, I felt as if I had become a smith's apprentice, breathing the hot air billowing from the workshop's roaring furnaces while hammering one link at a time into a long, multistranded chain. The chains running through the chapters are made up of metallurgical symbols and concepts, found within individual myth fragments on clay and papyrus, on pottery shards, metal artefacts, in funerary remains, on stone amulets, cylinder seals, and incantations, law and victory steles, treatises and rituals—in other words, the wide range of bureaucratic, cultic, and scholarly paraphernalia produced by and for the powerful men of antiquity. At some point during discussions with my supervisor, I resorted to the term 'detailed tactility' to describe the task of writing about material objects (including texts), many of which I have seen in museums in London and New York. While the sounds of the ancient world have been long silent, it is through keen tactility that the soundscapes conjured up by these texts and objects begin to resonate and return to audibility. We touch artefacts that were made in workshops that once buzzed with activity. We read mythic texts recorded in scribal houses within temple complexes that once resonated with ritual. This intimate work with material objects enables us to better understand the sonic imaginaries of ancient mythic narratives.

For these reasons (the novelty of the topic and the inductive approach), my Faculty has granted me an unusually generous word limit extension, increasing it by well over a third. This has enabled me to link the ancient near east to Roman antiquity in sufficient detail. In the concluding chapter, I summarise the preliminary research I have done to extend this chain to the Islamic Caliphates and to medieval and early modern Europe.

The goal of this introduction is to offer clear definitions of the terms and conceptual frameworks that will be applied extensively in the thesis. I begin by outlining the historical background necessary to support the analyses in chapters two through six. I then discuss key scholarly debates in the many disciplines that meet in the thesis. Finally, I summarise the analyses in each chapter in the thesis.

Part One: Historical context

Defining the ancient near east

In 1966, Martin West shocked the field of classics when he stated that 'Greece is part of Asia; Greek literature is a Near Eastern literature.'[27] His statement followed several unsettling discoveries in archaeology and linguistics, including the realisation that the Mycenaean civilisation, which appeared very 'eastern', was in fact Greek-speaking.[28] The discovery of the Hittite royal archives in Anatolia provided a similar shock, for when the language was finally deciphered, it was revealed to be Indo-European rather than Semitic—orientalist sensibilities sparked resistance to the idea that the epicentre of the Ottoman Empire was at one time home to peoples linguistically related to Europeans.[29]

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[27] Martin L. West, *Hesiod: Theogony* (Oxford: Oxford University Press, 1966), 31.

[28] Carolina López-Ruiz, *When the Gods Were Born: Greek Cosmogonies and the Near East* (Cambridge, Mass: Harvard University Press, 2010), 8ff.

[29] In discussing European disbelief in such findings, Edward Said emphasises the orientalist, white supremacist/purist roots of the field of linguistics, which equated linguistic categories with a sort of human evolutionary caste system: 'in trying to formulate a prototypical and primitive linguistic type (as well as a cultural, psychological, and historical one), there was also an "attempt to define a primary human potential."... It was assumed that if the languages were as distinct from each other as the linguists said they were, then too the language users—their minds, cultures, potentials, and even their bodies—were different in similar ways. And these distinctions had the force of ontological, empirical truth behind them.' Edward W. Said, *Orientalism* (London: Routledge & Kegan Paul, 1978), 232-233. While the field of linguistics today looks quite different, it is still effected by the assumptions of founding research. The attention paid to classifying languages and finding language origins began as a political project tied to nationalism and ideologies of ethnic superiority. Both Indoeuropeanists and early Semitic linguists were searching for a distant historical rationale for a fundamental east-west separateness.

These revelations were ironic, for they came as the result of an obsessive European search for separateness. Beginning in the late-nineteenth century, European institutes funded extensive archaeological expeditions in Egypt and the Middle East, in search of distant European origins. Gwendolyn Leick summarises their mission as follows: 'Given that Victorian man was undeniably 'in advance' of most other manifestations of humanity, where, for him, did the decisive development from primitivism to civilisation begin?'[30] Within orientalist assumptions, Europe's superiority rested on its distinctiveness from 'eastern' cultures—however, the findings revealed a radically different history, one of mixing, movement, and complex, bidirectional chains of transmission that challenge modern boundaries and distinctions.

As López-Ruiz observes, few scholars today would openly dispute West's statement.[31] On the surface, at least, modern scholarship has accepted that no east-west divide existed in the ancient world. However, in the wake of uncomfortable historical realisations, scholars devised numerous models to 'explain away' the eastern features of the Greeks. One is the 'diffusionist model', which assumes that

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[30] Gwendolyn Leick, *Mesopotamia: The Invention of the City* (London: Penguin, 2002), xv. Leick emphasises that the craze for finding European origins was not restricted to the academe or the upper classes of nineteenth-century society. The public were captivated, and flocked to the newly-established museums. Support was so strong that an archaeological research expedition to Mesopotamia was funded by public support via the *Daily Telegraph.* (xvi) See also Zainab Bahrani, *Women of Babylon: Gender and Representation in Mesopotamia* (London: Routledge, 2001), 161ff. Bahrani describes the European 'mania for things ancient and Oriental' as follows: 'These were not historical scenes of a distant past, but representations of alien and exotic cultures that coexisted in time with Europe, yet these cultures were constantly described as ancient, unchanging, sensual, and exotic. The past histories of places such as Egypt and Mesopotamia therefore became an unusual place where the intersection of historical past and geographical distance aroused the imagination of European visual culture.' (161-162)

[31] López-Ruiz, 8.

cultural traits bleed out from civilised areas to barbaric peoples.[32] Another is the 'evolutionary model' where cultures or religions are seen be entities much like organisms, which stay 'genetically' stable but are prone to infection and parasitic invasions from cultural outsiders.[33] Slightly more subtle are arguments of 'interaction', 'borrowing', or 'influence'—for example, that Greeks and their eastern neighbours engaged in cultural exchanges, or that Greeks were influenced by eastern culture or occasionally borrowed from it.[34] Within these models, eastern influences are seen as peripheral to the core, pure Greek cultural entity, which was later imposed on the known world through the triumph of Hellenism.[35] Passivity is conveniently ascribed to the 'other' when Greek agency is emphasised; otherwise, the 'other' is blamed for parasitic violations, which the scholar attempts to overcome through analysis (revealing the mythic or cultural urtext[36]).[37] As López-Ruiz observes, any

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[32] *ibid.*, 2.

[33] For example, Kurt Rudolph, Birger Pearson, and Guy Stroumsa have applied this model to the history of religion. Kurt Rudolph, *Gnosis: The Nature and History of Gnosticism*, trans. R. McL Wilson (San Francisco: Harper & Row, 1983); Birger A. Pearson, *Gnosticism, Judaism, and Egyptian Christianity*, Studies in Antiquity and Christianity (Minneapolis: Fortress Press, 1990); Guy G. Stroumsa, *Another Seed: Studies in Gnostic Mythology*, Nag Hammadi Studies 24 (Leiden: E.J. Brill, 1984). See criticism of their approaches in Michael A. Williams, *Rethinking 'Gnosticism': An Argument for Dismantling a Dubious Category* (Princeton, N.J: Princeton University Press, 1996), 80ff.

[34] López-Ruiz, 3ff.

[35] *ibid.*, 12.

[36] See brief discussions of the impossibility of deriving a mythic urtext in Richard Armstrong, 'A Wound, not a World: Textual Survival and Transmission' (27ff) and Steve Reece, 'Orality and Literacy: Ancient Greek Literature as Oral Literature' (55ff), both in Martin Hose and David J. Schenker, eds., *A Companion to Greek Literature*, Blackwell Companions to the Ancient World (Chichester, West Sussex [England]; Malden, MA: Wiley Blackwell, 2016).

[37] Williams, 80ff.

approach to antiquity that presupposes static cultural entities is orientalist and fundamentally misleading.[38]

Due to widespread critiques of orientalism, some historians have devised new approaches to studying ancient languages and cultures that make no attempt to impose strict boundaries or, in the words of Peregrine Horden and Nicholas Purcell, to 'unpick the weave of [the] tangled mass of ethnic origins.'[39] While I would not choose the negative imagery of a 'tangled mass', I have followed the example of recent historians, including Carolina López-Ruiz, Michael Allen Williams, and Sandra Blakely, who embrace the constant flow of people, ideas, aesthetics, and beliefs across the ancient world.[40]

While ancient cultures did hold to notions of distinctiveness and stability (the Greeks' opinions of 'barbarians', for example), these boundaries were often drawn at a high level of abstraction: for instance, there certainly existed a political and military boundary between Rome and Persia during later antiquity. However, in daily life, these political boundaries did not halt cultural intermingling.[41] López-Ruiz argues that much cultural exchange happened at the neighbourhood and household levels: within this understanding, the cultural significance of women's knowledge and practices becomes especially relevant. López-Ruiz emphasises that intermarriage, domestic

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[38] López-Ruiz, 12.

[39] Peregrine Horden and Nicholas Purcell, *The Corrupting Sea: A Study of Mediterranean History* (Oxford: Blackwell, 2000), 400.

[40] See López-Ruiz and Williams above. See also Sandra Blakely, *Myth, Ritual, and Metallurgy in Ancient Greece and Recent Africa* (Cambridge: Cambridge University Press, 2006).

[41] We can understand this, in part, through Anthony Giddens' concept of agency existing despite structure, even when members of a society do not fully comprehend or anticipate the system which limits them and in which they participate. See Anthony Giddens, *New Rules of Sociological Method: A Positive Critique of Interpretative Sociologies* (London: Hutchinson, 1976), 102, 160.

slavery, and wetnursing were primary ways in which bilingualism was fostered in antiquity, and that '[s]torytelling by women around the loom was an important context for the teaching of myths'.[42, 43] Therefore, to embrace multidirectional cultural flow is also a feminist position, as it shifts attention away from the overwhelmingly male agential domain of military and state, towards the agency of women (mothers, slaves, servants) as knowers and transmitters of cultural memory and mediators of difference.

Standard designations for periods and eras are always subject to revision, and I have borrowed an assortment from various historical specialisms (listed with their chronologies in the Appendix). In addition, I have chosen two general terms for the ancient world. 1) I use 'the ancient near east' inclusive of the eastern Mediterranean civilisations (Minoans, Mycenaeans, Greeks, Phoenicians, etc.). This phrase is intended to cover the temporal range from the rise of the city-states in the fifth millennium to the fall of the Achaemenid empire in 330BCE. The Bronze Age (roughly 3500BCE to 1200BCE) featured such intense levels of long-distance exchange that there emerged a high level of homogeneity between Bronze Age civilisations, even those separated by large distances—scholars refer to this as the 'Bronze Age *koiné*'.[44] While these connections diminished in the Iron Age due to the local

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[42] López-Ruiz, 36-37. Plato even objects to the power of women over a child's education in the *Republic*.

[43] *Homeric Hymn to Aphrodite*: a Phrygian woman (the goddess in disguise) approaches a Trojan man claiming to know both languages because she was raised by a Trojan nursemaid.

[44] López-Ruiz, 19. It should be noted that extensive trade and the formation of a common culture pre-dates the Bronze Age, and can also be seen in the late Neolithic (especially the Uruk period). However, the phrase 'Bronze Age *koiné'* is still useful, due to the unprecedented volume of exchange undertaken when bronze technologies were adopted across the ancient near east. For patterns of exchange in the late Neolithic, see Joan Oates, 'Trade and Power in the Fifth and Fourth Millennia BC: New Evidence from Northern Mesopotamia', *World Archaeology* 24, no. 3 (February 1, 1993): 403–422.

abundance of iron ores, extensive multidirectional cultural exchange still occurred.[45] 2) I use the term 'syncretic antiquity' to refer the period after Alexander's conquests of much of the ancient world (c. 330BCE), with the aim of emphasising the intense cultural mixing between Graeco-Romans, Egyptians, Aramaeans, and Persians (e.g. Parthians, Sassanians). While the term 'syncretism' is often used disparagingly as a descriptor of systems deemed impure or compromised, my usage is intended to have the opposite connotation by locating syncretism at the very heart of the Hellenic, Graeco-Roman, and Persian societies.[46] Here we might use the terms 'Hellenic *koiné*' and 'Aramaic *koiné*' to describe the common cultures that overarched immense diversity, centred around Greek and Aramaic as the overlapping *linguae francae* of the Hellenic, Roman, and Persian empires.[47]

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[45] Kristian Kristiansen and Thomas B. Larsson, *The Rise of Bronze Age Society: Travels, Transmissions and Transformations* (Cambridge: Cambridge University Press, 2005), 366.

[46] Bonner, for example, has a tendency to use the phrase 'merely syncretistic' with adjectives such as 'muddled'. Campbell Bonner, *Studies in Magical Amulets, Chiefly Graeco-Egyptian* (Ann Arbor: University of Michigan Press, 1950), 2, 18. Yamauchi reserves adjectives such as 'contaminated', 'amorphous', and 'syncretic' to describe eastern religious texts, such as the Zoroastrian scriptures. (74ff) He never applies this negative language to Judaeo-Christian texts, even when they demonstrate evidence of intercultural mixing and borrowing. Edwin M. Yamauchi, *Pre-Christian Gnosticism: A Survey of the Proposed Evidences* (London: Tyndale Press, 1973).

[47] For the use of these terms, see Tapani Harviainen, 'An Aramaic Incantation Bowl from Borsippa. Another Specimen of Eastern Aramaic "*Koiné*"', *Studia Orientalia Electronica* 51 (1981): 4–28; Jason Sion Mokhtarian, *Rabbis, Sorcerers, Kings, and Priests: The Culture of the Talmud in Ancient Iran* (Oakland, California: University of California Press, 2015); Basos Karagiōrgēs, ed., *The Greeks beyond the Aegean: From Marseilles to Bactria: Papers Presented at an International Symposium Held at the Onassis Cultural Center, New York, 12th October, 2002* (Nicosia: Alexander S. Onassis Public Benefit Foundation, 2003).

When the terms ‘antique’, ‘antiquity’, and ‘ancient’ appear without additional descriptors, they should be understood to collectively refer to the entire ancient world, inclusive of both the ancient near east and syncretic antiquity.

Origins of metallurgy

Overview

In standard textbooks for mining technology, engineers praise mining and metallurgy as an essential technology for state-craft. Howard and Mutmanksy laud the search for metals as the ‘primary incentive’ for ‘[m]any milestones in human history’, including Marco Polo’s voyage to China, Vasco da Gama’s circumnavigation of Africa, and Columbus’ discovery of the New World.[48] Setting aside their imperialist narrative of progress for a moment, these mining engineers have made several important observations. Few archaeologists and ancient historians would deny metallurgy’s central role in both the origin of the urban states, or that the search for metal resources prompted colonial settlement in the transition from the late Neolithic to the early Bronze Age.[49, 50] The temporal distinctions of ‘Stone Age’, ‘Copper Age’, ‘Bronze

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[48] Howard L. Hartman and Jan M. Mutmansky, *Introductory Mining Engineering* (Hoboken, New Jersey: John Wiley & Sons, 2002), 1.

[49] For the origins of urban states, see Bryan K. Hanks, ‘Late Prehistoric Mining, Metallurgy, and Social Organization in North Central Eurasia’, in Bryan K. Hanks and Katheryn M. Linduff, eds., *Social Complexity in Prehistoric Eurasia: Monuments, Metals, and Mobility* (Cambridge: Cambridge University Press, 2009): ‘metal production has been routinely associated with the emergence of hierarchy within and between early complex societies.’ (147) Hierarchical social organisation, with temple-based or palace-based leadership, is one of the defining features of the rise of the city-state.

[50] See Liverani, ‘Historical Overview’, in Daniel C. Snell, ed., *A Companion to the Ancient Near East*, Blackwell Companions to the Ancient World Ancient History (Malden, Mass.: Blackwell, 2008), 6. Colonisation was a feature of the earliest states. Uruk established

Age', and 'Iron Age' remain widely used in scholarship, because they retain significant power to describe various shifts that occurred in antique social organisation. Maria Eugenia Aubet has emphasised that metal trade was fundamental to all ancient near eastern economies from Mesopotamia to the Mediterranean, providing a platform for cross-comparison and understanding economic interaction.[51]

If we are to classify historical periods based on key furnace crafts, we might choose the Pottery Age (5500 to 4500BCE); Copper Age (4500 to 3500BCE); Bronze Age (3500 to 1200BCE); Iron Age (1200BCE to 1780CE); Steel Age (1780 to 1945CE); and Nuclear Age (1945CE to present).[52] Most historians inexplicably drop the metallurgical categories when referring to Greeks and Romans—copper, bronze, and iron only retain their descriptive power when applied to more ancient or 'primitive' peoples (for example, Iron Age Britain parallels much of Classical Greece, the different terminology reflecting scholars' valuation of these societies within a hierarchy of literary and technological advancement).[53] The mining engineers' perspective on time is helpful for understanding the technological and temporal scope contained within this thesis—chapters two through seven, within the metallurgical division of historical time, span the Bronze Age and Iron Age in their entirety.

While the importance of metallurgy in state-craft is generally uncontested, there exist many scholarly debates concerning the socioeconomic mechanisms that relate technology, power, and gender. In this overview, I will summarise some of the debates, with special focus on the rise of the Mesopotamian city-states. This focus has

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colonies and outposts over a wide periphery to ensure the city's access to highland resources of timber and metal. See below for further discussion.

[51] Aubet, 81.

[52] Howard and Mutmanksy, 1. See the Appendix for other timelines.

[53] This may be a product of disciplines—archaeology's historical kin include assyriology and egyptology, whereas classics has closer ties to europeanist historical disciplines, as many of the sources for classical texts are medieval copies.

two rationales: first, the relevant patterns of hierarchical social organisation, although they varied considerably over time and geography, seem to have been first established in the Copper Age and Bronze Age. Second, I present narrower historical overviews of Iron Age economies and technologies in chapters two, five, six, and seven, and so limited additional material is necessary here.

The transition from sedentism (i.e. settled, non-nomadic life) to states is especially significant for feminist history, because the earliest states introduced social norms and structures that, according to current evidence, did not previously exist in such intensity or scope. These include kingship (an exaggerated vertical social hierarchy seemingly derivative from earlier patriarchal chiefdoms), distinct class stratification, centralised state economic administration, division of urban core and rural periphery, state seizure of agricultural surplus (around two thirds of total output), use of distinct markers of ownership (i.e. seals, bullae, or tablets attached to goods), distinct craft specialisation, mass production in factories and large-scale workshops, *corvée* imposed on the peasantry, and institutionalised slavery.[54] Each of these innovations were highly dependent on notions of masculinity and femininity, and had profound effects on the sexual division of labour, producing complex hierarchies between women and men of different social classes.

In the following sections, I will outline topics related to metallurgy, gender, and reproduction in the late Neolithic, the Bronze Age, and the Iron Age. My goal is to outline the ideological function of metallurgy and the way in which metals were used to formulate notions of masculinity and authority.

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[54] Liverani, 5; Augusta McMahon, 'From Sedentism to States, 10,000-3000BCE', 27-29. Both in Daniel C. Snell, ed., *A Companion to the Ancient Near East*. For the significance of craft specialisation as patriarchal oppression and its links to the creation of gender and the enforcement of female reproduction within the family, see Tabet, 'Hands'. See also Lerner, *The Creation*, 76ff.

Neolithic

To better understand the role metals and metallurgy played in the shift from sedentism to state, it is necessary to first look at the role of furnace crafts in the Neolithic period: these included household ovens, pottery kilns, and copper smelting furnaces. The process of tempering pottery demands a high level of pyrotechnical skill, in the regulating of temperatures so that the ceramic does not over-fire, under-fire, or crack; this is closely related to the furnace skills demanded of smelters, who had to achieve particular temperatures to purify unwanted compounds from diverse types of copper-bearing ores. An older application of furnace technology, however, is in food preparation, and so I will begin with ovens in Neolithic households.

Furnaces and gender

In their study of the Neolithic settlement at Çatalhöyük, Kimberley Patton and Lori Hager note that lower-level (i.e. older) settlements were built in an aggregate, 'almost-cellular manner', with densely-packed houses all of the same approximate size and layout.[55] The people living in this society buried their houses in the same manner that they buried their people; when a house was no longer used, the Çatalhöyükians performed what seem to be standard funerary procedures over the dwelling itself. This served as 'a powerful metaphor of equivalency between the human body and the [architectural] structures.'[56] When individuals within the

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[55] Kimberley C. Patton and Lori D. Hager, 'Chapter 9: "Motherbaby": A Death in Childbirth at Çatalhöyük', in Ian Hodder, ed., *Religion at Work in a Neolithic Society: Vital Matters* (New York: Cambridge University Press, 2014), 225.

[56] *ibid.*, 225. Patton and Hager note the startling absence of gravid women in burials at Çatalhöyük. At this well-studied site, many female graves have been uncovered, but only a few with foetus inside of the body. The authors insist, without any evidence, that maternal mortality was high during the Neolithic—their argument depends on highly dubious inferences of evolutionary defects in the shaping of female pelves. In my review of the literature, I have found evidence of high infant mortality and low maternal mortality, which

household died, they were dismembered using obsidian blades and shallowly interred in the floors of the dwelling. The bones of the dead may have been believed to animate the building itself.[57] Archaeologists at Çatalhöyük use a beautiful term for these vivified structures: 'history houses'. At their initial discovery, archaeologists believed these structures to be shrines to the dead, but later studies revealed them to be houses saturated with symbolism, ritual, and burials.[58] Many of the homes contain a high number of dead infants (neonates), which were buried throughout the home but concentrated around the central oven (the busiest part of the house).[59] Patton and Hager conclude that 'neonatal burials may have extended the inner domestic sphere of the house and amplified it as an interior mental space (the inner space of women) through the inhumation of dead babies.'[60] Fascinatingly, notions of kinship do not appear to have functioned in the make-up of households in Çatalhöyük—studies of the neonates, children, and adults interred in the houses show minimal patterns of genetic relatedness.[61] Belonging and collectivity operated according to some other,

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may suggest a high level of midwifery skill in the general population. Patton and Hager's own study shows that the graves of gravid women were attended to with an unusual amount of careful attention. The death of an almost-born baby may have had special significance, as 'the liminal neonate, dying at the threshold.' (240) The head of the mother was removed to be used in the Çatalhöyükian skull cult (in which significant skulls were collected and painted with ochre). This postmortem decapitation marked the mother among the 'special dead' who held greater collective signifiance. (247)

[57] *ibid.*, 234.

[58] Ian Hodder and Peter Pels, 'History houses: a new interpretation of architectural elaboration at Çatalhöyük', 163-186. In Ian Hodder, ed., *Religion in the Emergence of Civilization: Çatalhöyük as a Case Study* (New York: Cambridge University Press, 2010).

[59] Patton and Hager, 251-252.

[60] *ibid.*, 252.

[61] Marin A. Pilloud and Clark Spencer Larsen, '"Official" and "Practical" Kin: Inferring Social and Community Structure from Dental Phenotype at Neolithic Çatalhöyük, Turkey', *American Journal of Physical Anthropology* 145, no. 4 (August 1, 2011): 519–530.

unknown mechanism—Marin Pilloud and Clark Spencer Larsen believe that the houses themselves formed the primary ancestral 'body' linking people together, instead of notions of paternal origin or ancestry.[62] The association between pregnancy, neonates, and ovens will remain a central theme throughout *Listening to Birth.*

Pottery

The use of fired pottery is closely related to the rise of sedentism and farming.[63] Surprisingly, the earliest evidence for pottery does *not* include storage jars, but instead table ware, including bowls and small jars. With their elaborate decoration and 'rich symbolic coding', this fine pottery signalled wealth and demarcated social identity (the patterns and shapes likely corresponding to family or ethnic affiliations).[64] Scholars commonly associate this pottery with collective feasting, and propose that displays of food wealth may have moved from a collaborative initiative to competitive or performative practice where families with greater access to resources displayed their wealth to achieve higher social recognition or standing.[65]

There is some evidence to suggest that the pyrotechnical skills of potters and smelters were conceptualised together. By the late Copper Age, some Neolithic cultures were designing and burnishing their pottery to mimic the shape and sheen of metal wares.[66] While the manufacture of daily-use ceramic wares could have occurred within

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[62] *ibid.*

[63] McMahon, 25-26. Fired pottery is heavy, breakable, and difficult to transport, and is therefore associated with social groups that do not frequently move from place to place; pottery manufacture also depends on large amounts of straw for tempering and thus demands an abundance of agricultural production.

[64] *ibid.*

[65] *ibid.*

[66] Joanna Sofaer Derevenski, 'Rings of Life: The Role of Early Metalwork in Mediating the Gendered Life Course', *World Archaeology* 31, no. 3 (January 1, 2000): 396.

households, the production of thin, highly decorative feasting ceramics suggests a high level of crafting skill and a degree of craft specialisation. These trends extended through the very late Neolithic and early Bronze Age: during the Uruk period (fourth millennium BCE), pottery moved out of the households (where men and women may have taken part in the craft) and into workshops dominated by male specialists.[67]

Gwendolyn Leick has summarised archaeological studies of pottery at Eridu, the oldest and most emblematic city in Mesopotamia. To the Mesopotamians and all ancient rulers who revered Mesopotamian achievements, Eridu represented the very ideology of urbanisation and state formation.[68] Archaeologists, including Petr Charvat, have claimed that Ubaid society was egalitarian; however, in Eridu's lowest levels dating to the Ubaid period, there are distinct markers of established social hierarchies.[69] (These are, of course, not as pronounced as later social stratification within the city-states.) In early Eridu, pottery was an elite product used for feasting, not a mundane household ware; evidence remains for the performance of feasts elaborately served and displayed.[70] Leick holds that 'sedentarism and pottery go well together and it is conceivable that elaborately produced and decorated clay vessels may have contributed to popularise and proclaim the values of settled populations.'[71] The rituals of feasting helped the families with the greatest access to food resources strengthen and maintain their status: 'the emergence of prestige goods and precious table ware is connected to early forms of hierarchy—in which one group has secured access to territory and goods and is responsible for distribution.'[72] Early patterns of

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[67] McMahon, 32.

[68] Leick, 29. 'Eridu's importance was mainly symbolic. It stood for Mesopotamia's link with the beginning of the world, proof of the astounding longevity of its civilisation.'

[69] *ibid.*, 15.

[70] *ibid.*, 9-10.

[71] *ibid.*, 9.

[72] *ibid.*, 10.

command over resource distribution would later escalate to the highly bureaucratic state control of labour, agricultural surplus, and trade.

Significantly, the Ubaid ware from early Eridu became popular across a wide geography. (See Illustrations: Image 1) From 4000-3500BCE, it was found throughout Mesopotamia, Syria, Anatolia, western and southern Iran, and along the Persian Gulf.[73] In other words, over the course of several centuries, the use of pottery to perform power hierarchies became relevant across the ancient near east.

Copper

The earliest evidences of copper smelting have been found in Anatolia in the fifth millennium, as well as in Mesopotamia and the Iranian Plateau from the seventh or sixth millennium.[74] The Copper Age is characterised by an 'explosive rise in quantity and variety of copper objects', as well as the first usage of gold.[75] This was dependent on the development of techniques for 'sophisticated reduction of copper oxides and arsenical ores' in complex chemical processes of purification.[76]

In her study of Neolithic metallurgy in the Carpathian basin, Joanna Sofaer Derevenski notes that the rise of the copper industry corresponded to distinct changes in social and economic organisation: while Neolithic peoples had previously buried their dead within their homes, they now innovated the use of cemeteries; they also moved from dense settlements with equally-sized homes (as in lower-level Çatalhöyük) to less-dense settlements where houses widely differed in size and social rank. Gender was also carefully marked in burial practices, with males buried on their

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[73] *ibid.*, 9-10.

[74] Kassianidou, Vasiliki, and A. Bernard Knapp, 'Archaeometallurgy in the Mediterranean: The social context of mining, technology and trade', in Emma Blake and Arthur Bernard Knapp, *The Archaeology of Mediterranean Prehistory* (Malden, MA: Blackwell, 2005), 216.

[75] Derevenski, 396.

[76] Kassianidou and Knapp, 216.

right, and females on their left (for all individuals over 5 years of age).[77] Other archaeologists have noted the same patterns in Anatolia, and there appears to be scholarly consensus that these changes intensified throughout the Copper Age.[78]

In the early Copper Age, surface metals were plentiful, and subterranean mining, although practiced, was limited in scope and depth. The first archaeological evidence for copper objects is for *luxury items* rather than utilitarian items like tools or weapons.[79] While this trend can be partially explained by the practice of re-melting metal, archaeologists posit that the primary function of early copper production was in mediating changing norms around the body, identity, personhood, gender, age, and rank.[80] In Derevenski's study, the distribution of copper objects varies over time. My summary of her findings is as follows:

> *Early Copper Age*: Both males and females are buried with pottery. Small copper items predominate, primarily spiral jewellery given to children, which

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[77] Derevenski, 390-391.

[78] Ian Hodder, *The Domestication of Europe: Structure and Contingency in Neolithic Societies*, Social Archaeology (Oxford: Blackwell, 1990).

[79] Note that there is no evidence for bullion or hoarding of metal in the Neolithic—it was worn, displayed, used, or given, but not accumulated. See Alasdair Whittle, *Europe in the Neolithic: The Creation of New Worlds*, Cambridge World Archaeology (Cambridge: Cambridge University Press, 1996), 120.

[80] Antonio Gilman et al., 'The Development of Social Stratification in Bronze Age Europe [and Comments and Reply]', *Current Anthropology* 22, no. 1 (February 1, 1981): 5. Gilman is convinced that 'the significance of metallic objects' is to be found in their role 'as key expressions of asymmetric relations of gender and age, the basis of the differential exercise of power'; and that 'metal [is[an index... for the development of the social stratification.' (4) Colin Renfrew, on the other hand, believes metallurgy was a primary stimulant for the unequal distribution of wealth—see *Before Civilization: The Radiocarbon Revolution and Prehistoric Europe* (London: Pimlico, 1999). Despite lengthy debate in archaeology, these two interpretations are not mutually exclusive, as copper could have been both a contributor to and a measure of increasing patriarchal and class domination.

> could expand in size as the individual matured. Only men are buried with blades and animal bones. Fully-grown adult males no longer wear spiral copper jewellery, and instead acquire a round shell disk signifying their completeness. Later burials replace the shell disk with a gold disk.
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> *Middle Copper Age:* Most metal objects are no longer associated with either women or children, but instead with men. The size of metal objects increases dramatically, alongside a shift to utilitarian objects: daggers, awls, axes. These objects demarcate a change in gendered socio-economic roles and division of labour, with placement of large metal objects reflecting a new social hierarchy.
>
> *Late Copper Age:* There is less attention to displays of metal. Instead, there is a new emphasis on non-metal markers of privilege, especially carts and cattle.[81]

I will discuss aspects of these findings throughout the analysis below. First, it is important to consider why metal objects began as ornaments that could expand in size, and later transitioned to static utilitarian shapes. Derevenski holds that metal helped Copper Age peoples re-define gender and time, and that this differentiated patterns of male and female life:

> Metal artefacts... help divide the life course into a series of stages and, as such, metal is actively involved in the construction of time itself... [Thus] control over the production and distribution of metal artefacts can also be understood as control over time. The accumulation of metal artefacts represents the accumulation of time by the individual.[82]

When it has been purified, metal can be understood to exist outside of time—in the case of gold, the metal appears immortal (it does not tarnish or rust) and forever young (it can be re-smelted again and again without degrading, to be made into new

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[81] Derevenski, 392-399.

[82] *ibid.*, 400. For Derevenski's comments on gender and temporality, see 392.

objects).[83] Concepts of time appear to have been integral to the construction of gender. Through the symbolic manipulation of metal objects, 'natural' processes were used to justify hierarchies: 'the classification of time reproduces the classification of men'.[84] The instances of gold disks buried with adult males is the most telling of Derevenski's finds: gold (the most permanent and unchanging of all metals) takes the form of a filled-in circle (a static, full shape contrasting the spiral expansions of women and children's copper jewellery) representing the social significance of a fully-formed male body. The transformative aspects of metals were narrated into a cosmology that conveyed gender identity, and metals became the 'material manifestation of social distinctions.'[85] Derevenski concludes that one of 'the first uses of metal was... as a medium upon which to hook social ideology.'[86]

However, Dervenski does not elucidate how metal came to regulate adult male identity. Alasdair Whittle provides a more concrete example: a Copper Age man's grave with an unusually high number of grave goods (indicating high status), including a copper axe, hammer, chisel, awl, and needle, a sceptre with a gold shaft, many gold disks around the head and down the body, and a gold 'penis cover' that would have been attached to clothing (somewhat like a Renaissance codpiece). The grave goods totalled 990 gold objects, together weighing over 1500g.[87] The appearance of gold disks (representing completeness and permanence) alongside a gold penis cover (emphasising virility) suggests that, for some Neolithic peoples, the timelessness of metal was associated with male sexuality (and, likely, paternity)—a

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[83] *ibid.*, 400. See also Whittle, 96.

[84] Derevenski, 400.

[85] *ibid.*, 401-402.

[86] *ibid.*, 401.

[87] Whittle, 97. In today's currency, this gold weight is worth over half a million sterling.

conceptual elision that was dramatically performed by high-ranking males in the society through elaborate displays of metal on their bodies.[88]

Derevenski's hypothesis of the temporal significance of metal fits well with our understanding of Neolithic pottery, feasting, and the performance of wealth. She emphasises that '[t]he rise in metal production in the early Copper Age did not in itself create new distinctions, but provided a means to reinforce and elaborate existing ones.'[89] Perhaps, then, early metallurgy strengthened gender and wealth distinctions that had already formed through ideological structures around the technology of pottery production.

Why, then, were metals suddenly abandoned in the late Copper Age? A few scholars have proposed that the Copper Age was also characterised by the sharp increase in frequent, repetitive rituals throughout daily life.[90] The Neolithic cultures studied by Derevenski demonstrate various relationships between metallurgy and daily ritual—

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[88] The associations between gold, timelessness, and male hegemony are also found in later periods—many centuries after the Neolithic cultures studied by Derevensky and Whittle disappeared, the symbol of the gold disk would play a prominent role in Bronze Age and Iron Age sun cults, which lauded the fiery sun as symbol of the immortality of pharaoh, king, and emperor. These dominant men also performed their masculinity through opulent display of gold. Although it is difficult to determine if or to what extent Neolithic metallurgical notions of gender were reproduced in the Bronze Age, I have been continually struck by continuous associations between male virility and immortality throughout the ancient near eastern textual record. See analyses in chapters two and six and Appendix C.

[89] Derevenski, 402.

[90] H. Whitehouse et al., 'Modes of Religiosity and the Evolution of Social Complexity at Çatalhöyük', in Hodder, ed. *Religion at work in a neolithic society,* 58-85. The authors argue that 'a major factor driving the emergence of complex society was religious routinization' (134), characterised by a shift from an 'imagistic mode of religiosity' (low-frequency ritual) to a 'doctrinal mode of religiosity' (high-frequency rituals). The authors associate the latter with more disparate social groups. (135)

she proposes that, once new categorisations of the person had been stabilised, ritual expressions using metal decreased in frequency.[91] In other words, notions of masculinity, virility, and social dominance no longer depended on the display of metals, and could be reinforced through alternate ritual means.

Whittle concludes that '[b]ecoming Neolithic may have been much more a spiritual conversion than a matter of changing diets', and that it was tied to 'notions of time and the sacred.'[92] While each Neolithic culture was unique, the evidence across archaeological studies suggests 'the transmission of a new sense of time, of beginnings and of their place in the scheme of things' related to concepts of ancestry.[93] The association between gold and maleness, in my view, suggests that 'origins' narrowed in focus to 'ancestry'—the latter being less collective and more patrilineal. This constitutes a radical move away from earlier Neolithic cultures where homes served as the primary identifier for individuals, rather than lineage.[94]

Associations of gold, maleness, and authority do not mean that Neolithic women and children were not involved in the processes of mining and metallurgy. Extensive evidence exists for the use of children in mining (their remains have been found in

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[91] Derevenski, 390, 402. It is possible that the decrease in metal-wearing/displaying performances also corresponded to the exhaustion of surface metals, but Derevenski does not believe that low resource availability can entirely account for the trend.

[92] Whittle, 8.

[93] *ibid.*, 9.

[94] This focus on lineage appears to have been the result of dramatic changes in women's reproductive lives. Paola Tabet has noted that the sharp rise of population during the Neolithic has been attributed to a change in women's level of control over their bodies—women were increasingly forced to bear and nurture offspring, their access to sexual agency, contraception, abortion, and infanticide greatly reduced within the changing social structures. See Tabet, 'Natural Fertility, Forced Reproduction', in *Sex In Question: French Materialist Feminism*, ed. Lisa Adkins and Diana Leonard, Gender and Society: Feminist Perspectives (Taylor & Francis, 2005), 123.

collapsed mine shafts, along with child-sized tools), and for the participation of women in the highly toxic processes of smelting and purification, which some social groups undertook within the home itself.[95, 96]

Late Neolithic: Rise of the state system

The socioeconomic transitions between the Ubaid settlements and the Uruk city-states are the subject of continuing academic debate. While scholars once believed that states established themselves within a 'primitive' environment, we now know that the late Neolithic cultures included hierarchically-organised chiefdoms and extensive large settlements where gender hierarchies had already been established. Instead, the

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[95] For children and mining, see Luis Arboledas Martines and Eva Alarcon Garcia, 'Infantile Individuals: The Great Forgotten of Ancient Mining and Metallurgical Production', 108. In Margarita Sánchez Romero, Eva Alarcón Garcia, and Gonzalo Aranda Jiménez, eds., *Children, Spaces and Identity* (Oxford: Oxbow Books, 2015).

[96] For household-based metallurgy, see William A. Parkinson, Richard W. Yerkes, and Attila Gyucha, 'The Transition from the Neolithic to the Copper Age: Excavations at Vésztö-Bikeri, Hungary, 2000–2002', *Journal of Field Archaeology* 29, no. 1–2 (January 1, 2004): 101–21. Although more archaeological research is necessary to demonstrate the different ways in which various Neolithic cultures organised metallurgical labour, the gradual shift from household-based metallurgy (in which women may have played an active role) to a highly-specialised craft dominated by men speaks of the broader trends towards increasing the sexual division of labour. Tabet holds that 'Men's exclusive right to work hard materials reveals the solid rock upon which male domination is founded: the impossibility for women to make weapons for themselves, their dependence upon men for almost all instruments of production. Men's control of the production and use of tools and weapons is confirmed as the necessary condition of their power, based upon violence (the male monopoly of weapons) and upon the underequipment of women (the male monopoly of tools). Only by excluding women from the production and use of weapons and tools have men been able to achieve the appropriation of women and such a utilization of them in work, sexuality, and reproduction of the species.' (Tabet, 'Hands', 43)

rise of the city-states of southern Mesopotamia marks a period of exaggeration and acceleration: settlements became much larger, more stratified, more centralised, and more organised in their aggression.[97]

Colonisation was part of the first state formation in Mesopotamia.[98] Organised by the central state administration, the Uruk colonies were established with 'the aim of ensuring access to raw materials and resources [through] channelling the resources of the periphery to the centre.'[99] The first colonial settlements were based in the Susiana river network that gave them access to the mining basin in the interior of Iran.[100] Most of the settlements showed signs of specialised metallurgical activity (e.g. one would be responsible for silver cupellation, another for copper smelting).[101] Archaeological studies of these settlements have revealed that some were built on uninhabited land, while others were clearly established on top of existing communities, leaving behind evidence of 'coercive methods and force'.[102] The colonised communities were entirely remade according to Uruk cultural and architectural patterns; cultural impact was far wider, with the elites of local chiefdoms adopting Sumerian styling to bolster their social status.[103] The Uruk culture, on the other hand, appears to have been largely un-impacted by local ways of life—even in a different climatic environment,

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[97] See Liverani and McMahon.

[98] Aubet, 157.

[99] *ibid.,* 158.

[100] *ibid.*, 163.

[101] *ibid.*, 170.

[102] *ibid.,* 172. Guillermo Algaze, *The Uruk World System: The Dynamics of Expansion of Early Mesopotamian Civilization* (Chicago: University of Chicago Press, 1993), 97. Algaze notes patterns of coercive settlement, use of force, and pressure on local exchange relations.

[103] Aubet, 177. The chiefdoms also adopted Uruk technologies, and responded to economic competition by increasing agricultural surplus, craft specialisation, and both metallurgical and textile production. In other words, the economies of the chiefdoms were significantly altered to become more like that of Uruk.

the colonists maintained Uruk diet.[104] When the Uruk colonial system finally collapsed in 3100BCE, the colonial settlements were either destroyed or abandoned—signs of either local resistance or revenge, or a more central political crisis (possibly both).[105]

Guillermo Algaze, the archaeologist who first identified the Uruk colonial settlements, believed that the cultural and political difference between Uruk settlers and the local communities was extreme—one was highly developed, the other primitive.[106] Uruk expansion, according to Algaze, initiated 'the cyclical "momentum towards empire" that was to become a recurrent phenomenon throughout millennia of Mesopotamian history.'[107] However, other scholars have since revised Algaze's interpretations. First, the period before Uruk settlement was already characterised by extensive trade and cultural exchange (Gosden refers to a Neolithic Mesopotamian cultural *koiné*).[108] Second, Neolithic societies outside Uruk were far from primitive—the territories settled by Uruk colonists were already home to chiefdoms with hierarchical, complex social structure and extensive technological capacity.[109] Chiefdoms outside of southern Mesopotamia may have already engaged in colonial activity elsewhere.[110] In other words, the Uruk colonial expansion strengthened and

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[104] *ibid.,* 172-173.

[105] *ibid*., 174.

[106] Algaze, 143ff.

[107] *ibid*., 6.

[108] Chris Gosden, *Archaeology and Colonialism: Cultural Contact from 5000 B.C. to the Present*, Topics in Contemporary Archaeology (Cambridge: Cambridge University Press, 2004), 41ff.

[109] McMahon, 26. Note that Algaze did recognise that these pre-colonised settlements were extensive—the scholarly revision is more one of emphasis. He studies each colonial region separately, ascribing more 'acculturation' in Susiana (16) than in Syria (96-97).

[110] Oates, 403-422. New evidence traces patterns of colonisation to before the Uruk expansion. Oates argues that these patterns have Ubaid roots.

accelerated earlier Ubaid patterns of resource exploitation and territorial control. The 'rise of the city-state' was a very gradual process, spanning more than a millennium.

Ubaid and Uruk colonisation had an objective in common: access to metal resources. Gosden prefers to analyse this preoccupation with metal from the perspective of meaning-making. He notes that certain elements of material culture, such as elite metal goods, 'are created and appropriated by a few, and become attractive to an elite over a large area.'[111] Even in colonial territories or hinterlands, cities like Uruk (and, in later periods, Athens or Rome) serve as a symbolic centre of reference, giving material objects their power.[112] Godson has noted that increased social stratification—so strongly evident in the rise of Uruk—led to a remarkable shift in the social distribution of beauty and finery. In the early Neolithic—at sites like Çatalhöyük, for example—most houses were of equal quality and contained similarly ornate, finely crafted wares. In the early city-states, there was a very different distribution:

> The material culture and housing of the bulk of the population were increasingly standardised and stripped of aesthetic appeal. The lack of quality in objects was replaced by an emphasis on defining quantities, with standardised forms, such as the bevel-rimmed bowls [used by state administration to measure grain rations]. At the same time, the houses, artefacts and temples of the few were enriched in an aesthetic and symbolic sense, creating a gap between the material circumstances of different aspects of the population.[113]

Part of this gap was the distribution of fine metal goods—luxuries that were increasingly exclusive to the elite households. Godson interprets this shift as a *religious* takeover by leading families, who set up temples in order to reduce horizontal connections between members of the populace:

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[111] Gosden, 41.

[112] *ibid.*

[113] *ibid.*, 42.

> The gradual simplification of pots, baskets and other material forms reduced the range of relations that most people could set up with each other, divisions reinforced by the concentration of activities within houses and not in more public spaces. The rise of 'temples' meant that not all could have relations with the divine.[114]

In large cities, every resident was connected to a few powerful people—that is, the administrative core of the state who possessed the sacred. Temple religion was the core of the economy: the city itself operated on an internal tribute system, where smaller households were required to offer resources to dominant households who controlled state religious institutions.[115] Godson calls these large households 'artisans of the sacred' who brought about 'massive shifts in the nature of personhood and relations to material things.'[116]

These social artisans or craftsmen also produced concepts of the divine that were intimately connected with craft. Godson notes that the original understanding of 'god' was highly material—the statues of gods were crafted of metal or precious stones traded in via the colonies from mines in the periphery, and were believed, not to *represent* the deity, but to actually *be* the deity. In contrast, the king was made to look like a statue—his hair, clothing, and body carefully groomed into standard forms.[117] Religious symbolism and material culture merge in a new definition of elite personhood: objects (i.e. statues) become persons, and persons (i.e. kings) become objects. Metallurgical craftsmanship dominates each elision—the gods (object-people) are crafted from metal, and the kings (people-objects) are turned into gods by displaying metal wealth on their bodies. 'Object-people and people-objects were locked into a system of mutual creation and support and the qualities which defined

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[114] *ibid.*, 47.

[115] *ibid.*

[116] *ibid.*

[117] *ibid.*, 50.

them were aesthetic ones.'[118] As we will see in more detail below, this elision of concepts of deity and king was fundamentally metallurgical.

To summarise: the Bronze Age states did not come out of nowhere. They were based on pre-existing social models. Although the scholarly debate concerning the nature of ancient colonialisms will continue, we know that Uruk 'did solidify a shared cultural milieu which allowed power and personhood to be created in a generally agreed upon manner over a large area and allowed the spread of ideas and influences from all directions in all directions... producing forms of power large enough in scope to become the basis for later colonial modes.'[119] For our purposes, it is important to add that metallurgy functioned at the heart of every stage of this development: in the economies of the chiefdoms that pre-figured the rise of Uruk, within the central economic structure of the city-state, and as a key material object through which personhood and power could be negotiated.

Bronze Age

Slavery, metal, women

Southern Mesopotamia was rich in agricultural resources but largely devoid of mines and forests. However, the cities themselves were characterised by mass production of ceramic and metal wares.[120] Tin, copper, gold, and bronze were traded in ingots (which became the standard Mesopotamian bullion), and social value was added to

[118] *ibid.*

[119] *ibid.*, 56.

[120] McMahon, 27-28. It is useful to note that city-states controlled metal smithing within the urban city walls, but relegated ceramic workshops to smaller settlements surrounding the city. These settlements were designed like cities, with the same institutional structure and architectural design. State administration carefully controlled the specialist ceramics production in these towns.

the metal through craftsmanship transforming ingots into elite items (luxuries and weaponry).[121, 122]

Copper is a soft metal tending to erosion, whereas bronze alloys were 'both harder and shinier' than copper and produced far stronger weaponry.[123] The most common type of bronze was made of copper and tin—this alloy was used widely across the ancient world. However, major sources copper and tin were rare: most Mesopotamian tin came from central Eurasia (modern-day Afghanistan and Iran), while most copper came from Anatolia and southern Canaan.[124] The wealth, political stability, and military success of the city-states depended on extensive networks of exchange, spanning thousands of kilometres.[125] As such, states fiercely protected their trade access, both waging war and forming treaties with competitors. Most Bronze Age wars were waged between competing states who wanted to guarantee control of a trade route.[126] Significantly, the continual warfare ensured a steady supply of slaves.[127]

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[121] For information on Mesopotamian bullion, see Christopher M. Monroe, 'Money and Trade', in Snell ed., *Companion to the Ancient Near East,* 176ff. Mesopotamian money was comprised of standardised weights of metal, including lead, bronze, tin, silver, and gold. Egyptian currency took the form of metal bands. Money lenders traded currency and gave out loans with heavy interest, contributing to the rise of debt slavery.

[122] Kristiansen and Larsson, 37.

[123] *ibid.,* 108.

[124] Liverani, 6-7. Kristiansen and Larsson, 39.

[125] *ibid.*, 39.

[126] Liverani, 9.

[127] We have little information about slaves from the Bronze Age. In the Uruk period, captive women were brought to cities for factory labour (and probably domestic labour in temples, palaces, and private households). (Liverani, 5-6) Captive men, women, and children were also probably forced to work in mines—for example, in the southern Canaanite mines. See G. Barker, 'Farmers, Herders and Miners in the Wadi Faynan, Southern Jordan: a 10,000-year

States that engaged in extensive mining and smelting had to procure expendable, cheap labour—the processes of procuring and refining ores were extremely arduous and hazardous, forcing states to rely on coercion and compulsion to ensure sufficient labour supply (*corvée*, impoverished peasantry, slaves).[128] The specialisation of trades and economic incentives for urbanisation put heavy burdens on the rural hinterlands surrounding city-states. David Warburton paints a dire picture: '[r]ural life became increasingly difficult in the course of the Bronze Age... as institutions acquired control over land and labour, at once constricting the availability of land and making demands on labour in taxes and other services.'[129] He concludes that '[t]he basic rhythms of life did not change... Only the demands increased, on everyone' in the service of state industries (metals, building works, textiles).[130] Mario Liverani argues that much of the surplus appropriated by the state from peasants went directly to 'the maintenance of the specialised craftsmen [predominantly metallurgists] and the socio-political elite.'[131]

During times of war, trade instability, or natural disaster, large segments of the population could be brought to the brink of starvation—some sold their children or themselves into slavery in order to eat, while others escaped sedentism altogether,

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Landscape Archaeology', in Graeme Barker and D. D. Gilbertson, eds., *The Archaeology of Drylands: Living at the Margin*, One World Archaeology 39 (London: Routledge, 2000), 63-85. See also I. Mendelsohn, 'State Slavery in Ancient Palestine', *Bulletin of the American Schools of Oriental Research*, no. 85 (1942): 14–17.

[128] Kristiansen and Larsson, 133.

[129] David A. Warburton 'Working', in Snell, ed., *Companion to the Ancient Near East*, 185.

[130] *ibid.* Already in the Uruk period, textile production occurred in large factories which housed large groups of enslaved women and children. (Liverani, 5-6) This pattern persisted in later centuries. In the eighteenth century BCE, King Zimri-Lim of Mari instructed his wife, Queen Shibtu, to oversee the placement of female war captives in the textile factories—the Queen was to select the most beautiful slaves for her husband's harem. (Marsman, 407-408)

[131] Liverani, 5.

returning to a life of hunting.[132] Overall, there were three so-called 'Urban Revolutions' in Mesopotamia (the first of which I have already described above), each featuring rapid land expansion and sharp increase in metal production. However, near the end of each period of urbanisation, the trade network linking the cities became unstable, leading to large-scale collapse and mass abandonment of urban life.[133] Scholars have cited growing social inequality and environmental damage (especially deforestation resulting in soil erosion and lake eutrophication) as primary

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[132] Bruce Wells, 'Law and Practice', in Snell, ed., *Companion to the Ancient Near East,* 199-211. 'It was not uncommon for parents, during times of war or economic distress when there was too little to eat, to sell their children as famine-slaves so that the buyer would feed the children and the money from the sale would buy food for themselves.' He sights a tragic case from late Bronze Age Syria, where a couple sold their four children, including one daughter 'still at the breast'. (206-208) Gerda Lerner notes that Mesopotamian laws allowed men to escape debt slavery by selling wives and daughters. (89ff)

[133] Liverani, 5-14: *First Urban Revolution* (Uruk period, 3500-2800BCE): origin of the first states in Southern Mesopotamia. Sudden total system collapse, resulting in mass de-urbanisation. *Second Urban Revolution* (Early Dynastic period, 2800-2000): features first 'world empire' under Sargon of Akkad; kings are deified, and promulgate rhetoric of world domination. Almost all states collapse between 2200-2000BCE. *Third Urban Revolution* (Middle to Late Bronze Age, 2000-1200BCE): Multicentric, with many empires roughly the size of modern-day France or Iraq. Economies change to wage labour, resulting in mass dispossession and pauperization of the peasant classes. Environmental damage, migration, and social instability cause mass system collapse in all western states with eastern states reduced in power. As a side note, the Middle to Late Bronze Age (corresponding to the Old Babylonian period in Mesopotamia) also featured the first recorded instances of witch-hunting. While I have yet to confirm my hypothesis, I do suspect that the mass dispossession of the peasants during the Third Urban Revolution directly correlated with witch hunting, as it did in the late medieval period in Europe. See chapter five for a study of Mesopotamian witch hunts.

causes for instability and collapse.[134] Mining and metallurgy were top contributors to these catastrophes: high demands for fuel caused deforestation, while smelting caused dramatic air pollution and heavy metal contamination of soil and water.[135] The metal industry also fuelled social stratification through manufacture of luxury goods, bullion, and weaponry (markets heavily controlled by the upper classes).

Slavery was practiced by all ancient states, in different ways and to different degrees. We have already noted that the increase in demand for metal during the Bronze Age contributed to the growth of the slave trade in the ancient near east. While there are, to my knowledge, no surviving records of the management of mines for much of ancient near eastern history, we are able to make solid assumptions. Mines were extensive and involved large numbers of workers. Kristiansen and Larsson hold that the unhealthy, hazardous work in mines and smelting 'can hardly be thought of without a highly organised and hierarchical society, employing slave labour.'[136] In the process of social stratification, we find a stark polarisation of burial practices: kings and queens are laid out in elaborate burials, while the bodies of what seem to be mining slaves are discarded *en masse* in rubbish heaps.[137] Many slaves would have died underground, but others also died on the earth's surface—these slaves may well have succumbed to the high levels of poison that caused widespread ecological disaster around mining sites.[138] A cruel cycle was established: states engaged in raiding to

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[134] Carlos E. Cordova. 'The Degradation of the Ancient Near Eastern Environment', in Snell, ed., *Companion to the Ancient Near East*., 125-141. For discussion of social inequality and state collapse, see Liverani, 13-14.

[135] Cordova, 139. To this day, the lands in Jordan/Saudi Arabia where Edomite mines once existed are contaminated with heavy metal pollution from the Bronze Age. Studies of Bedouin flocks show high levels of heavy metals from grazing on old mining and smelting lands. See Barker.

[136] Kirstiansen and Larsson, 133.

[137] Leick, 113-115; Kirstiansen and Larsson, 133.

[138] Leick, 134.

supply their mines with slaves; when mines were exhausted, political crises around resource acquisition lead to increased warfare, and even more captives, while new mineral sources were sought.[139]

There were different classes of slaves in the ancient near east: chattel slaves (captives and the offspring of female captives), debt slaves, and famine slaves.[140] Mesopotamian temples (of both goddesses and gods) 'constituted the richest agricultural, industrial, and commercial single unit within the community' and owned large numbers of slaves.[141] Slavery was built into the very fabric of state centralisation and was therefore an assumed aspect of urban life: '[n]owhere in the vast religious literature of the Sumero-Akkadian world is a protest raised against the institution of slavery, nor is there anywhere an expression of sympathy for the victims of this system.'[142]

Across the ancient near east, the slave trade was characterised by high percentages of women captives. During wars and raids, most adult men would have been killed (or, we can imagine, given a life sentence in the mines), whereas a majority of captive women and children would have been relocated to the conqueror's city.[143] In early Mesopotamian cities, most slaves were women and children 'concentrated in temple

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[139] *ibid.*, 48, 134.

[140] Wells, 206-208.

[141] I. Mendelsohn, 'Slavery in the Ancient Near East', *The Biblical Archaeologist* 9, no. 4 (1946): 86.

[142] *ibid.,* 88. While Mendelsohn does not believe that slavery played an important role in Sumerian economies, his study is based entirely off of the written record, which only describes a few types of slavery. The hidden slavery involved in mining and craftsmanship were central, if indirect, to the southern Mesopotamian economy.

[143] I. J. Gelb, 'Prisoners of War in Early Mesopotamia', *Journal of Near Eastern Studies* 32, no. 1/2 (January 1, 1973): 72. Captives were chattel slaves, and understood to be alive only by death sentence commutation and were often worked to death. (95)

factories', producing textiles (Mesopotamia's most valuable export).[144] Others were set to building work for royal architectural projects.[145] However, many others were assigned to royal households—slaves owned by women may have been exempt from sexual servitude, but others would have been integrated into harems.[146] Masters of slave women frequently sent them to work in brothels, taking all of their earnings.[147]

However, early Mesopotamian records indicate that many captive women and children died long before they arrived in the city. During the reign of Bur-Sin (third dynasty of Ur, 2052-2043), ration lists show a group of captives—originally made up of 165 young women, 2 old women, and 28 children, all with non-Mesopotamian names—reduced to 49 women (29 per cent survival rate) and 10 children (36 per cent survival rate) within a matter of a few months. Because their rations were sufficient for survival, it seems that their illnesses and deaths (carefully recorded) were due to harsh treatment during transport.[148] The startling loss of life among young women (whom we may have otherwise expected to be stronger and more resilient than small children) can be partially explained when we consider the sexual aspect of their mistreatment—Gerda Lerner holds that women were mass raped as initiation into captivity, a ritual confirmation that they had forfeited all the protections they had held

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[144] Liverani, 5-6.

[145] Gelb, 95.

[146] Lerner, 71ff. See also Marsman, 123-124: the slaves included in a bride price were also expected to be available for the husband's sexual use, unless otherwise specified in the marriage contract.

[147] Marsman, 445. Note that both individual owners and temples profitted from hiring out slave girls and slave women as prostitutes. See also John Peradotto and John Patrick Sullivan, *Women in the Ancient World: The Arethusa Papers* (Albany: SUNY Press, 1984), 147; Ian Morris and Walter Scheidel, *The Dynamics of Ancient Empires: State Power from Assyria to Byzantium* (Oxford: Oxford University Press, 2009), 299.

[148] Lerner, 82.

as a result of kinship bonds.[149] These rapes likely resulted in pregnancies, infections, and other physical and mental injuries, dramatically increasing women's mortality rates during transport.

Pregnancy-related mortality continued for the slaves who actually made it to the cities. A remarkable clay tablet from the Old Babylonian period contains a letter from a slave-girl to her master, begging for help with a complicated pregnancy (which was likely the result of the master raping her):

> Speak to my lord: Thus says Dabitum, your slave-girl. What I had told you, has now happened to me. For seven months, this child has been in my belly, the child is dead in my belly since one month and nobody takes care of me. If this is the mood of my lord: let me not die. Look after me and let me see the face of my lord... But if I have to die, let me see the face of my lord and then I may die.[150]

This letter is stylistically remarkable, for Dabitum forgoes all standard procedures for addressing her lord with deference.[151] The sentence 'What I had told you, has now happened to me' is a startling recognition of the slave as a knower and speaker—something so rarely encountered in the historical archive. Discarded and forgotten, Dabitum probably went to great lengths to find a scribe willing to record this message.

Despite the fact that slave labour accounted for a minority of the economic output of Mesopotamian states, Lerner holds that slavery profoundly impacted gender relations

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[149] *ibid.*, 175.

[150] A.L. Oppenheim, *Letters from Mesopotamia* (Chicago: Chicago University Press, 1967), 85 (no.17).

[151] See analysis in Marten Stol, *Birth in Babylonia and the Bible*, Cuneiform Monographs 14 (Groningen: Styx, 2000), 28.

within cities.[152] The bodies of female slaves had a visible symbolic function: they represented the vanquished foe, whose complete communities (women, men, children, elderly) had been reduced to a female and juvenile population.[153] The feminisation of the foe was direct and literal: slave women's rapeability reflected the loss of honour of the conquered as a whole.[154] Lerner holds that slavery 'became actualised and institutionalised as to reflect upon the very definition of "woman"' as someone characterised by unfreedom.'[155] Although they may have possessed different levels of social and political influence, all women in the state were sexually owned by men, and thus their reproductive agency was forfeit to patriarchal authority.[156]

In sum, femaleness and enslaveability were utterly intertwined in ancient near eastern societies. In following section, I will demonstrate these same conceptual connections in Greek and Roman slavery practices, for which there is a much more complete historical archive.

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[152] Note these estimates do not factor in invisible slave labour, such as mining slaves. Mines were outside of cities, and administrative documents only pertain to slaves transported to urban centres. See discussion of difficulties with estimates of slavery in Daniel C. Snell, 'The Historian's Task', in Snell, ed., *Companion to the Ancient Near East,* 118.

[153] Lerner, 80.

[154] *ibid.*

[155] *ibid.*, 96.

[156] Marsman, 468. In all ancient near eastern societies, a wife, concubine, or slave's sexuality was absolutely owned by her husband/master. Marsman also notes that ancient near eastern sons did not have a choice of bride—normally, marriages were arranged by the *paterfamilias*. A man could choose his own bride only by raping a virgin, as he was then legally required to marry her. This was an important way for sons to assert themselves within the domain of their fathers' control. (52) These laws, although intended to protect the *paterfamilias*' assets by guaranteeing the receipt of a bride price, may have contributed to the intensification of patterns of gender seclusion and the careful guarding of virgin daughters.

Iron Age

Mining and gender in Greece and Rome

Max Weber's observation that 'war is slave hunting' holds true throughout the Iron Age Mediterranean, with Greeks purposefully plundering non-Greeks to attain slaves.[157] In the *Odyssey,* Homer depicts Greek warriors raiding Egypt, following the ancient near eastern pattern of killing men and capturing women and children.[158] According to Andreau and Descat, archaic Greek 'warrior customs indicate a likely numerical predominance of female slavery, with the few male slaves having been captured as children'—a pattern maintained for several centuries.[159]

Only later, when the Greek states were well-established military powers, were more men enslaved. This shift in gender proportions amongst slaves may reflect the changing environmental conditions surrounding the Greek city-states. The Mycenaeans and archaic Greeks had slaves but their economies were not entirely dependent on the slave trade.[160] In contrast, classical Greece and Rome have been described as 'slave states' due to the magnitude and pervasiveness of slavery. Andreau and Descat hold that Greek cities started to become slave societies in the seventh century BCE.[161] This is also around the time that silver coinage was adopted as standard currency.[162]

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[157] In Jean Andreau and Raymond Descat, *The Slave in Greece and Rome*, trans. Marion Leopold, Wisconsin Studies in Classics (Madison: The University of Wisconsin Press, 2011), 56.

[158] *Odyssey* 14.263-265.

[159] Andreau and Descat, 21, 55. Gelb, 72.

[160] Andreau and Descat, 25.

[161] *ibid.,* 29.

[162] R. J. Hopper, 'The Mines and Miners of Ancient Athens', *Greece and Rome* 8, no. 2 (October 1961): 140.

In the case of Athens, the forests around the city were stripped very early in its history, leading to soil degradation, decreased agricultural productivity, and limited timber supply.[163] Athens depended on food imports, and thus had to expand its territories and maintain its navy to control trade routes and ports.[164] However, Athens did not have enough timber to build or maintain its navy, and so had to source trees from distant Macedonia.[165] The silver mines at Lavrium (which could hold more than ten thousand slaves at any one time) provided the coinage necessary to purchase necessary grain and timber, and were thus essential for the survival of the Athenian state.[166]

Within the academic discipline of classics, there has been strong resistance to the study of the topic of slavery. In 1962, Moses Finley published a paper setting out evidence for the pervasiveness of slavery in antiquity.[167] This went directly against the scholarly consensus that slavery was essentially 'epiphenomenal—a sporadic

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[163] J. Donald Hughes and J. V. Thirgood, 'Deforestation, Erosion, and Forest Management in Ancient Greece and Rome', *Journal of Forest History* 26, no. 2 (1982): 60–61.

[164] Eugene N. Borza, 'Timber and Politics in the Ancient World: Macedon and the Greeks', *Proceedings of the American Philosophical Society* 131, no. 1 (1987): 49.

[165] *ibid.*, 32ff.

[166] Hopper, 39ff; Robyn Jennifer Veal, 'The Politics and Economics of Ancient Forests: Timber and Fuel as Levers of Greco-Roman Control', in Sylvian Fachard et al., eds., *Économie et Inégalité: Ressources, Échanges et Pouvoir Dans l'Antiquité Classique: Huit Exposés Suivis de Discussions*, Entretiens Sur l'Antiquité Classique, tome LXIII (Vandœuvres: Fondation Hardt pour l'étude de l'antiquité classique, 2017), 349: 'Competition for forest resources among Mediterranean polities was strong... Ongoing maintenance and expansion of the fleet was then critical to state and elite wealth, both for security, but also for long term access to the markets of the ancient Mediterranean.'

[167] M. I. Finley, 'The Black Sea and Danubian Regions and the Slave Trade in Antiquity', *Klio* 40, no. 1 (1962): 51–59. See discussion in Timothy Taylor, 'Believing the Ancients: Quantitative and Qualitative Dimensions of Slavery and the Slave Trade in Later Prehistoric Eurasia', *World Archaeology* 33, no. 1 (January 1, 2001): 29.

function of piracy, for example—rather than systemic... No mass slave-force could be envisaged in agriculture, mining and industrial production, because slaves were few, and obtained more or less informally.'[168] The central economic role of slavery in Graeco-Roman antiquity did not match up with the scholarly characterisation of these societies as emblems of democracy, art, philosophy, and technological advancement.

The reality is stark. In classical Greece, the slave population reached fifty per cent of the total populace, perhaps higher in some regions.[169] Xenophon reported that the owners of Athenian mines were never satisfied with the number of slaves, with every master obtaining as many as possible.[170] Statistically, it may well have been that the greatest number of slaves were employed in the mines, but these slaves were invisible: their existence 'hardly impinged on the lives of most citizens, for all their misery or their benefit to economy.'[171]

Slave revolts were a pressing threat in classical Greece and Rome. Historical records include a massive slave revolt in the Roman Republic in 460BCE, where male slaves killed their masters, set fires to the city, and captured women and children (that is, male slaves took on the patriarchal role of male warriors, stealing the sexual and paternal rights of their masters by raping the women of the city).[172] There was another

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[168] Taylor, 29.

[169] Andreau and Descat, 65. A census of Attica taken between 317-307BCE reported free men and women amounting to only seven per cent of the population—21 000 citizens, 10 000 resident aliens (*metics*), and 400 000 slaves. Although this may have been unusual across Greece, Atheneus' report on the census demonstrates that he 'does not expect his audience to find the idea of a society in which just over 7 per cent are unenslaved implausible.' See Taylor, 29.

[170] Taylor 30. Xenophon, *Ways and Means* IV.2–4.

[171] Michael H. Jameson, 'Agriculture and Slavery in Classical Athens', *The Classical Journal* 73, no. 2 (1977): 141. During times of war, states would attempt to steal the mining slaves of their enemy, to acquire invaluable resources of expertise and manpower. (123)

[172] Andreau and Descat, 34.

large revolt at the Lavrium mines outside of Athens during the Second Servile War (103-99BCE).[173] In early Imperial Rome, Seneca called for the end of legislation requiring slaves to wear distinctive dress, because it exposed the startlingly low number of free men living in Roman cities.[174]

While some scholars have emphasised that masters were interested in preserving the lives of their slaves because they were a valuable investment, it is also important to note that 'the price of a healthy human slave in Roman times was a third to a quarter the price of a horse.'[175] Even in early periods, the Greek mining entrepreneurs were highly competitive and commonly exposed their slaves to vile working conditions: long work hours, crouching or lying in narrow shafts; hot, humid, and stale atmosphere deep underground; toxic fumes from firesetting and smelting.[176] We also know that mine owners used child labour extensively, specifically in the unskilled but extremely arduous task of transporting ores from the bottom of mine galleries to the surface.[177] Slaves who were expert metallurgists, engineers, or smiths were afforded better treatment, but the vast majority of slave workers were unskilled and expendable.[178]

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[173] Hopper, 149.

[174] Andreau and Descat, 50.

[175] Richard Sennett, *Flesh and Stone: The Body and the City in Western Civilization* (London: Penguin, 2002), 120.

[176] Martinez and Garcia, 116: 'There is no doubt that the life and labour conditions of miners throughout history have been very arduous and difficult. Text sources, epigraphy and archaeology prove that mining would be characterised by long working shifts, poor diet, humidity, insalubrities, high physical decay and would be extremely dangerous, which all together create short lifespan and high mortality.'

[177] Hopper, 150.

[178] *ibid.* See also Martinez and Garcia, who have compiled a long list of injuries and diseases associated with antique mining labour. (116-117)

As with the Bronze Age slaves, we find very few descriptions of the lives of mining slaves in the classical period. However, since mining techniques remained largely unchanged throughout the period, we can imagine that Agatharchides de Cnido's description of the Nubian mines of Pharaoh Ptolemy VIII of Hellenic Egypt give a good picture of the conditions found in many mining centres:

> Young boys, who go down through the galleries to the areas of rock that have been excavated, laboriously pick up the rock that is being dug out bit by bit and carry it outside to a place near the entrance. Men over [var. under] thirty years of age, take it from them, and pound a fixed amount of the quarried rock on stone mortars with iron pestles until they reduce it to the size of a vetch seed. The women and older men receive from them the seed sized rock and cast it into stone mills, several of which stand in a line, and standing beside them, two or three to a handle, they grind it until they reduce the portion given them to a flour-like state. Since there is a general neglect of their bodies and they have no garment to cover their shame, it is impossible for an observer to not pity the wretches because of the extremity of their suffering. For they meet with no respite at all, not the sick, the injured, the aged, not a woman by reason of her weakness, but all are compelled by blows to strive at their tasks until, exhausted by the abuse they have suffered, they die in their miseries. For this reason the poor wretches think that the future will always be more fearful than the present because of the extreme severity of their punishment, and they consider death more desirable than life.[179]

[179] As quoted in Diodorus Siculus 3.13. Also in Martines and Garcia, 111-112. Diodorus notes that Egyptian slaves were either captives or those who had been condemned for crime, disfavour with the king, or families of the condemned. (3.12)

It seems unlikely that many slave-powered mines, whether in the Bronze Age or the Iron Age, would have had better living standards.[180] Agatharchides' description of women's labour helps correct a common scholarly assumption that only adult men were engaged in mining labour. Evidence across the archaeological record suggests otherwise—women and children have always been involved directly in the production of refined metals.[181] It may be that only women with desirable sexual traits or domestic skills were saved this fate.

Throughout antiquity there were large populations of female slaves engaged in a wide variety of work. In Greece, female slaves worked in mines to grind down ore for smelting, on farms doing agricultural labour, as domestic slaves and weavers, and as sex slaves in brothels.[182] As with the Bronze Age Sumerian and Semitic states, it seems likely that the high numbers of female slaves in archaic Greece would have

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[180] In one of the few critical antique texts on mining, Pliny the Elder questions why 'we diligently search, within the earth' if the only purpose of mining is 'to satisfy the requirements of luxury, our researches extend to gems and pigments, with which to adorn our fingers and the walls of our houses.' Pliny points to the bounty of nature providing food and shelter, and questions why men must go deeper in search of things which have no true value for sustaining life: 'we gratify our rash propensities by a search for iron... amid wars and carnage.' He concludes that '[t]he worst crime against mankind was committed by him who was the first to put a ring upon his fingers', for men's desires for gold 'send us to the very depths of hell.' Pliny concludes by exclaiming, 'Would that gold could have been banished forever from the earth, accursed by universal report... looked upon as discovered only for the ruin of mankind.' *Natural History* 33.1, 33.3, 33.4. Carolyn Merchant interprets Pliny's discourse against mining as evidence that the trope of nature as bountiful mother, despite its patriarchal function, did place certain sanctions on the wholesale stripping of resources from the earth. For her discussion of 'normative constraints against the mining of mother earth' in Greek and Roman discourse, see Merchant, *The Death of Nature: Women, Ecology, and the Scientific Revolution*, 1st ed (San Francisco: Harper & Row, 1980), 29-32.

[181] Martines and Garcia, 105.

[182] Andreau and Descat, 67.

contributed to broader notions about women and women's labour. For example, when Athenian girls were married (usually at a very young age, and to older men), they were required to enter their husband's home with the physical posture of a slave, crouching down at the hearth in his presence, thus performing acceptance of his mastery.[183, 184] Both slaves and women were associated with sexual submission—patterns of sexual submission in military defeat and marriage were very much alike.[185]

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[183] Sennett, 60. In classical Athens, free women were segregated in a system resembling South Asian *purdah*. They were confined to their homes, unless there was a religious festival, during which daughters and wives of citizens would remain veiled. Greek discourse attributed the practice of segregation and confinement to women's physiological defects, which could pollute the public sphere. Athenian houses themselves were gendered and gender-constructing: in the *andron*, men, slave women, prostitutes, and foreign women comingled, while in the *gunaikeion*, wives and daughters were held in seclusion. See Sennett, 73ff.

[184] Paul Veyne noted that the conceptual links between wives and slaves continued in Rome. Both young wives and slaves were defined by their rapeability. Because masters by definition owned enslaved bodies entirely, slaves were frequently subject to rape and believed to be naturally promiscuous. (33) 'The wedding night took the form of a legal rape from which the woman emerged "offended with her husband" (who, accustomed to using his slave women [and boys] as he pleased, found it difficult to distinguish between raping a woman and taking the initiative in sexual relations). It was customary for the groom to forgo deflowering his wife on the first night, out of concern for her timidity; but he made up for his forbearance by sodomizing her...' (34-35) These practices directly equated female bodies with slave bodies. Paul Veyne, 'Roman Empire', in Paul Veyne and Peter Brown, *A History of Private Life*, ed. Philippe Ariès and Georges Duby, vol. 1: Pagan Rome to Byzantium (Cambridge, Mass.: Belknap Press of Harvard University Press, 1992).

[185] Sara Elise Phang, *Roman Military Service: Ideologies of Discipline in the Late Republic and Early Principate* (Cambridge: Cambridge University Press, 2008), 93-94: 'In ancient Greece and Rome, a man became a man by practicing the active sexual role (penetrating women, boys, or slaves) and avoiding the passive sexual role (being penetrated, which assimilated the male into a woman, prostitute, or slave)... rape was the fate of captives and

Female slaves were particularly vulnerable to sexual exploitation, and the close proximity between free women and slave women (who worked together within the household) meant the broader devaluation of women's labour as a whole.[186]

Patriarchal mastery over women and slaves was audible. Thucydides understood male citizens to have warm bodies, capable of controlled speech and action in the polis, whereas women and slaves had cold bodies, necessitating confinement, speechlessness, and inactivity in the public realm.[187] In some classical discourse, tongues were seen as an unnecessary part of slave anatomy.[188] Words were believed

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slaves of either sex, including adult males. Rape signified defeat, a fate worse than death to a soldier.'

[186] Andreau and Descat, 24; Sarah B. Pomeroy, *Goddesses, Whores, Wives and Slaves: Women in Classical Antiquity* (New York: Dorset Press, 1975), 71.

[187] Sennett, 31-34. Carson notes that the Greek concept of *sophrosyne* meant controlled speech for men, and silence for women. 'Verbal continence is an essential feature of the masculine virtue of *sophrosyne* (prudence, soundness of mind, moderation, temperance, self-control) that organizes most patriarchal thinking on ethical or emotional matters. Women as a species is frequently said to lack the ordering principle of *sophrosyne*.' (126) However this does not apply equally to men. In the classical literature and laws, '*female sophrosyne* is coextensive with female obedience to male direction and rarely mean more than chastity. When it does mean more, the allusion is often to sound. A husband exhorting his wife or concubine to *sophrosyne* is likely to mean "Be quiet!"' (126) 'It is a fundamental assumption of these gender stereotypes that a man in his proper condition of *sophrosyne* should be able to dissociate himself from his own emotions and so control their sound. It is a corollary assumption that man's proper civic responsibility towards woman is to control her sound for her insofar as she cannot control it herself.' (127)

[188] The Roman jurist Ulpian struggled to classify the value of slave tongues—while it was agreed upon that a horse without a tongue had reduced market value, the same was not obvious for an enslaved human. Ulpian's musings demonstrate that '[h]e recognised that any Roman slave, as a matter of course, could become the object of physical abuse and injury at any time, and in so doing reflected the strong association between slavery and violence that

to bring heat to male bodies, bringing about action. Free men were characterised as 'the citizen whose body has been warmed by the fires of debate in the assembly'[189]—rhetoric, then, exists in contrast to the cold silence of women and slaves. In chapters five and six, I will analyse Greek and Roman discourse regarding sound and bodies, arguing that the silence of women and slaves is both an expression and a driving mechanism of metallurgical ideology.

Metallurgy as religion

Travel, knowledge, and myth

The socioeconomic model of the state that first arose in late Neolithic Mesopotamia established temples as the central state administrators—the first kings represented the tutelary god of the city. Liverani holds that the Uruk priests strategised social control methods, including the *corvée*, to prevent people from developing ideas and ambitions that would question central state authority. In particular, the priesthood limited the power of kinship bonds to increase the populace's dependence on the state.[190] Both the Uruk state and the states of later time periods were modelled on the patriarchal household—the royal family, the administrative houses, pantheons, and even systems of political allegiance and vassalage were understood to have a *paterfamilias* at their head.[191] All state systems of power, in other words, were modelled on paternal

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always held a place in the Roman mind.' Keith R. Bradley, *Slavery and Society at Rome*, Key Themes in Ancient History (Cambridge: Cambridge University Press, 1994), 3-4.

[189] Sennett, 44.

[190] Liverani, 6.

[191] Elizabeth C. Stone, 'Mesopotamian Cities and Countryside', in Snell, ed., *Companion to the Ancient Near East*, 157-170. Extended patrilineal households (where a man, his sons, his wives, and his sons' wives live together with children, concubines, and slaves) were the norm and basic building block of Mesopotamian society. In his study of Ugarit, Mark Smith states that all early ancient near eastern city-states were patrimonial in structure. Smith, *The Ugaritic Baal Cycle:* Vol 1, 94. David Schloen writes: 'In a patrimonial state the kingdom is

authority. If fatherhood was the standard of authority, then who were the other members of the state household? Submissive classes (women, peasants, slaves) were feminised and infantilised by the paternal state model—their productive labour (and women's sexual and reproductive labour) were the means by which the state itself was reproduced. To study ancient state economics (from *oikonomia*, lit. 'household management'), then, is to study gender and reproduction. To put this in metallurgical (or, more specifically, numismatic) terms, production and reproduction are always two sides of the same coin.

According to Liverani, the supremacy of temple authorities reflected the need to develop ideologies and mythic narratives that justified social stratification:

> The paramount role of the temple in the Uruk period was the obvious result of the strongly unequal relationships that the complex structure of the early state introduced into society. The elite could successfully exploit the rural population only by convincing them that their work was intended to support the god, his house, and his properties. A religious mobilisation was necessary in order to keep the unequal relationships effective and enduring. No purely physical constraint could have been effective, but the ideological constraint made the exploitation tolerable.[192]

Mary Helms has noted the frequent presence of 'creator-crafters' in the origin myths of state societies.[193] Like the mortal metallurgists, these gods have the capacity to

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simply the patriarchal household writ large, and the struggle for power is analogous to the factional rivalry for property and privilege between patrilaterals in extended patrilineages... struggles between "kin" were a determinant of social relations at all levels of society.' See Schloen, 'The Exile of Disinherited Kin in KTU 1.12 and KTU 1.23', *Journal of Near Eastern Studies* 52, no. 3 (July 1, 1993): 219.

[192] Liverani, 6.

[193] Mary W. Helms, *Ulysses' Sail: An Ethnographic Odyssey of Power, Knowledge, and Geographical Distance* (Princeton: Princeton University Press, 2014), 51.

transform raw materials (primordial water, chaos, etc.) into recognisable, valuable products—in other words, myths regarding the origins of the cosmos narrate metallurgical processes, including mining, smelting, and smithing, and confer divine authority on their productive processes.[194] These myths, like the one in *Genesis*, endured for millennia. Kristiansen and Larsson have come to the same conclusion as Liverani regarding the economic value of myth: they speculate that control over ritual and myth enabled early city-states to increase their geographic range of power from around twenty to forty kilometres to between one hundred and two hundred kilometres, thus massively increasing the amount of resources and labour they were able to expropriate from the rural periphery.[195, 196]

Kristiansen and Larsson provide a detailed analysis of the central role of bronze metallurgy in Bronze Age myth making and ideology formation. They note that Bronze Age cultures showed a high degree of homogenisation, due to the extensive and continuous trade of metals—an exchange that also shared knowledge, skills, and

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[194] *ibid.* See also Charles Penglase, *Greek Myths and Mesopotamia: Parallels and Influence in the Homeric Hymns and Hesiod* (London: Routledge, 1994). In writing about the semi-divine Mesopotamian culture hero Ninurta, Penglase states that journey myths support 'the acquisition of power, but also its retention and demonstration. While each myth presents a different story and the question of power received a different treatment in almost every one, this purpose is remarkably consistent. It appears, therefore, that the idea of carrying out a journey was considered to be an important ingredient in a god's acquisition of power: that is, that in these myths the god achieved his power through the performance of a journey.' (71)

[195] The relationship of periphery to centre did not exist, at least in this manner, before the rise of the city-state. Similarly-sized settlements existed in the early Copper Age and early Bronze Age, however the *meanings* associated with their relationship to the broader environment had changed. 'Urbanisation also "ruralises". Pre-urban and post-urban villages may appear similar, but small villages within a larger system have a new counterpoint in urban sites, and the land between sites takes on a new meaning.' (McMahon, 27)

[196] Kristiansen and Larsson, 48.

ideas.[197] Despite the wars and trade conflicts that characterised the Bronze Age, evidence suggests that the competitors upheld a truce regarding skilled craftsmen: metallurgists and metal traders were able to cross state boundaries and dangerous territories with impunity.[198]

Kristiansen and Larsson characterise the Bronze Age as

> *the* age, *par excellence*, of cosmological power and distance linked to heroic travels of skilled artisans and specialists. To overcome the inherent dangers their work is often highly ritualised... Skilled craftsmen are often long-distance travellers and traders, thereby adding outside mystique and power to their craft. Thus, travel as a distinctive, ritualised activity is comparable to skilled crafting.[199]

Journeying tradesmen were the basis of the Bronze Age archetype of the 'culture hero' (examples include Gilgamesh, Ninurta, and Odysseus), who travels far from home, returning knowledgeable and powerful.[200] Like metal itself, the metallurgists' journeys held temporal significance: 'travel to distant places corresponds to time travel to the origin of ancestors, making ancestors and the mythical past an ingredient of the present that can be reached through travel, and which accords to [the metallurgists] sacred status upon their return.'[201] The high status of metallurgists corresponds to the 'corpus of esoteric knowledge' acquired while travelling, which is 'controlled by "specialists" (chiefs, artisans, priests) as an attribute and legitimation of their status, power and authority.'[202] Throughout Bronze Age records, people of highest office (gods, kings, priests, craftsmen) are described as 'wise': this term is

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[197] *ibid.*, 39.

[198] *ibid.*, 54.

[199] *ibid.,* 54. Original emphasis.

[200] *ibid.*, 32.

[201] *ibid.*, 4.

[202] *ibid.*, 39.

loaded with metallurgical associations, for wisdom and high status depend, in part, on possessing exclusive, esoteric knowledge.[203]

Helms holds that skilled artisans and culture heroes are linked to the rise of aristocracies, through a parallel between the divine realm and human reality: 'we find strong associations between creator gods and culture heroes on the one hand and human artisans and persons of influence on the other.'[204] As we will see in chapters three through six, metallurgists were made into mythic and divine characters in order to create state ideologies that justified economic centralisation and class stratification. Therefore, when we read and analyse myths that originated in the Bronze Age, we must take into account the very concrete significance they had for the lives of workers. 'The historical and magico-religious significance of the smith is his connection with the rise of new types of weapons and warriors, and consequently with new types of power'; the Bronze Age 'heroic warfare' was only possible where highly skilled smiths innovated 'aristocratic new weapons, whose power relies on a combination of technical skills and secret magic.'[205] Bronze Age metallurgists formed secret guilds that protected trade secrets and honed crafting techniques in the quest for stronger metal weaponry (in modern terms, metallurgical innovations were 'top secret' military technologies)—this helps explain why the mortal metallurgists themselves are absent from the historical record, despite the fact that we possess an enormous body of evidence regarding their products and clientele.[206]

We can therefore conclude that myth and economics cannot be separated: craftsmanship, travel, and the accumulation of wealth and power were intricately interwoven in daily life and in cosmology.[207] In both the Neolithic Copper Age and

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[203] *ibid.,* 39. See discussion of wisdom in chapter seven.

[204] Helms, 51.

[205] Kristiansen and Larsson, 54.

[206] *ibid.*

[207] *ibid.*, 45.

the Bronze Age, the display of metals enabled new-found elite culture to be performed into existence.[208] The question for us, then, is how women's bodies and female reproduction were implicated in the reproduction of ancient near eastern patriarchal states.

Identifying metallurgical gods

Kristiansen and Larsson identify a class of deities that function as the primary representatives of metallurgical skill and authority in Bronze Age pantheons (and, of course, later pantheons derived from these). These include pottery gods and metal smithing gods (who are often depicted as residing within volcanic depths or enthroned upon furnaces), patrons of furnaces and tempered flames, as well as pyrotechnical storm gods who wield thunderbolts as their primary weaponry.[209] The ubiquity of this class of deities deserves emphasis: every pantheon that I have encountered in my research features multiple metallurgical gods.

Nissim Amzallag summarises the characteristics of metallurgical gods as follows: in addition to their association with pyrotechnics, furnace crafts, and mining, they are 'outstanding deities' closely tied to the emergence of civilisation, involved in the

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[208] Kristiansen and Larsson imagine an exchange between elites and commoners, where elites displayed metal regalia to advertise the blessings of civilisation and encourage urbanisation, demanding to receive imports of metal resources from the periphery that held 'high cosmological value in the centre.' (45) I doubt that metal regalia was understood as an invitation by ancient peoples—Bronze Age cities recorded brutal programmes of forced sedentisation imposed on nomadic groups, at pain of death. In general, however, Kristiansen and Larsson's analyses are very realistic about violence and oppression in the Bronze Age, resisting recent trends in revisionist archaeology which tend to emphasise the beneficence of kings, lords, and armies. I will return to this debate below.

[209] *ibid.*, 53.

creation of the world or of humankind.[210] Amzallag also notes that metallurgical gods are typically involved in conflicts within the pantheon and serve as agents of feuds between divine factions—examples of these narratives are found across the Semitic and Indo-European mythologies.[211] In addition, the metallurgical gods and their emissaries commonly feature limps or deformities.[212] These characteristics—creativity, conflict, and deformity—correspond to aspects of real-world metallurgy: the power of the furnace to transform ore into pure (seemingly immortal) metals, the importance of metal objects in trade-related wars and power struggles, and the dangerous processes of mining, smelting, and smithing causing poison, injury, and death.[213]

The metallurgical deities are not only associated with opposition—they are also associated with strong allegiances across large geographic distances. The Ugaritic craftsman god Kothar is portrayed as living in Memphis and Crete, two of the major

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[210] Nissim Amzallag, 'Yahweh, the Canaanite God of Metallurgy?', *Journal for the Study of the Old Testament* 33, no. 4 (June 1, 2009): 397.

[211] *ibid.,* 400. In the Ugaritic *Baal Cycle*, Kothar-wa-Hasis (metal smith) colludes with storm god Baal (lightning wielder) to overthrow Yamm (sea god), the beloved heir of El (potter god), by fashioning metal weaponry which attack Yamm of their own accord. The Akkadian god Ea (potter god) appears in Hittite theogonic myths as colluding with the storm god Teššub (lightning wielder) and his younger celestial companions to overthrow the old chthonic pantheon. The Cyclopses, sometimes considered the sons of Hephaistos (Greek metal smith) who work alongside him in his forge, are the first beings to revolt against the chief god Ouranos. Prometheus (the Titan pyrotechnical god) fights against Zeus and the other Olympian gods, stealing fire from Zeus so that human men can master fire crafts.

[212] Nissim Amzallag, 'Copper Metallurgy: A Hidden Fundament of the Theology of Ancient Israel?', *Scandinavian Journal of the Old Testament* 27, no. 2 (October 1, 2013): 154. See chapter five for discussion of deformity.

[213] See chapter five for discussion of poison and teratogenesis.

smelting centres of the ancient world.[214] The Hebrew scriptures are largely dedicated to the Edomite copper-smelting god Yahweh (see Appendix A for more detail on this identification), but the texts also recognise other metallurgical gods, referring to the Elamites (who primarily worshipped the metallurgical god Napir) as ‘people of Yahweh’, and speaking positively of the city of Memphis (whose patron god was the metallurgist Ptah), even drawing parallels between Memphis and Jerusalem as holy cities.[215] The Hittites import Mesopotamian craftsman god Ea to fight their own battle of divine succession, using the same copper blade which afforded the Babylonian pyrotechnical god Marduk his victory over the pantheon.[216] These mythic portrayals of cross-cultural and cross-linguistic encounters reflect the broad exchange of metal and metallurgical expertise that characterised the Bronze Age *koiné*.

Religion

The term ‘religion’ has been defined in many ways, depending on the discipline. Many scholars use the term in the sense designated by common usage, focusing on

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[214] Smith, *Baal Cycle,* Vol. 1, 167. Kothar is also called ‘Ptah’, the name of the Egyptian god who was chief deity of Memphis. In KTU 1.1 III 17ff, Kothar travels rapidly from Memphis to El’s dwelling place in the northern Levant via a series of underground caves, mines, and underground waterways. (157-6)

[215] Amzallag, ‘Copper’, 401-402.

[216] In the *Song of Ulikummi,* Upelluri (the Hittite equivalent of Greek Atlas) speaks: ‘When they built heaven and earth upon me, I was aware of nothing. And when they came and cut heaven and earth apart with a copper cutting tool, I was even unaware of that.’ The Babylonian god Ea replies, ‘Hear my words, O Primeval Gods, who know the primeval words... Let them bring forth the primeval copper cutting tool with which they cut apart heaven and earth.’ This copper tool is believed to be borrowed from the *Enuma Elish*, where Marduk uses the blade to dismember the proto-goddess Tiamat. Gary M. Beckman, ed., *Hittite Myths*, trans. Harry A. Hoffner, 2nd ed, Writings from the Ancient World, no 2 (Atlanta, GA: Scholars Press, 1998), 54. For analysis of *Enuma Elish*, see chapter four.

large-scale religious institutions and the recognisable set of individual identities, beliefs, and typical behavioural patterns derived from the institution's dogmatic or legal authority. This common usage separates religion from magic or the occult, and, at the same time, from more general quests for meaning (non-religious spirituality, for example). Within scientific disciplines, including empirical archaeology and economics, attention is commonly placed on 'religiosity' as a human tendency to search for extra-worldly explanations for existence and causation—this broad definition sees religious institutions as but a manifestation of human nature. Archaeologist William Drever, on the other hand, understands religion to be a specific subset of a culture's 'symbolic system' (see definition of this term below) related to concepts of holiness—a system that is constructed rather than natural or universal.[217]

For the purposes of my work, it is important to distinguish state religion as one of multiple ways in which the state reproduces itself through ideology—in ancient societies, state religion permeated urban life and yet had an unstable grasp on the imaginations and concepts of the populace, especially the peoples living in the hinterlands. Kings commonly derived their authority from gods, and yet also used tribal pastoral imagery of the shepherd to achieve authority.[218] The latter strategy was more common in states where semi-nomadic pastoralists retained their identity and exerted strong counter-pressure against state centralisation—in these contexts, city-states had to constantly appease and discipline pastoralists, which included mimicking their model of leadership.[219] Therefore, in my understanding, the pastoral paradigm of

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[217] William G. Dever, 'The Contribution of Archaeology to the Study of Canaanite and Early Israelite Religion' in Patrick D. Miller, Paul D. Hanson, and S. Dean McBride, eds., *Ancient Israelite Religion: Essays in Honor of Frank Moore Cross* (Philadelphia: Fortress Press, 1987). See also Othmar Keel and Christoph Uehlinger, *Gods, Goddesses, and the Images of God in Ancient Israel* (Edinburgh: T. & T. Clark, 1998), 7.

[218] Chavalas, 44-45.

[219] *ibid.* See also Jorge Silva Castillo, 'Nomadism Through the Ages', in Snell, ed., *Companion to the Ancient Near East,* 147.

the state (more common in northern Mesopotamian states) competed with the paradigm of the temple state system (which originated in southern Mesopotamia).[220] Both systems were patriarchal, deriving state authority from different archetypes of father-rule (father as god, father as shepherd). Both systems featured temples and gods; however, there was a difference in the extent to which religion functioned within state ideology and administrative functioning.[221] While we need go no further than the Hebrew scriptures for ample evidence that common people resisted the strictures of state religion, we must also recognise that ancient urban states (of all types) expended a large portion of their resources to impose religion on the populace, through architectural dominance, repetitive ritualisation, threats of violence, and dramatic regalia and performances intended to inspire awe.[222]

The separation of religion and magic is irrelevant to pre-Christian antiquity. In the ancient near east, magic, as opposed to witchcraft or folk ritual, operates within the broader auspices of state religion.[223] The historical archive contains evidence for three distinct types of ritual practices intended to channel divine power to accomplish particular human ends: magic (a scholarly ritual practiced by male mages under the umbrella of state religion), witchcraft (the paranoid upper class male imagination of women's ritual powers, demonising common female practices in domestic and rural contexts), and folk ritual (practiced outside the auspices of state religion, which may adapt or resist state religion to meet the immediate needs of local communities).[224] Chapters four, five, and six detail magical practices in the ancient near east and

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[220] Chavalas, 44ff.

[221] Castillo, 146.

[222] See chapter two for discussion of polytheism and folk religion in Israel.

[223] See further discussion of Mesopotamian magic in chapter four, and Graeco-Roman Egyptian magic in chapter six.

[224] As discussed in chapter four, the warlock is attested in ancient near eastern anti-witchcraft texts, but only as the accomplice of witches. Warlocks never act of their own initiative.

syncretic antiquity, including the conflicts staged between mages and so-called witches.[225, 226]

In chapters three through six, I understand religion to involve the concept of deity (the only exception to this is found in chapter two, where I briefly consider the possibility of pre-theistic forms of divinatory religion). Since no concrete evidence of deities exists in the early Copper Age and a plethora of evidence for deities in the early Bronze Age, we are faced with the extraordinarily difficult task of identifying the social mechanisms that produced the concept of god. Here I will offer some initial observations, to be continued in chapter seven.

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[225] The term magic has an odd inheritance in English. It was first used by the Greeks to describe the religion of the Persians, whom they greatly feared. According to Herodotus, who first used the word, mages were fire-priests of 'eastern' (that is, Zoroastrian) religion. To the Roman populace, mages were exotic, oriental sages. See Brian P. Copenhaver, *Magic in Western Culture: From Antiquity to the Enlightenment* (Cambridge: Cambridge University Press, 2015), 25-26, 30. My usage of the terms 'magic' and 'mage' side-steps this complex transmission, corresponding not to Persian ritualists, but to a broad social category of sorcerers as elite, learned magic practitioners.

[226] Georg Luck has surveyed twenty-two individual terms for mages (including *mantis* (diviner), *Aegyptius* (Egyptian), *Chaldaeus* (Chaldean), *magoi* (Persian), *mystes* (initiate into mystery cult), *theougia* (magical controller of gods), *thytes* (sacrificer, wizard), *physikos* (magician-scientist), and *sortarius* (diviner)), and for magic (including *epoide* (incantation), *fascinatio* (bewitching), *goeteia* (witchcraft), and *pharmakon* (potion)). The Greeks and Romans held many familiar characters as mages, including Odysseus, Medea, Moses, Solomon, Orpheus, Pythagoras, Empedocles, and Hekate. As we will see here and in chapter six, the PGM combine different magical personas and processes, forming a highly diverse and syncretic collection. Georg Luck, 'Witches and Sorcerers in Classical Literature', in Bengt Ankarloo and Stuart Clark, eds., *Witchcraft and Magic in Europe*, vol. 2: Ancient Greece and Rome, Witchcraft and Magic in Europe (Philadelphia: University of Pennsylvania Press, 1999).

The human invention of god appears to have developed gradually, but is strongly correlated with the rise of the city-state in the late Copper Age. Jan Assmann notes that all ancient pantheons are associated with urbanisation: 'The more important deities of a pantheon are "town-gods", and the more important urban centres of a country are a god's cities.'[227] The hierarchy of the pantheon is based on political organisation of city-states or urban centres within a larger system of governance: 'The pantheon is an assembly of town lords and temple owners, headed, in some cases, by a god whose temple is in the capital and who, for this reason, rules not only his city but the whole country.'[228] The negotiations of these hierarchies were implicated in negotiation and conflict between states: 'Intercultural theology became a concern of international law.'[229]

Recent discoveries of the archive of the city-state of Ebla have provided very early evidence of a West Semitic pantheon in the twenty-fifth century BCE. In Ebla, we find archaic cultic forms in which the cults of the senior gods of the pantheon were celebrated within the mausoleums of dead kings, thus suggesting a cultic elision of royal ancestry and deity. Robert Steiglitz emphasises that the archaic practice of deity-ancestor worship in Ebla survived many centuries into later Bronze Age religion, still active in the religious structure of Ugarit, a western Semitic city that flourished 1000 years after Ebla.[230]

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[227] Jan Assmann, 'Monotheism and Polytheism', in Sarah Iles Johnston, ed., *Religions of the Ancient World: A Guide*, Harvard University Press Reference Library (Cambridge, Mass: Belknap Press of Harvard University Press, 2004), 19.

[228] *ibid.*, 19.

[229] *ibid.*, 25.

[230] Robert R. Steiglitz, 'Divine Pairs in the Ebla Pantheon', in Cyrus H. Gordon and Gary A. Rendsburg, eds., *Eblaitica: Essays on the Ebla Archives and Eblaite Language,* Vol. 4 (Winona Lake, Ind: Eisenbrauns, 1992), 212: 'The fact that all four divine pairs [of the Eblaite pantheon]... are connected with the rituals of the deceased kings of Ebla suggests that the cult of the divinized kingship was one of the more important creeds in the society of Ebla.

Ebla has provided an important missing link to the problem of the origin of god, by demonstrating the early intimacies between royal succession and godhead. In my view, the most likely explanation for theism is the ancestor worship that granted early kings (and possibly the chiefs that preceded them) special authority to rule. From a feminist perspective, this identifies godhead as a patriarchal concept deeply implicated in processes of social stratification. Our knowledge of the importance of pottery and copper in the formation of early hierarchies helps explain why metallurgical gods appear in the earliest decipherable god lists: Enki (the Sumerian equivalent of Akkadian Ea) is listed second on the Fara god list (twenty-sixth century BCE).[231]

It is important to note that the concept of god is also highly variable across antiquity. Ancient pantheons feature both anthropomorphs (human-form gods) and theriomorphs (animal-form gods), as well as various hybrid entities and demi-gods.[232] Throughout the Bronze Age, we find 'great men' and 'great women'—deities who are mortal, corporeal, flawed, defeatable, limited in ability, and restricted to particular geographies and domains. The gods have mothers and fathers, and trace their ancestral lineage to an ultimate origin from a distant splitting (e.g. an initial cosmogonic bifurcation into earth and sky) or parthenogenetic power (e.g. the primordial waters).[233] When the primordial waters are portrayed as a being—like the Sumerian Nammu (called Tiamat by the Akkadians, a parthenogenetic mother who is

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The Ugaritic parallels... indicate just how tenaciously the theology of the divine dynasty was perpetuated in north Syria from the Early Bronze Age onwards.'

[231] A. Archi, 'The God Ḥay(y)a (Ea/Enki) At Ebla', in *Opening the Tablet Box* (Leiden: Brill, 2010), 15-16.

[232] Ancient Egypt was unique in its density of theriomorphic depictions of deities, whereas the rest of the ancient near east typically featured higher densities of anthropomorphic representations. (Copenhaver, CHA, xx).

[233] See discussion in Francesca Rochberg, 'Mesopotamian Cosmology', *Companion to the Ancient Near East,* 316ff.

the origin of all existence)—scribes do not register her as a deity because her very existence acts as a conceptual precursor to divinity.[234] The gods of the early Bronze Age pantheon differed from humans only in scale: they are bigger and faster, more powerful, and more knowledgeable. Giovanni Casadio adds that longevity was greatly extended for gods, although 'with advancing years they waste away, stricken with the infirmities of old age.'[235]

The modern concept of god as omniscient, omnipresent, immaterial, and eternal (without beginning and end) is a very late development. While precursors to this concept of deity were proposed in neo-Assyrian henotheism, oriental mystery cults, and classical Greek philosophical texts, the transcendent model only emerged as a mainstream conceptualisation of divinity in the eastern Mediterranean in late Hellenic and Roman antiquity. (See Chapter 7.) A core feature of the transcendent god is motherlessness—this god self-generates, whereas earlier gods were birthed by goddesses. In chapter six, I will argue that conceptualisations of the transcendent divine are fundamentally metallurgical in their logic and representations.

We can already locate a certain hubris in antique theism: while the rulers of city-states claimed the throne via the authority of tutelary deities, the very concept of god was produced as part of state ideology. By the reign of Gudea (twenty-second century BCE), Sumerian scribes went about the difficult task of integrating gods according to complex patterns of familial connections; from Ur III onwards, all gods were related according to a single divine family's genealogy, with links to each other within a

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[234] Nammu's name is written without standard protocols pertaining to the gods within the pantheon, therefore setting her as a precursor to the very essence of deity. See Gwendolyn Leick, *A Dictionary of Ancient Near Eastern Mythology* (London: Routledge, 1997), 124.

[235] Giovanni Casadio, 'Dionysus in Campania, Cumae', in Giovanni Casadio and Patricia A. Johnston, eds., *Mystic Cults in Magna Graecia* (Austin: University of Texas Press, 2009), 33.

maximum of three generations.[236] Depending on political and dynastic needs, the pantheon could be expanded to include the gods of surrounding peoples by the syncretic means of adoption, assimilation, or drawing equivalences between local and foreign gods with comparable domains.[237] This household model remained relevant for millennia, only replaced by the family-less god of Christianity and Islam.[238]

The domains of gods usually pertain to distinct cosmic realms: the chthonic realm (the vast spaces below the earth), the terrestrial realm (the earth's surface), the atmospheric realm (the domain of weather), the celestial realm (the stars), or the transcendent realm (the extra-cosmic realm beyond the stars). Detailed studies of both the mythic and iconographical representations of deities show a steady trend, throughout the ancient near east, away from chthonic and terrestrial deities and towards astral or celestial ones.[239] In other words, the earliest pantheons afford far more power and authority to deities associated with earthly and subterranean realms; in the Iron Age, these deities either receive a 'mythic makeover' to acquire new

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[236] Alberto Ravinell Whitney Green, *The Storm-God in the Ancient Near East*, Biblical and Judaic Studies from the University of California, v. 8 (Winona Lake, Indiana: Eisenbrauns, 2003), 78.

[237] John F. Robertson, 'Social Tensions in the Ancient Near East', in *Companion to the Ancient Near East*, 225ff.

[238] The Christian concept of God the Father and God the Son (not to mention Mary the mother of God) could be understood to contain aspects of the older household models in which father-son teams acted together. The Islamic concept of divinity removes these last vestiges of the antique pantheon household system. For the father-son collaborations of Ea and Marduk, see chapters three and four.

[239] Beate Pongratz-Leisten, 'Divine Agency and Astralization of the Gods in Ancient Mesopotamia', in Beate Pongratz-Leisten, ed., *Reconsidering the Concept of Revolutionary Monotheism* (Winona Lake, Indiana: Eisenbrauns, 2011), 137-187; Othmar Keel and Christoph Uehlinger, *Gods, Goddesses, and the Images of God in Ancient Israel* (Edinburgh: T. & T. Clark, 1998), 283ff.

celestial powers, or recede in importance, many disappearing altogether. For example, late Bronze Age Canaanites in the Galilee worshipped at least three chthonic and terrestrial deities: El (god of subterranean depths and pottery), Asherah (fertility goddess of wilderness and sea), and Yahweh (god of copper smelting). During the Iron Age, Yahweh was first equated with El (hence the frequent usage of 'Elohim' in the Hebrew scriptures). Yahweh-El was then astralised heavily—he first usurped the atmospheric domains of the storm god Baal and then assumed increasingly celestial representation. The cult of Yahweh also largely replaced the cult of Asherah, absorbing her symbols, rituals, and epithets.[240] Keel and Uehlinger's study of iconography demonstrates that, over the course of the Bronze Age and Iron Age Siro-Levant, goddesses' roles were diminished into obsolescence—deities who once dominated the iconographic record of the Middle Bronze Age were reduced to figurines of mortal temple musicians.[241] The same trend has been noted in Mesopotamia and Egypt.[242]

My approach to these trends necessitates some explanation. My first stance is that goddesses, like gods, functioned as emblems of kingship and class hegemony—they function in the pantheon in the same way that queens and high priestesses functioned at court and in temples. We cannot, then, begin by assuming that the greater presence of goddesses in earlier periods of the ancient near east corresponded to greater levels of women's empowerment. The correlation cannot be that simple. If anything,

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[240] Mark S. Smith, *The Early History of God: Yahweh and the Other Deities in Ancient Israel*, 2nd ed, The Biblical Resource Series (Grand Rapids: Eerdmans, 2002), 47ff.

[241] Keel and Uehlinger, 370-371.

[242] See Frymer-Kensky, 74ff; Ann Macy Roth 'Gender Roles in Ancient Egypt', *Companion to the Ancient Near East*, 232: During the Old and Middle Kingdom, elite Egyptian women served as prophets in the cults of goddesses (mostly Hathor and Neith). Daughters of kings served in the mortuary cults of their fathers. In later periods, 'women's roles in temples seem to have been more limited and specialized.' In the Late Kingdom, women provided music for rituals in honour of male and female deities.

goddesses were lauded by kings and supported by city-states (even as their tutelary deities) because female ancestry, when construed within a broader patriarchal frame, could be ideologically mobilised in support of male dominance. In Mesopotamia, for example, the kings of cities which had female tutelary deities engaged in rituals where they would 'copulate' with the goddess (the *hieros gamos* or 'divine marriage'), an act of sexual contact with the female divine that justified the king's position at the top of the socioeconomic hierarchy.[243] I suspect that goddesses may have been accepted by the late Neolithic or early Bronze Age leading families because they provided focus to the manipulation of meanings around gender, paternal authority, and ancestral origins.

However, we must add two additional considerations. First, we cannot pass off the erosion of goddesses over the course of ancient history as a meaningless trend. If goddesses once were used to establish and maintain kingship, then the expansion of this ultimate patriarchal authority also depended on their gradual removal.[244] Although more research is necessary, I strongly suspect that the erosion of goddesses was part of the strategy of state expansion: as city-states expanded via aggressive conquest (and, in the case of Uruk and Assyria, colonial expansion) to become kingdoms and empires, powerful goddesses who once held relatively independent authority over their domains were domesticated, reduced, and eventually made largely obsolete. In chapters two through five, we will note many examples where scribes from powerful cities rewrite pre-existing mythic narratives to grant their preferred god more power: the male god expands his domains through conquering, banishing, and executing goddesses, and absorbing their functions, epithets, and symbols. The colonial overtones of these narratives are difficult to miss. Goddesses, then, play two contrasting roles: they represent the maternal elements of the ancestral authority of

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[243] Samuel Noah Kramer, *The Sacred Marriage Rite: Aspects of Faith, Myth, and Ritual in Ancient Sumer* (Bloomington: Indiana University Press, 1969).
[244] Frymer-Kensky, 70ff.

kings, while also being rivals of gods who are conquered and erased over time. I will discuss this dual function in more detail in Part Two.

Second, it is important to beware of Judaic-/Christian-centric historical interpretations of the erosion of goddesses. Tikva Frymer-Kensky, whose research spanned Jewish theology and assyriology, made important contributions to the study of goddesses, but expressed a personal preference for the biblical god Yahweh that influenced her interpretations. In her understanding, the maternal and feminine characteristics of Yahweh made him a more appealing deity—she views his absorption of Canaanite goddesses' reproductive functions, domains, and epithets as a positive development.[245] It is understandable that her cultural and faith background would contribute to her analyses, but I desire an approach that stays away from notions of progress or improvement altogether. In my mind, patriarchal polytheisms and monotheisms are far more similar than they are different. This reality is obscured by the fact that almost all scholarship produced on the ancient near east is informed by a cultural background dominated by monotheism, and hence prioritises the number of gods in a system as a major difference.[246]

Mythopoesis and historiography

At the most essential level, *Listening to Birth* is a study of mythopoeic techniques—that is, the creation and performance of narratives concerning the divine and the primordial. While we possess ancient near eastern myths in written form, they would have been publically performed by royal and temple personnel for the wider populace—when reading myths, we must always assume that their most common form was a visual, vocal, and gestural display.[247]

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[245] Frymer-Kensy, 162-172.

[246] See chapter seven for a more detailed discussion of these distinctions.

[247] Gregorio del Olmo Lete, *Canaanite Religion: According to the Liturgical Texts of Ugarit*, 2nd ed., Alter Orient Und Altes Testament, Bd. 408 (Münster: Ugarit-Verlag, 2014), 8ff. del Olmo Lete emphasises that there are no subjects of epic tales or mythic narratives—there are

It remains very difficult (and often impossible) to accurately determine the extent to which any one myth corresponds to a specific historical event or movement. While most scholars read myths as stories without concrete connection to actual events, we have already noted that longer-term historical changes (like the spread of smelting technologies) or power structures (like the rise of aristocracies) could be the impetus for the writing or redaction of myth.[248] Throughout *Listening to Birth*, I assume that the broader needs of the powerful are reflected in mythopoesis, and use this as a basis for analysing and comparing texts.

In my view, the act of recording myths in *written form*, while clearly connected to performance practices, has an independent function. On the simplest level, the writing of myths serves to preserve them and record them. Written copies of myth may afford them greater stability, offering a somewhat definitive myth in a context where many oral traditions may co-exist. On a more complex level, we might posit that writing itself was a meaningful activity that carried its own cultural weight. States expended extensive resources on maintaining scribal houses, temples, and ritual calendars.[249]

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only performers acting on behalf of temple authorities. When reading myths, we must imagine sequences of cultic actions saturated with symbolism directly active in the society. In addition, del Olmo Lete notes that temples would have performed the sounds of the gods, including the crashing of the storm god's thunder.

[248] While I do not attempt to pinpoint one historical event as the background to any particular myth, it is worthwhile to note that scholars have sometimes made these identifications. For example, Robert Graves has proposed that the myth of Perseus slaying Medusa tells the story of the Aegean conquests of foreign lands in the thirteenth century BCE, and that it also contains an origin story for the Greek alphabet, which the Greeks acquired from their Semitic neighbours to the south. Robert Graves, *The White Goddess: A Historical Grammar of Poetic Myth*, ed. Grevel Lindop, 4. ed., Faber paperback (London: Faber and Faber, 1999), 222ff.

[249] For example, the Hittite royal library in Hattuša (fl. seventeenth to thirteenth centuries BCE) was discovered by archaeologists to contain over 30 000 individual tablets. The scribes of Hattuša produced a wide range of texts, including administrative documents, myths,

The origins of the first writing systems give us clues as to the economic significance of written language: for centuries, writing was exclusively used to record the acquisition, volume, and distribution of resources.[250]

Reinhard Bernbeck emphasises that the written record of the ancient near east expresses 'the interests of those past people who also had reason to strive for an overview of socio-political structures', that is, the sociopolitical elite.[251] Writing, whether administrative or narrative, transmits the needs and perspectives of the powerful and the picture of society they found most useful. If historians 'try to capture "fully" what happened in a remote past by conceiving of the past as an entity that has coherence'—an approach Bernbeck strongly discourages—they end up merging modern assumptions with the narrative biases of those who controlled writing in antiquity.[252]

The alphabet itself is an example of the complex layering that can occur when writing about writing. From its earliest development in southern Mesopotamia, the act of writing has carried heavy metallurgical resonance: the first pictographic and proto-cuneiform writing systems were developed for administrative management of metal-trade colonies.[253] (See Illustrations: Image 2) Likewise, the first 'alphabetic' writing systems (i.e. the Ugaritic and Phoenician abjads) were derived from proto-Sinaitic, a

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legends, annals, translations, god lists, and ritual formulas. They also copied texts from other scribal centres in the ancient near east, including Egyptian and Babylonian materials. See description in Lionel Casson, *Libraries in the Ancient World* (New Haven: Yale University Press, 2001), 5-7.

[250] Aubet, 158, 160. Lerner, 57.

[251] Reinhard Bernbeck, 'Class Conflict in Ancient Mesopotamia: Between Knowledge of History and Historicising Knowledge', *Anthropology of the Middle East* 4, no. 1 (January 1, 2009), 36.

[252] *ibid.*

[253] Marc van de Mieroop, *Cuneiform Texts and the Writing of History* (London: Routledge, 1999), 13.

shorthand of hieroglyphs developed by Canaanite labourers working in Egyptian mines to facilitate communication along the mine shafts.[254] While writing this thesis, my realisation that the alphabet has metallurgical roots made me reconsider the role of writing in feminist work: the alphabet, which I had not considered as possibly being encoded with any bias or value in itself, is in fact a gendered technology. The scribal schools and the mines both possessed technologies—hieroglyphs and metallurgy—which were applied according to the interests of the king. This gendered landscape merged within mine shafts to produce the phonetic scripts on which my research depends.

Bernbeck has criticised scholarship that uncritically takes upper-class history to represent a complete history—he advocates historiographical approaches that assume the agency and reflexivity of people who were marginalised by the centralisation and growth of ancient states. He asks, 'Can we really assume that Neolithic revolutions or an urbanisation process went unchallenged? Is it not clear from the description of the emergent diversification of society and divisions of labour that those who had to lose in the process were not obliging blindly?'[255] My analyses, despite their focus on elite men, are based on the assumption that the technologies of writing and mythopoesis

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[254] Recent discoveries have revealed the earliest attested proto-alphabetic writing systems, located within the shafts of Egyptian turquoise and galena mines in the Sinai. The Canaanite miners working in the mines, who were unable to write in hieroglyphs, developed a shorthand based on hieroglyphic shapes which corresponded to the sounds of familiar words. The Phoenician traders who managed the mines for the Egyptians adopted the miner's shorthand, which resulted in the first alphabetic script. Alphabetic writing was only popularised after the fall of the large empires, when the scribal houses' monopoly on literacy (using the difficult cuneiform and hieroglyphic systems of writing) was weakened. Orly Goldwasser, 'How the Alphabet Was Born from Hieroglyphs', *Biblical Archaeology Review* 36, no. 02 (April 2010): 40–53; Yosef Garfinkel et al., 'The ʾIšbaʿal Inscription from Khirbet Qeiyafa', *Bulletin of the American Schools of Oriental Research*, no. 373 (2015).

[255] Bernbeck, 38.

were developed *precisely because* state authority was unstable. Throughout *Listening to Birth*, I will return to the question of why men feared vulvar vocality. I believe that the enormous effort put into the mythopoeic management of female vocality and sexuality reveals that, at least within patriarchal imaginaries, women were capable of wielding power than might challenge the *status quo*. However, I do hold that analyses should be humble in the face of the incompleteness of the historical archive—we possess virtually no writings by slaves, peasants, or other marginalised classes. Therefore, I limit my assertions to what I do have—that is, texts written by and for powerful men—and contain my extrapolations regarding women's lives within the realm of informed conjecture.

There are three classes of myths that appear throughout *Listening to Birth*: cosmogonies (stories of the origins of the world), theogonies (origins and genealogies of the gods), and anthropogonies (origins of humanity). However, not all anthropogonies relate the origins of women and men together—many tell the story of one or the other gender separately, or each in turn. In ancient Mesopotamian myths, women or wombs are created first. In the Hebrew scriptures, the creation of Adam (which is curiously duplicated in the narrative) precedes the creation of Eve.[256] In ancient Greek narratives, men and women have radically different origins—an entire species of men existed in harmony before being punished by the gods with the creation of Pandora by the divine metal smith Hephaistos.[257] Each version of mankind

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[256] Genesis contains two anthropogonic narratives: the first, in Genesis 1, features 'Adam' (lit. 'a man') made 'male and female' (widely interpreted as an androgynous human form); the second, in Genesis 2, features the fashioning of Adam from clay and his placement in the garden of Eden, followed by the extraction of Eve from Adam's form. The complexity of this narrative caused much conflict in antiquity, as discussed in chapter six. Modern scholars attribute this to redaction by the Elohist and Jahwist contributors to the text. See studies in Linda S. Schearing and Valarie H. Ziegler, eds., *Eve and Adam: Jewish, Christian, and Muslim Readings on Genesis and Gender* (Bloomington: Indiana University Press, 1999).

[257] Hesiod, *Works and Days* 54ff.

and womankind's origins is rife with particular value judgements regarding the natural (that is, ideological) value, attributes, and rank of each gender. Therefore, I have found it useful to occasionally distinguish two subtypes of anthropogonic narratives, using the terms 'androgony' (origin of man) and 'gynogony' (origin of woman).[258] In a similar vein, it is important to note that my use of the terms 'human' and 'man' (and their various derivatives) are always intentional—never do I use the term 'man' to refer to humans as a whole. Therefore, phrases such as 'mankind's origins' or 'when the gods created man' refer to androgony only.

Part Two: Debates

Symbolism: Debates in archaeology and the study of myths

Despite vast textual archives, most of the knowledge we have of ancient near eastern culture and religion is connected to the field of archaeology. Texts discovered during archaeological expeditions are but one part of a vast 'material culture' unearthed in the layers of tells. Tells remain highly visible on the modern landscape of the near east, as mounds rising up from the surrounding land, the result of centuries (sometimes millennia) of settlement and accumulation. When archaeologists study tells, they start at the highest (least antique) level of settlement, and slowly sift their way down towards the lowest level (most antique) settlement that was built on soil or sand. All the while, they carefully catalogue each find and feature of note. The temporal aspect of archaeological data provides snapshots of how material culture changed and fluctuated.

[258] To my knowledge, these terms are not used in current scholarship. The only usages I have found are in late nineteenth-century and early twentieth-century French biology texts. I, of course, use the terms differently, but the basic meaning derived from the Greek remains the same.

The processes of digging and cataloguing form the first stages of interpretation: archaeologists make key decisions as to what is valuable and what is not, based on their own cultural assumptions. The items deemed valuable are then taken to represent the material culture of past peoples, with researchers seeking meaningful patterns that will reveal information about ancient peoples' internal worlds (e.g. beliefs, ideas, values) and external worlds (e.g. social structures and interactions). Archaeologists are forced to continuously engage with difficult debates regarding the recognisability and understandability of the past, and thus the field has shifted dramatically in how it collects and interprets data.

In the mid-twentieth century, many archaeologists operated with the assumption of civilisation as progress. For example, when Mellaart first excavated Çatalhöyük, he understood the density of female figurines to represent a culture with a religion centred around female fertility deities.[259] This primitive religion, in his view, progressed towards patriarchal culture and paternalistic religion, with its greater technological achievements.[260] Mellaart's strong conviction to a prior model of

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[259] James Mellaart, *Çatal Hüyük: A Neolithic Town in Anatolia* (New York: McGraw-Hill Book Company, 1967), 184: 'the goddess presided over all the various activities of the life and death of the Neolithic population of Çatal Hüyük.' He understands the Goddess to be the chief deity, assisted by the son she births. The goddess also appears as a mother-daughter pair. (201)

[260] Mellaart understands Çatalhüyükian religion to express the process of 'Neolithic man... [learning] to dominate nature through animal domestication and agriculture', with his gods gradually acquiring power over wild life. (181) 'Neolithic woman was the [original] creator of Neolithic religion', and thus the imagery of the cite focused on 'breast, navel and pregnancy; instead of genitalia, 'for emphasis on sex in art is invariably connected with male impulse and desire.' (202) Here we can see that Mellaart relies on a primitive notion of sexless, maternal womanhood—this sets the Çatalhüyükians apart from later male-dominated religions of more technologically advanced peoples. He constantly returns to the theme of

human progress influenced his catalogue and his interpretations—no recent scholarship has held that Çatalhöyük was a matriarchal society.[261] However, in Mellaart's time, these universalising and eurocentric views of progress were current in academia, also found amongst certain historians.[262]

Discontent with grand narratives and over-generalisations led many archaeologists to turn to increasingly empirical methods. The 'hypothetico-deductive method', popular among processual archaeologists in the 1960s and 1970s, used large-scale models of the 'ecological or adaptive factors' that impacted human cultural evolution to interpret archaeological findings.[263] However, these methods also relied on universalising assumptions. As Norberto Guarinello says, the interpretations produced by these empirical archaeologists were 'based on models of a universal character: on any given level in the evolutionary scale, societies in the same adaptive situation would display the same correlations or regularities between technology, social organisation and social symbols or ideology.'[264] In the 1980s, the influential 'post-processual'

Çatalhüyük as a 'vanguard of Neolithic progress', a culture progressing away from primitiveness. (201)

[261] See below for discussion of goddesses and archaeology.

[262] *The Forge and the Crucible* is a good example: Eliad's overall argument is for a progression from mother-based religion to father-based religion, the former being a more primitive expression of human civilisation. Eliade's work will be discussed in more detail in chapter three.

[263] Norberto Luiz Guarinello, 'Archaeology and the Meanings of Material Culture', in Pedro Paulo A. Funari, Andrés Zarankin, and Emily Stovel, eds., *Global Archaeological Theory: Contextual Voices and Contemporary Thoughts* (New York: Kluwer Academic/Plenum Publishers, 2005), 20.

[264] *ibid.*, 20. Paul Shackel and Barbara Little have listed the scholarly critiques of processual archaeology as follows: 'uncritical acceptance of positivism, stress on functionalism and environmental adaptation, behaviorist emphasis on biological directives, disdain for emphasis on social relations or cognition or ideology, lack of concern for the present social production

archaeologists at the University of Cambridge shifted the field's focus towards material culture as discourse, reading objects (at least in part) as texts. Within the post-processual approach, '[o]bjects are no longer considered simple and passive reflections of technology or social organisation. Material culture is considered to be an active, structuring dimension of human societies and its meanings.'[265]

Perhaps the most valuable contribution of post-processual theory was its interrogation of empiricism as eurocentric. Ian Hodder, the central figure of the post-processual approach, has rejected the standpoint of intellectuals as controllers of truth and justice, who can speak from a universal standpoint (either in terms of civilisation's progress or empirical truths).[266] He insists that scientific approaches are unable to explain how 'symbolic meanings' are 'organised by rules and codes' that are specific to, but consistent within, a particular culture.[267] He also emphasises that the mechanistic view of society fails to capture the way that '[a]ll human action is... creative and interpretive' and that meanings are 'actively constructed' rather than 'passively absorbed'.[268]

Post-processual archaeologists frequently use the term 'symbol', and phrases such as 'symbolic principles', 'symbolic meanings', and 'structures of meaning'. These terms, however, are clearly difficult for archaeologists to define, partly because of the particular challenges archaeologists face when working without texts. Hodder, for instance, purposefully references a wide range of theorists across linguistics,

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of knowledge, overemphasis on stability rather than conflict, reduction of social change to effects of external factors, and belief in quantification as the goal of archaeology.' In 'Post-Processual Approaches to Meanings and Uses of Material Culture in Historical Archaeology', *Historical Archaeology* 26, no. 3 (September 1, 1992): 5.

[265] Guarinello, 20.

[266] Ian Hodder, *Theory and Practice in Archaeology*, Material Cultures (London: Routledge, 1998), 4.

[267] *ibid*., 11.

[268] *ibid*., 15, 16.

sociology, and anthropology to attempt a definition that can be used for understanding material culture. He holds that 'symbols are actively involved in social strategies', operating via rules or principles that formulate 'structures of meaning...[with] identifiable patterns [that] are transformations, often contrasting, disrupting or commenting on basic dichotomies and tensions within the social system and within the distribution of power.'[269] Here, Hodder seems to draw on both symbolic interactionism and structural semiotics: he approaches material objects with the goal of 1) reconstructing how individual people interact with each other and with their material environment; 2) determining evidence for larger-scale social structures and institutions; and 3) understanding how the dynamic interplay between interaction and structure produce meanings through the manufacture and use of material objects. Hodder references the tradition of understanding the symbolic in terms of linguistic signs—however, he acknowledges that there is no easy way to apply linguistic categories to material culture.[270] In other words, a material object usually functions as both sign and referent, with the features of its materiality shaping its reference potential; the meanings of material objects are largely formed through their practical use.[271]

The simple points taken from the post-processual approach to symbolism are 1) that symbols are not random, but operate according to rules and patterns; 2) that symbols interact with text and speech, but cannot be subsumed within linguistic categories; 3) that the actual creation and use of material objects gives the symbols they bear much of their meaning; and 4) that symbols are employed as part of social strategies which contribute to the formation and reproduction of systems of power. In this vein, Hodder defines ideology as 'the use of symbols in relation to interest' and holds that ideologies possess such power to naturalise constructs precisely because the symbols

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[269] *ibid.*, 41, 24.

[270] *ibid.*, 201.

[271] *ibid.,* 202-3.

employed within ideology come from the material world.[272] Symbolic meanings are made up of associations and metaphors linked to the physical and procedural experience of daily life, and are therefore quite easily misconstrued as natural by the individuals living within a culture.[273]

Guarnello has provided a useful summary of the definitions of symbolism found in archaeology: first, that symbols correspond to linguistic signs, and thus have arbitrary but very precise meanings; second, that symbols relate to signs 'which are not completely arbitrary, but are produced by metaphors, analogies and metonymies, etc.'[274] Within the latter understanding, symbols 'allude to things which cannot be expressed by words... as signs with a surplus of meaning... [operating as] a statement of social meanings, of shared beliefs, common identities or even social conflicts.'[275] Guarnello disagrees with the post-processualists in that he does not believe that all material objects constitute or contain symbols; instead, he holds that meaning making as a whole is more broadly connected to communication.[276]

When studying myths, some of these difficulties are mediated by the availability of texts; however, the main theoretical questions remain. Egyptologist Jan Assmann emphasises the importance of identifying the background to myths, which he identifies as a 'pre-mythic complex of ideas'.[277] For example, Semitic myths commonly feature a dragon emerging from chthonic depths to threaten the pantheon

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[272] *ibid.*, 208.

[273] *ibid.*

[274] Guarnello, 22.

[275] *ibid.*, 22.

[276] *ibid.*

[277] Jan Assmann, 'Die Zeugung des Sohnes. Bild, Spiel, Erzählung und das Problem des ägyptischen Mythos' in Jan Assmann, Walter Burkert, and Fritz Stolz, *Funktionen und Leistungen des Mythos: Drei Altorientalische Beispiele*, Orbis Biblicus et Orientalis 48 (Freiburg, Schweiz: Göttingen: Universitätsverlag; Vandenhoeck & Ruprecht, 1982), 13-61. See discussion in Keel and Uelinger, 12-13.

or cosmos—Assmann would understand this narrative to be based on a pre-existing complex of ideas around reproduction and military conflict. In his terms, 'mythic speech' relates chthonic depths to copulation, and dragons to armed conflict.[278] Neither the pre-mythic complex of ideas nor mythic speech necessarily culminate in myths, but are the preliminary step in the formation of a constellation of ideas.[279] In the case of dragon lore, the constellation of ideas surrounding the image of the dragon involves forces of evil or chaos who bring imminent destruction to goodness and civilisation, and construe the chaos as a foe that can be overcome by a hero. This constellation is then expressed in a wide range of myths, including the Babylonian *Enuma Elish* (where the hero Marduk slays the dragon Tiamat), the Ugaritic *Baal Cycle* (where the hero Baal overcomes the dragon Yamm), the Egyptian myths of solar rebirth (where many gods gather to slay the dragon Apophis), the Hebrew scriptures (where Yahweh slays the dragon Leviathan), the Greek myths (where Apollo slays the dragon Python), and the early medieval Christian legend of Saint George. When studying Egyptian myths, Assmann noted the high degree of similarity between Egyptian and other ancient near eastern mythic corpora, leading him to conclude that ancient myth writers had access to a limited number of basic constellations of mythic idea complexes.[280] The dragon is a symbol (Assmann would term this an 'icon') that can be detached from myth and used in a wide range of discursive and iconographical contexts—for example, as part of royal regalia depicting the king in command of dragons. However, each usage somehow references the basic underlying narrative or constellation of ideas regarding mastery over a powerful threat.[281]

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[278] *ibid.*

[279] *ibid.*

[280] *ibid.*

[281] Appendix C contains a list of various ancient near eastern draco-serpentine icons, distinguishing between various constellations of ideas.

Keel and Uehlinger have adapted Assmann's framework to analyse iconographies found on Levantine amulets, which, although dated to the literate era, are often only loosely connected to an extant written myth. Keel and Uehlinger describe their scholarly tasks as follows 1) to identify and describe signs (Assmann's icons); 2) to search for coherence and order within the network of concepts associated with the signs; 3) to determine the role each sign plays in the broader network; 4) to determine the relationships between signs and their relative weight and significance within the network.[282] When these tasks are completed, the scholar will have a better understanding of the symbolic system that produced the iconographies.[283] In chapter two, I apply a similar process to the symbols of tree and stone: 1) determining the identity and characteristics of tree and stone as a dyad functioning in mythic poetry and ritual iconography; 2) analysing all known instances of the dyad, to look for coherent patterns in its use; 3) examining the ways in the which the dyad operates in the broader network of concepts of reproduction and gender; and 4) comparing the functions of tree and stone in relation to related symbols, including womb, lightning, flame, and bronze.

For the purposes of this thesis, I have adopted aspects of many approaches to symbolism, meaning, and causality. My attention to metallurgical technologies in the development of social hierarchies does assume that technological change exerted strong social force and was implicated in state-craft. I also assume some level of causality in the relationship between resource availability and the rise and fall of states.[284] However, my attention to mythopoesis is also based on the assertion that the technological capacities of any particular social group mattered less than what the people in that group (especially those in power) *thought* about the technologies. In other words, it is technology's symbolic functions that affords it such potency for

[282] Keel and Uehlinger, 13.

[283] *ibid*., 7.

[284] See above for discussion of environmental pressures.

state-craft and social stratification. In agreement with Hodder, I understand the symbolism associated with metallurgy to be strongly linked to its material features and practical use. Derevenski's study brings this relationship to the forefront—metal's seeming immortality made it useful for performing nascent concepts of time, ageing, and physical completion; whereas metal's usefulness for weaponry made it a likely symbol employed in performances of superiority and strength (implying threats of lethal force). However, in my view, the interpretation of immortality into metal was a choice, not an inevitability. Likewise, blades have many uses, and it was not an evolutionary inevitability that humans would prioritise weaponry over other utility (like cooking, carving, harvesting). I allow for some levels of violence in human interactions, but I hold that the standardisation, proliferation, and institution of particular forms of violence (warfare, slavery, rape) should never be construed as natural or innate.

Archaeologists who specialise in prehistoric societies are faced with the difficult task of interpreting material culture where there is no corresponding textual record. Fortunately, nearly all of the material objects included in chapters two through six are directly associated with texts produced within the same social milieu. Archaeologists of prehistory must also contend with the difficult task of determining which aspects of material culture constitute symbols and which do not. Because *Listening to Birth* studies the manufacture of myths in urban centres in the Bronze Age and Iron Age, these ambiguities surface less frequently. In most cases, it is clear that scribes and artisans are employing a particular symbol—for example, the symbol of the morning star, the lightning bolt, or the witch's tongue. Generally, I have only discussed symbols etched or painted on material objects when they are described in myth clearly enough to make confident identifications of equivalence or derivation.[285] Chapters

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[285] In general, I have deferred to the expertise of specialists in the field to make these identifications and have attempted to follow the academic debate to check for critiques of mis-identification.

four and six contain analyses of magical incantation procedures—these texts include explicit directions for how to manufacture symbols, along with instructions for their proper use so that they correspond appropriately with established myths.

My methods, therefore, rely on maintaining a dialogue between research methods designed for iconographic and textual sources, to emphasise the way in which visual symbols are integrated into narrative. In general, when I use the term ‘symbolism’, my focus on the use of specific material objects or images to create meaning (which can be expressed in text); when I use the term ‘semantic realm’, I refer to the narrative elements associated with a specific symbol as it is found across the textual record.[286]

This is especially significant when considering symbolisms related to female sexuality and maternity. These have proved extremely contentious, with scholars struggling both with their own unrecognised biases and the complexity of gender in the historical archive. However, my approach to symbolism and materiality provides some guidance. In my view, gendered symbolisms are based on material realities—to use a simple example, the uterine symbols etched in Graeco-Egyptian amulets are conceptually linked to real human uteruses.[287] In a more complex case, we might assume that mythic depictions of midwifery are somewhat based on actual midwifery skills, whether contemporary to the myth or transmitted from the distant past.[288] Myths and incantations contain practical details about birth—amniotic fluid, placentas, umbilical cords, post-natal haemorrhages, puerperal fevers. But in all of these cases, female bodily realities are only the very beginning. Myths tell us about *what women meant* to the men who controlled the writing, performance, and

[286] I have patterend my approach to identifying and analysing semantic realms from Blakely.

[287] For a discussion of this case, see chapter six.

[288] For a discussion of this case, see chapter three.

distribution of myths.[289] According to Guarnello, 'what written sources offer us are just possible interpretations, by contemporary men, of the meanings of some of the objects or images they used to employ and see.'[290] From a critical perspective, we must add considerations of power and reproduction of power, to consider how women's bodies might be rendered objects and images for patriarchal interpretation. Therefore, we might say that uterine symbols are part of a network of signs from which many layers of meaning-making emerge: while these meanings are not entirely divorced from women's bodies, skills, crafts, and material culture, they culminate in patriarchal imaginaries of female reproduction and the ideological deployment of female bodies for patriarchal ends. Uterine symbols, for example, can be absorbed into the ideological regalia of kingship.

Analytical approaches must therefore balance three considerations: first, the possible cultural and material background to myths; second, the ideological interventions into the meanings associated with this background; and third, the possible effects of ideology on social structures and interactions. In reality, the historical record provides far more evidence for ideological interventions than for either their background or impact. While this should not prevent researchers from proposing possible solutions, these should always be understood to be tentative, not absolute, for they will inevitably be heavily informed by modern assumptions. The ideological interventions themselves are, fortunately, very loud—in the ancient near eastern record, scribes make their points about gender with much stomping and bellowing and extravagant sexual gestures. Our attention to ideology leads us to pay attention to this cacophonous performativity: *Why are these performances of masculinity and violent paternity necessary? What social alternatives or patriarchal vulnerabilities*

[289] Marsman notes that nearly all ancient near eastern scribes were men who related elite, androcentric views—the few female scribes had a much more limited work life, as they tended to serve elite women in harems. Marsman, 43.
[290] Guarinello, 25.

necessitated these performances? Feminist colleagues who have read my analyses have sometimes commented on the nauseating repetitiveness of displays of male virility and domination in ancient texts and icons—this repetition is itself indicative of re-enforcement, which in turn demonstrates the inherent instability of ideology that must be continually performed to maintain the mask of naturalness.

Trouble with gender

Blakely emphasises that, when interpreting a particular symbol found in textual or iconographic sources, it is important to consider all of the semantic realms associated with that symbol, not merely the ones we might find compelling.[291] The habit of picking and choosing is in some ways unavoidable, for we are all guided by our own curiosities and fascinations—as I will discuss in chapter five, Blakely herself, despite the broad scope and depth of her analyses, is no exception. Scholarship on gender in antiquity occupies the entire spectrum, from highly presumptive studies dominated by uncritiqued gender stereotypes, to extremely cautious studies almost paralysed in their hesitancy to think beyond the very lowest levels of abstraction. In my mind, the goal of rigorous feminist historical research is to find a middle ground. I define rigour as balancing a dedication to understanding the local conditions within the complex geography of past cultures, with a commitment to understanding larger social structures and identifying patterns of domination and resistance that extend beyond the local.

Feminist utopia and the origin of goddesses

I will only briefly comment on the debate concerning matriarchy in the Neolithic—there is an abundance of literature on the topic from all viewpoints, and I will only outline these debates in terms of my own approach. To begin, we must acknowledge that the theory of matriarchy (espoused by Bachofen, Mellaart, and their followers) was first proposed by men who believed that *mutterrecht* (or mother-rule) was the

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[291] Blakely, 10.

most primitive expression of human social organisation.[292] The writings of some of these scholars, particularly Bachofen, drip with misogyny: they associate women, on account of their physiology, with the terrestrial and the primitive; whereas, they associate men with the celestial and with technological advancement and civilisation.[293] The concept of matriarchy was popularised among women in the 1960s, a time of intense creativity by feminist scholars and writers who were establishing women's histories and women's voices in writing.[294] Lucy Goodison and Christine Morris have noted that, across the publications (both within and beyond

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[292] In *Das Mutterrecht* (1861), Johann Bachofen proposed two primitive forms of human cultural evolution: the first, a nomadic, polyamorous, and communistic society centred around proto-Aphrodite; the second, a matriarchal agricultural society centred around proto-Demeter. Only upon the eradication of these cultural systems was modern civilisation able to emerge (beginning with the patriarchal solar cult centred around Apollo). Bachoften's ideas influenced James Frazer, Robert Briffault, and Carl Jung, among others. In their critical essay, Lucy Goodison and Christine Morris clarify that the notion of a Mother Goddess and her son-consort became a catch-all framework for the interpretation of 'primitive' religion. These ideas were further developed by Erich Neumann (*The Great Mother* 1955), Osbert Guy Stanhope Crawford (*The Eye Goddess* 1957), Edwin Oliver James (*The Cult of the Mother Goddess* 1959). This intellectual environment impacted the work of James Mellaart, the archaeologist who discovered Çatalhöyük, and Marija Gimbutas (*The Language of the Goddess* 1989). Although her work appears at the end of a long chain of male-authored texts, I have noted that it is Gimbutas' writings that have received the most vitriolic critique. See overview in Lucy Goodison and Christine Morris, 'Exploring Female Divinity: From Modern Myths to Ancient Evidence', in Lucy Goodison and Christine Morris, eds., *Ancient Goddesses: The Myths and the Evidence* (London: British Museum Press, 1998), 7-8.

[293] Ronald Hutton, 'The Neolithic Great Goddess: A Study in Modern Tradition', *Antiquity* 71, no. 271 (March 1997): 91-93.

[294] Helen Diner's *Mother and Amazons* (1965), Elizabeth Gould Davis' *The First Sex* (1971), Merlin Stone's *When God was a Woman* (1976), and Carol Christ's 'Why Women Need the Goddess' (1978) did much to popularise goddesses within feminist literature.

feminism), the concept of ‘goddess’ was strangely monotheistic: while the historical archive is replete with diverse female representations and deities, the late-nineteenth and mid-twentieth century scholarship tended to focus on a singular entity, the Mother Goddess, who can be found at the very beginnings of all cultures.[295]

I understand the concept of matriarchy to have two valid roles in feminist writing: first, as a tool used in feminist manifestos to strengthen their iconoclastic breaking of patriarchal assumptions;[296] second, as a basis for feminist utopian literature, which develops experimental imaginations of possible worlds where female suffering is not core to social structures.[297] As modern scholars and writers, we owe much to these women’s efforts, and our criticisms of their writings should always be tempered by the recognition that they were among the first to open up the possibility of doing this type of feminist work in literature. Goodison and Morrison, in their overview of feminism in archaeology, recognise that the early writings on goddesses raised issues of power in the interpretation of the historical and archaeological record that disturbed long-held academic prejudices, while also propelling the democratisation of archaeological knowledge.[298] It is regrettable, however, that universalising literature on goddesses continues to be produced, despite the fact that many of the historical claims key to theories of matriarchy have been disproved.[299]

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[295] Goodison and Morris, 13.

[296] For example, see Mary Daly, *Quintessence ... Realizing the Archaic Future: A Radical Elemental Feminist Manifesto* (Boston: Beacon Press, 2016). Although goddesses feature in Daly’s work, she does hold that women must invent female divine power that never truly existed.

[297] For example, Maaia, the Goddess of Motherhood, appears in Charlotte Perkins Gilman’s *Herland* (1915), which portrays a utopian, female-only society.

[298] Goodison and Morris, 13.

[299] Academic rebuttles of the feminist theory of matriarchy can be first found in Peter J. Ucko, ‘The Interpretation of Prehistoric Anthropomorphic Figurines’, *The Journal of the Royal Anthropological Institute of Great Britain and Ireland* 92, no. 1 (1962): 38–54; Stuart Piggott,

In my understanding, the theory of matriarchy makes several common errors in interpreting the past. First, it largely depends on evidence collected in a small number of excavations—much of the empirical basis for the theory of matriarchy depended on early investigations at Çatalhöyük, whose culture was taken to represent the Neolithic as a whole, which was believed to reflect biologically determined and therefore universal concepts of reproduction.[300] We have already noted that universalising interpretations of archaeological data were norm within archaeology until recent decades; one also need not look far to find interpretations resting on crude biological determinism.[301] Second, the interpretations equated female figurines with female

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Ancient Europe, from the Beginnings of Agriculture to Classical Antiquity: A Survey (Edinburgh: Edinburgh University Press, 1969); Andrew Fleming, 'The Myth of the Mother-goddess', *World Archaeology* 1, no. 2 (October 1, 1969): 247–261. More recent and balanced critiques can be found in Lucy Goddison and Christine Morris, ed., *Ancient Goddesses* (1998), and in Hutton.

[300] See critiques below.

[301] A currently well-funded area of research addresses the problem of the 'human obstetrical dilemma', which is based on the theory that bipedal locomotion (involving evolutionary changes to the pelvis) and increased brain size have made the process of human birth far more dangerous than that of other mammals. These studies are heavily invested in an obstetrical narrative of pathological female anatomy, which has been used to justify interventionist approaches to maternity care. Midwifery literature and feminist anthropological literature generally reject the premises of the obstetrical dilemma problem, focusing on bodies as dynamic, on the role of patriarchal cultures and institutions in creating obstetrical problems, and on the theory of the obstetrical dilemma as a particular cultural product. For examples of biological determinism in studies of pelvic evolution, see Laura Tobias Gruss and Daniel Schmitt, 'The Evolution of the Human Pelvis: Changing Adaptations to Bipedalism, Obstetrics and Thermoregulation', *Philosophical Transactions of the Royal Society B* 370, no. 1663 (March 5, 2015). For a more critical approach, see Karen Rosenberg and Wenda Trevathan, 'Bipedalism and Human Birth: The Obstetrical Dilemma Revisited', *Evolutionary Anthropology: Issues, News, and Reviews* 4, no. 5 (January 1, 1995): 161–168. For feminist

deities, assuming that human beings have always had gods. There is nothing simple about identifying which figurines represent mortals and which represent deities, or even which figurines might represent ideal or monstrous forms that do not fit into either category.[302] Again, the assumption that deities have always existed is still commonly expressed in academic literature, despite there being no evidence base for this assertion.[303] Third, the entire concept of matriarchy rested on the high number of female figurines at Çatalhöyük, compared to relatively few male figurines. The number of representations was assumed to be correlated with the extent of social power. However, it is not clear what these figurines meant or how they might have correlated to women's value within the community living at Çatalhöyük.[304] Recent discovery of an earlier Anatolian Neolithic settlement has shattered scholarly assumptions that the Neolithic was characterised as a whole by female imagery—Göbekli Tepe, a settlement built near a stone quarry, is replete with ithyphallic figures.[305] In later periods, we encounter patterns of female representation in Dynastic Egypt, which also featured a high density of female figurines—in this case, textual references help us understand that many of these were pornographic images, not

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critique, see Dana Walrath, 'Gender, Genes, and the Evolution of Human Birth', in Pamela L. Geller and Miranda K. Stockett, eds., *Feminist Anthropology: Past, Present, and Future* (Philadelphia: University of Pennsylvania Press, 2006), 55-69.

[302] See Hodder's commentary on these difficulties in 'Gender Representations and Social Reality', in *Theory and Practice*, 254ff.

[303] F. Shults, 'Excavating Theogonies: Anthropomorphic Promiscuity and Sociographic Prudery in the Neolithic and Now', in Hodder, ed., *Religion at work,* 58-85.

[304] Hodder, *Theory and Practice*, 254ff.

[305] Ian Hodder and Lynn Meskell, 'A "Curious and Sometimes a Trifle Macabre Artistry"', *Current Anthropology* 52, no. 2 (April 1, 2011): 235–263; E. B. Banning, 'So Fair a House: Göbekli Tepe and the Identification of Temples in the Pre-Pottery Neolithic of the Near East', *Current Anthropology* 52, no. 5 (October 1, 2011): 619–60.

empowering ones.[306] In sum, there are no easy or convenient interpretations of prehistoric representations of female bodies, and the question of how to understand the density of female figurines at Çatalhöyük is still subject to debate.[307]

These types of mistakes continue into the interpretation of Bronze Age religion. Compared to the poverty of powerful female figures in Abrahamic monotheisms, Bronze Age polytheisms appear to abound with powerful, sexual female deities. The goddess Anat, for example, has powerful wings with which she soars into the heavens; Ugaritic poetry lauds her pleasure in copulating with her consort; she seems to remain child-free and delights in the bloodshed of battle, even rescuing her own consort from his enemies.[308] At first glance, these seem refreshing anecdotes to representations of domesticated femininities, in which women are seen as physically weak and less virile than men. Robbie Kahn has written of her admiration for Sumerian love poetry depicting the sexual desires of the goddess Inanna.[309] The goddess Ištar, who was Inanna's Semitic counterpart, was renowned for her gender-

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[306] See Julia Asher-Greve and Deborah Sweeney, 'On nakedness, nudity, and gender in Egyptian and Mesopotamian art', in Silvia Schroer, ed., *Images and gender: contributions to the hermeneutics of reading ancient art*, Orbis biblicus et orientalis 220 (Fribourg: Academic Press, 2006), 132. In Egyptian texts, women's reproductive role was limited to inspiring male desire and incubating men's children: 'Fundamentally, children were viewed as extensions of their father's life force; the mother's role... was decidedly secondary. Instead, women seem to have had a dual role: they aroused the man and stimulated his creative act with their beauty and sexual attractiveness, and then they nourished the life that his creative power produced.' (Roth, 229) However, some images once interpreted as representations of concubines have been re-evaluated as representations of childbirth. See Geraldine Pinch, 'Childbirth and Female Figurines at Deir El-Medina and El-ʿAmarna', *Orientalia* 52, no. 3 (1983): 405–414.

[307] Hodder, 'Gender Representations', 245ff.

[308] Smith, *Baal Cycle,* Vol. 1, 31, 202-205, 310-311.

[309] Robbie P. Kahn, *Bearing Meaning: The Language of Birth* (Urbana and Chicago: University of Illinois Press, 1998), 284ff.

bending behaviours (i.e. dressing and behaving like a man) as well as for her prostitution.[310] Some feminist writers see these goddesses as empowering figures. On one hand, this is true—for modern women, the goddesses, as powerful, maternal figures who sought out sexual pleasure, can represent an alternative to the modern ideals of desexualised maternity.[311] On the other hand, historical research into the representations of goddesses have shown that these divine figures were in fact patriarchal. Depictions of female sexual desire commonly employed agricultural metaphor—Inanna famously cries, 'Who will plough my vulva?'[312] The scribal act of aligning female reproductivity with agricultural land is no less than the Mother Earth trope, which treats the female body as fertile territory rich in resources that can be extracted by men.[313] Moreover, goddesses such as Anat and Ištar were employed as a

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[310] History of religion and theology have erroneously assumed 'a clear connection between ambiguous gender and prophecy'. Saana Teppo, 'Sacred Marriage and the Devotees of Ištar', in *Sacred Marriages: The Divine-Human Sexual Metaphor from Sumer to Early Christianity*, ed. Martti Nissinen and Risto Uro (Winona Lake, Indiana: Eisenbrauns, 2008), 82. This imagery is commonly used outside the field of assyriology. For example, see Jeramy Townsley, 'Paul, the Goddess Religions, and Queer Sects: Romans 1:23-28', *Journal of Biblical Literature* 130, no. 4 (2011): 719-710. See critique of the notion of queer gender in antiquity in Jonathan Stökl, 'Gender "Ambiguity" in Ancient Near Eastern Prophecy? A Re-Assessment of the Data Behind a Popular Theory', in Jonathan Stökl and Corrine L Caralho, eds., *Prophets Male and Female: Gender and Prophecy in the Hebrew Bible, the Eastern Mediterranean, and the Ancient Near East* (Atlanta, GA: Society of Biblical Literature, 2013), 59-79.

[311] Kahn, 231. Note also Imogen Tyler's work on recent social trends where motherhood is reconstrued as a performance of sexual attractiveness and beauty. Imogen Tyler, 'Pregnant Beauty: Maternal Femininities under Neoliberalism', in *New Femininities* (Palgrave Macmillan, London, 2011), 21–36.

[312] Kahn, 284-285.

[313] Gwendolyn Leick, *Sex and Eroticism in Mesopotamian Literature* (London: Routledge, 1994), 16, 91.

warning to mortal women of what they should *not* aspire to—these female deities were very much the distant celestial exception to a very firmly disciplined rule on earth.[314] The same can be said for the mythic Amazons, who are now understood to be a xenophobic (and oftentimes pornographic) Greek misrepresentation of nomadic women (likely Scythians).[315] Therefore, we need to be cautious in interpreting antique images we find compelling, for they may have been far from empowering in their original context.

Goddess feminism in context

To put theories of matriarchy into perspective, we have to understand exactly where they 'transgressed'. The transgression seems to have been a shift in analytical purpose: Bachofen had intended his theory of matriarchy to naturalise Victorian gender norms, in support of the domestication of women within advanced industrial society; feminists appropriated his findings into a new claim that patriarchy was neither natural nor universal, although they, too, depended on arguments of universalism.[316]

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[314] Frymer-Kensky, 25-31. Marsman also notes that 'the love poetry of the ancient Near East reflected the wishful dreaming of male authors lusting after sexually assertive women, while in reality a girl had to protect her virginity until she met the man she would marry.' (75) The openness of female desire in love poems, then, does not indicate that Mesopotamian women were sexually empowered.

[315] Adrienne Mayor, *The Amazons: Lives and Legends of Warrior Women across the Ancient World* (Princeton: Princeton University Press, 2016).

[316] See critique in Lauren E. Talalay, 'A Feminist Boomerang: The Great Goddess of Greek Prehistory', *Gender & History* 6, no. 2 (August 1, 1994): 165–183. Talalay states that the biological essentialism in goddess spirituality serves 'to isolate women as outside of history. Although proponents of this interpretation never specify whether the power of women in these early matriarchies was given, granted, or taken, they assume that the elevated status of women was ultimately due to their reproductive capabilities... If women's reproductive capabilities are the source of their power, then women remain, to some extent, locked within

I have been unable to locate a methodological or analytical error in ‘goddess feminism’ scholarship that does not also exist in mainstream research produced by respected male scholars. We must remember that archaeologists in the mid-twentieth century commonly assumed that nomadic peoples were evil ‘destroyers of the land’, and sedentary peoples were ‘keepers of the land’.[317] The field of ancient near eastern studies (especially assyriology and canaanitology) has confronted such misconceptions more recently: the field has been heavily influenced by theology and biblical studies, which tend to prioritise orthodox religious narratives of the past. Much scholarly effort has been dedicated to correcting mistaken assumptions that 1) the ancient near east should be studied for its relevance to understanding the Bible, or 2) that biblical texts, although they were compiled at a very late date, can unproblematically elucidate ancient near eastern materials of previous millennia. For example, Ugaritic and biblical texts are often considered side-by-side, despite the fact that they are separated by nearly a millennium—Mark Smith’s analyses of Ugaritic texts have refuted many anachronistic interpretations.[318] The sub-specialism of ‘Asherah Studies’ has been particularly fraught with difficulty. Efforts to link the ‘asherah poles’ found in Hebrew scriptural polemic to the Amorite goddess Athirat/Ašratum have been met with countless methodological difficulties, and have produced a wide array of contrasting scholarly opinions and theories. Recent studies by Judith Hadley, Mark Smith, and John Day provided refutation of persistent misconceptualisations.[319]

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an unchanging domestic sphere... if ‘biology is destiny’... then women run the risk of being defined as irrelevant to the process of cultural change.' (173)

[317] Cordova, 140-141.

[318] Mark S. Smith, *Untold Stories: The Bible and Ugaritic Studies in the Twentieth Century* (Peabody, Mass: Hendrickson Publishers, 2001).

[319] Judith M. Hadley, *The Cult of Asherah in Ancient Israel and Judah: Evidence for a Hebrew Goddess* (Cambridge: Cambridge University Press, 2000); John Day, *Yahweh and the Gods and Goddesses of Canaan*, Journal for the Study of the Old Testament 265 (Sheffield:

It is important to note that the most virulent, unempathetic critiques of goddess scholarship were penned by other women—women historians have taken the responsibility for silencing goddess feminism out of sheer self-preservation, as their own reputations have too often been threatened by anti-feminist backlash.[320] Blakely's work provides a subtle example of this—despite being a formidable taxonomist of myths who strongly values completeness in her investigations, she utterly side-steps all issues related to male violence against women, with the uncharacteristically offhanded remark that these themes to not match up with other semantic realms she identifies (i.e. state-craft, smithing, and medicine).[321] (My response to this position can be found in chapter five.) Zainab Bahrani provides us another example, positioning herself against goddess feminists and socialist feminists in the same gesture.[322] Bahrani calls her analysis 'Third Wave' and 'post-feminist'—

Sheffield Academic Press, 2000); Mark S. Smith, *The Early History of God: Yahweh and the Other Deities in Ancient Israel*, 2nd ed, The Biblical Resource Series (Grand Rapids: Eerdmans, 2002).

[320] In writing of her reaction to goddess feminism, Frymer-Kensky states, 'My first reaction was scholarly bemusement: how could people write about goddesses when they couldn't read any of the ancient literature? This soon passed into a form of territorial protectiveness: goddesses, after all, were my turf: when nonscholars wrote about such matters, not only did they invade my turf, but they excavated with a steam shovel... In doing so, they also trivialised and invalidated my area of expertise.' (vii)

[321] Blakely, 155.

[322] Bahrani discusses Bachofen and Second Wave feminism together, an elision that is highly misleading on both counts. First, it elides literature separated by a century. Second, it disregards the history and diversity of Second Wave feminist writing, assuming that all Second Wave feminists (who in her text become the 'other', the mistaken feminists) have haplessly aligned themselves with misogynist men. (17) In 'deconstructing' the claims of Second Wave Marxist feminism, Bahrani writes: 'Revisionist social and Marxist theories... were, in sum, theories of causation that became the basis for a consensus of Second Wave feminism. Still, such discussions were reduced to male power and female subordination as if

terms I find unsettling—and describes the concept of male domination as 'essentialist in itself.'[323]

Recent archaeological research into concepts of gender have abandoned the term 'hierarchy' altogether, in preference for 'heterarchy'.[324] In this context, heterarchy is the opposite of what we might call 'intersectionality'.[325] In my readings, I have found that the various analyses employing the concept of heterarchy tend to complexify the historical archive to the point of obscuring any possibility of identifying patterns of

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these were equivalent to biological difference or the nature/culture binary divide. Furthermore, the notion of male power is essentialist in itself.' (17-18) She continues to state that Second Wave feminism's aim to 'expose the nature of patriarchy and female oppression and to establish women's (only) spaces' are based on crude assumptions of 'dichotomies of male/female, mind/body.' (18) Bahrani does not seem to account for multiple layers in the categories of male, female, man, and woman—layers of undeniable material realities (such as the processes of birth), social control and institutions, symbology, and phantasms. She appears to understand categories as monoliths. In my work, I strive to recognise the multiple layers within social categories through analysis that outlines the relationship between materiality, symbolism, and patriarchal phantasm.

[323] *ibid.*, 18. Despite Bahrani's emphasis that analyses of ancient near eastern cultures should be postfeminist, queer theory appears to play little to no role in her interpretations, which are otherwise technically brilliant—she continues to use the terms male, female, woman, and man as I would do. Perhaps this is my bias as a student of history, but I balk at using the term 'post-feminist'—the great antiquity of patriarchy suggests extreme prematurity of declaring anything 'post'. Of course, I am aware that Bahrani's critique is more aimed at the gender content of the word 'feminist'; she bases her work on Third Wave queer(-feminist) criticism of the discrete categories of 'man' and 'woman' at the core of gender oppression.

[324] Sarah M. Nelson, ed., *Women in Antiquity: Theoretical Approaches to Gender and Archaeology*, Gender and Archaeology Series, v. 11 (Lanham: AltaMira Press, 2007).

[325] Kimberle Crenshaw, 'Demarginalizing the Intersection of Race and Sex: A Black Feminist Critique of Antidiscrimination Doctrine, Feminist Theory and Antiracist Politics', *University of Chicago Legal Forum*, 1989, 139–68.

social stratification. This parallels disturbing trends in revisionist historiography in which scholars seek to rejuvenate the image of empires, states, kings, and warriors as beneficent, offering the populace necessary protections.[326] Others have claimed that wide-spread deforestation was a positive development.[327] While historical revision is always necessary, I fear that the eloquence of this scholarly discourse masks a neo-conservativism that seeks to deny not only the true ravages of oppression but also the fundamentally gendered character of ancient systems of power.

Gender-revisionist interpretations are now the norm in studies of gnosticism and alchemy. Initial feminist scholarship into these topics attempted to establish that gnostic and alchemical texts were patriarchal (often citing their frequent use of rape imagery). Sally Allen and Joanna Hubbs' study of alchemy is one of the most famous publications of this type.[328] Unfortunately, their methods are flawed (for example, they conflate the actual content of alchemical treatises with later interpretations of

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[326] For example, see Stone, who emphasises that kings were promoters of peace, economic stability, and fairness. (165) Her argument completely disregards the possible views of oppressed women, slaves, nomads, serfs, and others subject to the often brutal power of kings.

[327] Donald J. Hughes has written a rebuttle to this revisionist take on ancient ecology. He summarises the absurdities of their claims as follows: 'The landscape, they assert, is not ruined. Deforestation exists mainly in the imagination of writers who mistakenly assume that cutting down trees destroys forests, whereas trees grow again. Grazing by goats and sheep is not bad, since it renders vegetation less vulnerable to wildfires. But fires do not destroy forests. Deforestation does not make erosion worse. Badlands, where erosional features dominate, are stable landscapes. They see no deserts on the march.' (46) Hughes holds that the evidence overwhelmingly suggests otherwise: ancient states were plagued by episodes of deforestation and catastrophic soil erosion, which led to state destabilisation and collapse. See J. Donald Hughes, 'Ancient Deforestation Revisited', *Journal of the History of Biology* 44, no. 1 (February 1, 2011): 43–57.

[328] Sally G. Allen and Joanna Hubbs, 'Outrunning Atalanta: Feminine Destiny in Alchemical Transmutation', *Signs: Journal of Women in Culture and Society* 6, no. 2 (December 1, 1980): 210–29.

alchemy by psychoanalyst Carl Jung).[329] As we might expect, the backlash was swift. Scholars now emphasise the genderless or gender-mixing imagery of gnostic and alchemical texts—for example, the rebus or androgyne (part-male, part-female entities representing metallurgical alloys or states of enlightenment) is interpreted as an egalitarian or queer image.[330] This scholarly interpretation has had wide traction amongst liberal theologians who wish to reform the Christian concept of god to be more gender-inclusive.[331] However, gnostic texts do not provide anything close to modern concepts of equality or inclusivity. In chapter six, I will present a detailed rebuttal of standard interpretations of the rebus, arguing that ancient concepts of androgyne have no resonance with modern concepts of queering gender, but are instead stereotypically patriarchal notions of the perfection of masculine forms. These academic perspectives are not far from the wishful thinking of goddess feminists.

Revisionist historians also point to the activity of upper-class women who were active alchemists. This is taken as evidence for the fact that alchemy was not a patriarchal

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[329] *ibid.*

[330] See the writings of Katherine P. Long, in Kathleen P. Long, ed., *Gender and Scientific Discourse in Early Modern Culture*, Literary and Scientific Cultures of Early Modernity (Farnham, Surrey: Ashgate, 2010), 1-12, 63-86. Long assumes that the hermaphrodite in early modern alchemical and medical texts, which has its origins in alchemical and gnostic writings from syncretic antiquity, is an enlightened concept moving beyond the gender binary: 'The perfection of nature and human nature 'can only be achieved by joining of body and soul, "animal" and "sidereal" spirits, male and female.... The opposition of male and female, the fragmentation of human identity into these two roles, is at the root of human imperfection, and the practitioner of astral magic must imagine a reunification of fragments, a resolution of the binaries, in order to see the way to human perfection.' (3-4)

[331] For example, see Marvin Meyer and Elaine H. Pagels, NHC, 10-11; Riane Eisler and David Loye, 'The "Failure" of Liberalism: A Reassessment of Ideology from a New Feminine-Masculine Perspective', *Political Psychology* 4, no. 2 (1983): 375–391.

enterprise.[332] To put this argument in modern terms, it would be the equivalent of arguing that, since Sheryl Sandberg is the Chief Operating Officer of Facebook, neoliberal capitalism is not patriarchal. The logical fallacies and collapsed categories of analysis should be readily apparent. However, this does bring up a very important point for the study of women in ancient history more generally: the success of a few upper-class women in achieving power within patriarchal institutions should never be used as a metric for the overall status of women in that society, or, indeed, for the intensity or pervasiveness of patriarchal domination at work in the society as a whole. This applies not only to powerful cults of goddesses but also to the female pharaohs, queens, priestesses, poets, and warriors we occasionally encounter in the historical archive. Lerner provides us with a useful phrase—'degrees of unfreedom'—to describe how women of various classes and means were integrated into Bronze Age patriarchal societies: from the queen to the lowliest serf or slave girl, all female bodies were owned in some way by men, although a woman's place in the class hierarchy could significantly determine the severity or brutality she might experience as the result of her unfreedom.[333] Across ancient near eastern societies, men were entitled to the sexual and reproductive restriction or exploitation of their primary wives, secondary wives and concubines, daughters, and slaves, as well as any prostitutes men might procure. Female sexual agency and consent within the household were, to my knowledge, never a part of ancient discourse.

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[332] Penny Bayer, 'From Kitchen Hearth to Learned Paracelsianism: Women and Alchemy in the Renaissance', in Stanton J. Linden, ed., *Mystical Metal of Gold: Essays on Alchemy and Renaissance Culture*, AMS Studies in the Renaissance, no. 42 (New York: AMS Press, 2007), 365-386. Bayer points to the fact that some of the earliest alchemists known in antiquity had female names. It is also possible that these were pseudonyms of male authors who wished to connect their statements to the authority of Isis, Pharoah Cleopatra, and Miriam the sister of Moses—female characters with strong claims to knowledge about magic.

[333] Lerner, 95-95.

Dualism as colonial logic

In positioning herself against feminist methods for the interpretation of Greek myths, Blakely urges us to forgo the simplistic model of a 'war of the sexes'.[334] While I agree with her desire to avoid simplistic interpretations, I wish to consider the relationship between war, gender, and oppression in more detail. There is no evidence of a 'gender war' in antiquity. We can assume that women strategised around and resisted their oppression in myriad ways in daily life, but I am not aware of any evidence for a women's revolt, revolution, or wide-spread resistance movement. Gilligan and Richards have interpreted the political and social resistance of the Roman matrons as a proto-feminist event, but the absence of any participation and involvement of lower class women suggests otherwise.[335]

From a feminist theoretical perspective, patriarchal oppression cannot be reduced to war or conflict between the sexes. Val Plumwood's study of dualism provides a far more nuanced and useful approach. She holds that patriarchal oppression operates within a broader system of colonial relations between masters and slaves. Colonial ideologies depend on dualism as their basic category. Dualism is a logical structure, 'a certain kind of denied dependency on a subordinated other' where 'the relation of domination/subordination shape the identity of both the relata.'[336] Through dualisms, 'the colonised are appropriated, incorporated, into the selfhood and culture of the master, which forms their identity.' Plumwood urges us to consider 'the identity of the master (rather than a masculine identity pure and simple).'[337] While Plumwood was writing in the 1990s, her attention to the interlocking logical mechanisms of many dualisms (including master/slave, male/female, culture/nature,

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[334] Blakely, 229.

[335] Carol Gilligan and David A. J. Richards, *The Deepening Darkness: Patriarchy, Resistance, and Democracy's Future* (Cambridge: Cambridge University Press, 2008), 16ff.

[336] Val Plumwood, *Feminism and the Mastery of Nature* (London: Routledge, 2002), 41.

[337] *ibid*., 42.

rationality/physicality, and civilised/primitive) help us conceptualise something similar to 'kyriarchy'—the complex ideological and institutional system in which state, temple, father, king, master, priest, warrior, husband, mage, landowner, colonist, and craftsman extracted resources from women, children, workers, slaves, mines, the agricultural periphery, the wild hinterlands, and colonised territories.[338] Like Plumwood, I would claim that male exploitation of female reproductive labour is at the very heart of systems of colonisation, and that we cannot understand social stratification or environmental destruction without considering gender.

In ancient societies, authority was gendered masculine and ascribed with paternal potency. While individual men and women fared very differently within these systems, the fundamentally gendered social structures remained remarkably stable across temporal and geographical distances. This realisation helps us conceptualise the past more accurately, despite the large gaps in the historical archive concerning the lives of women, workers, nomads, and slaves.

Part Three: Thesis Summary

In the introduction to this chapter, I discussed the need to demonstrate both the reproduction and ubiquity of metallurgical ideology. The thesis is structured to take each component in turn: chapter two provides a broad overview of the reproduction of metallurgical ideology from the middle Bronze Age to post-antiquity, establishing common analytical channels that will branch out in subsequent chapters. Chapters three, four, five, and six serve to expand on the preliminary exploration in chapter two, examining the broader literary corpus to argue for the ubiquity of metallurgical ideology. Chapters three and four focus on the Sumerian and Semitic (including Akkadian, Ugaritic, and Egyptian) sources; chapter five, on Hittite and Greek; and chapter six, on syncretic Hellenic and Roman.

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[338] *ibid.*, 43.

Chapter two introduces 'the dyad of tree and stone', a poetic idiom widely featured across the ancient Semitic and Indo-European literary record. The idiom has great antiquity—middle Bronze Age scribes already considered tree and stone to be so ancient that few understood its meaning. Through following the extant instances of the dyad (across Ugaritic, Hebrew, pre-classical and classical Greek, Graeco-Roman syncretic, and scholastic sources), chapter two uncovers a deep and persistent association between audibility and fertility. Together, the tree and stone seem to function within mythopoeic devises that draw boundaries between rural and urban, nature and culture, wilderness and civilisation: between the tree and stone of the wild, and the timber and ores subjected to industrial heat. The reproduction of this idiom takes two forms: one that recalls the murmuring and whispering of chthonic and terrestrial fertility, and another that seeks to overcome these ancient resonances with cacophonous displays of warrior masculinity. Overall, my analysis confirms that ancient scribes were acutely aware that reproduction is audible, and that they imagined sonic realms of reproduction that were cacophonously contested.

In chapters three and four, I examine ancient near eastern texts that link mining and metallurgy with reproduction and vocality.[339] Chapter three presents ancient accounts of stone as a liminal material: in one set of narratives, the stone originates in the hot depths of the earth; in another set, it is hewn and smelted and used to build the patriarchal state. Contrasting reproductive soundscapes emerge: on one hand, stones are used as a midwifery tool, set in the ground for women to lean on while giving birth. Birth stones are associated with a wide range of sounds, including the midwives' trill, mothers' wails during labour, newborn babies' cries, and the splashes

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[339] My readers will note that chapters three through six focus primarily on stones and metals, with limited discussion of trees and timber. In my original plan for the thesis, each of these chapters was paired with a study of the audible reproductivity of forests and timber craft. I have had to cut these chapters for lack of space, and will complete them at a future date. However, the analyses in chapters three through six regularly return to the fact that the ancient timber and mining industries were almost entirely concomitant.

of amniotic waters and blood. In the second soundscape, Mesopotamian city-states are described as birth stones. The city's architecture roars, and the tutelary gods bellow as they ejaculate to fertilise the surrounding countryside. These city soundscapes celebrate bloodshed and reverberate with the cacophony of battle. I argue that ancient scribes relate established soundscapes of maternity and paternity through the liminality of stone: some stones belong to the realm of nature, while others belong to the city and to culture. These sonic contestations, in my view, were fundamentally metallurgical, pitting the slow transformations of the chthonic depths (the imagined realm of nature's womb) against the rapid transformations of the state-builder's furnace (the technological realm of male reproduction). These contestations were fraught with tensions and received a great deal of cultic and state attention. At stake was an important question: *Who has authority over reproduction?*

I conclude chapter three by proposing that this contestation held deep significance for the stratification of ancient societies. Chapter four develops this in more depth, examining the different kinds of metallurgical masculinities that held authority in the ancient near east. I begin with the metallurgical deities, exploring the mythic heroism of male gods who overcome goddesses and usurp their roles over reproduction (including midwifery, birth, and cosmic creation). Sonic language saturates these contests, with goddesses reduced to silence and wailing grief. In the second half of the chapter, I shift my attention to mortal men: the Mesopotamian exorcists who collaborated with wealthy men to ritually incinerate witches. These exorcists claimed to be the emissaries of metallurgical gods, and used metallurgical technologies (including smelting crucibles and braziers) to overcome the witches' vulvar vocality, which the men feared could rob them of their wealth, political influence, virility, and paternity.

Together, chapters three and four reveal the creation and reproduction of 'techno-birth', the belief that man-made furnaces mimic and optimise the earth's slow processes of material transformation. Ancient scribes make explicit that techno-birth supersedes the powers of female creativity. Through their loud vocal performances and pyrotechnics, metallurgists intervene in reproduction at every level of its conceptualisation: they enter birth rooms, perform midwifery, execute and banish women, claim authority over the creation of mankind, and, finally, claim ultimate responsibility for cosmic creation.

Chapters five and six demonstrate the continuity between ancient Sumerian and Semitic metallurgical ideology and that of the Greeks, both classical and Hellenic. Chapter five examines the complex testimonia of the Greek daimons (the Dactyloi, Telchines, Kouretes, Korybantes, and Kaberoi)—famed mythic metallurgists whose cults were celebrated across the archaic, classical, and Hellenic Greek world. The daimons were both violent towards maternal figures and highly active in midwifery, renowned for performing a cacophonous ritual dance around birthing women. While scholars have understood these metallurgists to be beneficent figures, I will argue that the testimonia demonstrate a more sinister reality.

We meet these same daimons in chapter six, as magical assistants to Graeco-Roman mages and alchemists. This final chapter is the longest in the thesis, for it traces how disparate metallurgical traditions across the ancient near east were unified in Hellenic society. Through analysing magical, hermetic, gnostic, and alchemical discourse, I demonstrate widespread, mainstream efforts to form a cross-cultural, syncretic metallurgical ideology. This composite ideology produced extensive theorisation of sound and silence, connected to gendered notions of the immateriality of the paternal divine and the apocalyptic conflagration of maternal materiality.

The final chapter concludes the thesis with a summary of future research into the transmission of ancient metallurgical ideology into Late Antiquity, the Caliphates, and medieval and early modern Europe. I will propose that the exponential rise of popular and entrepreneurial alchemy in late medieval and early modern Europe helped fuel the rapidly-accelerating mining and metal trade that formed the core of European colonial expansion in Africa and the New World. I begin to examine the gendered sonic imagery that saturates alchemical treatises, witch-hunting manuals, and accounts of the Middle Passage and the New World colonies. I link metallurgical ideology with the notions of untamed nature that colonists projected onto the reproductive bodies and voices of native and enslaved women. Colonial metallurgical soundscapes purposefully crafted the screams and silences of women into the colonial project in order to forcibly redefine women, along with the lands and children stolen from them, as mere natural resources. My goal is to trace the relevance of antique metallurgical texts and myths throughout these time periods, to show their intentional preservation and elaboration by ruling men of later time periods.

2 REPRODUCTIVE UTTERANCE IN THE DYAD OF TREE AND STONE

The practice of listening to reproduction was cultivated in diverse ways across antiquity. In this chapter, we will focus on historical records of the ritual and poetic use of the audibility of trees and stones as a gateway to knowledge about reproduction. The meanings behind these listening practices have been lost for centuries: both the medieval scholiasts and modern researchers have been puzzled by Hesiod and Homer's enigmatic use of the utterance of tree and stone. Recent research has located similar exempla in much earlier Semitic poetic texts found in the archives of the city-state of Ugarit (fl. c. 1500BCE). López-Ruiz calls the motif a 'dyad', for it appears in a pair, in the same order, and with a cohesive set of thematic references.[1] In

[1] López-Ruiz, 70.

each instance of its use, the dyad appears within discourse on reproduction and vitality, where the soundscapes of tree and stone conjure up a mysterious type of terrestrial vocality. López-Ruiz holds that instances of the dyad 'are not the result of random pairing to denote concrete objects but are traditionally used with a set of broader connotations.' [2] She emphasises that the dyad is 'a cross-linguistic phenomenon', with consistent semantic and phonological principles.[3, 4] I have adopted López-Ruiz' terminology, not only because of the formal characteristics she has identified, but also because the term dyad connotes the interdependencies and vulnerabilities implicated in childbearing.[5]

While López-Ruiz has collected many of the extant sources for the dyad, I have located two additional exempla in the Ugaritic corpus, several in Minoan iconography, one in the *Orphic Hymns*, two in the Hebrew scriptures, five in the *Papyri Grecae Magicae* (PGM), five in Books I, III, and V of the *Sibylline Oracles*, and four in classical Latin and Greek literature (Euripides *Iphegeneia et Aulis*, Apollonius of Rhodes *Argonautica*, Ovid *Metamorphoses*, Pseudo-Apollodorus

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[2] *ibid.*

[3] López-Ruiz locates the semantic level in 'the broad categorisation and pairing' of the elements'. The dyad, regardless of the language in which it is used, follows specific ordering: 'Animate before inanimate; agent before object.' (70-71)

[4] Across the usages, the dyad shows phonological patterns: the 'shorter word precedes the longer word in both (Ug. *ez – abn*; Gr. *δρυν—πετρην*); shorter vowels(s) precede(s) the longer vowel in the Greek dyad, and a higher formant proceeds a lower formant in the Ugaritic (if we vocalized *ez—abn*); a consonantal cluster precedes the single consonant (Gr *dr—p*); and a more obstruent final consonant precedes a less obstruent one (Ug. *–z* before *–n*; Gr. *–n* = *–n*).' (*ibid.,* 70-71)

[5] The term 'dyad' is used in midwifery literature to reference the complex interrelations between mother and infant. For example, see Linda J. Smith, 'Impact of Birthing Practices on the Breastfeeding Dyad', *The Journal of Midwifery & Women's Health* 52, no. 6 (November 12, 2007): 621–30.

Biblioteke, Lucian of Samosata *Hermotimus*).[6, 7] These additional instances of the dyad considerably widen our scope of enquiry.[8]

My analysis differs considerably from that of López-Ruiz; for while she does recognise the reproductive significance of the dyad, her goal is to rigorously demonstrate the mutual interconnectedness of west Semitic and Greek mythologies.[9] López-Ruiz's focus, as a classicist and translator, is on Hesiod's usage of the dyad, whereas my interests have guided me towards a deeper engagement with the Semitic sources (in Ugaritic, Hebrew, Coptic, and Arabic). Through analysing each instance of the dyad, I seek to demonstrate the connection between audibility and fertility and its significance in constructing gendered notions of civilisation and nature.

A study of the texts containing the tree and stone dyad opens up an auditory space in which we might begin to understand how it is possible to listen to reproduction. The amplitudes of sound in the dyad are low—here, we focus on rustling leaves and whispering stones; the murmuring of young lovers and the pitter-patter of secrets encrypted in rainfall. The following chapters will turn increasingly to the cacophonies of warfare, colonisation, and domination. For the time being, however, we can take pleasure in the ear's capacity for nuance.

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[6] All other instances in the dyad found in this chapter were collected by López-Ruiz. (48-83)

[7] This instance in Apollonius of Rhodes' *Argonautica* will be discussed in chapter five.

[8] In this chapter, I limit myself to dyad instances from Antiquity and their scholastic commentary. Modern exempla will be discussed in chapter seven.

[9] There also exists a short study of tree and stone by Alexander S. W. Forte, 'Speech from Tree and Rock: Recovery of a Bronze Age Metaphor', *American Journal of Philology* 136, no. 1 (April 16, 2015): 1–35. Forte's analysis is retricted to the few instances of the dyad in Ugaritic and Greek exempla. He concludes that the tree and stone dyad is no more than a metaphor for lightning and thunder (30). However, López-Ruiz' analysis of the semantic associations between sonic tree and stone and reproduction show that its meanings go beyond weather-related metaphor. López-Ruiz takes a far broader view of the exempla across different geographies and time periods. My analysis will expand this reach further.

Preclassical and classical Greece

It is not the moment now to whisper to him from a tree or a rock

The dyad occurs three times in Hesiod and Homer. Each instance is unique, and dependent on its place in the text. In the *Iliad*, the dyad appears in the fearful thoughts of Hektor, the fated hero of the Trojans, before deadly combat with Akhilles. In the larger context of the *Iliad*, Hektor and Akhilles belong to opposing armies of elite warriors clad in shining bronze. Throughout the *Iliad*, the poet describes warriors visible in the far-off landscape, their armour catching the light of the sun, striking terror into the hearts of those who see their approach.[10] In the soundscapes of battle, bronze clatters and rings as weapons and armour collide, adding to the din of warriors' shouts and shrill cries.[11] Hektor 'stalked through the ranks of the champions helmed in the bright bronze, with a shrill scream, and looking like the flame of Hephaistos, weariless', his cries provoking fear in Akhilles' heart.[12] Imagery of metal, furnace flame, and warrior vocality vividly capture the skill and craft of waging war.

As son and heir to Priam, the king of the city-state of Troy, Hektor's place in Trojan society is dependent on his performance of warrior masculinity, upholding his honour at all costs.[13] Throughout the narrative of the *Iliad*, warriors are faced with choices between honour, battle, and death on one hand, and family, love, and life on the other. Both Akhilles and Hektor decide to leave their families behind, along with their

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[10] *Iliad* 22.25: Priam spots Akhilles from afar, shining in bronze. In 4.488, 2.419, 12.442, and 13.328, bronze is described as flaming, dazzling, gleaming, shining, and blinding. See chapter seven for a description of similar imagery in first contact between Native peoples and the iron-clad Spanish conquistadors.

[11] *ibid.* 12.108ff, 13.155ff, 14.402ff, 13.169ff.

[12] *ibid.* 17.82ff.

[13] *ibid.* 3.39-42. Hektor chastises his brother Paris for escaping death by fleeing from combat, stating that his brother's early death would have been preferable to loss of honour and mockery from enemies.

chances to live a full life, in spite of their family members warning them of death and begging them to stay away from conflict.[14] Paradoxically, both warriors also express that a primary impetus for their determination to go to war is their attachment to their families and loved ones.[15]

While the other Trojan warriors have sought refuge within the city's strong walls, Hektor has remained outside while Akhilles advances on the city with a heart full of rage and desire for revenge. While he awaits his opponent, Hektor ponders his options. He considers retreating into the city's walls; however, he knows that his honour is at stake and worries that a man lesser than he should blame him for Troy losing the war against the Achaeans. Hektor then considers the possibility of Troy surrendering Helen and accepting defeat in the war.[16] This, he knows, would involve the humiliation and ransacking of the city, a huge loss of the city-state's accumulated wealth, renown, and resources, as well as the capture and enslavement of the Trojan women.[17] In the end, Hektor decides to fight to the death, asking himself,

> why does the heart within me debate on these things?
> I might go up to him, and he take no pity upon me
> nor respect my position, but kill me naked so, as if I were
> a woman, once I stripped my armour from me. There is no way any more from
> a tree or a rock to talk to him gently

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[14] *ibid.* 9.410-416. Akhilles' mother Thetis warns him that he must choose between honour and early death, and between peace at home and long-life. Hektor's father (22.38ff) and mother (22.82ff) plead with their son to return inside of the city walls, to escape death at the hands of Akhilles.

[15] Akhilles is drawn into battle because of the death of his friend, Patroklus, at the hands of Hektor—his grief and rage propel the epic narrative until he meets revenge. (18.15ff) Hektor expresses his loyalty to Troy and his family's position within the society. (22.118)

[16] *ibid.* 22.99-114.

[17] *ibid.* 22.118. Throughout the *Iliad*, victory is associated with filling one's house with bronze, women, and gold. (2.226-227)

> whispering like a young man and a young girl, in the way
> a young man and a young maiden whisper together.
> Better to bring on the fight with him as soon as it may be.
> We shall see to which one the Olympian grants the glory.[18]

In Hektor's mind, both flight and surrender would rob him of his honour and masculinity: in the worst-case scenario, Hektor would be reduced to a woman by being stripped of his armour, his honour, and his manhood.[19] He chooses to stay a man, shining in bronze, vying for glory according to the whims of fates and gods. He portrays his other ponderings of reconciliation and surrender using the rather curious imagery of innocent young lovers whispering together, like a gentle voice emanating from a tree or rock. This naturalistic, romantic scene belongs to a radically different world than that of war-torn Troy. The vulnerability of a naked woman and the innocence of the whispering youths form a strong contrast against the bronze-clad defence and aggression of the warriors. Hektor makes his choice: instead of speaking to Akhilles as a tree, rock, or loving youth might, he decides to use the language of sword, shield, and blood. During the fight, Hektor is cut down, pierced in the neck with a bronze spear but still able to speak: he uses his last moments to beg Akhilles to preserve his honour after death. In a cruel fulfilment of Hektor's fears, Akhilles defiles and emasculates his corpse by stripping it bare, mutilating it, and dragging it in the dust while Hektor's family look on, filled with horror and grief.[20]

For you are not from a tree of ancient tales or from a rock

In the *Odyssey*, we read another instance of the dyad, this time spoken by a woman. Odysseus, one of the proud Bronze-clad warriors who had fought alongside Akhilles, returns to his lands and household after a decades-long voyage. The goddess Athena

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[18] *ibid.* 22.122-130.

[19] During the fight, Hektor is wearing Akhilles' armour, which he had stripped off of the body of Patroklus, Akhilles' beloved friend. (17.192ff)

[20] *ibid.* 22.328.

disguises the warrior as an old beggar to protect him from being recognised before he understands what risks he might face.[21] Odysseus uses this disguise to learn of the sorry state of his household and lands: elite men have come to court his wife Penelope, and have used up much of the estate's resources with their continual feasting. At their first encounter, Penelope is confused by the state of her disguised husband, for she senses that his origins are not as humble as his garments and condition claim. She questions him:

> But come, tell me your lineage, where are you from?
> For you are not from an oak (δρυος) of ancient tales or from a rock.[22]

Odysseus, of course, avoids giving her information about himself. Instead, he offers her news of her long-lost husband, whom he claims to have met on his journeys. Delighted that Penelope has remained faithful to him for twenty years, Odysseus seeks to offer assurance that her husband will return:

> He said Odysseus had gone to [consult the oracle at] Dodona, to hear
> from the divine oak (δρυος), lofty and leafy, the will of Zeus,
> how he should return to his beloved fatherland,
> whether openly or in secret, since he'd now been gone so long.
> So, in this way he's safe and, very near already, he will come,
> and he won't be far away much longer from his loved ones
> and his fatherland.[23]

In this instance of the dyad, we can note the archaic features of the phrase—Penelope contrasts being from a tree or stone (a naturalistic origin) with lineage (a patriarchal origin), the latter being the rightful stuff of fathers and fatherland. Her guest claims to have had illustrious forefathers, but to have been reduced to ruin and beggary, unable

[21] *Odyssey* 13.398ff.

[22] *ibid.* 19.162-163.

[23] *ibid.* 19.296-302.

to lift himself out of the dust and dirt.[24] Penelope's use of the dyad *contra* lineage, then, gives a clear lesson: the loss of a man's paternal line brings him back to dust—to earth, tree, and stone, as far-distant places of emergence, the very stuff of nature.[25]

In this way, Penelope's words parallel Hektor's, drawing a contrast between two forms of connection: the first of tree and stone (whispers, youths, reconciliation, love), and second of warrior masculinity (honour, forefathers, fatherland). Both Hektor and Penelope understand that tree and stone are not the stuff of sons and fathers, warriors and explorers—both pose the dyad in conjunction with a question directed towards men in order to attain clarity of purpose (Hektor seeking to find his own masculine identity, and Penelope seeking to discover that of Odysseus). The answer to both questions involves brutality and bloodshed: Hektor is slaughtered and his family and city enslaved, and Odysseus reveals his bronze-clad ferocity in slaughtering both men and slave women while reclaiming his position as lord and *paterfamilias*.[26]

But what do I care about these things concerning a tree or a stone?

Similar contrasts and questions are found in Hesiod's use of the dyad in the proem of the *Theogony*. Hesiod begins with invoking the Muses: 'Let us begin to sing of the Muses of Helicon'[27] who are dancing with tender feet around a spring (presumably to

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[24] *ibid.* 19.167.

[25] Against this image of the tree in nature stands the olive tree, which grows through the middle of Odysseus' house and forms the structure of his marriage bed. (23.190) The olive tree is not a tree of nature—it is a tree of intensive agriculture in which wild forests are cleared to make way for plantations. For the early domestication and wide-spread plantation agriculture of the olive tree, see Curtis N. Runnels and Julie Hansen, 'The Olive in the Prehistoric Aegean: The Evidence for Domestication in the Early Bronze Age', *Oxford Journal of Archaeology* 5, no. 3 (November 1, 1986): 299–308.

[26] *Odyssey* 22.

[27] *Theogony* 1.

some sort of divine music). Arising from the summit of Mount Helicon 'wholly enveloped in darkness, the Muses walk abroad in the night, projecting their beautiful voices'[28] to sing of the gods. The springs and darkness create chthonic surroundings, a scene that feels somewhat eerie, for the singing and dancing of beautiful divine women should better take place in warm sunlight.

Hesiod claims to have received divine inspiration from the Muses in composing the Theogony:

> Such are the goddesses who taught Hesiod beautiful songs once
> While he was shepherding lambs in the shadow of Helicon's holy
> Mountain.[29]

He further claims that the Muses lifted him up from being one of the 'Wilderness shepherds, ignoble excuses for men, merely bellies', giving him a wooden staff made of 'a sprout they had plucked of the vigorous laurel'.[30] Scholars have interpreted this sprout as a laurel sceptre, a symbol of kingship.[31] This object represents a dramatic shift in Hesiod's identity and vocality:

> They [the Muses] inspired me with vocal, prophetic
> Song, to enunciate matters to come and others that have been.
> Me they commanded to sing of the race of the blessed immortals,
> Hymning themselves at beginning and end of every poem.[32]

Hesiod, then, is not merely a poet: he has a prophetic voice capable of telling the future and the past. In doing so, he takes on a role similar to that of the oracle

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[28] *ibid.* 9-10.

[29] *ibid.* 22-24.

[30] *ibid.* 26, 30.

[31] Or alternatively as a judge's gavel. See discussion in Kathryn B. Stoddard, 'The Programmatic Message of the 'Kings and Singers' Passage: Hesiod, Theogony 80-103', *Transactions of the American Philological Association* 133, no. 1 (May 16, 2003): 1–16.

[32] Theogony 31-34.

priestesses at Dodona or Delphi—a remarkable claim for a shepherd, and hence the conceit.[33]

However, by this point, Hesiod has been elevated from a mere belly to the possessor of a royal sceptre. He is no longer speaking as a shepherd about pastoral scenes, but speaks as a royal emissary. Significantly, it is at this moment that Hesiod interrupts himself, asking, 'But what do I care about these things concerning a tree or a stone?'[34] This break in the text is intensified by the shift of style, for it is highly unusual for a Greek poet to address himself using the first person pronoun.[35] His royal sceptre now in hand, Hesiod then starts the proem over again, invoking the Muses as he did at the very beginning:

> You, then, let us begin with the Muses who up on Olympus
> Pleasure with music the mighty mind of our heavenly father,
> Telling of things as they are, as they will be and were in aforetime,
> Blending their voices which flow inexhaustibly sweet from their open
> Mouths; then the home of their father, loud-thundering Zeus, is delighted,
> Glad at the delicate, wide-spread tone of the Muses, the peaks of
> Snowy Olympus and all the abodes of the deathless reecho.
> Raising aloft their ambrosial voices in song they extol the
> Worshipful race of the gods first, whom at the very beginning
> Earth and extensive heaven gave birth to: the gods were their children.[36]

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[33] See discussion of Hesiod's new-found vocality in Robert Lamberton, *Hesiod*, Hermes Books (New Haven: Yale University Press, 1988), 59-60. Lamberton suggests that Hesiod's new voice is a function of the laurel sceptre, as the laurel tree was associated with the Pythia. Later scholiasts believed laurel to be a psychotropic drug causing ecstasy.

[34] Theogony 35.

[35] López-Ruiz, 55.

[36] Theogony 36-45.

Why should Hesiod repeat his invocation? It seems that something about his first description of the Muses singing in darkness stands in need of correction. He associates his first introductory invocation with the dyad of tree and stone (the realm of the shepherd, the ‘mere belly’), which come to represent those things with which Hesiod ought not concern himself. In his second beginning, Hesiod repeats much of the same imagery, with some key differences. Hesiod the sceptre bearer immediately references Zeus, the chief god of the Greek pantheon, and affords oracular capacity to the Muses alone. This authority over the Muses is royal and distinctly gendered: Hesiod’s sonic language here is more intensely sexual—the Muses have open mouths flowing with sweetness and divine wetness, a barely veiled reference to ‘wide-spread’ female sexuality and the audible vocality of vulvar tactility. The chthonic darkness of the Muses’ surroundings has faded, and Zeus—the lover and violator of many women, both divine and mortal—takes centre-stage. Zeus’ new dominance in the poetic landscape balances the vibrating echoes of the mountainous heights of the divine dwellings. In doing so, the dark oracular music quietens, so that Hesiod’s song can become more focused on the lineages and genealogies of the gods—the central topic of any theogonic narrative.

Here we can find parallels between Hesiod’s usage of the dyad with Homer’s: the dyad appears as a question that is conjured up at a crucial moment of finding clarity of purpose. For Hesiod, the act of creating such poetry involves divine inspiration turning him from an ignoble belly from the wilderness (rural and naturalistic imagery), into an elite figure carrying a sceptre of leadership (urban and kingly imagery). In the divine realm, too, the focus is on bringing our attention to elite masculinity and identity: Zeus emerges as the primary consumer of the Muses’ sensual songs, and it is his reign over both heaven and earth which is to be legitimised by the coming narration of the Theogony’s successions of divine generations. Here, too, we will find gods and warriors, destruction and bloodshed, glory and power.

As we saw in chapter one, the use of metal is also associated with concepts of time. For late Neolithic men, gold was associated with immortality and virility. In Bronze Age epics, metallurgy was associated with long-distance travel, construed as a passage through time to the land of ancestors. For Hesiod and Homer, metal-clad warriors function in a specific time-scale of ancestry and of far-distant lands of exploration and conquest. Hektor and Odysseus, as illustrious lords born to elite

families, turn away from tree and stone in order to stay connected to their paternal roots. In both the *Iliad* and the *Odyssey*, the poet lauds the immortality of fallen warriors, who are cremated after battle, their bones interred in golden urns.[37] This is a fittingly metallurgical end for bronze-clad men—ending their mortal existence in fire and metal.

In all three stories, the dyad is accompanied by references to oracle and prophecy. Hesiod claims to have an oracular voice, something most often associated with the Pythia and other female mouthpieces.[38] Likewise, Odysseus' disguise puts him in the role of a teller of pasts and futures, bringing Penelope reports of Odysseus' distant journeys and the announcement of his immanent return. Hektor's reflections of the whispering tree and stone also involve reflections on his past, offering new understandings of his errors. His ponderings also contain a hidden oracular prediction: while he faces Akhilles in battle in order to avoid the fate of being stripped naked like a slaughtered woman, this ends up being his precise fate precisely because he engages Akhilles in combat.

The people of that time were content in their simplicity to hear an oak or a rock

However, we have only begun to explore the semantic realms associated with tree and stone. Ancient commentators were acutely aware of the difficulty in tracing its associations. The scholia on Homer and Hesiod (written during antiquity and the Middle Ages) posit various interpretations of the phrase.[39] The Byzantine scholar Eustathios, in his twelfth-century commentary on the *Odyssey*, focuses on the dyad's associations with reproduction—he suggests that ancient people believed babies were born of tree and stone, or even that all humans had such origins.[40] The Greek mythic corpus contains many references to autochthonous races of humans, people who

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[37] For example, see the cremation of Patroklus, *Iliad* 23.226ff.

[38] Lamberton, 60.

[39] López-Ruiz, 58-64.

[40] *ibid.*, 58.

sprang up directly from the earth of their place of origin—in antiquity, this was a powerful narrative of indigeneity, giving a particular group (who traced their lineages to autochthonous ancestors) a powerfully naturalised claim to territory.[41] The more rationalist commentators found amongst the scholia suggest that the common practice of infant exposure may have led some people to believe that some babies arose directly out of the earth.[42] In this sense, exposure, as the process of severing a child from their social ties, is understood to be an exit from civilisation and a return to wildness.[43]

Both reproduction and oracular revelations are referenced in Plato's use of the dyad in *Phaedrus*. In the text, Socrates, in dialogue with Phaedrus, rebukes his companion's unwillingness to believe the tale he relates of the origins of writing in Egypt:

> They used to say, my friend, that the words of the oak in the holy place of Zeus at Dodona were the first prophetic utterances. The people of that time, not being so wise as you young folks, were content in their simplicity to hear an oak or a rock, provided only it spoke the truth; but to you, perhaps, it makes

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[41] See Blakely, 18-20.

[42] López-Ruiz, 58.

[43] Lamberton, 61-62: 'Though neither the poetic uses of the proverb [in Hesiod and Homer] nor the explanations [posited by their scholiasts] are entirely consistent, it seems clear that "oak and rock" are traditional places of discovery of babies—real or feigned foundlings—and that to trace one's ancestry to an oak or a rock is to invoke a colorful euphemism to account for one's lack of pedigree. So we have here an evocation of an old wives' tale—a conventional and even hackneyed account of things—but more, an old wives' tale that gives a fictional account of parentage, of birth and origin.' My analysis challenges Lamberton's assumption of poetic inconsistency in the usages of the dyad (although this is a reaonable statement, given he was only aware of three exempla). However, he does correctly identify that lack of paternal pedigree is a key component of the dyad's semantic references.

> a difference who the speaker is and where he comes from, for you do not consider only whether his words are true or not.[44]

Phaedrus gracefully accepts Socrates' rebuke, and his tale of Egypt. We are left to wonder, however, why Socrates might connect Egyptian mythology with the oracular murmuring of tree and stone. According to Socrates, the Egyptian god Thoth had invented hieroglyphs. We cannot know the extent of Plato's knowledge of Egyptian religion, except to note that classical Greeks considered Egypt to be a land of most ancient wisdom—but it is rather striking that he should accurately report this aspect of Egyptian myth. Thoth was also believed to be a creator god who formed parts of the cosmos with his speech: a myth of reproductive utterance shared across many ancient near eastern cosmogonies.[45] We might posit, then, that Socrates' reference to dyadic utterance also assumes Phaedrus' acquaintance with the idiom's associations with reproduction, birth, and origins.

While Socrates' usage of the dyad is bound within sarcasm, he associates the tree with ancientness and the acquisition of simple knowledge. Phaedrus, like Hektor, Odysseus, and Hesiod, is turning away from tree and stone towards something more concrete—in the later classical text, this concreteness is located in the male intellectual disciplines of philosophy, logic, and rhetoric—a complex form of speech belonging within the *polis*.[46] While both Odysseus and Socrates somehow associate the Oak of Dodona with the tree and stone dyad, we appear to be missing the oracular significance of stone. This, however, we can find in the eastern Mediterranean Bronze Age texts and iconographies that preceded the Greek oracles.

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[44] *Phaedrus* 275b-c.

[45] Geraldine Pinch, *Handbook of Egyptian Mythology*, Handbooks of World Mythology (Santa Barbara, Calif: ABC-CLIO, 2002), 209-211.

[46] Sennett, 31-34; Carson, 126.

Shaking boughs and hugging baetyls

While scholars today associate Dodona with the oak tree and Delphi with the omphalos stone, it seems that the associations between oracles and the intact dyad abound in the middle and late Bronze Age. Archaeological excavations of the site at Dodona have so far revealed finds from the Mycenaean period (late Bronze Age). In his study of Minoan iconography (middle Bronze Age), John Younger locates several gold rings from the Neopalatial period (c. 1500BCE) depicting ecstatic men and women pulling on trees and embracing stones, sometimes observed by a yet-unidentified goddess.[47] (See Illustrations: Images 3, 4, and 5) The actions here are vividly sonic—rustling the leaves of the tree through ecstatic pulling, and embracing the stone to listen for any sign of the deity's presence.

Iconographic evidence suggests that the Minoan omphalos stone is mythologically equivalent to the stone which provided prophetic inspiration to Pythia, the oracle at Delphi, opening up the possibility of considering Minoan concepts of tree and stone in relation to the much later texts attributed to Hesiod and Homer. Goodison does just that, enriching Younger's iconographic work with a deep engagement with these later Greek textual sources.[48] She argues that the instances of the dyad in archaic Greek

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[47] John G. Younger, 'Tree Tugging and Omphalos Hugging on Minoan Gold Rings', in Anna Lucia D'Agata and Aleydis Van de Moortel, eds., *Archaeologies of Cult: Essays on Ritual and Cult in Crete in Honor of Geraldine C. Gesell*, Hesperia Supplement 37 (Princeton, N.J: American School of Classical Studies at Athens, 2009), 43-50. The scenes are diverse and difficult to interpret, but John G. Younger concludes that some depict 'an ecstatic rite in which a woman (presumably a deity) would stand on the pavement while a man or woman would pull at the tree that grew, perhaps, in a pithos set within the kerb next to the city wall and gave shade to the bench. A man or a woman would embrace the omphalos [stone] hoping for a sign of favor from the divinity (possibly a passing bird, dragonfly, or butterfly).' (49)

[48] Lucy Goodison, '"Why all this about Oak or Stone?" Trees and Boulders in Minoan Religion', in Anna Lucia D'Agata and Aleydis Van de Moortel, eds., *Archaeologies of Cult*, 51-58.

poetry are not literary survivals; rather, they were transmitted through wide-spread ritual practices—most Greek oracle centres had an omphalos stone as part of their cultic paraphernalia.[49] In Homeric and Hesiodic texts, stones and trees are associated with boundaries and borderlines: they mediate between life and death, birthing and funerary ritual, the delineation of sanctuaries, and the creation of humanity from the earth.[50] Goodison concludes that '[t]hese associations suggest a perception of trees and boulders as passageways, point of contact with the divine and the underworld, with the unknown spaces before and after life, with the extraordinary.'[51] The human interest in listening to the tree and stone's whispers and the vocal oracles of their human priestess-intermediaries, then, are focused on 'the capacity of trees and stone to enable humans to access special knowledge, wisdom, and inspiration.'[52]

It is this ability to listen, speak, and know that Hesiod seeks to grasp during his transformation from shepherd to prophetic poet. Goodison emphasises the chthonic origin of these whispered knowings: the Earth herself is a prominent source of prophecy, with the sole claim of being the most ancient oracular source possible.[53]

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[49] *ibid.*, 56.

[50] *ibid.,* 52. Some key texts: *Iliad* 21.403-405, boulders mark boundaries; *Odyssey* 24.11, the White Rock is the boundary between life and death; Hesiod, *Catalogue* 234, Deucalion story, creation of humans by stone; Hesiod, *Theogony* 485-487, Kronos swallows the omphalos; Hesiod, *Works and Days* 145, third race of men made from ash trees; Homeric *Hymn to Apollo*, Apollo's palm tree; *Iliad* 6.420, elms at Eëtion's grave; *Iliad* 2.506, Poseidon's sacred grove.

[51] Goodison, 52.

[52] *ibid.*, 52.

[53] *ibid.,* 52-53. See also Hesiod and Martin West, *Theogony: Edited with Prolegomena and Commentary by M.L. West.* (Oxford: Clarendon Press, 1966), 295, 339. West overviews Earth's prophetic role, and cites many later allusions to her oracular associations. In *Theogony* 624-28, prediction and advice are proffered by Earth; in 463-476 and 888-893, by earth and heaven jointly.

Indeed, the very name 'omphalos' (meaning navel) suggests the centre-of-the-world stone somehow connects to the belly or womb[54]—a maternal reference which seems fitting given the omphalos' mythic connections to the stone devoured by Kronos in place of a chthonic Earth goddess's newborn infant.[55] Perhaps this clarifies why Hesiod's songful Muses are enveloped in the darkness of night: this imagery strongly recalls the dark, womb-like space of oracular-epistemic becomings.

Goodison has offered an interpretation of tree and stone communication. She notes that scholars have tended to interpret 'the sounds of birds and of wind in the oak's leaves... as heaven-sent in the construction of a conversation between heaven and earth.'[56] However, in Goodison's view, this is a typically Christian and far-too-modern understanding of divine communication. Instead, she suggests that the Minoan iconography depicts communication between two very earthly realms: the elevated realm of the tree-tops and the lowered realm of the omphalos stone.[57] She interprets the touching or shaking of trees as means of attracting the attention of the goddess we sometimes see appearing in iconography—humans participate in the communication of tree and stone by causing a rustling sound of leaves and branches (perhaps in energetic rhythmic movement, like those noted later at Dodona).[58] The humans also listen and observe attentively: the Minoan ecstatics envisioned epiphanies emerging from the trees as tiny figures (perhaps resembling birds, bees, or dragonflies) hovering in the air just above the humans.[59] The end result of communication between tree and stone is contact between goddess and humans—however, far from being a celestial voice descending from on high, the Minoan

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[54] Ancient Mesopotamians also equated belly with womb (e.g., the Sumerian sign for 'pregnancy' is made up of ideograms for 'belly' and 'water'). See BBB, 125.

[55] Goodison, 53. See chapter four for further exploration of this myth.

[56] *ibid.*

[57] *ibid.*, 56.

[58] *ibid.*

[59] *ibid.*

iconography show no prostration, adoration, or worship poses, and instead suggest that the confrontations occurring in the ecstatic ritual are between beings on equal level engaged in reciprocity.[60]

To summarise: in each textual instance of the dyad encountered so far, an actor is in the process of turning away from something that opposes elite masculine identities (whether that is of the warrior or philosopher). The tree and stone represent a vague temporality of ancientness to warriors and philosophers alike: something associated with oracles, nature, and wildness, which are conceptualised as existing outside the walls of the city-state and in opposition to patriarchal lineages of gods, kings, and nobles. Throughout these sonically-saturated exempla, we hear female voices and youthful voices: the tree and stone whisper like romantic youths; the Muses sing their divine songs in the thick dark cover of night; mothers, wives, and children weep for their lost or endangered warrior beloved. While we cannot hear the presence of the unknown Minoan goddess, we do hear the oracular revelations of Earth (called Gaia or Rhea) and the voices of the Pythia and other female oracles. (Rhea will return as a central figure in chapter five.)

Ugaritic myths and incantations

Words regarding wood, whisperings regarding stone

Very little remains intelligible of Minoan and Mycenaean writing systems, and therefore it is impossible to locate textual instances of the dyad that directly correspond to the Minoan iconographies. However, during this same period (Middle Bronze Age), civilisations both to the east and south of the Aegean produced a large quantity of texts that, although written in extinct Semitic languages, have been largely deciphered and reconstructed.

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[60] *ibid.*

Of particular interest are the clay tablets discovered in the archives of the city-state of Ugarit (located on the north-eastern Mediterranean coast, near modern-day Ras Shamra, Syria). Ugarit flourished around the same period as the Minoan civilisation on Crete, rising in power in the early second millennium and suddenly disappearing during the wide-spread Bronze Age collapse (c. 1200BCE).[61] Ugarit, while an independent city-state for much of its history, was located in a key strategic area of interest to large empires. Their political allegiances and trade agreements therefore shifted between the Hittites and Ancient Egyptians, with evidence of diplomatic ties with the Mycenaeans, Cypriots, and other Aegeans to the west, Mesopotamians to the east, in addition to other city-states along the Phoenician-Canaanite coast.[62] López-Ruiz emphasises the role of the Syro-Phoenician states as one of the major transmission routes for myth, connecting Greek with Anatolian and Mesopotamian theogonic-cosmogonic narratives.[63]

I have located four certain instances of the dyad in Ugaritic texts. López already noted the three instances in KTU 1.1-1.6, and I have found additional examples in KTU 1.82 and KTU 1.12, although it must be noted that the latter is a highly fragmentary text and so our identification must remain tentative.[64]

The third tablet, KTU 1.82, is of a different sort altogether, containing five magical incantations against snake bites, possibly used in a medicinal context.[65] The dyad is

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[61] See chapter one for discussion of Bronze Age collapse.

[62] For a study of the political relations between Ugarit and the Egyptians and Hittites, see Michael C. Astour, 'Ugarit and the Great Powers', in Gordon Douglas Young, ed., *Ugarit in Retrospect: Fifty Years of Ugarit and Ugaritic* (Winona Lake: Eisenbrauns, 1981), 3ff.

[63] López-Ruiz, 15.

[64] The tablets KTU 1.1-1.6 form a cohesive narrative, often called the *Baal Cycle* (dated c. 1500-1400BCE), which relates Ugaritic theogonic myths in which Baal (a storm god) ascends to the throne of the pantheon. The dyad is repeated three times in the *Baal Cycle*.

[65] KTU 1.12 has not received extensive scholarly attention, partly because of the state of the tablet. I am following the interpretation of Gregorio del Olmo Lete, who divides the tablet

featured in the last incantation. The first and final incantations of KTU 1.82 have been preserved almost entirely intact, while the other three have suffered extensive damage.[66] Fortunately, the final incantation can be almost entirely translated:

> [If] you tread on a creeping creature on the ground, run away in front of it and let Baal fire it, indeed!
>
> [And for] your abode and also for your family may Anat stand up, Anat yes stand up.
>
> [From] your family may he expel it for you, from the walls of your house may he expel it for you.
>
> [----] the creatures of terror, the creatures of convulsion, the servants of Horon [may expel for you].
>
> [----] I am going to strongly cry to your intercessors: *ẓẓ wkmṯ*, the gods,
>
> [----who are] like trees, like trees which do not emit sound, like stones which do not murmur.[67]

This usage of the dyad is strongly reminiscent of the Minoan and Greek oracular references. The ritual performer calls upon the gods, seeking through vocal means to

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text into five short incantations. Others, however, have read the text as a single, long composition. However, this requires a high degree of reconstruction, which is unhelpful in the current analysis. See Johannes C. de Moor, ed., *An Anthology of Religious Texts from Ugarit*, Nisaba, v. 16 (Leiden: E.J. Brill, 1987), 175ff.

[66] The five incantations appear to be intended for preventing and treating snake bites, but given the numerous lacunae it is difficult to be certain that we perceive all their meanings—the first incantation, for example, may reference menstrual blood, leading several scholars to suggest that it was used to treat a severe menstrual disorder (possibly amenorrhea). See de Moor, 175.

[67] Translation by Gregorio del Olmo Lete, 'KTU 1.82: Another Miscellaneous Incantation: Anti-Witchcraft Text against Snakebite in Ugaritic', *Aula Orientalis: Revista de Estudios Del Próximo Oriente Antiguo* 29, no. 2 (2011): 245–65. The phrase *ẓẓ wkmṯ* remains untranslatable, but may refer to specific group of deities.

get their attention. The first deity mentioned is the storm god Baal, who seems to be credited with striking the creeping beast with his lightning weaponry. The incantation also features Horon, a Canaanite god frequently invoked alongside Anat (goddess of warfare known for her serpent slaying) and Rešef (god of pestilence and plague).[68] One of Horon's prominent roles is repelling threatening beasts, so his presence here seems fitting.[69] He also appears to fill the role of a healer associated with the Canaanite cult of the bronze serpent, with his probable cultic centre (Beth-Horon) near that of Rešef (Jerusalem).[70, 71] This geographical area would later be dominated by the Edomite-Israelite cult of Yahweh (see Appendix A). We cannot know if the servants of Horon are mortal priests or divine assistants, but the incanter of the magical formula wishes to access the gods through some kind of intercessor, and to receive an auditory oracular confirmation of divine response.

KTU 1.12 is a complex text and will be analysed in more depth in the following chapter. For now, it is sufficient to note several of its features: it is part of several extant Ugaritic myths in which El and Baal compete over control of the kingship of the Ugaritic pantheon. El's role as *paterfamilias* is never truly threatened by Baal, however El wishes to influence the succession of the kingship in favour of another candidate. In KTU 1.12, El impregnates two slave girls, Tališ and Damgay, in order to

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[68] John Gray, 'The Canaanite God Horon', *Journal of Near Eastern Studies* 8, no. 1 (January 1, 1949): 29-31.

[69] Gray, 30-31.

[70] In *Numbers* 20-21, the Israelite people travel in Edom, in South Canaan. They provoke the anger of Yahweh, the local smelting god, who sends poisonous 'fiery serpents' among them. Moses, who had lived among the Midianite smelting clans of that region, sets up a cultic bronze serpent. Those bitten by snakes look upon the serpent and are spared death. Later Hebrew texts declare this object illicit: 2 *Kings* 18 depicts the reformer King Hezekiah destroying the bronze serpent. See discussion in Amzallag, 'Copper', 156-7. See also Appendix A for the religious significance of metallurgy in Israel and Edom.

[71] Gray, 31.

produce monsters who will fight Baal. He sends the pregnant slaves out into the steppes (a place predominantly unsettled or inhabited by tribal nomads, outside the limits of civilisation) to give birth, commanding them (if the reconstruction of the text holds true) to find a specific oak tree and place a 'birthing stone' beneath it. The slave girls use this stone to crouch down to give birth to the monsters, whom El names the Eater and the Devourer. While Baal defends himself successfully against the monsters, he is quelled for seven years, causing an extended period of infertility across the land. The myth seems to serve a particular purpose: to demonstrate that the storm god is indispensable for terrestrial fertility, and hence a suitable leader of the gods. Forte's study of the Semitic terms for tree and stone demonstrates that the dyad could be appropriated into the divine regalia of Baal, the whisper of tree becoming the crash of lightning and the murmuring of stone, the thunder, both construed as metal weaponry.[72]

We can find additional support for identifying the dyad in KTU 1.12, when we consider this text's strong mythopoeic relationship with the *Baal Cycle*. Both stories belong to the genre of myths depicting the struggles of the storm god for kingship. Since the surviving text of the *Baal Cycle* contains three instances of the dyad, our identification of the dyad in KTU 1.12 seems plausible. If, for the time being, we can understand KTU 1.12 to contain an instance of the dyad, we can also confirm that it contains the set of thematic references already identified in other exempla. On one hand, we find the divine *paterfamilias* inseminating slave women to accomplish his reproductive and military goal: an act of ownership, kingship, paternity, and aggression.[73] On the other hand, however, we find the tree and stone, located far

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[72] Forte, 30.

[73] Among El's epithets are 'The Potter' and 'Father of Humanity', both serving as references to humanity's origins in clay worked by a divine father. El, then, has a strong and elemental claim to the domain of fertility and reproduction. In this role, El has a similar function as the Sumerian Enki (Akkadian Ea), who is also god of the potter's kiln. We also find the newcomer Baal fighting for his position in the pantheon—his claim to the divine kingship

outside the reaches of patriarchal civilisation: the place where the banished slave girls go to give birth to monsters.[74]

The competition between the elder potter god and younger storm god is writ large in the *Baal Cycle.* As Mark Smith has noted, the *Baal Cycle* contains two parallel narratives: first, Baal's conflict with Yamm, the god of the sea; and second, Baal's conflict with Mot, the god of death. In both cases, Baal's rivals offer a claim to the kingship of the pantheon, supported by El. Baal, seeking to challenge their claims, engages with the rival in combat and is vanquished. However, Baal returns after long absence and, with extensive assistance of other deities, achieves the victory. As in many ancient near eastern theogonies, the king of the pantheon does not replace the *paterfamilias*: in the case of Ugarit, El and Baal appear to reign together as co-regents once the balance of power has been stabilised.[75] While the *Baal Cycle* narrates conflict between Baal and El, it is Athirat who suffers the most direct violence.[76]

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centres around his role as a storm god providing necessary rains for the maintenance of life on land. Modern scholars describe Baal as the central fertility deity of the Ugaritic texts—the ancient scribes certainly do go to great lengths to exalt him as such—and he, too, is often depicted in the act of copulation and fathering. Smith, *Baal Cycle,* Vol. 1, 83.

[74] It is important to mention here that Athirat, the consort of El and most senior goddess of Ugarit, also stakes her own claim as primary deity of reproduction. Her epithets include 'Creatrix of the gods' and the 'Lady of the Sea'; she is associated with trees, and scholars have suggested that she might be equated with several tree and twig goddesses from the Levant (Hadley, 8). In chapter three, we will examine evidence of tree and sea as symbols of reproduction. For now, it important to keep in mind that, when Baal slaughters Athirat's many sons, he attacks her position as mother of the pantheon and, by extension, her position as primary fertility goddess. (Hadley, 50, 69.)

[75] See also Lowell K. Handy, *Among the Host of Heaven: The Syro-Palestinian Pantheon as Bureaucracy* (Winona Lake, Ind: Eisenbrauns, 1994).

[76] In one tale, Baal rapes Athirat with the consent of her consort El. At the same time, Baal tells Athirat that he has killed all of her sons. See John Day, 'Asherah in the Hebrew Bible

Both El and Baal use the dyad when sending messages. In fact, the text is copied nearly verbatim in each of the three instances, with a few important exceptions. (See translations in Fig. 1) Baal summons his consort and strong supporter Anat (as spoken to the Messengers in 1.3 II 11-31, and subsequently delivered to Anat in 1.3 IV 7-20), while El summons the smithing god Kothar-wa-Hasis (1.1 III 10-16). The two gods have strikingly different dwelling places—El lives in a tent-palace deep under the earth near the watery depths of the abyss, while Baal lives up in the cloudy summit of Mount Sapan.[77] Both wish to control the governance of the domain of earthly fertility, and so must convene their powers in the middle ground. In the first instance of the dyad, El claims to have a solution: he promises Kothar-wa-Hasis that he will speak of that which can converse between the Deep (watery abyss) and the Stars (astral realm), between Heaven (celestial domain) and Earth (chthonic domain). In other words, he can speak the reproductive murmurings of the tree and the stone—an intermediary realm we have already noted in the Minoan iconographies.

Thus El claims to have obtained secrets of terrestrial fertility that most of the gods and all of humanity do not possess. However, El provides no information on how he will accomplish this task of convening celestial and chthonic powers on the surface of the earth. When Baal repeats this summons, he gives Anat specific information regarding his understanding of 'the lightning which the Heavens do not know'. In other words, Baal, as the storm god, possesses something that the elder Potter does not: as the Cloud Rider, Baal can lay claim to the intermediate domain of weather and atmosphere, a domain in the sky but intimately connected to the earth. It is Baal's understanding of storm rains, fundamental to vegetation and agriculture, which

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and Northwest Semitic Literature', *Journal of Biblical Literature* 105, no. 3 (1986): 391. The story of Baal slaughtering Athirat's sons is repeated in the *Baal Cycle* as well.

[77] Smith, *Baal Cycle*, Vol. 1, 218.

enables him superior mastery of the dyad. This mastery appears to be fundamental to Baal's claim to be the chief deity of fertility.[78]

Baal does not accomplish his victory on his own. Despite being initially summoned by El, the smithing god Kothar (a chthonic god of mines and caverns, of volcanic depths and the smelting power of the netherworld's heat) ends up assisting Baal in his struggle against Yamm. Kothar forges two invincible metal weapons which leap of their own power to assist the storm god.[79] Baal also receives powerful support from his consort Anat, an astral, bird-like goddess with a thirst for blood and battle. It is Anat who attacks and dismembers Mot after Baal was unable to defeat him.[80] Thus, without Anat and Kothar's support, Baal would have remained unable to defeat either of his enemies. The storm god needed the astral warrior and the chthonic smith to lay claim to the full spectrum of the pantheon's domains: the abyss, the land, the atmosphere, and the heavens.

In the midst of all this, the tree and stone murmur and whisper reproductive possibilities. It is important to stress here that the tree and stone do not relate to each other as heaven does to earth: as in the Minoan iconography, both tree and stone have a fundamentally terrestrial significance. It is the gods far above and below who seek power through knowing and declaring their murmured secrets. It is also important to note the sonic dimension of victory: after Baal defeats Yamm and Mot, he gives his characteristic bellowing roar of thunder across the land, a sonic marker of the return of fertile storm rains.[81] Although Baal may be interested in claiming the secrets of tree

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[78] *ibid*, Vol. 1, 66, 248-250; Vol., 2, 15-16.

[79] *ibid.*, Vol. 2, 19-20.

[80] Baruch Margalit, trans., *A Matter of 'Life' and 'Death': A Study of the Baal-Mot Epic (CTA 4-5-6)*, Alter Orient Und Altes Testament, Bd. 206 (Neukirchen-Vluyn: Neukirchener Verlag, 1980), 158.

[81] Smith, *Baal Cycle*, Vol. 1, 15.

and stone, he reverts back to his father tongue of thunderous roars: a stark sonic contrast that would not have escaped ancient audiences.

Figure 1: Instances of the dyad in the *Baal Cycle*

KTU 1.3 III.11-31:
And say to Adolescent Anat,
Recite to the In-law of the Peoples:
'Message of Mightiest Baal,
Word of the Mightiest of Warriors: ...
You must hasten! You must hurry! You must rush!
To me let your feet run,
To me let your legs race,
For a message I have, and I will tell you,
A word, and I will recount to you,
Word of tree and whisper of stone,
Converse of Heaven with Earth,
Of Deeps with the Stars,
I understand the lightning
which the Heavens do not know,
The word people do not know,
And earth's masses do not understand.
Come and I will reveal it
In the midst of my mountain, Divine Sapan,
On the holy mount of my heritage,
On the beautiful hill of my might.'

KTU 1.3 IV.7-20:
Message of the Mightiest Baal,
Word of the Mightiest of Warriors: ...
You must hasten! You must hurry! You must rush!
To me let your feet run,
To me let your legs race,
For a message I have, and I will tell you,
A word, and I will recount to you,
Word of tree and whisper of stone,
The word people do not know,

And earth's masses do not understand.
Converse of Heaven with Earth,
Of Deeps with the Stars,
I understand the lightning which the Heavens do not know,
Come and I will reveal it
In the midst of my mountain, Divine Sapan,
On the holy mount of my heritage,
On the beautiful hill of my might.'

KTU 1.1 III.10-16
You must hasten! You must hurry! You must rush!
To me let your feet run,
To me let your legs race,
To the mountain, Mount Ks.
For a message I have, and I will tell you,
A word, and I will recount to you,
Word of tree and whisper of stone,
Converse of Heaven with Earth,
Of Deeps with the Stars,
The word people do not know,
And earth's masses do not understand.
Come and I will reveal it.

Smith has identified another fragmentary Ugaritic tablet (RS 92.2016) that helps contextualise the reproductive significance of the tree and stone's oracular murmurings. The tablet contains an incantation describing a meeting between Horon and a goddess called 'The Queen of Incantation'. The text is highly fragmentary, but contains many of the terms and phrases found in the dyad summons in KTU 1.1 and 1.3. In this text, the stars are repeatedly called upon, associated with various deities (including Baal and Kothar). There is a slight whisper of the dyad, perhaps, in the

mention of Athirat by her epithet Qudšu (whom we know as a tree goddess[82]), followed later in the text by mention of stone. Shortly thereafter, there is mention of a term related to the Kotharatu, the Ugaritic goddesses of conception and midwifery.[83] At line 22, there is a rubric marked off from the rest of the text featuring reference to childbirth.[84] According to Smith, the incantation may have been used to ensure a safe delivery.[85]

Smith emphasises that 'echoes of both divination and old cosmological elements may be at work' that 'seem to refer to the secret language of nature' connected with the cosmic secrets of creation.[86] Various scholarly studies have suggested that 'divination of cosmic elements and astrology predate the dominance of anthropomorphic deities', which in turn suggests that 'these older features of the ancient Syrian-Mesopotamian religious landscape were situated and partially submerged within the wider praxis of

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[82] For detailed discussion on the Athirat-Qudšu connection and their connection with trees, see Hadley 48-49. See also Day, 'Asherah in the Hebrew Bible'. Hadley notes that the names 'Athirat' and 'Qudšu' derive from alternate Semitic roots for 'sanctuary' (9). The cult of Athirat was very widespread in the ancient near east. She was known in Mesopotamia from at least the second millennium BCE. The goddess Athirat is known in Hebrew, Arabian, Babylonian, Akkadian, and Ugaritic texts, and referred to as a sacred living tree, grove, shrine or sanctuary in Hebrew, Canaanite, Akkadian, Phoenician, and Aramaic. See E. Lipinsky, 'The Goddess Athirat in Ancient Arabic, in Babylon, and in Ugarit', *Orientalia Lovaniensia Periodica* 3 (1972): 112–16.

[83] Note the similarity in name between Kothar and the Kotharatu—both mean 'wise'. See Chapter 4 for similar apellations granted the god Marduk.

[84] Smith, *Baal Cycle*, Vol. 2, 232-233.

[85] Smith considers that references to sweat in RS 92.2016 mean the incantation may have been used to heal sickness instead. Perhaps it is possible to integrate Smith's interpretations, for sweat is a normal part of labour but also an ominous sign of puerperal fever—the incantation could be intended to help ensure safe childbirth, including supporting the postpartum health of women who develop infections.

[86] *ibid.,* 233-4.

the anthropomorphic divine cosmos.'[87] Smith understands Baal's speech in KTU 1.3 to utilise 'this ancient divinatory worldview in service to his message of cosmological wonder.'[88] Our exploration of the tree and stone strongly suggests that these highly ancient practices of divination involve not only gazing upon the stars, but also interacting with intense listening to the earth.

Instances of the dyad in the Ugaritic literary corpus support López-Ruiz' hypothesis that the tree and stone dyad was already a very ancient ritual idiom at the time of the Bronze Age.[89] López-Ruiz summarises the dyad's primary thematic references as follows:

1. primeval elements connected to the origin of mankind (hence also fertility);
2. transmission of restricted, divinely inspired, knowledge and, as a derivation to this;
3. speech in crucial (revelatory?) circumstances.[90]

Our explorations of the dyad have suggested that there are many nuances to add to these three points. First, the realm of utterance is a contested and intensely gendered space. Second, the element of fertility and reproduction plays a far more central role than López-Ruiz affords (partly because she could not identify all the Ugaritic exempla). Reproduction is also contested: the maternal reproductive principle of childbirth on the one hand, and the paternal reproductive principle of warrior

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[87] *ibid.,* 233. See also van Binsbergen and Wiggerman, 'Magic in History. A Theoretical Perspective, and Its Application to Ancient Mesopotamia', in I. Tzvi Abusch and K. van der Toorn, eds., *Mesopotamian Magic: Textual, Historical, and Interpretative Perspectives*, Ancient Magic and Divination 1 (Groningen: Styx Publications, 1999), 1-34; Victor Hurowitz, 'Urim and Thummim in Light of a Psephomancy Ritual from Assur (LKA 137)', *Journal of the Ancient Near Eastern Society* 21, no. 1 (January 1, 1992), 95-112.

[88] Smith, *Baal Cycle,* Vol. 2, 234.

[89] López-Ruiz, 64.

[90] *ibid.*

manhood on the other. In Figure 2, I have summarised our additional thematic discoveries according to patterns of contestation:

Figure 2: Patterns of contestation

Themes related to the dyad:	*Themes related to turning away from the dyad:*
Youths, romance	*Warfare, battle*
Family	*Bronze-armoured manhood*
Being reduced to a state of nature	*Greatness, wealth*
Safety	*Honour, revenge*
Attachment	*Lineage*
Grief, desire to preserve life	*Glory in death*
Home	*Fatherland*
Autochthony, earthen origins	*Genealogy, paternal origins*
Vulnerability, defencelessness	*Power, throne*
Simplicity, naiveté	*Rivalry, contest*
Distant regions, wildness, nature	*City, civilisation*
Ancientness	*Present struggles, efforts to achieve glory*
Ecstasy	*Worship, prostration, adoration*
Primacy given to divination, astrology	*Primacy given to anthropomorphic deities*
Whispers, murmurs, words	*Thunderous roars*
Oracular speech	*Commandments, summons, declarations*
Wisdom, special knowledge	*Rivalry, dominance*
Belly, womb, birth, midwifery	*Insemination, fatherhood, kingship*
Passageways, points of contact	*Ownership, claiming*

In my view, the themes related to turning away from the dyad centre on metallurgical ideology: whether in Homeric or Ugaritic tales, metal armoury and wealth are the dominant symbols of warrior masculinity. To be an ideal man is to be rich in bronze, gold, and captive women. The violence necessary to achieve this kind of glory necessitates turning away from the attachments and vulnerabilities associated with tree and stone, and is dependent on the mastery of wildness and nature perceived both in the earth and in women. In chapter one, we noted the importance of metal as a hook for social ideology, where opulent displays of copper and gold contributed to the re-negotiation of gender and age—over the course of the Copper Age, metal was used to redefine the notion of origin from its earlier associations with houses to a strong

equivalence with patrilineal ancestry. Metallurgical ideology is patriarchal in the literal sense, as it locates authority in fatherhood. It is no coincidence, then, that the heroes of Ugarit and archaic Greece understood honour and glory as a departure from home and family, structures associated with maternal or household origins.

Hebrew scriptures

As they say to the tree: you are my father and to the stone: you gave birth to me

The patterns of contestation listed in Figure 2 are made more explicit in the context of Judaic henotheism. While the Hebrew texts were compiled very late (around 600-50BCE), they contain a substratum of older Canaanite material, albeit extensively redacted.[91] Redaction contributed to hiding Israel's polytheistic and syncretic past. Roger Moorey emphasises that the archaeological evidence for Israelite cultic practice does not match up with descriptions of Israelite religion found in the Hebrew scriptures, because these texts were 'written by elite religious reformers who wrote of an advocated Israelite religion that did not actually exist on the ground.'[92]

The Hebrew texts contain many references to tree or stone as important components of both licit and illicit Israelite ritual practice. The Hebrew terms for ritual trees and stones are themselves telling, for they reference cultic practices shown to far-predate monotheistic Israelite religion: in much of the Hebrew texts, they are called *asherim*

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[91] It is important to recognise that Hebrew sources have unclear relation to the Bronze Age texts, given their compilation at the end of the Iron Age or early historical period. Mark Smith emphasises that we have no detailed information about Israel before the eighth century; to complicate matters, biblical texts were written long after the historical periods they purportedly describe, and so we must approach their claims to historical witness with much caution. Smith, *The Early History of God*, xxii-xxiii.

[92] P. R. S. Moorey, *Idols of the People: Miniature Images of Clay in the Ancient Near East*, The Schweich Lectures of the British Academy 2001 (Oxford: The British Academy and Oxford University Press, 2003), 1.

(sing. *asherah*) and *masseboth* (sing. *massebah*). Uzi Avner, an archaeologist specialising in *masseboth* and other types of standing stones, traces their use to the Neolithic.[93] At some point in history, Asherah was part of Hebrew religion, equivalent to Athirat of the more northern Canaanites.[94] Her role changed over time, gradually being diminished (a pattern common to the ancient near east), with several features of her cult being absorbed into that of Yahweh.[95]

Like the Ugaritians, Minoans, and Greeks, the Hebrew people extensively used trees and stones in their cultic and ritual practices. Elizabeth LaRocca-Pitts has compiled all references to *asherah* in the Hebrew biblical texts, and has found that the terms refer to a range of cultic concepts and items: the goddess Asherah herself, wooden statuary, sacred wooden poles, sacred living trees, and sacred tree groves; the references to *massebah* demonstrate an even wider range: standing stones, baetyls (from Phoenician *beit-il*, 'house of god'), and stone pillars with a variety of uses and

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[93] Uzi Avner, 'Sacred Stones in the Desert', *Biblical Archaeology Review* 27, no. 3 (2001): 30.

[94] Hadley, 9.

[95] For further research on Athirat/Asherah, see Bob Becking, ed., *Only One God? Monotheism in Ancient Israel and the Veneration of the Goddess Asherah*, The Biblical Seminar 77 (Sheffield: Sheffield Academic Press, 2001); Othmar Keel, *Goddesses and Trees, New Moon and Yahweh: Ancient Near Eastern Art and the Hebrew Bible*, Journal for the Study of the Old Testament 261 (Sheffield: Sheffield Academic Press, 1998); Walter A. Maier, *Ašerah: Extrabiblical Evidence* (Atlanta: Scholars Press, 1986); Saul M. Olyan, *Asherah and the Cult of Yahweh in Israel*, Monograph Series: Society of Biblical Literature, no. 34 (Atlanta, Ga: Scholars Press, 1988); Richard J. Pettey, *Asherah: Goddess of Israel*, American University Studies, v. 74 (New York: P. Lang, 1990); Steve A. Wiggins, *A Reassessment of 'Asherah': A Study According to the Textual Sources of the First Two Millennia B.C.E*, Alter Orient Und Altes Testament, Bd. 235 (Neukirchen-Vluyn: Neukirchener Verlag, 1993).

cultic functions.[96] While many of these biblical references to trees and stones are positive, it seems that some biblical redactors associate them with illicit cultic practices.[97]

The prophet Jeremiah is one of the most virulent critics of illicit ritual and cult. Like Hesiod, Jeremiah is a divinely inspired speaker of truths—but instead of the Muses singing as intermediaries between gods and poet, the very hand of Yahweh touches the prophet Jeremiah's mouth.[98] Jeremiah relates that Yahweh had intervened in his mother's womb to mould him as a divine mouthpiece: 'Before I formed you in the womb I knew you, and before you were born I consecrated you; I appointed you a prophet to the nations.'[99] Jeremiah's role was to exhort the Israelites for their idolatry and warn them of the coming Babylonian invasion and deportation (the text written, of course, from hindsight)—his prophetic interventions are described as uprooting existing groves and replacing them with plantations (a common tactic of war[100]):

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[96] Elizabeth C. LaRocca-Pitts, *Of Wood and Stone: The Significance of Israelite Cultic Items in the Bible and Its Early Interpreters*, Harvard Semitic Museum Publications, no. 61 (Winona Lake, Ind: Eisenbrauns, 2001).

[97] *ibid*.

[98] *Jeremiah* 1.9.

[99] *Jeremiah* 1.5.

[100] In the ancient near east, war and conquering involved extensive attacks on groves, forests, and tree plantations. Assyrian kings boast of cutting down the plantations, orchards, groves, and forests of the vanquished, taking timber as tribute and booty, and replacing the destroyed trees with new plantations under the victorious king's ownership. Dominance over the trees of the conquered was an extension of the concept of the king as the gardener and possessor of trees. For trees and warfare, see J. M. Postgate, 'Trees and Timber in the Assyrian Texts', J.N. Postgate and Powell, eds., *Trees and Timber in Mesopotamia*, vol. VI, Bulletin on Sumerian Agriculture (Cambridge; Warminster: Sumerian Agriculture Group; Aris & Philips Ltd, 1992), 178-179. For discussion of concepts of kingship and tree possession, see Geo

Yahweh instructs Jeremiah ‘to pluck up and to break down, to destroy and to overthrow, to build and to plant.’[101] The prophet takes on the guise of an armour-clad warrior, for his god promises to ‘make you this day a fortified city, an iron pillar, and bronze walls, against the whole land, against the kings of Judah, its princes, its priests, and the people of the land.’[102]

Jeremiah accuses the Israelites of bowing down to other gods ‘upon every high hill and under every green tree’, ‘like a harlot’.[103] While polytheist Israel is often described as an adulterous and fornicating woman, the dyad is framed in explicitly reproductive terms to shame the leaders of Israel for having strayed from the pure cult of Yahweh:

> As a thief is shamed when caught, so the house of Israel shall be shamed: they, their kings, their princes, their priests, and their prophets, who say to a tree, `You are my father,' and to a stone, `You gave me birth.' For they have turned their back to me, and not their face. But where are your gods that you made for yourself? Let them arise, if they can save you, in your time of trouble; for as many as your cities are your gods, O Judah.[104]

This text shows trends in word usages common across the Prophetic Corpus, using *etz* (tree or wooden stock) and *eben* (stone or rock) instead of the cultic terminology *asherah* and *massebah*. This appears to be an act of diminution: reducing a goddess to a stock of wood, and a baetyl to a mere rock. However, the dyad, despite being used to mock non-Yahwistic Canaanite practices, remains intact. Compared with the reproductive nuances of some of the other dyad exempla, Jeremiah’s reference to

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Widengren, *The King and the Tree of Life in Ancient Near Eastern Religion* (Uppsala: Lundequistska bokhandeln, 1951), 4.

[101] *Jeremiah* 1.10.

[102] *ibid.* 1.18.

[103] *ibid.* 2.20.

[104] *ibid.* 2.26-28.

childbirth is hyperbolic. The prophet appears to be highlighting the procreative significance of cultic trees and stones as a way of shaming Israelites for maintaining Canaanite fertility cult practices.

Jeremiah offers Yahweh as the only viable option: a god not made or fashioned by humans. Yahweh, true to his metallurgical roots and jealous nature, claims to be the *only* craftsman: he will tolerate no imitation or competition. The cult of Yahweh, newly remodelled as a fiercely exclusive monotheism, claims the domain of reproduction in its entirety. There is no longer any room for other Canaanite deities. However, it is important to note that Jeremiah draws heavily on imagery of bronze armament (and that of iron, given the later historical period), fortified cities, warfare, and acts of aggression. Yahweh's dominion, however, is far from secure, for the Israelites frequently betray their polytheistic Canaanite origins. Significantly, it is through the mouth of his chosen prophet that Yahweh plans to attack the tree and stone: utterance, once the whispering domain of oracular dyad, has been hardened into rhetoric, which acts as the foremost weaponry against oracular knowledge.

This text also highlights a useful set of gender associations. To Jeremiah, the tree is associated with the male reproductive role, and the stone with the female. This helps disrupt the common modern scholarly approach to the tree and stone, which reverses the gender association. John Younger assumes that 'we might find the tree more feminine, being natural, and the baetyl more masculine, being shaped and placed.'[105] Ancient concepts of stone, however, cannot be assumed to align with modern gender assumptions.[106] Chapter three will focus on the female reproductive symbolism of the

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[105] Younger, 49.

[106] While one might argue that the prophet is reversing the gender associations as part of his mockery of polytheism, I will seek to demonstrate that the associations between stones and birth are both extensive and pervasive across the ancient near east and Mediterranean literary record. In my view, the prophet mocks the tree and stone as representative of illicit cult by

stone—for now it is sufficient to note that, for many ancient peoples, stones were supple and maternal.

One of the minor prophets also uses the dyad in his rebuke of polytheism in Israel. Dated to the Babylonian conquest of Jerusalem, the writings of Habbakuk attempt to rationalise the demise of the Judean monarchy as caused by the Hebrew people's unwillingness to fully commit to state monotheism:

> What profit is an idol when its maker has shaped it, a metal image, a teacher of lies? For the workman trusts in his own creation when he makes dumb idols! Woe to him who says to a wooden thing, Awake; to a dumb stone, Arise! Can this give revelation? Behold, it is overlaid with gold and silver, and there is no breath at all in it. But the LORD is in his holy temple; let all the earth keep silence before him.[107]

Habbakuk's usage does not contain Jeremiah's explicitly gendered imagery. However, several elements of the text are familiar: the prophet associates tree and stone with revelation or oracle. He mocks those waiting for the sacred wood and stone objects to make a sound—the prophet is very sure that these idols are mute and breathless. Habbakuk declares that 'all the earth' must 'keep silence' before Yahweh: that is, all terrestrial and chthonic claims to oracular knowledge must be rendered voiceless, like the idols themselves.

Habakkuk's attack on the dyad brings an important theme to the forefront of our analysis: the theme of craftsmanship and metallurgy. We have noted the importance of metal armour for the performance of warrior masculinity, and the strange concentration of the metallurgy-related gods in the texts we've considered. It is no mistake that Habbakuk turns his attention to the human workman—this mortal fashions wood, stone, and metal just as the craftsmen gods of the Canaanite pantheon

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dividing what should be an entirely female-principled imagery into that of father and mother—chapters three and four develop this proposal in detail.

[107] *Habbakuk* 2.18-20.

might do in the mythical realms. This human workman, moreover, ascribes to the mainstream polytheistic belief that the process of crafting a sacred ritual object has divine significance. In rejecting polytheistic practices, Habbakuk sets himself apart from core beliefs that most ancient near eastern people would have taken for granted: beliefs that objects of nature can speak, especially those drawn from deep in the earth (such as metal ores and trees with deep roots); that crafting these objects can bring one closer to the divine realm; and that these objects, and the cults surrounding them, can be portals through which oracular revelation and divine knowledge can be obtained.

Habbakuk would therefore have been counted amongst a very small minority of ancient near eastern people—his beliefs were remarkable and unusual. Not only did he promulgate a fiercely exclusivist, monotheistic cult, but he claimed sole prophetic authority in delivering divine messages (knowledge that was otherwise inaccessible to listeners and craftsmen alike). Habbakuk attacks the very premise of the dyad: he calls the idols 'dumb', unable to speak. This rhetorical move is far too effective to be the result of ignorance or chance: Habbakuk was well aware of the dyad—either from literature, ritual, or oral tradition—and wished to obliterate any validity that the whispers and murmurs of tree and stone might still have in the eyes of the Hebrew population.

Alternate Dyad of timber and boulder

Strength of logs and stones the toiling Achaeans had set in position

With our attention now focused on craftsmanship, we can turn to the theme of state-craft. Amongst the many pages of academic ponderings of the tree and the stone are a few brief mentions of an alternate dyad form that appears in a few of the texts we have encountered: that of hewn timbers and boulders. In the *Iliad*, Homer describes the mighty war battlements constructed by the Achaeans outside Troy as 'the bastions' strength of logs (φιτρων) and stones (λαων) the toiling Achaeans had set in

position.'[108] Calvert Watkins asserts that the tree and stone of the dyad 'clearly belongs to the domain of nature: wood and rock as the original substance or material', whereas the alternate form of timbers and boulders 'equally clearly belongs to the domain of culture: the original substance transformed [or] finished.'[109]

In both Homeric cases, the tree and stone are transformed into a building material—materials used, quite significantly, in waging war. The tree and stone, then, are transformed from representatives of wildness and nature to the raw materials of civilisation building.

In the *Iliad*, the poet uses tree and stone separately to describe a battle between the Achaeans and Trojans:

> as [Hektor] drew away huge Telamonian Aias [an Achaean warrior]
> caught up a rock; there were many, holding-stones for the fast ships...
> he caught up one of these
> and hit [Hektor] in the chest next the throat over his shield rim,
> and spun him around like a top with the stroke, so that he staggered
> in a circle; as a great oak goes down root-torn under
> Zeus father's stroke, and a horrible smell of sulphur uprises
> from it, and there is no courage left in a man who stands by
> and looks on, for the thunderstroke of great Zeus is a hard thing;
> so Hektor in all his strength dropped suddenly in the dust.[110]

Timber and stone are first featured as components of the Achaean navy—wooden ships held to the shore with holding-stones. This type of stone is re-purposed as a

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[108] *Iliad* 12.24-29. The same alternate dyad is repeated immediately before Akhilles and Hektor's final battle, 21.314.

[109] Calvert Watkins, *Selected Writings. Publications 1992 - 2008*, ed. Lisi Oliver, 3 vols., Innsbrucker Beiträge Zur Sprachwissenschaft 129 (Innsbruck: Institut für Sprachwiss, 2008), 1027. I have removed Watkin's all-caps emphasis.

[110] *Iliad* 14.409-418.

weapon, knocking over a fully-clad warrior as Zeus' pyrotechnical force uproots a tree. The body of the warrior—his mortality and vulnerability, as well as his strength—is compared to an oak tree. While upright and alive, a man is connected to life (the earth) by his roots (his birth); but in battle, he is easily uprooted. In metallurgical terms, the smithing flames that forge the warrior's armour can only partially protect his body from its own mortality.

The alternate dyad of timber and boulder also appears in Jewish Wisdom literature, dating to the post-exilic Hellenistic period. *Ecclesiastes* reads:

> There is an evil I have seen under the sun,
> the sort of error that arises from a ruler:
> Fools are put in many high positions,
> while the rich occupy the low ones.
> I have seen slaves on horseback,
> while princes go on foot like slaves.
> Whoever digs a pit may fall into it;
> whoever breaks through a wall may be bitten by a snake.
> Whoever quarries stones may be injured by them;
> whoever splits logs may be endangered by them.[111]

It appears that the usage in *Ecclesiastes* is predominantly Hellenistic—that is, it extends the dyad transmission coming from Homer, rather than referencing the usages found in *Jeremiah* and *Habbakuk*. Like the Homeric usage, this passage exposes the fragility of civilisation's order and the insecurities of state-craftsmen: rulers make errors, rich men exchange roles with fools, and princes with slaves. These civilisation builders—those who turn tree and stone into the infrastructure of the state—may find themselves becoming victims of their own engineering.

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[111] *Ecclesiastes* 10.5-9.

'Oriental' cults and oracles

Orpheus allured the trees and even the insensate rocks to follow him

Ecclesiastes is one example of a syncretic text, restructuring Yahwism within a framework of Hellenic references. The late Hellenistic and Roman world produced many such hybrids: Hellenic polytheistic texts borrowed from Judaic, Egyptian, Mesopotamian, Anatolian, and Iranian sources; these influences also flowed in the other direction, and in every possible combination. In the thoroughly syncretic world of antiquity, instances of the dyad, once separately transmitted from a distant-yet-common Bronze Age source, were once again united in the vast common culture of the Hellenic *koiné*. While Jewish Wisdom literature (e.g. *Ecclesiastes*) incorporated the uniquely Greek idiom of the dyad instead of its traditional Semitic forms, Greek culture deepened its connection with Eastern Mediterranean understandings of oracle, in part, by re-integrating the Semitic forms of the dyad into Hellenic discourse and ritual.

The Hellenic world absorbed a mass expansion and diversification of mystery cults, many originating in 'the east', that is, Anatolia, Egypt, and Iran. The origin of the Orphic mysteries have been traced to Asia Minor, even to the shamanic traditions of the Scythians and Thracians.[112] Only fragments of the Orphic texts survive. At least one of the Orphic Hymns features the dyad: the *Hymn to the Nymphai* conjures a naturalistic scene, reminiscent of Hesiod's *Proem*, but this time in the daylight. Here, an idealised landscape serves the luxuriating of Pan and the Nymphs, for whom 'rocks and woods delight'.[113]

This instance of the dyad is questionable in that it is reversed. However, I believe this to be the result of scribal redaction or the vagaries of time's passing. I consider it to be

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[112] Robert McGahey, *The Orphic Moment: Shaman to Poet-Thinker in Plato, Nietzsche, and Mallarme* (Albany: State University of New York Press, 1994).

[113] Orphic *Hymn* no. 51.

a valid instance of the dyad for two reasons: first, the *Hymn* follows the thematic patterns core to the dyad's other instances, featuring the now-familiar spaces of nature and love, juxtaposed with the revelation of mysteries; second, multiple texts reference Orpheus in connection with the dyad, with either ordering. For instance, Ovid relates the dyad in the correct order: 'with his songs, Orpheus, the bard of Thrace, allured the trees, the savage animals, and even the insensate rocks, to follow him.'[114] The theogonic narrative in Pseudo-Apollodorus' *Bibliotheke*, however, retains the Orphic *Hymn's* ordering: 'Orpheus, who practised Minstrelsy and by his songs moved stones and trees'.[115] Pseudo-Apollodorus further credits Orpheus with inventing the mysteries of Dionysus, a fine attribution for a bard he identifies as the son of Calliope, the Muse presiding over poetry and eloquence.[116] Here, then, we can note that Orpheus' connection with the dyad also 'begins with the Muses', just as Hesiod narrated. The connection between Orpheus and the dyad also survives in partial form in Euripides' tragic account of Iphigeneia's death by her father's hands. When the maiden realises that Agamemnon intends to sacrifice her to ensure his military success, she begs him:

> If I had the eloquence of Orpheus, my father, to move the rocks by chanted spells to follow me, or to charm by speaking anyone I wished, I would have resorted to it. But as it is, I'll bring my tears—the only art I know; for that I

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[114] Ovid, *Metamorphoses* 11.1. It is not concerning that tree and stone are separated by the mention of animals. This appears to be a common elaboration of the dyad, extending the reference to wilderness and nature. This extension to the dyad is also found in Lucian of Samosata's satirical portrayal of an overly-confident young philosophy student who expects to quickly master the secrets of the divine contained in 'wood and stone, and animals'. (*Hermotimus* 81)

[115] Pseudo-Apollodorus, *Bibliotheke* 1.3.2.

[116] *ibid.*

> might attempt. And about your knees, as a suppliant, I twine my limbs—these limbs your wife here bore.[117]

Iphigeneia et Aulis explores the familiar contestation between warrior masculinity and the intimate bonds of birth, love, and family. In the end, like Hektor and Odysseus and so many of our heroes and gods, Agamemnon chooses honour over life. The daughter he sacrifices has a fitting name: Iphigeneia can be translated 'strong-born' or 'one who births strong offspring'.[118] Agamemnon has robbed her doubly: he has taken her female birth right, cut off her motherhood, her very name.

While the ordering of the tree and stone may have been reversed early in the Orphic transmission, these texts establish that Orpheus was commonly associated with the dyad and that, within Orphic tradition, the dyad retained its core functions in relating vocality, oracular revelation, nature, and the contestations over reproduction.

Gods of wood and stone, brass, gold, and silver

The Orphic mysteries were produced by one of many 'oriental' cults that found their place in Hellenic and Roman society—these also included the cults of Yahweh, Mithras (ancient Iran), Ahura Mazda (ancient Iranian Zoroastrianism), Cybele (Anatolian), the Syrian Goddess, and Isis and Osiris (Egyptian).[119] Neoplatonists, in particular, valued Orphic teachings—while Plato is known to have borrowed from the Orphica, the neoplatonists of later antiquity sought to exaggerate his connections with

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[117] Euripides, *Iphegeneia et Aulis* 1211-1219.

[118] Elinor Bevan, 'The Goddess Artemis, and the Dedication of Bears in Sanctuaries', *Annual of the British School at Athens* 82 (November 1987): note 18.

[119] Jaime Alvar Ezquerra and R. L. Gordon, *Romanising Oriental Gods: Myth, Salvation, and Ethics in the Cults of Cybele, Isis, and Mithras*, Religions in the Graeco-Roman World, v. 165 (Leiden: Brill, 2008), 3ff.

oriental traditions. Olympiodorus the Younger even asserted that ‘Plato borrows everywhere from Orpheus’.[120]

While this may be an exaggeration, modern scholarship has emphasised the incredible blending of myth and ritual that took place as a result of Greek expansion into the eastern Mediterranean, the Levant, and Mesopotamia. ‘From Hellenistic times forward, the theologies of the eastern Mediterranean were complicated by the tangle of correspondences between the traditional Greek pantheon and the newfound gods of nations subjugated by Alexander and later emperors.’[121]

While the complexities of these correspondences will be explored later in the thesis, for now it is sufficient to note that the collision of Greek and Roman religion (both state religion and popular folk religion) with eastern religions led to compromises on multiple levels of society. While imperial expansion led to diversification of pantheons, both individuals and institutions worked to reduce complexity and build social bridges. In some instances, gods of various traditions were equated (for example, Egyptian Thoth was equated with Greek Hermes). In other cases, multiple gods were amalgamated into one divine character (for example, Zeus absorbed the god Sabazios, the storm god of Asia Minor, as a special form or epithet).[122] In other instances, people celebrated select parts of multiple traditions in composite rituals. Williams identifies all of these syncretising efforts as deliberate measures to span or shrink cultural distance during times of increased social stress or complexity.[123]

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[120] Radcliffe G. Edmonds III, ‘A Lively Afterlife and Beyond: The Soul in Plato, Homer, and the Orphica’, *Études Platoniciennes*, no. 11 (December 1, 2014).

[121] Copenhaver, *Corpus Hermeticum*, xxvi.

[122] See Ioan Petru Culianu and Cicerone Poghirc, ‘Sabazios’, in Mircea Eliade and Charles J Adams, eds., *The Encyclopedia of Religion,* vol. 12 (New York: Macmillan Publishing Company, 1987), 499-500.

[123] See chapter six for discussion of syncretism.

Overall, Hellenic and Roman pagan theology tended towards increasingly reduced numbers of gods. The Orphica proposed a triad of the Divine (Time-Ether-Chaos); the *Chaldean Oracles* likewise proposed a triple godhead (God-Demiurge-Hekate). Both Plato's Demiurge and Ideal of the Good, and Plotinus' Hypostasis and the One accomplished similar distillations.[124] These sources proposed a super-elite level of the pantheon—comprised of the One, the Good, or the Triad/Trinity—from which the other gods might emerge (as aspects) or within which they might be constituted (as aeons—that is, forces or entities).[125]

Jewish discourses played an important role in these syncretic developments. While syncretic polytheism was distilling and reducing its complexities, Judaism's call to monotheism achieved a high level of religious prominence in the Roman Empire, eliciting both positive and violently negative reactions amongst the polytheist population.[126]

The *Sibylline Oracles*, written in a diasporic Jewish voice with strong polytheist inflections, urge mankind to abandon the gods and follow the One True God. The

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[124] Copenhaver, *Corpus Hermeticum*, xxvi.

[125] For the increasing henotheism within Hellenic concepts of the divine, see Copenhaver, xxv-xxviii; John G. Gager, *Moses in Greco-Roman Paganism*, Society of Biblical Literature. Monograph Series 16 (Nashville: Abingdon Press, 1972), 31-70.

[126] According to Franz Cumont, Jews were roughly 10 per cent of the Roman Empire's population. They established colonies all over the Mediterranean characterised by 'ardent proselytism', which had the effect of creating not only many religiously hybrid communities but also a sizeable presence of hypsistarians (Graeco-Romans sympathetic of the Jewish god and the Jerusalem Temple, who tended to blend monotheistic concepts with polytheistic ritual). Cumont further argues for a wide-spread influence of Judaism in the increasing emphasis on the almighty, transcendent divine. (Cumont, 62-65). See Franz Cumont, *The Oriental Religions in Roman Paganism* (New York: Dover, 1956), 62-65. See also further discussion in chapter six.

character of the prophetess Sibyl is attested in early Hellenistic sources.[127] Her name, however, derives from the Anatolian goddess Cybele and the most archaic descriptions portray her as a respected keeper of local stories.[128] She was known to deliver her messages whilst seated on a rock, which we might imagine to be a veiled reference to her ancient role as maternal knower or wise-woman.[129] There were, in fact, many Sibyls—these female mouthpieces proliferated in the ancient world, where some were known as wanderers and others were connected to specific locales.[130]

Why would Jewish writers choose the 'sheer oddity' of relating 'Judaeo-Christian prophecy in the mouth of an originally pagan seer'?[131] Very few of the polytheist Sibylline prophecies are now extant, and much scholarly debate concerns why and to what extent the Jewish writers adapted the original polytheist materials. However, we know enough about the *Sibylline* to know that they were connected to imperial power and indicative of a changing model of the divine. The leaders of republican and imperial Rome had such high regard for the polytheist *Sibylline* that they assigned them guards and stored them in major temples in Rome—the Roman Senate even went to great lengths to replace them when they were accidentally destroyed by a fire.[132] Over time, the Sibyl became an increasingly lofty and immaterialised figure: within Roman imagination, she became 'a lone figure, without time or... place.'[133]

The *Sibylline Oracles* feature a Jewish reworking of the Sibyl, now an extremely old woman who has 'watched war, flood, plague and famine from a primordial vantage

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[127] J. L. Lightfoot, ed., *The Sibylline Oracles* (Oxford: Oxford University Press, 2007), 8.

[128] *ibid.*, 5.

[129] *ibid.*, 4.

[130] *ibid.*

[131] *ibid.*, 3.

[132] Copenhaver, xxix.

[133] Lightfoot, 4.

point'.[134] This character is more transcendent than any Sibyl imagined by polytheists.[135] The Jewish Sibyl relates a universal god, universal history, and universal directives for good and bad, with a strong emphasis on the fates of world empires.[136] We are far removed, then, from the village storyteller or the local priestess sitting on a rock.

The *Oracles* were composed and compiled by multiple individuals between the second century BCE and the seventh century CE. Books III and V are of particular interest to us: they were both composed in Leontopolis, an Egyptian city north of Memphis.[137] This city had a significant and powerful Jewish population: here Onias IV (of the family of Jewish high priests) built a Jewish temple with the permission of Ptolemy VI Philometor.[138] Book III is the oldest collection, dating to the second century BCE, while Book V dates to the second century CE.[139] Both collections belong to the Jewish apocalyptic genre, foretelling the end of the world in a torrent of flood and fiery brimstone. The difference between the two, however, is quite clear: at the time of the earlier collection, the Jewish population had amicable relations with their polytheist neighbours; by the time Book V was composed, Jewish-polytheist relations were openly hostile and violent.[140]

Despite these differences, the two books show a united front when it comes to the dyad: both include dyad usages based on Hebrew prophetic exempla and the Homeric alternative of timber and boulder. The exempla in Figure 3 echo *Habbakuk*.

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[134] Copenhaver, xxix.

[135] Lightfoot, 6.

[136] *ibid.*

[137] Copenhaver, xxix.

[138] *ibid.*

[139] *ibid.*

[140] *ibid.*

Figure 3: The Sibyl's dyad

III.63-74:

[P]erish shall all men,

With their own houses, when from heaven shall flow

A fiery cataract. Ah, wretched me!

When shall that day and when shall judgment come

Of the immortal God, the mighty King?

But just now, O ye cities, ye are built

And all adorned with temples and race-grounds,

Markets, and images of wood, of gold,

Of silver and of stone, that ye may come

Unto the bitter day. For it shall come,

When there shall pass among all men a stench

Of brimstone.

III.740-749

[The righteous] have not by vain things been led astray,

Nor pay they honour to the works of men

Made of gold, brass, silver, and ivory,

Nor statues of dead gods of wood and stone

[Besmeared clay, figures of the painter's art],

And all that empty-minded mortals will;

But they lift up their pure arms unto heaven,

Rise from the couch at daybreak, always hands

With water cleanse, and honour only Him

Who is immortal and who ever rules.

V.103-115

[The wicked] labour hard,

Evil men evil things awaiting, wrath

Of the immortal Thunderer in heaven,

Worshiping stones and beasts instead of God,

And also fearing many things besides

Which have no speech, nor mind, nor power to hear;

Which things it is not right for me to mention,

Each one an idol, formed by mortal hands;

Of their own labours and presumptuous thoughts
Did men receive gods made of wood and stone
And brass, and gold and silver, foolish too,
Without life and dumb, molten in the fire
They made them, vainly trusting such things.

There are few surprises here. The Sibyl has echoed *Habbakuk*'s emphasis on the silence of wood and stone, and on their uselessness for accessing the divine; she also emphasises the futility of craftsmanship and metallurgy, rendering these symbolically rich polytheistic activities devoid of divine significance. The apocalyptic language of the *Oracles*, however, is replete with metallurgical and pyrotechnical language: the text mentions brimstone (which would correspond to *gofrit* in Hebrew scriptures, the toxic roasted metal ores that would cause death to anyone who inhaled their fumes).[141] Since *gofrit* is so often ascribed to Yahweh's metallurgical power in the Hebrew scriptures, we must conclude that this is another example of Yahweh, the jealous god, monopolising all symbolic metallurgical activity and obliterating his competitors, both mortal and divine.

However, in true syncretic fashion, the *Oracles* also employ the alternative dyad identified by Watkins. In a clear borrowing from Homer, Book III depicts the god Poseidon smashing building works. Book I then repeats the image, this time ascribing this power to Yahweh.

Figure 4 Sibylline mixing

III.500-510
And unto life-sustaining Phrygia
Straightway shall there a certain token be,
When Rhea's blood-stained race,
in the great earth

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[141] Amzallag, 'Copper', 158.

Blooming perennial in impervious roots,
Shall, root and branch, in one night disappear
With a city, men and all, of the Earth-shaker
Poseidon; which place they shall sometime call
Dorylæum, of dark ancient Phrygia,
Much-bewailed.
Therefore shall that time be called
Earth-shaker; dens of earth shall he break up
And walls demolish

I. 225-231
[W]hen shall come
That which I speak—God's dire incoming flood,
When Eve's polluted race, in the great earth
Blooming perennial in impervious stem,
Shall, root and branch, in one night disappear,
And cities, men and all, shall the Earth-shaker
From the depths scatter and their walls destroy.

In a strange set of syncretic elisions, Rhea becomes Eve, and Poseidon becomes Yahweh. Sibyl's dyad deviates in form, becoming a hybrid between the original and alternative dyad: mankind's genealogy is the living, rooted tree, while civilisation's walls are the hewn stones or boulders. The Sibyl's destruction, then, goes far beyond the Achaean's lost walls—she foretells the doom of both walls (i.e. civilisation) and the human race (i.e. procreation).[142] The Sibyl reduces the maternal figures of Rhea and Eve to their mere 'blood-stained' and 'polluted' offspring. This explicit

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[142] This claim is not unique to the Jewish Sibyl. In chapter six, we will encounter hermetic and gnostic texts which also foretell the end of the 'Era of Procreation'.

denigration of the maternal jars against the complex and nuanced versions of these primordial mothers we find in myths.[143]

In doing so, the Sibyl has elided two thematic groups: the empires and civilisations, given over to base polytheism, will be destroyed in a great din; their bloodlines, represented by the loathed tree and its references to fertility and procreation, will be extinguished. It is deeply ironic that the Sibyl rails against the dyad in both its Hebrew and Hellenic forms: as a female oracular mouthpiece, she subverts the foundational symbolisms of oracle and their constitution within concepts of primordial maternal creativity.

The path to gnosis

Cleave wood and I am there. Lift up the stone and there you shall find me

The syncretic world enthralled by the polytheist and Jewish *Sibylline Oracles* also produced multiple hybrid innovations of philosophy and religion broadly categorised as ‘gnostic’ or ‘gnosticising’. Gnostic philosophies and rituals have no one origin—scholars have put forward convincing cases for Zoroastrian, Babylonian, Indian, heterodox Judaic, heterodox Christian, and Hellenic origins.[144] In fact, it seems that all of these origins are, in fact, simultaneously true. Gnostic texts are truly syncretic and highly varied—some are predominantly polytheistic or dualistic, while others are fundamentally Jewish or Christian. The texts feature widely syncretic features, variously combining Babylonian astrology, various Semitic sun cults, Iranian dualism, Greek philosophy and philosophic theogony, Egyptian ritual, oriental mystery cults,

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[143] Rhea and Eve will return as major figures in Chapters 5 and 6, respectively.

[144] Gerard van Groningen, *First Century Gnosticism: Its Origin and Motifs* (Leiden: E.J. Brill, 1967), 4ff. Edwin M. Yamauchi, *Pre-Christian Gnosticism: A Survey of the Proposed Evidences* (London: Tindale Press, 1973), 69ff.

Jewish apocalyptic and Wisdom genres, exegeses of the Hebrew scriptures, and Christian soteriology.[145]

The study of gnostic literature has been long-obfuscated by reliance on the early Christian Church Fathers for basic classifications—while some of the quotations of gnostic scriptures and descriptions of gnostic sects found in the writings of the Church Fathers have proven to be accurate, the majority have not. The largest misconceptions authored by the Church Fathers are 1) the view that gnostic ideas originated as heretical innovations of Christian theology, and 2) the view that gnostics were to be found in distinct, identifiable sects that existed as social outliers.[146]

Williams' study has made a significant contribution to clearing up these false assumptions: instead of categorising gnosticism as a religion or a heretical movement, he points to the wide-spread syncretism of various 'gnosticising' groups and their tendency to blend into broader society. In contrast with the extremism of Christian

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[145] *ibid.,* 13ff. Hans Jonas holds that all of these elements of syncretism had converged on the shared notion of an Unknown God, a transcendent divine. Various gnosticising sycretist texts attempt an overarching theory of segments of this convergence. Hans Jonas, *The Gnostic Religion: The Message of the Alien God and the Beginnings of Christianity* (Boston: Beacon Press, 1958). See chapter six for analyses of syncretic features of specific texts and ritual paraphernalia. Also note that Babylonian astrology had been a much broader fascination of the Greeks, and served as the basis of their own horoscope. See Franscesca Rochberg, 'Natural Knowledge in Ancient Mesopotamia', in Peter Harrison, Ronald L. Numbers, and Michael H. Shank, eds., *Wrestling with Nature: From Omens to Science* (Chicago: University of Chicago Press, 2011), 33.

[146] Pheme Perkins has dedicated multiple monographs to these misconceptions. She entirely rejects (in my view rightly) the idea that gnosticism originated as Christian heresy. Instead, she argues that Christianity and some gnosticising groups arose out of the same diasporic Jewish milieu; and both the canonical Christian texts and the gnostic tractates have strong ties with Jewish Wisdom and apocryphal literature. See Pheme Perkins, *Gnosticism and the New Testament* (Minneapolis: Fortress Press, 1993), 22ff.

martyrs and Jewish zealots, gnostic groups were predominantly non-oppositional and pro-imperial, blending with greater ease into their surroundings. Gnostics were characterised by their investment in lowering social tensions and reducing levels of social deviance.[147]

Williams has called for scholars to abandon all rigid use of the terms 'gnostic' and 'gnosticism'; he also discourages any attempt to set a threshold of what does and does not constitute 'true' gnosticism.[148] In antiquity, calling oneself a 'gnostic' was equivalent to expressing identity as an intellectual: *gnosis* is Greek for 'knowledge'.[149] The various groups now labelled 'gnostic' in hindsight were generally made up of upper class individuals who wished to reconcile Hellenic culture with the complex world of later antiquity by focusing on their shared desire to achieve secret knowledge about the divine.[150] Gnosticising tendencies were both widespread and mainstream, and the desire for taxonomies and identities merely obfuscates this reality. For our purposes, it is important to note that gnosticisation can be located in Greek philosophy, the canonical and non-canonical Christian scriptures, Hellenic Jewish literature, and learned magical practice. (See chapter six.)

As an intellectual and spiritual endeavour, gnosticism can be defined as a broad interest in acquiring knowledge of the world and the divine—this knowledge acquisition was understood to be salvific, and was accomplished in various media.[151] The historical archive includes gnostic-type magical amulets (often intended for

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[147] Williams, *Rethinking 'Gnosticism'*, 105.

[148] *ibid.*, 4.

[149] In Aramaic, *gnosis* is *manda*—hence the eastern gnostics were sometimes called 'Mandaeans'. See van Groningen, 4.

[150] Yamauchi, 14-15; Green, 195. For gnosticising hermetics, see Garth Fowden, *The Egyptian Hermes: A Historical Approach to the Late Pagan Mind* (Cambridge: Cambridge University Press, 1986), 28.

[151] Williams, 12, 18, 25, 57-58.

medical application), extensive collections of magical incantations and initiation rites, hymns and liturgies, theological and philosophical treatises, *logoi sophon* (collections of wise sayings), apocrypha, gospels, and alchemical recipes. In chapter six, I will analyse a range of these texts and objects, and will argue that gnosticism, fundamentally, is an expression of syncretic metallurgical ideology.

Discovered in 1947 as part of the *Nag Hammadi Codices* (NHC), the Coptic *Gospel of Thomas* occupies a unique place in the New Testament apocrypha. It is not a 'gospel' in the sense expected from the canonical texts; rather, it is a very early collection of *logoi sophon* assigned a similar date to the New Testament gospels (first century CE). There is overlap between the *Gospel of Thomas* and the canonical gospels (with some sayings and parables in common), but the Coptic text stands out for its unique portrayal of the figure of Jesus. Jesus is not described as the son of God and there is no mention of him dying on the cross; rather, he is a wise man who delivers a string of sayings that have salvific potential. Much scholarly ink has been spent on arguing whether or not the *Gospel* is gnostic; however, with Williams' criticism in mind, we can bypass this debate and accept that the *Gospel* is an early Christian text containing more gnosticising elements than the synoptic canonical gospels.[152]

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[152] The four gospels contained in the New Testament feature two styles: the synoptic gospels (*Matthew*, *Mark* and *Luke*) tell the story of Jesus' life and ministry as a simple narrative; whereas *John* provides the reader with a innovative philosophic interpretation of Jesus' personage and revelation. Rudolph Bultmann famously argued that the *Gospel of John* was fundamentally gnostic, dependent on the proto-gnostic Jewish sources in the Qumran scrolls. While most scholars rejected his proposal, his perceptive analysis stands in that the *Gospel of John* does feature gnosticising tendencies. Pheme Perkins holds the revised position that both the *Gospel of John* and the early gnostic gospels (i.e. those discovered in the NHC) arose out of the rich pluralism of Christianity before it was institutionalised (that is, before any 'orthodox' position was able to assert its authority). Both *John* and the gnostic gospels composed intensely philosophic, daring interpretations of Jesus' message. See Perkins, 29-31.

In his commentary on the *Gospel*, Meyer emphasises that Jesus' *logoi* are a means through which listeners might access *gnosis*: 'the quest for an understanding of the sayings of Jesus is a worthy enterprise to be undertaken with commitment, and although the way to knowledge may be difficult and even disturbing, those who persevere will discover God's reign and God's rest.'[153] Most importantly, 'the sayings of Jesus are open for interpretation, so that disciples and readers are encouraged to search for the meaning of the sayings of Jesus and complete his thoughts after him.'[154] The first aphorism of the *Gospel* reads: 'Whoever discovers the interpretation (*hermeneia*) of these sayings will not taste death.'[155] In other words, *gnosis* is achieved through hermeneutics; it emerges in the act of interpretation—this is a claim fundamental to any gnosticising text.

Jesus' role in the *Gospel* is highly apocalyptic: he claims to 'have thrown fire into the world, and look, I am watching it until it blazes.'[156] In this guise, Jesus has a suitably fiery character: 'Whoever is near me is near the fire.'[157] Significantly, Jesus' prophetic role is defended by divine means similar to the Yahwist apocalyptic imagery of *gofrit* (brimstone, heated metallic ores): 'you will pick up rocks and stone me, and fire will come from the rocks and consume you.'[158] In case any of this metallurgical and pyrotechnic language remained vague, Jesus clarifies: 'Perhaps people think that I have come to impose peace upon the world. They do not know that

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See also Rudolf Karl Bultmann, *Gospel of John: A Commentary* [Originally *Das Evangelium Des Johannes,* 1941] (Philadelphia: Westminster Press, 1971). See also chapter six for further discussion on gnosticism.

[153] Marvin Meyer, NHC, 134.

[154] *ibid.*

[155] NHC, 139.

[156] *ibid.*, 140.

[157] *ibid.*, 150.

[158] *ibid.,* 141.

I have come to impose conflicts upon the earth: fire, sword, war.'[159] In direct metallurgical succession, the fire forges the sword, which in turn wages war.

It is within this apocalyptic imagery that the *Gospel* offers its listeners two alternative forms of the dyad for interpretation. In one instance, Jesus says, 'I am the light that is over all things. I am all: from me all has come forth, and to me all has reached. Split a piece of wood; I am there. Lift up the stone, and you will find me there.'[160] In the second instance, the dyad has been further elaborated:

> Jesus said, 'Blessed is he who came into being before coming into being. If you become my disciplines and listen to my sayings, these stones will serve you. For there are five trees in paradise for you; they do not change, summer or winter, and their leaves do not fall. Whoever knows them will not taste death.[161]

To understand these re-workings of the dyad, we must note Jesus' sayings concerning motherhood and reproduction. In one aphorism, Jesus asserts that 'children's fathers... produce them...from their mothers', therefore barring any active female reproductive role.[162] The maternal role is further denigrated when Jesus encourages his disciples to hate their mothers, 'For my [mortal] mother gave me falsehood [i.e. a body], but my true mother [i.e. the Holy Spirit] gave me life.'[163] This statement contrasts materiality (from which the gnostic must escape) with salvation that is attained when one is rid of maternal origins. The most telling statement in the *Gospel*, however, defines the divine in opposition to maternity: 'Jesus said: "When you see one who was not born of woman, fall on your faces and worship. That is your father."'[164] In other words,

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[159] *ibid.*

[160] *ibid.*, 149.

[161] *ibid.*, 142.

[162] *ibid.*, 146.

[163] *ibid.*, 156.

[164] *ibid.*, 141.

divine beings—those who constitute the ultimate spiritual realm that the gnostics so coveted—are fundamentally motherless. We will examine the aggressive paternity of the gnostic divine realm in more detail in chapter six.

In the *Gospel*'s dyads, the murmurings and the ministries of the stone and tree have been absorbed by Jesus. This seems fitting, for Jesus is the speaking sage, the spiritual *logos* (word). His vocal performance transcends that of ancient oracle. In this way, the gnosticising Christian dyad (even in its reversed form) unites many of the contested realms we have identified in ancient sources: the tree is split and the stone dislodged to find the male god, prophet, and saviour. The dyad ministers to the gnostics, but instead of connecting them to the realm of wildness and nature, the tree and stone have been lifted into the celestial realm of heaven and beckon the gnostics to likewise ascend.

The celestial relocation of the tree and stone dramatically separate the dyad from the fundamentally terrestrial role they maintained for millennia. Consequentially, the dyad's connection to nature's way of reproduction (involving both life and death, birth and decay) has been subverted: man has escaped his maternal origins and attained immortality. This immortality is shrouded in fire, conflict, and war, but it achieves a form of luminous glory freed from Hektor's mortal penalty—while Homer tells us that Hektor's armour shone like a star, Jesus has transcended simile and is possessed of transcendent light. Hektor and his gods had mothers; in contrast, Jesus was commonly understood by gnostics to have escaped the pollution of the womb and vagina, to have merely appeared on the earth without being born or to have slipped cleanly from Mary as pure water through a water pipe.[165] The character of Jesus, then, is decidedly filial. As the son of man, he arrives full of metallurgical fury, providing *gnosis* through which his listeners might abandon their maternal origins and find the motherless Father God.

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[165] Maurizio Bettini, *Women and Weasels: Mythologies of Birth in Ancient Greece and Rome*, trans. Emlyn Eisenach (Chicago: The University of Chicago Press, 2013), 52-53.

As we will see in chapter six, it is this fascination with both immateriality and the motherless divine that unites all gnostic texts. The dyad is therefore deconstructed and reconstituted in a patriarchal frame: when tree and stone are dislodged, split, and astralised, they are divorced from their archaic associations with nature, maternity, and mortality. In the final verse of the Coptic *Gospel*, Peter expresses his desire, not only to cleave wood and lift up stone, but also to sever the social bonds the Twelve Disciples have with Mary Magdalene (who might otherwise have made them the 'Thirteen Disciples') and remove her from their presence:

> Simon Peter said to him, 'Let Mary leave us, for women are not worthy of life.' Jesus said, 'I myself shall lead her in order to make her male, so that she too may become a living spirit resembling you males. For every woman who will make herself male will enter the kingdom of heaven.'[166]

Saint Augustine later echoed this view by emphasising that chaste Christian women must defeminise their souls in order to attain, like the men they produce, eternal life.[167] The perpetuation of these patriarchal views ensured that women, once the large majority of Jesus' followers and highly active in early Christian leadership, were removed from scholarship and priesthood alike.[168]

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[166] NHC, 153.

[167] Augustine equated the human soul with the rational mind, thus gendering the human as material (feminine) and rational (male). This view was continuous with mainstream Roman thought. This is a primary theme of analysis in chapter six. See E. Ann Matter, 'De Cura Feminarum: Augustine the Bishop, North African Women, and the Development of a Theology of Female Nature', *Augustinian Studies* 36, no. 1 (2005): 89. See also Elaine Pagels' analysis of Augustine in *Adam, Eve and the Serpent* (London: Weidenfeld & Nicolson, 1989), 150ff.

[168] Elisabeth Schüssler Fiorenza, 'Word, Spirit and Power: Women in Early Christian Communities', in Rosemary Radford Ruether and Eleanor McLaughlin, eds., *Women of Spirit: Female Leadership in the Jewish and Christian Traditions* (New York: Simon and Schuster, 1979), 71-98.

The dyad in syncretic magical ritual

The dyad's divorce from the terrestrial realm achieved in the *Gospel of Thomas* is both extended and ritualised in the gnosticising incantations found in the *Greek Magical Papyri* (PGM).[169] Several incantations in the PGM reference the tree and stone. For example, in PGM III.494-611, the mage invokes Helios (Hellenic god of the sun) to do his bidding, calling on him by the magical divine name IAO (Greek for Yahweh), complete with corresponding glossolalia.[170] Twelve sets of the dyad are presented in a list, each paired with a theriomorphic form representing one of the twelve hours of daylight. The first hour is monkey; the second, unicorn; the third, cat; and so on. There are extensive lacunae in the text, but the identifiable tree and stone pairings are as follows:

> the tree you produce is the silver fir; the stone, the *aphanos*...
> the tree you produce is the persea; the stone, the pottery stone...
> the tree you produce is the fig tree; the stone, the *samouchos*...
> the tree you produce is...; the stone, the amethyst...
> the tree you produce is the prickly shrub; the stone, the magnet...
> the tree you produce is the thorn tree; the stone, lapis lazuli...
> the tree you produce is...; the stone, the opal...
> [lacunae....][171]

On completion of this list, the mage declares:

> I have spoken your signs and symbols. Therefore, lord, do the [commanded] deed by necessity, lest I shake heaven... [I]lluminate me with knowledge of things beloved by you... [Grant] us intellect, speech, and knowledge; intellect so that we might understand you, speech so that we might call upon you,

[169] These texts have a complex provenance that will be discussed in chapter six.

[170] See chapter six. Glossolalia are a type of ritual vocal performance, somewhat similar to 'speaking in tongues'.

[171] PGM III.510-535.

> knowledge so that we might know you... [W]hile we are still in bodies you deified us by the knowledge of who you are. The thanks of man to you is one: to come to know you, O womb of all knowledge. We have come to know, O womb pregnant through the father's begetting. We have come to know, O eternal continuation of the pregnant father... [We ask] that we be maintained in knowledge of you.[172]

In this incantation, Jewish, Egyptian, and Hellenic elements combine in ritual elaboration of the astralised dyad found in the Coptic *Gospel of Thomas*. The tree and stone are ascribed to the sun god Helios. The dyad is split from its natural and maternal implications; knowledge (*gnosis*) of the tree and stone enable the mage to command the god to do his bidding and reveal his secrets. Like the apostles in the *Gospel*, the goal of the mage is to achieve salvific knowledge while still in material, bodily form. To do so, the suppliant uses magical power to capture or access something of the divine Father who is both begetter and gestator.

In a stunning convergence of ritual symbolism, the PGM also include ecstatic practices similar to those depicted in the Minoan iconography. One incantation features the performance of an oracle summons: Apollo's voice is sought, and the mage manipulates date palm leaves and magnet stones. The incantation references 'shaking the bough' of the tree in order to receive the message from the god.[173] In another incantation, a bird delivers an omphalos (just as in the Minoan iconography and Greek folktales) while the mage conjures the ritual action of shaking a tree by its branches.[174] An additional ritual involves the officiant waving olive and laurel branches while holding a consecrated stone to his left ear.[175] Each of these ritual

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[172] PGM III.535-610.

[173] PGM III.187-262.

[174] PGM I.42-195.

[175] PGM V.447-458.

performances are done in order to give the mage or his client insight into and power over the spirit realm.

In chapter six, we will encounter other PGM incantations to assist men in raping women, silencing unmanageable women's speech, capturing and enslaving goddesses and female spirits, and subjecting any victim to perpetual silence and slavery.[176] A frequent magical symbol is the key, which allows men to open and close women's vulvas and uteruses at will, therefore guaranteeing sexual access and paternity. Magic, then, serves as a ritual technology for the control of women's audible, sexual, reproductive bodies—the voices of the mage and wise man (Jesus in the *Gospel*) have outcompeted vulvar vocality. In chapter six, I will argue that this control is directly connected to metallurgical concepts of *gnosis*, illumination, and the pregnant father.

Post-antiquity: Islamic and Byzantine usages

Prophets, prattlers, and storytellers

The dyad appears in the earliest extant biography of the prophet Muhammad (written around 773CE by Ibn Ishaq). This text features the dyad in its familiar setting of oracular voices emanating from nature beyond the limits of civilisation:

> When Allah had determined on the coming of the apostle of Allah, Muhammad went on some business at such distance that he left habitation behind him and came to deep valleys. He did not pass by a stone or a tree but it said 'Salutation to thee, o apostle of Allah!' The apostle turned to his right, to his left, and looked behind, but saw nothing, except trees and stones. Then he remained for some time looking and listening, till [the angel] Gabriel came

[176] Examples: PGM VII.862-918, PGM IV.296-466; PGM VII.593-619; PGM XIa.1-40, PGM IX.1-14; PGM VII.940-968.

> to him with that revelation which the grace of Allah was to bestow upon him.[177]

In this story, we can recognise many of the elements of the dyad we have previously identified. Here we find another prophetic figure in the now-familiar scene of far-distant wilderness. The stone and the tree speak to Muhammad, words promising of knowledge to come—a succession of themes familiar from the Canaanite exempla in KTU 1.3 and 1.5. When the prophet remains in the space of the dyad—amongst the field of utterance—he is visited by the epiphanic figure of Gabriel, who intercedes for the god. However, the nature of the divine source has changed dramatically, from the visible, material god of the Minoans and Canaanites, to the transcendent god of Muhammad's revelations.

The dyad appears once again in the writings of fourteenth-century paroemiographer Makarios Chrysokephalos. In the tradition of Socrates' usage, the Byzantine scholar reduced the dyad to a proverb dismissed as 'incredible statements of prattlers and storytellers'.[178] This text seems a fitting end to a millennia-long contestation—the gendered language remains, literally construing oracular reproductive wisdom as mere old wives' tales. We can read Chyroskephalos' valuation of the dyad as part of a long history of Christian devaluation of oracles. Richard Stoneman holds that Christians generally frowned on divination because the possibility of women and men directly hearing divine utterance bypassed religious institutional authority—while there was remarkably little polemic against oracles and divination in antiquity, the Church Fathers went to great lengths to expose them as communing with demons.[179]

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[177] Muhammad Ibn Ishaq, *The Life of Muhammad: A Translation of Ishaq's Sirat Rasul Allah*, trans. A. Guillaume (Oxford: Oxford University Press, 1998), 105.

[178] López-Ruiz, 59.

[179] Richard Stoneman, *The Ancient Oracles: Making the Gods Speak* (New Haven, CT: Yale University Press, 2011), 2.

Centuries after the Pythia delivered her final oracle, Chrysokephalos has the luxury of dismissing female voices that once communicated so much power.

Conclusion

Over the temporal distance of three millennia, the dyad traverses a wide span of human religious imagination, from divinatory to polytheistic, monolatrous, and monotheistic understandings of the sacred and the divine. The epiphanic figures, once the Minoan birds and butterflies, become distilled in the character of an angel—a concept refined in Hellenic Judaism, when angels first gain 'the exalted, supernatural status of the marvellous being who now communicates God's message to humans'.[180] These messages brought to humans come from a radically different source—for the Minoans and Greeks, the message comes from the earthly realm when it embodies the feminine divine principle; for the Ugaritians and Hebrews, the message is astral, atmospheric, and chthonic all at once, meeting on the surface of the earth in a confusion of gods and goddesses; in syncretic gnostic, Christian, and Islamic texts, the divine origin of the message is decidedly celestial, transcendent, or beyond-earthly. Each spatial model of oracular revelation reflects an altered conceptualisation of divinity, along with a dramatic shift in understanding how gods relate to the earthly or material realm, and thus to reproduction. The replication of the dyad across millennia appears, then, as a patriarchal fascination with female reproduction and successive strategies to harness its symbolic power under the yoke of paternal

[180] DDD, 49-50. The Hellenic period is also the origin of divine messengers who have personal names, such as Gabriel. Divine pantheons across the ancient near east were designed like the state, with the bureaucratic structure of kingship, lordship, vassalry, and servitude. Ancient near eastern gods have servants, slaves, guards, and messengers of many types and positions. Some of these servile characters are designated as minor gods. The biblical Hebrew texts generally follow the same pattern, with El-Yahweh attended by many different types of pantheonic servants. None, however, fit the description of 'angels' known during and after the Hellenic period.

masculinity. Vulvar vocality, in other words, is subsumed within patriarchal cacophonies. Through reconfiguring representations of female reproduction, scribes re-enforce the notion that human origins are to be found not in mothers, homes, or the earth, but in patrilineal ancestry.

The starting point of this chapter was the desire to explore the possibility of listening to reproduction, to enquire whether it is possible to juxtapose audibility and fertility as a way of critically engaging with gendered notions of civilisation and nature. This preliminary exploration of the dyad has confirmed the possibility of locating contestations within power structures that exert force, at least in part, by mythopoeically disciplining aural and audible bodies. The dyad seems to function within mythopoeic devises that draw boundaries between rural and urban, wilderness and civilisation; within metallurgical ideology, the tree and stone symbolise a natural reproduction that mankind might transcend through the military state. At the same time, tree and stone persist as passageways, points of contact that defy boundaries and separations—remnants of a pre-godhead divinatory worldview based on a paradigm of intra-earthly communication. This paradigm draws the attention of myth writers, who expend a great deal of energy to establish far-distant heavens and netherworlds. While a divinatory worldview may be no more or less hegemonic than a theistic one, it remains significant that the patriarchal manufacturers of polytheism, henotheism, monolatry, and monotheism shared an often violent fixation on the feminine and maternal principles within the divinatory worldviews that persisted into the Bronze and Iron Ages. The patriarchal men who struggle with the dyad do not merely wish to shatter and obliterate it—they are drawn to it, mesmerised by its antiquity and authority, and filled with intense and unsettling ambivalences. They engage with the dyad in many ways: mimicking it, belittling it, transmutating its meanings, turning away to ignore it, employing it as authority, lashing out at it. It is through these struggles that metallurgical ideology is revealed as halting, unstable, comparatively young.

Most of the texts analysed in this chapter have moments of hushed sonic profile—the soundscapes of the intact dyad are characterised by quietude and soft sounds. When the warriors, heroes, and prophets react to the tree and stone, they introduce a newly-cacophonous world of battle, celestial roars, and the upheavals of state building—each provides a soundscape of patriarchal utterance which serves to challenge and

appropriate the soft whispers and murmurings of the dyad. Patriarchal utterance offers sharply defined boundaries that startle those listening for the misty contours of oracular tree and stone.

The primary assertion proposed here is that these contestations and ambivalences centre on patriarchal imaginations of the maternal body as a source of meaning creation. The term 'imagination' is important here, for we have not encountered any actual women. Most of the myths, incantations, and polemics analysed in this chapter have revealed patriarchal phantasms: women and reproduction conjured through a patriarchal gaze and submerged in male ambivalences. In other words, the work of reiterating and contesting the dyad forms part of a process of creating ideology—a struggle with ideas inherited from the past (in the form of archaic beliefs and oracular practices) and an elaborate performance of new approaches to the dyad (in the form of both redactions and oppositions).

In the following chapters, I will propose a feminist approach to the extant texts and iconographic representations of the dyad as artefacts of an enormous project undertaken by the leaders and builders of the ancient patriarchal states—a project to control the possibilities of reproduction functioning as an ideological platform for creating meanings, collecting knowledge, and developing skills. The following chapters delve more deeply into the plethora of semantic associations with tree and stone, both to verify the patterns of contestation proposed in this initial analysis, and to trace some of the subtler auralities and audibilities implicated within the phantasms of patriarchal representations of female reproduction.

The patterns of contestation identified here are just that: remnants of perceived conflicts between different modes and systems of meaning making, which in turn naturalised and strengthened certain systems of power. Certainly, there had to be a dyad for Hektor to turn away from; alternate ritual systems had to have existed before the veneration of paternal ancestors and the creation of deities and pantheons; and there had to have been ways of organising human society before the establishment of the patriarchal state during the late Neolithic and early Bronze Age. However, the textual archive all but stops there, leaving us to create meanings through interpretation and narrative creation—stories which, in the end, are as much about ourselves in the present as they are about the past.

3 THE REPRODUCTIVE UTTERANCES OF STONE

The rustling of tree tops is, for many modern readers, a common auditory experience, and so the metaphor of arboreal vocality is easily conjured in the imagination. Stones, however, seem silent, inert, hard. One of the primary goals of this chapter is to challenge these assumptions about the audibility and reproductivity of stones—to reveal them, through analyses of ancient texts, as soft, vocal, and fecund.[1]

It seems odd to associate something as hard as a stone with birth. In the previous chapter, we encountered the prophet Jeremiah's outrage at tree and stone, his gender

[1] A stone, in the simplest sense, is a solid piece of mineral matter found on the ground or deeper in the earth. Other forms of hard mineral matter that relate to stones, or even come from them. Clay can be massaged to make it moist and malleable, but it dries hard in the sun, and even harder when fired in a kiln. The same could be said for the silicate materials used to create faience and, in later periods, glass, both of which harden after being liquefied in a fire. The links between this collection of hard but malleable earthen materials did not escape ancient peoples, and these forms are sometimes interchangeable in myths. Scholars, therefore, tend to consider a fired clay, glass, metal, and stone as conceptually interrelated within a broader ancient understanding of the mineral material forms of earth.

associations sounding strange to the modern ear: 'they say to the tree: you are my father, and to the stone: you gave birth to me.' We might conclude that prophetic outrage had been expressed by reversing the gender role of the fertility dyad. Tree, which should be mother, has become father; a prophetic performance of the absurdity of pre-monotheistic Israelite religion. However, this analysis depends on the modern association of stones with the inert and life-less. Ancient texts, in contrast, propose a very different set of associations: the dark, molten, and watery insides of the earth are capable of transforming matter, as a mother forms a foetus. Bits of earth—whether rock, sand, clay, or stone—are the raw materials of creation, the elemental forms that create terrestrial existence. Rather than reversing gender associations, Jeremiah's opposition is sonic: resounding prophetic discourse silences oracular whispers, as utterance is hardened into rhetoric.

The associations between uterine and chthonic creativity appear in the Greek flood myth. In this story, only one couple, Deucalion and Pyrrha, survive Zeus' deluge by building a small chest out of wood that enables them to float above the raging waters. Once the flood waters recede, Deucalion consults the oracle of the chthonic Titaness Themis to enquire about how he and his wife, already in advanced age, are to repopulate the earth.[2] It is important to note that Themis is a prophetic goddess who presided over ancient oracles; she was the divine voice (*themistes*) who first instructed mankind in the divine laws (*themis*).[3] We are, then, re-entering an oracular domain similar to that associated with the dyad, and, as we might expect, the narrative is suitably reproductive. The goddess's oracle instructs Deucalion to 'Depart from me and veil your brows; ungird your robes, and cast behind you as you go, the bones of

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[2] Pseudo-Apollodorus *Bibliotheke* 2.26-27.

[3] Aeschylus *Eumenides* 2ff: 'The first prophet, Gaia (Gaea, Earth); and after her to Themis, for she was the second to take this oracular seat of her mother.' Hugh Lloyd-Jones, 'The Delphic Oracle', *Greece & Rome* 23, no. 1 (April 1976): 61; Henry James Sumner Maine, *Ancient Law* (Washington, D.C.: Beard Books, 2000), 3.

your great mother.'[4] Deucalion and Pyrrha understand 'mother' to refer to the earth, and 'bones' to refer to rocks.[5] They begin picking up stones from the ground. The stones thrown by Pyrrha become women, while those thrown by Deucalion become men. Pseudo-Apollodorus concludes that 'Hence people were called metaphorically people (*laos*) from *laas*, "a stone".'[6]

The names of Deucalion and Pyrrha tell us much about their roles and the roles of their descendants: the etymologies of Deucalion have been traced to 'wine', 'sailor', or 'fisherman'—references, it seems, to his role as a craftsman in building the wood chest, whereas Pyrrha's name means simply 'flame' or 'fire'.[7] It is significant that Deucalion is builder and Pyrrha is elemental transformer. In some traditions, Pyrrha was the daughter of Epimetheus (the brother and counterpart of fire-god Prometheus, who fashions mankind out of clay) and Pandora, the first woman fashioned by the smithing god Hephaistos.[8] Perhaps Pyrrha's acts of creation were more complexly maternal: she needed to heat stones so that her descendants themselves could heat the materials of life. In other words, Pyrrha's women needed wombs.[9]

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[4] Ovid *Metamorphoses* 1.260-415.

[5] *ibid.* 'Our mother is the Earth, and I may judge the stones of earth are bones that we should cast behind us as we go.'

[6] Pseudo-Apollodorus *Bibliotheke* 1.7.2. See also Robert Graves, *The Greek Myths: The Complete and Definitive Edition.* (London: Penguin Books, 2017), 139.

[7] See '*gleucos*', '*haliéus'*, and '*pyrrhós'* in Henry George Liddell and Robert Scott, *A Greek-English Lexicon*, ed. Henry Stuart Jones, Perseus Digital Library (Oxford: Clarendon Press, 1940), http://www.perseus.tufts.edu/hopper.

[8] Pseudo-Apollodorus 1.46; Strabo 9.5.23. Pierre Grimal, *The Dictionary of Classical Mythology*, Blackwell Reference (New York, NY: Blackwell, 1985), 148, 400.

[9] It seems fitting, then, that she may have been borrowed by the Greeks into their deluge myth, her original identity being the mother goddess of the Philistines. This identification was proposed by Robert Graves. (*The White Goddess*, 219) Graves also equates Pyrrha with the goddess Ishtar in the Mesopotaman deluge myth. (*The Greek Myths*, 141)

Narratives concerning the origins of humans in stones can be found in many places. We have already noted that some of the scholiasts on Homer and Hesiod assumed that the references to tree and stone harkened back to 'an ancient myth in which all humankind had such an origin.'[10] Eliade calls these narratives the 'paleo-semitic tradition of the birth of men [sic] from stones.'[11] Perhaps his phrasing should be corrected: the tradition concerns a maternal force creating life (including human beings) by transforming raw earthen materials via womb-like heat.

If the heating and gestating earth produced life from raw materials, then the makers of faience, glass, pottery, and purified metals somehow imitated the earth mother's creativity. Eliade states that ancient furnaces functioned as 'a matrix, substitute for Earth Mother.'[12] It seems that some ancient crafters did see their role as explicitly procreative. Leo Oppenheim documents an Assyrian glass-making ritual saturated in reproductive imagery:

> When you set up the foundation of the kiln to (make) glass, you (first) search in a favourable month for a propitious day... As soon as you have completely finished [building the kiln] you place (there) divine *kubu*, no outsider or stranger should (thereafter) enter (the building), an unclean person must not (even) pass in front of them (the images). You regularly perform libation offerings before them [the *kubu*]. On the day when you place the 'metal' in the kiln you make a sheep sacrifice before the *kubu*... The wood which you burn in the hearth [i.e. the bottom of the kiln] should be thick, peeled poplar wood:

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[10] López-Ruiz, 58.

[11] Eliade, 43.

[12] *ibid.*, 14. Note that Eliade ascribes to the idea of one primordial goddess found in all primitive cultures—in contrast, the textual record shows that notions of divine maternal earth were local, specific, and diverse. In other words, there were many earth mothers and many chthonic wombs, just as there were many mountains and caves.

> logs which have no knots, bound together with leather straps, cut in the month of Abu.[13]

Reginald Campbell Thompson's translation retains more of the reproductive imagery of the text, relating the instruction as 'you shall bring in embryos (born before their time [*kubu*])... the day when you put the "minerals" into the furnace you shall make a sacrifice before the embryos [*kubu*].'[14] The word for 'minerals' or 'metal' here is *kubu*, a term that Marten Stol has identified to refer to dead foetuses and their spirit forms; Mesopotamian women called on the *kubu* to help prevent a stillbirth and communities asked them to ensure a good harvest.[15] Most significantly, the *kubu* dwell in the underworld, deep below the surface of the earth, only emerging occasionally to wander in the realm of the living.[16] Were these Assyrian glass or

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[13] A. L. Oppenheim, *Glass and Glassmaking in Ancient Mesopotamia* (New York: Corning Museum of Glass, 1970), 32-33. Tablet A 13ff. Note that Oppenheim's translation focuses on relating the technical and procedural content of the instructions, and therefore rationalises some of the reproductive and mythical imagery. Note that Oppenheim appears to be unaware of the *kubu* spirits in Mesopotamian religion, for he questions this word in his commentary but offers no solution.

[14] Reginald Campbell Thompson, *On the Chemistry of the Ancient Assyrians* (London: Luzac, 1925), 57. Note that I have changed Thompson's liturgical language (thou/thy) to standard English (you/your).

[15] See discussion of *kubu* in BBB, 28-31. It is unclear in the Assyrian incantation whether *kubu* functions merely as a metaphor describing the raw materials, or if real foetal remains were also used in the ritual. I believe that the text suggests that foetal remains were used (whether human or animal), as an alternate word 'embryo' is introduced into the text. Human embryonic material may have been readily available, as women deposited afterbirths and miscarriages at the inner temples of various goddesses—although it appears unlikely that men would have been able to take these remains out of the temple sanctuaries. Perhaps, then, the embryos were of animal origin. In the literary record, the terms '*kubu*' and 'embryo' are different, for *kubu* carries a strong association with spirit or demonic forms.

[16] BBB, 9.

metal smiths placating the spirits of the ores they were melting? We cannot know the intentions and beliefs of these ancient craftsmen, but we can observe that raw materials were closely associated with womb materials—and that furnace and maternal body were somehow connected.

In his study of metallurgical symbolism, Eliade claims an 'interrelationship of metallurgy, gynaecology and obstetrics'.[17] He argues that metallurgy provided ancient men the means to possess the power of the inner core of the earth—in mastering the technology of the smelt, men built themselves a smaller, contained model of the volcanic lava fields and molten depths that slowly transformed rock.[18] They ascribed female gender to the earth's inner heat, narrating it as the chthonic maternal womb.

Eliade concludes that the metallurgical fervour of the early civilisation builders was obstetrical.[19] To extend his terminology, we might say that furnaces constituted the first artificial wombs. Eliade emphasises the metallurgical focus, not only on possessing the heat of the womb, but also on optimising it: metallurgy enabled ancient men to alter the temporal aspect of fertility: their artificial wombs created metal and glass much faster than the earthen wombs did.[20] Artificial wombs could be made to produce more efficiently and at higher volumes than the often eons-long processes of the earth's inner core. Moreover, the products of these artificial wombs could be far more easily claimed, accumulated, and traded.

This chapter will begin to explore these two constellations of ideas around stone: first, stone as symbol of maternal origins (as in Deucalion and Pyrrha); and second, stone as object of technological transformation (as in the glass-making ritual). I will argue

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[17] Eliade, 26

[18] As we noted in chapter one, many of the metallurgical gods live within depths of volcanos, including Vulcain, Hephaistos, Kothar-wa-Hasis, and El.

[19] Eliade, 26.

[20] *ibid.,* 42, 114, 175-176.

that these two applications of stone symbolisms align with the dyad (tree and stone) and its alternate form (timber and boulder) that we identified in chapter two.

Part One: Stone, Mother

Birth stones and midwifery in myths

To the Assyrian glassmakers, the power of procreative stone was both fascinating and terrifying. However, women are conspicuously absent from their ritual, a pattern that holds for most ancient near eastern textual sources. Knowledge of the dyad, however, prompted me to look for any extant mythic representations of women's interaction with reproductive stones. Here I will summarise textual sources, from different times and places in the ancient near east, that depict women (especially midwives) using stones for childbearing and infant care. My intention here is not to discover what women *did*, but instead, to discover what women *meant* to the writers of patriarchal texts. In the end, we discover how men understood the craft of midwifery, and how they construed women's craft in relation to metal craft.

Biblical exempla

A familiar story involving birth and stones can be found in *Exodus*. The story begins by relating how the Egyptians became fearful of the fertility and growing political power of the Hebrew people. The narrative then details the two solutions the leadership of Egypt devised—hard labour and infanticide:

> the more they [the Hebrews] were oppressed, the more they multiplied and the more they spread abroad. So they [the Egyptians] made... their lives bitter with hard service, in mortar and brick, and in all kinds of work in the field... Then the king of Egypt said to the Hebrew midwives, one of whom was named Shiph'rah and the other Pu'ah, 'When you serve as midwife to the Hebrew women, and see them upon the birthstool [*ha'obnayim*], if it is a son, you shall

> kill him; but if it is a daughter, she shall live.' But the midwives feared God, and did not do as the king of Egypt commanded them, but let the male children live.[21]

Stol corrects the translation, which misses an important detail in the Hebrew text: the midwives here do not use a birth stool, for the Hebrew text is *ha'obnayim*, meaning 'both stones'.[22] The texts suggest that the midwives assist mothers who are sitting or kneeling on two stones to give birth.

The earthen raw materials in this text form a sharp contrast between heavy labour working with clay and heavy labour upon two stones. In the first, the Hebrews are using their bodies to stamp the clay and form bricks, to bake in either the sun or a kiln. In the second, a woman spreads her limbs over stones in order to give birth to her baby. Both suggest immense hardship and futility (perhaps forced labour in either case).

The command of the Pharaoh to kill boys and preserve girls is reminiscent of the standard pattern of enslavement with which conquered peoples would be quelled: grown men and the elderly would be killed, and children and women of childbearing age would be enslaved (the latter raped with the purpose of impregnation).[23] The authors of *Exodus*, however, explicitly portray a mixed-gender population of adult Hebrews already present in Egyptian society. The slaves formed families, therefore holding on to key rights normally denied slaves. Not only could the adult male Hebrews potentially lead a military revolt, but the women were not as easily raped and possessed due to the presence of rival patriarchal forces (Hebrew husbands, fathers, brothers). Slave women were often bearing *Hebrew* babies, not only the mixed babies imposed on them by their masters.

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[21] *Exodus* 1.13-21.

[22] BBB, 119.

[23] See chapter one.

This state of affairs would have been alarming to any ancient civilisation: slaves with rights of kinship blurred the boundaries between owner and owned, and the presence of a strong male population increased the likelihood of revolt. In order to convert the existing Hebrew population into a truly dispossessed workforce (chattel slaves), the Pharaoh tries to control the midwives to convert the Hebrew population into a female population. In the end, the Egyptian Pharaoh himself is outsmarted by the cunning wise women.

The clay and stone in this narrative represent two very different states of being. In one, bricks are made for the masters, using the bodies of the Hebrew slaves to build Egyptian society. In the other, stones are used to facilitate the bodies of Hebrew women in producing a new generation of Hebrew children, keeping alive the possibility of resisting enslavement.

Egyptian and ancient near eastern exempla

Egyptian women used birth bricks in a similar fashion to the way the Hebrew women of *Exodus* used stones. A hymn to the god Khnum contains the following instruction: 'Respect Khnum, pregnant women who have passed their term. For he is the god Shu of the House of Birth who opens the lips of the vagina and makes firm the birth brick.'[24] The patriarchal imagery in this text will be discussed below; for now, it is sufficient to note that the birth brick is presented as commonplace in Egyptian literature. In another Egyptian example, an incantation describes the severity of a man's suffering when met with divine punishment as, 'I was sitting on the brick like a woman giving birth.'[25] The Egyptian goddesses Meshkhenet and Renenutet were often depicted as a birth-brick with an anthropomorphic head—these deities presided over the vulnerabilities of birth and infancy and were often paired with Shai, the god

[24] Robert K. Ritner, 'A Uterine Amulet in the Oriental Institute Collection', *Journal of Near Eastern Studies* 43, no. 3 (July 1, 1984): 215. BBB, 121.

[25] BBB, 212. Egyptian incantation (Deir el Medina Stele no. 50058).

of destiny.[26] Both deities had key roles in preserving fertility: Renenutet was a folk serpent goddess, who protected grain stores; Meshkhenet was a midwife, and her name literally means ‘birth brick’.[27] Archaeological studies have located Egyptian birth bricks, decorated with magical images for protection of mother and child—in early periods, these birth supports were made of clay, and later, out of wood.[28]

While the narrative of *Exodus* depicts the Hebrews forced to stamp and form clay for their masters, earlier Semitic myths suggest similar work was of divine origin. In the Old Babylonian Akkadian text *Atram-Hasis*, the mother goddess Nintu/Mami works with Enki/Ea to make the first humans out of clay.[29] The gods spit on the clay to help

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[26] Pinch, *Handbook*, 194.

[27] Eugen Strouhal, Bretislav Vachala, and Hana Vymazalova, *The Medicine of the Ancient Egyptians*, vol. 1: Surgery, Gynecology, Obstetrics, and Pediatrics (Cairo: The American University in Cairo Press, 2014), 168.

[28] *ibid.* See also Ann Macy Roth and Catharine H. Roehrig, ‘Magical Bricks and the Bricks of Birth’, *The Journal of Egyptian Archaeology* 88, no. 1 (December 1, 2002): 121–39. Birth bricks were commonly featured in Egyptian royal tombs, guarding the four corners of the burial chamber. Egyptologists have wondered why such basic items as unbaked bricks would be included in the opulent grave goods of the pharaohs and Egyptian aristocracy, however this is a clear reference to the midwifery aspect of the pharaoh’s rebirth. (129) Very early dynastic texts specify that the four bricks represented the major mother goddesses of the Egyptian pantheon (Nut, Tefnut, Isis, and Nephthys). (131) In Egyptian childbirth practices, magic incantations and decorations were intended to help make the bricks of birth effective in ensuring a safe delivery. (132) For the pharaohs, the bricks helped ensure rebirth. The *Hymn to Khnum* specifies that the brick and the infant were made of the same clay. (135) Royal funerary texts provide instructions for performing the ‘Opening of the Mouth’ ritual, which was used in childbirth to help the vulva expand. (136) Here we find a direct equivalence drawn between upper and lower mouth.

[29] When I present double names for Mesopotamian deities, the first is Sumerian, the second Akkadian.

animate it (note that spittle frequently functions as a euphemism for seminal fluid).[30] Mami creates the original set of wombs that gestate the first female and male pairs:

> While the Wombs were gathered,
> Nintu was [sitting], she counts the months.
> [In the House] of Destinies they called the tenth month...
> While her face was beaming and full of joy...
> she performed the midwifery...
> She drew (a pattern of) flour, then she laid the brick.[31]

The ritual of laying the brick marks the beginning of labour and symbolises the midwife's role. The act of drawing a pattern of flour conjures associations of grain, fertility, nourishment, and plenty—it could also serve as a ritual parallel for the maternal fluids that will fall on that same ground. Both grain and flesh—vegetal and human fertility—are partly returned to the soil.[32] Wilfred Lambert interprets this parallel to mean that 'birth was considered not simply as a biological process, but also as a magic rite.'[33] Lambert further asserts that '[i]n the belief that human births continue at least elements of the original creation of the human race, the 'brick' that was used in actual births has been dragged into a myth... No doubt the rite of using a 'brick' at births and the basic elements of the myth were centuries old.[34]

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[30] AWR, 3.

[31] BBB, 115.

[32] *ibid.*, 116. Stol's hypothesises that the flour was drawn in a magic circle to signify the power of the birth process, although he does not provide justification for this claim. I have found similar practices of drawing circles of flour in other magic instruction texts, which use this pattern to protect a person from harm or to contain or trap a powerful being who might do harm. The former use seems to be intended here. See chapter four for further discussion of magic rituals.

[33] W. G. Lambert, 'Myth and Ritual as Conceived by the Babylonians', *Journal of Semitic Studies* 13, no. 1 (March 1, 1968): 105.

[34] *ibid.*

The association between fertility goddesses and bricks can be found across the mythic corpus. The cosmogonic myth *Enki and the World Order* describes the creation and organisation of the world. Here the goddess Inanna complains to Enki that she has been neglected in the formation of the cosmos. Inanna is vexed that five other goddesses were granted domains, while she was granted nothing of importance. When describing the goddess Nintu, Inanna says:

> Nintu, the Lady of Birth, she has received the pure brick of birthgiving, sign of the office as en-priestess, she took with her the reed that cuts off the (umbilical) cord, the stone *imman*, her leeks. She has received the greenish lapis lazuli (vessel) for the afterbirth, she took with her the pure, instructed vessel *ala*. She certainly is the midwife of the land.[35]

These texts present an array of stones and bricks. The pure brick of birthgiving is the most important thing that Nintu possesses, but she also carries the *imman* stone, a highly valuable gemstone vessel large enough to carry the placenta, and an 'instructed' vessel of unknown use and construction. Her other tools derive from plants—leeks and the reed for cutting the umbilical cord.[36] Stol locates the *imman* stone in a list of medicinal stones and amulets, listed after the 'birth stone' *ittamir*.[37]

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[35] Stol, 111-112. I have adjusted the translation according to additional information that the vessel *ala* was not 'consecrated' (as in usual translation), but 'instructed'. This ability for objects to absorb or hold knowledge is significant for our discussion.

[36] Leeks were cultivated within orchards, and could perhaps be a reference to tree fertility. See Marten Stol, 'Garlic, Onion, Leek', vol. III, Bulletin on Sumerian Agriculture, Faculty of Oriental Studies, University of Cambridge (Cambridge; Warminster: Sumerian Agriculture Group; Aris & Philips Ltd, 1987), 65. For significance of trees, see discussion of Ugaritic text KTU 1.12 below.

[37] BBB, 111. Stol proposes that the *imman* was an ingredient in glass making, possibly a silicate that was pounded before firing in a kiln. This draws a curious parallel to the much later Assyrian incantation for glassmaking. In an Akkadian incantation, the *imman* stone is capable of repelling a ghost. BAM 5 503 I 22-23: 'Take the *immanakku*; let the stone curse

Thus the divine midwife carries multiple symbols of terrestrial and earthly fertility—plant, stone, and earthen material.

Later Hittite stories relate royal women labouring on birth 'stools' (perhaps crafted out of wood or stone). 'When a woman is giving birth, then the midwife prepares the following: two stools and three cushions. On each stool is placed a cushion. And one spreads one cushion between the stools on the ground. When the child begins to fall, then the woman seats herself on the stools. And the midwife holds the receiving blanket with her hand.'[38] Here we can see that the birth 'stools' were used in much the same way as birth stones—to support the mother as she expands to give birth. Here, the use of cushions on top of the stools show how the stones, bricks, or other birth furniture may be made comfortable and soft—a technique also attested in ancient Egyptian texts and in ethnographic literature.[39]

Despite differences in technology usage, it appears that the basic meaning behind birth stones remained surprisingly consistent in the mythic corpora. These birthing tools are symbolic of the raw material of life, and function as witnesses of sound, knowledge, and breath: the efforts of birthing women, the skills of midwives, and the first moments of new life. Far from being relegated to the material realm of nature,

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him, let the stone overturn him, let the stone... him, let the stone efface him.' This resembles incantations warding off the *kubu*, an apotropaic gesture that also parallels the Assyrian glassmaking incantation.

[38] Gary M. Beckman, *Hittite Birth Rituals*, 2nd rev. ed, Studien zu den Boğazköy-Texten, Heft 29 (Wiesbaden: O. Harrassowitz, 1983), 102.

[39] William Kelly Simpson, ed., *The Literature of Ancient Egypt: An Anthology of Stories, Instructions, and Poetry*, trans. R.O. Faulkner, Edward F. Wente, and William Kelly Simpson (New Haven: Yale University Press, 1972), 14ff; Hilma Granqvist, *Birth and Childhood among the Arabs: Studies in a Muhammadan Village in Palestine*, Doctoral Thesis (Helsingfors: Soderstrong & Co., 1947), 61; S. Morsy, 'Childbirth in an Egyptian village', in Margarita Artschwager Kay, ed., *Anthropology of Human Birth* (Philadelphia: F.A. Davis, 1982), 164.

these moments of transformation—highly ritualised in a controlled social context—were carefully integrated into myths.

Relating birth stones to the order of the 'tree and stone' dyad

In chapter two, we encountered the Ugaritic text KTU 1.12 as a possible instance of the dyad. The text has been translated as follows:

> You, o Tališ, slave-girl of Yarih [moon god], go out:
> you, o Damgay, slave-girl of Athirat, go out.
> Take your chair, your saddle, your swaddling cloth, and go out.
> At the oak... in the steppe... dust...
> Place the bricks [*jd 'ugrm*],
> go into labour and bear the Eaters,
> let her kneel, and bear the Devourers.[40]

Here I have followed Marten Stol's and JC de Moor's translations, although others have been proposed.[41] The primary translation difficulty is determining which Akkadian cognate might correspond to Ugaritic *'ugrm*. There are two options: 1) *agurru*, 'kiln-fired brick'; or 2) *ugaru,* 'fields'.[42] Some translators favour the

[40] BBB, 121.

[41] See J. David Schloen, 'The Exile of Disinherited Kin in KTU 1.12 and KTU 1.23', *Journal of Near Eastern Studies* 52, no. 3 (July 1, 1993): 209–20.

[42] The Akkadian cognate *agurru* refers to the particular type of brick hardened in a kiln. In Mesopotamia, this kind of brick was of higher quality than the average brick that would have been available to birthing women (*libittu*, or a sun-dried brick). The use of this cognate in Ugaritic cannot be guaranteed to retain the precise meaning in Akkadian. Leick points out that fired bricks were costly to produce, requiring a great deal of fuel and leading to extensive waste from under-firing or over-firing the clay. Consequently, they were usually only used for architectural structures routinely exposed to damp, such as foundation walls near rivers. (See Gwendolyn Leick, *A Dictionary of Ancient Near Eastern Architecture* (London: Routledge, 2002), 30.) Why, then, would the slave girls carry such a valuable brick? Perhaps this

association with 'fields', arguing that this word forms a poetic parallel with the use of 'dust' in the preceding line.[43] However, I remain convinced by JC de Moor and Marten Stol's argument that a birth stone or brick would be more appropriate here. Both of these authors seem unaware of the 'tree and stone' dyad existing in Bronze Age texts referencing reproduction and fertility. However, if we assume that *'ugrm* relates to a birth brick, we can locate the dyad in the right order: 'At the oak... Place the bricks...' are in close physical and poetic proximity.

If we can take KTU 1.12 to contain another instance of the tree-stone dyad, this fragment can help us solve a riddle left unresolved by other commentators: why does the tree come before the stone? As we noted in chapter two, López-Ruiz suggested that this was predominantly phonetic, with the shorter word preceding the longer. However, we have uncovered a more practical solution. The slave girls journey to an oak tree and then set down their bricks on the earth: the establishment of the place of birth precedes the setup of the birthing tools. This is reminiscent of the story of Leto in the *Homeric Hymn to Apollo*, who greatly suffers for having no place to give birth. She is forced to wander, while in extended labour of many days, from place to place, unable to deliver. Once she finds a safe place (the Isle of Delos), the goddesses of midwifery are able to arrive to attend to her—Leto expresses her ability to give birth by wrapping her arms around the trunk of a tree, giving birth within its shade:

> And as soon as Eileithyia the goddess of sore travail set foot on Delos, the pains of birth seized Leto, and she longed to bring forth; so she cast her arms

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signifies the divine intention of El, who impregnated the slaves. Since El is a potter god associated with kilns and furnaces, it seems fitting that he should grant fired bricks to the mothers of the Eater and the Devourer. El, in effect, has left his mark in the birthing space, even though the slaves give birth at great distance from their master. On the other hand, there exist references to water and birth that are not connected to any god of furnace crafts: perhaps the reference to *agurru* provides the architectural suggestion that these bricks will be exposed to the waters of birth and must remain strong to support the mothers.

[43] See Schloen.

> about a palm tree and kneeled on the soft meadow while the earth laughed for joy beneath. Then the child leaped forth to the light, and all the goddesses raised a [traditional birth] cry.[44]

Here the earth is specified to be a soft meadow easy on the mother's knees, possibly compensating for the lack of cushioned bricks or stools—with such a displaced and urgent birth, there would have been no time for the setting up of stones. Despite these differences, in both narratives the tree symbolises the place of birth, demarcating the earthen ground which will receive the child when it drops from the womb. The birthing space (under tree) must be drawn before birth can take place (on stone, earth). This provides a surprisingly simple explanation for the ordering of the dyad. However, as we might expect, it appears to have deeper significance as well—the first hint of these meanings is audible, coming from the earth's oracular laughter followed by the vocal confirmation of the Eileithyia.

When considering the Ugaritic text in light of other ancient near eastern descriptions of midwifery and birth, it seems plausible that the dyad sketches out a kind of spatial ritual logic in which the sanctuary around women is established (i.e. the living tree delineating a sacred or magical space of birth) before the birth preparations and supports were brought (i.e. the elemental stone symbolising the origins of life and the female skill of bringing new forms to the surface from the depths of the body). At the very least, our interpretation of the dyad must take into account that, for some ancient near eastern scribes, the sacred space of birth was closely associated with the shade of a tree.

These are no ordinary births—instead, these are mythic female acts that reinforce a particular definition of the sacred: a temporal and geographic space filled with particular meanings about female reproduction. Despite their patriarchal framing, all of these texts 'let slip' that it is the terrestrial act of birth-giving that grants the dyad its ordering: first tree, then stone. This strongly contrasts the usages of the dyad in the

[44] Homeric *Hymn to Apollo*.

Baal Cycle (see chapter two), where El and Baal claim to possess knowledge of tree and stone. If we take their claims literally, these metallurgical warriors are claiming to possess midwifery skills. As we will see below, the ancient near eastern mythic corpus is replete with warrior gods acting as midwives—knowledge of this broader trend helps strengthen our hypothesis.

Part Two: Stones and water

The waters between the stones

The womb is a place of hidden waters, and birth is a time of their release. When a woman squats in labour, waters of cervical mucus, amniotic fluid, and blood pour onto the ground. Some literary texts, including KTU 1.12, mention digging before placing the bricks.[45] Perhaps the bricks were half-buried in the dirt to make them firm, or perhaps a small well was dug to gather the fluids into a little lake between the stones.

Sumerian incantations suggest that the latter was sometimes practiced. The birth waters feature heavily in healing incantations designed to aid birth and help intervene when difficulties arise during labour. An early text from the Fara period includes a fragmentary incantation written in shorthand script, which can only be understood based on later Ur III versions.[46] This incantation was very important to the ancient near eastern scribes—many copies survive across a wide geography and scribes wrote long commentaries on it.[47] Here I will refer to these incantations collectively as the *Cow of Sin*.[48] Marten Stol has reconstructed the Fara text as follows:

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[45] Marsman, 217-18.

[46] See Niek Veldhuis, *A Cow of Sîn*, Library of Oriental Texts 2 (Groningen: Styx Publ, 1991). Veldhuis proposes that the incantation was designed to combat shoulder dystocia. However, Stol points to a broader range of possible uses in labour obstructions.

[47] BBB, 64-65. Copies have been found as far as the Hittite royal archives in Anatolia.

> The ... bulls of Enlil go... into the holy stable of Enlil. The great midwife from Kullab [goddess Ninsun, Lady Wild Cow] came in order to inflict the incantation in the water, in the... chamber.... May Ningirima [goddess of incantation] pronounce the magic formula (and) may the blood like milk..., like milk... the blood comes out. After it has come out, like the water of a ditch that fills the canal, like water entering a lake, it increases.'[49]

Here we have an explicit reference to the pooling and running of the birth fluids—canals and lakes of blood and white fluid 'like milk' (vernix, amniotic fluid) form on the ground.

The Ur III version of the incantation adds layers of meaning to the watery imagery:

> [Narrative:] The moment of childbirth was there: she crouched to the earth, her cries reached the sky, her cries reached the earth, all cries (= echo?) covered the base of heaven (= horizon) like a garment. Like the boat of the EN, she deployed the linen sail, she filled the boat of the king with goods, she filled the... boat with cornelian, lapis lazuli. In the vulva of the travailing person... thread(s).
>
> [Instruction:] After you have taken the fat of the holy cow, the cream of a mother cow, standing in the holy chamber, [...] the vulva of the travailing person... thread(s), after you have [pronounced] the incantation of Eridu over her, may it be released like the showers of heaven, may it run like the waters of the gutter of the roof, may it stream like a canal pouring into a lake, may it be broken like a broken pot.[50]

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[48] Note that the image of a pregnant cow was frequently used to represent women. See Thorkild Jacobsen, 'Notes on Nintur', *Orientalia* 42 (1973): 136.

[49] BBB, 60-61.

[50] *ibid.*, 63. See note 89.

The watery imagery mingles with sonic imagery: the incantation is associated with Eridu, which is itself in a watery city.[51] The birth boat navigates the primordial waters of the womb, and, when the metaphoric boat meets with trouble, the ritualist breaks a pot full of milky, oily fluids to gush over the woman's body. The waters from the pot may have a practical use, to help make the woman slippery. But the associations could be even more important: the milky oils add to the deluge of birth fluids, enlarging the canals and lakes of fluids gathering on the earth, encouraging release and flow.[52]

The sonic-textile imagery here is extraordinary. The woman's echoing cries 'cover the base of heaven like a garment'. The text immediately following also contains textile elements: 'Like the boat of the EN, she deployed the linen (sail)'. Something about the vulva of the labouring woman is also associated with threads. This curious mixture of imagery connects forces of the voice and womb with the wide expanse of the earth and horizon. Her screams send the baby flopping down to the earth.

But what does this have to do with threads? A familiar use of this metaphor is also found in *Psalm* 139:13: 'For you formed my inward parts, you knit me together in my mother's womb.'[53] Hittite descriptions of birth in the *Kumarbi Cycle* feature midwives and shepherds repairing newly torn vulvas with threads, as one would darn a ripped garment.[54] In Sumer, *Enki and the World Order* clearly describes the watery

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[51] As we will see below, Eridu's primary temple was built in praise of the primordial waters and the deities dwelling therein.

[52] Is it possible that these fluids may have served to alter a woman's mental state, to help her open and release? It is difficult to judge how beneficent or aggressive magical rituals during birth would have been. The women subjected to the ritual processes were likely royal or aristocratic. The goal, then, is sinister: scribes copied these incantations as part of the broader concern with maintaining dynasty. Therefore, it is possible that these magic rituals served a patriarchal purpose in 'getting sons', disregarding the birthing women's needs or desires.

[53] I have replaced liturgical language (thou/thy) with standard English (you/your).

[54] See Appendix B.

womb as lined in tangled threads.[55] These threads may be the stringy fluids and tissues that emerge from the vulva during birth; they might also serve as a metaphor posing the formation of life in the womb as the crafting of an elemental textile. Additionally, it may reflect the association between women and weaving, as this was a primary female occupation in ancient Mesopotamia.[56] Our incantation, however, adds a remarkable association between threads of life and the voice of the labouring woman echoing across the earth and skies. The imagery here seems to take for granted that both voice and vulva are textile, and both are actively involved in the birth a baby. Is this an elaboration of patriarchal notions of vulvar vocality? Given that weaving is a more ancient technology than either pottery or metallurgy, the notion of reproductive threads need not be limited to the presence of women in textile factories.[57]

A later Assyrian version of the *Cow of Sin* incantation highlights the terrifying vocal capacity of the woman in labour:

> When her days came to an end, her months were finished,
> the cow trembled and terrified her herdsman.

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[55] See analysis below.

[56] See chapter one.

[57] The links between voice-thread-textile may exist before or outside of the phantasm of vulvar vocality, but there is evidence both confirming and negating this position. The association with threads and weaving could be a patriarchal allusion to the textile factories that exploited many enslaved and poor women, and thus bring the incantation well within the semantic fields of vulvar vocality and captive female procreation. However, the possibility remains open that vulvar vocality was based on a pre-existing tradition of associating voice and vulva in neutral or positive ways, perhaps because of the intimate relation between birth vocalisations and cervical dilation (as observed by home birth midwives today, see Nightingale). Given its centuries-long history of copying and redaction, it seems possible the the *Cow of Sin* imagery is multi-layered and can accommodate both interpretations at the same time.

His head was bowed, all the herd boys lamented with him.
At her crying, at her screaming in labour, Nannaru was downcast.
[The god] Sin heard the screaming in heaven and lifted high his hand.
Two Lamassus [i.e. female guardian angels] descended from heaven.
One of them carried 'oil-from-the-jar', and the other brought 'water of labour'.
[The cow touches her forehead with oil and
sprinkles her whole body with water three times.]
When she touched for the third time,
the calf fell down on the ground like a gazelle's young...
Just as Geme-Sin gave birth normally,
may also the young woman in labour give birth.
Let the midwife not be held back,
let the pregnant one be all right.[58]

In this Assyrian version, Sin comes to the aid of the birth-giver on account of her screams, and yet the woman-cow plays an active role in performing the midwifery ritual of oil-and-water on her own body.

There is yet another Ur-Sumerian version of this incantation in the extant record: a particularly beautiful text containing imagery of the divine company that might assist the woman in safely guiding her boat-body towards the quay of life:

The woman who is about to give birth steered the *gi*-boat through the water,
pure Inanna steered the *gi*-boat through the water.
Ninhursag steered the *gi*-boat through the water.
As on a boat carrying perfume, perfume has been loaded,
as on a boat carrying cedar wood, cedar wood has been loaded,
on the boat for cornelian/lapis lazuli she loaded cornelian/lapis lazuli.[59]

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[58] BBB, 64-65. From the Compendium of Aššur.

[59] *ibid.*, 62. Cornelian and lapis lazuli seem to refer to the sex of the foetus.

While in some later versions of the incantation, the labouring woman is accompanied by Mami in a single boat, in this early version, there seems to be a little fleet of boats, one sailed by the labouring woman, and the other two by Inanna and Ninhursag. As such, the mortal woman forms a triad with her goddesses to navigate the waters together.[60] Significantly, these goddesses are also associated with the underworld, and so seem to be appropriate companions for a woman whose life is in danger during labour.

The stones in the waters

Both the waters and voices associated with birth could terrify male gods. In the *Baal Cycle*, the storm god Baal claims that El has sided with his rival and enemy, Yamm (Sea). Baal's lament to El about Yamm uses the following imagery:

> Baal the Almighty said:
> I know for sure,
> I perceived with certainty
> that you should imprison me, Bull Ilu [El] the good natured,
> that you should bind your son between the stones,
> between the stones of the stream-bed![61]

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[60] *ibid.* Stol notes that the older three-boat system seems to have become unintelligible to the Ur III scribes, so they just followed the boy/girl reference of the one boat. The fleet of boats is taken out of the incantation in parallel to the replacement of goddesses of midwifery by male metallurgical gods. In the later image of a boat loaded with gemstones, the images of birth are elided with images of trade of timber and stone. To the male authors of this incantation, both timber and gemstone and the infant child are cargo to be delivered to the quay of life—hence, birthing mother and mines are equated. While the incantation draws from common imagery of birth, the offspring in question are royal babies and therefore valuable objects of male possession. Hence the tree and stone have become timber and gemstones. Chapter four will develop these themes in greater depth.

[61] de Moor, *Anthology*, 27. KTU 1.1 II.v.

Throughout the *Baal Cycle*, Yamm is called by another name, Thapiti Nahari (Judge River).[62] The repetition in the text recalls the standard structure in the *Baal Cycle*, where both names of the god Yamm are mentioned in turn: we could elaborate the text as 'that you should bind your son between the stones of Yamm (Sea), between the stones of Thapiti Nahari (River)'.[63] Not only does this refer to the stone-lined sea and river, but also the palace of the Yamm itself, built in the distant centre of the sea.[64] The imagery of a palace in the middle of the sea is shared in many ancient near eastern myths.[65] Both the natural stones and the god's temple serve to demarcate Yamm's domain. The message seems clear: Baal does not wish to return to Yamm's domain where he has no power as a king. In plotting against Baal, El forfeits the

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[62] *ibid.*

[63] *ibid.*

[64] Marduk's battle with the sea places him in direct parallel with the divine hero Baal. It is significant that Tiamat and Yamm share the same name root (the spelling Ti-yam-at helps make this clear). In Babylonian myth, the proto-goddess takes dragon form when threatened, and parthenogenetically produces many serpentine/dragon-form sea offspring to defend her realm. Nothing in the Ugaritic corpus suggests that Yamm is the primordial sea deity—in fact, Athirat is called *Athirat Yammi,* or goddess of the sea. However, Baal appears to be battling against an older model of the pantheon in order to establish his kingship. The gendered associations with the realm of the sea, then, are complex. Smith states that 'Like Tiamat, Yamm may represent a deity from an older theogonic tradition. Creation stories regularly describe the primeval chaos as watery.' (*Baal Cycle*, Vol. 1, 85) However, we do not yet have the ability to identify a primordial sea deity in the Canaanite pantheon.

[65] Examples: In Egypt, Atem builds a dwelling on the benben stone, a mound of earth which rises out of Nu, the primordial waters. (Pinch, 227) In the Babylonian *Enuma Elish,* Ea coopts a temple in the middle of the Apsu after capturing and slaying the deity of the waters; Ea's son Marduk is born in this temple; later in the myth, he slays Tiamat (the proto-goddess of the waters), and builds a copy of Ea's sea-palace high up in the celestial realm. For more detail on the Apsu temple, see discussion of temple bricks below. See also chapter four for analysis of *Enuma Elish.*

young storm god to the authority of Yamm, who renders Baal helpless. Baal's lament proves justified—he is indeed conquered by Yamm and forced to live in his palace in the middle of the sea.

The excerpt of KTU 1.1 brings up a series of central questions: What happens when the two stones of birth/river are brought together in the centre of the waters, as the composite structure of a palace-temple? Are the bricks of birth and the bricks of temples comparable? Do they retain similar meanings?

In the late Babylonian myth-incantation, *The Founding of Eridu*, brick, temple, and city have a common divine source:

> [In ancient times]
> A reed had not sprouted, a tree had not been created,
> A brick had not been moulded, a brick-mould had not been created,
> A temple had not been made, a city had not been created...
> The Apsu [temple] had not been made, Eridu has not been created,
> A pure temple, a temple of the gods, for them to dwell in, had not been made,
> But all the lands were sea.[66]

The story then features Ea and his son Marduk creating a raft 'on the surface of the waters' and heaping earth on it to make land.[67] They then form reed, tree, brick, mould, temple, and city.[68] Two aspects of this text are noteworthy. First, Ea and Marduk transform the mineral and vegetal matter into building materials (reminiscent of our alternative dyad)—their efforts culminate in the engineering of both temple and city. Second, the gods perform the feat of establishing the architectural infrastructure of civilisation through overcoming the sea—here, the theme of watery depths returns again. We can doubt that myth writers understood Ea and Marduk to be simply

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[66] Lambert, *Babylonian Creation Myths*, 370-375.

[67] *ibid.* This seems significant: these metallurgical deities take authorship of creating the earth itself, not just transforming its elemental forms.

[68] *ibid.*

establishing land mass—the gods are also establishing new meanings about the watery depths, and, by extension, about reproduction.

In the following analysis, I suggest that each of the gods who built or commandeered the watery temple dwelling exerted a powerful sign of mastery: the gods who claim the watery depths claim reproduction and the womb as their domain. Thus, the wild stony earth on the shore line of the seas recedes as the reference point to the water's shape and meaning: a new earthen form—the form of civilisation—arises out of the depths. In the case of Mesopotamian myths, this provides a link between water, temple, and city, beginning to sketch a complex nexus of alternate symbolisms seeking to supersede the imagery of the birthgiving woman. The brick—though self-same in form—acquires a radically altered set of meanings.

Part Three: Stone, Father

Brick, temple, city

Birth bricks and birth stones function as spatial markers within ritual. It seems that, in some ancient near eastern texts, a similar association is made with the bricks of temples and cities. The birth goddess Nintu was the patron deity of the city of Keš, which is described in one source as 'Keš! Brick causing birthgiving, house (which is) a productive young dove—Praise be Mother Nintu(r)!'[69] Here the scribe sketches a key association between birth bricks, the bricks used to build the dwelling of the birth goddess, and the bricks used to build the state. In this case, the brick has magical capacity to cause birth, to enhance fertility, and to bring meaning to Keš itself: the symbolic force of birth bricks and their association with wildness, fertility, and sanctuary are transferred to the city-state as fortress of power. The sacred space of birth becomes the sanctified ground on which the state is constructed. This fits well

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[69] Jacobsen, 288. BBB, 111.

with the birth stones we encountered above, which were associated with competitions over thrones, the births of royal heirs, and the origin myth of the Hebrew nation. When Enlil speaks in praise of Keš, militaristic imagery predominates:

> House roaring like an ox, bellowing loudly like a breed-bull!
> House whose diadem extends into the midst of the heavens, whose foundations are fixed in the Apsu, whose shade covers all lands! House founded by An, praised by Enlil, given an oracle by Mother Nintur!
> House Keš, green in its fruit! Will anyone else bring forth something as great as Keš?[70]

As we noted in chapter one, Sumerian cities are described as the dwelling places of the gods—the city functions as an extension of the temple grounds, and its kingship and authority are justified through this divine connection. Despite the fact that Keš's tutelary deity is a goddess, the founding and consecration of the city walls are ascribed to two celestial male gods: An (sky god) and Enlil (storm god). Thus, Nintur's reproductive domain is quite literally overshadowed with celestial male authority.

The god Enki/Ea plays a crucial role in defining the patriarchal symbolic of water, brick, stone, and paternity. The Mesopotamian primordial watery depths, which dwell deep below the earth and the underworld, are called the Apsu (or Engur). As the deity of the city of Eridu, Enki inherits from his mother an ancient temple, which is called the E-Apsu: the house of the watery depths.[71] The appearance and awe of the E-Apsu is described in *Enki and the World Order*:

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[70] *The Keš Temple Hymn*, ETCSL t.4.80.2.

[71] Nammu is a Sumerian proto-goddess or primeval mother goddess, whose name is 'usually written with the sign *engur* which was also used to write Apsu'. (Leick, *A Dictionary of Ancient Near Eastern Mythology,* 124) In this sense, she is equivalent to the Babylonian proto-goddess Tiamat, who also embodies the primordial waters. Leick states that Nammu 'may well have been worshipped in Eridu before Enki, who took over most of her

> The lord established a shrine, a holy shrine, whose interior is elaborately constructed... The shrine, whose interior is a tangled thread, is beyond understanding. The shrine's emplacement is situated by the constellation the Field, the holy upper shrine's emplacement faces towards the Chariot constellation. Its terrifying sea is a rising wave, its splendour is fearsome.[72]

The image here of threads reminds us of the vulva threads in the *Cow of Sin* incantations: given that Enki's mother Nammu is the embodiment of the primordial sea itself, these waters have strong maternal or uterine connotations. It is plausible that the primordial womb-temple is full of threads because of its function is a symbol of divine maternity. Its tangled threaded interior 'is beyond understanding', much like the inexplicable interiors of the body. The temple itself represents the great mystery of the origins of life within the womb. However, Enki has claimed this space as his dwelling, and he introduces the top military technology of the day—the horse-drawn chariot—as the astrological reference-point.

In a grand display of sexual virility, Enki claims to be the origin of the waters of life: 'after Father Enki had lifted his eyes across the Euphrates, he stood up full of lust like a rampant bull, lifted his penis, ejaculated and filled the Tigris with flowing water.'[73] The significance of Enki's phallic performance can only be understood in light of the watery imagery of birth. The women in the *Cow of Sin* incantations make rivers,

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prerogatives and functions.' (124) As part of this absorption, Enki was declared the son of Nammu. Nammu is the sometimes described as the mother of Ki, Mami, Ninmah, and Ninhursang—the second generation of primeval mother goddesses. (Martha Ann and Dorothy Myers Imel, *Goddesses in World Mythology* (Santa Barbara, Calif: ABC-CLIO, 1993), 339) This pattern is also visible in Greek sources, with maternal relations between Gaia, Rhea, and Demeter.

[72] ETCSL t.1.1.3.

[73] *ibid*.

pools, and seas with their procreative fluids, but here Enki claims that function: he becomes father god, the paternal author and originator of life.

It is significant that the very same text prescribes sonic regulation for women's voices as well: 'Enki greatly perfected the task of women. For Enki, the people... in... garments. Enki placed in charge of them the honour of the palace, the dignity of the king—Uttu, the conscientious woman, the silent one.'[74] It seems that Enki's reform of women's labour has two elements: 1) women, most likely slaves, are set to the work of producing garments and threads, which are assumed to be Enki's possessions, the tools of his ritual and royal dignity; 2) the woman set to manage the slaves is an archetypical silent, proper woman.

If we can venture to combine the various imagery around Enki's reproductive role, we can posit that Enki has taken possession of the waters of life, the threads of the womb, and the creatrix's terrifying birth cries. This is reminiscent of the Cow's threads of vulvar vocality covering the whole firmament of heaven with textile echoes, but the material here is more explicitly sinister. The woman—a silent, obedient object of desire—emerges as the producer of textiles for god and king. Significantly, Uttu's experience of domesticated childbirth is filled with pain and agony—while her ancestresses give birth easily, Uttu accepts the bond of marriage/concubinage and then struggles with pregnancy.[75] In comparing the *Cow of Sin* incantation and the

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[74] *ibid.*

[75] Uttu is not to be confused with Utu, the sun god. In the legend of *Enki and Ninhursa*g (ETCSL t.1.1.1), Ninhursag bears a daughter to Enki called Ninsar. Enki, seeing Ninsar by the riverbank, pursues her and she bears a daughter named Ninkurra. Ninkurra, in turn, is similarly pursued and bears Enki another daughter named Uttu. Enki then pursues Uttu, who becomes upset because she expects Enki will abandon her after sex, as he did her ancestresses. She bargains with him, demanding cucumbers and apples as a price for her body (possibly a joke about male genitalia and the provision of agricultural goods in a marriage or concubinage contract). Thereafter Enki takes the courtship of Uttu far more seriously. After he ejaculates inside her body, Uttu cries out in alarm and distress. In response, her ancestress

story of Enki and Uttu, we can see that Uttu's role as a textile producer has double meaning: Enki is not only using her to control slave women's handiwork, he is taking control of her voice, and therefore her reproductive agency—her silence correlates with her reproductive submission. If my interpretation is correct, this textile imagery provides one of the most explicit mythic depictions of vulvar vocality: voice, womb, and pregnancy are elided with productive labour to naturalize female distress and instrumentalisation.

This startling modification of female reproductive roles coincides with displays of cacophonous male vocalities. In *Enki's journey to Nibru*, male vocality aligns closely with metallurgy and temple building:

> Enki, the lord who determines the fates, built up his temple [the E-Apsu] entirely from silver and lapis lazuli. Its silver and lapis lazuli were the shining daylight. Into the shrine of the apsu he brought joy. An artfully made bright crenellation [i.e. battlements] rising out from the apsu was erected for Lord Nudimmud [i.e. Enki]. He built the temple from precious metal, decorated it with lapis lazuli, and covered it abundantly with gold. In Eridu, he built the house on the bank. Its brickwork makes utterances and gives advice. Its eaves roar like a bull; the temple of Enki bellows. During the night the temple praises its lord and offers its best for him.[76]

Here we find an architecture of oracle that seems radically different from the Minoan practices discussed in chapter two. The Apsu is not only a luxuriant temple, but also a military fortress with battlements and crenellations. The buildings erected by Enki

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Ninhursag removes Enki's semen from Uttu's body so that she does not stay pregnant. Uttu, following Ninhursag's advice, buries Enki's seed in the earth, whereupon eight plants spring up. Enki, seeing the plants, eats them, and becomes deathly ill in eight organs of his body, as the semen causes pregnancies to form therein. Ninhursag cures him by transferring the pregnancies into her vulva, giving birth to eight deities in Enki's stead.

[76] ETCSL t.1.1.4.

have a voice of their own: the bricks are oracular, possessing wisdom and uttering guidance; the eaves and walls roar and bellow; the building speaks and sings praises to the father god. The very elements of building—ores, clay, metals, and gemstones—become the means of knowledge and wisdom, glory and opulence, military and mastery. The utterance of birth stone and the bellow of birthing cow have been out-shone and out-performed—a drastically altered soundscape. Enki has occupied the watery womb, and has overlaid the threaded interior of the Apsu shrine with metals smelted and purified from rock ores and gemstones cut from the earth. As a metallurgical god, Enki has mined the earth and the womb, and has semantically united the two in building his fortress. The womb is remade in both sound and substance, and the voice of oracle becomes resolutely paternal.

In *Enki and the World Order,* the primordial thread temple was 'beyond understanding'. However, in its redecorated state, the Apsu acquires a new-found conceptual solidity and literalness. The vulvar-vocal threads of the womb have been covered with a layer of new understanding: a knowledge of the god who occupies the womb with the roaring cacophony of his oracular declarations. This sonic-reproductive paradigm shift is epistemic, for 'Enki is knowing... associated with the knowing and craft of divine foreign lands.'[77] The reference to foreign lands confirms the centrality of metallurgy in Enki's power—in chapter one, we noted that long-distance travel for the metal trade was associated with the acquisition of both knowledge and connection with paternal ancestors. Enki's knowledge, then, enables him to remake the threaded Apsu chamber: through its coating in metal, the womb goes from unknowable to knowable, from wilderness to civilisation.

Baetyls and temples: Stones as the houses of the fathers

Enki's journeys to foreign lands prompt us to leave the confines of Sumerian literature in search of oracular state infrastructure in other temporal and geographic

[77] ETCSL t.1.1.3.

locations in the ancient near east. We will also begin to leave the divine realm and enter the realm of kings and heroes, to examine how the stone is absorbed into the narratives of royal men and the tales of their ancestors.

We can start with one of the most familiar instances of the oracular paternal stone. In a remarkable story from *Genesis* 28, Jacob 'hears' Yahweh speak when using a stone as a pillow. The vision involves angels of Elohim ascending and descending from earth to heaven, and the promise from Yahweh that he will give the land Jacob is sleeping on to Jacob, and will make Jacob's descendants 'as numerous as the dust of the earth'. Jacob's reaction to this vision provides insights on how he interpreted this oracular revelation:

> Then Jacob awoke from his sleep and said, 'Surely Yahweh is in this place; and I did not know it.' And he was afraid, and said, 'How awesome is this place! This is none other than the house of Elohim, and this is the gate of heaven.' So Jacob rose early in the morning, and he took the stone which he had put under his head and set it up for a pillar and poured oil on the top of it. He called the name of that place Bethel. ... Then Jacob made a vow, saying, Yahweh shall be my God (Elohim), and this stone, which I have set up for a pillar, shall be Beth-El (the House of God).[78]

The covenant made between Yahweh and Jacob has two striking features: Jacob's god promises him authority, fatherhood, and land ownership, thus tracing a clear schematic of paternal hierarchy. However, Jacob's reaction shows a mixing of symbolic forms: he responds by setting the stone into the earth, a marker of sanctuary reminiscent of the birth stones his future descendants Shiph'rah and Pu'ah would use in Egypt. He anoints the stone with oil, a broadly-known ritual technique of consecration, also used in midwifery (we have already seen oil used in the *Cow of Sin*

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[78] *Genesis* 28.17-19, 21-22.

incantation).[79] With knowledge of the tree and stone dyad, we can hypothesise that Jacob believed he heard Yahweh's voice from the stone itself—the stone carrying some audible elemental force of the god's presence in the land itself. While other ancient people may have heard a goddess' voice, Jacob first sees the angelic hosts of Elohim and then hears the voice of Yahweh.

Jacob is not alone in calling the stone 'the house of god', as this is attested in many sources. A ninth-century BCE Assyrian text describes the king Tukulti-Ninurta camping 'by the stones in which the great gods are dwelling' whilst on a military campaign.[80] Three basalt stelae or pillars (discovered near Sefire, Syria) are called the 'house of god' in their inscriptions.[81] Avner suggests that the pillars of the Israelite temple were themselves originally conceived as *massebah* standing stones.[82] In the Ugaritic *Tale of Aqhat* (fifteenth century BCE), Dan-el, father of Aqhat, repeatedly complains to the gods that he 'does not have a son to set up *massebah* in the temple in his name.'[83] Here we see the direct elision of ancestor worship and sacred stones in patriarchal temple structures.

This is but one example of the stones being used to commemorate the person and deeds of a male leader. The *Victory Stele of Naram-Sin* (c. 2500BCE) depicts the ruler of the Akkadian Empire attacking the Lullubi, a tribal population from the hinterland of the Zagros mountains. Naram-Sin declares himself a divine king by wearing the

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[79] Stephanie Dalley, 'Anointing in Ancient Mesopotamia', in *The Oil of Gladness: Anointing in the Christian Tradition*, ed. Martin Dudley and Geoffrey Rowell (Collegeville, MN: The Liturgical Press, 1993), 19–25.

[80] Uzi Avner, 'Sacred Stones in the Desert', *Biblical Archaeology Review* 27, no. 3 (2001). See also Wolfgang Schramm, 'Die Annalen Des Assyrischen Konigs Tukulti-Ninurta II', *Bibliotheca Orientalis* 27 (1970): 147–60.

[81] Avner. See also James Bennett Pritchard, ed., *Ancient Near Eastern Texts Relating to the Old Testament* (Princeton, NJ: Princeton Univ. Press, 1974), 659–661.

[82] Avner.

[83] *ibid.* See also Francis Landy, trans., *The Tale of Aqhat* (London: Menard Press, 1981).

horned headdress usually reserved for deities, while he mercilessly tramples the Lullubi as they beg him for mercy.[84] Here, the sacred ritual significance of the standing stone gives divine significance to the patriarchal king of an empire set on eradicating and subjugating 'uncivilised' peoples (i.e. those who still dwell outside the state system).

Stones were used to draw physical boundaries between different men's jurisdictions. A cuneiform boundary stone from the reign of Nebuchadnezzar I (Middle Babylonian) declares the king to be acting on the command of 'the king of the gods, Marduk, [who] sent him forth' and grants the new leadership of a district a charter of privileges.[85] The stele text threatens anyone

> who shall not fear the king or his gods, and shall again place them under [the old] jurisdiction, or shall obliterate the name of a god or of the king, which is inscribed (hereon), and shall write another (in the place thereof), or ... shall smash this memorial with a stone, or burn it in the fire, or put it in the river, or hide it in a field where it cannot be seen, may all the great gods, whose names are mentioned in heaven and earth, curse that man in wrath![86]

The curse concludes with an ominous statement threatening the very paternity of the challenger: 'as long as heaven and earth remain may his seed perish!'[87]

The boundary stone retains the reproductive significance of the birth stone, as both are placed in the earth to mark out a magical space, calling on the divinity of either fatherhood or motherhood. However, this time, the stone has the capacity to cast devastating magic that strikes the very centre of rival men's authority: their paternity and ownership. As father-possessors, they claim the fertility of the women and land

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[84] Louvre, Near Eastern Antiquities. https://www.louvre.fr/en/oeuvre-notices/victory-stele-naram-sin

[85] Babylonian boundary stone (kudurru), British Museum # 90858.

[86] *ibid.*

[87] *ibid.*

they own. In making these declarations, the cuneiform script inscribed on the boundary stone renders the stone audible: the stone shouts and commands, snarls and threatens. The victory stele leaves a similar auditory impression: the din and chaos of battle, the pleas and screams of the trampled and captured, who turn their faces up to gaze upon the god-king conqueror.

It is not only fathers and kings who take a metallurgical role. It seems that metallurgical identities are passed from father to son, even while the son is yet a new-born baby. We find strong metallurgical language in an Egyptian story about the birth of a male heir to the throne:

> Isis placed herself in front of her (the mother), Nephthys behind her, and Heket hastened the childbirth. (...) The child slipped forth upon her hands as a child of one cubit long, whose bones were firm, the covering of whose limbs was of gold, and whose headdress was of real lapis lazuli. They washed him, his umbilical cord was cut, and he was placed on a cushion on bricks... and she said: A king who will exercise the kingship of this entire land! Khnum made his limbs move.[88]

In this case, the kingly male infant is hastily born, already covered in precious metal and gemstones—his destiny as an heir to the hierarchy of Egyptian society has been decided. These two examples provide modern readers with a series of stark contrasts: what should be quiet gives off bellows, what should be lined with threads is plated, and what should be warm and slippery is born already wearing armour. While the metal-lined womb of E-Apsu bellows and roars, we wonder whether the plated new-born prince lets out a cry like all other babies, or whether he leaps up already talking and walking like Apollo.[89] Significantly, the birthing woman is not even considered—

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[88] *The Birth of the Kings*, in Simpson ed., 22.

[89] *Homeric Hymn to Apollo*. The young god's divine characteristics are shown by the absense of his infant weakness and cries. The goddesses are depicted as amazed by his strength and eloquence immediately after birth, and we are left to wonder if this is merely the imagination

she is silent and invisible. Her absence is necessary to mask the absurdity of the metallurgical imagery, for a clad infant could never pass through the birth canal.

We have already noted the god Khnum in a dynastic hymn: 'Respect Khnum, pregnant women who have passed their term. For he is the god Shu of the House of Birth who opens the lips of the vagina and makes firm the birth brick.'[90] Khnum is attested very early in the Egyptian pantheon: his primary iconographic representation shows him sitting at a potter's wheel, making human beings out of clay—he provides the furnace craft to kiln the brick of birth. He also represents the life-giving waters of the source of the river Nile.[91] We can see here direct parallels between Khnum and Enki/Ea, another god of furnace crafts whose penis flows with the waters of life. Khnum is a metallurgical god who has joined in the tasks and roles of the midwives, servicing the continuation of the kingship of Egypt through ensuring the birth of sons.

With these five examples, we have extended the mythic implications of patriarchal stone beyond the domains of the gods, into the realm of mortal fathers and sons. For Jacob, the stone is a promise of paternal riches; for Aqhat, immortality through ancestor veneration. For Naram-Sin, the king and father of the state, the stone commemorates colonisation and conquest; boundary stones protect acquired property with shouted threats protecting ownership. When these elite men impregnate the women they own, they transfer not only their bloodline, but their metal armour: royal heirs are born fully clad.

Together with the mythic examples, we have traced a metallurgical and lapidary conceptualisation of paternity: stone, gold, and silver form the very material substance

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of the male author: midwives and mothers may have more respect for the softness and vocality of the infant body. Apollo, instead, is abruptly gendered at birth with an adult masculinity, denied the time of life when boy attaches to mother, partly sheltered for a short time from virility and dominance.

[90] *Hymn to Khnum,* in Ritner, 213.

[91] Pinch, *Handbook*, 153-154.

of city walls and crenellations, palaces, temples, demarcations of conquered land, and the very bodies of sons. This is a symbolic architecture and anatomy of the city-state and the ideology of kingship.

Conclusion: Sounds and the city

Throughout this chapter, we have encountered many spoken and unspoken soundscapes of stone and reproduction. Deucalion and Pyrrha throw stones over their shoulders, hearing them tumble on the ground behind them and transmutate into living, breathing humans. The Assyrian glassmakers' furnace roars with fire as the anxious workmen prepare to placate the kubu souls. In *Exodus*, we hear the groaning of an enslaved people, and the defiant Hebrew women birthing babies within their precariously intact family structures. Again and again, midwives lay the stones, bricks, and stools of birth, girding their loins with joy and skill as the waters of life pool and rivulet along the ground. As birthing women wail and grunt with effort, the Earth laughs. In the realm of myth, the Cow's birthing voice fills the sky like a woven cloth stretched out across the horizon—shepherds and bulls cower in fear at the awesome sound. We hear the waves of the primordial sea lapping against the wooden boats of a mortal mother and her goddesses; the sea wind catches the linen sail of the woman's vocalisations, as she gathers up all her skill in navigating towards the Quay of Life. When the baby is finally born, the goddesses raise up a traditional birth cry—in Greek, *ololyga!* and *eleleu!*; in Babylonian, *illuru!*[92]

The soundscape shifts. The city is now a birth brick, worthy of divine praise—it roars like an Ox. Its architecture emits oracle, its walls bellow, its bricks proffer wisdom. Resident gods of the city bellow as they ejaculate. They gild over the threads of primordial womb temples with gold and silver, until they, too, roar like a bull. Now it is the voice of metallurgical gods who can be heard through the oracular stone—

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[92] Carson, 121; AWR, 31.

stones that also celebrate bloodshed, reverberating with the horrifying cacophony of battle and slaughter. Snarling laws of ownership are etched on stones, delivering curses and threats. These are the soundscapes of paternity, as imagined by ancient writers and craftsmen—the authority of urban elite classes who rely on the ideology of paternity to maintain authority, dominance, and wealth. Within this mode, the disciplining of female bodies is made explicit: the wife Uttu is the silent worker, her gender role naturalised within patriarchal *corvée*.

When we compare the soundscapes of the maternal and paternal stone, we cannot help but notice the sonic poverty of the latter. Divine and mortal kings have merely amplified the stone, turning whispers into bellows and roars, rendering the soundscapes of stone akin to that of battle. In doing so, the patriarchal signification of stone has removed almost all resonance with pregnancy and the divine uterine quietudes of primordial waters. The soundscapes of maternal stone, in contrast, are remarkably diverse. Midwives trill, earth laughs, mother wails, baby cries, water splashes, boats bob, linen sails flutter. An immense sound world on a cosmogonic level: quietudes are oceans, cries are horizons.

It remains a mystery why ancient near eastern scribes might record such rich soundscapes of maternity, only to replace them with stereotypical sounds of war and warriors. In both cases, reproduction is represented via the imagination of upper class men: female and male fertility is seen through patriarchal eyes and heard through patriarchal ears. Do the soundscapes have some basis in pre-existing or foreign cultural traditions? To my knowledge, the historical archive now available does not provide sufficient evidence to answer this question.

However, we have accomplished one task: overviewing the patterns of contestation regarding voice, gender, state power, and reproduction. The goal has been to expand our understanding of the ritual, mythopoeic, and symbolic context of stone. We have discovered that stone could be a symbol of either maternal or paternal power. We are also now aware that there existed a broader conflict over the vocal power of stone. In these patriarchal texts, stone functions as a liminal material—it is part of the earth, originating in the belly of the earth mother; it can, however, be hewn and smelted and used to build the patriarchal state. The conflict we have identified can be summarised with one question: *Which transformative power—the slow transformations of the deep-earth and maternal womb, or the rapid transformations of the state builder's*

furnace—can claim the greatest authority over reproduction? This question held deep significance for kingship, lordship, warrior identity, and fatherhood: ideological cornerstones of state-craft.

Along the way, we have happened upon multiple references to furnaces, metal, and metallurgy. The connection with stone appears quite simple at first, for metals are extracts of stones, smelted and purified in the womb-like furnace. However, it is the mythopoeic representations of metallurgical purification which hold the most intense ritual and symbolic confrontation with the soundscapes of maternal stone. The following chapter will develop this theme in greater depth.

4 THE METALLURGIST, THE EXORCIST, AND THE OBSTETRICIAN IN ANCIENT MESOPOTAMIA

In chapter three, we focused on the soundscapes imagined around maternal and paternal paradigms of stone. In this chapter, we turn our ears to the metallurgical protagonists themselves, both gods and their mortal emissaries. We find them in three different types of metallurgical narratives: first, mythic and ritual texts where metallurgical gods take on the role of male-midwives; second, mythic texts that feature explicit competition between metallurgical gods and fertility goddesses over the authority to create life; and third, ritual texts detailing the ritual capture and burning of witches by emissaries of the metallurgical gods. The chapter may begin in the lofty domains of the pantheon, but it ends in mortal reality with the execution of women. My primary aim is to demonstrate the interconnectivity of intention across these literary and ritual categories—in the end, we will find that each protagonist is a patriarchal listener responding to reproductive sounds he finds threatening or disturbing.

Part One: Metallurgical male-midwives

Ea and Marduk as midwives

To begin, we return to the *Cow of Sin* incantations. We already noted the enormous popularity of this text, and the vast commentaries written on it in ancient Mesopotamia. We also surmised that a likely reason for its continued relevance was the urgent need for royal succession—through magic performed in the royal birth chamber, representatives of the king called upon deities to assist in the safe delivery of royal heirs in a time when infant and maternal mortality were high. With this context in mind, we can note changes that were made in the incantations over time. The most obvious pattern involves the deities invoked in the incantation, gradually moving away from goddesses associated with midwifery to gods associated with furnaces and metallurgy.

The earliest version of the incantation (from the Fara period) references the 'the great midwife from Kullab' coming to make the incantation over the woman in difficulty.[1] The city of Kullab was a relatively small settlement in the southern part of Sumer, a pastoral region. The patron deity of Kullab was the bovine-form goddess Ninsun, known as the 'flawless cow', and 'mother of good offspring that loves the offspring'.[2] These details help us to identify the earliest midwife of the *Cow of Sin* incantation series as a maternal goddess.

This, however, changes in subsequent redaction. In later versions of the incantations, Enki/Ea assumes the role of consultant midwife while his son Asalluhi/Marduk learns

[1] BBB, 60.

[2] Michael Frassetto, *Encyclopedia of World Religions* (Encyclopaedia Britannica Inc., 2006), 815.

the craft.[3] The Sumerian Ur III version already features Asalluhi taking over the role of Ninsun. Here, however, Asalluhi hesitates and must consult his father Enki for advice on how to assist the woman:

> Asalluhi saw the woman in travail, he entered the house of his father Enki, he spoke to him: ... ‘What I should say about this, I do not know; not what I should do in return’.
>
> Enki answered his son Asalluhi: ‘My son, what do you not know, what should I do more for you? ... That what I know, you too know, and what you know, I too know.[4]

Enki then instructs Asalluhi on how to perform the ritual of the broken pot. Later Akkadian versions of the incantation show Asalluhi gaining both skill and confidence in his birth attending:

> When Asalluhi heard about the woman in travail,
> he became anxious, he worried for her life,
> on the word of Ea he exalted his name;
> He loosened the mooring rope, he untied her knot.
> The closed doors were opened.
> The sealed were eased, the creature came forth
> The separate bone, the human form,
> may it come forth soon and see the sunlight!’[5]

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[3] Asalluhi is Sumerian saviour god who rescues people from danger. Marduk is Babylonian god of plague and pestilence. Marduk later absorbs Asalluhi’s role to become a god who both harms and saves. See Takayoshi Oshima, *Babylonian Prayers to Marduk*, Orientalische Religionen in Der Antike = Oriental Religions in Antiquity 7 (Tübingen: Mohr Siebeck, 2011), 38-48.

[4] BBB, 61.

[5] BBB, 64-65: The compendium of Aššur II: 47-69.

Here Asalluhi does not need to defer to his father. The tying and untying of womb knots constitute a defining skill of midwives across the ancient near east.[6] As we will see in future chapters, Asalluhi and Ea are but two of many metallurgical gods who attempt to lay claim to this ability. The title for this incantation is given 'Incantation of Asalluhi, secret of Eridu; the approval of Ea..., the incantation which Mami, the wise one as medication... gave to Nisaba [the goddess of record keeping] in order to make the vagina give birth well.'[7] In this case, the authority of Asalluhi is traced through Ea, and then to the original goddess of motherhood, Mami. Other versions, however, avoid mentioning this lineage of authority:

> Give order, Ea, lord of incantation,
> that they loosen the ship
> that they relax the barge.
> [4 lines missing]
> Let the child come out quickly and see the light of the sun.
> Incantation – Run hither to me like a gazelle,
> Slip out to me like a little snake.
> I, Asalluhi, am the midwife, I will receive you.[8]

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[6] See examples in: Benjamin R. Foster, *Before the Muses: An Anthology of Akkadian Literature*, 2nd ed (Potomac, MD: CDL Press, 1996); Susan Ackerman, 'I have hired you with my son's mandrakes: Women's reproductive magic in Ancient Israel', in Mark Masterson, Nancy Sorkin Rabinowitz, and James Robson, eds., *Sex in Antiquity: Exploring Gender and Sexuality in the Ancient World* (London: Routledge, 2015), 17; JoAnn Scurlock, 'Baby-Snatching Demons, Restless Souls and the Dangers of Childbirth: Medico-Magical Means of Dealing with Some of the Perils of Motherhood in Ancient Mesopotamia', *Incognita* 2 (1991): 139, 141; BBB, 35, 60, 134, 199; Robert K. Ritner, 'Household Religion in Ancient Egypt', in *Household and Family Religion in Antiquity*, ed. John Bodel and Saul M. Olyan (Malden, MA: Blackwell Publishing Ltd., 2008), 174.

[7] BBB, 64-65.

[8] *ibid.*, 69.

In this version, Asalluhi instructs Ea to begin the incantation. This is a significant reversal of authority. Here we also find the first declaration of Asalluhi's role: he is the midwife. No goddess is mentioned. The Akkadian term for midwife is *erištu*, or 'wise one'—one of Marduk's names is a synonym for 'wise one' (*šazu*, meaning 'he who knows the inside'); he is also called *šabsūtu*: the midwife.[9] As a wise male-midwife, Marduk has power 'to keep the pregnant woman, together with her foetus, well; to make her give birth, to make her get posterity.'[10] He is summoned as follows:

> 'The woman in hard labour, she with the sealed womb:
> You *Šazi*, are her midwife; help her to give birth.'[11]

In later versions, the gods Sin and Šamaš join Marduk in offering midwifery services.[12] Remarkably, the many versions of the *Cow of Sin* incantation held in the Aššur Compendium only mention male-midwives. This marks a total departure from the original function of Ninsun and the other mother goddesses. The metallurgical and pyrotechnical gods Ea and Marduk are primarily responsible for taking command of the goddesses' domain. Stol interprets this as a symptom of a broader shift in the near eastern configuration of the divine, stating that the shift toward male midwives is 'in accord with the diminishing importance of the third millennium female deities which occurs over time.'[13] We can see the same pattern in the steering of the boat. In earlier Sumerian versions, the goddesses Inanna, Nintu, Aruru, and Ninhursag steer boats in formation with the mother's vessel, or sit with the mother in her boat. Later, we find Marduk seated at the boat's helm.[14]

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[9] *ibid.*, 70.

[10] *ibid.*, 72.

[11] *ibid.*

[12] *ibid.*, 71.

[13] *ibid.*

[14] *ibid.*

We must pause for a moment and consider the ramifications of this redaction. At first glance, this is merely a name and gender change. The purpose of the incantation—to help ensure a safe delivery of a royal baby—remains the same. In my view, however, these changes to the incantation formula reflect a much deeper re-evaluation of authority over the domain of childbirth and midwifery. The incantations themselves do not contain enough evidence to make this claim, so we must widen our scope of enquiry. In the following section, we will find familiar metallurgical deities—Ea and Marduk—extending their take-over of goddesses' roles to include not only midwifery, but also the creation of humankind and the cosmos. The mythic narratives detailing this shift of authority over creation are saturated with references to vulvar vocality, and so give us a clearer picture of the gender-power dynamics at play.

Competition over the domain of creation

To most people living in societies dominated by the Abrahamic faiths, the story of a god creating human beings from clay is very familiar: both life and death are framed in terms of the formation and decay of earthenware bodies. Long before the establishment of Israelite religion, the gods of pottery kilns and smelting furnaces were featured in myths as collaborating or competing with fertility goddesses in the formation of the first wombs and first babies out of clay. Like liminal stone, clay here has two realms of reference: it can be associated with elite furnace crafting (fired pottery and bricks) or it can be associated with elemental earth.

Ea and Mami

In early narratives of this type, the writers of myth do not attempt to narrate the craft gods' actions in isolation: when creating mankind from clay, the gods had to appeal to their mothers and to other goddesses of midwifery. In the *Atrahasis*, Ea oversees the goddess Mami while she makes the first humans out of clay. One god's life is sacrificed, his blood mixed by the goddess into the clay. The gods of the pantheon then add their spittle (i.e. ejaculate) into the clay mixture to animate it, while Ea mixes

the clay (presumably with his feet).[15, 16] Mami, meanwhile, does the creating. She recites her incantation, creating human life and establishing the order of human generations according to her midwifery craft.[17] In preparing for the wombs to produce the first humans, Mami lays a brick between them—the scene for the first births has been set.[18]

For now, it is important to note that authority over creation is contested in the *Atrahasis.* While Ea treads the clay for Mami and 'makes her' recite the incantation, it is clear that Mami does the crafting. When the gods realise that Mami has succeeded in creating humans, they kiss her feet and declare her 'Mistress of All of the Gods'.[19] It is the goddess who shapes the womb, recites the incantation, performs the midwifery, creates destiny, and forms the 'blueprint for mankind' by setting patterns of sexual reproduction.[20] After the first human males and females have sex and conceive, Mami again watches over the pregnant women and performs the midwifery, once again drawing a circle of flour and laying down the brick.[21]

Enki and Ninmah

The *Atrahasis* is unique because Mami maintains a central role as creator, despite Ea's involvement in overseeing affairs—not all myths allow the midwife to maintain her integrity in the presence of the metallurgical god. In *Enki and Ninmah*, these interdependencies become difficult, escalating to a point of high tension and competition. The writer of the myth is careful to begin in an appropriately

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[15] On the equivalence of spittle and sexual fluids, see AWR, 6.

[16] Lambert, *Atra-hasis,* 59.

[17] *ibid.*, 61.

[18] *ibid.*

[19] *ibid.*

[20] *ibid.*, 63.

[21] *ibid.*

paternalistic fashion, by emphasising the domestic function and domain of the goddesses:

> On that day, the day when heaven was separated from earth,
> On that night, the night when heaven and earth were established...
> After the Anunna gods had been born,
> After the goddesses had been taken in marriage,
> After the goddesses had been distributed through heaven and earth,
> After the goddesses had copulated, become pregnant and given birth.[22]

The goddesses are associated with a cyclical set of functions, beginning and ending with the act of giving birth: first, they are born, then they are taken in marriage, distributed, penetrated, and impregnated, and, finally, they too give birth. Our scribes purposefully frame the goddesses' reproductive functions within the boundaries of domesticity—a highly unrealistic depiction of a religion in which goddesses and women, in fact, fulfilled a wide range of functions.[23] The male gods are afforded a higher degree of agency in marrying, distributing, and impregnating goddesses, with the clever craftsman god Enki as their leader. We cannot help but wonder if this distribution of agency is meant to compensate for the lack of male involvement in the initial act of creation. Overall, power over childbearing is transferred from the mother goddesses to Enki.

The patriarchal hierarchical class structure of the pantheon is a focal point of the narrative: 'The great gods presided over the work, the junior gods bore the toil.' When the junior gods threaten to rebel against the pantheon's leadership due to the brutal *corvée*, Nammu, the mother of Enki, rushes to her son to wake him from his sleep in the depths of the E-Apsu. She tells him: 'My son, arise from your bed, with your expertise you must seek out skill. Create a substitute for the gods so that they will be relieved of their toil.'

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[22] Lambert, *Babylonian Creation Myths*, 330ff. ETCSL t.1.1.2.

[23] Frymer-Kensky, 32ff.

While the mythographers make this slight nod to Nammu's primordial fertility function (after all, it is her idea to make humankind), Enki is made the uncontested coordinator of the entire initiative. The myth writers go to great length to admire Enki's intellect and skill:

> In Halanku, his conference chamber, he [Enki] slapped his thigh.[24]
> Being expert in wisdom, discernment and consultation, he produced skill of blood, bodies, and creative power, the birth goddesses.
> Enki stationed them at his side, seeking out wisdom.
> After Enki had in wisdom reflected upon his own blood and body,
> He addressed his mother Nammu,
> 'My mother, there is my blood which you set aside, impose on it the *corvée* of the gods.
> When you have mixed it in the clay from above the Apsu,
> The Birth goddesses will nip off the clay, and you must fashion bodies.
> Your companion Ninmah will act and
> Ninimma, Shuzianna, Ninmada, Ninshar,
> Ninmug, Mumudu, and Ninniginna
> Will assist you as you bring to birth.
> My mother, you decree their destiny so that Ninmah may impose their *corvée*.[25]

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[24] Within my analysis, it becomes clearer why Enki is portrayed as slapping his thigh. The thighs are significant in Sumerian sexual depictions. To sit on someone's lap was a euphemism for sexual intercourse. In another myth, the mother goddess takes Enki between her thighs in order to cure him of his life-threatening self-impregnation. Enki seems to slap his thigh to declare his self-dependence, providing a phallic reference for the remaining text. See Julia M. Asher-Greve, 'The Essential Body: Mesopotamian Conceptions of the Gendered Body', *Gender & History* 9, no. 3 (November 1, 1997): 447.

[25] Lambert, *Babylonian Creation Myths*, 330ff. ETCSL t.1.1.2.

Enki claims knowledge and wisdom in his leadership of the goddesses—'wise man' instead of 'wise woman'—and it is his knowing that justifies the hierarchy imposed on the divine actors. Enki's position in the narrative is rather unstable—it seems that the narrative of his wisdom has been crudely pasted on top of the pre-existing wise women. He appears to create the birth goddesses from his masturbation, although this seems too simple an origin story for such important deities. The mother goddess is not created by Enki—as her son, he cannot claim to be her origin. While Enki gives the commands to the goddesses on how they should create mankind, the goddesses themselves are depicted to be working closely together, as creatrixes, companions, and midwives—a platform of collaboration which sets Enki in an isolated position, despite his commands and orders. This narrative, then, could be read as having two layers—the first layer being traditional stories of the origin of life in the crafts of the divine midwives; and the second layer, a rather forceful imposition of Enki as the wise man who, although he is conspicuously inactive, is superior to the wise women.

Overall, the timing and direction of these actions contain various points of instability, betraying the difficulty with which myth writers established Enki's domain over childbearing. *Who, then, is the ultimate authority—the craftsman god, or the skilful midwife?* The writer of this myth comes up with a clever solution to these points of instability, staging an explicit conflict between Enki and Ninmah to close the anthropogony. The outcome of this conflict defines which paradigm (male creativity or female creativity) will succeed in claiming authority over creativity as a whole.

Unfortunately, much of the following anthropogonic narrative has been lost. By the time the text begins again, the gods, having transferred their *corvée* to humankind, are celebrating their new-found leisure with a feast. Ninmah begins by concluding that her role in the creation of humans has guaranteed her a particular domain over their fates:

> Ninmah said to Enki,
> 'It is for me to decide whether a human body should be good or bad.

In accordance with my decision will I make a destiny good or bad.'

Enki replied to Ninmah,

'I shall assess the destiny you decide upon, whether it is good or bad.'[26]

Here, Enki is unable to deny the goddess her domain, but reserves the role of executor who has the right to make the final decision—a strategy we have seen him employ before. Despite the broken tablet, we can see that Ninmah's response is to take immediate action:

Ninmah took clay from above the Apsu in her hand,

She fashioned a [deformed] man, who could not..., a freak.

When Enki saw the ... man, who could not...,

He decreed his destiny and stationed him at the head of [i.e. in attendance to] the king.[27]

Ninmah is unable to outsmart Enki: in total, she creates seven human beings with deformities and limitations to try to test Enki's command over destiny formation, and each time Enki finds a suitable role for her creation within human society. She then admits defeat: 'Ninmah threw down on the ground the nipped-off clay in her hand and became silent.' Enki responds by challenging Ninmah in turn: he, too, creates a deformed human being. The manner in which he does so is highly significant:

Enki fashioned the body of his slave-girl with an abnormality already in her womb.

He said to Ninmah,

'When the fertilising semen has impregnated the woman's womb, that woman will bear in her womb.'

The skilled Ninmah stood in attendance for its birth.

When the woman's days were completed she delivered the abnormality of her womb.

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[26] *ibid.*

[27] *ibid.*

Ninmah... was silent.[28]

While the writer does not specify how Ninmah produced the deformed humans, he goes to some length to show the means by which Enki matches Ninmah's capacity: he uses the body of a slave woman and leaves the midwifery responsibilities to Ninmah. Here, too, Enki's creativity is dependent on women.

The level of deformity Enki achieves defies any of Ninmah's previous creations:

> The whole of it was Ummul ('At Death's Door'). Its head was sick, its brow was sick,
> Its face was sick, its neck was sick, its throat was stopped up, its ribs were protruding,
> Its lungs were sick, its inwards were sick, its heart was sick,
> It held its hands in its head, it could put not food in its mouth,
> Its spine was curved, the buttocks/anus was..., the shoulders were...,
> The feet were weak, it could not stand on the ground—so he had fashioned it.[29]

Enki then challenges Ninmah to find a destiny for this deformed human, so that it could take its place in human society. Ninmah, however, finds herself at a loss to find life, responsiveness, or purpose in the creature.

> When Ninmah saw Ummul, she turned towards...
> She approached Ummul, questioning it, but it did not open its mouth.
> She gave it bread to eat, but it did not stretch out its hand.
> She offered it her hand, but it could not rise.
> She laid down a mattress for it, but it could not lie on it.
> It could not stand, it could not sit, it could not lie, it could not...,
> it could do nothing at all.[30]

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[28] *ibid.*

[29] *ibid.*

[30] *ibid.*

The writer of the myth vividly expresses the horror of the mother goddess, who finds her understanding of the Ummul excruciating:

> Ninmah spoke to Enki,
> 'Your creation is neither living nor dead! I cannot bear it!...
> Now I cannot live in heaven, I cannot live on earth,
> I cannot escape your attention in the land.
> Where you do not live, in a temple I shall build, your words will not be heard.
> Where you do not dwell, in a city I shall build, I myself shall lapse into silence.
> My city is ruined, my temple is destroyed, my sons are taken captive
> No, I am a refugee, expelled from Ekur,
> And as for me, I cannot save myself from your power.'[31]

Enki's display of destructive reproductive power breaks the boundary between life and death. This shattering of fundamental distinctions renders Ninmah powerless against him and banishes her from her own domain—she no longer claims the central divine role in human fertility. She must relocate somewhere—her only possible dwelling place is in the far reaches beyond Enki's utterance, where she can escape the shadow of his penetrating survey.[32]

Despite the missing portions of the clay tablet, we can see that Enki's effect on Ninmah is to repeatedly silence her. The arrest of her vocality is directly connected to her new status as a refugee—without her sonic capacity, her maternal authority cannot be sustained. Ninmah's maternity is further claimed by Enki forfeiting her sons, much in the same way Baal destroys the seventy sons of Athirat.[33]

All the while, Ninmah holds Ummul—a creature unable to suckle—at her breast, a tragic picture of a mother goddess unable to mother. Enki's response is to remove the

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[31] *ibid.*

[32] See below for further analysis of the concept of survey.

[33] See chapter two.

deformed creature from Ninmah's breast and hand it over to a minor female deity (whether for care or disposal, we are not told), and to declare his definitive male victory:

> Henceforth may my penis be praised, may your unforgotten skill remain...
> My sister, may my heroic might be proclaimed![34]

The myth writer finishes the tablet with the following conclusion:

> Ninmah did not equal the great lord Enki.
> Father Enki, praise of you is sweet.[35]

Marduk and Tiamat

The *Enuma Elish* shares many features with the Sumerian creation stories, with the themes of male utterance and female silence writ large. The initial scene of the theogony depicts Tiamat and Apsu, the proto-deities of the primordial waters, resting deep in quietude. However, the conflict begins when the young generation of gods in the pantheon form a cacophonous force that disturbs Tiamat:

> The divine brothers came together,
> Their clamour got loud, throwing Tiamat into a turmoil.
> They jarred the nerves of Tiamat,
> And by their dancing they spread alarm in Anduruna.
> Apsu did not diminish their clamour,
> And Tiamat was silent when confronted by them.
> Their conduct was displeasing to her,
> yet though their behaviour was not good, she wished to spare them.[36]

The warrior dancing of the gods is the central component of their cacophony—the metallurgical significance of these warrior dances will be a recurring theme in chapter

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[34] *ibid.*

[35] *ibid.*

[36] Lambert, *Babylonian Creation Myths*, 51ff.

five. Tiamat's husband Apsu colludes with his vizier Mummu to destroy the young gods. He declares to Tiamat, 'I will destroy and break up their way of life, That silence may reign and we may sleep.'[37] Tiamat's reaction to Apsu's plans begins her gradual transformation from a quiescent proto-goddess into a resounding fury of grief. 'She raged and cried out to her spouse, She cried in distress, fuming within herself, She grieved over the plotted evil, "How can we destroy what we have given birth to? Though their behaviour causes distress, let us tighten discipline graciously."'[38] Apsu and Mummu (who are depicted as relating to each other in terms associated with sexual intimacy) ignore her distress and plot against the gods.

> What they plotted in their gathering
> Was reported to the gods, their sons.
> The gods heard it and were frantic.
> They were overcome with silence and sat quietly.[39]

The sonic complexity here continues to build with a series of oscillations. Tiamat, initially quiet, is thrown into a desperate fury by her scheming, quiet-desiring consort. The cacophonous dancers are, in turn, thrown into panic and then made silent in fear.

Ea enters into this unstable soundscape as the elder craftsman god. He perceives the tricks of Apsu and Mummu and quite easily disables them by concocting a poison incantation that he pours into the waters of the Apsu, possessing Tiamat's consort in a deep sleep.[40] Poison, sound, and utterance meet in Ea's concoction: a cluster of connections with deep significance (see chapter five). The text then states, rather

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[37] *ibid.*

[38] *ibid.*

[39] *ibid.*

[40] *ibid.* 'Ea, who knows everything, perceived their tricks. He fashioned it and make it to be all-embracing, He executed it skilfully as supreme—his pure incantation. He recited it and set it on the waters.'

perfunctorily, that Ea kills Apsu and takes his crown, aura, and dwelling: an ending for Apsu that is altogether too swift and easy.

The story of *Enki and Ninmah* differs in scope from the *Enuma Elish*. In the former, the craftsman god masters the mother goddess Ninmah by dominating their collaboration and gradually expelling her from her domain. However, the authors of the *Enuma Elish* have targeted a much more formidable opponent: Tiamat is not a domesticated mother goddess, as Ninmah had become. She is a proto-deity who existed long before the pantheon. Tiamat's primordial nature proves beyond the myth writers' descriptive capabilities: on one hand, she exists in the waters along with Apsu, but she is not impacted by Ea's poisoning of the waters. She is also considered a far more formidable opponent than her consort, who is killed rather too efficiently by Ea and quickly replaced by Tiamat with a new consort-general (Qingu). Sometimes she is a great maw, at other times a long-tailed sea dragon who births terrible sea monsters. At other times, she appears to be an almost immaterialised, powerfully parthenogenetic force.

What, then, should we call her? Tiamat defies the categories of representation and personification common to the gods and goddesses of the pantheon. Lambert quite inappropriately chooses the term 'demiurge' (Gr. lit. 'craftsman' or 'artisan') to describe her.[41] Tiamat is far from a craftsman; she appears across the misty quietudes of the distant past, and she functions as the remote pre-origin of even the most senior goddesses and gods. Scribes were all too aware of this, and avoided using the cuneiform divine determinative that would normally accompany the name of a deity.[42] Tiamat, in other words, is much more than a goddess—she is a primordial being flooding the boundaries of pre-existence.

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[41] Lambert, *Babylonian Creation Myths*, 51.

[42] Karen Sonik, 'Bad King, False King, True King: Apsû and His Heirs', *Journal of the American Oriental Society* 128, no. 4 (2008): 737, note 3.

It soon becomes clear that no mere craftsman god can achieve victory over Tiamat. The authors of the myth depict Ea making a single feeble attempt to attack Tiamat, but the powerful metallurgical god's confidence fails even before he approaches her:

> Ea went, he perceived the tricks of Tiamat,
> He stopped, fell silent, and turned back.
> [He returns to the pantheon penitent, saying:]
> 'Tiamat's deeds are too much for me.
> I perceived her planning, but my incantation was not equal to it.
> Her strength is mighty, she is full of dread,
> She is altogether very strong, none can go against her.
> Her very loud noise does not diminish,
> I become afraid of her cry and turned back.
> My father, do not lose hope, send a second person against her.
> Though a woman's strength is very great, it is not equal to a man's.'[43]

It is interesting that the sonic role-reversal continues: Tiamat is sounding an endless, terrifying fury, while Ea is quelled into silence. However, the authors of the myth turn to pat gender norms to extract some hope for their pyrotechnic hero: despite her powerful vocality, Tiamat cannot be invincible. Here, Tiamat—the mother of all the universe—is reduced to a banal sexist expectation: she is just a woman, after all. The statement seems far too glib to warrant inclusion in the resounding drama that is unfolding. The gods of the pantheon do not seem convinced by Ea's statement, either, for their response shows profound fear: 'They sat in tight-lipped silence.'[44]

In order to face this task, the creators of the *Enuma Elish* fashion the patron deity of the city (and now empire) of Babylon as their ultimate hero. His conception and birth are strangely full of portents of death: he is conceived by Ea's wife Damkina in the deep waters of the now-dead Apsu, '[i]n the chamber of destinies, the room of

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[43] Lambert, *Babylonian Creation Myths*, 51ff.

[44] *ibid*.

archetypes', a place where meaning incubates.[45] Born in a watery grave, Marduk's attributes portend the epistemic and symbolic paradigm shift that his narratives will enforce.

Like many divine and mortal heroes of patriarchal myth (including Apollo and our little plated prince), Marduk seems to skip the vulnerabilities of infanthood: 'A nurse reared him and filled him with terror... His growth was manly, he was mighty from the beginning.'[46] The scribe is careful to include information about the pyrotechnical characteristics of Marduk, to make sure that he fulfils the role of Ea's heir and perfects the divine metallurgical archetype. Marduk's form is incomprehensible and his mouth spews out fire like the hottest furnace. As the vocal, fiery perfection of his father, Marduk is 'the wisest of the wise', the male-midwife who will surpass all male-midwives.[47] Will this level of wisdom be powerful enough, hot enough, loud enough to vanquish the oldest of the wise women?

Marduk sets a very precise price for his services as divine matricidal hero: 'let me, with my utterance, decree destinies instead of you [the pantheon]. Whatever I instigate must not be changed. Nor may my command be nullified or altered.'[48] Marduk's price is extraordinary: he wishes for the ultimate power of utterance, the patriarchal reproductive power to create with voice alone. Surprisingly, perhaps, the pantheon gods are happy to grant him this supremacy, and they know precisely what it entails: 'You are Marduk, our avenger, We have given you kingship over the sum of the whole universe.'[49] This amounts to nothing less than a move away from polytheism, where each deity possesses his or her own domain, to henotheism, where

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[45] *ibid.*

[46] *ibid.*

[47] *ibid.*

[48] *ibid.*

[49] *ibid.*

a chief god increasingly subsumes all domains.[50] But first Marduk must pass the pantheon's test. Before him, they place a constellation and ask him to annihilate and re-create it with word alone. After Marduk easily performs this feat,

> They rejoiced and offered a congratulation: 'Marduk is the king!'
>
> They added to him the mace, a throne, and a rod [or: sceptre of wood],
>
> They gave him an irresistible weapon that overwhelms the foe [i.e. the Storm surge]:
>
> (They said,) 'Go, cut Tiamat's throat,
>
> And let the winds bear up her blood to give the news.'[51]

If Tiamat is indeed the maternal origin of the universe, then Marduk is making an extraordinary claim. He plans to meet her in battle, fighting to the death for her domain, as a god who commands both storm and fire: a composite utterance of the bellowing of the furnace and the howling of nature's winds. When he girds his weapons, Marduk shows extraordinarily pyrotechnic characteristics:

> He placed lightning before him,
>
> And filled his body with tongues of flame...
>
> And on his head he wore an aura of terror...[52]

His pyrotechnics are accompanied by the familiar vocalities, for '[i]n his lips he held a spell.'[53] Since his mouth has already been shown to be full of fire, and now his body is filled with flaming tongues, Marduk's command over utterance will be scorching.

When Marduk engages Tiamat in battle, he throws the storm surge at her with his words. In response,

> [Tiamat] went insane and lost her reason.
>
> Tiamat cried aloud and fiercely,

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[50] See chapter seven for discussion of Marduk and henotheism.

[51] *ibid.*

[52] *ibid.*

[53] *ibid.*

All her lower members trembled beneath her.

She was reciting an incantation, kept reciting her spell,

While [her army] were sharpening their weapons of war.[54]

It seems that Tiamat, too, knows the secrets of warfare and its metal-working—but whose metallurgical prowess will overcome the other? Tiamat and Marduk meet in a terrible battle, in which Marduk uses wind, storm, nets, and arrows to trap and debilitate her.[55] Once the net has trapped her, Marduk approaches to end her life. The scribes take delight in outlining the graphic detail of Tiamat's death.

[Marduk] let fly an arrow and pierced her belly,

He tore open her entrails and slit her innards,

He bound her and extinguished her life,

He threw down her corpse and stood on it...

Bel [i.e. Marduk] placed his feet on the lower parts of Tiamat

And with his merciless club smashed her skull.[56]

The sexual nature of Marduk's execution of Tiamat is explicit: her 'lower parts' (a reference to her femaleness) that once trembled with powerful rage, are now a silent, still place on which the god can place his foot in a gesture of rape-like domination. Stomping on her lower mouth is not enough—he also smashes her head, her place of knowledge and utterance.

After killing Tiamat, Marduk performs a series of deeply symbolic ritual actions:

Bel [Marduk] rested, surveying the corpse [*kubu*],

In order to divide the lump by a clever scheme.

He split her into two like a dried fish:

One half of her he set up and stretched out as the heavens.

He stretched the skin and appointed a watch

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[54] *ibid.*

[55] *ibid.*

[56] *ibid.*

With the instruction not to let her waters escape.[57]

Here we must note the term *kubu* used to describe Tiamat: the primordial mother herself has been rendered an unviable, ejected foetus. The reference to the fish also renders Tiamat as a foetus, as 'fish' was a common way of referencing the unborn.[58] Marduk finishes the celestial realm is great detail: he places the heavens in Tiamat's belly, and uses her roam and spittle to create clouds, storms and mist; 'He twisted her tail and wove it into the Durmahu'.[59] To fashion the earth, he heaps mountains on top of her breasts. To keep earth and heaven separate, Marduk puts Tiamat's severed vulva on display: 'He set up her crotch [vulva]—it wedged up the heavens—thus the half of her he stretched out and made it firm as the earth.[60] The primordial creatrix has been overcome in battle, but the victor's revenge performs sexual and reproductive domination over her dead and dissected corpse. Only through this sexually charged dismemberment is the young Marduk able to act as creator.

Creative utterance: The power of paternal word

The cosmogonic conquest scene of the *Enuma Elish* concludes with a rather enigmatic statement:

After he [Marduk] had finished his work inside Tiamat,
He spread his net and let it right out.
He surveyed the heavens and the earth.[61]

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[57] *ibid.*

[58] BBB, 9-10.

[59] Geyer identifies the Durmahu as 'as kind of cosmic telegraph wire to which the various stars had to be attached to keep them on course.' The god responsible for this wire was pre-eminent king, whose domain Marduk appears to commandeer in weaving Tiamat's dragontail. J. B. Geyer, 'Twisting Tiamat's Tail: A Mythological Interpretation of Isaiah XIII 5 and 8', *Vetus Testamentum* 37, no. 2 (1987): 171.

[60] Lambert, *Babylonian Creation Myths*, 51ff.

[61] *ibid.*

This net appears to be the same he used to trap Tiamat in battle—a definitive strategy that won him victory. Scholars have been perplexed by this imagery, noting that a net seems to be a rather ineffective choice of weapon against a primordial goddess in her great sea dragon form; some have posited that the net is a narrative element retained from the Anzu bird myth, where Ninurta uses it, rather more appropriately, to capture a bird.[62] However, our attention to sound brings another solution to light. Looking beyond the *Enuma Elish*, it seems that the association between utterance, nets, and Marduk were well-known. Takayoshi Oshima has collected a lamentation of Marduk, written in both Sumerian and Akkadian, that reads:

> Your word, a huge net is spread over the heavens and the earth,
> When it (your word) stretches (the net) over the sea, the sea rages.
> When it (your word) stretches (the net) over the swamp, the swamp moans.
> When it (your word) stretches (the net) over the rush of water of the Euphrates,
> The word of Asalluḫi/Marduk roils those subterranean waters.[63]

The editorial markings of Oshima's translation assume that the word and the net are discrete phenomena. However, the original Sumerian and Akkadian do not have to be read as having this clear divide. Instead, the translation could read: 'Your word, a huge net, is spread... it stretches over the sea.' Here, the distinction between vocality and weaponry begins to dissolve. Thus the net reference in the Enuma Elish appears to be a literary trope, a hidden reference to utterance and speech.

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[62] A. D. Kilmer, 'The Horses and Other Features of Marduk's Attack Chariot (EE IV) and Comparanda', *Journal for Semitics* 16, no. Special issue 1 (January 1, 2007): 672–79.

[63] *Lamentation of Marduk*, in Oshima, 308-309. Note that this provides another example in which subterranean waters and rivers are connected, as might be Yamm and Thapati Nahari—perhaps this reflects a similar model in which bodies of water are portrayed as emanations of the same primordial source.

The two references to the net in the narrative frame Marduk's battle with Tiamat: first, the net's deployment marks the beginning of Marduk's mastery over his enemy; second, the net's release signals his definitive victory. Put into sonic terms, it is Marduk's command over reproductive vocality that enables him to vanquish Tiamat. His execution targets her two mouths in a strategic silencing of vulvar and vocal fecundity: he first stomps on her vulva, then bashes in her head; he creates the world from her eyes and mouth foam, before wedging up her vulva in the firmament. In the end, Marduk's net release is a victorious bellow.[64]

In this way, Marduk's vocal power over the celestial domain far exceeds that of the storm gods, such as Baal. Likewise, his claim to reproduction is a perfection of the storm god's claim, for he is able to obliterate the primordial mother herself (Baal never dares an attempt on Athirat's life). While the *Enuma Elish*'s narrative depiction of the precreative act itself does not explicitly mention any utterance, the textual and intertextual evidence suggests that Babylonian readers would have assumed the sonic, vocal nature of Marduk's act. Marduk's creative word (we might use the Greek term *logos*) forms an audible epistemology through which he challenges and defeats the mother of all the gods. In doing so, her fertility is replaced with his fertility; her

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[64] It seems, however, that Marduk's net is a borrowed weapon. In much earlier Sumerian texts, the utterance-net is ascribed to the mother goddess Ninhursag and to Inanna. An Early Dynastic III text from Lagash mentions 'the great battle net of the goddess Ninhursag'. Douglas Frayne, *Pre-Sargonic Period Early Periods, Volume 1 (2700-2350 BC)* (Toronto: University of Toronto Press, 2016), 129. A hymn by Enheduanna to the goddess Inanna depicts the deity with a net that catches both bird and fish. The response of mortals to Inanna's powerful word and net is ecstatic weeping, lamenting, and moaning. *A Hymn to Inanna* (Hymn C) 60-72, 80-90. Annette Zgoll, *Der Rechtsfall der En-ḫedu-Ana im Lied nin-me-šara*, Alter Orient und Altes Testament, Bd. 246 (Münster: Ugarit-Verlag, 1997). Does Marduk purposefully use a weapon associated with militant, sexual goddesses, in order to master Tiamat's vulvar vocality?

function as point of origin is replaced with his reconfiguration of origin; her quietude is replaced with both his clamour and cacophony and his quiet moments of survey.

Metallurgical survey

There are direct parallels to be noted between Marduk and Yahweh. Both gods have metallurgical roots; their forms are incomprehensible, and their mouths spew fire. Both gods, it seems, can create by using the power of speech; both also fashion the world from a pre-existing watery matrix. Throughout the *Atrahasis*, *Enki and Ninmah*, and the *Enuma Elish*, creator gods are depicted as wise and knowing—both Ea and Marduk perform acts of penetrating survey. Here I will explore in more detail the connections between voice, survey, and knowledge in the context of metallurgical creativity.

The relationship between word and creation has preoccupied theologians and mythographers ever since these stories were compiled. *What happens at the crucial moment of pre-creation? How do these gods transform intention into creative power?* Here I will relate analyses of the words used in *Genesis* and in the *Enuma Elish* to describe pre-creative intention.

The Akkadian verb *ḫiaṭu*, which is usually translated as 'considered' or 'surveyed', suggests that Marduk considers something just before he creates. In *Marduk's Address to the Demons*, the god is depicted as an observer, using the same root as *ḫiaṭu*: 'I am Marduk who has surveyed the height of the remotest heaven... I know the depth of the gaping Abyss'; 'Marduk who has surveyed the Abyss, makes plans.'[65]

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[65] Scurlock, 'Searching for Meaning in Genesis 1:2: Purposeful Creation out of Chaos without Kampf', in Jo Ann Scurlock and Richard Henry Beal, eds., *Creation and Chaos: A Reconsideration of Hermann Gunkel's Chaoskampf Hypothesis* (Winona Lake, Indiana: Eisenbrauns, 2013), 57.

JoAnn Scurlock has completed a broad survey of the uses of this term, and has found a broad range of meanings and uses.[66] In one case, *ḫiaṭu* refers to the act of watching over or taking care of offspring, used to describe a father overseeing the teaching of his children.[67] In various verb forms, *ḫiaṭu* can mean to explore, penetrate into, survey, examine, or investigate.[68] One prayer to the sun god Šamaš emphasises the cognitive aspect of ḫiaṭu: 'You, Šamaš, explore (*ta-ḫa-ṭa*) all the lands with your light as one would cuneiform signs.'[69] Other texts use the word to describe wringing every last drop of meaning from difficult texts, to judge or question a particular issue, or to examine the consequences of one's actions.[70] In the *Enuma Elish*, the root *ḫiaṭu* applies only after he has established the heavens and assumed his astral form by flying up into them.[71] Scurlock summarises these uses as 'dominated by the concept of watching carefully (not in order to protect, as *naṣaru*, but) with the purpose of understanding and penetrating.'[72]

Scurlock traces a remarkably similar collection of meanings in *Genesis* 1, where Elohim, also in astral form, hovers over the face of the waters. The root in consideration here is *rḫp*. By tracing its uses within the Hebrew scriptures and its Syriac and Ugaritic cognates, Scurlock locates a remarkably similar range of meanings. First, she locates a passage in *Deuteronomy* in which a male eagle teaches his eaglets to fly: 'as an eagle incites its nestlings forth by hovering over its brook, So he spread his wings to receive them and bore them up on his pinions.'[73] In Ugaritic, the celestial goddess Anat is described as hovering (*rḫp*) in the heavens whilst in

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[66] *ibid.,* 56-58.

[67] *ibid.,* 56.

[68] *ibid.,* 56-57.

[69] *ibid.,* 57.

[70] *ibid*.

[71] Lambert, *Babylonian Creation Myths*, 100ff.

[72] Scurlock, 57.

[73] *Deuteronomy* 32:11.

flight—an astral flight-related consideration so similar to the description of Elohim in *Genesis* and Marduk in *Enuma Elish* IV.137.[74] Other uses of the root reference hovering or brooding over eggs, or ships bobbing in the uneven waters of the sea.[75] The latter conjure strong references to reproduction as well: could these perhaps connect to the widespread use of boat imagery in Sumerian and Akkadian incantations to describe pregnancy and childbirth?[76] This would need to be investigated in detail before confirming a direct link.

Here we can begin to see strong parallels between the creative personas and acts of Marduk and Elohim. Both are bird-like, wind-like, and attentively paternal. Both restructure a watery original material characterised by reproductive elements: whether egg-like or *kubu*-like. Both utter a pre-creative word formed in the act of performing penetrating evaluations of the raw material for their creation.

This form of utterance features a new soundscape, while at once proposing a radically new framework of reproduction and epistemology: knowledge itself is defined as having a metallurgical, paternal source. The speech of the paternal divine knowingly procreates in a way foreign to Tiamat, Athirat, and the trees and stones of distant steppes. More than just a net, the creative word of the composite metallurgical-storm god functions as a key weapon in this struggle for a paradigm shift.

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[74] Scurlock, 52-55.

[75] *ibid*.

[76] A Sumerian incantation describes a woman labouring as: 'Like the boat of the *en*, she deployed the linen sail.' (BBB, 61) Ulla Jeyes, *Old Babylonian Extispicy: Omen Texts in the British Museum*, Uitgaven van Het Nederlands Historisch-Archaeologisch Instituut Te İstanbul 64 (Istanbul: Nederlands Historisch-Archaeologisch Instituut te İstanbul, 1989), 97, no 1:6: 'The fully loaded boat will sink; or: the pregnant woman will die in her giving birth.'

Conclusion

The myths and incantations we have encountered thus far design competitions between gods and goddesses. It is no accident that their claims to authority over reproduction come to a head, and that the metallurgical deities inevitably overcome. To my knowledge, there exists no extant myth in which Tiamat, Mami, or Ninmah conquer Ea, Enki, or Marduk. In winning these competitions, Ea and Marduk have gained authorities over the domains of female reproduction, even to the deepest level of cosmogonic power. In these stories, we can see the force of mythopoeic strategy at its greatest power.

Through this scribal labour, the womb is writ large—it has the power to birth a baby, the power to create mankind, the power to birth the pantheon, and the power to make the known world. It is significant that the metallurgists intervene at every level of abstraction, from the actual birth room to the mythic spaces of cosmic genesis. The myth writers are very careful to frame this intervention in terms of *knowledge*—the gods are able to conquer new domains because of their intellectual skills, their penetrating survey and creative comprehension. When Enki surveys Ninmah and Marduk surveys Tiamat, they rise to a higher form of midwifery and maternity, elevating these female realms into the male realm (most often understood to be the celestial or astral ream). Male vocality, astralisation, and paternity align to define the metallurgical act of cosmos formation. Hence, we have here what seems to be a higher male-midwifery (or obstetrics) and a higher maternity (absorbed into a composite paternity). These two themes will be developed further: chapter five examines the origins of ancient obstetrics, and chapter six demonstrates the techno-mythic absorption of maternal powers into the paternal.

I have used the term 'techno-mythic' here to describe the elision between myth as a technology for inculcating hegemony, on one hand, and myth as the narrative justification for elite uses of technology, on the other. In the following analyses, we meet this elision head-on when the metallurgical protagonist attacks female fertility in the mortal realm. Here, instead of gods and goddesses, we find exorcists and women accused of witchcraft. Witch-hunting exorcists repurpose smelting crucibles and braziers (which would have been used daily by metal workers and other craftsmen) for ritual means—in other words, technology becomes wrapped in ritual and mythic significance.

In these texts, the pantheon's battles are never far away: the use of the crucible is applied in the mythic context of Ea's lordship, for the exorcist acts as his emissary. True to Ea's usurpation of the domain of midwifery, exorcist's victims are often women midwives and healers. The women accused of witchcraft, then, must contend with a multi-layered, techno-mythic metallurgical assault, built from the ground up—crucible to cosmogony.

Part Two: The Exorcist's crucible

Most surviving anti-witchcraft incantation tablets date to the first millennium BCE. However, scholars who have analysed their compilations and recensions have suggested that the incantations were developed over long periods of time—early fragments of anti-witchcraft incantations are dated to the Old Babylonian period (early second millennium).[77] The dating of the earliest fragments of witch hunting texts is significant for two reasons. First, the oldest textual strata feature a core ritual in which exorcists employ metallurgical materials and tools (including fine metals, crucibles, and braziers) in the condemnation and execution of witches. This oldest form of the witch burning ritual was perpetuated throughout later recensions and ritual developments, and never became obsolete.[78] We can therefore operate with the assumption that the Mesopotamian witch hunts were metallurgical enterprises throughout their entire history. Second, the Old Babylonian period corresponds to a period of profound economic changes, where many states shifted from a serfdom system (with *corvée*) to waged labour, resulting in the dispossession and pauperisation

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[77] I. Tzvi Abusch, *Mesopotamian Witchcraft: Toward a History and Understanding of Babylonian Witchcraft Beliefs and Literature*, Ancient Magic and Divination 5 (Leiden: Brill, 2002), 67.

[78] *ibid.,* 67-68.

of large portions of the peasantry.[79] While it will require additional research to determine if and how these economic changes may have been related to witch hunting, the possibility is worth considering here.

In this section, we will overview the roles of the exorcist, his male clients, and the women they condemned. Our goal is to understand how gendered notions of mouth, vulva, voice, and womb become audible in ritual performance. This, in turn, will expand our knowledge of the metallurgical soundscape.

The antagonist: The making of the demonic witch

In Mesopotamian sources, the witch is characterised by temple authorities as a clearly gendered figure.[80] Many incantations mention a pair of sorcerers ('my warlock and witch') but this quickly reverts to a female-only stereotype—the message is clear: there is always a witch, and she may or may not be assisted by a warlock.[81] One claimant expresses his certainty that the unknown source of witchcraft must be female: 'Šamaš, I do not know the person who keeps hold of me—truly, it is a

[79] Liverani, 5-14.

[80] AWR, 5.

[81] *ibid.,* 5: 'The common reference to the potential witches as a pair and as either male or female must not distract us from the fact that the Babylonian stereotype of the witch is clearly gendered. The witch is primarily a female character, and while many incantations address or describe the kaššaptu ("witch"), the male counterpart, the *kaššapu* ("warlock") is never attested on his own.'

woman, this is her image.'[82] Moreover, in almost all surviving cases, the claimant/victim of the witch is a man who is a member of the elite class.[83]

There are no texts that describe *why* cultic officials saw it necessary to invent the character of the female witch; however, extant records suggest aggression towards women healers, midwives, and priestesses as the creators of evil witchcraft. These stereotypes 'are formulated from a predominantly male perspective, a fact that agrees well with the observation that many descriptions of witchcraft-induced illnesses include exclusively male symptoms.'[84] Abusch asserts that several classes of women were lumped into the category of witch or *kaššaptu*. The term *kaššaptu* originally designated a female healing expert or physician.[85] In the first instance, descriptions of the witches' activities feature women tending to the ill, collecting herbs and minerals for remedies, and performing sacred rituals.[86] In this sense, the figure of the witch stems from the character of the lay midwife and folk healer who would also perform

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[82] *ibid.,* 1, 5. Incantations regularly focus on political rivalry in the upper echelons of the city administration. One man claimed he had been bewitched because 'whenever he goes to the palace, he is not received, but nobody listens, behind his back he is pointed at maliciously.' (AWR, Ušburruda text 7.6: Rituals against Enemies: The Incantation *Kur-Kur Bil,* 144)

[83] In very few cases, the claimant is a woman who accuses another woman of love spells—an understandable development in patriarchal households where men would own many women of various social positions (wives, concubines, slaves, prostitutes) who would have to compete for his affections and favour, as well as for household resources. See AWR, Ceremonial Ritual for Undoing Witchcraft 8.14: Forcing Back a Bewitched Husband, 372ff.

[84] *ibid.*, 5.

[85] *ibid*. We know that medicine was definitively a women's domain in early Mesopotamia, but that later periods showed a significant decline in women's medical practice. By the time these incantation texts were compiled, men dominated expert medical practice and women were confined to lay healing.

[86] Abusch, 65.

incantations and other forms of healing magic: '[i]n this very early popular form, the "witch" probably belonged to a rural, non-urban world.'[87] In addition,

> Certain female cultic officials like the *naditu* and the *qadištu* were involved in various ritual and therapeutic activities, and when these professions, certainly from the mid-second millennium onward, lost their earlier prestige, they came to be part of the stereotype of the witch.[88]

It is important to note that the *naditu* (who conducted business otherwise forbidden for women) and *qadištu* priestesses (who previously held various roles, including sacred midwifery) were independent and held influential social positions in their own right.[89] We might assume the same for the lay healer, herbalist, and midwife, who would acquire wealth and social standing through offering her services to local and rural communities—forming important social links with those she had delivered in childbirth, healed of illness, and consoled in grief.

The primary competitor of the lay healer and lay magic practitioner were the *asu* (male physician) and the *ašipu* (exorcist) who offered state-sanctioned, scholarly versions of lay practitioners' skillsets—these professions were exclusively male, without exception.[90] We can also surmise that temple priests may have competed with priestesses, just as their gods usurped the domains of goddesses within the pantheon; in addition, the elite men who made money through business and politics may have

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[87] *ibid.*, 65, 84.

[88] AWR, 5.

[89] Leick, *Sex and Eroticism*, 295: one text describes the sorceress as 'The witch, the murderess, 'the one above' [i.e. the woman who takes the dominant sexual position during intercourse], ... the female snake-charmer, ... the *qadištu*, *naditu*, the one dedicated to Istar.' Lerner, 72-73: The *naditu*, in earlier times at least, were cloistered. See also Fumi Karahashi, 'Royal Nurses and Midwives in Presargonic Lagaš', in Lluís Feliu, Fumi Karahashi, and Gonzalo Rubio, *The First Ninety Years: A Sumerian Celebration in Honor of Miguel Civil* (Berlin: de Gruyter, 2017), 160.

[90] AWR, 5.

deeply resented the power of the *naditu* women, the only class of women who were sexually inaccessible and competitive in business.[91]

The figure of the witch, then, appears to have been conjured up in an assault on a broad range of economically independent, knowledgeable, and skilful females who had held positions of social or religious esteem. For this reason, in the Mesopotamian historical archive, all those accused and put to death for crimes of witchcraft were women.[92] Isolated women were particularly at risk of accusations, such as social outliers who refused or failed to meet social expectations, and daughters-in-law within the patrifocal marriage system.[93] Women, as objects of ownership and means to paternal reproduction, were often the victims of on-going family and community conflicts over resources and status.[94]

As we will see below, the *ašipu* employed many techniques and skills of midwives, herbalists, and other lay magic practitioners. The only true difference between them was that the *ašipu*'s magic was incorporated into the urban state religion that primarily catered to elite men and their interests; lay women, on the other hand, offered a rural, community-based magic that was increasingly excluded from elite circles and the power systems backing state religion.

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[91] Leila Ahmed, *Women and Gender in Islam: Historical Roots of a Modern Debate* (New Haven: Yale University Press, 1992), 15-16. *Naditu* women were from ruling families and, in early Mesopotamia, served the interests of ruling men. This seems to have gradually changed, until they were subject to witchcraft accusations. See also R. Harris, 'The Naditu woman', in R.D. Biggs and J.A. Brinkman, eds., *Studies Presented to A. Leo Oppenheim: June 7, 1964*, The Oriental Institute of the University of Chicago (Chicago: University of Chicago Press, 1964).

[92] AWR, 7.

[93] *ibid.*, 7-8.

[94] *ibid.*, 7.

According to the stereotypes, the witch is anti-social, malevolent, and driven by evil intent:

> [She] steals objects that have been in contact with and represent her victim; she makes an image in the likeness of her victim and then twists its limbs so that he suffers agony and debilitating disease; she prepares figurines and buries them in holes in the wall or in the ground; she feed statues to animals. The witch may even open up a grave and place the representation of her victim in the lap of a dead person, thus effecting a marriage of her victim and a corpse... she sends evil omens that augur doom... [and] is also able to harm the victim by sending against him emissaries in the form of experiences, living beings, and objects.[95]

Overall, her most common impacts are erectile dysfunction or premature ejaculation; loss of the ability to father healthy offspring; gastro-intestinal distress; inability to speak or express and defend oneself verbally; loss of good fortune in business and politics; and impending death.[96] In other words, witches cursed men's voices, penises, bellies, and 'pockets'. The epicentre of this assault, however, seems to have been in men's vocality and orality:

> Because a witch has bewitched me...
> ...a gag continually filling my mouth
> Has kept food distant from my mouth and
> Has diminished the water which passes through my drinking organ,
> My song of joy has become wailing and my rejoicing mourning.[97]

Myths emphasise the connections between paternity and orality: When male gods are displaying their power, ejaculation acquires a vocality: 'Incantation: Ea cast (it), the

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[95] Abusch, 7.

[96] *ibid.,* 24, 79, 82.

[97] Abusch, 7. Maqlu I 1-14. MCM, 23ff.

incantation of Ea, the spittle of Ea.'[98] As we have noted earlier, the metallurgical narratives of creation through clay often involve the gods spitting or ejaculating into the clay mixture (for example, *Atrahasis* I 231-34)—spittle is used as a commonplace euphemism for ejaculatory fluid. However, this euphemism is left purposefully vague—in many cases, the reader need not distinguish between the fluids of mouth and penis. Here, vocality and ejaculation represent the power of the metallurgist who casts both metals and magic.

This equation becomes a frantic paranoia in the anti-witchcraft incantations, where witchcraft is often equated with female spittle.[99] In this sense, female witches can also ejaculate through their mouths as they speak incantations (we noted a similar image in the *Atram-hasis,* where Mami spits on clay while moulding the first human wombs). In the anti-witchcraft context, female reproductive vocality assaults men and causes them severe injury or even death. The Akkadian terminology for witchcraft bears these meanings literally: in addition to the standard term *kaššaptu* 'witch', texts use *ruḫu* 'witchcraft' (from *reḫu*, 'to inseminate, to overcome') and *rusu* 'to wet, bind, or sully'.[100] The root of *ruḫu* and *reḫu* is used in word play to express bewitching and insemination simultaneously, with the victim expressing his fear: 'My witch, where could you possibly have bewitched me, my *raḫitu*-witch, where could you possibly have *impregnated me with witchcraft*?'[101] In exorcist rituals, the witch was sometimes represented by a clay model of a tongue—with its phallic shape, the tongue becomes the sexual instrument used by the witch to utter incantations and slander; it substitutes for the ritual use of an anthropomorphic figurine of the witch.[102] The tongue of the witch acquires phallic power as the site of sprayed spittle and dangerous vocality: in an almost humorous reversal, the witch threatens the powerful man with rape and

[98] AWR, 4.

[99] *ibid.*, 3.

[100] *ibid.*

[101] *ibid.*, Ušburruda texts: Heilmittel-ritual, 180. My emphasis.

[102] *ibid.*, 6, 23.

bodily invasion akin to forced pregnancy. When the gender roles are reversed, actual forced impregnation was a form of violence so ubiquitous in the ancient near east that it became utterly mundane. The power of the witch is that of maternity endowed with the invasive potency of paternity. This invasion comes in the form of vulvar vocality, the patriarchal phantasm of sexual vocality turned into a demonic form.

There are many ways in which men might succumb to witchcraft: for example, when women get a hold of their 'spittle' or other bodily fluids (one text claims that a witch buried a man's ejaculatory fluid in a grave, causing his impending death); when men swallow potions, or come in contact with female spittle or 'dirty water'.[103] It seems, then, that men's mouths, bellies, and penises are points of bodily vulnerability and permeability—parts of male anatomy marked by the absence of female voice, womb, and vulva as the chief locations of female reproductive potency.[104] In this sense, the vulnerable male body becomes symbolically rapeable. Abusch further notes that these ambivalences reflect elite men's positions within the patriarchal household.

> From a male's point of view, food, drink, and sex are closely associated with women members of the family, and in these areas, males may sometimes feel themselves to be in a position of dependence and/or vulnerability. Certainly, the experiences of food and drink are associated with a mother.[105]

The tasks of the healer referenced in incantations— 'the activities of feeding, giving drink, washing, and salving'[106]—are also distinctly maternal functions. Mothers, wet

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[103] *ibid.*, 23.

[104] *Ša.zi.ga* incantations deal with impotence and premature ejaculation: most blame a witch. The original purpose of these incantations was for use by women who acted as sex therapists – this role was later taken over by the exorcist. Abusch, 83, 87. See also Robert D. Biggs, *Šà.Zi.Ga, Ancient Mesopotamian Potency Incantations* (Locust Valley, N.Y: J. J. Augustin, 1967).

[105] Abusch, 83.

[106] *ibid.*, 84.

nurses, and slave women would have performed these tasks for boys, and because of the gendered division of labour, the men would have remained dependent on the skill, labour, and care of women throughout adulthood. This explains why so many women accused of witchcraft were relatives or members of the man's household, for 'the source of danger and witchcraft were [sic] in the family.'[107] This helplessness was played out in juridical ritual settings, where the male 'victims' of witchcraft protested their innocence and vulnerability.[108] Having voluntarily chosen the status of victim, these men trusted in the unquestioned magical and metallurgical strength of the exorcist to reset the balance of power to the patriarchal status quo.

The protagonist: The exorcist as master over demon and witch

The *ašipu* was a member of the clergy or temple personnel who served wealthy private clients. His craft was scholarly (concerned with aetiology and theory), adapting religion and folk traditions to create a systematic ritual practice for dispelling evil forces.[109] As his position was high up in the temple hierarchy, the exorcists could claim to have an intimate connection with metallurgical gods. One incantation portrays the *ašipu* as Enki's emissary:

> I am the exorcist, the chief temple administrator of Enki,
> The lord Enki has sent me to him (the sick man),
> Me has he sent to him as a messenger of E'engurra [Enki's temple in Eridu].[110]

Like the metallurgical god he serves, the exorcist's primary tool is his voice: the term *ašipu* closely relates to *šiptu,* meaning 'incantation'.[111] The rites of exorcism use the

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[107] *ibid.*, 83. In Old Babylonian Mari, two women were accused of mixing bewitched herbs into a man's food—this shows the physical and psychological vulnerability of men who depend on the exploitation of women's domestic labour. See also AWR, 8.

[108] Abusch, 87.

[109] *ibid.*, 5.

[110] *ibid.*, 6.

voice to legitimate the speaker, call on divine powers, identify purpose of ritual, specify rites to be performed, perform incantations and prayers, address beneficent natural forces and ceremonial objects, and even speak directly to the evil.[112] By these means, the witch or demon is 'expelled, chased away, or even destroyed.'[113]

By definition, the exorcist was a force for good who helped maintain social order. 'On a cosmic level, the main enemies of the exorcist are demons. On a human level, he contends with the witch or sorcerer.'[114] Abusch notes that the exorcist depended on the phantasm of the witch for the viability of his trade: if the witch was not understood to be evil, the exorcist would never be called upon; therefore there was a strong economic reason for reconfiguring the persona of the healer/herbalist as demonic.

> Perhaps, because the witch was often a woman who possessed knowledge and power, the female witch eventually became a focus of interest and even a threat to the prerogatives of the male exorcist. This antagonism may have been a function or result of increasing centralization and stratification of state, temple, and economy.[115]

Abusch does not attempt to explain why centralisation and stratification could have the effect of heightening violence towards women and resentment towards their positions of leadership and power. However, in chapter one, we have noted that the growth of state power—the accumulation of wealth, prestige, control—was accomplished through controlling female bodies and female labour. This control took place on every level, from the material to the symbolic. Through the influence of the exorcist, the evil witch became a core figure in the imagination, ritual space, and

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[111] *ibid.*, 5.

[112] *ibid.*, 5

[113] *ibid.*, 5.

[114] *ibid.*, 6.

[115] *ibid.*, 66.

households of urban Mesopotamia—instead of a respected member of the community, she became the enemy who held the power to deprive the state of resources. The witch withheld skill and labour (her independent work as a knowledgeable healer and business woman) from the control of paternal authorities, and, most importantly, reserved the power to create stories and meanings that may have been difficult to for elite men to control.

In persecuting the lower classes and rural peoples, and in stripping women of their independent spiritual and economic activities, the centralised state found itself left with a vacuum of *meaning* that was filled by the exorcist:

> [Witchcraft provided] an explanation for [elite male] failure and suffering [which] took place in an increasingly complex urban world in which the individual was losing some of his traditional supports and was confronted by more extended, impersonal, and hostile social forces. His reaction was to blame witches for his illness and impotence.[116]

In other words, men blamed women for the difficulties they experienced as a result of the stratified, symbolically-impoverished world they had created for themselves. In doing so, male dominance and class stratification was buttressed by the mass appropriation of disenfranchised women's resources—all the cultural and economic resources owned by independent women could be requisitioned by the men who had dispossessed them.

Witch-hunting as metallurgy

The metallurgical nature of the antagonism towards powerful women is reflected in the way that exorcists executed witches (whether ritually or physically). By far, 'burning is ... the most characteristic Mesopotamian way of punishing the witch.'[117] But this burning was not mere incineration: in a ritual context, the exorcist would

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[116] *ibid.*, 88.

[117] *ibid.*, 67-68.

throw figurines representing the witch into a metal smith's crucible before igniting it along with wood or reeds. In doing so, the exorcist called on Šamaš (the god of the hot desert sun), Girra (the god of the craftsman's fire), and Ea (our familiar metallurgical creator). Through the power of this pyrotechnical triad, the exorcist banishes the witch and her power from the state, both physically and symbolically. Šamaš, as harsh gaze of the sun, acts as the judge who punishes criminals; Girra is flame and executioner; and Ea provides the wisdom and crucible-craft needed for the exorcism.[118] Abusch therefore interprets the witch burning rituals to reflect

> the primitive situation where a member of society who did not conform to its norms and was seen as a threat would have been expelled or forced to flee and would have been expected to die alone in the wild... The ritual expression of this form of expulsion and exposure is most naturally that of burning. And, accordingly, the statues of the witch are set on fire.[119]

This explanation seems far from complete. Abusch cannot explain why furnaces and crucibles function as the central mechanism for burning within the oldest strata of the incantations—they cannot be merely the representatives of desert heat.

Our knowledge of metallurgy allows us to take this analysis deeper: in condemning witches to a metallurgical death, the exorcists symbolically stripped them of their maternal and midwifery powers. Their wombs and voices were incinerated within the artificial wombs of the crucible, a startling negation and complete domination of femaleness as it was perceived by men. The burning of the witch's figurines was accompanied by a chilling anti-midwifery ritual in which knots (so closely associated with midwifery) were tied in cord or string, then untied and incinerated: 'witchcraft itself could be represented by knotted strings which were burnt.'[120] Again, Abusch

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[118] *ibid.*, 69. Being banished from the city-state to wander in the desert was a form of execution for crime; it was always lethal.

[119] *ibid.*, 69.

[120] AWR, 24.

does not identify the midwifery connotations of this knot tying, but our familiarity with the Cow of Sin incantations clarifies that knot manipulation was a direct act of violence against the skill and power of mothers and midwives who could bind and knot life. The exorcist's act of untying the knots just before lighting the crucible parallels the midwife's act of untying knots before birth: the witch's execution thus becomes a macabre patriarchal techno-birth.

This techno-birth occurs simultaneously in the mortal and divine realms: it is clear that powerful and skilled women (those who did not follow social norms of domesticated womanhood) were being violently purged from the very fabric of the state and its model of the cosmos. There could be no better way to do so than to incinerate maternal wombs using artificial wombs. This is a performance of metallurgical triumph over the materiality, intellect, and craft of woman.

The womb-related violence continues: the exorcist draws magic circles from flour—which we have previously seen in Stol's study of Mesopotamian midwifery practice.[121] It is within this circle of flour that the witch is explicitly 'taken captive'—while a circle of flour may have been a more general magical practice, its reference to terrestrial fertility (flour and grain) suggests some kind of association with reproduction.[122] The contrast between midwifery ritual and witch burning is extreme: birthplace sanctuary versus female prison. Most importantly, however, burning a witch was intended to rob her of her place within the womb of the earth—denying her a grave and therefore her journey to the netherworld. In *Gilgamesh, Enkidu and the Netherworld*, Gilgamesh asks his friend (who has just returned from the netherworld, rescued from death by Enki): 'Did you see him who was set on fire?' Enkidu answers, 'I did not see him. His smoke went up to the sky and his ghost does not live in the

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[121] BBB, 115-116. See also Lambert, *Babylonian Creation Myths,* 63.

[122] AWR, Ušburruda texts 7.6: Rituals Against Enemies: The Incantation *Kur-Kur Bil,* 143.

netherworld.'[123] Similarly, as the figurines of witches burn in the crucible, the exorcist recites incantations meant to destroy the soul of the witch:

> Dissolve, melt, drip ever away!
> May your smoke rise ever heavenward,
> May the sun extinguish your embers,
> May the son of Ea (Asalluhi), the exorcist, cut off your emanations.[124]

In doing so, she is 'transformed into smoke or wind that blows across the steppe' and is 'thus expelled from the settled community.'[125] Thus the chthonic, reproductive image of the witch is condemned to immateriality in the atmospheric realm: she is denied a grave, and thus denied continuity with the earth and the earth's deepest interiors.

Burning the witch was often combined with other therapies and purification methods in order to rid the contaminating witchcraft from the victim's body: he could stand on a black stone or gaze into silver or gold, or be fumigated with incense.[126] Plants and stones could be knotted into wool cord and placed around his neck, or else a pouch of apotropaic substances could be hung from his body.[127] One incantation found in Aššur and Hattuša instructs the exorcist to cure symptoms of bewitching by placing '[s]ilver, gold, bronze, iron, *anzaḫḫu*-glass, *ḫuluḫḫu*-glass, black frit, *zalaqu*-stone in a leather bag around his neck.'[128] Here we find references both to the smelting furnace and the glass-making kiln, whereas some rituals incorporate 'a potter's kiln, a brewer's oven, a bread oven, a roasting oven, a brazier, a melting oven, and a crucible...set up in a

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123 ETCSL t.1.8.1.4. Abusch, 68.

124 Abusch, 68. Maqlu I.140-143. MCM, 23ff.

125 Abusch, 15.

126 AWR, 24.

127 *ibid.*

128 *ibid.,* Ana Pišerti Kišpi 1.5, 50.

row before Šamaš.'[129] For a different set of symptoms, a potion could be made, pounding together several varieties of plants along with gold, silver, iron, carnelian, lapis lazuli, *ru'titu*-sulphur, and *imbu'tamti*-mineral in syrup and ghee. All ingredients had to be fresh when combined, and then laid out before the stars for seven nights before being drunk by the victim of witchcraft.[130] If a man could be impregnated by witchcraft, was this metallurgical potion the male equivalent of an abortifacient brew?

The following incantation contains vocal and midwifery features as part of the metallurgical understanding of women's magic:

> The witches, the 'mendacious ones', have come down to the land to me,
> They call out '*illuru'*, they begin to sing.
> They carry water of the Ocean (*tamti*), the wide sea,
> they keep spilling it onto the streets.
> They bind the young men, they murder the girls,
> they spread dead silence everywhere.
> I have equipped myself against you
> with the *tiskur*-plant that blocks your mouth (var.: that changes your words),
> with the *anḫullu*-plant that is immune against witchcraft (var.: a spell),
> with 'heals-twenty'-plant that does not allow magic to come near the body,
> with *ittamir*-stone that undoes the machinations of seven witches.
> Your witchcraft and your magic I turn into wind![131]

The female vocalisation *illuru!* is closely associated in this context with the birth and death cries of women, and hence has a strong midwifery connotation. Likewise, *Tamti* is another vocalisation of *Tiamat*, the primordial ocean—given the continual mythic associations between wombs and seas, we might imaging that the midwife-witches are

[129] *ibid.*, Ceremonial Ritual for Undoing Witchcraft 8.7: Burning the Witches and Sending them to the Netherworld, 346.
[130] *ibid.*, Ana Pišerti Kišpi 1.1: from a Middle Babylonian collection from Boğazköy, 33.
[131] *ibid.*, Ušburruda texts 7.8: Heilmittel-ritual, 185.

carrying uterine waters through the city-state, contaminating the streets with female reproductive fluids and echoes.[132] They cause binding of men and death for fertile young women, preventing the fulfillment of heterosexual union and patriarchal household formation. The bustle and din of the city soundscapes are silenced. The exorcist brings his herbalist and metallurgical skills to stop these raving women: mouth-blocking and witchcraft-undoing plants that protect men from women's voices, and the *ittamir* stone, which we have already identified in chapter three as the 'stone of birth'. It is not an accident that the metallurgical exorcist claims this stone for his use against the Apsu-splashing, *illuru*-trilling witches. The end result of the incantation is the obliteration of the women's maternal materiality itself—they are immaterialised into wind.

This punishment is the end of a long chain of male usurpation: wealthy and powerful men use midwifery ritual techniques to fight off the possibility of being impregnated by the female tongue; they employ the metallurgist's artificial womb to void all reproductive female power; in the end, the crucible punishes women with immateriality so that they can never again possess womb-power. These efforts align all too well with mythic narratives supplanting divine midwives and eradicating primordial creatrixes. We should not consider the manufacture of myths and the enactment of ritual to be entirely separate domains—the former belonging to literature, the latter to theatre. Instead, we must remember that myth was publically

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[132] Marsman, 373: Although female seclusion and veiling were more limited at this time than in later eras, the streets were already a gendered domain. For daughters of landowning men, to be seen in the streets was a sign of shameful sexual availability (i.e. rapeability). Upper class women, and especially women belonging to the royal household, were increasingly segregated and secluded away from the public domain. The neo-Assyrians intensified these patterns into extreme seclusion for all upper-class women and the forced uncovering of lower class women. This was later adopted by Persians and Byzantines. See Paul Kriwaczek, *Babylon: Mesopotamia and the Birth of Civilization* (New York: St. Martin's Press, 2012).

performed, just as ritual. The two were inseparable components of state religion which, in turn, enacted state ideology.

Part Three: *Rigmu* and sonic threats

While actual women did suffer due to the exorcists' efforts, we must also remember that witches did not exist. Like vulvar vocality, the witch is a patriarchal phantasm, an imaginary figure possessing demonic female potency that real women, of course, never yielded. Why, then, did exorcists and wealthy men expend so many resources on hunting down a foe that did not exist? There are probably many valid answers to this question, and I will propose a few here.

Reproductive authority

In my view, conflict over reproductive authority is one part of the puzzle. It is likely that the removal of healers, priestesses, midwives, and businesswomen from the public domain strengthened the aura of transcendence and absolute power that surrounded powerful men. Within this understanding, witch hunting contributes to the very ideologies of kingship, paternity, and class: the wealthiest and most powerful men, like the gods they champion, claim their positions of dominance, in part, by asserting themselves as the superior, most virile fathers. To be convincing to themselves and others, men have to mask their dependence on women for pregnancy, childbirth, healing, nurturance, and other domestic tasks. With the removal of female businesswomen and temple personnel, almost all urban female labour would have been cordoned off in the domestic sphere. With no independent female vocations left un-persecuted, all licit reproductive and productive 'free' female labour was, like that of slave-girls, unpaid and controlled within the institution of the patriarchal household. The sexual paranoia of the anti-witchcraft incantations also reveals that the domestication of female labour was fundamentally characterised by sexual domination. It is difficult to tell how far the *ašipu* and his clients got in their quest to quell the possibility of women's economic and reproductive agency. We can only know that, over many centuries across the first and second millennia, their efforts remained relevant in many urban centres across the ancient near east.

Justifying metallurgy as an extension of paternity

Contested authority does not directly explain why metallurgy functions at the very core of the hunting, punishment, and execution of the witch. Understanding the function of metallurgy within the witch hunts may help us better understand their basic motivation. We know that mining was the primary industry that employed slaves; we also know that the depths of the earth were feminised, and the process of refining metals was often equated with paternity and male sexual potency. Female domestication and metallurgy, then, share several semantic realms: the exploitation of coerced labourers (often unpaid), the ownership and instrumentalisation of human bodies (used for male acquisition of human and metal resources), and sexual domination (for both wives and slaves had no rights to their own bodies). These semantic realms all intersect in the forms of power possessed by upper-class men who sought the assistance of the *ašipu*: men who could access an abundance of resources in labour, mineral wealth, and female reproduction. These men accessed two kinds of uteruses: the wombs of human women, and the artificial wombs of the smelter's workshop.

In my view, the anti-witchcraft incantations sketch a ritual justification for mining itself as an extension of the natural privileges the *paterfamilias* or dominant father figure. Witches are incinerated like ore; their material female bodies equated with dross. The exorcist calls upon the gods of furnace heat to protect men from vulvar vocality. In practice, this vulvar vocality is ascribed to independent, knowledgeable women. By attacking these aspects of female potential, the witch hunters equate female power outside of the household with raw nature or wildness. When purifying ores, the smelter achieves possession of purified gold or copper freed from dross; when burning the witch in the crucible, the exorcist achieves possession of purified male power, freed from the threats and impurities of independent female power. For this reason, the witch need not exist in real life, for she is not the ultimate subject of the exorcism: instead, the powerful man is the one in need of purification. His virility, paternity, and political and economic dominance are extracted from the pollution of his dependence on women for life, nurturance, sex, and sons. Through exorcisms, men have performed a sorting of mineral identities: inferior matter (i.e. women) is contained in its proper place (i.e. servitude), while superior matter (i.e. men) is freed of impurities (i.e. vulnerabilities). All contaminations (i.e. independent women) are

obliterated (i.e. banished from the social community). In applying the smelt to their own dominant masculinities, the witch hunters enact a gender paradigm that naturalises the male claim to destructive, exploitative extraction of resources from nature and woman.

Rigmu and the threat of reproductive noises

Our answer to the above question is still incomplete: awareness of contested reproductive authority and the naturalisation of male claims to exploitative extraction do not tell us why the anti-witchcraft incantations were saturated with sonic imagery. Why did elite men invent a demonic witch characterised by wet orifices and sexual vocalities? To understand this aspect, we must consider reproductive and sexual sounds in the broader Mesopotamian literary record.

Conflict over reproductive sounds appears in the *Atrahasis*. When the minor gods rebel against the upper echelons of the pantheon, they clamour at the gate of Enlil's palace, producing an unsettling soundscape called *rigmu*. Under Ea's management, Mami and the birth goddesses then join to fashion wombs and humans from clay, to provide the pantheon with a new class of serfs bound by *corvée*. However, their womb craft proves far too effective for Ea to control—a new *rigmu* arises from the earth, this time of human origin: too many humans are being born! Enlil, the king of the pantheon, becomes so agitated by the human din that he sends catastrophes to reduce the human population, to the point of near extinction (only Atrahasis and his family survive).

Yagmur Heffron notes additional usages of *rigmu* in the *Atrahasis*: the sound of humans wailing and perishing in a flood sent by Enlil; the lamentation of Mami when she realises the storm god plans to eradicate the human life she has created; and the lamentation of the Igigi gods while they toil and labour.[133] These sounds are clearly

[133] Yağmur Heffron, 'Revisiting "Noise" (Rigmu) in Atra-Ḫasīs in Light of Baby Incantations', *Journal of Near Eastern Studies* 73, no. 1 (April 1, 2014): 84.

vocal, for *rigmu* is also used in the anthropogony to describe the divine gift of voice and sound to humankind.[134]

The standard scholarly analysis interprets *rigmu* as the sonic signature of uncontrolled population growth. However, Heffron is correct in doubting this simple interpretation. For our purposes, it is important to note that Enlil is initially unperturbed by the *rigmu* of the Igigi gods and sleeps soundly through their clamour; however, the human equivalent deeply disturbs him, causing him to resort to extreme violence to achieve a sound sleep. Heffron asserts that the noisiness that threatens the gods comes from the work of the fertility goddesses in creating humans with opened wombs.[135] While Heffron overlooks issues related to gender, it follows from her analysis that it is the sonic profile of *female* reproduction that is so disturbing and unsettling for the pantheon's leaders.

Readers familiar with *Genesis* 1 will recognise the ancient near eastern trope of divine sleep as a creator deity's prerogative.[136] Enlil's sleeplessness, then, reflects a direct assault on the male claim to creative power. The opened wombs created by Mami emit a sound truly threatening to the king of the celestial pantheon: maternal soundscapes challenge the very hierarchy of the cosmos. The fear that the king of the pantheon, dwelling high up in the heavens, could be challenged by the reproductivity of human women demonstrates a deep and distinctly aural paranoia of power subversion.[137]

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[134] *ibid.*, 84.

[135] *ibid.*, 88.

[136] *ibid.* In *Genesis*, El rests on the seventh day after creating the cosmos; in the *Enuma Elish*, Marduk rests after refashioning the corpse of Tiamat. Here, Enlil expects to rest after his own acts of creation.

[137] The divine and human hierarchy could be considered to mirror the hierarchy established when noblemen initiate wars that provide both themselves and freemen with slaves; however, this parallel would have to be determined via careful analysis of the links between mythopoeic devises and contemporary politics.

Heffron points to another common usage of the term *rigmu*, this time in the popular genre of baby incantations. Within these texts, the baby's *rigmu* comes into existence at birth.[138] The sounds of a baby's cries are portrayed as clamour that drives fathers out of their homes, disrupts the household order, and even banishes household gods. One of the incantations asks:

> Why do you cry, why are you furious?
> Why did you not cry there [i.e. in the womb]?[139]

Again, these noises are reproductive—the cries of the baby disturb the male head of household's sleep, who finds himself unable to sleep.[140] Mothers, interestingly enough, are not featured in the incantations as threatened or in need of sleep.[141] It is *reproductive* noise in particular—that is, the soundscapes of human mothers and babies—that threaten order within the patriarchal pantheon and patriarchal household alike.[142]

With this in mind, we can re-consider the myths and rituals presented in this chapter in terms of vocal competition: the gods' vocal and ejaculatory spittle provides them authority over Mami's incantations; Marduk's word functions as a net enabling him to slaughter Tiamat; the *ašipu*'s ritual incantation conquers the witch. In each case, the wetness of wombs, vulvas, and voices merge as a compound threat: the vulvar vocality of women must be overcome by metallurgical forces, as the artificial wombs of the smelter's furnace have the strongest symbolic potency against uterine wetness. The furnaces themselves conjure a roaring soundscape—much like the terrible floods sent by Enlil. The metallurgical solution to the problem of witchcraft seems to appeal

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[138] *ibid.*, 88.

[139] *ibid.* Old Babylonian incantation BM 122691.

[140] *ibid.*

[141] *ibid.*

[142] *ibid.*, 89.

to the same sonic competition: female voice and womb are incinerated in roaring crucible.

It is important to repeat that vulvar vocality itself is a product of patriarchal ideology: like the witch, it is a phantasm exaggerated into a monstrous enemy. We might go so far as to assert that witches are the imagined embodiment of vulvar vocality, representing all the powerful, independent, and threatening audibilities of undomesticated women. Once vulvar vocality is incinerated and banished out of the city-state, the *ašipu* and his clients are left only with submissive, economically dependent, exploitable women who are either domesticated or enslaved.

Return to the dyad

We can now reflect back on the dyad of tree and stone, to evaluate what our explorations thus far have contributed to our understanding. In chapter three, we began to trace the broader conflict that occurred between the maternal and paternal paradigms of stone: the murmuring oracular presence of birth stones, and the bellowing, roaring stones of the city-state. In this chapter, we have traced the highly vocal competition between metallurgical gods and fertility goddesses, and between metallurgical emissaries and the women they persecuted. Mortal and divine metallurgical authorities form a paranoid fixation on the vulvar vocality of women, as a referent for female independence and power.

Reproductive vocality, in the most general sense, has already accumulated diverse sets of imagery. Stones used in childbirth are our starting point: they bear witness to the horizon-filling echoes of a woman's birth cry and join in with oracular whispers from the earth's depths. We then hear the *illuru!* and *ololyga!* of the midwives as they joyfully apply their knowledge and skill in attending births. We witness the midwives' vocal power when they are transformed into witches with impregnating spittle and evil tongues. The goddesses, too, have their incantations and their *rigmu*—they can conjure terrifying cacophonies when threatened by their sons.

We can learn a great deal about the dyad when we consider that the patriarchal solution to the powers of vulvar vocality was so often metallurgical and pyrotechnical. The metallurgist applies the same heat to female vocality as he does to mined ores—in his violent acts of smelting the maternal, he obliterates her material and spiritual being, leaving only that which he wishes to extract. This extraction can

serve as a metaphor for the ideology of paternity itself: patriarchy denies women their essential humanness by rendering them objects of ownership, denigrating their materiality and intellect, and extracting from women productive and reproductive labour valued by the patriarchal household or state. The tree and stone serve as an allegory for instrumentalisation: the tree becomes fuel burned in the furnaces purifying the stone's dross from the metal. Shining metal, then, is masculinity void of vulnerability.

In listening to metallurgical protagonists, we have heard them stutter and falter while struggling for reproductive dominance. The very myths and incantations that so loudly proclaim male authorship of life also reveal a nagging alternative: the possibility that some other paradigm of reproduction exists outside the grasp of patriarchy, at least within paranoid male imagination. The exorcists and gods we have encountered here also share nagging doubts and vulnerabilities: the dependence of male gods on female creatrixes; the dependence of powerful men on female nurturance and procreativity. Despite centuries of mythopoeic strategy, narrative redaction, and ritual repetition, no gods or mortal men achieve absolute independence from the feminine principle of creation. Perhaps therein lies the paranoia, the phantasms, and the grotesque performances of virility and dominance.

5 MALE PREGNANCY, DANCING DAIMONS, AND THE ARGONAUTS' DYAD

Rhea and the fire dance

After our peregrinations through Sumerian and early Semitic concepts of stone and metallurgy, we find ourselves arriving back on the isle of Crete. Here we found the ecstatic omphalos hugging and tree tugging devotees of an elusive goddess, and noted Goodison's proposal that elements of Minoan oracular rituals survived for over a millennium, expressed in later Greek cultic practices. One piece of evidence for this transmission is the use of an omphalos (lit. 'navel') stone as part of the cultic paraphernalia of most Greek oracles.[1] This suggests that divine speech was associated with the earth's navel, that is, its reproductive centre. While many examples of the omphalos have been located by archaeologists, the dominant claim to possessing *the* omphalos was held by the Delphic Oracle. In a tantalising detail, the Delphic stone found by archaeologists is carved with a knotted net pattern stretched over its surface,

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[1] Goodison, 56.

which adds additional references to midwifery and birth.[2] This suggests that the omphalos may be some kind of birth stone, like the ancient near eastern ones we encountered in chapters two and three.

This chapter is dedicated to understanding the significance of the omphalos and the power struggles that occurred (both mythopoeically and politically) over claiming its authority. The earliest textual source for the omphalos is found in Hesiod, who connects it to the cult of Rhea. Scholars have claimed that the terrestrial Titaness's earliest cultic seat was on the isle of Crete, her veneration spreading throughout Greece and blending with the cults of Asia Minor.[3] Hesiod tells us that Rhea's consort Kronos 'learned from Gaia and starry Ouranos that he was destined to be overcome by his own son, strong though he was, through the contriving of great Zeus. Therefore he kept no blind outlook, but watched and swallowed down his children: and unceasing grief seized Rhea.'[4] Having seen her children consumed as soon as they were born, the pregnant Rhea plans to hide from her husband by fleeing to the isle of Crete to give birth. She manages to give birth to Zeus before Kronos arrives. When Kronos demands to devour his son, Rhea ties up a stone (the omphalos) in swaddling cloths—Kronos mistakes this stone for the baby Zeus and swallows it instead. In Greek folk myths, a great bird picks up the regurgitated omphalos and drops it at Delphi, the seat of the Oracle, thus marking the centre of the world.[5]

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[2] Omphalos, Delphi Archaeological Museum no. 8194, http://odysseus.culture.gr/h/4/eh430.jsp?obj_id=4687.

[3] Evans identifies Rhea as the goddess of the protogeometric period, however others wish for more evidence. See short discussion in Mieke Prent, 'Cult Activities at the Palace of Knossos from the End of the Bronze Age: Continuity and Change', *British School at Athens Studies* 12 (2004): 417.

[4] Hesiod, *Theogony* 459ff.

[5] Younger, 43-44.

A sonic narrative soon increases our story's complexity. Hesiod tells us that Rhea, in addition to masking the sight of her newborn with cloth and stone, must also cover the sounds of his cries. In this, she is helped by a curious band of metallurgists who appear in Crete to surround her as she gives birth. To cover her cries, they shout and dance in a warrior's frenzy, crashing their armour and slashing at one another's swords and spears. They stay with Zeus as he is raised by his nurse Amalthea, continuing their cacophony to ward off Kronos' listening ear. This is not the first time we have encountered a cacophonous dance. In the *Enuma Elish*, the conflict between the proto-goddess Tiamat and the gods of the pantheon begins with a warrior dance: 'The divine brothers came together, their clamour got loud, throwing Tiamat into a turmoil. They jarred the nerves of Tiamat, and by their dancing they spread alarm in Anduruna.'[6] Tiamat's desire for quietude ends in her death and dismemberment by Marduk.

In the Greek tradition, we can also find these strange dancers in the mortal realm. Apollonius of Rhodes tells us a story of Jason and the Argonauts staying on the isle of Lemnos, hosted generously by the local people.[7] While leaving, a storm confuses the Argonauts and the locals, and they mistake each other for raiders and enemies. True to their warrior skills, the Argonauts slaughter their hosts in a great din and frenzy. In the morning, they realise that they have killed their friends, and 'for three whole days they lamented and rent their hair.'[8] Their sonic lament includes dancing and, quite ironically, displays of warrior strength in honour of the dead: 'three times round [the grave] they paced in armour of bronze and performed funeral rites and celebrated games, as was meet, upon the meadow-plain.'[9] The storm returns even more fiercely after their bloodshed, trapping them on the island. Jason and his men are told by the

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[6] Lambert, trans., *Babylonian Creation Myths*, 51.

[7] *Argonautica* I.961ff.

[8] *ibid.,* 1012ff.

[9] *ibid.*

seer Mopsos that the sea storm will continue to prevent their departure from the island until they have performed rites in honour of the local Mountain Mother, whom they have enraged with their bloodshed. Apollonius identifies this deity as Rhea.

In their efforts to propitiate Rhea, the Argonauts attempt to craft redemption by performing a birth ritual using the tree and stone:

> Now there was a sturdy stump of vine that grew in the forest, a tree exceeding old; this they cut down, to be the sacred image of the mountain goddess; and Argos smoothed it skilfully, and they set it upon that rugged hill beneath a canopy of lofty oaks, which of all trees have their roots deepest. And near it they heaped an altar of small stones, and wreathed their brows with oak leaves and paid heed to sacrifice. [While Jason conducted the sacrifice, the warriors] trod a measure dancing in full armour, and clashed with their swords on their shields, so that the ill-omened cry might be lost in the air, the wail which the people were still sending up in grief.[10]

Here we have encountered another instance of the dyad, in addition to those identified in chapter two—the sacred tree is 'exceedingly old', like the one at Dodona, suggesting that we have re-entered tree-time. Like midwives, the Argonauts place stones under the trees with the deepest roots (granting the most chthonic connection), as if preparing for a birth-like transformation. The Argonauts consecrate their sacred ritual space by acting as midwives—they are cognisant that they are performing in a place of birth. However, it is male craftsmanship rather than midwifery skill that prevails here, for the tree is felled and Argos uses his craftsman's skills to hew and carve the wood.[11]

It is significant that the Rhea, rather than any of the other chthonic goddesses, was angered by the Argonauts' shedding of blood, for their dance mimics Hesiod's

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[10] *ibid.,* I.1103ff.

[11] See discussion of Myron and Daedalus in chapter six for a more detailed analysis of the power of craftmanship in relation to nature and the maternal principle.

account of Rhea's own birth ritual. Like the metallurgists surrounding the goddess while she gives birth to Zeus on the isle of Crete, the Argonauts form a sacred circle around the tree and stone, and dance in a cacophonous frenzy. To surround the oaks is to surround Rhea: the oak grove is equated with the goddess herself.

The Argonauts perform loud rituals twice: first in a place of death (near the funerary mounds), and second in the sacred place of birth (in the oak grove). The Argonauts believed that they could access and propitiate the underworld in some way by performing a ritual around oaks, whose deep roots connected terrestrial reproductive powers with their chthonic foundations. Apollonius relates that, in the end, the Argonauts' ritual does succeed in propitiating the goddess—the womb-like sea ceases to storm, and the mountain bursts forth with fertile flora and fauna.[12] It is clear that, in Apollonius' mind, the Argonauts' mastery over birth spaces and midwifery skills transfers female reproductive power to the warriors, and enables them to escape the consequences of sending innocent lives down into the underworld.

The Argonauts' dance has two functions—when performed in funerary spaces, it covers up the sounds of mourning; when performed in birth sanctuaries, it covers up both the echoes of grief and the reproductive whispering of the dyad. The mingling of grief echoes with birth whispers on the mountaintops is a deeply unsettling sonic image: the Argonaut's dances work to surround and overwhelm vulvar vocality when its audibility is threatening. In chapter four, we noted a similar parallel drawn between death sounds and birth sounds in the Babylonian corpus, where birth, babies, suffering labourers, populations inflicted by epidemics, and grieving goddesses all produce the sound *rigmu*. In Babylonia, the divine gods and mortal fathers go to great lengths to escape from *rigmu*, fleeing from the household and even attempting to wipe out all of humanity. The Argonauts betray similar reactions of fear and violence. If Cretan Rhea is indeed related to the tree and stone goddess in the Minoan iconographies, then our dancing metallurgists and warriors have surrounded a most ancient oracle. Perhaps it

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[12] *ibid.*

is the whispering of this oracle that so frightens them; perhaps it is the dyad's oracular knowledge they so wish to possess.

The link between Rhea's metallurgical companions and the Argonauts is not yet entirely clear: are the metal clad Argonauts mimicking the mythic metallurgists, or has the myth transferred warrior performances into the divine realm? To answer this question, we must investigate the meanings attached to warrior dances across both myth and records of social practice.

Rhea is not the only goddess associated with dancing warriors. In Athens, the elite warriors of the city performed ritual dances in honour of their tutelary deity (Athena)—the dance was called the *pyrrhichē* or 'fire-dance' and was believed to be invented by metallurgists.[14] Nonnus tells us that the Athenian dance was the same as the one danced around Rhea, the Mountain Mother.[15] Plato draws direct connections between Crete and Athens when he describes the pyrrhic dances being performed in both locations.[16] Therefore, we can confirm that Rhea's birth of the pyrotechnical god Zeus was encircled by fire ritual.

However, Athena's relationship with the fire dance contrasts strongly with Rhea's, for the younger goddess takes part in the dance, clad in her own armour.[17] According to

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[14] Strabo (*Geography* 20.3.8) and Pausanias (3.25.2) hold that the mythic metallurgical daimons (whom we will meet below) instituted the dance, while Pseudo-Apollodorus (3.14.6) is amongst the authorities who claim the metal smith Erichthonius was its founder.

[15] Nonnus, *Dionysiaca* 13.35ff; 14.23ff.

[16] Plato, *Laws* 796b.

[17] Dionysius of Halicarnassus, *The Roman Antiquities* 7.72.7. 'This also was in fact a very ancient Greek institution—I mean the armed dance called the Pyrrhic—whether it was Athena who first began to lead bands of dancers and to dance in arms over the destruction of the Titans in order to celebrate the victory by this manifestation of her joy, or whether it was the Kouretes who introduced it still earlier when, acting as nurses to Zeus, they strove to amuse

Hesiod, Athena was born fully formed and clad in armour, much like a plated prince.[18] Her domains include warfare, armour, craftsman's fire, metallurgy, and pottery, leading some scholars to consider her the female counterpart of Hephaistos.[19] As the patron goddess of heroes, she forms close relations with Odysseus (whom she assists in his journey home), Perseus (with whom she collaborates in killing the gorgon Medusa), Akhilles (whom she assists in defeating and killing Hektor), and the Argonauts.[20]

At Athens, the fire dance took place as part of the Panathenaea, the archaic ritual games that preceded the Olympiads, celebrated yearly in Athens throughout its archaic and classical history.[21] (See Illustrations: Image 6) During the festival, teams of warriors would dance to mimic the bodily movements of battle, and judges would declare one team the winner of the competition. According to Plato, the pyrrhic dances were a measure of Athen's virtuousness: he understands dance 'movements as an ethical force: the motions of the body determine the motions of the soul... Consequently, dance becomes the lawgiver's primary tool for training as many citizens as possible in the physical and psychic motions that can lead to virtue.'[22]

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him by the clashing of arms and the rhythmic movements of their limbs, as the legend has it.' We will meet the Kouretes, a clan of metallurgists, below.

[18] *Theogony* 929Aff. See also Pseudo-Apollodorus, *Bibliotheka* 1.20.

[19] *Odyssey* 23.159-162: 'As when someone pours gold about silver, skillful man whom Hephaestus and Pallas Athena have taught every kind of art, and fashions pleasing works, so she [Athena] poured grace upon his [Odysseus'] head and shoulders.'

[20] Pseudo-Apollodorus, *Bibliotheca* 1.110. Athena guides the craftsman who builds the Argonauts' boat, fitting it with timber from the oak at Dodona, which had the power of speech.

[21] Pausanias 8.2.1ff

[22] Frances Spaltro, 'Why Should I Dance for Athena? Pyrrhic Dance and the Choral World of Plato's Laws' (University of Chicago PhD dissertation, 2011), iv. Athena was not the only figure central to the Panathenaea—it was also held in honour of the metal smith Erichthonius

Plato's notion of virtue is civic: virtues are behaviours and values that contribute to the survival and strength of the *polis.* The pyrrhic dance is the only dance form fully developed by Plato, for whom it epitomises the art of state-craft as the creation of ideology enacted through the very bodies of citizens.[23] As we noted in chapter one, Athens depended on mining and metallurgy for its very survival, and thus we can understand why the repetition of pyrotechnical-metallurgical dances were central to the state's identity and its relationship with its tutelary deity.

The Athenian fire dance is but one local form of this practice: pyrrhic dances were practiced across the Greek world for many centuries.[24] In this chapter, I will review the broader testimonia of the dancing Greek metallurgists to examine their relationship with midwifery and motherhood. Scholars studying the representations of metallurgical dance within myth have often proposed that the metallurgical dance was a protective gesture, with the specifically reproductive aim of protecting mother and child.[25] The metallurgists, according to this interpretation, act as beneficent blade-wielding male-midwives. If this were true, the metallurgical male-midwives of Greece would be an astonishing outlier in the ancient near eastern written record. Arguing against current scholarship, I will seek to demonstrate that the dancing warriors of

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(son of Hephaistos), whom the Athenians counted as their first king. Athena was understood to be Erichthonius' foster mother, and was well suited to his metallurgical character. See details of the myths of Hephaistos, Athena, and Erichthonius below.

[23] In the *Laws*, Plato imagines what an ideal polis would be like. It is through the pyrrhic dance that Plato's ideal city (Magnesia) is crafted. (Spaltro, 5) Plato imagines two types of dance in the *polis*: the first danced by noble citizens who are fair in form; the second danced by common people who are ugly in form. Noble dances belong to one of two categories: first, dances of peace, which celebrate wealth and abundance; and second, dances of war, which mimic the din of battle. (*Laws* 814c) He defines the war dance as the *pyrrhichē,* in which the dancers use all sorts of armour and weaponry, both real and imagined. (815ab)

[24] Spaltro, 3-4.

[25] MAG, 124.

Greece are not beneficent figures, but rather replicate the same patterns of violence we identified in chapters three and four. My insight into these dynamics relies on the soundscapes emitted by metallurgists acting as male-midwives. I will argue that the metal clad warrior dance has the function of covering up the sounds of mortality (of both death and birth)—that is, to radically alter soundscapes that were understood to challenge the authority of warrior masculinity and, by extension, the patriarchal state. These analyses will uncover complex associations between the metallurgists' dance and ancient Greek practices of medicine and magic.

To begin, I will summarise the Greek myths of male divine pregnancy that precede and follow Rhea's place in Hesiod's theogonic narrative—here we will also encounter the birth of motherless Athena from the body of Rhea's son. I will then trace the connections between the pregnant gods and Rhea's metallurgical dancers, sifting through the testimonia of their cults across Greece. While scholarship related to the metallurgical dancers has been produced over the past century, I have chosen to concentrate my critique on the most recent and comprehensive study, namely, Blakely's *Myth, Ritual and Metallurgy in Ancient Greece*. Blakely's knowledge of the plethora of sources is comprehensive, and yet her conclusions contradict my own—our differences are, I believe, partly due to the fact that Blakely does not demonstrate any awareness of the dyad and its long-held significance. Blakely, in addition, is a rigorous taxonomist of myths, a much-needed approach for a highly complex tradition addressed within fragmented scholarship. In contrast to Blakely, my attention is on mythopoeic construction, and on understanding myths as redacted products of particular systems of power. I will present a re-appraisal of her work according to the framework proposed in chapters two through four, using the sonic dyad as a basis for analysing ancient metallurgical concepts of reproduction and for rejecting the kourotrophic model.

Pregnant gods of the Aegean

While Homer's *Iliad* relates stories of conflict between Greeks and Anatolians (likely Bronze Age Mycenaeans and Luwian-speaking vassals to the Hittites[26]), the broader textual record also demonstrates cultural mixing and shared myths. López-Ruiz has convincingly argued for Syria and Anatolia as the primary route of transmission between opposite corners of the ancient near east, where Hittites and Phoenicians transmitted Mesopotamian stories to the Greeks.[27] Hittite and Greek theogonies have remarkable similarities in their divine characters, patterns of succession, and narrative development.

Much like the Mesopotamian stories we have already encountered in chapters three and four, the Hittite and Greek myths betray an anxiety to control the domains of midwifery and female reproduction. We have already noted that, in Sumerian myths, the god Enki accidentally becomes pregnant when he ingests his own semen. In the Hittite *Song of Kumarbi*, this theme is greatly elaborated. These myths tell stories of conflict between Kumarbi (a chthonic deity) and his son Teššub (an atmospheric deity). At the beginning of the story, Kumarbi becomes pregnant with four sons when he swallows the genitalia of the sky god Anu during battle.[28] Kumarbi, having received an oracle that one of his sons will usurp his throne, tries to rid himself of the pregnancy by eating stone—however, his attempts at a lapidary abortion are futile and

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[26] Jaan Pühvel, *Homer and Hittite*, Innsbrucker Beiträge Zur Sprachwissenschaft 47 (Innsbruck: Institut für Sprachwissenschaft der Universität Innsbruck, 1991). Calvert Watkins, 'The language of the Trojans' in *Machteld J. Mellink, Troy and the Trojan War : A Symposium Held at Bryn Mawr College, October 1984* (Bryn Mawr: Bryn Mawr College, 1986).

[27] López-Ruiz, 15.

[28] Kumarbi and Anu are roughly equivalent to the Greek gods Kronos and Ouranos. Both Kumarbi and Kronos are chthonic gods, and Anu and Ouranos are celestial. See detailed comparison between the Hittite and Greek pantheon in López-Ruiz (84ff).

lead only to self-injury. When it is time to give birth, Kumarbi is assisted by the now-familiar Mesopotamian male-midwife Ea to be delivered of his four offspring. The first is born out of Kumarbi's mouth, the second out from the top of his head (splitting open his skull), and the third from his 'good place' (a euphemism for anus). For the final birth, Kumarbi requires the assistance of the real midwives of pantheon, who lay him down on a birthing bed and fashion him a vagina.[29]

Kumarbi's third-born son, Teššub, however, threatens his father's kingship. In a final attempt to protect his throne, Kumarbi fathers yet another son (Ulikummi) with a female rock cliff and places him on Upelluri (the Hittite Atlas)—Ulikummi eventually grows so tall that he threatens to take over the celestial realm. Once again, Ea arrives from Mesopotamia to help, bringing a magical copper blade that the gods use to sever Ulikummi from Upelluri.[30] At the end of their conflicts, Teššub becomes king of the pantheon (much like Baal in Ugarit and Marduk in Babylonia).

As López-Ruiz demonstrates, the basic narrative elements of the *Song of Kumarbi* are splintered into several narratives in the Greek theogonic myths.[31] Here I will overview the instances of male pregnancy in Greek myths, in order to demonstrate their metallurgical significance.

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[29] It is useful to note that the Kumarbi myths are written by those who want to supercede the authority of the cult of Kumarbi, replacing him with the storm god Teššub. Thus, the chthonic god is feminised and shamed. The Hittite scribes perform this feminisation carefully—in seeking an abortion, Kumarbi eats black basalt stone that damages his teeth and causes his mouth to bleed; in giving birth through his head and make-shift vagina, Kumarbi's body tears open and he is in need of stitching. All the while Kumarbi wails. This narrative shames the god into vulvar vocality—his top-most mouth and bottom-most mouth bleed as he emits shameful maternal vocalisations. See Appendix B for full discussion of this myth.

[30] For information on this copper blade, see chapter one.

[31] López-Ruiz, 84ff.

To the modern reader, it seems extraordinary that ancient men would look up at the sky and see Ouranos raping Gaia as he 'he lay about [her,] spreading himself full upon her.'[32] This image of sexual violence, construed to be part of the very structure of the world, demands further reflection. Greek myth writers and iconographers depicted Ouranos/Sky as made of bronze, a metal dome functioning as a firmament.[33] The idea that this metallurgical Sky might lay upon, penetrate, and impregnate the Earth fits with our understanding of Bronze Age smiths' relationship to stone: Ouranos not only occupies Earth's womb, but he masters it, trapping her offspring inside of her body and causing her immense pain.[34] Hesiod notes that 'Ouranos rejoiced in his evil doing.'[35] Gaia is still in this state of pain when Ouranos arrives to impregnate her again, but this time, Kronos (Gaia's youngest son) attacks and castrates his father. Many myths elaborate on the reproductive capacity of Ouranos's severed genitalia—when they fall to the earth and the sea, they semi-parthenogenetically spawn a host of male and female offspring, including Aphrodite and the daimon Telchines (whom we will meet below).[36]

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[32] Hesiod, *Theogony* 177-178. Trans. Evelyn-White.

[33] Thomas Worthen, 'The Idea of "Sky" in Archaic Greek Poetry Ἐν Δέ Τα Τείρεα Πάντα, Τά τ' Οὐρανός Ἐστεφάνωται Iliad 18.485', *Glotta* 66, no. 1/2 (1988): 14. Worthen notes that the Greeks may have seen sunrise and sunset as reflecting the brightness of bronze. The metal firmament also features in Hebrew myths, see Amzallag's commentary on Genesis (Amzallag, 'The Material', 85). The Greeks and Hebrews are not unique in this notions, as the Egyptians also imagined the firmament as a copper structure formed by the metallurgical god Ptah. See E.A. Wallis Budge, *The Gods of the Egyptians: Or, Studies in Egyptian Mythology* (London: Methuen, 1904), 502, 511.

[34] *Theogony* 157. It seems that Ouranos, like Ea and Marduk, has mastered the ability to tie and untie the knots of the womb.

[35] *ibid.,* 157.

[36] *ibid.,* 177ff. 'For Gaia accepted all the drops gushing therefrom.' MAG, 155.

Despite Kronos's defence of his mother, Kronos surpasses his father in being a wicked husband as soon as his own paternal hegemony is threatened. Acting as the absolute perversion of a midwife, Kronos subjects Rhea to his attendance at her births, seizes her newborns, and devours them.[37] As we have noted previously, Zeus is hidden from his father, and grows to be a pyrotechnical god with brilliant appearance, wielding lightning. Zeus later avenges his mother, performing a kind of pharmacological caesarean section on his father, forcing Kronos to release (re-birth) Zeus' siblings.[38] Zeus, too, makes a rather terrible husband, and is depicted as raping and seducing many divine and mortal women, much to the chagrin of his consort Hera.[39]

Zeus becomes pregnant twice. In one story, Zeus appears in his divine form to his pregnant mortal lover Semele, and the heat of his pyrotechnical form incinerates her. He transfers the still-intact foetus of Dionysus to his own body, bringing the pregnancy to term.[40] In another set of myths, the Titaness Metis is Zeus' victim.[41] Metis, whose domain was that of wisdom and wise council, assisted Zeus by preparing a potion that would cause Kronos to vomit out all the children he had devoured. Metis becomes the first wife of Zeus (although Pseudo-Apollodorus relates that Zeus rapes Metis), but comes into conflict with him when she prophesises that her son will overthrow Zeus.[42] Zeus then mimics his father and devours Metis. Metis

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[37] Theogony 187ff.

[38] *ibid.*

[39] For example: Danae: *Iliad* 14.139ff; Antiope: *Odyssey* 11.260ff; Callisto: Pseudo-Apollodorus, *Bibliotheke* 3.100.

[40] Ovid, *Metamorphoses* III.308–312; Hyginus, *Fabulae* 179; Nonnus, *Dionysiaca* 8.178-406. Pseudo Apollodorus, *Biblioteka* 3.4.3; Apollonius Rhodius, *Argonautica* 4.1137; Lucian, *Dialogues of the Gods* 9.

[41] *Theogony* 886ff.

[42] Pseudo-Apollodorus, *Biblioteka* 1.20: 'Zeus slept with Metis, although she turned herself ito many forms in order to avoid having sex with him. When she was pregnant, Zeus took the

gives birth to Athena inside the body of Zeus, and then Zeus is left with the difficult task of re-birthing Athena. Here one of the smithing gods—either Hephaistos or Prometheus—comes to Zeus' aid, splitting his head open with a phallic labrys axe, allowing Athena to be birthed out of the top of his head.[43] In this sense, Athena has two fathers (Zeus and Hephaistos/Prometheus) and two mothers (Metis and Zeus).

In an alternate version of the myth of Athena's birth, Hera, so incensed by her husband's act of birth, produces Hephaistos parthenogenetically, but rejects him for his deformities and throws him out of Olympus.[44] Hephaistos, we are told, later sexually assaults Athena, but fails to penetrate her due to his disabilities, ejaculating on her thigh. Athena, in disgust, wipes off the semen with a piece of wool and casts it down onto the earth. The earth receives Hephaistos' semen, and the mortal metal smith Erichthonius is born from the ground (he later usurps the throne of Athens, becoming king, thus providing a metallurgical lineage to the Athenian royal family).[45] Thus, both mortal and divine metallurgists are born from semen released during the act of rape.

Overall, the stories about Ouranos and Zeus emphasise the close links between metallurgy, pyrotechnics, childbearing, and midwifery in Greek thought—female suffering frames every encounter. The gods of metal and fire rape and devour

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precaution of swallowing her, because she had said that, after giving birth to the daughter presently in her womb, she would bear a son who would gain the lordship of the sky.'

[43] Pseudo-Apollodorus, *Biblioteka* 1.20; *Theogony* 886ff, 929ff; Pindar, *Olympian Ode* 7.35ff.

[44] *Theogony* 924ff. Greek medical thought assumed that uterine growths and deformed foetuses, which were sometimes birthed out of the womb, were the result of human female parthenogenesis. The male seed was necessary to perfect the form of the foetus, and so parthenogenetic offspring (even those created by Queen Hera) would be malformed. In contrast, the pregnancies of the male gods produce illustrious, beautiful offspring, even born clad in armour. See further discussion of deformity below.

[45] Pseudo-Apollodorus, *Biblioteka* 3.14.6.

mothers, claiming and extinguishing their offspring at will. The goddesses are depicted in shattering grief, rage, and desperation.

The plated midwives of Greece

Each of the gods related to these male-pregnancy myths—Ouranos, Kronos, Zeus, and Hephaistos—are connected to the dancing metallurgists we encountered at the birth and rites of Rhea. These smiths, of whom Erichthonius may be one, are known by various names in the Greek sources: Dactyloi, Telchines, Kouretes, Korybantes, and Kaberoi.[46] These five clans were worshipped as divine craftsmen and bearers of arms within individual mystery cults. Their powers had real significance for daily life in ancient Greece: Blakely asserts that '[e]vidence of apotropaia on furnaces, appeals to personifications of kilning disasters, and the Athenian evidence of the celebration of Hephaistos by the smiths themselves suggest the potential for the [daimons] to be divine patrons of those who worked in iron and bronze.'[47] In Greek mythology, daimons are intermediary divine figures, located below the gods within the hierarchy of the divine realm; in the case of the five clans of metallurgical daimons, the furnace craftsmen are themselves elevated to this high status.[48]

Despite the fact that each metallurgical clan had its own mystery cult, the testimonia of their origins and activities show a high degree of continuity. According to Strabo, all of the daimons were ecstatic dancers clad in arms, attending on the Great Mother.[49] Their shrines and altars are found across the Greek world, nearby the sanctuaries of

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[46] MAG, 13, 97.

[47] *ibid.*, 27-28.

[48] I believe this to reflect the high status of metallurgists in Greek society. Some classists have interpreted the limping and deformity of metallurgical mythic characters as sign of craftsmen being despised in Greek society. Blakely, however, disgrees and holds that metallurgists achieved very high status. (MAG, 213)

[49] Strabo 10.3.7.

mother goddesses.[50] Much debate has surrounded the geographic and temporal origins of the daimons, with arguments for Anatolian, Levantine, and Peloponnesian origins.[51] However, it seems that the daimons were understood by the writers of antiquity to be very ancient, and can be dated to the Bronze Age.[52]

There has been overlap between all the metallurgical daimons since their earliest attestation—common themes are found throughout the literary record, suggesting neither diffusion nor loss of distinctiveness over time.[53] Hellenic syncretism cannot account for these similarities, as the diverse sources demonstrate remarkably shared purpose—in fact, each group of daimons can be linked to another in some sort of kinship relation.[54]

References to the daimons appear to have saturated daily speech in ancient Greece, and can be found across collections of jokes, puns, proverbs, and insults, and in folk etymologies.[55] Blakely emphasises that 'the sources of information about the daimons

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[50] Every shrine to the daimons mentioned in Pausanias is in the vicinity of a temple or sanctuary of a goddess of motherhood or midwifery. For example, see Pausanias 9.25.5: 'Advancing from here twenty-five stades you come to a grove of Cabeirean Demeter and the Maid. The initiated are permitted to enter it. The sanctuary of the Cabeiri [Kabeiroi] is some seven stades distant from this grove. I must ask the curious to forgive me if I keep silence as to who the Cabeiri are, and what is the nature of the ritual performed in honor of them and of the Mother.'

[51] MAG, 53, 72.

[52] *ibid.,* 53.

[53] *ibid.*, 20-21. 'The evidence for the diamones is almost entirely literary, consisting of 371 citations, from 109 authors, over two millenia, who represent at last sixteen distinct formal conventions.' (*ibid.*, 27-28)

[54] *ibid.,* 13, 20.

[55] *ibid.,* 28. To the Greek geographers and historians in the Roman Empire, the act of summarising the existing narratives of the daimons provided an opportunity to construct different ideals of Graeco-Roman society. Strabo emphasised the similar narratives and

places their value as a conceptual tool not among the smiths themselves, but in the wider matrix of Greek society.'[56] They featured widely in ritual performance across Greek territories, called upon to protect cities, grant access to the dead, and preside over heroic honours.[57] They were also associated with the mystery cults of certain gods, including Zeus and Apollo, where they dealt in oracular possession, prophecy, and rites of magic.[58] As deliverers of oracular revelations, they are the intermediaries between the gods and their mouthpieces.[59]

The daimons were born in connection to the metallurgical male-mothers and male-midwives we have already encountered. In some stories, they are the sons of Hephaistos, learning metallurgy from their father.[60] In others, they were born during Rhea's labour to deliver Zeus, produced parthenogenetically when Rhea's hand pressed into the earth.[61] Some sources claim that the daimons were produced by the blood of Ouranos' severed genitals when they made contact with the earth, while elsewhere they arise directly from the sea.[62] At times, some of the daimons have a mother, including the divine Thalatta (Titaness of the Sea), Kybele, Kombe, or Queen

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portrays of the daimons to argue that the Greeks were a homogenous group—a nod to his royal patron Augustus' achievement, which he formulates as an echo of Alexander the Great's feats of Hellenic unification. To Diodorus Siculus, however, the daimons became culture heroes: he chose to emphasise their civic role bringing order, technology, and economic opportunity, as dominant forces of the progress of civilisation. (29-30)

[56] *ibid.*, 23.

[57] *ibid.*, 23.

[58] *ibid.,* 22-23.

[59] *ibid.*, 87.

[60] Nonnus, *Dionysiaca* 14.17ff; MAG*,* 13.

[61] Apollonius of Rhodes, *Argonautica* 1.1123-1130; Strabo 10.3.22.

[62] See above for the myth of the Telchines spawning from Ouranos' severed genitals making contact with the sea.

Kymindis.[63] Whatever their origin, the daimons share in their associations with two interconnected domains: first, metal working, metal armoury, and the cladding of warriors; and second, birthing mothers and the divine maternal principle.

As discussed in chapter one, the metallurgical specialists of the Bronze Age shrouded themselves, their craft, and their rituals with enormous secrecy, ensuring they were absent from most forms of representation.[64] The Greek metallurgical cults of the Iron Age demonstrate continuities with these practices: it is possible that the ancestral smiths of the Bronze Age were gradually elevated to divine status as daimons, their trade secrets transferred into ritual secrets within mystery cults.[65] There is a broad range of metallurgical involvement among the daimons—some are directly engaged in bonding alloys and refining metals, while others are predominantly the bearers of arms (for example, the Korybantes are iconographically very similar to the Argonauts—young, proud, virile warriors). The cults of most explicitly metallurgical daimons (i.e. those engaged with the actual chemistry of metal extraction and refinery) were the most secretive.[66] Despite this secrecy, there are enough literary records of these daimons to reconstruct their reproductive roles and their relationship with the maternal.

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[63] MAG, 13, 92.

[64] *ibid.*, 24.

[65] This is my hypothesis—to confirm a direct chain of transmission for this continuity will require additional research.

[66] *ibid.,* 32. Out of the five clans of metallurgical daimons, there are clearly two groups: the Dactyloi and Telchines are true metallurgists, primarily engaged in metal refinery; the Kouretes, Kaberoi, and Korybantes are most often shown wearing armour. The most explicitly metallurgical daimons are, quite conspicuously, very infrequently featured in the iconographic record—the very few extant images of Telchines or Dactyloi show tiny, deformed figures difficult to identify as men. (13) This does not apply to the other three clans: the manufacturers of armour are depicted as young warriors. (26)

There are two points at which my analysis differs from that of Blakely. First, I question whether armour-clad warriors dancing and performing acts of violence around a woman in labour are truly being cooperative. Second, I revisit stories of poison and *pharmake*, questioning Blakely's assumption that there are no significant connections between metallurgy, deformity, poisons, and environmental devastation in the myths concerning daimons.

Question One: Is metallurgical infant-guarding truly cooperative with the maternal?

The Dactyloi and Telchines are of primary interest here, for they have three characteristics that apply to our question: first, their cults are the most secretive; second, their roles are the most metallurgical; and third, their actions are the most violent. Blakely has noted some of these correspondences: 'the most metallurgical [daimons] are also the most prone to conflict with [the mother], and violence against each other; they are also characterised by the most unclear, or deformed iconography.'[67] Despite having very few iconographic depictions of the these clans, the textual record is rich enough to reconstruct their relationship with the maternal and with birth.

The Dactyloi are metallurgists associated with mining, smelting, and hammering, and they seem to have been involved in rituals regarding the metallurgists' distant travels abroad across the wide geography of the metal trade routes.[68] The Dactyloi were associated with Mount Ida in Crete: Pliny the Elder reports that they 'were probably among the first workers in iron and bronze.'[69] The Telchines, from the isle of Rhodes, are most closely associated with the finer aspects of smithing—they create

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[67] *ibid.*, 24.

[68] According to Strabo (10.3.22), they are associated with foothills of mountains where mining occurs. Several sources name the original three dactyloi, brothers named Smelter (Kelmis), Anvil (Akmon), and Hammer (Damnameneus). (MAG, 25)

[69] Pliny the Elder, *The Natural History* 4.20.

astonishing metal statuary capable of speech and movement, and provide the weaponry and jewellery of the gods.[70] Some of their statuary are capable of alarming violence and destruction.[71] Despite this, the Telchines are lauded as craftsmen possessing extraordinary wisdom.[72]

The earliest attestations of the Dactyloi and Telchines associate these two clans with a particularly vocal form of magic, *goeteia*, which is very likely derived from *goos*, the ritual lament for the dead.[73] Greek sources associate ritual funerary laments with women's voices in particular, just as they clearly associate the moment of birth with the midwives' ritual birth cry.[74] This additional layer of consideration draws a striking association between women's cries at the beginnings and ends of life: the clans of daimons with the most strictly metallurgical traits vocalise alongside women's birth and death cries. The daimons' ability to master reproductive vocalities made them very popular figures. Professional and folk magicians utilised the very utterance of the names of the Dactyloi: the *Ephesian Letters*, which were credited to the Dactyloi, are a secret list of the metallurgical daimons' names worn or recited to ensure divine aid.[75] It seems that this practice of magical utterance was widespread—Plutarch claims that all the dactyloi's names could be used for this effect, and that people would recite them in times of trouble, to calm their fears.[76]

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[70] MAG, 25. The three brothers who founded the clan of the Telchines were named Bronze, Silver, and Gold. Their creations include Poseidon's trident and Harmonia's necklace (15-16).

[71] *ibid.,* 15, 223. One of the Telchines' statues was a bronze giant called Talos who walked about the isle of Crete, consuming intruders with fire.

[72] *ibid.*, 216-218. Pindar, *Olympian Ode 7* (where Heliades = Telchines).

[73] It is the most clearly metallurgical of the diamones who are *goetes*, i.e. the Idaian Dactyloi and the Telchines. References to goeteia come from seventh to fifth century BCE (Apollonios of Rhodes and Pherekydes), where both also mention the invention of iron. MAG, 24.

[74] Carson, 125, 128. Bettini, x, 228.

[75] MAG, 141.

[76] Plutarch, *De profectibus in virtute* 15.

Before we assume that these magical vocalisations were cooperative or non-violent towards mourning women and midwives, we must remember that these same daimon clans are also the most 'hostile to the female principle'.[77] In one set of myths, the Dactyloi anger a mother goddess by stealing something made of oak from her domain. In revenge, the goddess casts them out, and inflicts them with either illness, madness, or death. In one version of the story, it is the Dactyl brother named Kelmis (lit. Smelter) who angers the mother (his precise offense is lost)—in punishment, she transforms him into a solid iron bloom.[78] According to Diodorus Siculus, a group of Telchines violently rape their own mother, causing their sister so much grief that she throws herself into the sea.[79] The Telchines also aggress against the earth herself. When their island (Rhodes) is taken from them by incoming settlers, the Telchines fly into a jealous rage and extract a vicious revenge on its new inhabitants: they pour the poisonous water of the underworld river Styx onto the land to render it noxious and infertile.[80] The scholiast to Apollonius of Rhodes claims that Rhea has strong antipathy towards the Telchines.[81]

All of these instances of violence contradict Blakely's claim that the daimons' relationship to mothers is essentially cooperative.[82] We must then reconsider the daimons' vocal performances in midwifery and funerary contexts—are they truly beneficent?

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[77] MAG, 13.

[78] *ibid.*, 15, 25, 94-95.

[79] Diodorus Siculus 5.55.6-7. Brian D. McPhee, 'The Parentage of Rhodes in Pindar Olympian 7.13–14', *Classical Philology* 112, no. 2 (April 1, 2017): 230.

[80] MAG, 15-16.

[81] *ibid.*

[82] *ibid.,* 24-25. Blakely does mention that the Telchines' antagonism to the Mother was legendary.

The term 'kourotrophia' also deserves further reflection. We begin to see that there is a sharp distinction between cooperating with the mother and guarding the infant she is producing: while it is unlikely that a mother would feel protected should her newborn be abandoned (for the two, so early on, are indeed a dyad), it is very possible to possessively guard an infant without any real concern for the mother.[83] Blakely equates the two scenarios, which leads her to conclude that the daimons 'cooperate with the female, rather than replacing her.'[84] She forgoes any analysis of their violence.

These depictions of cacophonous dances in birth spaces have direct implications for the reproduction of the military state. In the mortal realm, warrior dances like the *pyrrhichē* are attested to in many sources as part of boys' induction into the warrior class. For example, the dances were performed as part of coming-of-age rituals, in which boys are officially made into men.[85] These military dances had important social and economic roles: because of the high death rates characteristic of the Bronze Age and Iron Age warrior classes, it was essential to reconfigure childhood to transform baby boys into soldiers, in order to maintain a city's basic military requirements for

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[83] This point can be emphasised further by considering the timing of the daimons' intervention. They do not protect Rhea from Kronos while he devours her previous babies. They do not protect her from Kronos' sexual demands. Clearly, they have little interest in protecting the mother herself. The male writers of the myths of Rhea's birth recast her—who is, after all, one of the faces of the Great Mother, and daughter-counterpart of Gaia—as a submissive, helpless wife who cannot protect herself from a rapist and devourer. As the ideal patriarchal self-sacrificing mother, Rhea suffers Kronos' abuse over great lengths of time; when she does finally plot against her husband, she goes to great lengths to protect her son—not herself. The arrival of the daimons supports this appraisal of the son and heir as more valuable than the mother and birthgiver.

[84] *ibid.*, 155.

[85] Jenifer Neils et al., *Coming of Age in Ancient Greece: Images of Childhood from the Classical Past* (Yale University Press, 2003), 140.

defence and territorial expansion.[86] Ritual warrior dances were also associated with war games and other games of contest between men—Pausanias likewise associates shrines to the daimons with sites where games were founded and practiced.[87] These games had strong ritual and religious significance, and the ground on which they were performed was sacred to the gods of warfare.

Blakely insists that the daimons' dance 'invokes arms and violence as the means through which emerging life is encouraged and ensured.'[88] In the case of boys who will become warriors, '[t]he child's survival affects the political and economic stability of the human community to which the performers belong.'[89] Blakely assumes that the state is a necessarily beneficent force—a stance we must contest. The dances lay claim to boys' lives—they belong to the state, to be sacrificed as warriors. Boys, then, are not lives to be protected—they are weapons to be claimed and instrumentalised for the purpose of replicating existing social structures and for expanding the state's territory of control. Through ritual, the process of sacrificing baby boys to the military system offered strong emotional and social rewards: the boys were validated, celebrated, and encouraged to compete with each other.[90] Here the patriarchal household and the military state are revealed to be co-constituted: boys were encouraged to follow in the steps of their fathers, associating with the dominant role of their paternal parent. This, in turn, helped to maintain a value chain that linked the ideology of paternity, the institution of the patriarchal household, the patriarchal state, and the systems of military violence they predicated.

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[86] See chapter one.

[87] Dactyls were reported to have established the Olympic Games (Diodorus Siculus 5.64; Pausanias 5.7.6-10).

[88] MAG, 123.

[89] *ibid.*, 77.

[90] Neils et al., 18; MAG, 19.

Immortalised through myth, the daimons protect Zeus as the state protects boys who will prove to be valuable military assets—neither asserts a moral stance against killing, but rather protects assets that enable killing. This macabre logic of glorious male sacrifice supported the reproduction of the warrior classes. Similarly, the interests of the daimons surrounding Rhea are never truly kourotrophic: they are a civic form of paternalism, whereby the son and future king is a valuable asset to be protected from rival claimants. As a divine pyrotechnician, Zeus offered the pantheon the same composite strength that Marduk offered the royalty of Babylon: the control of wind, storm, and fire, a powerful consolidation of disparate patriarchal symbolisms. Baby Zeus, in other words, is valuable to the smiths. Their protection is akin to military strategy.

This realisation exposes a startling juxtaposition of semantic realms: 'Militarism and fecundity are combined, and the ritual force of the metal is its ability to produce noisy alarm, *the magical version of violence* that will keep invisible forces at bay.'[91] Blakely, then, does confirm our suspicion that the daimons dancing around Rhea are performing ritual violence. She assumes that the daimons protect mothers and infants from unknown harm that could beset them; however, we can now see that the daimons are instead protecting the military state's ability to reproduce its own power structures, by overwhelming *rigmu* and vulvar vocality that might otherwise stake a rival claim to reproductive authority. Women's *rigmu*—their birth and death cries—function in metallurgical imagination as a powerful form of witchcraft. The daimons are reacting to this display of female power in much the same way as the Mesopotamian exorcists: they drew on the power of metallurgy to refine ritual and symbolisms, and to ensure that the alloys of meaning around reproduction supported warfare and state building. Once again, civilisation is built at the expense of women and midwives, in direct aggression towards the magic, ritual, wisdom, and knowledge perceived to exist in the female domain.

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[91] MAG, 134-5. My emphasis.

In Greek myth and magic, then, kourotrophia takes on a new meaning, not of protection or nurturance, but of possession and claim. This sneaky realignment escaped modern scholars and, probably, the women of ancient Greece.

Question Two: What is the role of poison and pharmake with respect to maternity?

The story of the Telchines poisoning Rhodes is subtler than the other narratives. The earth here appears without her personification as Gaia or Rhea. However, this is a clear example of the Telchines' violence, alongside the rape of their mother. We have already seen the combination of poison and assault against the mother in the *Enuma Elish*—there, too, a divine metallurgist carries the poison and causes immense destruction. The strong association in Greek myth of earth and the maternal suggest that poison and rape are related in some way, but we should carefully examine the mythic corpus before making this assumption.

Liquid poisons, like the death-water used by the Telchines, are a kind of magical potion, which can be used for good or for ill. The Dactyloi are associated with potion-making from the earliest sources—they are called *pharmakeis* (potion-makers) and they retain this reputation throughout antiquity.[92] References to poisons in the context of metallurgy do not come as a surprise. Classical writers, including Lucretius, Strabo, Diodorus Siculus, and Pliny, describe the toxic fumes that emitted from ancient mines.[93] The process of smelting was highly toxic, endangering not only the lives of the smelters, but also the land and people surrounding the smelting site—for this reason, these activities were relegated to the countryside at a distance from ancient cities.[94] This helps explain why the daimons most closely associated with mining, smelting, and metalworking are also associated with madness, illness, violence, and death. The mining and metal production during the Bronze Age was already enormous in scope: modern studies of Greenland ice and Swedish lake sediments

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[92] MAG, 138.

[93] *ibid.*, 155.

[94] *ibid.*

have revealed layers of noxious discharges from ancient smelters.[95] The effect was global, and few ancient people in the Mediterranean and near east would have been able to ignore its effects on their land and lifestyle.

In the myths of the Telchines, however, we find a startling elision of the themes of harm and healing: the daimons most famous for dangerous and poisonous forms of metalworking were also the makers of 'medicines that control, inter alia, the powers of fecundity.'[96] These medicines were most popular with women.[97] This does not fit easily with the Telchines' role as 'daimons with hellish associations...marred by a series of offenses that lead to their expulsion or even death.'[98] This leads Blakely to conclude that 'the two semantic realms do not interact.'[99] I wish to counter this assertion by noting interactions between midwifery and violence in the testimonia of the plated medicine men in the Greek literary corpus: I will focus on Eurytheos, Herakles Dactylos, and his Egyptian counterpart Bes.[100]

Herakles appears in Pausanias' account as Demeter's assistant, performing the daily task of opening and closing the doors to her sanctuary (a veiled reference to his control over womb access, perhaps).[101] To Diodorus Siculus, Herakles and his brothers are magicians, skilled in incantations and mysteries (*goetes, epoidai, teletai*).[102] They were famed for producing a particular type of amulet called *periammata* (from *periapto*, to bind on).[103] These amulets, which would be bound on

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[95] *ibid.*, 156.

[96] *ibid.*, 138.

[97] *ibid.*, 140.

[98] *ibid.*, 138.

[99] *ibid.*, 155.

[100] This Herakles is not to be confused with the heroic son of Alkmene, although in later periods the two were syncretically combined.

[101] Pausanias 6.23.3; 5.7.6.

[102] *ibid.*, 139.

[103] For discussion of *periammata*, see chapter six. See also Bonner, 3.

the body, recall the acts of the divine midwives (Eileithyia) in binding and unbinding the women.[104] It makes sense, then, that Herakles' amulets were particularly popular among women (we will be analysing similar amulets in detail in chapter six).[105] Herakles is noted among the daimons because his role dedicates him to women's concerns, especially regarding gynaecological health and childbearing.[106]

Herakles' Egyptian counterpart is Bes, identified through mutual equivalence with Phoenician Melqart.[107] Bes has highly dactylic features: he is associated with music and dance; and he has a dwarfish, deformed appearance. (See Illustrations: Image 7) Like Herakles, Bes was a popular god among both upper class and lower class Egyptian women. He functioned as their protector, providing apotropaic and kourotrophic magic. His metallurgical status is reflected in his ritual of brandishing weapons and knives over women's possessions and bodies—this he uses to protect women during labour and, later, to guard their infants from harm.[108] Blakely describes a magical stele from Memphis that shows Bes on one face of the stone, and on the other a Greek inscription that 'celebrates the great god of the mother of women, their protector, liberator, nourisher.'[109] The cult of Bes, therefore, has strong resonances with the daimons as metallic midwives, medicine men, and child protectors.

Further evidence for the daimons' medical roles are found in an *Eretrian Hymn to the Idaian Daktyloi*.[110] Eretria was a city whose economy was highly dependent on bronze trade. The poem triplicates Apollo, Eurytheos, and the Dactyloi as a group of

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[104] Bettini, 48ff; Bonner, 3.

[105] MAG, 140.

[106] *ibid.*, 141.

[107] *ibid.,* 146-151. See also the creative interpretation of Robert Graves, *The White Goddess*, 225-226.

[108] MAG, 147.

[109] *ibid.*

[110] *Eretrian Hymn* IG XII.IX 259 (analysis MAG, 83ff).

autochthonies dedicated to the Great Mother. Eurytheos shares many features with Apollo, including the powers of healing: Eurytheos is connected to the Telchines as the inventor of *pharmaka alexeteria* (helpful drugs); he is also credited as the first man to practice medical arts (*iatreuse*).[111] Like the Dactyloi, Eurytheos is born from hands, and takes instruction from the Mountain Mother to create metal wares for the gods.[112] Eurytheos praises all gods, but especially Hephaistos, Ares, and Pan, deities that are 'resonant with the Daktyloi in their associations with craft, armed dance, and wild, noncivic, spaces.'[113]

In response to this evidence, Blakely concludes that a 'war between the sexes is an [in]adequate model... cooperation is ultimately beneficial for the medicinal and social goals to which both are put.'[114] It is true that no simple gender binary can suffice. However, our knowledge of the ancient near eastern power dynamics around midwifery and medicine suggests that the supposedly neutral language of 'medicinal and social goals' must also be critiqued. Civilisation is not synonymous with beneficence; its medical technologies can and did function to maintain state violence, even in the realms of what was considered apotropaia and kourotrophia. (We will see many examples of patriarchal violence through medical and magical practice in chapter six.)

Blakely's separation of poisoning and healing may have been more plausible if Herakles and Eurytheos were depicted as Korybantes. However, they are strongly

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[111] MAG, 90.

[112] *ibid.*

[113] *ibid.* It appears that Pan is included here as part of a musical connection: the metallurgical daimons are credited as the inventers, not only of metal armour, but also of metal musical instruments. The testimonia suggest that these instruments featured alongside weaponry in the armoured dances. Pan, the pipe player and frequent rapist, is therefore included alongside the metal-smith Hephaistos and the war-god Ares.

[114] *ibid.*, 239.

associated with the Dactyloi and Telchines, the most metallurgical and the most violent of the daimons. Why would these daimons be so strongly associated with medicine, specifically related to gynaecology and childbirth? We have asked a similar question regarding why Babylonian writers turned to Marduk—a god of pestilence and plague—to accompany women on their little boat across the waters.

In patriarchal contexts, protection and healing are ascribed to the masculine. In the ancient Mediterranean world, women's bodies and daily experiences would have been directly impacted by the rise of the warrior elites and the violence of the city-state system. There were new dangers everywhere: at any time, enemies could attack and drag any of the women and children off as slaves. Increasing social stratification meant that more lower class and slave women had reduced access to nutrition and wellbeing—the rise of poverty can be judged through discourse blaming the poor for their lack of virtue and laws punishing the poor for the 'idleness' of beggary.[115] Women living in the vicinity of the smelters would have been made ill by the pollution—perhaps it also made its way into the ground water, or the rivers carried the pollutants downstream to nearby settlements. It is possible that the frequent references to deformed foetuses and miscarriages in metallurgical texts reflect the increased rates of these conditions as a result of the toxic and teratogenic compounds produced during smelting.[116]

We can understand, then, why women—who needed so much protection as a result of the violence and inequality functioning at the very heart of Iron Age social

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[115] M. M. Austin and P. Vidal-Naquet, *Economic and Social History of Ancient Greece* (Berkeley: University of California Press, 1980), 24, 107-8.

[116] The smithing gods (and metallurgical daimons who are often considered their offspring) themselves were dwarfish, deformed and limping—a possible reference to their long exposure to the smelt and the deformities that arose in their children. Like Hephaistos, Bes (Egyptian fire god), Volcain (the Roman equivalent of Hephaistos), and Volund (the Norse smith god) feature limps. Amzallag similarly interprets the story of Jacob's limp. ('Copper', 154.)

structures—would turn to the sources of power around them for aid. On one hand, we know that women maintained strong cultic centres dedicated to goddesses—as in the case of Artemis, the goddesses' roles in the official myth of the textual record are different than their portrayal in actual cultic practice.[117] However, women turned to the power of men, as well: to the warriors, magicians, potion makers, and medicine men who, in perfecting modes of causing death, claimed to master the protection of life as well. References to tying and loosening knots, making potions and amulets, and wielding blades in the birth room pervades the daimons testimonia: while we should never over-simplify these elements into a 'war between the sexes', we must also note that control over the soundscapes and knowledges of female reproduction was instrumental for the maintenance of warrior masculinity. This is far less a war between men and women than a war within patriarchal symbolism.

Obstetrics as ideology

At the beginning of this chapter, we set ourselves the task of understanding the omphalos stone and the power struggles involved in re-making its meaning. Beginning as the birth stone of Rhea and navel of the earth, the omphalos passes through many roaring furnaces. We now know which mythic figures were operating the bellows.

In chapter one, we noted how the control of the manufacture and trade of metal arms and weaponry facilitated the rise of the warrior classes and the first systems of kingship; in chapter four, we saw this power struggle expressed directly in metallurgical exorcisms, where wealthy men defended their paternal power by demonising and hunting women. With the daimons, little has changed: the metallurgists are still entering birth spaces, aggressing against the maternal, and radically redefining the meanings associated with reproduction. We can have little doubt that they have the economic and political interests of craftsmen, warriors, land-

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[117] For example, see cult of Artemis in the lives of Greek women. (Pomeroy, 84)

owning men, and kings at the very centre of their intentions, despite marketing their *periammata* and other apotropaia to women. In the end, all of these efforts contribute to the reproduction of state hegemonies at the expense of women and midwives.

Through listening to the Greek daimons, we have unearthed some of the depths of the contestation between tree and stone, timber and boulder featured in Homer. The daimons are highly vocal, characterised by various songs, spells, and shouts. They use weapons as acoustic technology to drown out the oracular resonance of the dyad. Like the Mesopotamian gods and exorcists, the Telchines and Dactyloi capitalised on the awe-inspiring power of the voice, creating their medicines by 'combin[ing] natural pharmacopeia with ritual utterances, carried out by specialists who are also metallurgists, their skills obscure to the uninitiated.'[118]

What do these dancing physicians accomplish? They cover up undesired and dangerous female sounds in spaces of birth and death; this consequently fills the auditory space, halting the creation of maternal meanings around the body, life, and death. The end result is a repurposing of vulvar vocality and a resounding redefinition of reproduction: birth becomes the production of soldiers; birth spaces are used to mask the atrocities of war; gynaecological medicine derives from environmental poisoning. In other words, the daimons' dances transmute female reproduction into the reproduction of the military state. The metallurgists' voices remake birth sounds and birth meanings just as their furnaces remake earthen dross into bronze.

Here we can observe two mythopoeic devises at work: first, narrative surrounding, and second, narrative contradictions. 1) When we enter metallurgical birth spaces we encounter the female womb surrounded by the metal products of the artificial womb powered with the craftsman's fire. This mythopoeic technique quite literally wraps an older tradition up in a newer tradition (in this case fertility myths are surrounded by myths about the origins and power of technology). This pattern proliferates throughout the testimonia: Rhea and her sacred groves are encircled by warriors;

[118] MAG, 138.

midwifery is wrapped up in male-midwifery; birth rituals are engulfed in warrior rituals. The end result of this mythopoeic strategy is to render the pre-existing fertility narratives symbolically weightless and inaudible: they seem a mere backdrop to glorious metallurgical feats. 2) The Greek myths attached to the cults of the Dactyloi, Telchines, Kabeiroi, Korybantes, and Kouretes show remarkable subtlety in obfuscating maternal imagery by creating messy contradictions: the mother is at once placated, attacked, and protectively surrounded; the child is simultaneously protected and groomed into the military system; the dyad of tree and stone is both celebrated with great care and perverted to the extreme; temples of the goddess are reverently guarded, while goddesses themselves are offended. This strange mixing of beneficence and violence grants the myths their remarkable force: it becomes difficult to tell the difference between maternal and artificial womb, and between aggression and cooperation.

Defining obstetrics as metallurgical craft

Throughout this thesis, I have used the terms ‘midwifery’ and ‘male-midwifery’ to distinguish two radically different crafts. Only once, in quotation of Eliade’s work in chapter three, do I mention the word ‘obstetrical’. Although Eliade did not intend to accomplish this, he provided the beginnings of one of the most precise definitions of obstetrics in modern academic literature. The Bronze Age metallurgists, with their knives, incantations, potions, and cacophonies, were the first obstetricians in the ancient near east—that is, they were the first men to enter into birth spaces to impose on women and midwives a techno-militaristic paradigm of patriarchal reproduction.

According to Eliade, both metallurgy and obstetrics share a single technological aim to expedite reproduction: that is, to improve and optimise the transformational productive processes of both the earth and women. Vast references to womb spaces saturate the ancient near eastern textual record, in the form of their occupation (as Enki occupies the Apsu), their conquest (as Ea banishes Ninmah and exorcists burn midwives), their optimisation (as furnaces increase transformational efficiency), and their obfuscation (as the daimons and Argonauts confuse our understanding of the dyad). In chapters three, four, and five, I have argued that the mythopoeic and ritual control of birth functioned to reproduce the patriarchal states of the ancient near east. Occupation, conquest, and optimisation are highly architectural in force, expressed in

the building of temples, palaces, cities, monuments, roads, and trade routes. This architecture is also mythopoeic, involving the explicit interruption of the flow of stories and symbols connected to female reproduction: the oracular whispers of tree and stone within sanctuaries of birth lose their prominence, and are replaced by the cacophonous roar of furnaces within the realm of state-building and warfare.

We can now identify that, across the ancient near east (including Greece), a series of dualisms have been drawn between wilderness, nature, and civilisation: ungoverned female reproductivity is menacingly wild, and aligned with the chthonic; domesticated birth is assigned to the realm of nature, and aligned with the terrestrial; craftsmanship is assigned to the realm of culture, and aligned with the celestial and technological. To fully understand these distinctions, we must connect the daimons' dance to Homer's alternate dyad of timber and boulder. The *Iliad* draws an explicit connection between civilisation building and waging war: the Achaeans use the same architectural technologies of timber and boulder to construct battlements around Troy as the Athenians use to construct their city-state. In this light, we cannot call 'timber and boulder' an 'alternate dyad', for it does not simply accompany the original dyad; instead, the construct of timber and boulder symbolises the application of craftsmanship and technology to the appropriation of the reproductivity of the dyad—despite all their claims to kourotrophia and gynaecological medicine, the metallurgists' efforts clearly serve patriarchal ends. A more accurate term for Homer's usage might well be 'anti-dyad'. The contrast between the dyad and anti-dyad is a profoundly sonic one: whispers and murmurs, roars and cacophonies.

Throughout my analysis, I have identified a series of ironies in the male takeover of the female principle: the cities that manufactured war offered sanctuary; the metallurgists who spread poison and pollution offered their services as doctors and healers; those responsible for teratogenesis protected infants; the sons who raped and killed their foremothers were elevated as midwives; the warriors who perpetuated a system of the mass rape, enslavement, and forced impregnation of female captives also claimed to be sources of civility, morality, and security. This is the irony of bronze: in the process of constructing the metallurgical institution of obstetrics, the elite men who built civilisation laid claim to both the beginnings and ends of life—dancing in their armour to overshadow the unwanted sounds of pain, connectivity, and vulnerability so present in humankind's maternal origins and mortality. Through its

soundscapes, the patriarchal state is revealed to be structurally oxymoronic: cities were the primary producers of violence in the ancient world and yet marketed themselves as territories of haven, restraint, and justice.

The metal workers, warriors, male midwives, and medicine men reach a symbolic consensus where all of these false promises meet. This consensus concerns female reproductive power and its appropriation into the metallurgical framework: within this framework, male gods get pregnant, warriors act as midwives and infant caretakers, and craftsmen manufacture techno-births by mastering fire. In other words, all aspects of female reproduction (conception, pregnancy, birth, midwifery, nursing) are claimed by divine male authorities who appeal to the mastery of their craftsmanship to justify the usurpation. The metallurgical aim is clear: to symbolically reconstruct the furnace as the *primary* womb, from which women derive a secondary and decidedly inferior productive capacity—in the end, the very meaning of maternity is absorbed into the principle of paternal potency and authority, as its derivative.

6 THE MAGE, THE GNOSTIC, AND THE ALCHEMIST IN THE METALLURGICAL MAINSTREAM OF SYNCRETIC ANTIQUITY

Metallurgy, alchemy, and the art-nature debate

Our dancing metallurgists have shown us how furnaces, cacophony, and obstetrics can occupy a unified constellation of ideas within myth. The daimons and Argonauts are warriors and craftsmen. Through their armoured dance, they take on the role of the obstetrician, but it is the underlying practice of forging weaponry that provides them authority over reproduction. As we have defined the term in the previous chapter, obstetrics derives from patriarchal values of craftsmanship that glorify mankind's ability to expedite transformation.

Throughout this thesis, we have examined how craftsmanship contributed to the construction of nature, a feminised reproductive realm containing an array of valuable resources, including female bodies, dominated peoples, and exploitable land. Here we will develop this theme in more depth, by considering the daimons in the broader context of Greek thought regarding the power of craft.

William Newman has noted that people in antiquity felt as we often do—that is, that science and technology are outstripping nature at an alarming pace.[1] Greek and Roman cities were acutely aware that environmental depletion around urban centres was causing strain on resource availability—both pollution and inflation were a constant threat, as was the precarity of needing to maintain increasingly-wide territories of military dominance for basic resource acquisition.[2] Donald Hughes has identified environmental damage due to overuse as the prime reason for political instability and conflict in antiquity.[3]

This tension between nature's limited resources and human civilisation's consumption was expressed in philosophy and mythology. Greek texts express fear of nature's powers and concerns that humans may disrupt a divinely-instituted relationship between man and his environment. They recount stories of the famed metallurgical sculptor Myron, who crafted a cow made of bronze.[4] The cow was so realistic that calves mooed at her and bulls attempted to mount her—a sign that the artisan had succeeded in capturing something of a cow's reproductive essence.[5] Aristotle likewise references the metal worker Daedalus, who, in addition to fabricating armour, created automata that used quicksilver to produce movements—yet another indication that metallurgical mastery could approach the realm of life-giving.[6] Daedalus's skillset was vast: he created sculptures, built labyrinths, and designed fortresses, reservoirs,

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[1] Newman, 11.

[2] Hughes and Thirgood, 61.

[3] *ibid.,* 60.

[4] Note that a full-sized cow would have required an enormous amount of charcoal for smelting, refining, firing, and casting.

[5] Newman, 11.

[6] *De Anima* 1.3.9, 1.406b.15-22. Daedalus was reported to be the descendent of the autochthon Erichthonius, whom we met in chapter five as the fabled metallurgist-king of Athens. Pausanias 7.4.5.

and heated grottoes.[7] In him, the Greek *artes* and *technai* united—that is, all the artisanal and technical skills of crafting and building were possessed by a single character with tremendous metallurgical powers.[8]

Greek writers expressed much trepidation and fascination with the power of art to mimic nature: at what point would a craftsman's skill trespass on divine prerogatives over creation? Their ambivalence concerned the possibility that man's power of technical reproduction might reach such technical heights that, instead of merely mimicking nature, he produces something truly new. Many believed that such innovation, if indeed it was possible, would anger the divine creators themselves.[9] The gods were prone to angry vengeance, just as a disturbed nature (that is, a depleted or aggressive environment) could wreak havoc on the state.

In Greek classical antiquity, much scholarly and philosophical work was invested in defining different levels of interaction between art and nature: was art only able to mimic nature, or could it improve or even perfect nature? Answers to these questions were part of a fierce debate that lasted centuries.[10] According to Aristotle, art was able to perfect nature, bringing it to completion—likewise, for Galen, the art of medicine did not merely bring a person back to a natural state of health, it perfected nature by achieving a result that would have otherwise been impossible.[11]

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[7] Newman, 13.

[8] *ibid.* These included artistic creations of the painter or sculptor, along with agriculture, medicine, building. Anything that produced a stable 'product' could be included in this category. This was unlike philosophy, which was in a constant state of discovery.

[9] *ibid.*

[10] *ibid.*

[11] *ibid.,* 17.

Written shortly after Aristotle's death, *Mechanical Problems* presented a startling new peripatetic approach to the art-nature debate.[12] In this text, man is mastered by the overwhelming power of nature, but he is able to overcome it with technology:

> Remarkable things occur in accordance with nature, the cause of which is unknown, and others occur contrary to nature, which are produced by skill for the benefit of mankind. For in many cases nature produces effects against our advantage... but our advantage changes in many ways. When, then, we have to produce an effect contrary to nature, we are at a loss, because of the difficulty, and require skill. Therefore we call that part of skill which assists such difficulties, a device. For as the poet Antiphon wrote, this is true: 'We by skill gain mastery over things in which we are conquered by nature.'[13]

Here, the forceful conquest of nature is presented as a desirable goal; the making of machines does not imitate nature, it achieves dominion over it. Man's skills are construed as being 'contrary to nature': the authors present the 'benefit of mankind' as somehow essentially opposed to the environment on which they depend. This is a simple observation of the state, whose continuous need for resources required destruction of the very land on which it depended for its survival. Instead of questioning patterns of land conquest, expropriation, ownership, and consumption, the authors of *Mechanical Problems* instead offer increasingly powerful craftsmanship as the solution. They will build increasingly efficient machines in order to mastery over nature, to stop her from stymieing their efforts with her resistance (including her pesky tendency to become depleted).

These ideas became particularly popular among the neoplatonists, who held that sculptures and images could be given life by theurgic processes, a notion would also

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[12] *ibid.,* 20-23. Newman identifies this text as the earliest extant philosophical presentation of man conquering nature through art.

[13] *Mechanical Problems* 847A.

obsess many alchemists.[14] Alchemy joined the art-nature debate in later antiquity (second century CE). While earlier academic scholarship considered alchemy to be a niche or marginal activity, more recent work has revealed alchemy as both widespread and culturally mainstream. Alchemy was a key player in the development of Graeco-Roman thought regarding craftsmanship and technology, and their relationship to nature and to the magical and divine realms. Alchemy provided focus to the art-nature debate, helped to sustain interest in theory, and cultivated a systematic practice aimed at achieving mastery over nature.[15] All alchemical practices were heavily shrouded in elaborate theoretical, philosophical, and theological speculation.[16]

The development of alchemical practice demonstrates an increasing fixation on man's dominion over nature's powers of reproduction.[17] Proto-alchemy was developed in furnace workshops by craftsmen who forged glass with the appearance of emeralds

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[14] Proclus, *Timaeus* 37c-d: 'the Demiurge [is] among the supreme consecrators, revealing him as the sculptor of the universe, just as before he was shown to be the inventor of divine names and the revealer of divine marks, by which he consecrated the soul. For such as the actions of the real consecrators, who by means of vivifying signs and names consecrate images and make them living and moving things.' Bonner connects neoplatonic ideas of theurgic vivification to very ancient installation ceremonies in Greek temples, where priests would perform magic that drew down the presence of a god into his representation. 'In accepting the idea that an image could be given life by theurgic processes, the Neo-Platonists were merely attempting to give a philosophical reason for a custom that was far older than their school, just as their doctrine of substances, persons, animals and symbols sympathetic or antipathetic to particular divinities is merely a rationalising of ancient popular beliefs about the magical qualities of things in the natural world.' (GEM, 16).

[15] Newman, 24.

[16] *ibid*.

[17] *ibid*.

and gold-like alloys for counterfeit.[18, 19] Full-fledged alchemy moved from imitation to reproduction, aiming to perfect furnace technology so that the craftsman could transmute invaluable materials into fine metals and gemstones. In parallel to this metallurgical aim, alchemists worked to duplicate human life itself, using a heated glass flask as a womb.[20]

The unification of these diverse pursuits deepened alchemy's engagement with the art-nature debate. Alchemists such as Zosimos (fl. 300CE) were leading a broad technological endeavour 'by which nature itself [could] pass from an imperfect state to a regenerate one.'[21] As we will see below, the alchemists of later antiquity aimed to cause nature a physical death, so that it could be transformed through a technological and spiritual rebirth, thus achieving a higher realm of existence beyond ordinary materiality. In mastering the control of material substance, the alchemist aimed to transcend his own body and ascend into the divine realm.

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[18] See H. J. Sheppard, 'Alchemy: Origin or Origins?', *Ambix* 17, no. 2 (July 1, 1970): 69–84. The origin of alchemy is a complex problem that has not been resolved in scholarship. In my view, this is probably because it is a false query. Sheppard notes that alchemy has appeared in many societies over distant geographies—scholarly attempts to link them to one or few sources have failed. He notes that there are three characteristics to any alchemical tradition: the focus on gold and its separation from base materials; the focus on the elixir of life and power over disease and mortality; and a strong mystical element, often salvific in character. (71) In my view, the search for alchemical origins will always be futile, because the mystical goal to perfect materiality is a direct consequence of the urban patriarchal state's exploitation of mineral resources and its subsequent need to mythologise, ritualise, and mysticise the furnace's paternal powers.

[19] The connection between proto-alchemy and counterfeit is most evident in Ptolemaic Egypt. See Newman, 25-28.

[20] *ibid.*, 25.

[21] *ibid.*, 29.

The above themes sound familiar by now: in our explorations of metallurgical myth and ritual, we have seen furnaces mimic, conquer, and optimise the womb, and symbolically replace its functions. We have also observed how metallurgy and medicine often go hand-in-hand. So far, however, we have seen these themes at work in separate geographies and eras of the ancient near east: to the east, the largely Semitic traditions of Mesopotamia and the Siro-Levant, mostly dated to the Bronze Age; to the west, the Indo-European traditions of the Hittites and Greeks, mostly dated to the Iron Age. This divide is, in many ways, artificial, as both trade and conquest ensured a constant flow of technologies, ideas, and practices across linguistic and cultural regions. In this chapter, the metallurgical traditions accumulated across the entire ancient near east reach another peak of collision and amalgamation. This begins with the Hellenic expansion under Alexander the Great (establishing a Greek *koiné* common culture across the ancient world), and includes the Aramaic *koiné* that spanned the eastern Roman and Persian Empires.

In this chapter, I aim to demonstrate that the metallurgical ideology we have identified in chapters three, four, and five was perpetuated into the late Hellenic and Roman world. I locate not only alchemy, but also gnosticism, the hermetica, and learned magic within the broader metallurgical discourse on reproduction. My primary assertion is that these forms of metallurgical thought were mainstream, rather than incidental, heretical, or exceptional. Alchemists, hermeticists, gnostics, and mages participated with great force in the reproduction and development of metallurgical ideology—they combined and refined existing traditions of cosmogony, theogony, and anthropogony to achieve unique syncretic forms of metallurgical thought that supported the interests of learned and wealthy men. These forms were continuous with classical Greek philosophical (peripatetic, platonic, stoic, and pythagorean) thought concerning the art-nature debate.

We have already encountered some of these concepts in chapter two, where we overviewed the influence of oriental cults on Greek religion and the impact of Hellenic and Roman syncretism on mainstream philosophy and religion. Here we will return in greater depth to the themes encountered during our preliminary exploration: 1) the importance of syncretic metallurgical hermeneutics (which produced, among others, the unsettling exegeses found in the hermetic and gnostic midrashes) that systematically engaged with the Bronze Age substrata of Greek and Biblical myths; 2)

the gradual reduction in the number of gods within antique pantheons, and the increasing astralisation and transcendentalisation of the divine; and 3) the textual patterns that interlace myth writing and magical rites with experimentation in workshop laboratories. Throughout our exploration of these three themes, we will continue to encounter metallurgical notions of vulvar vocality, along with male vocal and sexual performances designed to overcome female soundscapes—thus extending the analysis begun in previous chapters.

In chapter two, we located the dyad of tree and stone in the *Nag Hammadi Codex* (NHC) and in the *Greek Magical Papyri* (PGM). Here we will explore these collections in greater analytical detail, adding the theoretical texts of the *Corpus Hermeticum* (CHA) and Campbell Bonner's collection of Graeco-Egyptian magical amulets (GEM). All four of these collections have been identified as syncretic and somehow gnosticising, and previous scholarship has established that all four were authored or collected by individuals living in the intensely diverse society of Ptolemaic and Roman Egypt.[22] However, no academic scholarship (to my knowledge) examines their shared metallurgical foundations—subsequently, much of this chapter is dedicated to establishing these connections. Whether textual or iconographical, theoretical, technical, or ritual, all four of these collections reveal an intense preoccupation with gender, womb, and voice.

Together, these sources fill thousands of pages of material—tractates, treatises, myths, incantations, and magical rituals and paraphernalia. To intelligibly bring these diverse sources together presents a challenge in and of itself—our focus on voice, metallurgy, and reproduction provides limited focus, as the sources are saturated with these materials. However, I have chosen to narrow our investigation to two metallurgical themes: first, the feminisation of matter and its expression in violence against women;

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[22] As defined in chapter two, the term 'gnostic' has been replaced by 'gnosticising' to emphasise the breadth and diffusion of gnostic concepts in later antiquity. See below for discussions of gnosticisation in particular sources.

and second, the teachings related to spiritual rebirth and escape from the material realm. Because of the lack of scholarship in this area, the technical analyses must be completed here. Thus this chapter is divided into two parts: in the first, I overview the shared social, intellectual, and economic conditions that shaped the magical, hermetic, gnostic, and alchemical initiatives; in the second, I will analyse the PGM, GEM, CHA, and NHC in turn. At the end of the chapter, I will return to questions related to alchemy.

Part One: Hellenic and Roman syncretism

Ptolemaic and Roman Egypt: Colonisation, class, and economy

All of our source collections bring us to Egypt. The NHC was discovered in Egypt and at least a third of its tractates are known to have been written there; the CHA was also the product of Egyptian intellectuals.[23] The large majority of the PGM were collected in Egypt, and much of its content features Egyptian material; likewise the GEM features an abundance of amulets with Egyptian figures and symbols, and many appear to have been manufactured there.[24] Although we do not know the names of the hermetic theurgists themselves, we do know that many of the most famous gnostics and alchemists had strong ties to Egypt.[25]

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[23] Marvin Meyer and Elaine H. Pagels, NHC, 1; Henry A. Green, *The Economic and Social Origins of Gnosticism*, Dissertation Series / Society of Biblical Literature, no. 77 (Atlanta, Ga: Scholars Press, 1985), 9; Copenhaver, CHA, xvi.

[24] Betz, PGM, xlii. Bonner, 8.

[25] Gnostics active in Egypt include: Simon Magus (studied there); Cerinthus (studied there); Carpocrates and son Epiphanes (born and lived there); Basilides and son Isidore (active there); Valentinus (born there); Theodotus, Julius Cassanius (born there); Apelles, pupil of Marcion (active there). See Green 8-9. The earliest evidence of alchemical practice is found in the Leiden and Stockholm papyri, written in Egypt; there is a scholarly consensus that

Ptolemaic and Roman Egypt was characterised by immense wealth and intellectual activity, alongside stark inequality and social conflict. Alexandria was the leading intellectual centre in the Hellenic world, with its famed library and philosophical schools.[26] Green calls Alexandria a 'microcosm of the ancient world'.[27] Egyptian cities attracted migration and were remarkably diverse, and this impacted the intellectual communities as well.

Outside of Alexandria, the population of Egypt was quite small—during the Ptolemaic period it reached no more than 7.5 million.[28] However, rural Egyptian labourers supplied all of Egypt and much of the international market with grain.[29] During the Roman period, Egypt's grain exports accounted for a third of the total grain supply of the Empire.[30] As a result, the imperial leaders were prone to harsh regulation and brutal retaliation for any sign of revolt among the Egyptian population.[31]

Both classical Greece and Rome were characterised by the slave mode of production; large percentages of their populations were enslaved persons, and agriculture, mining, and domestic service alike were dependent on their labour.[32] Due to the environmental conditions along the Nile, dynastic Egypt had maintained an economic system where the centralised state had a monopoly over all land production; there was

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Western alchemical practice originated there. Proto-alchemists and alchemists were predominantly active in Egypt, from Bolos of Mendes to Zosimos. See Newman, 25-29.

[26] Green, 10.

[27] *ibid.*

[28] *ibid.*, 25.

[29] *ibid.*

[30] Copenhaver, xx.

[31] For example, Emperor Caracalla unleashed his troops for days of looting and killing (and most likely raping) when he perceived that the Alexandrians did not show him enough deference. Copenhaver, xvii.

[32] Green, 11.

no private land ownership and all Egyptians were subject to the pharaoh's *corvée*. Agricultural workers were dependent on the state for irrigation and water management, and had no rights to their own surplus or labour. The large majority of Egyptians belonged to the productive class (classed as 'chattel'); most were serfs tied to the land and, subsequently, Egypt held far fewer slaves than other ancient near eastern states (although they were used in mining enterprises and their numbers did increase in times of war and poverty).[33] Membership in the royal class was determined by genetic relationship to the pharaoh, while the managerial class (free men) acquired wealth and land access by appropriating the labour and production of the direct producers.[34]

The Ptolemies largely perpetuated this system, maintaining a 'monopolistic state enterprise' while introducing new agricultural technologies and expanding administrative oversight.[35,36] The state granted landholdings to favoured social groups; social status was largely dependent on the importance of one's landholdings, which opened up opportunities for civil service and additional land ownership.[37] However, they also paid for their army by granting soldiers usufruct of cleruch land—the size of these land holdings depended on ethnic status: native Egyptians received ten per cent that of Macedonians, causing most of this land to end up in the hands of

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[33] *ibid.* 23-24. Bob Brier and A. Hoyt Hobbs, *Daily Life of the Ancient Egyptians*, The Greenwood Press 'Daily Life through History' Series (Westport, Conn.: Greenwood Press, 1999), 80-81.

[34] Green, 24. Brier and Hobbs, 77.

[35] Green, 35. The state supervised all bureaucratic transactions, producing a whirlwind of permits, licenses, leases, and authorizations. (42)

[36] *ibid.,* 25-31. Green asserts that iron tools were still very uncommon in late dynastic Egypt; through their technological reforms, the Ptolemies brought Egypt from the Bronze Age to the Iron Age. (38)

[37] *ibid.*, 43.

foreigners.[38] Individuals classed as Epigones (that is, Semitic-speaking people from the Persian territories) were also allotted considerable land holdings due to their military service.[39] Together, the Greeks and Epigones constituted a small percentage of the total population, and yet possessed almost all privileges related to leadership, land, and citizenship.[40] The state enforced a clear racial hierarchy with Greeks at the summit, followed by Epigones, then Hellenised peoples of other regions, and lastly by native Egyptians.[41]

This system was radically revised in 31BCE when Octavian conquered the Ptolemies at the Battle of Actium. The Romans did away with state monopoly, encouraging private land ownership and separating state authority from production and distribution.[42] There were two important exceptions, for the Roman state maintained absolute monopoly over the timber and mining industries, as these remained essential for state-craft.[43] The Romans also introduced extensive slave trading to Egypt, diverting some of the many slaves they acquired during their aggressive military campaigning and colonial expansion.[44] To dismantle the Ptolemaic army, the Romans disenfranchised most Epigones and imposed a new hierarchy: Romans, then Greek citizens, followed by other Hellenised peoples, Egyptians, and slaves.[45] Unlike the Ptolemies, the Roman elites preferred to invest their money in slaves and land rather than commerce, as 'opportunities in the latter were not equal to profits from owning

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[38] *ibid.,* 31-32.

[39] *ibid.,* 44. The reasons for this preferential treatment were practical, as Epigone soldiers formed two thirds of the Ptolemaic army and it benefitted the state to support them adequately. (33)

[40] *ibid.*, 44.

[41] *ibid.*, 48.

[42] *ibid.*, 45.

[43] *ibid.,* 60.

[44] *ibid.,* 46-47.

[45] *ibid.*, 48.

land.'[46] Social disparity increased, with a stark difference between the wealthy and the rest of the population (who were increasingly subject to debt, propertylessness, and poor quality of life).[47]

These shifts in economic and social organisation caused a series of profound social ruptures in the upper classes. Under the Ptolemies, the Egyptian free men greatly resented the Epigones and Greeks for taking over their roles and lands; the Greeks resented the Epigones, as they felt their privileges should be reserved only for Greek citizens.[48] When the Greeks lost status under the Romans, their resentment escalated and violent pogroms broke out in the cities.[49] Elite epigones, in turn, were desperate to maintain their wealth and status, and went to great lengths to achieve (or pretend as if they had) Greek citizenship.[50]

These contestations mostly occurred between individuals who shared a common language and Hellenic culture. This confusing array of similarities and conflicts produced a 'new worldview': while much of the population was engaged in conflict, the efforts of syncretically-minded individuals and groups (including many of the authors of the texts we will analyse below) focused on bridging gaps and lessening tension.[51] In writing about the syncretic oriental mystery cults in the Graeco-Roman world, Jaime Alvar and Richard Gordon find similar trends of amalgamation: 'In the course of their Hellenization, thanks to the far-reaching changes, or perhaps even genuine re-foundations, that they underwent, [the mystery cults] developed their views of the cosmos in which we can only describe as an universalising direction.'[52]

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[46] *ibid.*, 67.

[47] *ibid.*, 72.

[48] *ibid.,* 95-96.

[49] *ibid.*, 126.

[50] *ibid.*, 123.

[51] *ibid.*, 11.

[52] Alvar and Gordon, 4.

Green finds similar trends in the rise of gnosticising theological literature, arguing that hermetics and gnostics belonged to the conflicted upper classes in Egypt and that their religious and philosophic innovations resisted the disenfranchisement of certain wealthy families.[53] Williams disagrees with Green, holding that the gnosticising groups were not resistant to the status quo, but rather reduced social distance and lessened conflict between divisions in the upper classes.[54] He emphasises that gnosticising groups were highly invested in their societies and economic well-being, and that they were predominantly made up of upwardly-mobile members who were somewhat benefitting from the social upheaval.[55]

The role of Jewish intellectuals in gnosticisation

This helps us explain why Jewish intellectuals feature so prominently in the PGM, CHA, and NHC. Jews were among the first settlers of Alexander's new city, and could be found in all strata of Ptolemaic and Roman Egyptian society, from wealthy landholders to slaves.[56] Many Jewish men joined the Semitic mercenaries and served in the Ptolemaic army; subsequently, Jews were classified as Epigones and granted significant privileges offering opportunities to engage in trade, scholarship, and politics.[57] They totalled approximately twenty-five per cent of the population of Alexandria, ten to fifteen per cent of Egypt, and a significant portion of the total

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[53] Green, 11.

[54] Williams, 107-108.

[55] *ibid.*, 109-111.

[56] Green, 77. The Babylonian and Greek conquests of Palestine created a large Jewish diaspora, as did intra-Jewish conflicts between the Pharisees and Sadducees.

[57] *ibid.*, 80.

population of the Roman Empire.[58] Jews, therefore, had a significant demographic and cultural presence.[59]

The Jewish diaspora underwent a dramatic process of Hellenisation, which spurred the spiritualistion of Judaism—this involved the identification of Wisdom with *logos*, the portrayal of Moses as a mage, the spiritualisation of the law (even approaching antinomianism), and restating Jewish theology in terms of Greek philosophical concepts.[60] Upper class Jews typically saw themselves as Greeks, and deserving of the privileges of citizenship.[61]

It is important to note that all Judaism was, at this time, heterodox—there was no dominant norm or standard for Jewish practice. I agree with scholars who hold that a consensus regarding orthodox Judaism 'did not crystallize until the establishment of Islam.'[62] The Jewish community in Egypt had long shown remarkable diversity of cultic practice. The Jewish diaspora in Alexandria, Elephantine, and other cities left behind evidence of native Canaanite polytheistic practice (i.e. the pre-monotheistic Israelite religion discussed in previous chapters).[63] Likewise, the Jewish temple at Elephantine had adhered to type of Yahwism in which the god had Anat as his

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[58] The total diasporic Jewish population is difficult to measure, but Franz Cumont proposes a (rather high) figure of ten per cent of the Roman population. See Cumont, 62ff. See also discussion in chapter two.

[59] Green, 75-76. See also Gager, 31ff.

[60] Copenhaver, xxviii: Jewish scholars also associated Moses with Orpheus. In the Orphic *Testament* (first century BCE), 'Orpheus recant[s] his polytheism and teach[es] Musaeus [Moses] about the one God.' Gager, 134-152: Moses was a stock figure in hermetic and magical texts. For connections between Jewish theology and Greek philosophy, see Green, 167.

[61] *ibid*, 124.

[62] Mokhtarian, 139.

[63] Andrew R. Krause, 'Diaspora Synagogues, Leontopolis, and the Other Jewish Temples of Egypt in the Histories of Josephus', *Journal of Ancient History* 4, no. 1 (2016): 108.

consort; records also show close relations between the cult of Yahweh and the Egyptian cult of Khnum, in which the gods and their consorts were equated (which is sensible, given that both gods presided over furnaces and both goddesses presided over war).[64]

In the Graeco-Roman period, the assimilation also occurred in the opposite direction. Jews engaged in extensive missionary activity across the Roman Empire: while some polytheists converted or assumed hypsistarian positions, the overall Jewish cultural influence was more significant.[65] For example, a large portion of the polytheist population in Alexandria began regularly observing the Sabbath.[66] Hellenic intellectuals also expressed admiration for the Judaic concept of god, especially his transcendence, incorporeality, and exclusivity.[67] Green asserts that 'Judaism was an acknowledged force that might be ridiculed, but could not be ignored.'[68]

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[64] Stanley A. Cook, 'The Significance of the Elephantine Papyri for the History of Hebrew Religion', *The American Journal of Theology* 19, no. 3 (1915): 346–82. Cook notes that Elephantine texts frequently mention Anat-Yahu as a consort pair or syncretic combination. (376) He also notes that the cults of metallurgical gods Yahweh and Khnum were mixed (their consorts Anat and Sati were both warrior goddesses). (348) The communities also appear to have mixed and intermarried. Jewish names employed Khnum as a common theophoric element—a strong indicator that they had integrated Khnum into their religious identity. (372)

[65] Green, 88-89. Julius Caesar made Judaism a *religio licita* (authorised cult) and gave synagogues some privileges. Hypsistarians were polytheistists who were strongly sympathetic of Jewish monotheism and incorporated many elements of Jewish religious practice (without converting).

[66] *ibid.*, 90. Green claims that the Sabbath was a familiar ritual across Egypt, and that both the educated and uneducated classes demonstrated evidence of Jewish religious influence.

[67] Gager provides the following examples: Hecataeus says that the Jewish god is transcendent: 'God is the one thing which encompasses us all, including heaven and earth'. Strabo adds: 'and the essence (*physis*) of all things'—an addition harkening strongly to stoicism. (41) Numenius of Apamea (who greatly impacted the development of neoplatonism) notes that

Several political conflicts that occurred in Roman government exposed the fears of Roman elites that Jews might infiltrate their social world.[69] Wars and conflicts between the Roman government and Jewish leadership cemented Roman anti-Semitism. As the Roman authorities disenfranchised Jewish Epigones, many Jews attempted to hide or abandon Judaism in favour of Hellenic identity.[70] Green holds that

> segments of the lettered elite and the wealthy of Alexandria had already begun the process which would turn Judaism on its head. Reacting to the barriers that socially and structurally segregated them from the Greek Alexandrian *polis*, upwardly mobile Jews and disenchanted intellectuals began to develop an alternative ideology to compensate for their anomie.[71]

Jews are amongst the nations who 'believe god to be incorporeal' and notes that the god of the Jews is incompatible with other gods, as 'the father of all gods, who deemed it unfitting that any one should share his honor with him.' (64) Neoplatonism set up 'Moses as a worthy representative of ancient oriental wisdom' that it meant to integrate into Greek thought. (69) Porphyry, who acquired a high esteem for Yahweh while living in the Aramaic-speaking eastern territories, quotes the Oracle of Apollo saying that the Hebrews, along with Phoenicians, Assyrians, and Lydians, had learned the many paths to heaven; and that 'only the Chaldeans and the Hebrews reached true wisdom, they who worship piously the self-born god.' (69-70) Gager believes these texts reflect 'a persistent fascination among Greeks for eastern peoples—Jews, Babylonians, and Indians—in particular.' (79-80)

[68] Green, 90.

[69] *ibid.*, 166-167: The famous Titus-Berenice scenario provides a prime example, where Roman elites lobbied against the love affair between Queen Berenice of Judea and the soon-to-be Emperor Titus.

[70] *ibid.*, 168-9: It should be noted that many of the Greek citizens bitterly resented the Jewish population, and engaged in programmes of social exclusion and direct violence, fueled by Roman anti-Semitism. The evidence, however, suggests that one reason for this exclusion was Greek awareness that Jewish intellectuals were their strongest ideological competitors.

[71] *ibid.*, 169.

The amalgamation of monotheistic Jewish and polytheistic Roman theological and philosophical concepts produced the literature examined in this chapter, which brought together dynastic Egyptian, Graeco-Roman, Babylonian, Iranic, and Jewish concepts.[72] In the Graeco-Roman context, it is often counterproductive to attempt to distinguish between 'Jewish' and 'non-Jewish' texts or ideas—for example, a text commenting on *Genesis* could be written by a rabbi; a Hellenised Jew with Greek philosophical training; a hypsistarian or a Jewish Christian; an apostate Jew seeking to demonstrate his allegiance to state religion;[73] a polytheist who had daily interactions with diaspora Jews and heard the oral Torah in Greek;[74] a scholarly mage designing magical rituals that could be purchased by either Jewish, Christian, or polytheist clientele; or a mixed group of intellectual colleagues intent on forming syncretic bridges between state religion and Judaeo-Christian theological concepts. Wallis and Bregman hold that many gnosticising hermeneutical innovations were attempts to

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[72] It is important to note that scholars like Green tend to overestimate the role of Judaism in the formation of gnosticisn and hermeticism. While I agree that the Jewish contribution was significant, there is an enormous range in the extant texts. Some are entirely polytheist in their references, while others depend more significantly on Zoroastrian dualism or neoplatonism. My emphasis on Jewish contribution should be interpreted in light of the texts I have chosen to feature in this chapter, for almost all contain at least some Jewish content. However, this should not be taken as support for the incorrect hypothesis that all gnosticisation had its origin in heterodox Jewish unrest. Instead, I view gnosticisation as a widespread universalising movement towards divine transcendence that amalgamated metallurgical ideologies from across the ancient near east.

[73] Green, 168: It seems many Jews defected towards polytheism – the Jewish Apologetic literature may have been directed towards assimilated or apostate Jews, not Greeks *per se*.

[74] For example, the *Testimony of Truth* in the NHC appears to be based off of the oral tradition of the Septuagint Torah. Williams, 70.

reconcile Jewish and Christian traditions with Graeco-Roman myth, practice, or philosophy.[75]

The social assimilation extended beyond theology and philosophy to magical practice as well. Given the predominance of Jewish culture and social mixing in Egypt, it should be unsurprising that Jewish mages and craftsmen were known to have been active in the market of magical services. Jewish mages contributed Hebrew divine names (e.g. *Iao, Sabaoth, Adonai,* and *Gabriel*) to the existing magical corpus.[76] Alexandria was one of the 'chief centres for the production of magic gems[;] Jews were responsible for many, if not all of these objects.'[77] To polytheist writers, Moses was most famous as a renowned sorcerer; he became 'a stock figure' in 'the documents of ancient magic and its half-sister alchemy.'[78] In the polytheistic text of

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[75] This topic is discussed in Richard T. Wallis and Jay Bregman, eds., *Neoplatonism and Gnosticism*, Studies in Neoplatonism, v. 6 (Albany: State University of New York Press, 1992). This also went in the other direction: the polytheist neoplatonist Synesius of Cyrene attempted to build bridges that would reconcile his polytheist thought with the increasingly Christian world around him. (Jay Bregman, 'The Sources of Neoplatonism', in Wallis and Bregman, 35.)

[76] Gager, 142.

[77] Wayne A. Meeks and Robert Louis Wilken, *Jews and Christians in Antioch in the First Four Centuries of the Common Era*, Sources for Biblical Study, no. 13 (Missoula, Mont: Scholars Press for the Society of Biblical Literature, 1978), 51.

[78] Gager, 135. Moses was famous as an alchemist, listed along with Democritus, Xenocrates, Heraclitus, and Zosimus. (152) His name is associated with later alchemical treatises, *The Diplosis of Moses, The Chemistry of Moses* (which contains fragments dating to the second century CE), and *The Maza of Moses* (which was known to Zosimos in the third century CE). (153-4) The PGM even claim that Moses authored eight books (three in addition to the five books of the Torah). (158)

PGM II.126-28, for example, Moses receives ‘as a gift the knowledge of [God’s] greatest name.’[79]

Jewish mages also seem to have contributed a unique form of glossolalia, a type of ritual vocal performance focusing on the sound quality of phonemes. Dale Martin has argued that glossolalia present in Jewish text *The Testament of Job* (and the later Gospel of Luke) do not directly correspond to esoteric speech practices in ancient Greek oracles, as the latter were in fact intelligible to some degree (serving as vocally embellished prophecy).[80] The type of glossolalia evidenced in Jewish practice was believed to be completely separated from human speech, accessing the heavenly languages: in *The Testament of Job*, the daughters of Job evidence this type of glossolalia, being given divine objects that enable them to access an ‘angelic dialect’, ‘the dialect of the archons’.[81] Several centuries after the composition of *The Testament of Job,* the neoplatonist Iamblichus equates glossolalia with absolute surrender and divine possession, describing ecstatics who ‘emit words which are not understood by those that utter them; for they pronounce them, as it is said, with an insane mouth and are wholly subservient, and entirely yield themselves to the energy of the predominating God.’[82]

As we will see below, the PGM appear to include both types of sacred vocal performance, with some being strings of somewhat intelligible words, and others involving long performances of individual vowels. The Jewish influence is strongly evidenced in the vowel sequences. It is important to note that the Tetragrammaton (YHWH) is a series of four vowels in Hebrew—the vocal performance of these vowels appear to be ecstatic or magical explorations of the divine Name, and therefore the divine essence. In the PGM, fragments of Jewish-style glossolalia are

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[79] See discussion in Gager, 142.

[80] Dale B. Martin, *The Corinthian Body* (New Haven: Yale University Press, 1995), 88.

[81] *Testament of Job* 48:2, 49:1. See also the story in 50:1-52:7.

[82] Martin, 91.

scattered amongst other types of vocal performances, including ecstatic babbling, cryptic invocations, and code language.[83]

In terms of the marketing of magical rites and objects, these vocal performances would likely have had a strong effect on the mage's clients—adding a dramatic air of mystery, awe, ecstasy, and exclusivity. It is likely that, through these magic rituals, the upper classes of Graeco-Roman Egypt would have been exposed to the Tetragrammaton and Jewish magical language, and to the awe they could inspire when effectively performed.

Hermeneutics and gnosticisation

In chapter two, we encountered the Coptic *Gospel of Thomas* found in the NHC. In attempting to understand its place in the larger collection, we noted that the term 'gnostic' was in need of critical evaluation. Rather than consider 'gnosticism' as a Christian heresy, we followed recent scholarship suggesting that there was no one origin for gnosticism and that the extant literature showed highly diverse syncretic features. In this sense, our usage of the word 'gnostic' is a short-hand for 'gnosticising', a very broad term for mainstream tendencies to locate man's salvation in hidden knowledge of the transcendental divine. While the NHC is the only collection considered here that contains the tractates produced by so-called 'gnostic sects', the texts and objects in the PGM, GEM, and CHA are predominantly gnosticising. In the analysis below, I will demonstrate that, in terms of gnostic usage of metallurgical ideology, all four collections are virtually identical.

Williams' study helps us approach gnosticising texts and movements with a more nuanced respect for the complexities of an ancient conglomerate society that had few fixed boundaries. We may consider the various gnostic or proto-gnostic groups—including Mandaeans, Manichaeans, Valentinians, Sethians, Marcionites, hermeticists, alchemists, and syncretic magicians—as part of the mainstream of

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[83] Bonner, 12.

syncretic Hellenic and Roman intellectual culture. Only later, through the writings of the Church Fathers, were the gnostics recast as deviants and heretics—a political move on the part of the Christians, who were competing with gnostics (in particular, with the Manichaeans[84]) over who would fill the religious power vacuum left behind by the steady ideological shrinking of polytheistic state religion.[85]

Gnostic groups are most well known for their unsettling exegeses of religious texts. Some concluded that the god of the New Testament and the god of the Hebrew scriptures were too radically different in character to be the same deity.[86] Others decided that Yahweh was a demiurge, a jealous pretender, who had falsely created the cosmos to enslave human spirits in material bodies.[87] However, not all gnosticising groups promoted biblical demiurgical traditions. Others pushed for increased

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[84] For a study of the conflicts between Christians and Manichaeans, see Samuel N. C. Lieu, *Manichaeism in Mesopotamia and the Roman East*, Religions in the Graeco-Roman World, v. 118 (Leiden: E.J. Brill, 1994).

[85] Williams, 34-35, 40. Williams reviews the heresiological texts of Hippolytus, Irenaeus, Pseudo-Tertullian, and Epiphanius, and finds that nearly all of the heretical groups they identify ascribed to gnostic teachings.

[86] *ibid.,* 24-25. For example, the 'heretic' Marcion 'seems to have spotten passage after passage in which some embarrassing or problematic behavior, weakness, or humanlike emotion is ascribed to the creator God of the Jews. And unlike many other interpeters, he refused to allow such problems to be explained away by appeal to figurative or allegorical language.... Marcion insisted that such a God cannot be the transcendent, forgiving, loving God of grace announced by Jesus and Paul.' (24-25) His teachings were widely popular among early Christians, as many found themselves unable to 'reconcile the anthropomorphic traits of the Old Testament God with the philosophical concept of an essentially good God.' (25) We must note that these undesirable traits correspond to the Bronze Age and early Iron Age substrata of the Hebrew scriptures, which stem from an older religious concept of divinity as an aggrandised representation of human strength (i.e. far from perfect, immortal, or transcendent).

[87] *ibid.,* 16-18. See below for analysis of anti-demiurgical texts in the NHC.

allegorical interpretations of Greek myths and/or Hebrew scriptures, in order to purify them of their grosser inconsistencies.[88] Fascinatingly, the gnostics observed quite carefully the Canaanite sub-stratum of the Hebrew scriptures and their patchy redaction; gnostics offered an ingenious solution of differentiating between Yahweh the metallurgist (the Demiurge who appears to be an embodied being in the Hebrew scriptures) and Elohim (the celestial god more befitting the platonic ideal). Like previous Jewish scholars, they also noted the awkward repetition of the *Genesis* anthropogonic narrative, and proposed that there were two Adams: the first, a spiritual being, and the second, a being trapped in materiality.[89] It is important to note that none of these observations or critiques were new. William asserts that

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[88] Williams notes that philosophers had already dealt with the grosser elements of Homeric myth allegorically. Jewish writers were influenced by Hellenic philosophy, wishing to interpret the anthropomorphic aspects of god figuratively or allegorically. Interestingly, the Hellenic Septuagint translation of the Hebrew scriptures also softens anthropomorphisms. (64) The Church Fathers likewise struggled to allegorise the Hebrew scriptures' descriptions of god: Justin struggles with God commanding Moses to make a serpent; Clement of Alexandria emphasises that bodies, movement, wrath, or threats should never be ascribed to God; and Origen insists that it is foolish to treat scripture literally, because there were so many impossibilities in its texts. (65-66) Pseudo-Clementine, on the other hand, went as far as to claim that the original texts had been corrupted (this was possibly a response to the pressure of Marcionite arguments). (66) Similar difficulties ensued in Jewish and Christian circles over the apparent polytheism of the Hebrew pantheon (for example, the plural in *Genesis* 1:26-7). (68) The polytheist philosopher Celsus scoffed at this confusion. (67) Likewise, in his treatise against Christianity, Porphyry claims that the Hebrew scriptures were so full of errors because the original texts were in fact lost in the temple fire, and that the current documents were poor reproductions made during the time of Ezra. (Gager, 70)

[89] Green, 203. Although startling, this assertion was not unusual in the Roman context. The principle that 'the world is evil because matter is evil' was found in platonic, stoic, philonic, Orphic, and Qumranite systems, as well as in early rabbinic traditions. See also Robert

> these instances of countertraditional interpretation that have so often captivated the attention of modern scholars tend almost always to involve passages or elements from Jewish Scripture that were notorious 'difficulties'... perceived as problems generations or centuries before the beginning of the Common Era.[90]

The gnostics, however, innovated uniquely syncretic solutions—here, I aim to demonstrate that their heavy use of metallurgical ideology in standardising the complex Roman inheritance of ancient sacred texts.

Part Two: Syncretic texts and magical paraphernalia

A. Papyri Graecae Magicae

The PGM consist of more than six hundred magical incantations currently housed in museums and universities across Egypt, Europe, and the United States.[91] The modern collection contains two historical compilations: the first by an Egyptian in Late Antiquity, and the second by European diplomats in Egypt in the early-nineteenth century.[92] Efforts to produce editions of parts of these collections began in the 1950s, culminating with the revised edition by Betz in 1996, which remains the most comprehensive.

Together, the PGM contained in Betz's edition temporally span the early Hellenistic period to later Roman antiquity, and are written in Greek, Coptic, and Demotic (often

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McLachlan Wilson, *The Gnostic Problem: A Study of the Relations between Hellenic Judaism and the Gnostic Heresy* (London: A.R. Mowbray, 1958).

[90] Williams, 63.

[91] Betz, PGM, xxiii-xxviii.

[92] *ibid.*, xlii.

a mixture of languages appear in the same incantation formula).[93] Betz marvels at the papyri's 'amazingly broad religious and cultural pluralism'.[94] The magical spells contain some Egyptian materials showing no Hellenic religious content, while the majority are syncretic.[95]

Scholars generally agree that the collector of PGM I-IV was a single individual, probably from Thebes, who had a keen interest in chemistry.[96] As we will see below, magical spells and invocations are interspersed with technical recipes for laboratory synthesis of particular compounds. The Theban mage was also interested in medical practice, as the collection features a wide range of magical remedies and concoctions for healing. This triplication of magic, workshop chemistry (i.e. alchemy and metallurgy), and medicine also appears in the codices themselves: as we will see below, authorship of the incantations and medical recipes is afforded to mages and alchemists alike. The organisation of PGM I-IV suggests that the Theban collector was also a scholar or bibliophile who possessed archival skills.[97] Some of the incantations in the other codices show less scholarly capability, and were likely used

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[93] For an example of a mixed-language incantation, see PGM III.633-731.

[94] Betz, PGM, xlv.

[95] Garth Fowden explains the resilience of Egyptian concepts and imagery. Egypt had long resisted cultural assimilation, and largely succeeded with Hellenisation as well. 'In the centres of power, Hellenism was triumphant; but in cultural terms Egyptianism, instead of being submerged by Hellenism, exercised so strong a gravitational and assimilative pull on it that the produce of their interaction was a least as much Egyptian as Greek. Nowhere was this truer than in matters of religion.' The Egyptian priesthood had maintained much of its social and political power; many Graeco-Romans accepted that Egypt was intrinsically holy, believing that Moses, Solon, Pythagoras, and Plato sat at the feet of Egyptian priests. Garth Fowden, *The Egyptian Hermes: A Historical Approach to the Late Pagan Mind* (Cambridge: Cambridge University Press, 1986), 14-15.

[96] Betz, PGM, xlii.

[97] *ibid.*, xlii.

by wandering craftsmen-mages who, evidenced by their many mistakes, had limited knowledge of the ancient languages.[98]

The Greek elements found in the collection are similarly diverse: while some show learned knowledge of the literary versions of Greek mythology, most reflect common religious notions that would have been relevant to daily life. For example, frequent mentions of the Agathos Daimon in the PGM introduce a highly popular folk god who was never mentioned in literary mythology, even elevating him to the top-most position of the pantheon.[99] Betz comments that the Greek gods 'are portrayed not as Hellenic and aristocratic, as in literature, but as capricious, demonic, and even dangerous, as in Greek folklore. The gods and their activities resemble those in the popular myths and local cults, as reported by mythographers or by Pausanias.'[100] This makes the PGM one of the most significant sources for studies of Greek folk religion:

> Magical beliefs and practices can hardly be overestimated in their importance for the daily life of the people. The religious beliefs and practices of most people were identical with some form of magic, and the neat distinctions we make today between approved and disapproved forms of religion—calling the former 'religion' and 'church' and the latter 'magic' and 'cult'—did not exist in antiquity except among a few intellectuals.[101]

Modern views of Greek and Roman religion have been heavily influenced by the type of religious text that scribes and scholars have tended to collect and preserve: the overwhelming majority of our sources were produced, preserved, or redacted by the

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[98] *ibid.,* xlvi.

[99] See analyses of PGMXII.201-269 and IV.2373-2440 below. See also overview of the Chnoubis character.

[100] Betz, PGM, xlv.

[101] *ibid.*, xli.

top-most echelons of Greek and Roman society.[102] With the PGM and other writings about daily religious practice (such as Pausanias), we receive very different mythic narratives, views of the gods, and ritual procedures. However, I must hasten to add that these sources are unlikely to reflect the religious practices or beliefs of the lower and slave classes. While some of the PGM are more scholarly and finely-crafted than others, all types of magic in the collection would have been an expensive commodity; we should therefore expect the content of magical rituals to reflect the religious milieu of those who could afford a mage's services.[103] These individuals may not all have been super-elite, but they would have been wealthy (perhaps merchants, landowners, or bureaucrats). Given the economic system imposed by the Ptolemies and Romans, few clients would have been ethnic Egyptians, as most natives were legally blocked from landownership and positions in civil service. This leaves Romans, Greeks, and Epigones as the most likely clientele. Magic was also of interest to Greek intellectuals. Neopythagorean and neoplatonic schools of philosophy used magical books, and their schools would have owned collections of magical codices.[104] Gnostic and hermetic groups were also known to have consulted these books.[105]

It is important to note that the PGM represent a range of magical crafts: the making of amulets and other magical objects, writing of inscriptions, watching stars to determine appropriate dates for rituals. The texts themselves, however, relate a powerfully vocal practice consisting of incantations, invocations, ritual silences, vocal commands, crypto-babble, and glossolalia, alongside a whole range vocalisations (such as hissing

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[102] It is important to note that later Europeans also had strong aversion to the PGM, embarrassed that the lauded Greeks would have stooped to the level of magic and superstition. As a result, the PGM remained unanalysed and untranslated for long periods of time, treated as mere curiosities. The first academic studies of the PGM (in the mid-nineteenth century) were controversial. See discussion in Betz, PGM, xliii.

[103] Bonner, 13-14.

[104] Betz, PGM, xlii.

[105] *ibid.*, xlii.

and popping).[106] The only materials in the PGM that do not feature these vocal performances are short recipes for medicinal or metallurgical concoctions, although we cannot assume that these processes would not also have been paired with similarly vocal ritual acts.

PGM XII.201-269 and the metallurgical significance of syncretism

The rite detailed in PGM XII.201-269 begins with instructions for making a little ring guaranteed 'for success', made of jasper set in gold. The mage assures us that 'Kings and governors try to get it', thus vouching for its standing in the most elite social circles. Overall, the mage makes a bold promise to elite men, guaranteeing them success through the mage's magical lapidary and goldsmithing skills.

The magical procedure is as follows: the mage etches the shape of the *ouroboros* (the circular snake devouring its own tail, see Appendix C) on the ring, and includes within its circle the signs for the sun and moon; on the obverse he etches the divine names Abrasax (known to have Basilidean gnostic provenance) and Iao Sabaoth (with Iao being the Greek spelling of YHWH).[107] In consecrating the magical ring, the mage begins with digging an unused grave in the earth and lighting a burnt offering within it. The vocal performance then begins: He first invokes the 'gods of the heavens, O gods under the earth, O gods circling in the middle region from one womb. O masters of the living and the dead.' The mage then focuses on one divine form, the Agathos Daimon, elevating him to a status above the rest of the pantheon:

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[106] For the scholarly debate regarding the unintelligible words and phrases in gnostic and magical texts, see Howard M. Jackson, 'The Origin in Ancient Incantatory "Voces Magicae" of Some Names in the Sethian Gnostic System', *Vigiliae Christianae* 43, no. 1 (1989): 69–79. See also my discussion of glossolalia below.

[107] Abrasax or Abraxas was associated with the Syrian gnostic Basilides by the Church Fathers. Antti Marjanen and Petri Luomanen, *A Companion to Second-Century Christian "Heretics"* (Leiden: Brill, 2008), 15-16.

'You are lord, the begetter and nourisher and increaser of all.'[108] To close the ritual, the mage declares the universal character of the Agathos Daimon: 'I have called on your great name for consecration... according to the Egyptians, PHNO EAI IABOK; according to the Jews, ADONAIE SABAOTH; according to the Greeks, "the king of all, ruling alone"; according to the high priests, "hidden, invisible, overseer of all"; according to the Parthians, "OUERTO, master of all."'

This incantation shows how broadly syncretic the mage's craft was—he calls upon divine names from Persia to Greece. However, each tradition is framed in terms of its monadic or monotheistic concept of the divine. In chapter two, we noted that syncretism tended toward the reduction of the number of gods. This followed already well-established trends in divine astralisation, which accompanied the removal or devaluation of earthly and chthonic deities. In turn, the divine forms have been astralised, to the point of total immaterialisation—this univeralised, ultimate divine figure is invisible, hidden, and far from the material world.

The magical ritual references both grave and womb—two sacred spaces associated with mortality. It is no accident that the mage performs a fire ritual within the grave: the mage is offering his services to kings and nobles, to guarantee them success. In other words, the mage has claimed power to avoid male vulnerability and mortality—his transcendent god, whom he names Agathos Daimon, possesses all of the qualities to which powerful men might aspire: absolute rule, mastery, potency, and immortality.

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[108] Agathos Daimon was a popular figure in Greek folk religion, who later became a prominent character in hermetic and early alchemical texts, called the father of Hermes (Copenhaver, CHA, xv) or the author of the hermetic doctrines themselves. For more information, see F. Sherwood Taylor, 'The Origins of Greek Alchemy', *Ambix* 1, no. 1 (May 1, 1937): 30–47; J. Pearn, 'Agathos Daimon and the Asklepian Serpent', *Vesalius: Acta Internationales Historiae Medicinae* 17, no. 1 (June 2011): 4–9.

As we will see later on in this chapter, Agathos Daimon is a central figure in the Hermetic tradition, viewed as a divine ancestor of Hermes Trismegistus, the primeval wise man.[109] In this incantation, Agathos Daimon is elevated to the top-most position of the pantheon, and equated with the god of Judaism. Heterodox Jewish authors amalgamated Hermes Trismegistus with their own scriptures, by considering him the semi-divine guide of Moses, whom the polytheists already admired as a metallurgical mage.[110] This elevation of Agathos Daimon is strategic: immediately preceding our incantation, we find a proto-alchemical recipe 'To make a tincture of gold' (PGM XII.193-201), complete with instructions for the chemical process. While this recipe contains no theurgic or ritual instructions, the incantation that immediately follows wraps metallurgical workshop procedures in a mystical garb by calling one of the most renowned hermetic-metallurgical divine characters.

PGM VII.862-918 and metallurgical processes for rape

The authorship of PGM VII.862-918 is ascribed to Claudianus, a known philosopher and alchemist who, according to this section of the PGM, also worked as a mage.[111]

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[109] Copenhaver, xv. Fowden, 26-28. Fowden describes Trismegistus as a 'cosmopolitan, Hellenistic Hermes, Egyptianised through his assimilation to Thoth, and in fact known throughout the Roman world as "the Egyptian" *par excellence*'; he was a central figure in the Graeco-Egyptian *koiné* culture. (26) He was a syncretic form 'produced a sum that was greater than its parts, a divinity who could deservedly be placed among the *dei magni* of the pagan [sic] pantheon that presided over the Roman world.' (26) Plato wondered if Trismegistus had been a mortal, not a god. Ammianus Marcellinus mentions Trismegistus as an example of 'a human endowed with a particularly strong guardian spirit.' (28) In the CHA, Hermes is a mortal 'who receives revelations from the divine world and eventually himself achieves immortality through self-purification, but remains among men in order to unveil to them the secrets of the divine world.' (28)

[110] See Gager. An example in the CHA is PGM VII.619-27, entitled *From the Diadem of Moses* (spells for invisibility and love).

[111] Betz, PGM, 141.

Following Claudianus' prescriptions, the mage first uses a potter's wheel to make an image of the goddess Selene from clay mixed with blood. He then uses an olive-wood shrine to call upon the deity, singing his request for an oracular revelation, which he expects to arrive in the form of 'a whirring sound'. The mage's goal is to rape an unwilling woman. In the string of unintelligible divine names, we find Ereshkigal, the underworld goddess imported from Babylonia. The mage seeks these goddesses to 'order the angel to go after her, NN, to draw her by her hair, by her feet; may she, in fear, seeing phantoms, sleepless because of her passion for me and her love for me, NN, come to my bedroom... may she be unable to have intercourse with another man, except with me alone.' The mage instructs his client, once the act of rape has been accomplished, to stow the image of Selene in a dark place forever.

The potter's wheel suggests the magical procedure is set in (or recreates) a ceramics workshop, which would have featured a kiln furnace for firing clay. His act of combining blood and clay is identical to the anthropogony in the *Enuma Elish*, where Ea mixes the blood of Qingu (the defeated consort of Tiamat) with clay to form the first humans. The mage is acting like a metallurgical god, to further the sexual and reproductive aims of his client. In manipulating the symbols and forms of the goddess Selene within the furnace, the mage is able to capture her fertility powers and demand that she grant him his mastery over the mortal woman. The mage is able to unbind and bind (that is, access and monopolise) the woman's womb, achieving not only sexual mastery but also guaranteed paternity.

A similar set of themes is found in PGM VII.756-794, which features a prayer to the goddess Mene (the goddess who presided over the months, suggesting some kind of midwifery role). Immediately, the mage places Mene in a subordinate position to the god 'who made the entire world, IAO, the one who shaped you [that is, Mene].' The mage then identifies the goddess's soundscapes: 'the first companion of your name is silence, the second a popping sound, the third groaning, the fourth hissing, the fifth a cry of joy, the sixth moaning, the seventh barking, the eighth bellowing, the ninth neighing, the tenth a musical sound, the eleventh a sounding wind, the twelfth a wind-creating sound, the thirteenth a coercive sound, the fourteenth a coercive emanation from perfection.' And he lists her symbols, including vulture, falcon, wolf, serpent, asp, cat, and lion, along with non-animal forms, virgin, torch, lightning, garland,

herald's wand, child, key. Through his knowledge of Mene's sounds and symbols, the mage compels the goddess to 'Hear me, because I pray to you.'

At first glance, the lists of sounds, figures, animals, and objects may seem to be a random collection of ritual paraphernalia and symbols. However, evidence within other PGM incantations suggests otherwise. PGM LXX.4-25 contains a similar list, this time associated with syncretic goddess Hekate-Ereshkigal in a magic ritual that takes place only in the late hours of the night. The mage recites: 'Ereschigal, virgin, bitch, serpent, wreath, key, herald's wand, golden sandal of the Lady of Tartaros.' The mage then recites a formula from the *Ephesian letters*, which we have noted as a list of names of metallurgical daimons (see chapter five). The mage claims to possess membership among their mystic initiates: 'I have been initiated, and I went down into the underground chamber of the Dactyls, and I saw the other things down below, virgin, bitch, and all the rest.' It is the power of the Dactyloi (see chapter five) that grant the mage his magical powers: in this case, to avert punishment and death.[112]

Both lists feature the 'virgin' and the 'key', which are well-known in magical texts to refer to a special class of incantations, called 'pudenda key' spells, which grant men power over the opening and closing of a woman's womb. PGM XXXVI.283-294 is explicitly entitled 'Pudenda key spell' and instructs the man to rub his genitals with a magical potion while reciting 'I say to you, womb of NN, open and receive the seed of NN... womb, remember me for all the time of my life.' The mage guarantees that 'in this way, have intercourse with the woman you wish, and she will love you alone and by no one will she ever be laid, just by you alone.'

These three additional examples help elucidate the alchemist Claudianus' incantation in PGM VII.862-918. In all four spells, the mage expresses the desire to control female sexuality and reproduction. Selene, Mene, and Hekate-Ereschigal serve as

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[112] Betz has identified this as a liturgical fragment from the mystery cult of the Idaean Dactyloi. See Hans Dieter Betz, 'Fragments from a Catabasis Ritual in a Greek Magical Papyrus', *History of Religions* 19, no. 4 (May 1, 1980): 287–295.

access points to divine power over fertility and mortality, their divinity rendered derivative of the transcendent male divine. The magic rites reference underground chambers, graves dug in the earth, and dark nights—curiously womb-like places of death and burial. The entrance of the Dactyloi help us understand the alchemist's goals: as the daimons most involved in furnace crafts and most aggressive towards the maternal (see chapter five), the Dactyloi make for excellent companions in the coercion of women.

It is interesting, then, that the prayer to Mene lists both 'a coercive sound' and 'a coercive emanation from perfection' as the ultimate components of the magical soundscape. There is a distinct character of frenzy in this list of sounds: first, silence and popping; then escalation to animal sounds and winds; and finally, sounds so loud that they can produce wind and coerce. The ritualist's prayer performs a crescendo, which seems to amplify his message to the goddess—a testimony of his magical prowess. This frenzy is reminiscent of the daimons' obstetrical dances discussed in chapter five.

The metallurgical mages' relationships with goddesses are prone to explicit violence. In PGM Xia.1-40, the mage places a Typhon (i.e. serpentine) skull under his left foot, and calls on Eileithyia. Once the goddess makes her appearance, the mage traps her crone form 'for domestic service'. The incantation promises the 'after that it will be impossible for the old woman to leave you.' Most importantly, the goddess will be required to give the magic practitioner all her knowledge (*gnosis*): 'Indeed she will tell you everything.' If he wishes to release the goddess, he throws her symbolic objects into a bonfire, 'and with a shriek the old woman will flee without a trace.' We may find it extraordinary that a mage would dare enslave a goddess of midwifery, but this ritual act fits within the general themes of reproductive contestation and conquest found in the PGM. The use of a goddess to achieve knowledge or *gnosis* emphasises that the spell's gnosticising character is explicitly gendered; moreover, his use of the flame confirms that references to craftsmanship grant the mage his magical potency over even the most eminent of birth goddesses.

PGM VIII.1-63 and the role of workshops in manufacturing rape

Here we meet the metallurgical daimons once again, but in a new sort of collaboration. This incantation is entitled 'Binding love spell of Astrapsoukos', who

has been identified as a Persian (i.e. Zoroastrian) mage.[113] The title is rather misleading, however, as the material is solidly Ptolemaic in character, and makes no mention of binding a woman's love. Instead, the mage promises that the incantation will help any 'workshop business'. He begins by invoking the alchemical god: 'Come to me, lord Hermes, as foetuses do to the wombs of women.' The metallurgical knowledge sought from the alchemical god is thus construed as a kind of homoerotic impregnation. The mage then asks the god for 'sustenance, victory, prosperity' and social favours—but most of all, the mage asks Hermes 'the lord of the chthonic daimons' to 'let them give me gold and silver and every sustenance which will never fail... Let them give me favour and victory and business and prosperity.' References to the chthonic daimons' gifts of gold and silver clarifies that these divine characters are our familiar dancing metallurgists. The magical instructions then guide the client to make an apotropaic amulet to be placed 'in the middle of the workshop'—it seems that this incantation is designed for the metal worker's workshop.

But what does all this have to do with the incantation's title, a 'Binding love spell'? We can look for further evidence in other formulas. PGM IV.94-153 details the furnace crafts that could be involved in a sexual domination charm: 'Every flaming, every cooking, every heating, every steaming, and every sweating that you [masc.] will cause in this flaming stove, you will cause in the heart, in the liver, in the area of the navel, and in the belly' of the desired woman. The fire craft of man, therefore, grants him direct access to raping and impregnating women.

The theme of rape should be read, at least in part, as craft-related metaphor, as the binding of metal alloys was often described as a kind of sexual assault in which the dominant male metal forced the submissive female metal into forming a chemical compound; this metaphor draws parallels between chemistry and forced impregnation

[113] Betz, PGM, 145.

where the dominant man forces a woman to form an infant that is a blending between both humans' attributes.[114]

However, we must not assume that the spells for rape were exclusively allegorical. Some of these spells delve into far too much detail for this to be the case. In PGM IV.296-466, the mage takes clay from a potter's wheel and makes two figurines: a man and a woman. The male form is to represent Ares, the god of war, 'holding a sword in his left hand and threatening to plunge it into the right side of her neck.' The female figurine is formed in a captive, submissive posture, 'with her arms behind her back and down on her knees' like a slave. The mage then ties magical materials to the figurines (repurposing a midwife's *periammata* magic to violent ends, as we saw with Herakles Dactyloi in chapter five). He plunges thirteen copper needles into the figurine's body, beginning with the brain and ears (a woman's intellect, aurality, and wisdom), and ending with the pudenda and feet (a woman's sexuality and freedom of movement). The mage, in other words, thrusts metal through the woman's vulvar vocality and agency. Finally, the figurine is placed beside the grave 'of one who has died untimely or violently'.

The mage then begins his vocal performance: he calls the names of daimons and gods 'at whose sound the earth opens... the name at whose sound rivers and rocks burst asunder'. He then commands these divine powers to 'drag her, NN, by the hair, by her heart, by her soul, to me, NN. Do this, bind her for all the time of my life and help force her, NN, to be serviceable to me... and let her, NN, carrying out her own sex acts with me, NN, for all eternity.'

This incantation is not allegorical—it is an actual metallurgical rite of sexual domination. In the mage's belief, the power to create alloys was directly parallel to the power to coercively impregnate. At times, this image was used to engender patriarchal power into the chemical processes of metallurgy; but at others, the image

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114 Lawrence M. Principe, *The Secrets of Alchemy* (Chicago: University of Chicago Press, 2012), 122.

was employed in rituals serving actual male clients who were frustrated in their efforts to rape a particular woman, and who subsequently turned to a metallurgical magician for assistance and validation. Within a culture saturated with metallurgical ideology, it would have seemed logical to consult an alloy specialist to acquire sexual and reproductive powers. The references to the potter's wheel, forged weaponry, and copper needles yet again place the ritual scene in the craftsman's workshop: it seems that would-be rapists visited the mage in his own workshop.

As the incantation in PGM IV.296-466 draws to a close, we find a startling ritual enactment of the art-nature debate: the mage is aware that he is trespassing on divine prerogatives, and fearfully asks Helios to 'be not angry at my potent chants, for you yourself arranged these things among mankind for them to learn about the threads of the Moirai.' This reference to the sister Fates emphasises the mage's ultimate goal: to master their control of birth, longevity, and death was to learn the workings of mortality and reproduction, and thus acquire the power to control the natural rhythms of the lifecycle and, by extension, nature herself.[115]

But it is not the Fates who threaten the mage. He expresses fear of Helios, god of the sun. To placate the god, the mage recites his paternal and pyrotechnical characteristics, calling him 'forefather, scion of the world, self-gendered [i.e. self-begotten], fire-bringer, aglow like gold, shining on mortals, master of the world, daimon of restless fire, unfailing, with gold disk, sending earth pure light in beams.'[116] In this recitation, the mage bargains with the god by making it explicit that they both share the same core characteristics and aims: both god and craftsman seek

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[115] Clotho, Lachesis, and Atropos were the spinner, measurer, and cutter of the thread of life. As the determiners of fate, they preside over birth and death. They are associated with the caves of Mount Dicte, where Zeus was born. See, for example, Hesiod *Theogony* 217ff; Pausanias 10.24.4 and 8.21.2; Ovid *Metamorphoses* 8.454.

[116] 'Self-begotten' is a technical theogonic term within the gnostic scriptures, indicating the second tier of the divine identity. See analysis of NHC below.

male control over reproduction (i.e. the ability to self-gender), and both wield fire and possess gold purified from material dross. The god, then, represents the very transcendence that the metallurgist so desires to attain.

The metallurgical nature of the rape spell reaches its most emphatic form in PGM IV.1496-1595, where the mage uses the power of Adonai, the Monad, 'self-generating, everlasting god' to 'burn the brain of her... Inflame her and turn her guts inside out, suck out her blood drop by drop.' In PGM XII.376-96, the mage declares: 'Let her, NN whom NN bore, lie awake until she consents... let her lie awake through the whole night and day, until she dies.' Both lethal acts—sleep deprivation and incineration—deny women access to the reproductive symbolisms of death: one woman cannot attain the corpse-like state of sleep, and thus dies an unnatural death; another woman is ritually incinerated so that she, like the witches of Mesopotamia, is denied a natural grave. Fecund femininities, therefore, have been denied their natural mortality by the very patriarchal powers who seek immortality. The transcendent god, whether called Helios, Agathos Daimon, Adonai/Yahweh, or the platonic Monad, is credited as the divine author of this destruction.

PGM I.42-195 and the procedures for acquiring an assistant daimon

In chapter two, we briefly encountered a PGM incantation that re-enacted the oracular scenes of Rhea's birthgiving in the realm of the dyad. We can now understand more deeply the significance of the mage participating in the Rhea's birthing place: the incantation title of PGM I.42-195 states that his goal is to attract the assistance of a dancing daimon! During the ritual preparation, the mage picks up the bird's *omphalos* and carves an *ouroboros* on its surface, its serpentine form surrounding an image of Helios-Horus and various celestial objects. The daimon then appears before the mage, bearing silver and gold, and bringing with him powerful flames.

This metallurgical generosity has a decisively gnostic character, for the daimon answers truthfully any question the mage asks, imparting on him divine knowledge—this knowledge is so sacred that it transcends sound: 'he will tell you in silence... [and no one will] ever hear the sound of his speaking'. The primary knowledge offered by the daimon is medical: 'he will tell you about the illness of a man... And he will also give you both wild herbs and the power to cure, and you will be worshiped as a god.'

The mage is instructed to share this information only with his legitimate son, thus preserving this techno-medical *gnosis* within the patriarchal line.

On a practical level, the PGM contain many instructions for making medical apotropaia and cures for diverse medical conditions, including migraine, fever, coughs, dog bites, stings, bleeding, and eye disease. Following the obstetrical feats of Herakles Dactyloi, there are also instructions for the treatment of gynaecological concerns: the ascent of a prolapsed uterus, pregnancy tests, and contraceptives.[117] There is also a curious childbearing spell with strong Christian elements, which urges the baby to 'Come out of your tomb'.[118] Some of these magical treatments are cited as the work of women, including a Syrian woman and a woman named Philinna, who is from Thessaly, a geographical region stereotyped for powerful and menacing female witchcraft.[119]

The mages seem to have incorporated midwifery ritual into their magic—in PGM IV.26-51, the mage performs a ritual over two bricks at sunrise (the time of the rebirth of the sun disk in Egyptian mythology, see Appendix C), which culminates in the mage drinking blood and raw egg fluid before baptising himself in the Nile river. Blood and egg fluid strongly recall human birth, and the image of placing two bricks

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[117] Prolapse: PGM VII.260-271; pregnancy tests: PDM xiv.959-960; contraceptives: PGM XXIIa.11-14 (using magnetic stone) and PGM XXVI.320-332 (using herbal recipe and periammata depicting Hermes).

[118] PGM CXXIIIa 48-50: 'Come out of your tomb, Christ is calling you.' While this could very well be a spell urging a newborn into the light of day, it may also be a spell for spiritual rebirth and elevation beyond the body.

[119] Oliver Phillips, 'The Witches' Thessaly', in Paul Allan Mirecki and Marvin W. Meyer, eds., *Magic and Ritual in the Ancient World*, Religions in the Graeco-Roman World, v. 141 (Leiden: Brill, 2002), 379. Thessalian women are called *pharmake* in Greek sources, emphasising their role as magical healers. See also Bonner, 1.

by the riverbank is startlingly reminiscent of the Levantine myths we encountered in chapter three.[120]

PGM VII.593-619: distinguishing divine silence from enforced silence

Across the PGM, we find two definitions of 'voice' and two definitions of 'silence', separated by oppositional gender associations.

1) Female voice and silence: In PGM VII.593-619, we find an oddly mixed incantation entitled 'Fetching charm for an unmanageable woman.' We find the mage copying standard procedures for a rape charm, asking the gods to 'fetch her for me, her inflamed with passion, submissive.' However, the female victim is portrayed as vocally unruly, speaking ungodly and blasphemous statements about the divine, including 'IAO does not have ribs' and 'IAEO was not entrusted with the ark.' The mage ensures the god that 'I am not the one who says such things, master, but she the godless NN. Therefore fetch her for me.' The mage, in other words, uses the woman's feckless speech to justify his use of divine power to sexually access her. At the end of the incantation, the mage gives instruction for the divinatory principles for a consecrated flame, believing that he can tell the woman's whereabouts by the lamp's flickering patterns. This combination of fire and submission is replicated in PGM VII.940-968, where the mage addresses Osiris as 'you fire-bright spirit... you daimon', asking for aide to 'silence, subordinate, enslave' any human adversary. (Note that the phase 'silence, subordinate, enslave' recurs across many incantations.) The metallurgical nature of this quest is elucidated in PGM VII.167-186, where the mage instructs how 'To make bronzeware look like it's made of gold' as well as 'To keep an old woman from either chattering or drinking too much'.[121] These recipes stand along procedures 'To be able to copulate a lot' and 'To get an erection when you want', along with manipulating the temperature of food and the operation of the

[120] The imagery of two bricks also occurs in PGM XII.14-95.

[121] The gold counterfeit is a clear reference to proto-alchemy. Betz, PGM, 119.

kitchen fires. All of these procedures are applied in the context of feasting, which puts the mage in suitably luxurious company.[122] Although this scene may be pederastic, it likely also references sexual access to women (possibly serving women and slaves), which is aligned with pyrotechnical and proto-alchemical prowess. In sum, the PGM portray female vocality as troublesome, and male mastery as the power to silence via pyrotechnical means. Acts of silencing have strongly sexual connotations, aligning closely with themes and procedures found in rape charms. These soundscapes align well with PGM IV.296-466, where the mage thrusts copper needles through a woman's vulvar vocality in order to rape her.

2) Male voice and silence: The PGM abound with reference to sacred vocalities and silences. In all cases, these soundscapes are associated with male agents within the divine or mortal realm. In PGM IV.1716-1870, the mage engraves magical imagery on a magnetic stone, invoking the transcendent god he names IAO and ADONAIE—calling him 'invisible, bodiless, generator of frenzy', 'creator of silence, through whom the light and to whom the light travels', 'first-shining'. The incantation ends up being a rape charm, using the power of the magnet to act like a sword, which 'bends her [the female victim] to your will'. Here, the Hebrew god Iao-Yahweh has been associated with the dancing daimons' frenzy, and ascribed pyrotechnical powers and creative (that is, reproductive) silence. This divine silence is radically different from the submissive silences we encountered before. PGM III.187-262 elaborates on this theme, depicting a god, again called ADONAI, the 'Lord of sunrise, risen fiery'. The mage urges:

> Keep silent, everyone, the voice that's in
> Your mouths; O circling birds of air, keep quiet;
> ...Snakes in your dens, attend
> The cry and be afraid. May you in awe
> Keep silence, daimons, 'mid the shades. The world

[122] *ibid.*, 120.

Itself's astonished by the secret words...
All-mighty is the god...
Lord of the world, SABAOTH, who veil sunset
From dawn...
You I adjure, [by] god's seal, at whom all deathless
Gods of Olympus quake and daimons who
Stand forth preeminent, for whom the sea
Is ordered to be silent when it hears.

Our dancing metallurgists and the gods of Hellenic polytheism are brought within a hierarchy, below the One God. The verses recall the secrets of mystery cults, where initiates are sworn to secrecy. The reproductive eminence of the One God is enforced by his ability to silence even the womb-like sea. In PGM IV.475-829, the mage performs a variety of vocal displays (including glossolalia, popping, hissing). He then achieves silence before the fiery One God.[123] In this silent state, the mage sees 'the doors open and the world of the gods which is within the doors, so that from the pleasure and joy of the sight your spirit runs ahead and ascends' up through the celestial realms. In PGM I.42-195, the mage receives divine revelation from an angel, who speaks directly to his mind 'in silence'.

Silence and vocal performances often occur together within magic rituals. In PGM IV.475-829, the mage makes 'a long bellowing sound, straining your belly, that you may excite the five senses'. The result of this effort is a process of physical death and spiritual rebirth: 'while being born again, I am passing away; while growing and having grown, I am dying; while being born from a life-generating birth, I am passing on, released to death.' After this declaration, the mage receives silent revelation from

[123] This is enacted in a prayer spoken by the mage: 'Silence! Silence! Silence! Symbol of the living, incorruptible god! Guard me, Silence, NECHTHEIR THANMELOU! [an unintelligible divine name]'. See discussion above for the long list of pyrotechnic names for the One God.

the divine, and keeps a long period of silent isolation, 'prophesying in ecstasy' when no other people are near.

These incantations clearly depict man's rebirth through silence, into silence. The absence of sound is representative of the immateriality of the One God and, by extension, the incorporeality of the mage's mind or intellect. Before his ascent, the mage performs a wide variety of vocalisations that culminate in silent revelations. We are beginning to receive a reproductive picture of male rebirth in which masculine intellect achieves silent knowledge of the transcendent divine. These themes will be greatly elaborated in the CHA and NHC.

Summary: Major themes in the Greek Magical Papyri

The magical incantations and procedures outlined in the PGM present a theory of magic that is highly metallurgical. References to smelt, precious metals, lapidary skills, pyrotechnics, and pottery predominate. A common invocation seeks the assistance of one of the dancing metallurgical daimons we encountered in chapter five. The mage promulgates a particular view of the divine: while he invokes various daimons, goddesses, and gods, he conjures them as emanations or servants of the One God, the master of all. This god is frequently called Helios, the self-gendering sun, and described as light or illumination. When Helios shares *gnosis* with the mage or suppliant, the knowledge is imparted in silence. The appearance of Helios to the mage is even described as a homoerotic impregnation.

The spells frequently take place in a workshop-like environment, employing the tools and skills of a furnace craftsman. The crafting of metal and ceramic objects coincides with vocal craft: glossolalia, invocations, and vivid sonic imagery. A memorable sound performance is the invocation of divine sounds, forming a crescendo reaching the level of ecstatic violence we encountered in the daimons' dancing. One of the most common uses of the workshop magic is the pudenda key or rape spells that give men unlimited and exclusive access to a woman. I have suggested that these spells function both as a practical technology for sexual domination and as metallurgical allegory—the two applications complement each other. The craftsman-mage builds an effigy of a captive woman compelled down on her knees, thrusting metal needles through her vulvar vocality—an act eerily reminiscent of the *ašipu*'s metallurgical execution of Mesopotamian women accused of witchcraft.

Overall, the spells included in the PGM serve to ensure the status, wealth, and success of male clients. The texts assume that it is natural for men to aspire to absolute rule, mastery, sexual domination, potency, and immortality. The services of the mage, then, are clearly understood to support male hegemony, both in terms of class stratification and wealth accumulation, and in terms of sexual and reproductive dominance over and coercion of women. Female materiality and male ascendancy are each associated with soundscapes of silence and vocality—the former is blasphemous, the latter ecstatic. In the analyses of the CHA and NHC below, we will see an even more rigorous sonic-theoretical treatment of the themes of metallurgy, rape, fatherhood, fire, and light.

B. The Graeco-Egyptian magical amulets

A majority of the PGM contain instructions for the manufacture of magical objects, along with rites for their consecration. In the context of healing and apotropaia, these often involved a specific kind of magical object called a *periammata* (see chapter five). Bonner notes that *periammata* were associated with local midwifery rituals, involving the tying and untying of knots: while 'pendant amulets became exceedingly numerous... they never entirely superseded the old magical knots.'[124] These two forms of magic (common magic often performed by women, and learned magic exclusively performed by men) existed side-by-side in different social strata of Hellenic Egyptian society.[125] (See Illustrations: Images 8 and 9[126])

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[124] Bonner, 3.

[125] Much of the information we have about witches in Ancient Greek literature is highly questionable: a limited number of stereotypes and exaggerations exist, often with a strongly racist tone (such as the frequent mentioning of Thessalian witches having immense power over nature, a gesture towards that region's relative barbarity). Witches were not conceived to be part of civilisation itself: the Roman rhetorician Claudius Aelianus even tells us that nature herself is a witch (*pharmakeis*). For more discussion, see Derek Collins, *Magic in the Ancient Greek World*, Blackwell Ancient Religions (Malden, MA: Blackwell Pub, 2008), 31ff. Due to

Despite their re-purposing into the male mage's practice, periammata continued to be associated with women. Pliny the Elder comments that, although women had taken up the practice of wearing Egyptian-style amulets earlier, 'Now, indeed, men also are beginning to wear on their fingers Harpocrates and figures of Egyptian deities.'[127] The Church Father Gregory of Nazianzus describes these periammata in connection to female mouths and voices:

> *Periammata*: the bits of coloured thread round wrists, arms, and necks; and moon-shaped plates of gold, silver, or cheaper material, which foolish old women fasten upon infants. *Epasmata*: the chants sung over children by the same old women, muttering to avert evil, and at the same time licking the babes' foreheads with their tongues and spitting, blowing to each side.[128]

The grandmothers' wet orality is reminiscent of the witches' spittle in Mesopotamian incantations (see chapter four)—here, too, spittle is a grotesque depiction of female reproductive power. While Gregory of Nazanzius may wish us to believe that only old women (perhaps the same old women as Makarios Chrisokephalos' 'prattlers and storytellers' who relate tales of the dyad) practice such magic, the PGM demonstrates that Hellenic and Roman mages had fully appropriated the practice into standard

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the paucity of sources on female witchcraft in antiquity, Collins deals almost exclusively with topics related to learned magic.

[126] Due to copyright restrictions, I am unable to reproduce the images in Bonner's collection. The two illustrations provided from the Metropolitan Museum of Art (New York) collection feature very similar amulets to those in Bonner's collection—they have the same provenance, features, construction, and application.

[127] Pliny the Elder, *Natural History* 33.41. Bonner, 4.

[128] Jacques-Paul Migne, *Patrologia Graeca*, vol. 36 (Parisiorum: Migne, 1857), 907. Bonner, 4.

magical practice.[129] Although amulets were predominantly manufactured for female clients, other types of magical objects (lamella, papyrus inscriptions) catered to a wide audience of both genders. In both Mesopotamia and the Hellenic world, the difference between women's magic and men's magic appears to be one of class: lower classes relied on female folk practitioners and healers, whereas the upper classes were served by learned mages and physicians.

Amulets, even those poorly manufactured, were expensive items that took many hours to craft: Bonner comments that '[t]he expense of making the more elaborate amulets shows clearly how important a part magic had come to play in the lives of the wealthier classes.'[130] Amulets represent not only the sale of the objects themselves, but their professional ritual preparation in the form of sacrifices, libations, censing, recitations, and various rites of purification.[131] The stones may now be cold and silent, but as we have seen in the PGM, many of these magical performances involved elaborate vocal and pyrotechnical displays. To ancient women and men, these objects resonated with sound, heat, and light.

It is important to note that most of the PGM instructions involve making lamellas, small metal tablets inscribed with magical symbols and letters. However, due to corrosion, few of these have survived. Bonner's collection of amulets in GEM contains, with only a few exceptions, *periammata* made of stone. The stones amulets are etched with an array of images, symbols, names, and inscriptions—here, however, I will limit myself to the set connected to the Chnoubis character.

We have already encountered texts involving Chnoubis in chapter two. PGM III.494-611 (which uses twelve pairings of tree and stone) invokes Helios as the pregnant

[129] We can understand Gregory of Nazanzius' disdain, then, for the amulets' reference to daimonic powers led to them being banned by Christian authorities. (Blakely, 140) These bans on magical texts and objects severely impacted their survival into the present day.

[130] Bonner, 13.

[131] *ibid.*, 14.

Father, asking for illuminating knowledge. Chnoubis is found among the sacred names recited by the mage. In his most common form, Chnoubis appears as a rearing cobra with a lion's head. Bonner and Betz agree that the Chnoubis is a syncretic amalgamation of the attributes of Khnum (the Egyptian potter god we encountered in the birth room in chapter three), Kneph/Kmeph (the Egyptian primordial snake, depicted wrapping itself around an egg), and Agathos Daimon (who is usually depicted holding a staff with ascending coiled snake).[132] All three of these characters are encountered in the PGM, often in the same spells.

In PGM III.424-466, Chnoubis appears alongside Moses, IABE (Samaritan Yahweh), IAO, and Helios-Mithras in an invocation for acquiring foreknowledge. In PGM IV.2373-2440, he features in a spell for workshop success, invoked along with Agathos Daimon and Hermes. The mage crafts an anthropomorphic figurine holding a staff with snake coiled around it (probably Agathos Daimon or his human representative). Fascinatingly, the male figure is to stand on 'a sphere that has a coiled snake' (the form of Kneph himself)—this forms a pre-Chnoubis amalgamation of Kneph and Agathos Daimon.

The Chnoubis is implicated in a range of magical requests: PGM VII.1017-26 and XXXVI.211-230 use the name of the Chnoubis and Agathos Daimon to ensure authority, power, success, and victory, and to avoid any reversal of fate or downfall.

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[132] Bonner, 24; Betz, PGM, 333-334. Howard M. Jackson instead proposes that Chnoubis was the result of Khnum being elided with Yaldabaoth, the Gnostic demiurge form of Yahweh. However, his thesis does not hold on closer examination of the PGM texts, as each component of the lion-headed serpent is found in Graeco-Egyptian lore independent of Yahweh. It also does not explain the resonances betwen Chnoubis and the composite creature in Plato's *Republic* (see below). It seems far more probable that Yaldabaoth was the later product of the gnostic elision of Yahweh with the existing magical form of Chnoubis, which is in turn based on Plato. For Jackson's hypothesis, see *The Lion Becomes Man: The Gnostic Leontomorphic Creator and the Platonic Tradition*, Dissertation Series / Society of Biblical Literature 81 (Atlanta, Ga: Scholars Press, 1985), 74-108.

PGM IV.2006-2125 features Chnoubis, Agathos Daimon, Kneph, and Khnum together in a spell of attraction. The mage uses their names to invoke one of our familiar chthonic daimons to do his bidding. On the amulet, the mage inscribes the image of a fire-breathing lion 'holding in his right hand a staff, and on it let there be a serpent. And around all his left hand let an asp be entwined.' He adds Triple Hekate, her six arms holding torches. In a dramatic metallurgical flourish, the mage mixes animal blood with goldsmith's soot to make the ink for his inscription.

These convergences also appear in the GEM, where there are multiple levels of symbolism attached to Chnoubis.[133] At the most basic level is the rearing cobra: this snake species was considered a superior serpentine form, not only because of the Egyptian uraeus that symbolised the pharaoh's power, but also because the cobra elevates its head and is therefore seen as a more rational creature than the snakes that crawl on mere bellies.[134] Through Chnoubis' associations with Agathos Daimon, he is also connected to serpents depicted in vertical positions, ascending head-first up a staff, caduceus (the familiar staff of medicine), or a human/anthropomorphic divine body. In the classic Chnoubis form, the cobra acquires a lion's head. In more elaborate forms, the lion portion may extend to the torso, and it may be dressed in tunics or armour, holding daggers or swords. Occasionally, the lion's head is exchanged for that of a male human. Because the ground-crawling snake represents base materiality, all of these rearing or ascending serpentine forms symbolise the spiritual, political, or technological quest to achieve a higher state of being. In the mage's shorthand in both the PGM and GEM, the Chnoubis can be symbolised by a few etches depicting snakes ascending vertically, or one vertical snake surrounded by the lesser forms of horizontal snakes (I will hereafter refer to these as the 'Chnoubis

[133] I have selected approximately thirty-five of Bonner's collection for analysis.

[134] For the uraeus, see Pinch, *Handbook*, 95, 129, 186.

symbol'). Because of this continuity, I am including all variations of the rearing serpent in my analysis of the Chnoubis form.[135]

Despite strong roots in Egyptian religion, the Chnoubis form is essentially Hellenic. A Chnoubis-like being is crafted in Plato's *Republic*, where Socrates leads a dialogue on the human soul.[136] Socrates asks his companion to imagine a craftsman at work, creating three sculptures: first, a large many-headed serpent (hydra); second, a medium-sized lion; and third, a small human. He then instructs the imaginary craftsman to combine all three images into a composite: the base of a serpent, the body of a lion, and the head of a human. He then constructs a parable, in which the serpent represents appetitive desires, the lion, strength and courage, and the human, rationality. In order to preserve justice, the human must maximise his higher capacities, controlling that which is wild by fostering courage and maintaining the mastery of the rational intellect; in doing so, the human soul can reach a more perfect state. Plato's imagery aligns directly with our observations of the PGM and GEM: the Chnoubis form, which sometimes occurs with human parts, elevates its head above its lower parts, thus bringing about amelioration of man's condition through his intellect. The hybrid itself is the result of the craftsman's extraordinary ingenuity and skill, for

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[135] Two examples from Bonner's collection confirm this equation. In GEM#7, the amulet's face depicts cobras above images of Osiris and Anubis, the gods of rebirth and death. The scene is surrounded with an ouroboros. On the reverse, we find Khnum along with solar-deity inscriptions with Jewish inflections. Again in GEM#24, we find an erect cobra, drawn with more detail similar to the standard Chnoubis form, along with the name IAO. On the reverse, we find Anubis and Isis, deities of death and fertility. The associations between furnace creators Yahweh and Khnum, and between cyclical regeneration deities Isis, Osiris, and Anubis demonstrates a similar application of the simple and more elaborate cobras. The Chnoubis types we will analyse below maintain these associations.

[136] Plato, *Republic* 9.588a-589b. This text was popular with gnostics and hermetics, and is featured in a Coptic translation in the NHC.

even Socrates' interlocutor remarks that he 'suppose[s] marvellous powers in the artist!'

Socrates' imaginary creation elucidates the allegory suggested by the GEM's apparent hierarchy of serpentine forms. The belly-crawler represents the human being trapped in ignorant materiality, whereas the head-rearing forms stand for increasingly elevated states of enlightenment.

The Chnoubis-type amulets

The description and technical analysis of iconography will always be difficult when it involves hundreds of exempla from a practical tradition that was never entirely systematised. However, I have selected only those amulets directly relevant to our analysis, and have grouped them so that their meanings and references are more easily understood. I will analyse each group in turn.

Group 1: Kourotrophia, apotropaia, and success

> GEM#30-32: Isis and her infant son Horus appear along with the kourotrophic god Bes and astral signs. GEM#33 replicates this design, but replaces Bes with cobras.
>
> GEM#46: Combines symbols for apotropaia and secret mysteries. Harpocrates (Isis' child Horus holding his finger over his lips, designating silence and secretiveness) appears alongside a cobra rearing to support ears of grain. Above Harpocrates are three scarabs. On the reverse, we find Thoth and IAO.[137]
>
> GEM#39: Anubis with caduceus on his shoulder (i.e. two snakes entwined around his staff), standing above an *ouroboros*. On the reverse, we find the

[137] In chapter two, we noted Thoth as a metallurgical deity, the creator of hieroglyphs responsible for the magic of literacy. Here the mage may be equating Thoth with the Hebrew metallurgical god.

gnostic term ABRASAX, which both represents 365 days in the solar calendar and the totality of the ultimate divine.[138]

GEM#62: Priapus is depicted with his body wrapped by two snakes, very much like a caduceus but the snakes' heads are rearing like cobras. Priapus is exposing his genitals and holding a cornucopia. The inscription reads 'Every day I have plenty.'

All forms of magical protection in this group are associated closely with reproduction, both terrestrial and maternal. In chapter five, we noted the role of Bes as a metallurgical daimon brandishing knives in the birthing room; he also claims the role of chief kourotroph. It is unsurprising, then, that we see him depicted alongside Isis and her baby. For our purposes, it is most significant that Bes' iconography is replaced by cobras, suggesting a relationship between the dwarfish god and Chnoubis. Isis' son is shown in intimate contact with cobras, keeping secrets somehow associated with terrestrial fertility. Harpocrates, however, does not reference grain in isolation—his secrets are decidedly metallurgical as well. The inclusion of Thoth (who was equated with Hellenic Hermes) and IAO draws connections with the syncretic Hermetic tradition, which understood divine enlightenment (via *gnosis* and elevation to a divine state) to come directly from metallurgical deities. The prominent inclusion of scarabs in GEM#46 reminds us of Khepri's presence as a symbol of solar rebirth: Harpocrates' metallurgical secrets appear to also concern birth and rebirth.

We have four kinds of apotropaia here: the protection of mother and child, of secrets regarding fertility, of health, and of land and wealth. Horus and Bes (son and his protector) dominate the first two types, whereas forms of the caduceus dominate the latter. We have seen caduceus-like forms in the PGM spells for workshop success and for attracting wealth. Both of these spells included Chnoubis in their incantation formulae. In GEM#39, the standard caduceus fulfils an expected role regarding

[138] Marjanen and Luomanen, 15-16.

health, but this symbol's elaboration on the body of Priapus in GEM#62 is fascinating.

Blakely identifies Priapus as a Dactyl, and so we can consider him as part of our familiar clan of metallurgists.[139] He is also a god associated with the protection of terrestrial fertility and land holdings. As in GEM#62, he is depicted as an ithyphallic figure in all instances, his erection so large he can rest a basket full of fruits on it. This depiction links his virility with his claim over the domain of agricultural fertility. Priapus, most significantly, is a guardian of land ownership, who will anally rape any trespassers violently (probably a performance of emasculating rival male authority).[140] His phallus provides a violent form of protection for the patriarchal system of ownership. His status as a Dactyl, then, helps us connect metallurgy with themes of fertility, the gathering of fruits or wealth, and wealthy landowners; as with Harpocrates' secret of grain, terrestrial fertility has been recast in a metallurgical frame. In GEM#62, Priapus himself becomes the staff of the caduceus, his ithyphallic form wrapped in the serpentine coils. Here, as with the Chnoubis, the serpents are travelling upwards. Unlike Anubis' caduceus, the snakes ascending Priapus are also cobras—an added reference to ascendancy.

Group 2: Medical and uterine amulets, Type I

> GEM#99: An elaborate Chnoubis, dressed in a tunic, holding a dagger and ears of grain. Obverse also contains an inscription normally found on uterine amulets. On the reverse, symbol for Chnoubis and the name written as an inscription. The same design is featured in GEM#100, except the ears of grain resemble lit torches. The same design appears again in GEM#101, except the Chnoubis holds sword instead of dagger.
> GEM#126: A reaper cuts three stalks of grain next to a tree. An ibis (symbol of Thoth) perches overhead, and a cobra is erect in its coils at the base of the

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[139] Blakely, 125-126.

[140] *ibid.,* 126.

tree. On the reverse we find a uterus symbol and key, with Chnoubis and astral signs.

GEM#141: Harpocrates holds the uterine key, surrounded by an *ouroboros*. On the reverse, a Chnoubis symbol.

GEM#140: An *ouroboros* encloses a uterine symbol, along with Chnoubis, Anubis, Isis, and Nephthys. The obverse is also etched with uterine incantation. On the reverse, we find another uterine symbol touched by a scarab, with the inscription: 'Be assuaged, womb, lest Typhon seize upon thee.'

GEM#130: An *ouroboros* encloses a uterine symbol, with Chnoubis, Bes, Anubis and Isis. On the reverse, we find 'Ororioruth', a protective name for uteruses.

GEM#129, 131, 132, 133, 134, 135, 136, 137, 139, 142, 147: An *ouroboros* encloses a uterine symbol. These amulets feature various deities, including Anubis, Bes, Osiris, and/or Chnoubis, along with symbols such as the caduceus. Scarabs ubiquitous.

In this group of amulets, we find the familiar characters of Harpocrates and Bes, and further elaborations on the themes of terrestrial and maternal fertility. For the first time, uteruses and stalks of grain appear on the same amulets (#99, #126). We also note the frequency of scarabs on the amulets, which are the symbol of the god Khepri, a counterpart of the sun god Ra: while Ra represents the aged sun approaching the horizon at dusk, Khepri is the nascent sun at dawn and therefore a potent symbol of rebirth.

GEM#126 and #141 correspond to the 'pudenda key'-type incantation we encountered in PGM XXXVI.283-294. Our knowledge of the mages' writings helps us to understand that these amulets express the male wish to control women's bodies and assure both exclusive sexual access and guaranteed paternity. But the inclusion of Harpocrates suggests an additional meaning: as keeper of the secrets of the mysteries, the child Horus clarifies that to possess the pudenda key is to possess secrets. What kind of secrets is Isis' son guarding? In chapter five, we examined the character of Herakles Dactylos, the famed gynaecologist and maker of uterine amulets. We have confirmed that Herakles was a metallurgical daimon connected to the Ephesian Letters and the mysteries of the cult of the Idaian Dactyloi. As we will see below (in

Group 3), Herakles appears on uterine amulets as the valiant lion-killer. It cannot be a coincidence that Harpocrates holds a key to a uterus, while Herakles represents the mystery cult of the Dactyloi and their investment in medical control of female reproduction. This information helps us guess whose mysteries Harpocrates is guarding: we can propose that on uterine amulets, Isis' son calls for silence regarding the metallurgists' authoritative claim to 'know the insides' of women—that is, to practice a superior form of gynaecological and obstetrical medicine. This relates back to the uses of the pudenda key spell in the PGM as a tool of rape: obstetrical amulets use imagery associated with rape incantations. We can see yet again that metallurgical obstetrics derives from the same patriarchal ideology as expressions of male sexual ownership.

Given the metallurgical daimons' presence, it makes sense that we find here the Chnoubis in his most elaborate form, fully dressed and armed with sword or dagger. Our knowledge of the dancing daimons makes us stop and wonder whether the dagger and sword is intended for battle or for the birthing room. Revisiting the Chnoubis character may help answer this question. As we have already noted, the Chnoubis is a hybrid creation, formed in part from the image of Khnum. In chapter three, we noted Khnum's claim to 'open the lips of the vagina' and 'to make firm the birth brick'; he also attends the birth of our little plated prince, making the new-born's limbs move. Khnum is a familiar figure, then: a god associated with furnace crafts who usurps the role of the midwife and claims the powers of the womb. It is often difficult to ascertain how much ancient Egyptian practice was retained into syncretic Hellenistic belief, but here the Chnoubis form appears to have inherited some of these earlier characteristics of Khnum: we are not surprised to find him in the company of dwarven Bes and other male-midwife characters. It is also within the expected set of images to find ears of grain in pyrotechnical form—fertility, once again, made fiery.

In GEM#126, we find Thoth again, who is symbolised by the ibis.[141] We first encountered Thoth in chapter two, where Plato's Socrates related to Phaedrus the story of Thoth's invention of hieroglyphic writing. Here we can begin to take stock of Thoth's role in Hellenic magical practice: his presence here is linked to a very long history within Egyptian religion. In Pharaonic times, Thoth is a god of wisdom and secret knowledge; and, as we might expect, he is a magician and a divine physician holding a staff on which an ascending serpent entwines.[142] His origins are telling: he was called the 'god without a mother', born of the lips (i.e. the utterance) of the sun god Ra.[143] At Heliopolis, Thoth was worshiped as the Lord of the Ogdoad, and credited as a self-generating deity—in a fascinating pyrotechnical display, the ibis Thoth produces the cosmic egg on an Island of Flame.[144] Geraldine Pinch notes that Thoth 'inscribed a person's fate on the bricks on which their mother gave birth', which had previously been the task of the midwife deity.[145] Thoth also takes on a kourotrophic role similar to that of Bes, protecting Isis and her infant son, Horus.[146] Thoth is a god of knowledge: he always retained the role of bookkeeper and recorder of history and fates; in later traditions, Thoth was believed to have 'written forty-two books containing all the knowledge needed by humanity. Some of this was occult knowledge to be revealed only to initiates who would not misuse the power it gave them.'[147] These themes of pyrotechnical reproduction, motherlessness, kourotrophia, and the possession of secret knowledge are now very familiar to us. The gnosticising syncretists of later antiquity chose well: in their hands, Thoth continued as scribe and author of hermetic and metallurgical secrets. Mages invoke his name throughout the

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[141] Pinch, *Handbook*, 209.

[142] *ibid.* See also Boyle, 171.

[143] Pinch, *Handbook*, 209.

[144] *ibid.*

[145] *ibid.*, 210.

[146] *ibid.*

[147] *ibid.*, 211.

PGM—in doing so, their magical, theurgic, theoretical, and experimental labours are clothed in centuries-old obstetrical authority.

Group 3: Uterine amulets, Type II

GEM#108: Herakles Dactyloi killing a lion. On the reverse, KKK and Chnoubis symbol.
GEM#109, 110: Herakles, KKK.
GEM#144: Uterus with an open mouth birthing the sun, flanked by rearing cobras. Inscription: 'Tantalus-viper, drink blood.'[148] On reverse, a fully-clad Dactyl (possibly Herakles) with thunderbolt overhead.
GEM#145: An *ouroboros* surrounds a naked woman on a birthing chair, her hair loosened. On the reverse, KKK, uterine symbol, and a scarab.
GEM#146: An *ouroboros* surrounds Herakles killing a lion. On reverse, a naked woman squatting in labour, her hair loosened. She is flanked by KKK and brandishes a ritual sword.

We have already noted Herakles Dactylos as a renowned fabricator of amulets, specifically those with application to gynaecology. His cult was associated with magnetite and located near its mines—magnets had no practical use in antiquity, but were widely used in magic for their remarkable (seemingly divine) effect on iron.[149] Antique sources pose that magnets had a soul or daimonic presence; they were used to 'counter [female] infertility, bleeding, haemorrhage, and cramps.'[150] Magnetite was inserted into the vagina to encourage conception (in crushed form, mixed with human

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[148] Tantalus was punished in the netherworld by being forced to stand in a pool of water, unable to drink it despite horrible thirst. The viper's bite creates immense thirst. This gem was therefore intended to dry out the uterus, which was believed to be infertile from excessive wetness—this belief followed mainstream contemporary medical theory. See Blakely, 142.
[149] Blakely, 414.
[150] *ibid.*, 142.

breast milk), for it was believed to attract male seed as it did metal.[151] (Note here that semen is construed as iron!) Magnets worn externally as amulets could also function as contraceptives (as in PGM XXIIa.11-14). They were also used by men to test their wives' fidelity, for magnets were believed to cast unfaithful wives out of bed.[152]

Surviving examples of these amulets explicitly feature the Dactyl fully clad in armour (GEM#144). Herakles is closely associated with the magical acronym KKK, especially in his role as lion-killer. The KKK acronym also appears with Chnoubis' symbol of three ascending snakes. The connection between Dactyls and Chnoubis is further emphasised by the flanking of the uterus by cobras and of the woman by KKK—it seems that Chnoubis and Dactyl forms can separately or simultaneously surround images of childbirth.

As we noted in chapter five, the metallurgical daimons' claim to the birthing room was the platform on which they built their medical authority. Here we find a similar direction of application: many of the symbols found on uterine amulets are also extended in application to other medical complaints, such as colic and other digestive pains.[153] It is important to note that the Chnoubis-type amulets often have an unusual shape, with both sides strongly convex.[154] My suspicion that this shape references bellies and pregnancy is partly confirmed by Galen's confirmation that the Chnoubis amulet is an effective aid for all ailments of the abdominal region.[155]

It is important to note that Herakles' (and, in some cases Bes') act of throttling the lion does not belong to the same set of references as the lion-headed Chnoubis. The former leonine form refers to the Levantine goddess (also adopted in Egypt) called the Mistress of Animals, a Tree-form goddess with whom the gods in the Herakles' circle

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[151] *ibid.*

[152] *ibid.*, 142-3.

[153] *ibid.*, 142-44.

[154] Bonner, 267.

[155] *ibid.*, 54.

fought continuously since the Bronze Age.[156] Two amulets outside Bonner's collection trace this connection: in one, a Bes-Herakles hybrid deity fights with the lion;[157] in the other, Bes takes on the symbolism of the Master of Animals (i.e. the rival to the goddess), subduing lions and caprids, with snakes extending horizontally from his hips.[158] These animals—the lion, caprid, and horizontal snake—were depicted as this particular goddess' companions since the Bronze Age.[159] For this reason, Bes is often shown aggressively grasping a subdued snake in one or both hands. We can be certain that this snake is a mere belly-crawler, not a uraeus or cobra.

To summarise: we can begin to recognise a limited set of semantic realms attached to the Chnoubis-type amulets and incantations. In the PGM, Chnoubis is invoked alongside the self-begotten pregnant Father, Moses, Hellenic Yahweh, and various solar deities—these forms strongly connect Chnoubis to syncretic metallurgical concepts of the divine. His own form—a blend of potter creator Khnum, ascending serpent Kneph, and hermetic Agathos Daimon—further emphasises his metallurgical prowess and his undeniable connection with eggs, reproduction, and divine procreative acts. In the mundane world of this life, Chnoubis aids mages in securing success for the craftsman's workshop, as well as achieving success, authority and wealth for male supplicants. It is significant that the mage invokes Chnoubis' name in order to acquire one of our metallurgical daimons as his intermediary. The furnace-crafting references are undeniable when we witness the mage invoke Chnoubis, Agathos Daimon, Khnum, and Kneph while mixing gold soot with blood to use as ink (see above, PGM IV.2006-2125).

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[156] These include Melqart (Phoenician) and Baal (Levantine)—these gods were equated with Herakles and Bes early on. See Blakely, 147. For conflict between gods and goddesses over the domains of reproduction in the Levant and Egypt, see Keel and Uehlinger.

[157] William Culican, 'The Iconography of Some Phoenician Seals and Seal Impressions', *Australian Journal of Biblical Archaeology* 1, no. 1 (1968): 70 (Plate III no. 4).

[158] Blakely, 149. Furtwängler 1900/1905 III: Taf. VII. no.21.

[159] Keel and Uehlinger (e.g. 47ff, 78, 114, 182).

In Bonner's amulets, we find Chnoubis appearing in groups of gems featuring Bes and Priapus—additional dactylic characters. The cobra's head supports grain as a symbol of terrestrial fertility, while Harpocrates grasps the pudenda key. Given our metallurgists' reputation for male-midwifery, it is unsurprising that the Chnoubis form occurs most often on uterine amulets for application to gynaecological problems and childbirth. Here we meet Thoth, a pyrotechnical creator very similar to Marduk's winged form. In the final group of amulets, we see explicit iconography of a Dactyl, standing in arms or throttling a lion as symbol of the goddess's claim to the domain of terrestrial fertility. The Chnoubis' occurrence alongside Osiris and the scarab Khepri emphasise rebirth in the afterlife. This conflation of birth and rebirth imagery demonstrates a strong focus on man's elevation or achievement in the divine realm—although born of woman, man achieves superior knowledge of reproduction (via his mastery of the furnace as artificial womb) and ascends to higher states of being through rebirth.

We can now see that metallurgical characters in PGM and GEM have accomplished familiar feats: they have claimed the ability to gestate and create, as pregnant fathers and pyrotechnic egg-layers; they have supplanted midwives as the primary knowers and healers of the birth room (and, by extension, the body in general); they have literally throttled any rival claims to the domain of fertility; and they have established routes of ascendency and rebirth. We have found, then, another example in which metallurgical ideology draws parallels between the material, epistemic, and divine realms: the ability to smelt ores grants metallurgical protagonists the authority over wisdom and knowledge, especially those regarding reproduction, midwifery, and creation. In doing so, they have modelled the omniscient divine on the knowing craftsman, and endowed him with pregnant, pyrotechnical prowess. While all of these ideas are heavily influenced by Egyptian religion, the conceptual foundation is essentially platonic and poses no conflict with mainstream Greek thought.

Identifying the ouroboros

We cannot help but notice that the Chnoubis-type amulets identified above frequently feature the *ouroboros* symbol. The meaning of this symbol is a long-outstanding problem in the field of alchemy studies. The primary challenge relates to the extreme longevity of the symbol, which remains remarkably visually stable across nearly five

millennia as a circular snake devouring its own tail. In Appendix C, I offer a full solution to the problem of the *ouroboros*, which I will very briefly summarise here. My purpose is twofold: first, to elucidate the meanings of this symbol in the PGM and GEM; and second, to use the *ouroboros* as an example of how ancient near eastern concepts of gold, fire, and light interact in the manufacture of metallurgical ideology.

The first usage of the *ouroboros* dates to dynastic Egypt, where it symbolised the resurrection and ascension of the pharaoh. The role of the *ouroboros* snake was to protect and guide the king on his path to unification with the brightness of the sun-god Ra. The image of the encircling serpent had been adapted from the *Mehen* board game, which has been dated to the Old Kingdom cult of Hathor and was widely played (for entertainment and for divination) by all strata of Egyptian society. The pharaoh's ascent and unification with Ra was explicitly described as a process of rebirth—the deity was understood to not only self-generate but to also give birth to the resurrected king himself. The pharaoh, then, becomes identified with the Egyptian god Khepri, who is the nascent form of the sun disk at dawn. Ancient Egyptian incantations depict the king's ascension as a pyrotechnical process, with the *Mehen* snake bursting forth with flames to rebirth the king. The pharaoh's rebirth granted him a genealogical identification with Ra as 'the father of the Fathers of all the gods' and creator of the cosmos; this granted the king immense paternal power which, in turn, justified his position as the semi-divine father and absolute ruler of Egyptian society. This is metallurgical ideology at its most potent.

The symbol of the fiery *Mehen-ouroboros* remained current long after the board game fell out of use. When Octavian (later Emperor Augustus) defeated Ptolemaic Pharaoh Cleopatra at the Battle of Actium, the *ouroboros* was minted on celebratory Roman coinage. The appropriation of the *ouroboros* within Rome constituted a final assault, this time on Egypt's symbology and the claim of the Ptolemies to the heritage of dynastic Egyptian kingship. However, the symbol did not remain sequestered within the royal echelons of society. Within the syncretic Egypt of the PGM and GEM, the

ouroboros came to represent the spiritual goals of men who wished to achieve power and immortality. The *ouroboros*' first appearance in an alchemical text is found in the Leyden Papyri V and W (c. 250-350 CE). It is also described in late-Hellenic and Roman gnostic tractates, the *Pistis Sophia* and *The Acts of the Apostle Thomas* (*The Hymn of the Pearl*), as well as in the apocryphal *Acts of Kyriakos and Julitta.*[160]

The close relationship between sun and fire within the *ouroboros* symbolism deserves special attention. We noticed the connection between sun cults and metallurgical cults in the Mesopotamian anti-witchcraft incantations, where Šamaš (the sun), Girra (the craftsman's fire), and Ea (the divine metallurgist) are invoked as a triad during the execution rituals. The heat of the sun burns as does fire, so this seems a natural elision. However, gold also plays a role as an intermediary between fire and light—transformed by the hottest furnaces, pure gold shines like the sun. According to Amzallag,

> The sun was not simply conceived as a metallic artifact. The intense heat and pale-yellow radiations emanating from it closely fit the physical properties of metals in a molten state. Even the yellow-to-red transition characterising the sunset evokes the transformations accompanying solidification of molten metal. It is not surprising, therefore, that the sun has been conceived in the past as a giant piece of metal overcoming a daily re-melting.[161]

Thus the rebirth of gold, the most immortal metal, could be understood as part of the process of the solar journey by day and night.

Themes of gold and light have already appeared in our discussion of the PGM and GEM—the Chnoubis figure is often crowned in rays of sunlight, his head (i.e. his higher nature, intellect, or rationality) functioning as the sun disk itself.[162] The

[160] See Appendix C for full argument and citations.

[161] Amzallag, 'The Material', 87.

[162] For example, GEM#99 and #101 where the Chnoubis' head is surrounded by a nymbus and rays of light.

dynastic Egyptian sun-cult offered royalty the possibility of immaterialisation through ascension and transmutation: it is the path that the Pharaoh took through the body of the *Mehen*, a transmutation from mortal king into a divine form unified with the sun-god Ra. This, I believe, is a metallurgical logic based on millennia-old techniques of smelting and cupellation—the gradual purification of rocky ore into gold so pure it shines like the sun. In this logic, heat (i.e. transformational power) is applied within a matrix (i.e. womb or furnace) to material substances (i.e. dross) to achieve perfection (i.e. gold or light). There appear to be two levels of perfection: the first involves practical metallurgy in smelting pure gold; the second treats smelting as an allegory for man's transformation into divine or pneumatic form. The *ouroboros*, then, is not merely a symbol of the cosmos, or of celestial power or the abyss, as has been variously proposed.[163] It is a precise metallurgical symbol for the power of techno-birth to elevate man beyond his material origins.

By now, we have accumulated an array of themes and concepts associated with metallurgy and the ascent of enlightened man. Below I have listed the most important, to serve as reference for the following analyses of the hermetica and the gnostic tractates:

Figure 5 Themes in GEM and PGM

Male vocal performance
Secrets and silence
Wealth, high status
Absolute rule
Symbols, rituals, and games as code for elite collective identity
Monad, One God
Pregnant Father
Motherless divine, self-gendering paternal power
Rape and forced impregnation (both allegorical and physical) as

[163] See Appendix C for summaries of previous scholarship.

metallurgical processes

Knowledge acquisition as a method for transmutation of the self

Knowledge as enlightenment/illumination

Elevation of head, intellect, mind, or rationality as apex of existence

Gold, sun, and light associated with immortality

Conceptual elision of grave and womb as spaces of mortality

C. The hermetica

The hermetic literature extends far beyond the CHA, for it is found in the PGM and NHC, as well as in various fragments and compilations.[164] However, the CHA is the largest collection of theoretical metallurgy, and, for our purposes, its contents can be taken to represent the hermetic teachings as a whole. We must keep in mind, however, that this compilation was selected by Byzantine collectors, whose Christian sensibilities are obvious in their choice of text.[165] The scribes selected hermetica void of references to polytheism and any practical magical procedures later Christians might have found objectionable.[166] Together, the fourteen tractates 'reveal to man

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[164] For example, hermetic texts are found in PGM XIII.1-734 (A sacred book called 'Unique' or 'Eighth Book of Moses') and NHC 409-436 (The Discourse on the Eighth and Ninth, The Prayer of Thanksgiving, and the Excerpt from the Perfect Discourse). These books demonstrate that the hermetic were far more diverse and widespread than the Byzantine collection might suggest.

[165] Copenhaver, xxxii.

[166] *ibid.,* xli. Christians had long struggled to combine notions of exclusive monotheism with their love of the Greek philosophic texts written by polytheists (such as Plato and Aristotle). They saw the hermetica as a way of sanctifying the heathen past (xv) and wanted 'to fit Hermetic ancient theology into their own doxographies and genealogies' (xvi). Therefore, they tended to emphasise the late Hellenic tendency towards the transcendent divine (xxvii), and avoid references to illicit magical practices. Copenhaver notes that the CHA texts 'are not much concerned with astrology, very little with magic and not at all with alchemy.' (xxxii)

knowledge of the origins, nature and moral properties of divine, human and material being so that man can use this knowledge to save himself.'[167] In the dialogues, the teacher 'exhorts the initiate to rise up through theurgy to a divine rebirth' and 'sets those procedures in a matrix of theory.'[168]

Through the hermetic teachings, the character of Hermes Trismegistus became a central figure in mainstream Graeco-Roman culture: Garth Fowden describes him as 'cosmopolitan, Hellenistic Hermes, Egyptianised through his assimilation to Thoth, and in fact known throughout the Roman world as 'the Egyptian' *par excellence*... [a syncretic divinity] who could deservedly be placed among the *dei magni* of the pagan [sic] pantheon that presided over the Roman world.'[169]

There has been significant scholarly debate regarding the function of the CHA with regards to the PGM. Much of this debate concerns the definitions of 'religion' and 'magic', based on the false assumption (common to modern Christian cultural norms) that the two are separate activities. As we noted in chapter one, however, there existed no divide between religion and magic in antiquity. It is important to note that the hermetica systematised the teachings of the mages, creating a systematic approach to self-transmutation that fit within the late Hellenic and Roman syncretic culture. Copenhaver notes that the CHA ascribe to Hermes the same attributes and roles he is given in the PGM.[170] Therefore, we find elements of Greek philosophy blended with Egyptian religious imagery, together forming hermetic midrashes (of a sort) on *Genesis*. The result is a brilliantly innovative combined exegesis of each tradition's metallurgical origins, with the goal of producing a truly syncretic cosmogonic, anthropogonic, and soteriological system at harmony with contemporary Hellenic thought.

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[167] *ibid.,* xxxii.

[168] *ibid*., xl.

[169] Fowden, 26-27.

[170] Copenhaver, xv, xxxvi.

It is useful to note that the hermetics, like the mages in the PGM, had an intense interest in medicine. The intellectual milieu of the CHA also produced iatromathematical treatises such as the *Book of Asclepius Called Myriogenesis* and the *Holy Book of Hermes to Asclepius*, which contained both theoretical material concerning the body and practical botanical recipes.[171] The hermetics, then, show the same range of interests as the mages of the PGM: medicine, metallurgy, and magic. For the PGM and CHA, these crafts have theurgic and salvific potential: in the PGM, salvation occurs both from daily threats (of material or spiritual harm) and from the human condition in general; in the CHA, the latter concern predominates.

To my knowledge, there exists no scholarship concerning the metallurgical content of the CHA. Therefore, we must start with two basic tasks: first, to elucidate the metallurgical content of the CHA, and second, to demonstrate its continuity with the GEM and PGM. I have divided the theoretical discourse in the CHA into five main themes, and will analyse each in turn: 1) the essential nature of the body, 2) the origins and structure of man, 3) the origin and structure of the cosmos, 4) man's salvation through transmutation, and 5) the identity of God. I have chosen to start, quite literally, from the ground up, beginning with hermetic teachings on materiality.

The essential nature of the body

The CHA follows mainstream Roman thought concerning the body, saturating the texts with negative imagery surrounding human materiality.[172] CHA VIII terms it 'the

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[171] *ibid.,* xxxiii-xxxiv.

[172] In his study of body negativity in Roman culture, ER Dodds surveys Roman literature for examples of anti-corporeality and finds them ubiquitous among the upper classes, across sectarian divides. Wealthy Romans expressed extreme hostility towards their own bodies, prompting Dodd to diagnose 'a disease endemic in the entire culture' of Roman antiquity. However, he does note that orthodox Christian sources have the 'more extreme manifestations' of 'contempt for the human condition and hatred of the body'—most intensely expressed in the rise of the orthodox desert monks. See E.R. Dodds, *Pagan and*

tunic that you wear, the garment of ignorance, the foundation of vice... the dark cage, the living death, the sentient corpse, the portable tomb, the resident thief...'[173] The body derives from primordial darkness and chaos, the waters from which death drinks—therefore, to be embodied is to be mortal and subject to death.[174] Life on earth, the hermetic teacher urges, is a calamitous waste of time.[175] The body causes man to be 'blocked up with a great load of matter and jammed full of loathsome pleasure, so that you do not hear what you must hear nor observe what you must observe.'[176] Hermes himself declares that to hate the body is to love the self—and that this rejection of one's materiality is necessary for all learning and knowledge.[177] Materiality is the substance of ignorance and makes people prone to control by malevolent demons who foster darkness; thus *gnosis* is achieved through the suppression of bodily senses.[178] Without *gnosis*, man is a slave to the body and condemned to hellfire—this eternal conflagration occurs when the mind of an ignorant man (who has not achieved *gnosis*) is forced by God to take on a fiery form, thereby burning the material substance of the man from within.[179]

The origins and structure of man

According to the hermetic anthropogony, the Mind of God gives birth twice: first, to a divine craftsman (the Demiurge, who represents God's capacity to create the material world); and second, to an androgynous primordial man (whom we will call

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Christian in an Age of Anxiety (Cambridge: Cambridge University Press, 1965), 35. The hermetica do not approach the level of body negativity found in orthodox Christianity.

[173] CHA VIII, 24.

[174] CHA I, 5.

[175] CHA IV, 16.

[176] CHA VIII, 24.

[177] CHA IV, 16.

[178] CHA I, 1; CHA XVI, 59; CHA X, 31.

[179] CHA X, 32, 34-35.

Adamas[180]). Adamas is made in God's image, and is loved by God.[181] Dwelling in the divine realm, Adamas masters divine craftsmanship by learning the Demiurge's skills. In his curiosity, Adamas breaks through the cosmic vault (which seems to be Ouranos' bronze dome[182]), wanting to observe the Demiurge's creation of the material world. However, he sees his own reflection in the cosmic waters and, in a moment of desire to inhabit its form, falls into a body. Nature welcomes him with great pleasure, taking him as her lover and initiating him into sexual maturity, thereby trapping him into material existence. Adamas' androgynous descendants (produced by Nature) are eventually split by God into male and female forms, thus beginning the Era of Procreation in which ignorance reigns and all human reproduction must occur by filthy intercourse.[183]

Stripped of his full reproductive capacity, bifurcated man lives in ignorance of his divine origins.[184] However, he maintains his immortal characteristics in part: his true inner self consists of spirit, soul, and mind: spirit wraps around soul, which wraps around mind. Each has a particular role: spirit is likened to an 'armouring servant' who controls the workings of the body; soul acts as a protecting shroud, preventing mind from annihilating the body with its divine heat. Mind, the most essential and divine part of the human, was once shrouded in divine fire. However, when Adamas fell down into material existence, this fire was removed, and mind was required to

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[180] Throughout the gnosticising texts, this primordial form of man is given many names. To simplify matters, I am borrowing a term from the Valentinian corpus and using it in all cases. See discussion on the metallurgical etymology and derivation of the name 'Adamas' below.

[181] Adamas is androgynous because he is made in the image of the One God, who is androgynous. The ancient Egyptian creator gods were described as androgynous. Atum impregnates himself with his own semen. See Roth, 'Gender Roles in Ancient Egypt', 227-234. Pinch, *Handbook*, 111.

[182] See chapter five for the metallurgical myths of Ouranos.

[183] CHA I, 3-5.

[184] *ibid.*, 4.

don the shroud of soul instead.[185] According to Hermes, the mind released of its material burden is re-endowed with heated paternal potency: 'Mind... has for its body fire, the most penetrating of all the elements.'[186]

The origins and structure of the cosmos

CHA presents us with a dualist structure of existence, consisting of light and darkness. Poimandres (the embodiment of God's Mind) reveals this structure to an initiate in a vision:

> [I, the initiate, saw] an endless vision in which everything became light – clear and joyful – and in seeing the vision I came to love it. After a little while, darkness arose separately and descended – fearful and gloomy – coiling sinuously so that it looked to me like a snake. Then the darkness changed into something of a watery nature, indescribably agitated and smoking like a fire; it produced an unspeakable wailing roar. Then an inarticulate cry like the voice of fire came forth from it.[187]

Light, therefore, is the first state to originate from the Divine. Somehow, a dark counterforce also arises. Its shadow takes the form of a watery monster—we know that this monster must be Apophis, the primordial water-dwelling anti-god who was renowned for his wailing roar.[188] Light is equated with the divine itself, for

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[185] CHA X, 34.

[186] *ibid.*

[187] CHA I, 1.

[188] Ludwig D. Morenz, 'Apophis: On the Origin, Name, and Nature of an Ancient Egyptian Anti-God', *Journal of Near Eastern Studies* 63, no. 3 (July 1, 2004): 203-205. Apophis' Egyptian name is Apep, which is composed of the elements 'great' and 'roar, blabber, babble.' In the Amduat, Apep is imaged to be screaming and shouting (204); his epithets include 'the fallen one' and 'the Roarer' (205). Morenze concludes that Apep 'seems to be an onomatopoeic word imitating the inarticulate or even nonverbal sound of this mythological water-snake.' (203) He links this to the Hebrew/Canaanite serpentine sea monster Tannin,

Poimandres declares: 'I am the light you saw, Mind, your god...who existed before the watery nature that appeared out of darkness.'[189]

One of the first divine acts described in the CHA is the production of Logos, the son of god.[190] In a phallic gesture, Logos 'mounts' the watery depths, which are 'stirred to hear by the spiritual word that moved upon them.'[191] As a result of this penetration, 'untempered fire leapt up from the watery nature to the height above... The fire, encompassed by the great power and subdued, kept its place fixed', hovering above the primordial chaos via the power of the divine spirit.[192] Once this is accomplished, God 'by speaking gave birth to a second mind, a craftsman, who is god of fire and spirit'.[193] Once the fire is extracted from chaos, Logos dismounts and unites with the Demiurge—his departure abandons materiality in a state of total ignorance. Through these processes, a cosmic bifurcation has been accomplished, where the lightest material elements (the sensible celestial realm within the cosmos) rise up, and the heaviest elements (earth and water) sink down—these two realms are delimited by a boundary of fire.[194] While all of these elements originate in 'watery nature, indescribably agitated and smoking like a fire', the penetrating act of Logos enables the Light to gain an ominous mastery over chaos-fire, rendering it stationary and

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whose name may mean 'lament, howl'. (204) The parallels here with the *Enuma Elish* are startling—there, too, Tiamat takes a dragon form, spurred on by her maternal lament over violent destruction and her fiercesome rage over her son's attack on her domain.

[189] CHA I, 2.

[190] *ibid.*

[191] *ibid.*

[192] *ibid.*

[193] This is the Demiurge whom we have already encountered in our discussion of the hermetic anthropogony.

[194] CHA I, 2.

submissive.[195] Primordial wild fire, in other words, has become tempered, and is now useful for craftsman's work.

With tempered fire powering his divine furnaces, the Demiurge is immediately able to craft both the lighter and heavier materials of Chaos, forming the cosmos as we know it.[196] CHA IV adds a sonic element to this narrative of re-creation, stating that the Demiurge fashioned the cosmos via 'reasoned speech', a concept we have already encountered in Hebrew, Babylonian, and Egyptian cosmogonies.[197]

This extraction of fire out of the primordial chaos renders Nature submissive: her acquiescence takes auditory form, for she *listens* to the divine word.[198] Read with our knowledge of metallurgical ideology, we can understand this mythic act of penetration as a rape similar to Ouranos' mounting of Gaia. Below we will note the gnostic tractates' elaborate stories of male authorities collaborating with the Demiurge in committing acts of rape against primordial female entities. Already in CHA I, however, it is clear that this act of violence is one of theft: the rape occurs and the fire is extracted, and only *then* does God birth the Demiurge and task him with the remodelling of chaos into the material world. The very tools of divine creation come from chaos herself. Fascinatingly, CHA I introduces an alternative name for the material cosmos *after* the Demiurge has done his work: she is now called Nature. Materiality, then, has two female forms: in her wild, chaotic aspect, she is the 'watery depths' seething with smoke and steam; in her ordered, more submissive aspect, she is

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[195] *ibid.*

[196] *ibid.*, 2-3. Before manufacturing the cosmos, the Demiurge produces craftsmen-governors (presumably the metallurgical gods) who each take responsibility for a realm of creation.

[197] CHA IV, 15.

[198] CHA I, 1. This resonates with PGM IV.296-466, where the mage thrusts copper needles through the ears, brain, pudenda, and feet of the clay figure of a captive woman, thereby attaining control over her intellect, audition, reproduction, and motion. Here, Logos' phallic act over the water chaos tempers her dynamic seething smoke (that is, her chaotic motion and hot fecundity), and gains access to her capacity to *listen* (that is, her audition and intellect).

Nature.[199] However, Nature never completely loses her chaotic character: CHA XVI describes the earth's deepest reaches as 'fountains of water and fire', a phrase with strong affinities to the primordial watery nature's fiery smoke.[200] Nature also falls short of total obedience to her new overlords: it is she who seduces Adamas into corporeality by reflecting back his form, and she who initiates the Era of Procreation through introducing sexual intercourse into the material cosmos.[201]

While the hermetica utilise extensive Greek and Egyptian materials, this particular story in CHA I also engages with the cosmogony in the Hebrew scriptures. The text presents a fascinating exegesis of *Genesis* 1-2 (we might even call this a hermetic midrash). There are two inconsistencies in *Genesis* that the hermetic midrash seeks to address: 1) At the end of *Genesis* 1, God creates man. However, the anthropogonic story is retold in a different form in *Genesis* 2. Why would *Genesis* tell this story twice? 2) *Genesis* 1 begins with the spirit of Elohim hovering over the face of the primordial waters. Later chapters introduce the divine character of Yahweh, who is credited with granting Eve her first child, Cain, in *Genesis* 4. Why should there be two names for god, one associated with cosmic creation, and the other with

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[199] This is a narrative performance of the constructedness of nature—she is produced through the conceptual work of the author of the cosmogony as much as she is produced through the skill of the divine craftsman. This elucidates an aspect of the art-nature debate left unspoken by Newman: the very instability of the concept of nature to begin with—perhaps another source of anxiety within the art-nature debate.

[200] CHA XVI, 59.

[201] CHA I, 3. Nature's own joy and desire turn the tables against God and the Demiurge's plan: 'Nature smiled for love when she saw him [Adamas] whose fairness brings no surfeit... for in the water she saw the shape of the man's fairest form and upon the earth its shadow. When the man saw in the water the form like himself as it was in nature, he loved it and wished to inhabit it; wish and action came in the same moment, and he inhabited the unreasoning form. Nature took hold of her beloved, hugged him all about and embraced him, for they were lovers.'

procreation? This is further complicated by Elohim's tendency to refer to himself in the plural, which provoked rabbinic commentators to question the existence of other divine characters such as archons, angels, or lesser gods.[202]

The hermetic narrative in CHA is clearly designed to comment on these aspects of the *Genesis* story, attempting to answer long-held theological debate about the First Adam of *Genesis* 1 (here we have called him Adamas) and the Second Adam of *Genesis* 2. Jewish scholars had long proposed that these may be two different characters.[203] In CHA I, Adamas is married to the First Eve (here called Nature), and bifurcated Adam later acquires a similarly biologically partial wife (presumably Second Eve). The hermetic story also delineates between Elohim (God), Yahweh (the Demiurge), God's speech (Logos), and the Spirit of God hovering on the waters (who holds up the tempered fire). This cast of characters in the *Genesis* cosmogony had long been subject to fierce theological debate regarding the nature of god and the origins of creative power.

Outside of any particular religious tradition, the CHA also provide a systematic theory of fire's transformative power. At the lowest level is wild fire, which is found both in the burning of bodily passions and the elemental heat of earth's volcanic depths.[204] In the cosmogonic myth, Logos extracts this elemental fire, causing it become tempered and thus to achieve a higher existence. Tempered fire is the tool of human and divine craftsmen alike. Ultimate authority over this kind of fire is given to the Demiurge.[205]

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[202] See Peter Thacher Lanfer, *Remembering Eden: The Reception History of Genesis 3:22-24* (Oxford: Oxford University Press, 2012).

[203] See summary of rabbinic tradition in Menahem Kister, '"First Adam" And "Second Adam" in 1 Cor 15:45–49 in the Light of Midrashic Exegesis and Hebrew Usage', in *The New Testament and Rabbinic Literature*, ed. Reimund Bieringer et al. (Leiden: Brill, 2009), 351–366.

[204] CHA XVI, 59; CHA I, 5 (here the senses torture the soul with burning desires).

[205] CHA I, 3.

At the spiritual level, we find the fire of Mind itself, which represents divine knowledge and human capacity for *gnosis*—materiality itself is annihilated by this kind of heat. In its most transcendent form, this transformative, fiery power emanates from the Monad as divine light.

Man's salvation through transmutation

All hermetic texts agree that salvation is to be found through *gnosis* (knowledge of the divine), which facilitates man's escape from his body and ascent into the divine realm. Through this ascent, enlightened man repossesses and even surpasses Adamas: 'he who has understood himself advances toward god'.[206] Moreover, 'those who have received knowledge [will] be made god'.[207] Significantly, the reproductive powers Adam lost to Eve in his bifurcation are returned to his possession when he regains his divinity—he enters a stolidly masculine realm, where fathers possess womb-power.

We cannot help but notice that the hermetic's ascent towards the Monad copies exactly the pharaoh's unification with Ra: like the pharaoh passing through the gates along the *Mehen's* serpentine coils, the hermetic initiate must prove himself at seven gates along the circles of the celestial spheres.[208] CHA XVI draws directly on the *Mehen's* serpentine spiral shape when it teaches that the sun 'brings transmutation and transformation... as in a spiral, when change turns one thing to another.'[209] For both the king and the initiate, the Eighth realm (the Ogdoad) is the beginning of divinity,

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206 *ibid.*, 5.

207 *ibid.*, 6.

208 CHA I, 5-6: 'Thence the human being rushes up through the cosmic framework [*Mehen's* gates:], at the first zone surrendering the energy of increase and decrease; at the second evil machination... at the third the illusion of longing... at the fourth the ruler's arrogance, now freed of excess; at the sixth the evil impulses that come from wealth... at the seventh zone the deceit that lies in ambush.' For more detail, see Appendix C.

209 CHA XVI, 59.

leading to final unification with god in the ninth (the Ennead), at the very centre of the *Mehen*'s coils.[210]

Gnosis, then, is centred around the self. To achieve knowledge, man must understand his hidden inner divinity—the parts of his mind, soul and spirit that still harken to his true heavenly origins. Man's self-orientated quest befits his celestial birth, for he originated in divine self-infatuation: Poimandres tells us that god created Adamas in his own image because he 'was really in love with his own form.'[211] We cannot help but notice that the hermetica provide men with an alternate image: they are essentially born of the Heavenly Father; their birth on earth to mortal mothers is but the consequence of a primordial error. Like Nature, human mothers trap men in their bodies, perpetuating the Era of Procreation. *Gnosis*, then, implies a deep recognition of man's true parentage, by which he might be saved from the maternal legacy of mortality.

Man can access enlightenment through his capacity for vision and hearing, granted to him by Logos.[212] Poimandres urges the initiate to employ his senses and intellect to the attainment of triple enlightenment, asking 'what do you want to learn and know

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[210] The hermetic text entitled *The Discourse of the Eighth and Ninth* details this process. It is found in both NHC and CHA XIII. The Ogdoad and Ennead have lost much of their resonance with the Egyptian pantheons, and are instead construed astrologically as the beyond-celestial realms of the One divine.

[211] CHA I, 3.

[212] In a remarkable metaphor, CHA IV instructs that 'the vision of it [God's image] has a special property. It takes hold of those who have had the vision and draws them up, just as the magnet stone draws iron, so they say.' (17) Our knowledge of the PGM enables us to identify this as sexual imagery: magnets draw iron and semen alike. Soul, semen, and iron are thus equated, drawing a perfect metallurgical triplicate of phallic power. Just as magnetic amulets draw semen up into the womb, so vision draws the soul up into the realm of rebirth (the divine womb-space). Since the CHA consistently refer to God as a craftsman, it makes sense that this womb-space be understood as a divine furnace.

from your understanding?'[213] Hermes assures us that all learning is incorporeal and that true knowledge is separate from sensation; initiates receive revelation of *gnosis* only when their body is restrained and their thinking soars high above their material form.[214] 'Vision' and 'hearing', then, are not truly sensible, but are rather metaphors for intellectual observation and learning. It is thought that is the ultimate salvation: the cultivation of intellect necessary for achieving *gnosis*, for man's mind comes directly from the heavenly Father himself.

It is important for us to note that enlightenment is often construed as achieving mastery over silence. Throughout CHA I, Poimandres rebukes the initiate for speaking, commanding him to maintain silence. Elsewhere, the hermetica teaches that God himself is silence; and *gnosis*, in turn, is characterised as the gift of divine silence.[215] Likewise, angelic hosts only sing hymns to god in utter silence.[216] Following angelic praises, the truly enlightened man performs all thought and prayer in total silence.[217] This allegiance to maintaining silence may seem odd at first. However, silence reflects on the awesome mystery of the identity and name of the Monad. Silence also emphasises the supremacy of the mind as a higher state of being. While lower-level initiates into the hermetic teachings may use discourse and speech to learn about the divine, those achieving the Eighth and Ninth realms must achieve total silence.[218] Silence, then, is an indicator that the enlightened one is ready to abandon all materiality (including the vocal apparatus) and unite with god. We can now better understand little Harpocrates' shushing gesture in GEM#46: one rationale for keeping silent is to perform one's escape from materiality. This escape to silence is also the process by which man wrestles back his androgynous reproductive powers.

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[213] CHA I, 1.

[214] CHA X, 32; CHA I, 1.

[215] CHA X, 31.

[216] CHA I, 7.

[217] CHA X, 31.

[218] *Discourse on the Eighth and Ninth*, NHC, 416-417.

The goal of the initiate's transmutation is the perfection of his powers of craftsmanship. When Adamas fell into a material body, his Mind (essential being) lost its fiery cloak and he ceased to be able to craft divine things; thenceforth human craftsmen could only work with natural phenomena.[219] However, once man is released of his body through transmutation, his Mind returns to its ideal fiery state, and he is able to achieve ultimate, divine feats of pyrotechnical creation.[220]

While the hermetic texts assure us that the number of enlightened men is very few, they also assert that the soul is designed to look at the heavens, seeking knowledge.[221] The hermetica provide those on the path towards *gnosis* with a systematic approach to recovering divine craftsmanship abilities.[222] The hermetic teachers are clear that craftsmanship is a *paternal* pursuit:

> God's other name is 'father' because he is capable of making all things. Making is characteristic of a father. Prudent people therefore regard the making of children as a duty in life to be taken most seriously and greatly revered, and should any human being pass away childless, they see it as the worst misfortune and irreverence. After death such a person suffers retribution from demons.[223]

To craft, therefore, is to father; and vice versa. In chapter four, we noted Scurlock's analysis of the Hebrew root *rhp*, which designated Elohim's pre-creative reproductive act of hovering over the primordial waters. Her findings within Hebrew and Canaanite sources are identical to the version presented in our hermetic midrash: here, Logos

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[219] CHA X, 34.

[220] *ibid.*, 34-35.

[221] CHA III, 13.

[222] *ibid.* This text lists the components of this system: theurgy (knowing god), science (knowing workings of nature), moral philosophy (knowing that which is good), astrology (understanding fate), and craftsmanship.

[223] CHA II, 12.

hovers over the waters, performing a violent sexual and paternal act of penetration. Only after this does God birth the Demiurge—the act of siring had to prefigure the act of crafting (that is, re-creating). In CHA II, Hermes urges all enlightened men to act as procreative craftsmen: within metallurgical ideology, it would be offensive for a man to attempt to achieve ultimate status as a divine craftsmen without having performed essential metallurgical acts on earth: first, to impregnate a woman; second, to temper flame within a furnace. As with the many rape spells in the PGM, the hermetica never pause to consider a woman's willingness to procreate.

The identity of God

The metallurgical destination is unification with a mysterious Divine, who is inaudible, unspeakable, unnameable. True enlightenment is the deepest realisation of the identity of God, expressed in the phrases 'All is One' and 'One is All' (the phrase often associated with the *ouroboros* symbol in alchemical manuscripts, see Appendix C).[224] The most common epithets of the Monad are 'Father' and 'Light'.

At the most basic level, the Monad is equated with Ra, the sun.[225] Hermes tells us that the sun's mass represents divine intellect; sunlight, in turn, is intellect's womb-like receptacle.[226] The divine sun is the source of all existence and immortality, as well as the source of all transmutational processes. CHA XVI structures the divine as a kind of metallurgical trinity: Master, Craftsman, and Father.[227]

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[224] CHA XVI, 58: 'god, the master, maker, father and container of the whole universe, the all who is one and the one who is all.'

[225] This is reminiscent of Pharaoh Akhenaten's attempt at instituting strict henotheism (or monotheism) in Egypt, focusing on the worship of the sun disk Aten (an attribute of Ra). See further discussion of the Aten in chapter seven.

[226] CHA XVI, 60. The sun here is God's receptacle.

[227] CHA XVI, 58, 61.

The hermetica, like the PGM, often repeat the Monad's status as unbegotten or self-gendering. In *The Discourse on the Eighth and Ninth*, Hermes describes divine power as a male pregnancy, in which the Father conceives via his own flow of power. When the initiate asks, 'do they [divine creations] have mothers?', Hermes assures us that they do not. Instead, God produces that which is purely spiritual and immortal, with no need for female contribution in the act of creation.[228] Therefore, Mind (Poimandres), Logos, and Adamas are also motherless.

Overview: Identifying the metallurgical schematic

Together, the hermetic texts provide us with a relatively simple metallurgical schematic of existence, consisting of parallel hierarchies. We have already noted that there are four levels of fire: 1) the wild fire of nature, 2) tempered fire used in craft, 3) the fire of man's inner bring, and 4) the brightness of divine light. The CHA correspond these with a hierarchy of furnaces: 1) nature's volcanic depths and women's wombs, 2) mortal craftsmen's furnaces, 3) the fiery power of the Mind released of corporeality, and 4) the Mind of the Father, the divine Sun. These furnaces create mortal and divine products in kind: 1) natural resources and mortal bodies, 2) gold and precious metals, 3) spiritual gold, that is, the self purified via *gnosis*, and 4) divine perfection. Fascinatingly, these hierarchies are also reflected in the CHA's portrayal of sound and voice: 1) at the lowest level, Apophis' wailing roar, the soundscape of chaotic materiality; 2) man's vocal apparatus and physical ear, which represent his intellect and wisdom blocked by materiality; 3) the disembodied 'hearing' possessed by the enlightened man who has begun to ascend beyond his body; 4) the silent realm of the Divine, and the inaudible thoughts and praises of those who dwell with God. Only the lowest level of these hierarchies is gendered female; the rest are dedicated to the perfection and ascent of the male who comes to possess all reproductive power (i.e. mastery of womb and phallus alike). Within the

[228] NHC, 413-414.

soundscapes of the path to enlightenment, man's quest begins with discourse and voice and gradually progresses to resounding silence freed of all materiality.

While biblical studies scholars have tended to see the androgynous figures in the hermetic and gnostic traditions as representing a tendency towards sexual equality, we have already amassed considerable evidence to the contrary.[229] The androgynous form of the divine and of Adamas are the product of male usurpation of the female reproductive role. Man escapes mother, nature, and matter, in order to acquire fundamentally independent procreative power. The fixation of God and Adamas on the perfection of the male form recalls myths of Narcissus; staring at their own reflections, the male androgynes evince intense patriarchal self-love and self-absorption. Acute male narcissism appears to be inherent to the metallurgical schematic, for it advocates a transcendence that liberates men from all their ties to the female body: the motherless androgynes exist in a heavenly realm where the only form of reproduction is exclusively paternal and deeply homoerotic. Male interdependency with the female is eradicated, and man falls in love with himself.

The hermetica, then, present us with a sonically-saturated metallurgical schematic of manhood: paternity and smithing are equated, and acts of divine craftsmanship are construed as rape and forced impregnation. The mounting of cacophonous Nature forces her to listen and respond to the reasoned speech of the divine Father and Demiurge, who re-work her material form. For mortal men, ideal masculinity hinges on the ability to achieve true spiritual hearing, exiting the realm of sound and female reproduction, to enter into the divine silence of male androgyny.

This schematic provides a remarkably consistent re-working of Greek and Egyptian mythology and Hebrew cosmogony. In other words, the hermetica have united the metallurgical ideologies of all the competing traditions of syncretic Ptolemaic society. This is a remarkable achievement: the creation of a systematic, common metallurgical masculinity that can span linguistic, cultural, religious, and philosophical differences.

[229] See discussion of patriarchal androgyne as opposed to queerness in chapter one.

The target audience of the hermetic treatises is clearly members of the upper classes, and this class structure is directly transferred into the spiritual realm: metallurgical *gnosis* is reserved for a select caste of enlightened men (the spiritual aristocracy). Hermetic initiates gain an overwhelming sense of superiority through being offered membership in the most exclusive and spiritually lucrative clique in antiquity. This is a bold move: hermetic initiates claim their right to a beyond-celestial ascent once reserved for the pharaohs of dynastic Egypt.

While Copenhaver shows due caution in assuming a direct relationship between the PGM and CHA, we can see that, in terms of metallurgy and reproduction, the themes presented in the two collections are identical.[230]

D. The gnostic tractates

In chapter two, we encountered the dyad in the *Gospel of Thomas,* one of the tractates included in the NHC. There we met a vocal, fiery Christ embodying *logos,* who wielded the sword of war and brought violent destruction to the world. In addition to his pyrotechnical nature, Jesus declares himself to be 'the light that is over all things'. He declares the transcendent divine Father to be motherless: mortal mothers bring falsehood, while the maternal Holy Spirit grants true life. Before employing the dyad of tree and stone, Jesus blesses those who 'came into being before coming into being'—we can now understand this phrase more deeply as reference to man's true celestial origins. Being born of woman on earth is but a degraded repetition of man's true origins in the divine Father's womb. To attain salvation, man must recognise his essential motherlessness and await the dislocated tree and stone (that is, the disembodied vocal fecundity) of celestial paternity in heaven. Here, we will encounter the elaboration of these themes in the NHC's other tractates.

As discussed in chapter two, the *Gospel of Thomas* is not usually considered a 'gnostic text' in the proper sense, but rather a collection of *logoi sophon* that

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[230] Copenhaver, CHA, xxxiii.

demonstrate interest in the theurgic concept of *gnosis*. However, our attention to gnosticisation enables us to avoid setting it aside as an outlier. Here, we will turn our attention to the NHC tractates scholars unanimously labelled 'gnostic', to look for familiar metallurgical trends. Many of these texts are ascribed to the 'Sethian' and 'Valentinian' sects. We have already noted that it would be historically inaccurate to firmly draw any such boundaries or identities, although the gnosticising tendencies of the texts analysed below are certainly more extensive, elaborate, and organised when compared to the *Gospel of Thomas*.

The texts we will examine have been assigned the following descriptors: Madeleine Scopello has identified concepts from Valentinian, Manichaean, Qumranite, and platonic literature in *The Authoritative Discourse*, as well as allegory borrowed from Philo of Alexandria.[231] The *Gospel of Truth* is similarly complex, showing a mixture of standard Valentinian concepts and unusual cosmogonic narratives.[232] Einar Thomassen identifies the *Tripartite Tractate*, which is an enormous and complex theological treatise, as eastern Valentinian, but claims that it must be an underdeveloped or early exemplar.[233] *On the Origin of the World* mixes Sethian, Valentinian, and Manichaean materials, and cites treatises mentioned in the PGM.[234] We find broadly Christian Sethian themes in *The Nature of the Rulers*,[235] *Three Forms of First Thought*,[236] *The Holy Book of the Great Invisible Spirit*,[237] and *The*

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[231] Madeleine Scopello, NHC, 381-382.

[232] Einar Thomassen tries to explain these discrepancies by assigning an earlier date of composition (NHC, 33-34).

[233] Thomassen, NHC, 58-61.

[234] Marvin Meyer, NHC, 201-202. See also Betz, PGM, 172.

[235] Meyer, NHC, 187.

[236] John D. Turner, NHC, 715. Turner believes this to be an early example of Sethian Barbeloite aretology.

[237] *ibid.*, 251.

Secret Book of John;[238] whereas the Sethian tractate *Zostrianos* appears to have been written by non-Christian neopythagoreans or middle-platonists.[239] Like the *Gospel of Thomas,* the tractates entitled *The Concept of Our Great Power, The Acts of Peter and the Twelve Apostles,* and *The Thought of Norea* do not fit well with any particular thematic allegiance or sect.[240] These messy attempts at classifying the NHC tractates bears witness to the importance of Williams' caution.

While classification systems yield limited clarity, all of the above texts share certain preoccupations with metallurgical and reproductive imagery. Here I will focus on three themes: first, differentiating spiritual and material wombs; second, separating fire and light; and third, distinguishing sound and silence. We have previously encountered these intentional bifurcations in the PGM and CHA, but here these themes reach a fever pitch.

Differentiating the spiritual and material wombs

All gnostic texts I have encountered feature strongly negative statements regarding materiality and the body. It is important to remember that these statements can also be found in the canonical Christian scriptures, and were mainstream throughout Roman culture. Valentinian tractates state that the body is but rags, bringing forgetfulness and separation from the divine.[241] There is a strict caste of humans: at the top, the spiritual humans who naturally possess *gnosis* and ascend easily to the divine; the psychical humans, who possess goodness of soul and are capable of acquiring at least some *gnosis*; and material humans, mere bodies trapped in darkness and sickness, incapable

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[238] *ibid.*, 103.

[239] Zostrianos is a character taken from Plato's *Republic* 10.6146, later assimilated into the character of Zoroaster. Turner believes this to be an example of religious Platonism, which, like the Christian gnostics, taught a self-performable technique of visionary ecstatic ascent. See Turner, 535ff.

[240] Scopello and Meyer, 357ff, 403ff; Turner and Meyer, 607-608.

[241] *Gospel of Truth*, 38.

of salvation.[242] This sickness, we are told, is femaleness or the state of being born of woman: the material womb, in other words, brings a contagious epidemic that infects all offspring of the darkness of materiality.[243]

One of the most pressing theological questions across sectarian divides concerned the origin of evil: *if God is omnipotent, why did he allow evil to come into being? Did God create evil?* Both Valentinian and Sethian tractates assign the origin of darkness to a divine intermediary: Logos or Sophia, who are emanations from the divine granted their own existence, succumb to well-intentioned overenthusiasm for God, overstepping their roles by trying to create something on their own, without the permission of God.[244] This sin is usually portrayed as reproductive, causing a series of monstrous births—the initial impetuousness brings rise to darkness, and from darkness arises matter.[245]

In most texts, the material world (the cosmos) is ruled by a Demiurge—he has many names, but here we will refer to him by his most frequent title, Yaldabaoth. To some, Yaldabaoth was the deformed product of Sophia's illicit parthenogenesis, described as an 'aborted foetus', an 'afterbirth', or foul menstrual discharge.[246] His deformities are

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[242] *Tripartite Tractate*, 87-93.

[243] *ibid.*, 74, 81.

[244] This may be a warning to mortals to be cautious of hubris in their craftsmanship—an extension of the art-nature debate into the NHC.

[245] For example, see cosmogonies in the *Tripartite Tractate*, 72ff, *The Origin of the World*, 203ff, *The Secret Book of John*, 114ff, and *The Nature of the Rulers*, 196ff. These narratives of the origin of the material world vary in characters and events, but agree on the basic tenet that the error of one of the heavenly archons caused materiality to form.

[246] *The Holy Book of the Great Invisible Spirit*, 262; *The Secret Book of John*, 114-115; *The Origin of the World*, 204; *The Nature of the Rulers*, 196. Yaldabaoth is also described as having various physical or intellectual disabilites—he is given names that mean 'the blind one', 'the fool', and so on.

strongly reminiscent of the Greek god Hephaistos, and indeed, Yaldabaoth takes the blame for all of the Hebrew god's baser metallurgical characteristics.

Similarly, the gnostic scriptures usually bifurcate the character of Adam—we saw the same sort of exegetical response to the anthropogonic repetition in *Genesis* 1 and 2 in the CHA. In the NHC, First Adam is a spiritual human who dwells in the heavenly realm. Material Adam, however, is formed in the cosmos; in *The Origin of the World,* second Adam is made by Yaldabaoth's henchmen by ejaculating in the Earth's navel (they clearly botch the job, leaving him a lifeless 'aborted foetus' who must be vivified by external powers).[247] The idea of the abortion pervaded Christian and Hellenic thought far beyond the milieu of the gnostic tractates: female parthenogenesis was commonly believed to be the origin of uterine polyps and foetal deformities.[248] Even Paul uses the metaphor of the abortion to describe himself before his salvation through Jesus Christ.[249] Within this metaphor, abortions are mere bodies without a soul, failing to be properly formed (usually because the female seed did not receive appropriate masculinisation through insemination). Likewise, a man remained

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[247] *The Origin of the World*, 213.

[248] Williams, 132: 'Miscarriages, or the ejection from the uterus of tumorous growths related to fatal miscarriages, were often considered growths from the female seed alone, lacking the completion provided by the male seed. The ugliness of such abortions sometimes prompted their description as inhuman, monstrous things. [In the demiurgical traditions,] the creation of the world by this aborted, inhuman [i.e. Yaldabaoth] being clearly drew some... inspiration from speculation about the spiritual significance of current medical knowledge of female anatomy.'

[249] Harm W. Hollander and Gijsbert E. van der Hout, 'The Apostle Paul Calling Himself an Abortion: 1 Cor. 15:8 within the Context of 1 Cor. 15:8-10', *Novum Testamentum* 38, no. 3 (1996): 224–236. The biblical text reads: 'Last of all, as to one untimely born [Greek lit. 'an abortion'], he [Jesus] appeared also to me [Paul].' Paul was not numbered among the original disciples, but converted after Jesus' death and resurrection.

an abortion, a feminised body, unless he was reborn through divine male reproductive power.[250]

In both Sethian and Valentinian texts, 'mere bodies'—that is, the physical human females on earth who have no part in the divine Mind—are treated with utmost violence. The origin of women is explained as follows: First Eve is pursued by Yaldabaoth and his henchmen who lust after her and wish to possess her spiritual light. Just before they gang rape her, Eve bifurcates into two entities: a spiritual form, which escapes, and a merely physical form, which endures countless debasements and is forcibly impregnated.[251] This gynogonic narrative is used to explain women's base materiality and, quite cruelly, the origin of sexual intercourse and biological reproduction. In *The Nature of the Rulers*, material Eve is described as spiritual Eve's 'echo',[252] and she later bears Cain as the result of the gang rape.[253]

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[250] Rudolph holds that the imagery of man as an abortion (and, indeed, the cosmos as a miscarriage) was a response by Jews and Christians at a time when Roman persecution and anti-Semitism was at its height; this forced intellectuals to radically re-interpret Jewish and Hellenic thought. See Kurt Rudolph, 'Stand Und Aufgaben in Der Erforschung Des Gnostizismus', in *Tagung Für Allgemeine Religionsgeschichte, Sonderhelf Des Wissenschaftlichen Zeitschrift Der Friedrich-Schiller-Universität* (Jena, 1963), 89–102.

[251] This story is integrated into various gnostic anthropogonies. In *The Secret Book of John*, Eve bears Elohim (Abel) and Yahweh (Cain) as a result of the rapes. (127) In *The Origin of the World*, all of Eve's offspring mentioned in Genesis are the result of the rapes, except Seth who is formed solely by Adam (and is therefore the genetic ancestor of the gnostics themselves, who claim to be a higher caste of human). (213-214)

[252] This sonic image is also a sexual one. Sophokles calls Ekho the nymph 'with no door on her mouth' (i.e. with an unrestrained, totally accessible sexuality). (Carson, 121) The *Orphic Hymn to Pan* (No. 11) would have us not that 'Thou [Pan] lovest the chase and Ekho's secret voice.' To be desired by Pan was no enviable position. Nonnus (*Dionysiaca* 2.92ff) tells us of a nymph saying, 'I tremble at your lustful Pan, who will persecute me like Pitys, like Syrinx--I shall be chased myself until I become another Ekho, to scour the hills and second another's speech.' Pitys and Syrinx were also pursued by Pan, fleeing his rape and meeting with woeful

To the gnostics, the Era of Procreation, in which sex and births took place, was a period of darkness. Apocalyptic imagery foretells the end of this era, and the return of the era of male androgynies who need no woman to produce, thus ensuring the return of human perfection. Once again, this idea was mainstream. In chapter two, we noted this theme in the Jewish *Sibylline Oracles*. It is also found in the *Gospel of Thomas* and the canonical gospels, where Jesus tells of the coming of the apocalypse when barrenness and dry breasts will be a blessing: this is a necessary step towards the destruction of the physical world.[254]

The material womb, then, does not fare well. However, the gnostic treatises are replete with descriptions of another kind of womb: a spiritual, paternal reproductive power that characterises the ineffable divine. The divine realm, which exists beyond the cosmos and is the dwelling place of God and all his divine emanations, is most commonly called the Pleroma (lit. 'fullness'), a reference to heavy pregnancy. The *Tripartite Tractate* is renowned for presenting its theogony as an elaborate embryology: in creating the divine realm, the Father produces aeons first in seminal

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ends. Ekho's curse of an unrestrained voice is therefore linked to her rapeability. Here, this association is extended to Eve, whose mouthiness (i.e. vulvar female anatomy) is audible and rapeable.

[253] *The Nature of the Rulers*, 193-4.

[254] *Gospel of Thomas* 149; *Luke* 23.29; *Mark* 13.17. The text in the *Gospel of Luke* reads as follows: 'And there followed him a great multitude of the people, and of women who bewailed and lamented him. But Jesus turning to them said, "Daughters of Jerusalem, do not weep for me, but weep for yourselves and for your children. For behold, the days are coming when they will say, 'Blessed are the barren, and the wombs that never bore, and the breasts that never gave suck!' Then they will begin to say to the mountains, 'Fall on us'; and to the hills, 'Cover us.' For if they do this when the wood is green, what will happen when it is dry?"' This appears to be an instance of the anti-dyad, in which stone (mountain) and tree (forest) disintegrate during the coming of the apocalypse, nature quite literally folding in on female fecundity.

state, then as embryos, and then as distinct forms.[255] The aeons, in turn, procreate sons for themselves with each thought, word, movement, presence, and hymn praising the divine.[256] In these acts of birth, the aeons collaborate as each other's midwives, bringing out their seminal emissions through mutual help, all while taking pleasure in the Father's fragrant semen.[257] This intensely homoerotic scene is brought closer to daily life when it is applied to the creation of the archetypical Church, after which the earthly Church is modelled.[258] Even the Saviour is conceived by Logos in seminal form.[259] The Sethians provide a name for this paternal womb force: Barbelo, also called the Metropator (lit. Mother-Father), Universal Womb, Triple Male, and Forethought.[260, 261] The narrative of paternal self-impregnation features the transcendent Father gazing into Barbelo in an act of spiritual sexual intercourse, who

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[255] *Tripartite Tractate,* 66. The Pleroma here is explicitly a 'brotherhood'. (71)

[256] *ibid.*, 67.

[257] *ibid.,* 70-71.

[258] *ibid.,* 80-82.

[259] *ibid.*, 91.

[260] Forethought (*Pronoia*) and First-thought (*Protonoia*) are aspects of Barbelo, who is the Thought (*Ennoia*) of the Father. See *Apocryphon of John.* Pronoia corresponds to the Greek heroic god Prometheus, whose name also means 'Forethought'. Prometheus is a god of craftsman's fire and patron of potters, who grants men pyrotechnical skills. Zeus, offended by Prometheus' actions, curses mankind with Pandora (first woman), whose womb is opened by Epimetheus (Afterthought), the brother of Prometheus, thus unleashing all evil and disaster on mankind. Manfred Lurker, *Dictionary of Gods and Goddesses, Devils and Demons* (London: Routledge and K. Paul, 1987), 289; Michael Jordan, *Encyclopedia of Gods: Over 2500 Deities of the World* (London: Kyle Cathie, 1992), 89, 244-245.

[261] See full range of Barbelo's epithets in *The Secret Book of John* (110ff) and the *Three Forms of First Thought* (721ff). In all cases Barbelo represents the feminine aspect of the Father's reproductivity.

then bears the Son of Light, called Autogenes (lit. self-generated).[262] Of course, each aspect is but a feature of the androgynous transcendent God himself.

This paternal womb is continuously described with sonic language. The Tripartite Tractate tells us that divine silence is a series of eternal births.[263] The womb Barbelo is also the voice of the divine's thoughts.[264] This voice is the bringer of knowledge to the gnostics, speaking directly to their inner most spirits. In aspiring to a fully spiritual form, the gnostics aimed to acquire the androgynous womb power of Barbelo. Despite their diversity, the gnostic anthropogonies overwhelmingly agree that First Adam—the divine human archetype—was androgynous and only became bereft of his womb-like genitalia after his fall into a material state.[265] When he ascends up to God, the gnostic will shed his material form and its reproductive limitations.

The 'Parable of the Jars' features in multiple gnostic tractates, including the *Gospel of Truth* and the *Gospel of Thomas*. This enigmatic tale has stumped both translators and specialists in the field.[266] In the more complete version in the *Gospel of Truth*, the narrative describes people moving from one house to another, discarding all jars that are broken, leaking, empty, or without seals, and keeping only those which are full,

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[262] *Secret Book of John*, 110-113.

[263] *Tripartite Tractate*, 67.

[264] *Three Forms of First Thought*, 732ff.

[265] Note that in *The Secret Book of John*, an elaborate description of the archetypical Adam lists all his genitalia: penis, testicles, and uterus. (118) Further, the gnostics are confirmed as the parthenogenetic offspring of the androgynous Adam, thereby preserving more of their divine attributes than the utterly condemned caste of humans who remain merely material. (127)

[266] For example, see Einar Thomassen, who states that 'it is not clear precisely what the sorting of the jars refers to', and offers no interpretation of the allegorical meaning of the jars themselves (NHC, 31). See also Dunn's commentary on the *Gospel of Truth*, where he calls the Parable of the Jars 'rather muddled' and offers no further analysis. W. Dunn, 'What Does "Gospel of Truth" Mean?', *Vigiliae Christianae* 15, no. 3 (1961): 164.

intact, and sealed.[267] This is not the only reference to concept of fullness, as this is the very title for the divine realm itself (Pleroma, lit. 'Fullness'), the reproductive domain of the ineffable Father. In one passage, the apocalypse is described as a process of shaking and sorting the jars; God's redemption is likewise seen as a refilling and re-sealing of jars.[268] Ancient Greek myths, especially that of Pandora, suggest that jars have a reproductive meaning; houses, likewise, suggest allegorical discourse on the body.[269] Redemption, then, is the impregnation (filling) and restored virginity (sealing) of the reproductive capacity (the male-womb, the jar). In ascending from material to spiritual form, the gnostic changes bodies (houses), only taking with him full jars when he graduates from material body to spiritual form. Salvation is achieved when the brokenness and emptiness of the male body is finally repaired—although born of woman into a mortal and material form, man has achieved immortality by

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[267] *The Gospel of Truth*, 40-41.

[268] *ibid.*, 40-44.

[269] The earliest precursor to the Parable of the Jars that I have been able to locate is in the *Iliad*, where Akhilles, mourning the loss of his beloved Patroklus, reflects on the human condition. He claims that the sorrowless gods have 'spun the thread [of Fate] for wretched mortals, that they should live in pain'. According to Akhilles, Zeus possesses two jars, one full of suffering, the other of blessings. The god, says Akhilles, never gives only blessings to a man: the only two options for mortal life are a life of anguish, or a life where joy and pain mingle. (*Iliad* 24.525-551) Upon Akhilles' death, the beloved friends are reunited in paradise; on earth, both warriors' cremation ashes are combined in the same golden canopic jar. The golden jar appears to serve as a reference to the immortality granted to them on account of their warrior prowess. (See discussion of this myth in Jenny Strauss Clay, 'Fusing the Boundaries [Apollo and Dionysos at Delphi]', *Mètis. Anthropologie Des Mondes Grecs Anciens* 11, no. 1 (1996): 83.) The jars, then, represent mortal existence. This resonates with the myth of Pandora, whose opened 'jar' (that is, her non-virginal, reproductive womb) brings misery to mankind. Together, these stories teach us that to be born of woman—to be mortal of body—is misery. If the womb is a jar, then the body born of woman is also a mere vessel. Only the most valiant, rational men escape this fate.

acquiring a spiritual womb through knowing the womb-possessing divine Father. The *Secret Book of John* confirms my interpretation: it details a baptismal ritual, which it explicitly characterises as a 'rebirth', during which the believer is sealed with five seals. The baptised man, we are told, has left behind his mortal form and has achieved immortality. The soundscapes evoked by the ritual are telling: on the inside, the gnostic's transmutation is sparked by the call of Barbelo's metropaternal voice; on the outside, the actual baptismal ritual involves extensive vocal performance, including glossolalia.[270] Enlightened man's vocal apparatus mimics the divine reproductive vocality in the process of rebirth. Man, in other words, achieves enlightenment through spiritualised, masculinised vulvar vocality (i.e. an androgynous vocality subsuming both female mouths).

Separating fire and light

The gnostic tractates dedicate a large portion of their theoretical material to the theological task of distinguishing light and fire. In the hermetica, we noted a hierarchy of heat sources: at the lowest end, volcanic heat, and at the highest, the immaterial light of the divine. Gnostic texts impose this hierarchy on the Hebrew scriptures, attempting to rid them of their ancient metal smithing references and replace them with more philosophic images of light. We must not make the mistake of interpreting this as a rejection of metallurgical ideology—rather, the gnostic texts attempt to elevate and strengthen metallurgical imagery, imagining the craftsman at his highest possible level of attainment. This craftsman no longer has interest in smelting ore in material furnaces; instead, he has ascended to the realm of divine craftsmanship, forging souls. In doing so, techno-birth has been imagined as the gateway through which men can escape the material world and enter the pregnant Pleroma: only a man highly skilled in operating artificial wombs could attempt such a spiritual feat.

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[270] *The Secret Book of John*, 131ff.

Light represents all that is divine. Logos is illumination; Barbelo's voice is 'light in light'; the Metropator births 'light shining in splendour'.[271] There are three levels of baptism: at the most rudimentary level, it is baptism by water; at the intermediate, by fire. True baptism is a fireless light that brings ultimate rebirth.[272] This corresponds to the gnostic caste system of light, fire, and darkness.[273] The psychical people of fire form 'the Order of Light', which remembers the divine androgynous origins of man and fights battles against darkness; these craftsmen possess the right to lay claim to the entire cosmos as their property.[274]

As with the CHA, there are two classes of fire in the gnostic texts. 1) As with baptism by flame, a tempered fire can be an intermediate state on the path to light. *The Gospel of Truth* teaches that *gnosis* is purification by fire, an image suggesting that the self is put through smelting processes.[275] 2) However, pyrotechnical craftsmanship can also be used as a weapon against the divine light. Yaldabaoth uses masturbation and luminous fire to produce cosmic aeons within the material world—he then shares with them his pyrotechnical skills.[276] In order to prevent Adam from becoming aware of divine light, Yaldaboath and his henchmen kidnap him and anti-smelt him into a mortal, material body:

> They took fire, earth, and water, and combined them with the four fiery winds. They wrought them together and made a great commotion. The rulers brought

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[271] For example, see *Three Forms of First Thought*, 730; *Nature of the Rulers*, 198; *Secret Book of John*, 125. However, note that the idea of illumination is found across the gnostic tractates.

[272] *Origin of the World*, 218.

[273] *Tripartite Tractate*, 93.

[274] *Tripartite Tractate*, 78-79. *The Origin of the World* specifies that earthly men acquire skill in fire craft from the psychical caste. (217-18)

[275] *The Gospel of Truth*, 40.

[276] For example, see *The Secret Book of John*, 115-116. See also parallel in *The Nature of the Rulers*, 197.

> Adam into the shadow of death so that they might produce a figure... from the ignorance of darkness, and desire, and their own phony spirit. This figure is the cave for remodelling the body that these criminals put on the human, the fetter of forgetfulness. Adam became a mortal person, the first to descend and the first to become estranged.[277]

In a similar vein, Sodom and Gomorrah are construed as gnostic cities of light, attacked by the metallurgical Yahweh-Yaldabaoth.[278] In each case, Yaldabaoth becomes the anti-metallurgist who reverses purification, using furnaces to taint rather than to purify.

Explanations of fire in *The Concept of Our Great Power* help us understand how gnostic fire and material fire relate to each other: the gnostics are assured that '[w]hoever knows [lit. from *gnosis*] our great Power will become invisible. Fire will be unable to consume such a person, but it will purify. And it will destroy all that you possess.'[279] In this sense, gnostics are able to harness fire to simultaneously destroy their physical bodies while also purifying their spirits: because light is a more divine form of fire, the illumination of knowledge protects the spiritual self from harm. In contrast, the volcanic depths of the earth cannot escape their own destructiveness:

> From the depths came fire... The mother of the fire did not have Power. She sent fire upon the soul and the land, and she burned all the dwellings in it, until her consuming rage ceased. When she can find nothing else to burn, she will consume herself. The fire will become incorporeal, with no body, and it will burn matter until it has purified everything, including all that is wicked. When it can find nothing else to burn, it will turn on itself until it consumes itself.[280]

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[277] *The Secret Book of John*, 125.

[278] For example, see the *Holy Book of the Great Invisible Spirit*, 261.

[279] *Concept of Our Great Power*, 395.

[280] *Concept of Our Great Power*, 396-7.

This great conflagration will bring about the end of the cosmos, the end of all matter, and the end of the Era of Procreation.

The gnostics, then, do not turn their back on smiths and metallurgists. Instead, they construct metallurgical knowledge and skill as an intermediate state on the way to true transcendence. In other words, practical metallurgy provides essential skills for those wishing to discover the luminous divine. Gnostics rid the divine of all baser forms of smithing: Yaldabaoth, the embodied Canaanite Yahweh who uses fire to further the grip of materiality over man, is rejected as the archetype of the corrupt smith. According to Sophia's oracle in *The Origin of the World*, enlightened men will exact a very metallurgical revenge on all who trap them in their bodies, trampling Yaldabaoth like potter's clay.[281] The dichotomy posed between smelt and anti-smelt is the very same proposed between the *ouroboros* (symbol of metallurgical illumination and rebirth) and Apophis (symbol of chaotic matter who attacks Ra to prevent rebirth). Both symbols are serpents, just as both the gnostic and Yahweh are craftsmen. The two, however, are diametrically opposed and locked in the grandest of cosmic battles.

Distinguishing sound and silence

The above materials have already sketched a divide between two opposing soundscapes: the silence of rebirth and the sounds of materiality. When the *Tripartite Tractate* tells us that Logos is made up of spiritual ejaculations, it hastens to clarify that no voice is needed because these processes are purely spiritual.[282] Other Valentinian texts assert that God's seminal fragrance is far superior to any sound.[283] Likewise, the First Man gives birth to powers, words, and commands that are entirely

[281] *The Origin of the World*, 206.

[282] *Tripartite Tractate*, 67.

[283] *Gospel of Truth*, 44.

inaudible.[284] In the *Gospel of Truth*, this silence also applies to *gnosis*, which is revealed by divine utterance filling the gnostics' ears, who hear the divine calling them by name.[285] These names are contained within a book of the Father's Letters—living, knowing means of knowing God.[286] The glossolalia performed on earth by the gnostics, then, are a crudely audible imitation of the angelic language that approaches the inaudible name of God. Like the initiate in the CHA, the gnostics will eventually progress to more profound quietudes.

Despite their emphasis on silence, the Sethian texts also wish to ascribe vulvar vocality to the ineffable. We are told that Barbelo's female voice, which gives all things their shape, is a womb with an 'unrestrainable voice'.[287] Yet even this reproductive loudness remains surrounded by references to silence—even the loudest emanations of paternal reproduction must always be inaudible.

In the NHC, terrestrial soundscapes are far messier. Female creative power is decidedly audible: Eve-Zoe speaks life into Adam to vivify him, her voice transforming him from abortion to breathing, walking human.[288] In revenge, Yaldaboath orchestrates her rape. In a startling enactment of vulvar vocality, the punishment is both vocal and sexual: 'first they defiled the seal of her voice, which said to them, "What exists before you?"', and then they 'defiled her in many ways natural and obscene'.[289] At her moment of bifurcation, Eve's raped body is construed as an audible echo, and thus we might understand that it is Eve's vocality that forms the basis of her material form.[290] We can also better understand the 'Parable of the

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[284] *ibid.*, 69.

[285] *ibid.*, 45.

[286] *ibid.*, 39.

[287] *Three Forms of First Thought*, 732.

[288] *Origin of the World*, 213ff.

[289] *ibid.*, 213-15.

[290] *Nature of the Rulers*, 193.

Jars' to refer to vulvar vocality: the jar is not only the lower mouth, but also the upper mouth as well.

This violent imagery is transferred to the apocalypse: the Mother of Matter (called Error and Empty) loudly laments when the broken and leaking jars are destroyed. This destruction is surely a metaphor for the annihilation of material reproduction itself, and by extension, material women who have had sex (lost their seal) and given birth (leaked).[291] We now know that sex and birth also correspond to voice and expression. The conflagration that brings an end to the Era of Procreation is therefore also the destruction of women's sexualities, vocalities, and agency. As the archetypal mother, Error's cries resonate with all the audible maternal anguish we have heard in previous chapters.

Part Three: Metallurgical syncretism across collections

While the NHC offers unique imagery and exegeses, it essentially replicates all of the fundamental features of the PGM and CHA. In all three collections, man re-forges himself through his intellect and spirit, achieving an escape from his material form and maternal origins. In both the CHA and NHC, the original man Adamas was androgynous, but was robbed of his full reproductive power when he became material. The enlightened man's denial of his maternal origins, therefore, also constitutes a usurpation of female reproductive capacity—something we observed in chapters four and five as furnace craftsman usurped reproductive symbolism in creating their artificial wombs. We witness here the forging of a common metallurgical identity across Judaism, Christianity, philosophy, and various polytheisms.

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[291] *Gospel of Truth*, 40ff.

The CHA and NHC provide a brilliant innovation on the concept of artificiality: the furnace does not echo women, but rather enables men to regain the power they lost to women. Techno-birth, within this framework, is the most authentic and original kind of procreation. This, in turn, contributes to the art-nature debate by arguing that man cannot overstep the appropriate boundaries of artisanal creation, for all of his technological efforts merely repossess the divine right stolen from him. The mage in the PGM occasionally worries that he might anger Helios, but the hermetic and gnostic initiates appear far bolder in the face of illumination. This confidence is essentially obstetrical. While the Mesopotamian male-midwives and the gods of ancient Greece acted in the birth rooms and even attempted pregnancy, their escapades were often fraught with insecurities and disasters. By late Hellenic and Roman times, our metallurgists have significantly progressed in their confidence and command over the domain of obstetrics. They have even claimed, with great confidence and theoretical brilliance, that enlightened men such as themselves were the original human womb-possessors and male-mothers. Their authority over the birth room and over the domain of midwifery could not be more assured.

The gnosticising God is composite figure, made by uniting gods of the smelt, the sun, and fertility, and rendering the Monad transcendent. This androgynous Father represents the highest form of the craftsman's reproductive consciousness—'for making is characteristic of a father'. The syncretic metallurgist looks to the Monad as the dynastic Pharaohs looked to Ra, for 'it is [God] who continuously births him' (see Appendix C). The metallurgist can claim absolute authority as an obstetrician because his god is the ultimate womb-bearing Metropator. While the Father of the PGM, CHA, and NHC bears strong similarities to Egyptian and Hebrew gods, he is an essentially Platonic character who poses no threat to Greek philosophical systems.

Both the One God and the metallurgist have swallowed up the maternal, as Zeus did the pregnant Metis, and have fallen in love with their own image. Narcissus now has an earthly and heavenly form, fixated on his reflection in the waters, while Echoes of the female divine suffer the seizure of both their mouths, condemned to lamentation and mimicry. Norea is such a character—depicted as the daughter of Noah, she remains resolutely virginal (i.e. non-sexual, non-reproductive, intact jar) and mimics the enlightened male's path to God, eventually finding a place in the Pleroma. Norea calls out for salvation and, when elevated to the heavenly realm, she is 'granted... the

two voices of the holy ones, so that she might rest in ineffable Insight and inherit the First Mind... and rest in the divine Self-Generated, and generate herself, as she also has inherited the living Word, and be joined to all the imperishable ones... so as to speak with words of life.'[292] The *Thought of Norea* makes clear that Norea and Adam, the bifurcated earthly female and male, are bound together to re-form Adamas the androgyne. Norea, then, never truly exists. She is but the embodiment of the missing reproductive component of Adamas. When she is reabsorbed to the paternal in heaven, her own voice disappears, and she acquires two heavenly voices—in other words, Adamas now possesses an upper and lower mouth (an androgynous, reproductive voice) into which Norea has been assimilated.

Technobirth and the politics of reproduction

The discourse of techno-birth is essentially that of ownership: *gnosis* and salvation are understood as men's rightful repossession of reproductive power. We have previously noted that, in the *Tripartite Tractate,* the members of the Order of Light (the second-most eminent spiritual order in the gnostic caste system) are described as craftsmen who possess the skills of tempered fires and furnaces. They are also declared the rightful owners of the material cosmos, capable of challenging the authority of Yaldabaoth. Here we can extend our analysis: first, the spiritual caste's claim to ownership gives them a particular class identity—they may not belong to the pneumatic caste (who are construed as the spiritual royalty or aristocracy of the gnostic world), but they form the large majority of the population that can achieve salvation. They are, in other words, similar to the mage's own clientele: the merchants, landowners, and wealthy civil servants who form the second tier of the upper class (i.e. below the aristocracy).

Throughout the PGM, CHA, and NHC, the landowning class is allegorised as a spiritual caste that can claim several forms of ownership in addition to the material

[292] *The Thought of Norea*, 610.

ownership of the cosmos. First, they claim ownership of the intellectual property necessary to embark on the gnostic path towards revelation (i.e. access to secret knowledge possessed only by the elect); and second, they seize ownership of female reproduction as the key to male completion and ascendency. This latter claim takes several forms, in this world and the next: first, the take-over of the professional domains of midwifery and medicine in daily life; second, the arrest of female reproductive power by the craftsmen who control the artificial womb and techno-birth; third, the ritual sexual and reproductive coercion of women, in the form of rape magic; and fourth, the claim to divine ownership over the spiritual womb and, by extension, of any claim to the status of Divine Creator.

This connection between social class and spiritual caste helps us begin to solve a difficult puzzle: why was so much anti-material discourse produced by upper class men across sectarian divides in Hellenic and Roman society? There are several apparent contradictions here: first, that anti-material discourse should depend on metallurgical ideology, which cannot be separated from the very material, physically laborious crafts of smelting and smithing; second, that discourse against the material world would be fabricated by the classes that most enjoyed material wealth and physical luxury. Green has suggested that anti-materialist discourse reflects the frustration of the Jewish Epigones who were disenfranchised and persecuted under Roman rule.[293] While he was correct that gnosticisation was 'the product of a particular social group or class', he is incorrect in assuming that all gnosticisation was iconoclastic and resistant.[294] Williams and van Groningen have presented extensive evidence that most gnostics were, in fact, pro-imperial and collaborative: instead of 'world-rejecters' like many orthodox Christians, they were 'world-embracers'.[295]

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[293] Green, 11.

[294] *ibid.*

[295] *ibid.*, 109. If, like Williams, we accept the differentiation of churches and sects as the former showing low tension with sociocultural context and the latter showing high tension,

While they shared in the mainstream elite Roman anti-corporeal discourse, their devaluation of the body rarely extended to lived practice.[296]

Our findings suggest a new hypothesis: when we reconsider gnosticising texts from the perspective of caste and class, we can see that the anti-materialist discourse in fact naturalises hegemony, not only providing a theurgic justification for social inequality, but also naturalising the hoarding of spiritual resources for the small number of elect intelligentsia. In a dramatic capture of religious authority, gnosticising texts asserted that the witchcraft, local oracles, collective cultic practice, and folk religion of the people was no longer a sufficient means of contacting the divine. Likewise, the polytheistic practices that re-enforced surviving forms of the divine feminine and maternal principles (for the cults of the Greek, Roman, Mesopotamian, Egyptian, oriental, and even Canaanite goddesses were still extant in the Common Era) were rendered entirely obsolete, thus completing (at least theoretically) a millennia-long process of eroding goddess cults with astralisation, transcendentalisation, and reduction towards monotheism.

I disagree, then, with Karen King's interpretation of the demiurgical traditions. She argues that authors of these myths felt that their bodies subjected them to oppression, humiliation, physical abuse, pollution, and exploitation. She concludes that the demiurgical traditions represent the gnostics' desire for an escape from real-world oppression, the narratives of ascent reflecting the gnostics' traumatic psychological disassociation from their own bodies. The demiurges, in her view, represented the

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then gnostic groups were more like churches, whereas Christians (who had high number of martyrs, ascetics, violent exclusivists, and anti-state activists) were much more like sects. (Williams, 110)

[296] Dodds, 35. Williams, 118.

nefarious imperial powers in the Roman world.[297] As with many scholars who are sympathetic to the gnostic message, King's analysis foregoes any mention of the gnostics' own hegemonic position within Roman society and portrays them as egalitarians who found creative solutions to their own victimisation. The reality, however, is less utopian. King's initial observation is correct: the gnostics did locate their vulnerability in their corporeality. This, however, was a result, not of the experience of social vulnerability, but rather of the desire to increase and inculcate their claim to elite status.[298] If the gnostics did experience any vulnerability, this occurred in the sense Green elaborates, where groups of wealthy men felt threatened by each other's claim to power and by the unstable political climate caused by the upper classes' own internal competitiveness, greed, and fiscal and environmental irresponsibility. In my view, the upper classes' frustration with materiality represents a resistance to the stark limitations that nature places on mortal power acquisition—within the gnosticising perspective, it is a gross injustice that kings, like peasants, succumb to disease, violence, and age. The demiurge is vilified as part of a process of creating a universalising transcendental god who will enable a select group of the finest men to transcend, through spiritual rebirth, the boundaries set by mortality. The gnostics, in other words, are finally fully separated from peasants, and are able to escape death and disease. Unlike their limited material wealth, the gnostics' spiritual accumulation is infinite; unlike their finite political aspirations, their illumination is

[297] Karen King, 'Ridicule and Rape, Rule and Rebellion: The Hypostasis of the Archons', in James M. Robinson and James E. Goehring, eds., *Gnosticism & the Early Christian World: In Honor of James M. Robinson*, Forum Fascicles 2 (Sonoma, Calif: Polebridge Press, 1990).

[298] Plumwood emphasises the vulnerability inherent to identities of the dominant class: the master needs the slave to exist and thus goes to great length to develop ideologies that background, absorb, and instrumentalise the slave within the master's own identity. (48ff) Here we can see how the wealthy classes producing gnosticisation posed as vulnerable and persecuted (despite having above-average wellbeing) and yet, oddly, deserving of spiritual ascent once reserved for the pharaohs themselves.

unbounded. In ascending to the Pleroma, the ideal man can finally achieve absolute and eternal mastery. The concept of caste is vital: the ideal spiritual or pneumatic man is naturally destined to these heights, whereas commoners are naturally destined to hellfire or annihilation.

Metallurgical narratives of birth and rape

The PGM, CHA, and NHC agree that being born of woman is the cause of death and vulnerability, and that rebirth via knowledge of the luminous Father grants men access to their authentic, immortal selves. As in the Pauline epistles of the New Testament, man is a mere abortion until he is reborn. In other words, human women never truly achieve childbirth—as leaky jars producing more leaky jars, they only replicate their own abortive forms. There is no platform for female agency or integrity, and material women have no share in the divine. The divine feminine principle we witnessed in chapters two through five has disappeared entirely. Sophia and Barbelo, the feminine divine emanations, function merely as the female component of the Father's androgyny. They do not exist of their own power and cannot claim reproductive agency, except where Sophia unwittingly produces monstrous abortions and darkness.

This comprehensive denial of the divine feminine principle functions within the context of startling sexual violence against the female: PGM, CHA, and NHC all feature vivid imagery of rape. In the PGM, this rape constitutes real physical assault that also serves as metallurgical allegory. In the CHA, Logos mounts watery nature to extract her wild fire. The NHC goes the farthest with this in its cosmogonies: while the hermetica depict Nature capturing Adamas in a material body by joyfully seducing him, the NHC narratives portray sex being introduced into the cosmos via the gang rape of the First Eve. These stories assure us that the higher, spiritual form of Eve (who can also be called Zoe or Sophia) escapes the assault. No narrative allows Yaldabaoth's henchmen to defile the spiritual femininity, which, we are told, ultimately emanates from the heavenly aeons. Yaldabaoth, the corrupt king of matter, only rapes a corrupted Eve. In this way, rape is strongly justified—it is a natural occurrence within corrupt matter. The human practice of sexual intercourse is the consequence of this rape, thereby construing both consensual sex as filthy and rape as

the most natural or original form of sex.[299] Only in the final smelt (the apocalyptic conflagration that extinguishes all matter), will the taint of sexuality be destroyed.

The question remains how any woman might achieve salvation within the gnostic system, if her very sexuality and maternity are construed as inherently evil and exploitable. Here we must return to the *Gospel of Thomas*, where Jesus said, 'I myself shall lead her [Mary Magdalene] in order to make her male, so that she too may become a living spirit resembling you males. For every woman who will make herself male will enter the kingdom of heaven.' There are several examples of women achieving maleness in gnosticising literature, including Norea (see above). These exemplary women are very much like Saint Augustine's own mother, the modest, desexualised Monnica, who serves to demonstrate that even mortal mothers can deny their physical wombs and achieve intellectual and spiritual maleness.[300]

Correspondences between gnostic and canonical Christian texts

Augustine was not alone in his assumptions. As we saw in chapter two, the de-feminisation of female Christians was a mainstream teaching in orthodox Christianity, confirmed in the writings of the Church Fathers. The canonical *Gospel of John* relates the same principle: 'Jesus [said:] "Truly, truly, I say to you, unless one

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[299] This equation of rape and sex is unsurprising, as the concept of sexual consent did not exist in either Greek, Roman, or Jewish society. Rape was defined as one man's assault on the sexual ownership claims of another man, and never as a man's assault on a woman. Married women, slaves, concubines, prostitutes, and women outside of the household had no legal or socially-recognised claim to their own bodies. Unmarried women and girls also had no right to sexual pleasure or activity, and both Roman and Jewish families typically raised daughters in harsh environments and married them between the ages of twelve and fifteen. (Green, 83) Roman polytheists, Christians, and Jews produced virulently misogynistic literature throughout this period.

[300] See Virginia Burrus, *The Sex Lives of Saints: An Erotics of Ancient Hagiography* (Philadelphia: University of Pennsylvania Press, 2010), 76ff.

is born again he cannot see the kingdom of God."' In other words, to be born of woman is not spiritually sufficient. The passage continues with one of the most famous of Christ's declarations:

> 'For God so loved the world, that he gave his only Son, that whoever believes in him should not perish but have eternal life... And this is the judgment: the light has come into the world, and people loved the darkness rather than the light because their works were evil... But whoever does what is true comes to the light.'[301]

Jesus' solution to the debasement of physical birth is remarkably similar to that of the Pharaoh Ramesses: both present illumination as the final destination for the elect few. The concept of salvific illumination, then, is far from heretical within Christianity. Jesus's words in Matthew also appear to support the concept of a spiritual caste system: 'Truly, I say to you, among those born of women there has risen no one greater than John the Baptist; yet he who is least in the kingdom of heaven is greater than he.'[302] To put this in gnostic terms, the lowliest man belonging to the spiritual caste (who have transcended their bodies) is superior to the best of the pneumatic caste who have not yet found complete illumination.

We can see, then, that the violent conflict between later 'orthodox' Christian authorities and the gnosticising groups was not over core metallurgical ideologies, for smelt-like purification rights and doctrines of rebirth, illumination, and male possession of the womb were common to both. Copenhaver emphasises that *enpneumatosis* (lit. 'inspiration') was a fixation for both gnostics and orthodox Christians; for both, the process of becoming inspired was one of immaterialisation.[303] Likewise, both the Christians and the gnostics were deeply invested in the

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[301] *John* 3.16, 19, 21.

[302] *Matthew* 11.11.

[303] Copenhaver, xxxviii. He also notes strong preoccupation with this concept in Galenic medicine and stoic physics.

transcendentalisation of the divine.[304] In my view, the conflict between these groups concerned the source of authority over salvation: for the gnostics, salvation was strongly interior and the divine could be located in the inner man as part of his caste privileges; for the Church Fathers, this interiority was abhorrent and counterproductive to the building of Christianity as an institution woven into the fabric of a newly Christianised Roman Empire. The Church came to be patterned more after the state or military, with strict real-world hierarchies of religious and spiritual authority. The Church, and not the individual, possessed the key to the gates of heaven, and its mission of salvation was global and not restricted to a small caste of intellectuals.[305] In other words, the early Christian clergy, who aimed to possess imperial power, would not tolerate any upper class men posing additional (personal, interior) claims to spiritual authority. In order for a stable orthodox Christian church to emerge, gnosticism had to be recast as heresy and violently persecuted. For similar reasons, the Church strongly opposed all oracles, dismantling them at the first opportunity. Revelation, according to the orthodox, was to be found in the newly-established male priesthood and canonical Bible, and not through the mouths of women.

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[304] Williams, 65: 'Christian language about God increasingly reflected the heritage of Hellenistic-Roman philosophical presuppositions about divine transcendence, mediated in many or most cases through intellectual traditions from Jewish circles.' Apparently, some early Christians did argue in favour for divine corporeality (as evidenced strongly in the Hebrew scriptures), but most rejected this literal interpretation in favour of transcendence.

[305] Bettini interpets the phrase 'keys to the kingdom of heaven' to have explicit midwifery reference, as the techniques of opening locks and untying knots were associated with birth attending throughout antiquity. Maurizio Bettini, *Women and Weasels: Mythologies of Birth in Ancient Greece and Rome*, trans. Emlyn Eisenach (Chicago: The University of Chicago Press, 2013), 60-61. This is reminiscent of the pudenda key spells in the PGM.

Alchemical transmutation forges the homunculus

We know very little about the earliest alchemical practitioners. Zosimos (fl. 300) names the earliest master of Alchemy as *Chemes*, a mysterious figure who functions as a legendary ancestor to gold-makers.[306] The earliest surviving alchemical texts date to the early fourth century, transmitted via medieval copies.[307] All of the names of early alchemists are associated with Egypt.[308] A second or third century date for the beginnings of alchemy places it in the same time period and geographical region as much of the NHC, CHA, PGM, and GEM.

While many alchemists believed their work to be divinely inspired, some of the early narratives reflect the anxieties of the art-nature debate, claiming that rogue angels betrayed god's secrets in teaching metallurgical and alchemical techniques to man.[309] We know that Zosimos was highly conversant in the hermetica and in the gnostic literature—he was a prolific writer who united theological speculation with philosophical concepts to form a technological basis for theurgic chemistry.[310]

In the introduction to this chapter, we already noted that Zosimos claimed that his art was able to elevate and perfect nature. Like the stoics and Galenic physicians, Zosimos searched for *pneuma*, which he understood to be the semi-material spirit that could be released from the body in magical laboratory procedures. In his treatise *On Virtue* (which we possess in part, thanks to medieval Islamic scholarship), Zosimos 'argues that in order for the alchemist to succeed, Nature (*physis*) must be "forced to the investigation" (*ekthlibomene pros ten zetesin*), whereupon she, suffering (*talaina*), will take on successive forms until her punishment renders her spiritual.'[311] The

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[306] Seligman, 79.

[307] *ibid.*, 80.

[308] *ibid.*, 80-81.

[309] *ibid.,* 81.

[310] Newman, 29.

[311] *ibid.*, 30.

allegory of the torture of nature corresponds to particular laboratory techniques: in a vision, Zosimos sees a flask of boiling water, in which innumerable men (that is, mere bodies corresponding to base elements) are writhing and moaning, being boiled alive and yet not entirely dying: this process is called 'embalming', whereby 'those men who wish to obtain virtue come hither and become spirits, fleeing from the body.'[312] This allegory of physical punishment corresponds to the transmutation of copper into silver, and finally, into gold.[313]

Following contemporary gnostic ideals, Zosimos understood his technical procedures to be cosmically salvific. Newman summarises these connections as follows:

> A prominent theme in the corpus hermeticum is the Gnostic idea that the body is a prison for the soul. The material world, according to Hermes, is animate and ensouled, but it was corrupted by the Fall. Zosimos adopts this idea wholeheartedly and imbues the alchemist with a strong sense of religious purpose—liberating the world from sin. He should do this literally by purging matter of its dark and heavy attributes. By a process involving distillation, purification of residues, and other operations, Zosimos and his contemporaries hoped to remove the impurity of matter and to make it pneumatic, thus 'resurrecting' the material world.[314]

At the utmost heights of his techno-theurgic power, Zosimos dreams of being able to form a human male without the need of a female body. This 'homunculus' appears inside of a flask, its weak, barely audible voice descending from above, saying:

> The sacrificer himself is remaking me by rejecting the thickness of my body and, consecrated out of necessity, I am perfected as *pneuma*... For someone has come at the break of dawn, running, and he has made himself my master, cutting me apart with a knife, tearing me asunder according to the constitution

[312] *ibid.,* 30-31. See alternate translation in Zosimos, in *The Alchemy Reader*, 51.

[313] See the conclusion of 'Lesson 1' in Zosimos, *The Alchemy Reader,* 52.

[314] Newman, 171.

> of harmony, and skinning my entire head with the sword that he clasped. He intertwined the bones with the flesh and burned me up with the scorching fire from his hand until I had learned to become *pneuma* by metamorphosing my body. Behold the intolerable violence that is my lot.[315]

The theme of self-immolation corresponds to our findings in the NHC, where *gnosis* is purification by fire. It is no mistake that the homunculus's voice is faint, for he barely holds on to any materiality. Zosimos reports that, while he was pressuring the homunculus to speak more, the tiny figure's 'eyes became like blood and he vomited forth his flesh. And I saw him change into a mutilated homunculus (*anthroparion*), biting himself and bounding himself with his own teeth. I, Zosimos, was seized with fear.'[316] The great alchemist, despite his claims to have mastered a morbid control of nature, was still in the grip of ancient anxieties. With trepidation, Zosimos' dreams imagine accomplishing in the material world what the hermetics and gnostics only believed possible in the mind or in the afterlife: that is, the total liberation of man from his reproductive dependence on the female body, and therefore from the limitations of matter itself.

We can see how far we have come from the tales of Myron and Daedalus, who attempted life-like bronze statuary and used quicksilver to grant motion to automatons. 'In the work of Zosimos and subsequent alchemists, we see an attitude toward human art [i.e. craftsmanship] that is radically different from that of other ancient traditions.'[317] No longer does man wish to imitate or trick the eye into believing that glass is emerald. Man now wishes to truly change lead into gold and transmutate his very bodily essence. By rights of his *gnosis* of the spiritual womb and furnace womb, the alchemist can now achieve the ultimate paternal metallurgical goal and actually produce his own offspring independently.

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[315] *ibid.*, 171-172. See alternate translation in Zosimos, *The Alchemy Reader*, 51.

[316] Newman, 171.

[317] *ibid.*, 32.

This tantalising idea inflamed imaginations for centuries. Early Islamic scholarship enthusiastically adopted alchemy, and their scholars transmitted and elaborated on Roman alchemical processes in expansive treatises.[318, 319] Several extant Arabic treatises contain translations or poetic renderings of *Salaman and Absal*, a Syriac Aramaic (i.e. east Roman) alchemical tale written by the end of the fourth century.[320] In this narrative, a king consults a wise sage for help with a seemingly impossible

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[318] Most of the Islamic scholars who promoted alchemy were also Sufis. Sufism replicates many of the concepts of man's ascendance towards the transcendent Divine, including imagery of fire, light, gold, and unification with a procreative male Divine. There is a lasting problem for scholars studying the origins of Sufism—it did not emerge as an esoteric sect later in Islam's development, but rather demonstrated a strong presence from the earliest periods of the religion. However, our understanding of metallurgical ideology enables us to propose a new solution: that metallurgical ideology saturated the world absorbed by the Islamic conquest, directly translating gnosticisation into the religion's initial formation. This proposal will need to be verified in future research. For details regarding the origins of Sufism and its conceptual foundations, see Houari Touati, *Islam and Travel in the Middle Ages*, trans. Lydia G. Cochrane (Chicago: University of Chicago Press, 2010). See chapter seven for further discussion of Islamic studies.

[319] *The Book of the Cow* (anonymous) and *The Book of Collection* (written by the Persian polymath Abu Mūsā Jābir Ibn Hayyān, late eighth century) both expand on methods for producing a homunculus. The former is a particularly gruesome text detailing a process for mixing human semen with phosphorescent sunstone to inseminate a cow that is kept in darkness and fed with animal flesh. The resulting homunculus is vivisected to grant the alchemist immense powers. See Newman, 179-182.

[320] Newman posits that the names Salaman and Absal, which sound Aramaic, stem from stories of a Sramana ('ascetic') being tempted and seduced by Apsara, a type of female succubus demon who specialised in obstructing the ascetic's path to illumination. (177) As the tale mentions the temple of Serapis, it must have been written before the Serapaeion's destruction by the Christian emperor Theodosius at the end of the fourth century. Newman, 177.

problem: to remain spiritually pure, the king has vowed to avoid all contact with women; however, to ensure the stability of his realm, he must produce a son and heir. The sage, who is revealed to be an alchemist, assists the king in producing a son, using only the king's semen. The process is successful, and the king acquires a beautiful son full of perfection and vitality. The son, however, falls away from his rightful path when he loves the seductive virgin, Absal, who wet nursed him. The king and sage collaborate to help the prince re-find his path, convincing him of the futility of loving women. In various versions of the story, the wet-nurse is killed either by immolation or by drowning. This imagery of death by watery womb or uterine heat serve as morbid reproductive metaphors—Absal is annihilated by her own maternity once the alchemist turns nature against her. In the end, the son spends extended time under the guidance of the alchemist, and achieves full emotional detachment from any love he might have felt for women—only then does he proceed to take the throne.[321] We might extend our epithet from previous chapters and call Salaman a plated prince, for he has achieved mastery and royalty through full acceptance of the metallurgical ideology of masculinity.

Newman concludes that *Salaman and Absal* is 'a Platonically inspired parable of the rejection of the physical world in favour of the immaterial world of forms.'[322] To this, we must add that rejection of materiality is achieved through rebirth. Despite the plethora of deities and symbols etched and allegorised throughout the texts and magical paraphernalia we have encountered, what is most striking is the profound stability of this concept of male rebirth. By the time we have made our way from

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[321] Newman summarises different versions of the tale, 174-176. A translation of the Persian poetic rendering of the tale can be found in *Persian Poems: An Anthology of Verse Translations* Ed. Arthur John Arberry (Tehran: Yassavoli Publications, 2005), 171ff. In this version, by the fifteenth-century Sufi scholar Nur ad-Dīn Abd ar-Rahmān Jāmī, the temptress is killed by the alchemist's flame. Salaman, on the other hand, experiences the fire as an agent of transmutation that kills 'his Divided self'. (177)

[322] *ibid.*

Hellenic magical papyri to Islamic scholarship, the idea of man escaping his body feels entirely too repetitious. Throughout myriad iterations, this concept remains resolutely metallurgical and never deviates from its associations with techno-birth. The repetition may itself be interpreted as mythopoeic regeneration: the continual re-enforcement necessary to maintain the ideology of the furnace's reproductive power. Here we return to our definition of ideology as that which must be *worked on*, ceaselessly, in order to reproduce its façade of naturalness. There could be nothing more 'artificial' or, to be more precise, 'artefactual' than man's claim that furnaces are the original, archetypical womb. The repetitions found across the ancient near eastern and Hellenic-Roman corpora, therefore, betray the fundamental instability of this patriarchal concept. Male hegemony is never 'natural'—it is always laboriously and brutally constructed, one performance after another.

Metallurgical ideology never 'goes away', despite being largely abandoned in what we now call the West after the fall of the western Roman Empire; in Byzantium and the Islamic Caliphates—which, like Rome, extensively practiced slavery—state-builders and scholars continued to recognise metallurgical transmutation as a platform for male authority over social reproduction and wealth accumulation. In the concluding chapter, we will briefly note the renewed importance of metallurgical ideology in western Christendom during a time period that scholars have, with unwitting accuracy, termed the European Renaissance. This rebirth of state-craft and imperial economics accompanied the re-introduction of hermetic and alchemical texts into mainstream upper class mentality. These texts were translated, studied, and applied with great entrepreneurial and theoretic-theurgic skill during a heightened frenzy of prospecting and mining, both in Europe and the New World.

7 CONCLUSION: METALLURGICAL IDEOLOGY IN THE MAKING OF EUROPE

The preceding chapters have traced a constellation of ideas around mining, metals, and metallurgy: paternal authority, chiefdom, godhead, kingship, medical authority, enlightenment, immortality, and wisdom. For each idea, we find the objects, processes, and skills associated with luxury and military metal objects used as a hook for strengthening social ideology, a tool for the intensification of social hierarchies.

Throughout the preceding chapters, I have argued that the redefinition of the divine and of wisdom was part of a project undertaken to control what reproduction means, who has authority over it, and who owns the products of reproductive labour. Knowledge, skill, and ownership are removed from women, workers, and nomadic peoples, and squarely placed in the hands of master, *paterfamilias*, temple, and palace. Vulvar vocality and patriarchal cacophony are written into myth to support state ideology by subsuming female reproduction (midwifery, birth, population growth), terrestrial reproduction (agriculture, forests), and technological reproduction (metallurgy and craft) within state-craft. Because of its usefulness for moderating concepts of gender, time, and authority, metal functions as a primary tool for establishing the dominance of patriarchal definitions of reproduction: the mine

becomes the penetrated body of mother nature, the furnace becomes the artificial womb, the process of smelting and smithing becomes a technobirth. Metallurgical ideology places technological reproduction at the apex of meaning-creation: rather than mere metonymy, metallurgy becomes the original and most powerful form of reproduction, from which women, wombs, birth, and midwifery derive secondary significance. In their place, we find warriors, daimons, and gods acting as midwives and the divine increasingly portrayed as a transcendent pregnant Father.

The contestations found throughout the preceding chapters have centred around a single question: Which transformative power—the slow transformations of the deep-earth and maternal womb, or the rapid transformations of the state builder's furnace—can claim the greatest authority over reproduction? This is a false question, predicated on ideological equivalences between woman and earth: a mythic contest invented by the winning side.

This final Chapter is divided into two parts. The first takes a broader view of some of the recurring themes in the thesis, offering additional reflections on the metallurgical characteristics of monotheism, wisdom, and mythic soundscapes. The second part outlines avenues for future research, focusing on the reproduction of antique metallurgical ideology in later imperial states (the Caliphates, the Ottomans, and the European colonial states).

Part One: Primary themes

Monotheism and metallurgy

Over the course of chapters one through six, we have become acquainted with an array of powerful metallurgical deities. At various points in my analysis, I have alluded to the fact that several of these gods were associated with henotheisms and monotheisms, including the Egyptian sun god (Ra or Aten), the Hebrew Yahweh, and

the Babylonian Marduk. In chapter six, we noted that syncretic notions of the One God depended on metallurgical and pyrotechnical concepts of divinity. Amzallag has suggested that the restricted concept of godhead found in henotheism or monotheism 'appears to be rooted in the ancient traditions and way of thinking of metallurgists' who wished to claim exclusive, secretive powers.[1] In fact, neither I nor Amzallag are aware of trends towards henotheism or monotheism in the ancient world that did not have a metallurgical deity as their focus. Here I will briefly review the research on the origins of monotheism, to question its possible metallurgical roots.

Henotheism was part of the Mesopotamian religious landscape already in the second millennium BCE. The Babylonians (and later neo-Assyrians) increasingly lauded Marduk (or Aššur) as the ultimate god—the *Enuma Elish* establishes theogonic myth central to this tradition. Mark Smith holds that 'these one-god models entail a single god at the top who in some sense underlies the reality of other deities' and is immune being subsumed within syncretic combinations and equations.[2] Luna Watkins also points to early texts (dating to the reign of Hammurabi) that afford Marduk names that normally belong to other gods, thus beginning the process of absorbing many deities into his persona.[3] The neo-Assyrians of the seventh century BCE were the first to describe their exclusive deity as omniscient and incomprehensible.[4] Watkins cites this as 'a big step towards later monotheism and the unreachability of the transcendent deities' of later antiquity.[5]

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[1] Amzallag, 'Yahweh', 401.

[2] Mark S. Smith, *God in Translation: Deities in Cross-Cultural Discourse in the Biblical World*, Forschungen Zum Alten Testament 57 (Tübingen: Mohr Siebeck, 2008), 158.

[3] Luna Maria Rodrigues Watkins, 'Polytheism?—Henotheism!—(Monotheism)', *Res Antiquitatis. Journal of Ancient History* 4 (2013): 140. In the *Enuma Elish,* Marduk is granted 50 names, many of which are known names and epithets of local gods within the Babylonian imperial borders.

[4] *ibid.*, 141.

[5] *ibid.*

Smith takes a better approach than Watkins by avoiding hindsight bias that interprets all henotheisms as a step progressing towards Judaeo-Christian monotheism. Henotheism need not progress anywhere in order to be significant: it played an important and very immediate role in the political landscape of the ancient near east as part of imperial ideology—in Smith's words, 'Marduk's character corresponds to the place that the [Babylonian] empire saw for itself in the world.'[6] Like Marduk, Babylonian kings stood as emperors granting vassals limited and derivative powers. This top-down syncretism served the interests of the imperial centre against the interests of local cultures.[7] The Hebrew scriptures also demonstrate henotheism, not monotheism—all scriptural expressions of true monotheism date from the sixth century BCE or later.[8] In fact, these late redactors were deeply concerned with protecting the monotheistic version of Yahweh from texts revealing Israel's past openness to syncretism and polytheism.[9] Despite redaction, an abundance of texts in the Hebrew scriptures acknowledge the existence of other gods, although they are usually perceived as less powerful than Yahweh.[10] Only during the late Second Temple period did Judaic literature begin to equate the distinction between Yahweh and other gods with a distinction between truth and error—a conceptual development scholars believe distinguishes monotheism from henotheism.[11] Scholars agree that Israelite religion became increasingly monolatrous as a result of influence from Babylonians and Assyrians, who focused their religious energies on Marduk and Aššur, respectively. However, this was not only because the Israelites and Mesopotamians shared a strong focus on a metallurgical god—the gradual

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[6] Smith, *God in Translation*, 175.

[7] *ibid.,* 28.

[8] *ibid.*, 92.

[9] *ibid.*, 187.

[10] Benjamin D. Sommer, 'Assman Jan, Of God and Gods: Egypt, Israel, and the Rise of Monotheism (Review)', History of Religions 50, no. 4 (2011): 426–7.

[11] *ibid.*, 427.

intensification of Israelite exceptionalism also appears to have been a bid to maintain Israelite national legitimacy and identity in the face of political and cultural threat from the Mesopotamians.[12] In other words, Yahweh became the One True God only when he encountered formidable competition from other jealous metallurgists.

In chapter six, we noted the metallurgical underpinnings of the Egyptian sun cult and the pervasive associations between gold, fire, and light found in dynastic and post-dynastic Egyptian texts. Pharaoh Akhenaten (fourteenth century BCE) famously attempted to institute a strict henotheism (some scholars have called his religion monotheistic) in Egypt, focusing on the Aten (the solar disk).[13] Simo Parpola similarly identifies the henotheistic neo-Assyrian cult of Aššur as a solar religion: Assyrian kings used the imagery of an elaborate metal tree as their primary symbol of kingship, with individual branches of the tree representing gods of the pantheon; above this metal tree was a winged solar disk representing the god Aššur (whose essential nature is light), who was set apart from the pantheon as its ultimate source and identification.[14] Much like the Pharaohs of Egypt ascending towards Ra, it was on the back of this winged solar form that the kings of Assyria achieved ascent into the divine realm—this ascent was portrayed as an arduous task and explicitly identified as

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[12] Smith, *God in Translation,* 222-225. Smith notes that Yahweh only becomes a universal god under the Persian Empire, once Judaea had been reduced to a rural hinterland. Judaism adopted imperialist claims once they were entirely without a nation.

[13] Atkhenaten's experimental religion was reversed immediately upon his death, in a wide-spread iconoclasm. See Erik Hornung, *Akhenaten and the Religion of Light*, trans. David Lorton (Ithaca: Cornell University Press, 2001).

[14] Simo Parpola, 'The Assyrian Tree of Life: Tracing the Origins of Jewish Monotheism and Greek Philosophy', *Journal of Near Eastern Studies* 52, no. 3 (July 1, 1993): 184-187. In other work, I have proposed that this metal tree was the result of imperial appropriation of the reproductive powers of the tree of the dyad. Sacred trees fabricated from precious metals have been found across Mesopotamia, Syria, and the Levant.

a rebirth.[15] While popularised by neo-Assyrians, the Mesopotamian rebirth-ascent narrative appears as early as 2300BCE in support of the idea of the king as 'perfect man'.[16] We can identify the myth of metallurgical rebirth, then, across the temporal and geographical range of the Semitic ancient near east. Hebrew religion is no exception. Parpola and others have identified tree of the Kabbalah as a derivation of the Assyrian metal tree developed by diaspora Jews living in Mesopotamia.[17] However, the associations between metal, fire, and light are found much earlier: in the Hebrew scriptures, the Hebrew term *kabod* designates wealth, honour, glory, and brilliance when applied to mortals; when applied to Yahweh, it emphasises the deity's splendour, glory, and majesty. Amzallag has analysed all instances of Yahweh's *kabod* in the scriptures, and found it used in volcanic, solar, and metallurgical imagery of brilliance and radiance.[18, 19]

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[15] *ibid.,* 197-198.

[16] *ibid*., 199.

[17] *ibid*., 189.

[18] Nissim Amzallag, 'The Material Nature of the Radiance of YHWH and Its Theological Implications', *Scandinavian Journal of the Old Testament* 29, no. 1 (January 2, 2015): 82-86. Yahweh's *kabod* is compared to molten lava, and is reflected in the rising of the sun.

[19] While scholars have debated whether or not Yahweh is a solar deity, this question becomes obsolete when considered within the broader ancient near eastern patterns of solar associations with metallurgical gods. Arguments for: Glen Taylor, *Yahweh and the Sun: Biblical and Archaeological Evidence for Sun Worship in Ancient Israel*, Journal for the Study of the Old Testament 111 (Sheffield, England: JSOT Press, 1993); Hans-Peter Stähli, *Solare Elemente Im Jahweglauben Des Alten Testaments*, Orbis Biblicus et Orientalis 66 (Göttingen: Vandenhoeck & Ruprecht, 1985). Arguments against: Steve A. Wiggins, 'Yahweh: The God of Sun?', *Journal for the Study of the Old Testament* 21, no. 71 (September 1, 1996): 89–106; Amzallag, 'The Material'.

In all of these examples, we can identify a strong association between divine and mortal pre-eminence.[20] Atenism (both within the enduring cult of Ra and in Akhenaten's short-lived innovation), Mardukism, Aššurism, Yahwism: these metallurgical cults were promoted by kings and states as part of the ideology supporting their territorial claims and expansion. In chapters two through six, we noted that the Greeks found the transcendent god promulgated by the Semitic states to be an exotic, highly appealing form of divinity—philosophers and mages alike applied this new-found concept of god with fervour as the imperial horizons of the Macedonian-Greek polity expanded.

In my view, the imperial significance of metallurgical cults cannot be a coincidence. Instead of suggesting, as Amzallag does, that metallurgical cults have an inherent tendency towards monotheism, we can observe that imperial rulers continually found the ideological force of metallurgical deities useful to support the assertion and expansion of their kingship over land and people.[21] Karel van der Toorn holds that 'the tension between the one [monotheism] and the many [polytheism]... mirrors a comparable tension between political unity and local autonomy.'[22]

Throughout *Listening to Birth*, I have traced a chain of metallurgical ideology: the assertion of paternity as the prime basis of authority; the male sexual and reproductive performances key to kingship (both divine and mortal); the gendering of mining and metal refinery as male sexual and reproductive acts; and the use of metals to form distant temporalities of paternal ancestry and divine immortality. Every link in this chain must be read as state-craft that produces gender—on one hand, women are elided with land, workers, and slaves as conceptually co-constituted realms of extraction; on the other hand, women's reproduction is construed as the source of death and limitation, the cause of vulnerability to time and the restrictions of

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[20] See chapter one for discussion of godhead as derivative of kingship.

[21] For Amzallag's assertion, see 'Yahweh', 401.

[22] Karel van der Toorn, 'God', DDD, 352.

mortality. Gods—as ancestors, benefactors, and models of kingship—personify man beyond these limitations. Assmann once noted that monotheism was associated with the intensification of violence against outsiders, as it rejected pluralism and encouraged fundamentalism.[23] Oppenheim has made a similar assertion, contrasting 'the criterion of plurality of intellectual and spiritual dimensions that sets off most of the higher polytheistic religions from the narrowness, the one-dimensional pressure of revealed religions.'[24] While recognising these trends, Smith holds that 'violence... is not a function of theism, whether polytheism or monotheism; it is a function of power and the capacity to wield it.'[25] My position falls somewhere between these two views: I view theism as a function of patriarchal notions of authority and kingship, and I read patterns of religious violence connected to henotheism and monotheism (i.e. the exaggeration the authority of one particular god in support of imperialism) as a product of territorial expansion and colonial rule.

Wisdom and metallurgy

In chapter one, we noted that metallurgists of the Bronze Age were associated with long-distance travel. This travel was seen as both a temporal and geographical voyage, a process of acquiring knowledge and wisdom that directly connected the metallurgist to his distant ancestors. The acquisition of wisdom became an intrinsic feature of high social status: scribes portrayed gods, kings, priests, craftsmen, and mages as possessors of secret, esoteric knowledge.[26] Thus, throughout the preceding chapters, we have encountered political and religious authority allied with notions of craftsmanship as the dominant paradigm of wisdom.

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[23] Jan Assmann, *Of God and Gods: Egypt, Israel, and the Rise of Monotheism* (Madison, Wisc: University of Wisconsin Press, 2008), 142ff.

[24] A. Leo Oppenheim, *Ancient Mesopotamia: Portrait of a Dead Civilization* (Chicago: University of Chicago Press, 2013), 182-183.

[25] Smith, *God in Translation*, 28.

[26] Kristiansen and Larsson, 39.

In Sumerian and Akkadian, this authoritative wisdom is definitively auditory. Joan Westenholz has provided a detailed lexicographical investigation of Sumerian signs corresponding to wisdom (GIŠ and PI, with their various combinations). These cuneiform signs are used to designate 'ear' and 'wisdom', and are combined in phrases such as 'the intelligent one', 'the lady of wisdom' (primary epithet of Nisaba), 'a man of broad ear' (i.e. a man of great perception), 'the listening warrior', and 'the wise and intelligent' (primary epithet of Enki). (Note here that the two deities most associated with wisdom are also associated with state-craft.[27]) Compound verbs using these ideograms designate paying attention, planning, thinking, and being mindful. Interestingly, the orifice of the ear is called 'the vulva of my ear', and it is this part of the physical anatomy that designates the seat of wisdom.[28] Westenholz concludes that the Sumerian term 'ear' can refer to the faculty of hearing, to mental activities, or to various metonymies for 'understanding' and 'wisdom'. These metonymies are allied with notions of authority, for the ear was constituted by 'the sagacity gained from aural instruction and the sapiential understanding bestowed by the gods'—activities associated with scribes, learned men, and those who could claim direct contact with the gods (i.e. priests and kings).[29]

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[27] Nisaba is goddess of writing and administration, patronness of scribes. She held prerogatives over the central administration of the state and presided over resource distribution. Enki is patron of craftsmen and the most recent occupier of the primordial waters—two roles strongly associated with reproduction. See Leick, *A Dictionary*, 40ff, 137ff.

[28] Joan Goodnick Westenholz, 'The Ear and its Wisdom', in Leonhard Sassmannshausen and Georg Neumann, eds., *He Has Opened Nisaba's House of Learning: Studies in Honor of Åke Waldemar Sjöberg*, Cuneiform Monographs, v. 46 (Leiden: Brill, 2014).

[29] Westenholz, 297. See also Thorkild Jacobsen, 'Mesopotamia', in John Albert Wilson et al., *The Intellectual Adventure of Ancient Man: An Essay on Speculative Thought in the Ancient Near East* (Chicago: University of Chicago Press, 1948), 133; J. Goodnick Westenholz and

The ear, as the auditory vulva and seat of wisdom, is a place of reproduction. Through listening, the mind becomes pregnant with thought and memory—are patriarchal notions of intellect the first example of pregnant fatherhood? In chapters three and four, we immediately noted that concepts of wisdom were closely associated with midwifery. In one of the *Cow of Sin* iterations, we find the 'Incantation of Asalluhi, secret of Eridu, the approval of Ea, the incantation which Mami, the wise one, as medication... gave to Nisaba'. In performing the midwifery role, Marduk claims to be *šazu* (the one who knows the inside): 'You, Šazi, are her midwife (wise one).' As we noted in chapter four, Marduk (the god declared 'wisest of the wise'), eventually achieves independence from birth and midwifery goddesses and becomes the sole midwife featured in the *Cow of Sin* incantations. It appears that Marduk can make these claims based on his paternal ancestry: his father Enki fulfilled the role of chief god of wisdom. Enki was also the patron of craftsmen and the occupier (and metallurgical redecorator) of the threaded temple of the primordial waters. Throughout *Enki and Ninmah*, the god is lauded as an expert in wisdom, who wisely reflects before crafting his plan to create mankind. Midwifery and metallurgy become entangled in these Mesopotamian anthropogonies, and rarely without bitter contestation. Even in Hittite stories, the Earth Goddess travels to Mesopotamia to give birth, in order to be attended by 'Ea, lord of the source of wisdom' (see Appendix B).

Both long-distance metallurgy and birth attending were related to time, knowledge-acquisition, and wisdom. Westenholz's study of concepts related to ear, therefore, should be understood in terms of the contestations concerning authority over midwifery and, by extension, over reproduction. Midwifery wisdom is inevitably bound within the immediate temporalities of mortality—intrapartum deaths, infant mortality, and limited lifespans. Metallurgists, in contrast, sought wisdom by traveling into the lands of paternal ancestors to perfect the brilliance of immortal metals. These

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Marcel Sigrist, 'The Brain, the Marrow, and the Seat of Cognition in Mesopotamian Tradition', *Le Journal Des Médecines Cunéiformes* 7 (1-10): 2006.

temporalities bear contrasting material signatures: midwifery wisdom is inseparable from intimate encounters with vulnerable bodies, whereas metallurgical wisdom located man's origins in paternal ancestors who were to be found far away from home—a definition of origin that is radically divorced from man's immediate, maternal origin.

We found similar associations in the Egyptian cult of Thoth, who is also god of wisdom and secret knowledge, while acting as physician, magician, and midwife. The cult of Yahweh also reproduces these associations: Edom, the original cult centre of Yahweh, is called the 'land of wisdom'. Bezalel, who realises Moses' plans for building Yahweh's tabernacle, is granted an abundance of skills 'in wisdom, and in understanding, and in knowledge, and in all manner of workmanship, to devise skilful works, to work in gold, and in silver, and in copper, and in cutting of stones for setting, and in carving wood.'[30] In Appendix A, we noted Yahweh opening and closing the womb, acting as midwife, and even bringing forth from his own womb: a pattern of male pregnancy with which we are now very familiar.

Classical and Hellenic Greeks were fascinated by these concepts of the divine: they looked to find wisdom in the exotic east among the Jews, Egyptians, and 'Chaldeans'. However, they had their own metallurgical traditions of wisdom dating to pre-archaic (perhaps even Mycenaean) times: the daimons we met in chapter five already feature in the earliest decipherable Greek literature. These metallurgists were both wise and violent: associated with deformity, madness, and the rape of their mother, the Telchines also acted as obstetricians and took over the role of ritual lamentation. The Telchines were also connected to tales of Greek colonisation: these tales describe the daimons as wise-men who founded colonies and perfected metallurgical arts.[31] Seneca (citing Posidonius) once claimed that wise men were the first to search out iron and copper mines once the possibility of smelting was discovered—here, Seneca utilises

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[30] *Exodus* 31.2-5.

[31] Blakely, 216-218.

Posidonius' narrative to explain why philosophy is necessarily embroiled in problems of technological advancement.[32]

In chapter two, we noted how Plato's Socrates makes a distinction between the civilised, educated, wise men of the *polis* and unwise, primitive people who are content to listen to mere tree and stone. Socrates' sarcasm, however, seems to contradict the clear borrowing of Greek *omphalos* myths from the Minoan ecstatic ritual of listening to tree and stone, a practice that would 'enable humans to access special knowledge, wisdom, and inspiration.'[33] In my view, Zeus' own birth within the spaces of tree and stone granted him authority over reproduction and legitimised his position as the pantheon's most famous pregnant father. It is no coincidence that Zeus swallows Metis—the Titaness of wisdom and wise council—before birthing her daughter Athena out of his head, the place of his listening and thought.

Hellenic literature (both Jewish and variously polytheist) combines all of the above metallurgical concepts of wisdom. In chapter six, we noted that the omniscient divine of syncretic texts was modelled on the knowing craftsman, where the skill of smelting and smithing formed the basis of authority over wisdom. Gnosticisation is connected with Jewish wisdom traditions, which merge Greek philosophic concepts of Sophia with the Hebrew scriptures. In the *Gospel of Thomas*, Jesus is a wise man rather than the son of god—he brings fire, war, and conflagration. Polytheist Graeco-Roman writers readily accept Moses as a wise man and friend of god, while the Oracle of Apollo declares that 'only the Chaldeans and the Hebrews reached true wisdom.' A fundamental trait of gnosticisation—however polytheist, henotheist, or monotheist its expression may be—is its attention to knowledge and wisdom as immaterial states. According to texts within the PGM, CHA, NHC, and the early alchemical corpus, the vocal apparatus and physical ear are sullied material forms that block true *gnosis*. I

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[32] *ibid.*, 212. The art-nature debate is one example of this philosophical engagement with technology. See Newman.

[33] Goodison, 52.

have argued that this final departure of knowledge and wisdom from the material realm (evident throughout ancient near eastern history in trends of astralisation and transcendentalisation of the divine), succeeded in achieving a final, radical separation of metallurgical wisdom from midwifery wisdom. The two crafts, so long entangled in cosmogonic, theogonic, and anthropogonic myths, are finally differentiated through the absorption of pregnancy, birth, and midwifery into the fundamental character of the metallurgical One God, the self-engendering pregnant Father. When wisdom is divorced from the body and from maternal origins, mythic midwifery loses its claim to authoritative knowledge.

Sound and metallurgy

Metallurgical ideology, as we have uncovered it in each chapter, takes many diverse forms but also has a remarkable consistency: whether in myth, magic rites, or epic tales, metallurgical ideology engages with the notion of vulvar vocality, a reproductive female audibility provoking intensely ambivalent responses. The first strategy to control vulvar vocality is the performance of cacophony: from the bellowing of Enki to the clamouring fire-dance of the Greek warriors, a patriarchal din drowns out soundscapes of mortal birth and death, of material vulnerabilities. The second strategy is immaterialisation: the mages, gnostics, and alchemists seek a Pleroma beyond the body's vocal apparatus where only silence can exist.

Throughout chapters two through six, we have noted three stages in scribal conceptualisation of divine audibility: first, we meet the earth oracles where epiphanic figures flutter between rustling tree tops and murmuring stone, and enigmatic goddesses commune with mortals; second, we hear a confusing din of pantheon contestations, cries of painful and dangerous births, and gods bellowing while ejaculating, while craftsmen gods and midwifery goddesses compete over creative domains; finally, we encounter a remarkably definitive angelic voice (as Gabriel to Mohammad, or Poimandres to the hermetic initiate) translating revelations from an immaterial god to elect recipients. Tree and stone as accessible passageways and points of contact with the divine (what we termed a pre-godhead divinatory worldview of intra-earthly communication) are subject to immense mythopoeic effort to establish distant gods and heavens: a removal of knowledge of the divine and the sacred from the accessible to the extraordinary.

In chapter one, we noted how state centralisation reduced ordinary people's contact with the divine and oracular, reserving knowledge, wisdom, and intimacy with the divine for a few families connected to the kingship and priesthood. The three stages in divine audibility that we have identified show the sonic profile of this gradual process of removing the sacred from the ordinary: over millennia, we move from a model of the divine that is audible in trees and stone, to a gnostic caste or select group of believers radically separated from the ignorant masses doomed to destruction. Throughout this process, oracular utterance is hardened into rhetoric: the enigmatic becomes definite, the barely decipherable soundscape is superseded by the resounding declaration. We have moved from the lyric and ecstatic to the didactic.

It becomes clear that, throughout antiquity, these crafted soundscapes were intimately bound up with state-craft. In chapter three, we witnessed Marduk and Ea heaping the first landmass in the middle of the primordial ocean—as inventors of the first brick, they are able to build the first temple, the architectural infrastructure of civilisation rising out of wilderness. The city of Keš, called the birth brick and Nintur's earthen oracle, becomes the state's house roaring like an ox and bellowing like a breed bull. Similarly, Enki redecorates the temple in the middle of the Apsu. Once a threaded interior 'beyond understanding', the E-Apsu's newly gilded walls and crenellations grant the structure a new-found conceptual solidity and literalness: the temple's uterine threads are covered with a new layer of meaning. Through its metal coating, the womb-space is transmuted from the unknowable to the knowable, from wilderness to civilisation. This same process of transformation is elaborated in the *Enuma Elish*, where Marduk exacts a brutal revenge on the original occupant of the Apsu. Bricks and stones conjure many patriarchal soundscapes: Jacob's oracular baetyl promises him land ownership and paternity, foreshadowing the formation of the state of Israel; boundary stones snarl and threaten to protect land holdings granted by kings; victory stones vividly depict the cacophony of bloodshed and celebrate state expansion. The pyrrhic dances of chapter five fill the mortal, epic, and divine realms with warrior cacophonies, celebrating the Greek states and their territorial and colonial expansion. Again and again, the uterine, the oracular, and the unknowable are hardened into state rhetoric.

Part Two: Future work

Metallurgy and state-craft in Late Antiquity

In chapter six, we noted that Byzantine and early Islamic scholars (especially Sufis) took a strong interest in hermetic and alchemical texts. Here I would like to expand on this simple observation, and suggest an area of research to connect Byzantine and early Islamic scholarship to state-craft. Early in the development of Christianity, the Church Fathers reached a consensus in support of slavery—Augustine, for example, perpetuated nascent Roman racism against Africans, teaching that black skin was divine punishment for inherent sinfulness and signalled enslaveability.[34] These early Christian views were absorbed into the Christianised western Roman and Byzantine Empires, and subsequently, into Islam.[35]

Both the Byzantines and the Caliphates were heavily engaged in slave trading and mining. Arabic literature of the ninth and tenth centuries greatly lauded (and likely exaggerated) the wealth of pre-Islamic gold mines in Arabia. The Quraysh tribe (to which Muhammad belonged) specialised in mining and metal trading—they inhabited pre-Islamic Mecca, which existed as a gold and silver mining town. When the tribe converted to Islam in 630CE, their metal wealth helped finance the religion's initial expansion (an investment that brought them enormous wealth and power).[36] Timothy Power has proposed that the rise of Islam was made possible by Byzantine and Sassanian investment in Arabian mines, establishing an growing economy driven by

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[34] Thomas, 30.

[35] William McKee Evans, 'From the Land of Canaan to the Land of Guinea: The Strange Odyssey of the "Sons of Ham"', *The American Historical Review* 85, no. 1 (1980): 15–43.

[36] Gene W. Heck, 'Gold Mining in Arabia and the Rise of the Islamic State', *Journal of the Economic and Social History of the Orient* 42, no. 3 (August 1, 1999): 364-5.

metal and emerald trade and slave trading.[37] These investments brought Arabia, which had previously been a tribal hinterland, into the economic mainstream of antiquity.[38]

The early Caliphate absorbed much of Byzantine and Sassanian territory—like the Romans before them, the Umayyad Caliphate expanded strategically to absorb territories with the richest mines, becoming heavily dependent on Sassanian mines to fund their military and state expansion.[39] Increased mining ventures propelled the sudden rise in slave trading under Islamic rule, and, as the Caliphate expanded, there was a marked shift to establishing mining ventures in Africa. The newfound abundance of African gold prompted the Caliphates to choose gold bullion as their primary currency—the Christian states (whose economies were much smaller and highly dependent on the Caliphates) soon followed. The majority of Caliphate and Christendom gold originated in African mines.[40] Islamic traders were careful to prevent the spread of the Islamic faith in Africa, as Islamic law stipulated that Muslim converts could not be enslaved: to convert Africa would have spelled economic disaster, as the Caliphate armies and economies depended on African slave labour.[41] However, overall, far more female slaves were traded in the Caliphates than male, as the maintenance of gender segregation practices (which strictly segregated genders much in the same style of classical Athens) necessitated large numbers of domestic slaves.[42] Moreover, the strict laws regarding marriage and sexuality also meant that

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[37] Timothy Power, *The Red Sea from Byzantium to the Caliphate* (Cairo: American University in Cairo Press, 2012).

[38] Timothy Power, 'Mines, Mining, Late Antiquity', in *The Encyclopedia of Ancient History* (John Wiley & Sons, Inc., 2013), 1-3.

[39] *ibid*.

[40] Thomas, 45.

[41] *ibid*., 36-37, 46.

[42] Leila Ahmed, *Women and Gender in Islam: Historical Roots of a Modern Debate* (New Haven: Yale University Press, 1992), 27-28, 80, 116-117. She notes that gender segregation and veiling were the norm in pre-Islamic Christian and Sassanian societies as well. (5)

men could only have extra-marital sex with concubines and slaves whom they owned, thus replacing the antique system of slave brothels (in which masters pimped out their slave girls to customers) with private sex slave ownership.[43]

In future research, I would like to explore how Byzantine and Islamic scholarship contributed to the formation of ideology necessary to support these imperial structures and economic changes. My current hypothesis is that Byzantine and Islamic scholars turned to Judaeo-Graeco-Roman and Persian metallurgical ideology as a starting point, including hermetic theurgy, gnosticism, and alchemy. This also may help confirm my hypothesis (shared in chapter six) that Sufism played such an important role in the early expansion of Islam because it offered a version of Islam that elaborated on Late Antique gnosticisation, weaving gnostic metallurgical ideology into the very fabric of early Islamic belief and state-craft.[44] My goal is to demonstrate that metallurgical ideology played a very similar role in Byzantine Christianity and

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Marsman specifies that gender segregation was a much more ancient tradition, reaching its most extreme form among the middle and neo-Assyrians, whose laws strictly codified all mixed-gender encounters. (374) Cornelius de Geus notes that ancient near eastern segregation and seclusion practices were always connected to patterns of social stratification, serving to mark women of high status as separate from concubines, slave women, and lower class women. The more elite a woman was, the more she was secluded. Cornelius de Geus, 'The City of Women: Women's Place in Ancient Israelite Cities', in *Congress Volume: Paris 1992*, ed. JA Emerton (Leiden: Brill, 1995).

[43] *ibid.,* 79-93.

[44] Samuel N. C. Lieu, *Manichaeism in Mesopotamia and the Roman East*, Religions in the Graeco-Roman World, v. 118 (Leiden: E.J. Brill, 1994). Note that the Islamic expansion absorbed areas heavily influenced by gnostic Manichaeism, Marcionites, and Bardaisians. (40) The Sassanian empire was 'a meeting point of religions and culture [where] Zoroastrianism, Judaeo-Christian sects and Semitic pagan [sic] cults jostled with each other in splendid confusion in Mesopotamia.' (25) The writings of leading Islamic scholars such as Muhammad Ibn Ishaq al-Nadim show extensive knowledge of Manichaean epistles. (149)

Islam—a scholarly approach that seeks to acknowledge the ancient near eastern and syncretic Roman-Persian context in which these religious empires emerged and were remarkably successful. I will also explore how Byzantine and early Islamic slavery and mining practices contributed to the making of gender in these contexts. My initial investigations have located extensive discourse on metallurgy and vulvar vocality in Byzantine and early Islamic scholarship.

Scholastic alchemy and the continuation of the art-nature debate

The Germanic kingdoms that inherited western Roman territories were also heavily engaged in slave trading.[45] The increased scholarly and artistic activity of the Carolingian renaissance emerged in tandem with a sharp rise in slavery.[46] Throughout medieval scholasticism, scholars depended on the availability of Muslim slaves to learn Arabic, which was the primary language of research in the known world and, in most cases, the language in which Graeco-Roman texts and commentary had been preserved.[47] While the Carolingians renewed local mining ventures, the rapid expansion of the northern European economy (which increased tenfold from 800 to 1000CE) necessitated metal imports to provide sufficient bullion.[48] The burgeoning slave trade between Russia and Baghdad moved Caliphate metals northwards into Europe.[49] However, the slave trade moved much more than bullion:

> During the tenth century the influence of Central Asia was so great that the lands of Eastern Europe and Scandinavia became almost Islamicised. This

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[45] Thomas, 34.

[46] *ibid*.

[47] *ibid,*, 40.

[48] Heiko Steuer, 'Minging, Silver Routes and Mining in Europe: Economic Expansion and Technical Innovation', in James Heitzman and Wolfgang Schenkluhn, eds., *The World in the Year 1000* (Oxford: University Press of America, 2004), 107.

[49] *ibid.*, 108.

> affected not only the economic sector, demonstrated by an astonishing number of Arab dirhems [Caliphate coinage], but also the sphere of everyday life, discernible in numerous additional influences on clothing, weaponry and a variety of commodities.[50]

Newman has noted that alchemical and hermetic thought was introduced into Europe via the spread of Islamic scholarship. Not only were translations of antique texts gradually becoming available, but extensive Arabic scholarship was studied with great admiration.[51] These texts included works on topics directly related to metallurgy and alchemy, but more broadly demonstrated the widespread absorption of the gnosticising and alchemical concepts already integrated into mainstream Islamic scholarship. Whether in the Carolingian renaissance, the twelfth-century renaissance, or *the* Renaissance (however many rebirths we may wish to ascribe to the making of Europe), the themes explored in chapter six, especially those related to the art-nature debate, were a persistent topic of consideration. Both the Church and the various European courts actively patronised scholarly interrogation of man's relation to nature, reproduction, and craft. In my research, I will trace the growing importance of alchemical thought as the medieval European economies expanded. I intend to include an analysis of the *Roman de la Rose*, one of the most popular vernacular texts of the medieval period.[52] The poem is replete with alchemical allegory: its spiritual quest

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[50] *ibid.*

[51] See various studies in Nayef R. F. Al-Rodhan, ed., The Role of the Arab-Islamic World in the Rise of the West: Implications for Contemporary Trans-Cultural Relations (Basingstoke, Hampshire: Palgrave Macmillan, 2012); Kocku von Stuckrad, Locations of Knowledge in Medieval and Early Modern Europe: Esoteric Discourse and Western Identities, Brill's Studies in Intellectual History, v. 186 (Leiden: Brill, 2010); Dag Nikolaus Hasse, Success and Suppression: Arabic Sciences and Philosophy in the Renaissance, I Tatti Studies in Italian Renaissance History (Cambridge, Mass.: Harvard University Press, 2016).

[52] The *Roman* was also used by early modern alchemists, including the famed Paracelsus. For an example of his use of the poem, see Paracelsus, 77.

culminates, most significantly, in a violent rape. I intend to read the *Roman de la Rose* in the context of medieval discourse on man's relationship to nature, vulvar vocality, and metallurgy.

Metallurgical ideology in the global Early Modern

The fifteenth and sixteenth centuries feature a sharp increase in the activity of scholarly and entrepreneurial alchemists.[53] Walter Woodward has emphasised the influence of neoplatonists of the fifteenth century, who rejected scholastic aristotelianism, offering literate men 'newfound power to manipulate and control their natural environment.'[54] These philosophical developments provided a foundation for

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[53] While the overwhelming majority of these entrepreneurs were men, some aristocratic women also participated in alchemy. Penny Bayer, 'From Kitchen Hearth to Learned Paracelsianism: Women and Alchemy in the Renaissance', in Stanton J. Linden, ed., *Mystical Metal of Gold: Essays on Alchemy and Renaissance Culture*, AMS Studies in the Renaissance, no. 42 (New York: AMS Press, 2007). Baker lists 'Lady Elizabeth Grey, Lasy Margarent Clifford, Lady Margaret Hoby, Lady Hester Honeywood, Lady Grace Mildmay, Lady Philippa Ross, Anne Countess of Arundel' among the known female practitioners. (366) Women's alchemy, however, was called 'kitchen-physick' and heavily emphasised domestic labour and kitchen fires. (367) Evidence suggests that the focus of women's alchemy was the process of female domestication—the goal was the transmutation of the active woman of feudal Europe into the domesticated woman of capitalist Europe. The practice of alchemy was supposed to increase an elite woman's gentility. (367-368) Men authored praise of female alchemists that emphasised their domesticity: 'only an exceptional woman who knows how to keep such secrets, control her tongue, stay faithful to her Bible, and support her husband, should claim an interest in alchemy as housewifery.' (378)

[54] Walter William Woodward, Prospero's America: John Winthrop, Jr., Alchemy, and the Creation of New England Culture (Chapel Hill: Omohundro Institute of Early American History and Culture and University of North Carolina Press, 2010), 16. Merchant has demonstrated that this shift towards an interventionist, mechanistic view of nature was fundamentally gendered. She considers late medieval and early modern discourse on minig

the expansion of alchemy, drawing heavily on the *Corpus Hermeticum* (CHA, see chapter six) as a way of 'recapturing primordial wisdom'.[55] Alchemical treatises often depicted the process of metal transmutation as a tree similar to that of the neo-Assyrian emperors and the Kabbalists—for example, in the treatise *Natur-Kündigung der Metallen* (1661), the alchemist works alongside the god Kronos as the gardeners cultivating the tree of knowledge, whose trunk is called *Concipio* (conception), and whose crown is comprised of different metals glimmering in the light of the solar disk above.[56]

A predominant theme in alchemical texts from the fifteenth to seventeenth centuries is the conflict between various European armies and the Ottoman empire.[57] The 1419 alchemical treatise *Buch der Heiligen Dreifaltigkeit* portrayed the Holy Roman Emperor as the universal panacea of alchemy, who will heal Christian society and

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and nature to reveal a shift away from antique notions of bountiful Mother Earth and towards notions of nature as machine. Although we might identify the antique concept of maternal nature as patriarchal ideology, Merchant does hold that it helped maintain sanctions against unlimited extraction and environmental devastation. As nature was increasingly re-cast as a machine to be mastered, both women and the earth were increasingly ransacked. (Merchant, 2-6.) Federici greatly expands on Merchant's analysis, linking the imposition of waged labour during the transition to capitalism to the new Mechanical Philosophy in the rise of scientific discourse on the body and nature. (Federici, 133-155.)

[55] *ibid.*, 17, 40.

[56] Pamela H. Smith, *The Business of Alchemy: Science and Culture in the Holy Roman Empire* (Princeton, NJ: Princeton University Press, 1997), 175. The treatise was authored by the alchemist-physician Johann Joachim Becher.

[57] The fierce conflict between Christian and Ottoman armies continued from the late fifteenth century throughout the sixteenth century: 1453, fall of Constantiople; 1526, defeat of southern Hungary; 1529, seige of Vienna; 1541, occupation of Buda and Pest; 1566, assault on the Hapsburg empire and Hungary.

defend Europe against the Anti-Christ Sultan.[58] In later treatises, alchemists promised that the panacea would empower Christian armies against heretics and heathens—some even claimed that it would grant the Pope superhuman powers.[59] Some of the earliest court patrons of alchemists were those directly involved in combatting Ottoman armies: the Hungarian kings defending their kingdoms against the Ottomans chose alchemists as court chaplains; Holy Roman emperors also patronised alchemists, especially during times of heavy military engagement with the Ottomans.[60] These alchemists promised that the Philosopher's Stone would bring about the salvation of Christendom by inspiring illuminating knowledge on how to eliminate the Turks.[61] Interest in alchemy, however, existed on both sides of the conflict: the Ottoman sultans also patronised many alchemists as part of their war effort.[62] The sultans also ordered translations of European alchemical treatises, and Ottoman scholars elaborated on and transformed these texts to add to their own scholarship.[63]

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[58] Urszula Szulakowska, *The Alchemical Virgin Mary in the Religious and Political Context of the Renaissance* (Newcastle upon Tyne: Cambridge Scholars Publishing, 2017), 37. See also Szulakowska on the Anti-Christ's bride, below.

[59] *ibid.*, 38.

[60] *ibid.*, 40.

[61] *ibid.*, 42.

[62] A. Tunç Şen, 'Practicing Astral Magic in Sixteenth-Century Ottoman Istanbul: A Treatise on Talismans Attributed to Ibn Kemāl (d. 1534)', *Magic, Ritual, and Witchcraft* 12, no. 1 (April 17, 2017): 66.

[63] Natalia Bachour, 'Iatrochemistry and Paracelsism in the Ottoman Empire in the Sixteenth and Seventeenth Centuries', *Intellectual History of the Islamicate World* 6, no. 1–2 (January 1, 2018): 82–116. See also Tuna Artun, *Hearts of Gold and Silver: the production of alchemical knowledge in the early modern Ottoman world* (Princeton PhD thesis, 2013). Artun notes that alchemists were active in the Ottoman court, and were strongly associated with particular Sufi orders.

The struggle with the Muslim Ottoman armies coincided with the crisis within Christendom during the Protestant Reformation. During this period of conflict, every major European power supported alchemical research and entrepreneurship.[64] Alchemists were prominent across sectarian divides (including Catholics, Protestants, and Jews), and collaborated extensively with little regard for denominational membership.[65] The Jesuits extensively studied alchemy, and incorporated fundamental alchemical methods and concepts.[66] The Calvinist concept of nature was heavily informed by neoplatonic and hermetic scholarship, and later Puritans (both in England and the New World) were among the most enthusiastic alchemists.[67] Michael Maier's *Symbola aureae mensae duodecim nationum* (1617) collected texts composed by alchemists of twelve different nationalities and various denominations.[68]

Why was alchemy so ubiquitous in the fifteenth and sixteenth centuries? During this period, alchemy was virtually synonymous with metallurgy.[69] As mining and metallurgy specialists, the alchemists offered a portfolio of benefits to the kings and

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[64] Woodward cites active support of alchemy in central, Mediterranean, and north-western Europe, as well as Scandinavia. (23-24)

[65] *ibid.*

[66] Carlos Ziller Camenietzki, 'Jesuits and Alchemy in the Early Seventeenth Century: Father Johannes Roberti and the Weapon-Salve Controversy', *Ambix* 48, no. 2 (July 2001): 83–101. Note that Martin Luther also liked the 'science of alchemy' very well, 'not only for the profits it brings in smelting metals [but] also for the sake of the allegory and secret signification, which is exceedingly fine, touching the resurrection of the dead at the last day.' Peter J. Forshaw, 'Vitriolic Reactions: Orthodox Reactions to the Alchemical Exegesis of Genesis', in Kevin Killeen and Peter J. Forshaw, eds., *The Word and the World: Biblical Exegesis and Early Modern Science* (Basingstoke: Palgrave Macmillan, 2007), 116.

[67] *ibid.*

[68] Szulakowska, 38; Woodward, 14.

[69] Tara E. Nummedal, *Alchemy and Authority in the Holy Roman Empire* (Chicago: University of Chicago Press, 2007), 14, 18.

emperors of Europe. As weapons specialists, they studied weaponry design, including the manufacture of gunpowder and explosives. They also optimised the production of central European mines and metal refineries, contributing important economic gains that helped finance costly wars.[70] However, their importance also went far deeper into the ideological infrastructure of European states. Since it was widely accepted that alchemists 'impelled nature to complete the process of growth in metals', they were also regarded as authorities in matters of the birth of new forms of wealth.[71] Tara Nummedal notes that alchemists became relevant at a time when European princes were forging new approaches to state-craft and the political economy, combining traditional sources of income (such as mining) with a new economic model incorporating centralised, capitalised economic projects.[72] The alchemists acted as expert mediators in the process of this economic transition, contributing to both the technical and intellectual infrastructure of these changes.[73] Many alchemists worked both as scientists and engineers, on one hand, and as economists offering counsel to ruling families, on the other.[74] Alchemists were also active capitalists, with many

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[70] *ibid.*, 74: 'As part of a broader intellectual effort to understand and control nature, therefore, natural magic and hermetic philosophy offered central European princes a solution to pressing political and religious problems. [The court of the HRE...] fought the Ottoman Empire as much with astrological forecasts and painting of European victory as he did with miliary campaigns.'

[71] P. Smith, 206.

[72] Nummedal, 94.

[73] *ibid.,* 74ff. 'Because alchemy was both a philosophy of nature and a practical technology, however, it offered more direct and concrete opportunities of control... especially in the economic arena.' (74)

[74] P. Smith, 175. See also Daniel Jütte, 'Trading in Secrets: Jews and the Early Modern Quest for Clandestine Knowledge', *Isis* 103, no. 4 (December 1, 2012): 668–686. Jütte focuses on the career of the Jewish alchemist Abramo Colorni (1544-1599), who was called the 'Jewish Daedalus' (for discussion of Daedalus, see chapter six). Colorni was an active alchemist, weapons engineer, gunpowder manufacturer, entrepreneur, and trader of weapons and luxury

engaging extensively in the new form of commerce.[75] The Fuggers, a renowned family of capitalists, were heavily invested in alchemy and magic.[76] Throughout Europe, alchemists offered a praxis that contributed philosophic, spiritual, theoretical, and technical support for this enormous economic transmutation.

The most important factor in the growth of alchemy was its diffusion into mainstream culture, developing notions of nature, gender, race, science, and statehood. Scholarship has noted the influence of alchemy on the scientific revolution, on the eighteenth century encyclopaedists, and on the ideological framework of European colonial imperialism.[77] Alchemical performances were used by European elites and colonists to terrify the common people and native peoples. In medieval Europe, ruling families put on elaborate displays using the new technology of fireworks: most commonly, the pyrotechnical specialists were contracted to build large dragons that would fly in the sky, bursting with flames and loud noises.[78] The fiery dragon was a deliberately alchemical choice, both as an allegory for the power of transmutation and

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items. During his life, he was considered one of the most famous living Italians, and was highly sought after by the Italian lords as well as the Holy Roman emperors. (669-674)

[75] P. Smith, 175.

[76] Anton Fugger, the *paterfamilias*, was a magus. His nephews Georg and Ulrich Fugger were active alchemists. Anton's son Marcus Fugger also contracted alchemists to increase his mining profits. See Lyndal Roper, *Oedipus and the Devil: Witchcraft, Sexuality, and Religion in Early Modern Europe* (London: Routledge, 1994), 131-132. The alchemical physician Paracelsus began his career as an apprentice metallurgical engineer in the Fugger mines in Austria. See Woodward, 18. Paracelsus revolutionised European medicine through his emphasis on the use of stones, minerals, and metals in remedies. See Paracelsus, *Selected Writings*, trans. Jolande Jacobi, Bollingen Series 28 (Princeton, N.J: Princeton University Press, 1988), 77, 93, 214.

[77] Roper, 132. See also Simon Werrett, *Fireworks: Pyrotechnic Arts and Sciences in European History* (Chicago: The University of Chicago Press, 2010), 171.

[78] *ibid.*, 45-48.

as an eschatological symbol of satanic horrors.[79] The Jesuits adopted this technique, using similar fire displays in the colonies to control the Hurons of Quebec.[80] Portuguese slave traders also used pyrotechnics and explosions to control slave trading posts in Africa; Puritans did the same in New England.[81] Simon Werret holds that these displays were explicitly metallurgical, a performance of the ruling classes' newfound command over the natural realms of fire and sky: pyrotechnical explosions were the new soundscape of war and terror, while also being instrumental in the crafting of new philosophies regarding man's power over nature.[82] There was a strong literary response to these displays, which were interpreted as 'a means to social, philosophical, and economic progress' signalling the beginning of a new era of knowledge and wealth for the upper classes.[83] Werrett believes that alchemical pyrotechnics were a means by which the powerful controlled the imaginations of commoners and native peoples, thus controlling nature herself: 'performances on the colonial periphery made explicit the performative politics behind pyrotechnic displays at the centre.'[84] For the upper classes, fire crafts became the conceptual basis for cultivating the mind and spirit: science itself was understood to be a pyrotechnical enterprise, interrogating nature in new ways that supported new forms of economic growth.[85]

Metallurgists were also active in the building of New World colonies. Accounts of first contact between European warriors and native communities focus on the

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[79] *ibid.,* 49. Alchemical literature is replete with eschatological concepts similar to those found in chapter six: through transmutation, the alchemist was able to purify materiality and prepare for the final conflagration at the end of the world.

[80] *ibid.*, 54.

[81] *ibid.,* 55.

[82] *ibid.,* 45, 47-48.

[83] *ibid.,* 171.

[84] *ibid.,* 56.

[85] *ibid.*, 71.

psychological impact of the Europeans' metal armament and gunpowder. For example, at the moment of first contact, the Pacaha struggled to comprehend the sight of the advancing conquistadors: 'hundreds of warriors carrying gleaming spears and clanking swords, with crossbows strapped across their backs, some clad from head to toe in a gray metal that reflected the sun'. These illuminated men, whom they would later know as Hernando de Soto's conquistadors, were obsessively searching for gold.[86] The African Pende oral tradition retains memories of 'white men [who] arrived in ships with wings, which shone in the sun like knives.'[87] Throughout the early slave trade, metal wealth was the chief obsession shared by European elites and the trading crews they sponsored. The Portuguese named their first trading fortress 'El Mina' (the Mine), and referred to the entire gulf of Guinea simply as 'Mina'.[88] By the 1590s, the slave traders struggled to keep up with the constant demand for mining slaves.[89] Both Church and state were active buyers.[90]

In North America, mineral wealth was also sought obsessively, although rarely with success. However, metallurgical ideology played an important part in forming the colonial mind-set in these regions as well. In *Prospero's America,* Walter Woodward examines the Puritan alchemists who occupied positions of leadership in the New

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[86] Kathleen DuVal, *The Native Ground: Indians and Colonists in the Heart of the Continent*, Early American Studies (Philadelphia: University of Pennsylvania Press, 2006), 29.

[87] Thomas, 129.

[88] *ibid.*, 221.

[89] *ibid.,* 92ff, 138ff. European desire for metal, slaves, and territorial control radically altered the political and economic landscape of Africa. African kings resorted to increased slave trading in order to stave off European encroachment into their territories. (109) The Saharan slave trade, established centuries earlier by the Caliphates, also increased in volume on a massive scale. (144) Entire city-states sprung up along the Niger river estuaries based on the metal trade and slave economy. (145)

[90] *ibid.*, 100. The Church invested in New World mining in order to finance cathedral construction—it became common for monks and priests to own slaves.

England colonies. John Winthrop, the most famous alchemist in the colonies, served for decades as the governor of Connecticut—he was also the son of the founding governor of Massachusetts.[91] Like many people of his time, Winthrop believed that European economic expansion and colonisation had eschatological purpose: 'the goals of Christian reformation [i.e. colonisation and Christianisation] of the world and [capitalist] economic development were virtually synonymous', and, if successful, would trigger the return of Christ.[92]

Winthrop and others promoted 'alchemical knowledge as a foundation for Puritan colonisation and economic development.'[93] Alchemical endeavours contributed significantly to the colonial economy:

> Although Christian alchemists believed God granted only the most spiritually worthy adepts knowledge of such secrets, they also believed that, in the effort to attain them, alchemical practitioners were often given knowledge of lesser improvements with important practical benefits. Advances in medicine, mining, metal refining, husbandry, cloth dyeing, and military defence were common by-products of the chemical quest and important signs to alchemists that God was favouring their endeavours.[94]

This view justified the capitalist entrepreneurism that was at the heart of the alchemical enterprise—Christendom could be improved through amassing capital and the world purified through global colonisation.[95] Working closely with the Royal

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[91] Woodward, 1.

[92] *ibid.,* 3. See also Donna Bilak, 'Alchemy and the End Times: Revelations from the Laboratory and Library of John Allin, Puritan Alchemist (1623–1683)', *Ambix* 60, no. 4 (November 1, 2013): 390–414. Puritan alchemists pursued the Philosopher's Stone and the panacea to prepare the elect for the 1000-year reign on earth following judgement day (a millennarian doctrine). (390)

[93] Woodward, 3.

[94] *ibid.*, 2.

[95] *ibid.*, 21.

Society, Winthrop sought 'to make New England a laboratory for alchemical transformation by creating a new London, where alchemists could collaboratively pursue scientific advances in agriculture, mining, metallurgy, and medicine'—an multifaceted experiment in socioeconomic engineering.[96] Unfortunately for the native peoples, these endeavours coincided with the discovery of silver-bearing lead deposits in the interior of Massachusetts: the wars that followed all but eradicated the local Pequot tribe, and entirely displaced the few survivors from all lands surrounding the mineral resources (which, in the end, turned out to be minimal).[97]

Rajani Sudan has highlighted the long-term relevance of alchemy in the growth of the British Empire: her analysis uncovers the saturation of alchemical concepts and language in the literary and nonliterary writings produced throughout the eighteenth and early nineteenth centuries. Sudan holds that these concepts played an important role in the production of imperial ideology: for example, the process of colonising India was frequently described as a process of alchemical transmutation, a struggle to eradicate India's dross. The alchemical discourse within imperial ideology was key to the development of notions of gender, domesticity, and authorship.[98] Anne McClintock analyses British colonial discourse on African mines, where white men

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[96] *ibid.,* 4, 41. The Royal Society shared the alchemical pansophic vision for the perfection and spread of Christian knowledge throughout the world. As the primary institution organising scientific research and communication, the Royal Society functioned as an agency for the British government, collecting information on prospecting and resource extraction across the growing empire. (8)

[97] *ibid.*, 4.

[98] Rajani Sudan, *The Alchemy of Empire: Abject Materials and the Technologies of Colonialism* (Oxford: Oxford University Press, 2016). Throughout her study, Sudan mentions the importance of clay, water, and rope in the British struggle to compete with native *technē*: Sudan has (seemingly unintentionally) highlighted the very materialities of watery reproduction, clay crafting, and rope tying that feature so prominently in the ancient sources discussed in chapters three through six.

penetrate the sexualised insides of African land, rebirthing themselves through emerging from mine shafts laden with wealth: in extracting precious metals and gemstones, 'the white Englishmen give birth to three orders—the male, *reproductive* order of patriarchal monogamy; the white *economic* order of mining capital; and the global, *political* order of empire... In this way, the adventure of mining capital reinvents the white patriarch—as the heir to imperial "Progress" at the head of the "Family of Man"—a family that admits no mother.'[99]

To my knowledge, there exists no feminist study of the ubiquity of metallurgical ideology in the formation of gender and race in the early modern period—many studies mention the importance of mining, but I have not found studies that take the ideological weight of the metals themselves as their primary focus. In future work, I will seek to demonstrate direct continuities between antique, Byzantine, Islamic, Ottoman, and European metallurgical ideology and their corresponding approaches to state-craft and slave trading.

I plan to begin building on my current research by examining patterns of deliberate borrowing of ancient near eastern and Graeco-Roman imagery by the men who helped build the European colonial empires. We have already noted the extensive use of pyrotechnic dragon image, reminiscent of ancient near eastern *ouroboros*—here symbolising the rebirth of the European elite classes and of Europe as the continuation of antique civilisation.[100] In another example, when the Portuguese established El Mina, they claimed as their patron Saint George of the Mines, the archaic dragon-slayer we met in chapter one, revealed once again as an essentially

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[99] Anne McClintock, *Imperial Leather: Race, Gender, and Sexuality in the Colonial Contest* (New York: Routledge, 1995), 4. McClintock's materials cover a later time period than the one we are focused on (nineteenth-century South African mining), and yet the observation holds for earlier time periods as well.

[100] For a study of the transmission of the CHA, see Copenhaver xl-lix.

metallurgical warrior.[101] In startling resonance with ancient near eastern imperial rulers, the Portuguese ships transported specially-fabricated stone or wooden steles made in Portugal to mark ownership of river passages into the interior of Africa—although this borrowing may be unintentional, it was done with such careful deliberation that I suspect it was patterned off of biblical or classical texts.[102] My initial research has revealed many examples in which early modern writers express conscious awareness that they are manufacturing a rebirth of culture, society, and economy, expending enormous effort to effect a reincarnation of antique civilisation. Hugh Thomas quotes sixteenth-century sources that describe the energy behind this rebirth as a 'hard, gemlike flame', with men expressing anguish that lack of sufficient slave labour was preventing Europe from achieving the greatness of Graeco-Roman antiquity in technological prowess and intellectual feats of knowledge and scientific discovery.[103] The colonial Europeans, then, were acutely aware that Greece and Rome were true slave societies completely dependent on slave labour. Ancient history also helped form European notions of the peoples of the New World. In 1580, the influential political philosopher Jean Bodin compared native peoples to the Canaanites, claiming that the cults of Baal and the sun god were evident in both the ancient near east and the Americas, thus demonstrating the universal actions of the Devil—the biblical stories of the Israelite genocide of the Canaanites justified, in Bodin's view, the European devastation of the native populations.[104] Yahweh, in his

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[101] Thomas, 111.

[102] *ibid.*, 80-81.

[103] *ibid.*, 113.

[104] Jean Bodin, *On the Demon-Mania of Witches*, Renaissance and Reformation Texts in Translation 7 (Toronto: Centre for Reformation and Renaissance Studies, 1995), 59-64. 'Now it is quite well known that the Amorites and other peoples whom God exterminated practised sorcery, sacrificing men to devils, to whom they spoke, and whom they worshipped, chiefly the Sun, calling him especially, "Baal," which means in Hebrew, "Lord."... And even more

ancient near eastern and early modern forms, presided over both genocides. Bodin then follows this analogy with a description of mankind's path towards *gnosis:* he uses mining prospecting as his primary metaphor, equating the search for mineral resources with the process of discovering knowledge of God and his cosmos.[105]

The above constitute but a few examples of deliberate references to the ancient world, which, in my view, merit further study: this will involve archival research into early modern texts, as well as comparative analyses of early modern metallurgical imagery with original antique usages.

Vulvar vocality in the Atlantic slave trade and the New World colonies

We have already encountered the legal philosopher Jean Bodin, to whom modern scholars attribute the first written description of the modern concept of state.[106] Bodin is known as an advocate for religious tolerance during a time of extreme sectarian violence. However, he was also one of the most influential demonologists, who wrote extensively on the characteristics, detection, torture, and punishment of witches.

According to Bodin, witchcraft is a crime against the state in the form of subversion of the divine right of kings.[107] Bodin portrays witches as diabolical metallurgical craftswomen: 'Satan had taught a young girl from Geneva to make any person dance and jump about, whom she touched with an iron wand which he had given her.'[108]

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strange, one finds that the people of the New World held the same belief as the Amorites... This shows indeed that the Devil had taught all those people that fine science.'

[105] *ibid.*, 84-85.

[106] Quentin Skinner, 'The State', in Terence Ball, James Farr, and Russell L. Hanson, eds., *Political Innovation and Conceptual Change*, Ideas in Context (Cambridge: Cambridge University Press, 1989), 120. The term 'state' used to refer to the 'king's estate', and Bodin is the first author to use this word in the way we do today, although the concept was already circulating for some time.

[107] Bodin, 23.

[108] *ibid.*, 120.

Witches also cause men to 'cast out iron fittings, hair, pieces of cloth, broken glass', with one man dying of his metallurgical violation: 'there was in Ulrich a man named Nenssesser, a bewitched ploughman, from under whose skin they pulled out an iron nail, and he felt such great pains in the bowels that he cut this throat in desperation. He was opened up in the presence of all the people of Ulrich and there was found a rod, four steel knives, two horseshoes, and a ball of hair.'[109] In Bodin's view, the command of metals should be reserved for the state: he notes that metal prospectors use a natural form of magic to locate ores, which is a skill granted by God and therefore lawful.[110] The state, unlike the witch, is permitted to inflict pain using metals: in his view, a just punishment for blasphemy entails the accused's 'lip cleaved with a hot iron... to make a public apology clad in his shirt, to have his tongue pierced'.[111] Magic and metallurgy, then, are only unlawful when wielded by women.

For Bodin, however, the most menacing power of a witch is her vulvar vocality.[112] He cites witches who can clearly speak 'when the woman's mouth is closed, sometimes with the tongue stretched half a foot out of the mouth, *sometimes through the shameful parts*.'[113] The image of the tongue protruding from the vulva is one of the most blatant depictions of the patriarchal phantasm of two-mouthed women: in this case, Bodin has so exaggerated the trope that vulvar vocality becomes vocal vulvarity—the vagina, quite literally, speaks. To these vocal feats Bodin adds the witches' demonic knowledge and learning: 'Italy and Spain have a great number of these cases... who speak Greek, Latin and other languages without having learned them... For the spirit in the girl from Vervins, when she stuck out her tongue right to

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[109] *ibid.*, 139.

[110] *ibid.*, 84.

[111] *ibid.*, 146.

[112] This is reminiscent of the Babylonian anti-witchcraft rituals, where the witch could be represented by a clay tongue. See chapter four.

[113] *ibid.,* 109. My emphasis.

the larynx, spoke fluently' in foreign tongues.[114] Witches, then, encroach on the territory of metallurgists and scholars alike, areas of expertise in which they were denied prerogative for the sake of the state.[115]

Heinrich Kramer's *Malleus Maleficarum* (The Hammer of the Witches) is replete with depictions of diabolical two-mouthed women.[116] According to Kramer, sorceresses enter into pacts with the Demons 'not through just any agreement entered into in just any way through the sacrifice of some animal or a sacrilegious petition or offering the presentation of adoration, but by offering themselves to the demons in soul and body as they completely renounce the Faith *with a sacrilegious mouth*.'[117] As this vocal declaration is inevitably followed by coitus, the witch is defined as a woman receiving demonic power through both of her mouths.[118] Kramer specifies that women are far more prone to falling into witchcraft because of their evil, loose tongues and the insatiable sexual desire of the womb.[119] Her wild mouths make the

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[114] *ibid.*, 163.

[115] Reading Bodin in the context of the antique contestations noted in chapters two through six, we might interpret the boundary between lawful and unlawful magic and metallurgy as the boundary between the male authority over reproduction and the imagined female counter-claim. By weilding metals and speaking in scholarly languages, the witch is claiming female prerogatives over craft and wisdom—two domains closely associated with midwives both in antiquity and in the early modern period.

[116] The title of Kramer's treatise grants his depiction of vulvar vocality a distinctly metallurgical ring: the hammer is a strange choice of weapon against sorceresses, unless one considers that Kramer may be referencing the hammer of the iron forgery, which repeatedly strikes the heated iron (presumably Christian society) to rid it of impurities (heretics, pagans, and witches).

[117] MM, 197-198. My emphasis.

[118] For example, see MM, 263-265.

[119] *ibid.*, 113-122. Roper also notes other sources relating stories of witches causing teats to form on the bodies of babies, from which the witches suck them dry of all bodily fluids. Old

witch an anti-maternal figure: she kills her own and others' infants, even cooking babies over a flame to make potions that grant her immense knowledge.[120] The witch's furnace craft inverts metallurgical reproduction in a diabolical anti-maternal display, culminating in a chthonic anti-*gnosis*. The ancient connotations of this diabolical power have been identified by Carolyn Merchant, who describes the early modern view of witchcraft as follows:

> The view of nature associated with witchcraft beliefs was personal animism. The world of withes was antihierarchical and everywhere infused with spirits. Every natural object, every animal, every tree contained a spirit whom the witch could summon, utilise, or commune with at will... They did not depend on the complicated hierarchical mechanisms of *pneuma,* or *spiritus,* to draw down celestial influences, as did the Neoplatonic magician... No hierarchies stood between the witch and the object of her will... They could take revenge on those whom they disliked... [as a] means of control of defense against the repression and injustices of hierarchical society.[121]

Merchant's description of early modern anti-witchcraft discourse is strongly reminiscent of themes discussed in chapters two, four, and six: the threat of pre-theistic divinatory religion accessible to and controlled by individuals outside of the elite classes; the contrast between a chthonic, wild power of the female witch, versus the spiritual, ascending power of the mage; and the elite male paranoia of women subverting class stratifications by means of their intimate connection with nature. Bodin and Kramer have revealed to us that this nature-driven female power is two-mouthed, just as the Mesopotamian witches were characterised by their tongues, trills, and spittle.

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witches (whose bodies were understood to be dry) were ravenously sexual and desired to extract young men's sexual fluids. Thus witches devoured the young with both their mouths. See Roper, 208-209.

[120] *ibid.,* 237.

[121] Merchant, 140.

However, witchcraft was only punishable when the sorceresses worked outside of the interests of the state. Roper holds that the legal records of witchcraft trials show that secular courts accepted that sorcery and capitalism were related.[122] Early capitalist merchants, who embodied masculinity and rationality in early modern culture, frequently combined business with magical dealings (both licit and illicit).[123] In one case, an Austrian women (the local healer) was brought to trial for witchcraft for making love potions. Despite the fact that there was considerable evidence to convict her, the woman claimed that she worked for Anton Fugger as his personal sorceress—once her accounts of visiting the Fugger estate were verified by the court, the woman was released, escaping both torture and conviction.[124] Interestingly, Fugger himself had already died many years earlier—her release, instead of being intended to protect Fugger from associations with witchcraft, was a recognition that her dealings with the capitalist transmuted the illicit into the licit.[125] Some kinds of witchcraft, in other words, were understood to be part of early capitalism, even while it was 'coeval with a war against women'.[126]

Fugger had employed this local healer to gaze into a gemstone he provided her, so that she could use magic to deliver secrets concerning mineral deposits and other trade endeavours.[127] Early capitalists, much like alchemists, were obsessed with

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[122] Roper, 128.

[123] *ibid.,* 126.

[124] *ibid.,* 127-131.

[125] *ibid.*

[126] Federici, 14.

[127] Roper, 132. Roper holds that the use of crystal balls to seek mineral wealth was a widespread phenomenon. 'For sixteenth-century people, wealth was a malignant force.' The people blamed wealthy capitalists like Fugger for increased poverty: 'People got rich only by making others poorer.' Crystal ball gazing became an obsession across class divides because 'Only by finding treasure—whether the treasure of the Indies or the silver deposits of the Tyrol or New World—could one become harmlessly rich.' (132)

secrets as a primary tool for maintaining trade monopolies.[128] Anton Fugger's moto was 'silence is golden'—he meant this quite literally.[129] Roper holds that capitalists like Fugger valued women healers as the mouthpieces of secrets because of the 'natural alchemy' of their wombs' transformative powers—something resonant of little Harpocrates' uterine secrets in chapter six.[130] At the same time, early modern men also blamed knot-tying witches for stealing their manhood, forming a complex set of ambivalences around the utility and threat of women.[131] Early capitalists, then, developed a mythopoesis for their own mystery cult, producing their own version of metallurgical ideology and vulvar-vocal phantasms. Like the gnostics, the early modern 'possessors of secrets' set themselves apart from society, highly individualised and yet part of an elite caste of knowers.

Over the course of the sixteenth century, European economies became increasingly dependent on the extraction of resources from Africa and the New World. It is in the records of European contact with native populations and enslaved Africans that we find the most violent discourse on vulvar vocality. Here I will consider the European colonial understanding of native women and enslaved African women in turn.

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[128] *ibid.*, 135. Daniel Jütte terms this 'the early modern economy of secrecy'. (688) Woodward notes that alchemical treatises were written in a secretive code of heavy allegory, thus guarding their secrets from the uninitiated despite wide-spread publication. (25)

[129] *ibid.*, 135.

[130] *ibid.*, 137: To the alchemists, the women's 'interior bodies... housed mysteries... [For] having captured men's seeds in their wombs, they carried out the alchemy of turning food into nourishment for the goetus and blood into milk for the newborn child. Women were mistresses of transformational science.' Roper also notes that the secretive liaisons between capitalists and women healers was a (presumably) non-sexual version of prostitution, where 'the woman's capacity was purchased by the man.' (135)

[131] *ibid.,* 126. The same class of women (healers known for love magic) used by capitalists were blamed for robbing men of their phallic power and accused of witchcraft. (137)

Constructing the native woman as a copper beauty

Throughout the late-sixteenth and seventeenth centuries, Italian and English playwrights popularised the figure of the alchemical mage and made alchemical tropes, concepts, and imagery accessible to those who could not access learned texts.[132] These plays conjured up pastoral scenes of idyllic nature, where audiences could escape the harsh realities of political corruption and capitalist violence.[133] The pastoral scene was based on classical exemplars, filled with nymphs, gods, and shepherds who brought people close to 'nature and its inherent divinity'.[134] Sharon Yang notes that, at the same time, the pastoral discourse 'reflect[s] early modern anxieties about women's dangerous verbal and sexual inconstancy... and the lack of control in life generating fears about witchcraft and the supernatural.'[135] Within this genre, the mage acts as a guide restoring harmony to nature, often by ensuring the virginity, purity, and fidelity of women, thus 'calming masculine anxiety over female agency' and providing audiences with a model for female domesticity.[136] Familiar examples of the mage can be found in Shakespeare's *Tempest,* which features Prospero as the alchemical wise man. However, we also find the pastoral image in *As You Like It,* where a courtier finds respite from political life by escaping to a forest and reuniting with nature.

> And this our life, exempt from public haunt,
> Finds tongues in trees, books in the running brooks,
> Sermons in stones, and good in everything.

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[132] Sharon R. Yang, Goddesses, Mages, and Wise Women: The Female Pastoral Guide in Sixteenth and Seventeenth-Century English Drama (Selinsgrove: Susquehanna University Press, 2011), 17.

[133] *ibid.*, 13.

[134] *ibid.*, 13.

[135] *ibid.*, 16.

[136] *ibid.*, 22.

I would not change it.[137]

Shakespeare applies the classical usage of the murmuring tree and stone of nature to conjure up an idealistic image of nature as a respite from the harshness of Elizabethan society.

However, Shakespeare's usage of the dyad also plays into colonialist notions of nature as willingly embracing the arrival of European men. Richard Godbeer, in his study of early English colonial discourse, notes that the New World was frequently equated with nature, and consequently portrayed as a maiden waiting to be taken, its land a fruitful womb to be fertilised by English industry.[138] English reports on the New World initially depicted native peoples as besotted by the English, freely surrendering their land in anticipation of impregnation by a superior culture.[139] The naturalist William Bartram similarly described native women as delectable, rapeable nymphs and dryads, conjuring up a familiar pastoral image of plenty from classical antiquity.[140] Colonial men recorded their belief that sexual contact with native women would improve them by reducing their barbarity.[141] English traders established a 'grim sexual regime', so frequently raping native women that serious political tensions arose between European and native communities.[142] European trade reports openly recognised the ubiquity of these rapes, but only considered them a possible impediment to trade profits—not once were the rapes described as a crime against native women.[143]

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[137] *As You Like It*, Act II, scene 1 562-565.

[138] Richard Godbeer, *Sexual Revolution in Early America*, Gender Relations in the American Experience (Baltimore: Johns Hopkins University Press, 2002), 4.

[139] *ibid.*, 4.

[140] *ibid.*, 174. In this sense, the colonist acts as the god Pan, who in Greek myths rapes the nymphs despite their attempts to flee from him.

[141] *ibid.*, 6.

[142] *ibid.*, 193.

[143] *ibid.*, 179-180.

Rape ideology was fundamental to the colonial gaze on the New World: colonial surveyors reported on mining opportunities and mineral wealth in the same breath as native women's sexual attributes.[144] A Virginia trader named William Byrd, who came from a goldsmithing family, made these metallurgical allusions explicit when he described native women as 'copper-coloured beauties'.[145] Native women, therefore, were a third-rate precious metal to be extracted and consumed by European men. In his diary, Byrd later reports participating in a group of white men who drugged and gang raped a native girl they called Jenny.[146]

The English colonies, in contrast, were characterised by obsessive and paradoxical sexual disciplining. On one hand, the colonies were known for intense surveillance and repression of sexuality—the ability to govern one's sexual appetites and one's tongue set the Europeans apart from the wilderness and barbarity around them, much like the Greek notion of *sophrosyne*.[147] Sexual speech was punished almost as severely as illicit sex acts, and a woman who talked of sex could be accused of witchcraft.[148] On the other hand, the Puritans wrote intensely erotic poetry about god and salvation—Puritan preachers imagined consummating a marriage with Christ, the man and his saviour conceiving a 'child of grace' together through the spiritual ejaculations of prayer.[149] Thus, while women were threatened by Puritan phantasms

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[144] *ibid.*, 155.

[145] *ibid.*, 173.

[146] *ibid.*, 175. His diary also includes other sexual assaults: he rapes his heavily pregnant wife Lucy and sexually assaults many female servants and maids. (197, 199)

[147] *ibid.*, 4. Interestingly, the Puritan colonists had their own Telchines: the ironworkers and their families, who laboured in the colonial iron forgeries, were associated with rape and sexual indecency.

[148] *ibid.* It should be noted that sexual sins were usually only punished if they went against the social hierarchy. Masters could 'fornicate with' (i.e. rape) their servant girls and boys, their wives, and slaves with impunity.

[149] *ibid.*, 77-81.

of vulvar vocality, Puritan men had endowed themselves with a spiritual womb, joining the ancient brotherhood of pregnant fathers.[150, 151]

The split between the rapeable copper woman and the strictly disciplined white woman radically separated women into two populations. White women's sexuality and reproduction was closely monitored within colonial settlements, whereas that of native women was relegated to the realm of wilderness (which, through the salvific intervention of the white male sexual gaze and violation, could be naturalised). The possible pollution of white women by native and enslaved African men was a lasting obsession, whereas men were far less subject to concerns of sexual contamination.[152] Given the alchemical discourse that pervaded the Puritan colonies, it is relevant that early modern alchemical discourse, with very few exceptions, denigrated the feminine principle to the most abject level.[153] Two female archetypes appear in direct opposition to each other: the first, the Virgin Mary, the feminine principle belonging

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[150] Kathleen Long has noted that early modern intellectuals (Puritans and others) were acutely aware of the 'mystical, Gnostic, kabbalistic, and alchemical notion of a male/female divinity, consonant with the hermaphroditic Adam, the perfect and unfallen form of human existence.' See Long, in *Gender and Scientific Discourse*, 3.

[151] For all their performances of moral rectitude, the Puritan colonial economies depended on the raping and pillaging of Native peoples and land. However, when the colonies themselves disobeyed the larger colonial authorities of the British empire, the colonists found themselves ascribed with violatable vulvar vocality. After the Boston Tea Party, *The London Magazine* published an illustration entitled 'The Able Doctor': the image depicted America as a woman being stripped of her clothes and restrained by a group of men (presumably agents of the Empire). One man lasciviously lifts up America's petticoats to peer at her genitals, while another man grasps her by the throat, forcing the spout of a teapot into her mouth. The empire, therefore, understood its revenge against the colonies as a two-mouthed rape. (Godbeer, 293-294; *London Magazine* April 1774, British Museum no.1855,0609.1926)

[152] Godbeer, 6.

[153] Szulakowska, 193.

to the divine realm of the Father; the second, the bride of the Anti-Christ, described as a 'dark lunar *menstruum*'.[154] These alchemical concepts directly parallel the gnostic separation of spiritual Eve (Sophia) from physical Eve (bodily woman). The bride of the Anti-Christ, then, corresponds to the dark (native, non-white), lunar (natural or wild) *menstruum* (sexual fertility) of physical Eve. The Puritan colonial separation of native women from white women can be read in this light. Native women are the fallen physical Eves of nature who, like the character in the gnostic tractates, are gang-raped by metallurgical emissaries (here the European prospectors, naturalists, and traders). White women, through the salvific force of Puritanism, are purified of the taint of their vulvar vocality, transmuted into the spiritual Eve. Through the bodies of women, whiteness becomes indicative of spiritual illumination—the light in the thick, wild darkness of the New World.

Female vocalities in European discourse on the Atlantic slave trade

Once a person was captured, the journey from home to colony was long. Often captured in the interior of Africa and trafficked to the coast, slaves could be stored on board boats for months before setting sail across the Atlantic, waiting for the crew to conduct trade along the coast. Many died of illnesses and never left their continent of birth. For women, the months-long process of transport had reproductive consequences: some were captured pregnant, others with babies still at the breast; many others became pregnant as the result of rape by their traffickers and traders, giving birth at sea. Each slave ship carried a variety of metal-wielding men on board: metal specialists who judged the quality and value of mineral wares offered for trade, smiths who maintained the weapons and metal equipment on board, and barber surgeons using their metal razors to cut hair and perform surgeries.[155] Barber surgeons had some of the most intimate and frequent encounters with enslaved women on

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[154] *ibid.*

[155] Jessie Dobson and Robert Milnes Walker, *Barbers and Barber-Surgeons* (Oxford: Blackwell Scientific Publications, 1979), xx.

board ship. When first taken on board, a woman's mouth and vulva would be examined 'with the nicest scrutiny' by the barber—he then used a hot metal rod to sear a mark of ownership into her flesh.[156] The same barber would attend to pregnant women as their 'obstetrician'.[157]

Crew members recalled that 'once off the coast, the ship became half bedlam and half brothel.'[158] One barber, named John Barbot, recalled that women were brought on deck and forced to sing and dance for the entertainment of the crew.[159] Most crew considered access to raping women a standard part of their pay, and few captains objected.[160] In the overcrowded environment on board ships, rapes happened publically. Captain John Newton recorded the following in his log:

> *Wednesday 31st January* [1753] .... Buryed a girl slave (No 92). In the afternoon while we were off the deck, William Cooney seduced a woman slave down into the room and lay with her brutelike in view of the whole quarter deck, for which I put him in irons. I hope this has been the first affair of the kind on board and I am determined to keep them quiet if possible. If

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[156] Thomas, 393.

[157] The term obstetrician is anachronistic here, as the medical specialism of obstetrics grew out of the barber surgeons' guilds in the nineteenth century. See brief overview in Heather A. Cahill, 'Male Appropriation and Medicalization of Childbirth: An Historical Analysis', *Journal of Advanced Nursing* 33, no. 3 (February 28, 2001): 336.

[158] Thomas, 416. Olaudah Equiano, who was enslaved in Africa and trafficked to the New World, recalled the soundscapes of the Middle Passage as the shrieks of women, groans of the dying, the sounds of bodies gasping for air with heaving lungs—rendering a scene of inconceivable horror. (410)

[159] Thomas, 419. John Barbot, *A Description of the Coasts of North and South Guinea* (1732). Thomas Phillips also recorded this in his *Journal of a Voyage made from Hannibalm* (1746).

[160] Thomas, 406.

> anything happens to the woman I shall impute it to him, for she was big with child. Her number is 83.[161]

Newton himself recognised that he was one of the few men in the trade who took a dislike to such events.[162] For those who survived the Middle Passage, the soundscapes and violations of the slave auction were equally terrifying: at the ring of a bell, prospective buyers would rush at the naked slaves, inspecting their mouths and breasts and grabbing those they wished to purchase.[163] The plantations were a continuation of the sexual abuse on board slave ships. During the years he lived in Jamaica, Thomas Thistlewood recorded in his diary 3852 sexual acts with 138 girls and women—with a few exceptions, all of his entries detail the rape of slaves he either owned or was tasked with overseeing.[164, 165]

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[161] John Newton, *The Journal of a Slave Trader 1750-1754*, Bernard Martin and Mark Spurrell, eds., (London: Epworth Press 1962), 75.

[162] *ibid.,* 43. We must view Newton's statements with suspicion. He prided himself for leaving the slave trade and turning to abolitionism, but he admits that he only quit sailing slave ships when his health deteriorated too much to continue. Other slave captains published defenses of themselves and of the slave trade. Captain Hugh Crow depicted himself as a friend to African locals, greatly admired and loved by the people he trafficked, and a paragon of intelligence and orderliness. He describes slaves as well-treated, while going to great lengths to decry the British navy's system of forcing white men to serve on ships—the conditions of conscripted sailors were, according to Crow, worse than those of slaves. See Captain Hugh Crow, *Memoires of the Late Captain Hugh Crow of Liverpool; comprising a Narrative of His Life, Together with Descriptive Sketches of the Western Coast of Africa; Particularly of Bonny; the Manner and Customs of the Inhabitants, the Productions of the Soil, and the Trade of the Country. To Which Are Added, Anecdotes and Observations, Illustrative of the Negro Character.* (London: Longman, Rees, Orme, Brown, and Green, 1830).

[163] Thomas, 437.

[164] Trevor G. Burnard, *Mastery, Tyranny, and Desire: Thomas Thistlewood and His Slaves in the Anglo-Jamaican World* (Chapel Hill: University of North Carolina Press, 2004), 156-157.

In future work, I plan to trace the contribution of metallurgical ideology to the establishment of the colonial 'sexual regime', analysing how mineral extraction, alchemical projects, and rape operated together in the formation of race and gender in the colonies and in Europe.

Beyond phantasms: Native and enslaved women's vocal resistance

Patriarchal phantasms of vulvar vocality were not mere performances of the imperial state; instead, they were violently enacted by white men and white women on the bodies of native and enslaved women. In future work, I intend to demonstrate that these enactments were sonic, that the screams and silences of women were purposefully crafted into the colonial soundscape as a technique of terror and a way of defining social categories. However, I intend to focus my analysis on the agency of native and enslaved women in the face of metallurgical ideology and phantasms—they engaged with intelligent understanding of these systems, using their voices to resist, circumnavigate, and subvert the colonial regime. Johnnie Stover emphasises

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See discussion of similar cases in Godbeer, 213-222. Like Thomas and Godbeer, Burnard fails to distinguish between sex and rape, often referring to enslaved women as the 'mistresses' or 'sexual partners' of Thistlewood.

[165] Venereal diseases were rampant in the colonies—Thistlewood continued raping slaves despite noting in his diary that he had severe symptoms of genital infection. In a bitter irony, the standard treatments for these infections depended on the mercury and colloidal silver that were mined in the colonies themselves. Godbeer notes that slaves and native peoples avoided European medical treatments for veneral disease, developing alternate treatments. (Godbeer, 213ff) This avoidance is unsurprising, given that physicians and barber surgeons featured so prominently in the Middle Passage and on plantations. Sharla Fett notes that slaves had 'on one hand, a storehouse of healing knowledge and, on the other hand, a clear comprehension of the harmful potential of white medical care' which was used 'not to preserve the body but to discipline and torture.' Sharla M. Fett, *Working Cures: Healing, Health, and Power on Southern Slave Plantations*, Gender and American Culture (Chapel Hill: University of North Carolina Press, 2002), xi, 1.

the power of enslaved women's vocalities in frustrating the attempts of their masters to control them—they developed an African American 'mother tongue', a subversive use of language:

> backtalk, guile, hesitations, humor, impertinence, impudence, innuendo, insolence, invective, irony, ironic humor, laughter, lying, masking, misdirection, mumbling, physical antics, rage, sarcasm, sass, satire, secrecy, shifts in point of view, signals, silence, song, understatement, whispering... This is a mother tongue—a combination of words, rhythms, sounds, and silences that woman have encoded with veiled meanings.[166]

The diaries of Harriet Ann Jacobs and Mary Prince feature the use of this mother tongue to circumvent censorship. Their stories were used by abolitionists as exemplary narratives of slave women's suffering: Jacobs and Prince were heavily censored by the abolitionists, who wanted them to focus on physical suffering and avoid mention of sexual abuse.[167] Both women, however, developed a code language

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[166] Johnnie M. Stover, 'Nineteenth-Century African American Women's Autobiography as Social Discourse: The Example of Harriet Ann Jacobs', *College English* 66, no. 2 (2003): 140.

[167] Mary Prince, *The History of Mary Prince: A West Indian Slave*, ed. Sara Salih, Penguin Classics (London; New York: Penguin Books, 2000), 3-4. See also Deborah Garfield, 'Earwitness: Female Abolitionism, Sexuality, and *Inicidents in the Life of a Slave* Girl', in Deborah M. Garfield and Rafia Zafar, eds., *Harriet Jacobs and Incidents in the Life of a Slave Girl: New Critical Essays* (Cambridge: Cambridge University Press, 1996), 100-104. Abolitionists feared that honest discourse on rape would harm their movement, as 'innocent' white women (who saw slave women as their sexual competitors) would be offended. However, the abolitionist meetings themselves were highly sexually charged. Slaves performed narratives of their experiences (heavily influenced by coaching by abolitionists) in front of large audiences who flocked to hear slaves speak. These were scenes of intense sensationalism and horror, where sexual and evangelical desire mingled: white people reported slave narratives as titillating, perpetuating colonial gaze and audition.

for describing this essential part of their experience of enslavement. Jacobs used an auditory metaphor, describing her master whispering or screaming terrible things in her ear that she did not wish to know—auditory violation becomes code for sexual violation.[168] Prince describes the sound of her master's maniacal floggings as 'lick, lick, lick', a salacious soundscape of abuse.[169]

In a stunning return to the dyad of tree and stone, Prince recalls being separated from her beloved mother as a little girl and sold to her new master. She describes the master's house as 'The stones and timbers were the best thing in it; they were not so hard as the hearts of their masters.'[170] Out of all the instances of the dyad and anti-dyad we have encountered throughout *Listening to Birth*, Prince provides the only critical usage. She understands the stones and timbers of the plantation manor house to represent the façade of colonial power, and she recognises that its architectural solidity is but a cover for the irrational sadism of white mastery. Prince relates the story of how, after many years of abuse from both her master and mistress, she finally resisted their rages—in vengeful punishment, she was sold off to work in the salt mines, a fate often worse than death.[171] In surviving to tell her story, Prince circumnavigates the abolitionists' censorship and delivers her narrative using her mother tongue, achieving a power of observation surpassing that of Shakespeare.

Listening to Birth, once these remaining studies are complete, will offer an auditory portrait of the making of Europe via the perpetuation of ancient metallurgical phantasms of vulvar vocality. Throughout the preceding chapters, we have observed men listening to imagined women, designing mythic soundscapes in which patriarchal vulnerabilities can be overcome with warrior cacophonies. In future projects, I will integrate an additional layer of audition: women listening to patriarchy, using critical

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[168] Garfield, 104.

[169] Prince, 56.

[170] *ibid.,* 54.

[171] *ibid.,* 62.

audition as a way of identifying the fault lines in patriarchal ideology and the absurdities in its clamour. In doing so, I will locate my own work in a feminist lineage of aural practice as a means of survival and resistance.

APPENDICES

Appendix A: Yahweh as a metallurgical god

Throughout *Listening to Birth*, I treat the god Yahweh as a metallurgical deity. Here I will present my rationale for making this identification.

Yahweh is one of several ancient Semitic gods with this name—gods named Yah have been identified in Mesopotamia (Akkadian Ea or Eya) and northern Syria (Eblaite Hayya). This equivalence is attested as early as the mid-third millennium BCE.[1] All of these gods presided over furnace crafts. The name 'Ea' comes from the Semitic root *hyy* 'to live'—a reference to the metallurgical gods' power to crafts the cosmos and life within it. This root is also the basis of several goddesses' names, including Khebat, Eve (Hebrew Khava, Arabic Hawwa), and Kybele.[2] Chapters three

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[1] See Archi, 'The God Hay(y)a (Ea/Enki) in Ebla', 15-36; Hannes D. Galter, 'The Mesopotamian God Enki/Ea', *Religion Compass* 9, no. 3 (March 1, 2015): 66–76.

[2] The links between Eve (Khava) and the Anatolian goddess Khebat are not merely etymological—Khebat is known from the Egyptian Amarna correspondence to have been worshipped in Jerusalem in the late Bronze Age. Khebat, in turn, is associated with Anatolian Kybele and the Mesopotamian queen Kubau (deified as Kubaba). The Hittites equated Khebat with Arinna, the goddess of the sun. These goddesses are frequently associated with snakes: 'Khava' and the Old Aramaic word for 'snake' also share a common Semitic root. A snake was worshipped in Northern Israel during the Monarchic period. See Gary Beckman, "The

and four outline the claims of these two clusters of deities—the metallurgical gods who claimed to create life, and the fertility goddesses who made a counter-claim as cosmic creatrixes. Ancient near eastern myths stage conflicts between the creators and creatrixes, often leading to violence, as in *Genesis* where Yahweh banishes and curses his onomastic counterpart, Eve.

The Hebrew biblical texts include a wealth of evidence that Yahweh himself is associated with pyrotechnics and metallurgy.[3] His divine and earthly dwelling places are strongly associated with copper.[4] He also takes an interest in teaching smithing skills to metallurgists—the prophet *Isaiah* writes: 'See it is I [Yahweh] who have created the smith who blows the fire of coals, and produces a weapon fit for this purpose.'[5] Important Israelite prophet-leaders (including Moses, Aaron, and Bezalel) prove their authority to the Israelite people by demonstrating metallurgical skills.[6]

Religion of the Hittites," *Annual of the American Schools of Oriental Research; New Haven* 57 (January 1, 2000): 134; Robert North, 'The Cain Music', *Journal of Biblical Literature* 83, no. 4 (1964): 381; W. F. Albright, 'Jethro, Hobab and Reuel in Early Hebrew Tradition', *The Catholic Biblical Quarterly* 25, no. 1 (1963): 1–11.

[3] Amzallag, 'Copper', 404: Amzallag locates direct textual evidence for the metallurgical roots of Yahweh across many parts of the Hebrew scriptures compiled at different points in history, including *Genesis*, *Exodus*, *Numbers*, *Kings*, *Psalms*, *Isaiah*, *Jeremiah*, *Ezekiel*, *Amos, Obadiah*, *Habakkuk*, *Zechariah*, and *Job*.

[4] Amzallag, 'Yahweh', 394. In *Zechariah* 6.1-6, the dwelling of God is symbolized by two mountains of copper. In *Ezekiel* 40.3, a divine being is described as a man whose appearance shone like copper. The Tabernacle of Yahweh uses copper heavily: large columns of solid copper flank the entrance: 9 meters by 2 meters—the largest and most prominent symbol in the structure.

[5] *Isaiah* 54.16. See Amzallag, 'Yahweh', 394. Yahweh's involvement in teaching metallurgy has no parallel in any other crafts.

[6] Amzallag, 'Copper', 154-156. When Aaron casts golden calf, the text specifies that Aaron himself made the mould used to cast it. The wording of the Hebrew text suggests that he used a lost-wax casting technique, which requires immense skill. 'This transforms Aaron into a

Yahweh himself is described in pyrotechnical terms: he is an everlasting fire, with smoke billowing from his nostrils and fire burning in his mouth, and his throne is a furnace surrounded by coals and the highly toxic roasted ore (Hebrew *gofrit*).[7] In his anger, Yahweh destroys the cities of Sodom and Gomorrah by first raining down fire and gofrit, then by lowering a giant furnace over the cities to smelt their remains (these details in the Hebrew text are lost in English translation).[8] Yahweh approaches his chosen people with the fierceness of a metallurgist, repeatedly purifying Israel via the process of cupellation.[9]

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highly competent, professional metalworker. Moses too was approached as a metalworker, in for Moses request to forge by himself a copper serpent'. Amzallag concludes that 'Moses and Aaron had to account for their metallurgical skill in order to convince the Israelites that they spoke in the name of YHWH.' The prophet Bezalel is likewise posed as a metallurgical specialist: 'See, I have called by name Bezalel the son of Uri, the son of Hur, of the tribe of Judah; and I have filled him with the spirit of Elohim, in wisdom, and in understanding, and in knowledge, and in all manner of workmanship, to devise skilful works, to work in gold, and in silver, and in copper, and in cutting of stones for setting, and in carving of wood, to work in all manner of workmanship.' (*Exodus* 31.2-5) Note here that Bezalel's metallurgical skills are mentioned first and are directly associated with wisdom. See chapter seven for discussion of wisdom and metallurgical ideology.

[7] *ibid.,* 164: 'fire should [not] be simply considered as metaphor of the destroying powers of YHWH. Rather, it appears as a central component of the divine reality.' *Psalm* 18.9 is typical of many descriptions of Yahweh: 'Smoke arose up in His nostrils, and fire out of His mouth did devour; coals glamed forth from Him.' Amzallag concludes that 'the combination of burning coals... with devouring fire located in a 'mouth' clearly evokes the work of a furnace' that acts as the throne of the god.

[8] *ibid.*, 159-160.

[9] *Isaiah* 48.10: 'Behold, I have refined you, but not as silver; I have tried you in the crucible of affliction.' *Jeremiah* 9.6 poses cupellation as the only way for Yahweh to purify his people: 'thus said Yahweh Sabaoth: behold, I will cupellate them, and examine their purity; for how else should I do because of the daughter of My people?'

While the Hebrew scriptures were compiled and redacted over many centuries, the metallurgical imagery contained in the texts can be roughly dated by their technological profile—the scriptures feature Bronze Age metals and alloys (silver, gold, copper, and bronze, but rarely iron) and metal-working techniques (roasting, smelting, and cupellation of copper and bronze, but never the act of hammering iron blooms on anvils).[10] The absence of Iron Age technology suggests that the 'metallurgical images of the Israelite religion appear as a vestigial component inherited from a network of beliefs elaborated during the Bronze Age.'[11]

The origins of Yahweh as the chief god of the Israelites has presented a lasting problem for biblical scholars and archaeologists of the Canaanite region.[12] The predominant theory referenced in biblical scholarship is that Yahweh gradually assimilated regional Canaanite cults, transforming from the deity of a specific Canaanite clan (the ancestors to the Hebrews), eventually becoming the primary god of the Israelite state.[13] However, Nissim Amzallag notes that there are two prominent problems with this theory. First, Yahweh cannot be traced to a particular Israelite city

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[10] Amzallag, 'Copper', 158.

[11] *ibid.,* 168. Amzallag also suggests that 'it would be highly counterproductive for the Biblical authors to illustrate the powers of YHWH [only] through metallurgical metaphors because the would have strengthened the Edomite legacy at the expense of the Israelite one. We may rather assume that the profound silence of the Bible concerning the pre-Israelite cult of YHWH... is a consequence of the tumultuous transfer of authority of the cult of YHWH from Seir to Jerusalem.' He considers the many remnants of Edomite imagery to reflect the impossibility of redaction fully obscuring 'this essential dimension of [Israelite] national diety', perhaps because it was so deeply embedded in their ritual and theology. (167)

[12] See Robert Karl Gnuse, *No Other Gods: Emergent Monotheism in Israel*, Journal for the Study of the Old Testament 241 (Sheffield, England: Sheffield Academic Press, 1997), 62-128. He reviews all theories concerning the rise of Yahwism.

[13] See John Day, *Yahweh and the Gods and Goddesses of Canaan*, Journal for the Study of the Old Testament 265 (Sheffield: Sheffield Academic Press, 2000).

which gradually achieved dominance in the region (for instance, Jerusalem's original tutelary deity was the Canaanite god Rešef).[14] Moreover, the process of elevating a city deity to a national god does not explain why Israelite religion culminated in monotheism between 600 and 400BCE: 'In the Canaan of the early Iron Age, no concentration of political power can be used to justify the collapse of the whole pantheon.'[15] Had Yahweh originated as a local god, the cult of Yahweh would have been far more integrated into local polytheistic religion.

These factors have prompted some scholars to look elsewhere for the origins of Yahweh. The Qainite (or Kenite) hypothesis presents evidence for the southern Canaanite (Edomite) origin of the god.[16] Biblical scholars have noted that the name of the Qainite tribe is integrated into the *Genesis* story as a clan of metallurgists descendent from Qain (Cain), the mythic firstborn son of Adam and Eve.[17] Edom was indeed home to clans specialising in metallurgy (including the Qainites and Midianites), and emerged as a political force during the Bronze Age due to the

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[14] Biblical redactors were aware of Jerusalem's Canaanite polytheistic past. Jeruslem is rebuked in Hebrew scriptutes for her dark past (e.g. *Ezekiel* 16.3-14), called the 'adoptive daughter' of Yahweh and castigated for the abominations related to her early youth.

[15] Amzallag, 'Yahweh', 388.

[16] Joseph Blenkinsopp, 'The Midianite-Kenite Hypothesis Revisited and the Origins of Judah', *Journal for the Study of the Old Testament* 33, no. 2 (December 1, 2008): 131–53; Justin Kelley, 'Toward a New Synthesis of the God of Edom and Yahweh', *Antiguo Oriente: Cuadernos Del Centro de Estudios de Historia Del Antiguo Oriente* 7 (2009): 255–80.

[17] For example, see Paula M. McNutt, *The Forging of Israel: Iron Technology, Symbolism, and Tradition in Ancient Society*, The Social World of Biblical Antiquity Series 8 (Sheffield: Almond, 1990), 239-249; Juan Manuel Tebes, '"A Land Whose Stones Are Iron, and Out of Whose Hills You Can Dig Copper": The Exploitation and Circulation of Copper in the Iron Age Negev and Edom', *DavarLogos* 6, no. 1 (2007): 69–91. The cursing of Cain parallels the cursing of Esau—in both stories, the ancestors of the Hebrews (Seth, Jacob) receive the blessings of Yahweh instead of their Edomite brothers.

increased demand for copper. The Edomite mining fields supplied much of the Levant with copper materials, products, and crafting skills.[18] The scale of mining and smelting was enormous, producing over 200 000 tonnes of slag from the Copper Age to the Iron Age.[19]

Although the Edomites themselves do not seem to have ever practiced monotheism, Edom retained a special status in the Hebrew scriptures. In fact, the scriptures include Edomite literature—the *Book of Job* has been identified as an Edomite text that predates the Hebrew scriptures.[20] While the scriptures are renowned for depictions of the Hebrew people's extreme violence towards their polytheist neighbours (typified by strong polemic against deities other than Yahweh), 'Edom... is never blamed for idolatry by the prophets'.[21] Some biblical texts suggest that Yahweh's original cult centre was in Seir, a mountainous region in Edom.[22] The prophets are likewise disposed to positive views of Edom: *Obadiah* calls Edom 'the land of wisdom', *Isaiah* describes Edom as worshipping Yahweh, and Jeremiah identifies Edom to be the first land to worship the god of Israel.[23] The Israelite myths recognise their close

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[18] Amzallag, 'Yahweh', 389.

[19] *ibid.* 390.

[20] Victor Sasson, 'An Edomite Joban Text. With a Biblical Joban Parallel', *Zeitschrift Für Die Alttestamentliche Wissenschaft* 117, no. 4 (2006): 601–615.

[21] Amzallag, 'Yahweh', 391.

[22] *Judges* 5.4: 'LORD, when you went out from Seir, when you marched from the region of Edom.'

[23] Amzallag, 'Yahweh', 391-2. See also M. Rose, 'Yahweh in Israel - Qaus in Edom?', *Journal for the Study of the Old Testament* 4 (1977): 28–34. The only Edomite god mentioned is Qaus, which appears to be a a standard epithet of Yahweh. Biblial evidence: In *Jeremiah* 49.7 and *Obadiah* 8, Edom is called the 'land of wisdom'. *Isaiah* 21.11 describes Edom as worshipping Yahweh. In *Jeremiah* 49.11, Yahweh expresses his duties with respect to his Edomite worshippers. In *Jeremiah* 49.12, the authority of the *nazirim* (an elite group of self-consecrated Israelite worshippers) is paralleled with the people of Edom, suggesting that

relationship with Edomites in their own myth of origins: the conflict between twin brothers Esau (the elder, forefather of Edom) and Jacob (the younger, forefather of Israel) depicts Esau as the rightful heir to the benediction of Yahweh from their father Isaac.[24] When interpreted with Bronze Age Canaanite history in mind, the story of Jacob stealing Isaac's benediction amounts to a national Israelite confession of usurping Edomite religious authority.

This usurpation, however, extended beyond the religious domain—it was also colonial. Amzallag holds that the Israelites were acutely aware that their land lacked mineral resources. The redactors of the biblical texts nevertheless describe the Promised Land as 'a land whose stones are iron, and out of whose hills you may dig copper'[25]. These textual remnants suggest that the process of moving Yahweh's cult centre from Seir to Jerusalem was highly politically wrought, involving symbolic reconfiguring of the metallurgically barren Israelite territory as the land of ores and smithing.[26] During the first extensive territorial expansion of the Israelite state under King Solomon, the Israelite army invaded and annexed Edom, taking possession of the copper mines—Isaac Mendelsohn has noted records of extensive slave labour in the Edomite mines under Solomon's rule.[27]

I would also like to briefly note that the fiery, fierce Yahweh also acts as mother and midwife. In *Isaiah* 42.14, the prophet speaks of Yahweh 'cry[ing] out like a woman in labour' with gasps and pants. Similarly, *Isaiah* 46.3–4 depicts Yahweh as having

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Edom was the original land of Yahweh. The primacy of Edom is in collective memory of Israel: *Amos* 9.11-12 specifies that, in coming back to Yahweh from illicit polytheism, Israel will 'repossess the remnant of Edom.'

[24] Amzallag, 'Yahweh', 392.

[25] *Deuteronomy* 8.9.

[26] Amzallag, 'Copper', 157.

[27] I. Mendelsohn, 'State Slavery in Ancient Palestine', *Bulletin of the American Schools of Oriental Research*, no. 85 (1942): 14–17.

carried the house of Jacob 'from the womb'. In *Numbers* 11.12, Yahweh is depicted as having given birth to Israel, and will 'carry [the Israelite nation] in your bosom, as a nurse carries a sucking child'. In *Isaiah* 66.13, Yahweh tells Jerusalem, 'As a mother comforts her child, so I will comfort you.'

In *Genesis* 29.31 and 49.25, Yahweh opens and closes the womb. In *Job* 31.15, *Jeremiah* 1.5, and *Psalm* 139.13, Yahweh causes conception and forms foetusus in the wombs of women. In Psalm 71.6, Yahweh acts as midwife; also in *Psalm* 22:9-10, where the psalmist says 'You took me from the belly, you kept me safe on the breasts of my mother. On you I was cast from the womb, and from the belly of my mother.'

The depiction of Yahweh as terrifying metallurgist, skilful midwife, and doting mother seems contradictory at first. However, our analyses in chapters three, four, and five suggest that they are directly connected.

Appendix B: The Song of Kumarbi

The *Kumarbi Cycle* consists of multiple 'Songs' for ritual performance, written by Hittite scribes based on older Hurrian myths. A central narrative shared across the multiple *Songs* is the conflict between generations of the pantheon for leadership. As with other theogonic myths of generational conflict, the successive groups of gods cluster in association with chthonic forms (associated with the earth or netherworld) and celestial forms (associated with the stars, sky and weather) according to the changing political landscape of the Hittite elites. The proem to the *Song of Kumarbi* addresses the Hittite primeval deities, Nara-Napsara, Minki, Aummunki, Ammezzadu, and Ishara, who take no part in the gods' struggle. In the Greek parallels, Ouranos (sky god) is quelled by Kronos (time god), who is in turn overthrown by Zeus (storm god). A similar pattern of succession occurs here, where Anu (sky god) is defeated by Kumarbi (chthonic god), who is in turn defeated by Teššub (storm god).

The Hittite narrative begins with Kumarbi finding himself suddenly pregnant. In an attack, Kumarbi bites off Anu's genitals, believing he has vanquished his foe:

> When Kumarbi had swallowed the 'manhood' of Anu, he rejoiced and laughed out loud. Anu turned around and spoke to Kumarbi: ... 'Stop rejoicing within yourself! I have placed inside you a burden. First, I have impregnated to you with the noble Storm God (Tessub). Second, I have impregnated you with the irresistible Tigris River. Third, I have impregnated you with the noble Tasmisu. Three terrible gods I have placed inside you as burdens. In the future you will end up striking the boulders of Mount Tassa with your head!'
> When Anu had finished speaking, he went up to the sky and hid himself. Kumarbi, the wise king, spat from his mouth. He spat from his mouth spittle and semen mixed together. What Kumarbi spat up, Mount Kanzura... the

frightful... [i.e. Kumarbi's spittle caused him to conceive Mt Kanzura in addition to the other three embryos.][28]

This conflict includes a bizarre range of mouthy encounters: biting, swallowing, laughing, declaring, spitting. It is difficult to tell what exactly made Kumarbi pregnant: was it the act of swallowing Anu's genitals, or Anu's utterance? The pregnancies seem to be the result of mixing: first, the mixing of swallowed semen with words, and second, the mixing of semen with spittle. Kumarbi's response to his initial impregnation causes him an additional conception—he appears confused and helpless.

> Kumarbi, wailing, went to the city of Nippur.
> He saw down on a lordly throne...
> Someone counts the months.
> The seventh month arrived, and inside him the mighty deities...

Here the text becomes fragmentary. However, it seems that Kumarbi has gone into labour. The remaining bits of text show a gaggle of male gods gathered around Kumarbi, commenting on the puzzle of how Kumarbi might give birth! Anu is in attendance, feeling rather cheerful, along with Ea, who seems to have arrived from Mesopotamia to act as midwife. The gods take pleasure in suggesting to the foetuses ways they might exit Kumarbi's body: 'From his... from the body come out! Or come out from his mind! Or come out from his good place! ... Anu began to rejoice... 'They will... him like another woman. Some out in just the same way! … come out by the mouth! ... come out! If you wish, come out by the 'good place'!' By these suggestions, there seem to be multiple options for the foetal ejection: coming out from Kumarbi's skull, mouth, from the place that is 'just like a woman', and from the 'good place', seemingly a euphemism for Kumarbi's anus.

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[28] For all quotations here, I follow Hoffner's translation in Gary M. Beckman, ed., *Hittite Myths*, trans. Harry A. Hoffner, 2nd ed, Writings from the Ancient World, no 2 (Atlanta, GA: Scholars Press, 1998), 40-42.

The births progress one by one: the first two take place in direct succession. A.GILIM (who appears to be the foetal Tigris River Anu declared earlier) is born first. The text is highly fragmentary, however intratextual evidence suggests that A.GILIM is born out of Kumarbi's mouth.[29] It seems suitable that the river is born in this way— this birth must have been an long and exhausting vomiting of river water. As a liquid, A.GILIM does not have to fear Kumarbi's teeth!

The second born son is KA.ZAL (who seems to be Anu's prince Tasmisu), whose voice is heard from within Kumarbi's body as he debates his method of exit:

> 'If I come out to you, it will snap me off like a reed. If I come out to you... that too will defile me... it will defile me on the ear. If I come out to you through the 'good place', a...woman will... me upon my head... He... ed it within. He split him like a stone. He left him, namely, Kumarbi. The divine KA.ZAL, the valiant king, came up out of his skull. As he went, KA.ZAL took his stand before Ea and bowed.'

Tasmisu chooses the top-most exit, reminiscent of Zeus' birth of Athena. The prince decides that the other options of mouth, 'vagina', and anus are either defiling or dangerous. Because he is not made of water, Tasmisu could be snapped off like a reed by Kumarbi's teeth. 'Ear' is a common word for wisdom and intelligence: the foetal prince is concerned that his intelligence will be besmirched or damaged.[30] Coming out by the anus would defile him; coming out of a vagina might lead to midwifery intervention, perhaps smashing his head as he exits Kumarbi's body. Tasmisu instead makes the least dangerous, least defiling exit, straight out 'from his father's mind' —

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[29] When Anu addresses KA.ZAL, the second born, he says 'Come out in just the same way! ... come out by the mouth!' Later, the shepherds reference a birth by the mouth: 'Because... ed Kumarbi from the mouth, no one will... his... back.' Since the text about A.GILIM's birth is too fragmentary or missing for translation, we can assume by process of elimination that he was birthed from the upper mouth.

[30] See chapter seven for further discussion of wisdom and ear.

preserving his own intelligence by splitting his father's head open. With his wisdom successfully separated from his father's genitalia, the royal offspring seems immediately strong like Apollo and the plated prince, bowing politely to the Mesopotamian metallurgical midwife Ea. The link between Tasmisu and Ea is clear: both claim to be wise kings and to be men 'of the ear'.

Following these two births, Kumarbi appears to be physically and emotionally drained. 'Kumarbi fell down, from... his... changed colour.' He goes to desperate measures to prevent the other foetuses from being born, asking for help from Ea to destroy yet unborn Tessub (NAM.HE). Ea seems either unable or unwilling to help Kumarbi kill what is inside him, so Kumarbi tries to fill up his belly with basalt stones to cause an abortion.

> Kumarbi looked for NAM.HE. He began to speak to Ea: 'Give me my child, that I may eat him up. What woman to me... I will eat up Tessub.' I will eat up Tessub. I will smash him like a brittle reed. ... he intentionally gathered him... Kumarbi began to eat. The Basalt injured Kumarbi's mouth and teeth. When it had... in his teeth, Kumarbi began to weep.

The swallowing of basalt stone was later copied in Greek myths of Kronos swallowing the omphalos. Both are unsuccessful in their goals, for earthen stone cannot be substituted for a foetus or newborn. These gods, though powerful, do not have the ability to transform elemental materials however they would like.

Kumarbi attempt here is particularly ironic. He is a chthonic god associated with earth and, especially in later *Songs* within the cycle, associated with stone. But he is not a furnace—he cannot unmake or remake what has happened to him by consuming ore. Kumarbi seems to be bleeding from two foetal exit points; his mouth is now injured in his failed abortion attempt, and his head has been split wide open. It seems that some mortal men come to the rescue, perhaps shepherds with some skill in veterinary midwifery: 'The rich men began to slaughter with cattle and rams. The poor men began to sacrifice with meal. ... They closed up his skull like they would mend a torn garment.' To ancient people familiar with the metaphors of threads and textiles to refer to the womb, childbirth and vulva, the act of mending a birth-torn skull would have seemed apt. Apparently Ea wasn't being a very good midwife, leaving the messy parts of the job to mortals.

Kumarbi, however, has not yet finished birthing. ‘He (the Storm God) left him, namely, Kumarbi. The heroic Tessub came out through the ‘good place’ [that is, the anus].’ This is a fitting exit for a storm god, who seems to have passed like a flatulent wind through the anus, however not without causing his father’s body to tear from the birth.

However, the final son, being a mountain, needs to come out through the earthen place, suggesting the need for a vagina. It is fitting, then, that some divine midwives (the Fate Goddesses) arrive to the birth scene. First, they attend to Kumarbi’s injuries: ‘they closed up his ‘good place’ like they would mend a torn garment.’ The final birth is difficult to read due to the highly damaged clay. We can only know that from a ‘second place... [Mount Kanzura?] came out. They (the midwives) brought him to birth... like a woman of the bed. When they had prepared Kumarbi for the birth of Mount Kanzura, they brought him to birth, namely, Mount Kanzura.’ This time, we do not read of any tearing of flesh. The midwives attended Kumarbi with skill and he was able to birth, as a woman might, safely in their care. We cannot know for certain the orifice by which Mount Kanzura exited Kumarbi’s body, but the increasingly feminised language suggests that Kumarbi birthed as a woman would—we know Hittite women gave birth upright, so the midwives were performing some other procedure when they laid the god down in bed.[31] Perhaps the divine midwives enabled Kumarbi to form a ‘vagina’.

In the end, the humiliation of Kumarbi is complete: he is reduced from the laughing triumphant warrior king, to a childbearer brought to bed by midwives. In the end, the progenitor Anu is victorious, despite his castration: ‘Anu rejoiced too, because he beheld his sons.’

The Song of Kumarbi tablets then break off completely. We only have a small additional fragment, in which the Earth Goddess gets pregnant and gives birth. We

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[31] See discussion of Hittite birth stools in chapter three.

don’t know why this is part of the narrative, but it provides a useful contrast between Hittite portrayals of male and female birthgiving:

> The Earth Goddess set out for Apzuwa, saying: ‘Ea, lord of the source of wisdom, knows what to do.’ He counts the months: The first, the second, the third month passed. The fourth, the fifth, the sixth month passed. The seventh, the eighth, the ninth month passed. And the tenth month arrived. In the tenth month the Earth Goddess began to cry out in labour pains. When the Earth Cried out in labour pains, ... she bore sons.

It is significant here that the goddess does go to consult Ea. In this case, however, she must travel to the metallurgical midwife, for he does not come to attend her. His role, however, seems to be confined to counting the months—a symbol of his knowledge of pregnancy, perhaps. Otherwise, the goddess seems rather self-reliant during labour.

There are strong sonic contrasts between the labours of god and goddess: Kumarbi does not cry out in labour. He only weeps in frustration that his in unable to abort his pregnancies. Kumarbi’s body is violently rent open, perhaps showing his body’s inability to intelligently and sonically processing birth. In contrast, the Earth Mother’s pregnancy progresses normally. She cries out and gives birth. There is no mention of tearing or mending. When read in the context of Kumarbi’s desperation and difficulty, the contrast here is startling. The *Song of Kumarbi* traces two very different sonic embodiments: on one hand, Kumarbi’s strangely silent birthing, the chattering of the gods and the foetuses, punctuated by Kumarbi’s prenatal and postpartum weeping; on the other, the birth cries of the goddess, imagined to be resonant bellowing like the *Cow of Sin*, demonstrating the normal pattern of birthing powered by both voice and vulva. While many ancient texts use the words ‘stomach’ or ‘belly’ to refer to the womb, the Hittite stories make a clear distinction: perhaps a stomach isn’t a womb, after all.

Appendix C: Identifying the *ouroboros*

Bonner stands alone in brushing off any importance of the *ouroboros* in the magical amulets—although he is aware that the symbol was used in dynastic Egypt, he considers its use in the GEM to function as an ornamental border without any actual significance.[32] In tracing the symbol's origins, most scholars only go as far back as the Roman exempla: Waldemar Deonna claims that the earliest example of the *ouroboros* dates to coinage minted in celebration of Rome's victory at the Battle of Actium.[33] While this is obviously incorrect, Deonna may have identified the first use of the symbol within imperial Rome. The context is telling: Octavian's military campaign against Egypt, where he defeats the last Ptolemaic Pharaoh, Cleopatra. The metal smiths who manufactured the coinage for the Roman rulers must have been aware of the potency of the *ouroboros* as a symbol for authority within Egypt. The appropriation of the *ouroboros* within Rome constituted a final assault, this time on Egypt's symbology. This also suggests to us that the *ouroboros* was significant not only to mages and alchemists, but much more broadly to the highest echelons of Ptolemaic society. Here I will seek to demonstrate that the *ouroboros* is a symbol closely related to birth and rebirth; in my view, it is deeply implicated in the Egyptian and Graeco-Egyptian ideology of kingship, which is, in turn, fundamentally metallurgical.

There are different classifications of serpents in Egyptian lore: the uraeus cobra was originally the beneficent folk goddess of harvest and grain (Renenutet) incorporated into the regalia of the Pharaohs.[34] Egyptian creator gods also took the form of serpents

[32] Bonner, 158, 250.

[33] Waldemar Deonna, 'Ouroboros', *Artibus Asiae* 15, no. 1/2 (1952): 163–170.

[34] Pinch, *Handbook*, 185-186. See also Sally B. Johnson, *The Cobra Goddess of Ancient Egypt*, Studies in Egyptology (London: Kegan Paul Internat, 1990).

to reflect their ability of renew and transform, as a snake sheds its skin—even Thoth occasionally has a serpentine form.[35] After the Old Kingdom, the serpent Apophis was introduced to royal Egyptian religion, as the anti-god who threatened the very existence of the sun and of the entire cosmos.[36] In syncretic Alexandra, the Egyptian god of destinies Shai (who could appear in human or snake form) was transformed into a snake-god form of Agathos Daimon, as bringer of fate and luck.[37]

While Harry J. Sheppard has provided the most thorough investigation as to the *ouroboros*' origins, his analysis is incorrect for all materials predating Greece. He conflates the plethora of beneficent and malevolent serpentine forms in ancient near eastern mythology: he refers to the *ouroboros* as 'chaos monster' (as in Apophis), *draco caelestis* (as in Mesopotamian Durmahu), monster of the primordial waters (as in Levantine Leviathan[38]), resurrecting creator-god (snake who sheds his skin), and

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[35] Pinch, Egyptian Mythology, 58.

[36] Ludwig D. Morenz, 'Apophis: On the Origin, Name, and Nature of an Ancient Egyptian Anti-God', *Journal of Near Eastern Studies* 63, no. 3 (July 1, 2004): 201-205.

[37] Pinch, *Handbook,* 194.

[38] The Leviathan may be related to Apophis, as both are the pantheon's enemies in sea-snake form. Smith (*Baal Cycle,* Vol. 2, 248-249) traces the distribution of these serpents across the ancient near eastern literary record: Various Canaanite/Hebrew forms of this serpent include Tunnanu, Tannin, Yamm, Nahar (see chapter three), Leviathan, Rahab, and Tehom. In Mesopotamia, Tiamat's monstrous sea serpent offspring are called Bashmu, also featured in other Akkadian texts (such as the myth of Nergal). Psalm 68 (one of the oldest texts found in the Hebrew scriptures) equates Bashmu with the depths of the ocean: 'The Lord said: "From Bashan I will return, I will return from the depths of the sea."' Reconstructions of the underlying ancient text have revealed: 'I will muzzle the depths of Yamm' and 'Bashan the snake I will muzzle'. (250) Smith concludes that '[t]he cosmic foe in the form of a snake-like dragon is common throughout the Near East.' (249)

Primeval Flood stream.[39] In the end, Sheppard conflates all of these forms with the Greek philosophic (and, later, alchemical and hermetic) maxim: 'All is One'.[40] While each of these character types may have serpentine forms in Egypt, not all apply to the *ouroboros*—on the contrary, each serpentine form employed in Egypt seems to have had a separate geographic or folk origin, which were maintained as separate entities when they were absorbed into official state religion. In iconography, the *ouroboros* has no connection to the Apophis or the Leviathan, and has only limited resonances with *draco caelestis* and the Primeval Flood.

In his study of the birth of the sun disk from the primordial waters, Joshua Aaron Roberson notes several instances of the *ouroboros* in Dynastic art, occurring in the *Amduat* (the Middle Kingdom mortuary texts known as the *Book of the Underworld*).[41] In the tomb of Ramesses VI, the depiction of the moment of solar rebirth is surrounded by twelve disks and stars representing the twelve hours of day and night.[42] The hours are called 'the Hidden Ones' or 'the Burning Ones', personified by twelve goddesses.[43] This iconographical representation of the dawn appears to be based off of an earlier design featured in the tomb of Ramesses III. Here we find a large double-*ouroboros* design surrounding the solar disk, which is flanked by the twelve goddesses, this time in their human form. The placement of hieroglyphs and symbols enacts the very meaning of the name 'Ramesses', reading 'It is Re [the sun god] who continuously bears [i.e. births] him'. Most significantly for our purposes, Roberson holds that 'the [hieroglyphic] sign for "to give birth" is precisely

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[39] H. J. Sheppard, 'The Ouroboros and the Unity of Matter in Alchemy: A Study in Origins', *Ambix* 10, no. 2 (June 1, 1962): 83–96.

[40] *ibid.*, 92.

[41] Pinch, *Handbook,* 24-25. The Amduat texts were painted on the walls of tombs, as a series of images with captions. They were reserved for royal use.

[42] Sheppard, 199.

[43] *ibid.,* 200, 221.

in the middle of the entire composition, forming its conceptual and real centre.'[44] In other words, the Pharaoh's very name is construed as a male pregnancy—the sun god continuously birthing the king in a never-ending flow of paternal reproductive authority. When he died, Ramesses would anticipate a total transmutation of the self, in which he would become one with the sun Ra and thus achieve immortality. The Pharaoh's identification with Ra as 'the father of the Fathers of all the gods' and creator of the cosmos granted him immense paternal power; this, in turn, justified his position as the semi-divine Father and absolute ruler of Egyptian society.[45]

Roberson locates another instance of the *ouroboros* in the *Amduat*, this time in the form of a four-headed *ouroboros*-hydra encircling Khepri (the sun disk at dawn).[46] The image of the *ouroboros* was not merely relegated to tomb wall paintings, for it seemed to be a used as a recognisable metaphor: on his victory stele, Pharaoh Piye (Twenty-fifth Dynasty) describes conquering Herakleopolis Magna using the imagery of his army adopting 'tail in mouth' formation around the city's walls.[47]

The shrine of Tutankhamun (Eighteenth Dynasty) also features twin *ouroboroi* encircling Re-Osiris—here, the two serpentine circles are given names, *mhn* (the coiled one) and *wnwn* (the circling one).[48] These refer to the dual roles of the *ouroboros* figure: first, to encompass the sun god and protect him from any monsters of the primordial waters; and second, to encircle and contain any of the god's

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[44] *ibid.,* 200-201.

[45] For Ra's epithet, see Spell 15A4.2–3, in Thomas George Allen, *The Book of the Dead or, Going Forth by Day: Ideas of the Ancient Egyptian Concerning the Hereafter* (The Oriental Institute of the University of Chicago: Studies in Ancient Oriental Civilization 37; Chicago: University of Chicago Press, 1974), 19. The double paternity of Ra declares his masculinity superior to that of any other rival gods.

[46] Sheppard, 222.

[47] *ibid.,* 223, note 614.

[48] *ibid.,* 223.

enemies, holding them prisoner.[49] It is the *mhn* (or *Mehen*) that is the primary characterisation, featured in the *Book of Amduat*, the *Book of Gates*, and the *Book of Night* as the giant serpent that guides Ra's rebirth.[50]

Rainer Hannig has identified the *Mehen* with the *ouroboros*—this appears to be correct.[51] Piccione notes that the *Mehen* appears in archaeological finds of prehistoric Egyptian ritual, where it takes the form of a popular board game. These games were played by members of all social strata, and may have also been used as tools for divination.[52] The earliest textual reference to the game comes from the Old Kingdom, where it is played as part of the festive rites of the goddess Hathor.[53]

The *Mehen*'s connection to this goddess is very telling. In early Egyptian myth, it is Hathor who gives birth to the solar disk.[54] One of her predominant forms is the solar lioness[55]—which is reminiscent of the *Mehen* game board's couchant felines. As such, her earliest epithet is *nb*, meaning 'golden one' or 'gold'. While later religious developments placed Ra as the sun god and creator, it was Hathor who resided in the sun temple in the Fifth Dynasty (Pharaoh Userkaf: 2494 to 2487 BC).[56] Even in later

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[49] Peter A. Piccione, 'Mehen, Mysteries, and Resurrection from the Coiled Serpent', *Journal of the American Research Center in Egypt* 27 (1990): 43-44.

[50] *ibid.*, 43.

[51] Rainer Hannig, *Grosses Handwörterbuch Ägyptisch-Deutsch (2800-950 v. Chr.)*, Kulturgeschichte der antiken Welt, Bd. 64 (Mainz: P. von Zabern, 1995), 356.

[52] Walter Crist, Alex de Voogt, and Anne-Elizabeth Dunn-Vaturi, 'Facilitating Interaction: Board Games as Social Lubricants in the Ancient Near East', *Oxford Journal of Archaeology* 35, no. 2 (May 1, 2016): 188.

[53] Piccione, 46.

[54] Pinch, *Handbook*, 138, 142.

[55] *ibid.*, 173.

[56] Claas Jouco Bleeker, *Hathor and Thoth: Two Key Figures of the Ancient Egyptian Religion*, Studies in the History of Religions; Supplements to Numen 26 (Leiden: Brill, 1973), 29.

times, Hathor's vocal fecundity formed the basis of her reproductive power, for 'that which comes from her mouth at once takes place.'[57]

One of Hathor's guises is the Mehet Weret, the reproductive force 'existing before creation as a kind of fertile current in the primeval ocean', a parallel to the Semitic primeval ocean *tamti*/Tiamat.[58] JC Bleeker is confident that Hathor's cult dates to prehistoric Egypt, and provides evidence that the theriomorphic/anthropomorphic goddess is a direct development from the female figurines of Egyptian Neolithic fertility cults.[59] It is unsurprising, then, that Hathor had a strong midwifery role: 'The seven manifestations of Hathor presided over births and deaths. They pronounced the ultimate fate of all humans.'[60]

When the myth of the birth of the sun god was integrated into Egyptian royal religion, the maternal identity of the *Mehen* is obscured and attention shifts to the self-gendering reproductive capacity of Ra. The cult of the sun's rebirth was strictly reserved for the highest echelons of Egyptian society. Piccone comments that '[f]ew Egyptologists would disagree that knowledge of these texts and their representations was imparted to the Egyptian cognoscenti through some elaborate and dramatic rite of

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[57] *ibid.*, 27.

[58] Pinch, *Handbook,* 163.

[59] Bleeker notes that Neolithic fertility (mother and virgin) figurines were found in Egypt, as in the rest of Europe and Asia. While he shows due caution in assigning continuity between prehistoric and historic religious practices, he does note that there is compelling iconographic evidence that Hathor's unique attributes appear in the prehistoric exempla. 'The link-up [of Neolithic fertility figurines] with the goddess become visible in the case of a category of female effigies with a hairstyle reminiscent of Hathor's traditional wig. Graves dating from the later stage of the prehistoric era have also yielded amulets with the head of a cow which evidently represent Hathor.' Bleeker, 27.

[60] Pinch, *Egyptian Mythology*, 194.

initiation.'[61] This 'system of secret and dramatic rituals' was meant to 'reveal hidden aspects of the gods' to only the super-elite members of society.[62]

The prehistoric *Mehen* board game was absorbed from folk religious practice into the royal sun cult—here Hathor disappears and Ra is reborn out of the mouth of the serpent.[63] In the funerary texts, the deceased royals had to know *Mehen*'s name in order to traverse the road towards Ra—the spells indicate that *Mehen* is the roadway itself, spiralling inward toward Ra at the centre.[64] Out of *Mehen*'s mouth spews fire as the sun god is born. The serpent, then, takes the form of a pyrotechnical womb-matrix, applying fiery heat to the process of transformational re-creation of each new day.

The game was played accordingly: the couchant felines would move along the segments of the serpent's coiled body. They would enter the game through the 'lower mouth' at the tail of the *Mehen* and, in conjunction with the players casting the marbles at the centre of the snake's coil, the game pieces would progress towards the 'upper mouth'.[65] We might surmise that these two mouths were initially meant to represent the vulvar vocality of Hathor, the birthing goddess who created with her speech. However, in royal texts, it is Ra who births himself *via* the snake's body—the serpent is instrumentalised as both a guard and tool of the sun god.

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[61] Piccone, 43.

[62] *ibid.,* 44.

[63] *ibid.,* 48: 'There is no doubt that the coiled *mhn*-serpent, which gave its name to that Old Kingdom game board, was identical to the deity properly named Mehen—this same deity who otherwise personified the circular road-way in the Coffin Texts and who similarly lent his name to those roads.'

[64] *ibid.,* 45-46.

[65] Piccone notes that many Mehen boards replaced the tail of the serpent with a bird's head, mouth open. (51)

To be on the *Mehen* board became a common euphemism for the Pharaonic resurrection process, the snake's spirals indicating the path of 'divine transformation and ascension.'[66] Through Egyptian trade and military expansion, the *Mehen* game came to be played across the eastern Mediterranean and Levant. The game's importance for cross-cultural interaction is demonstrated by frequent archaeological finds of double-sided game boards featuring *Mehen* on one side, and Senet (Mesopotamian) or twenty squares (Cypriot/Phoenician) on the other. All of these games date to the late Neolithic or Bronze Age, with the first known example Senet dating to Sumer in 3100BCE. These games were transmitted across wide geographies with extremely high fidelity—they were among the most popular games across the ancient near east and helped facilitate trade and social interaction.[67]

Just as the mythic imagery of *Mehen* was used to support the cult of the Pharaoh, the *Mehen* game board was used as 'a shared code that helped to reinforce a collective identity of ruling elites'.[68] Egyptians depicted their kings playing the *Mehen* game board, and gifted luxury game boards made of ivory, faience and wood as part of the exchange of goods during diplomatic royal marriages, as with the marriage of a Syrian Mitannian princess to Amenhotep III.[69] The copies of the game board assigned the latest historical date are made of kiln-fired faïence, an expensive metallurgical material designed for the luxuries market.[70]

The potent imagery of the fiery *Mehen-ouroboros* remained current long after the board game fell out of use.[71] Within Ptolemaic upper class society, the *ouroboros* came to represent the spiritual goals of men who wished to achieve power and

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[66] *ibid.,* 49.

[67] Crist et al., 179-187.

[68] *ibid.*

[69] *ibid.,* 198.

[70] Piccone, 51-52.

[71] *ibid.,* 51.

immortality: it was this power that Octavian transferred to himself after the Battle of Actium. Its first appearance in an alchemical text is found in the Leyden Papyri V and W (ca. 250-350 CE). It also appears in late-Hellenic and Roman gnostic tractates, the *Pistis Sophia*, *Acts of the Apostle Thomas*, and *The Hymn of the Pearl*, as well as in the apocryphal *Acts of Kyriakos and Julitta.*[72]

Confusion regarding the meaning of the *ouroboros* symbol has been a difficult problem in studies of Graeco-Roman magic, gnosticism, hermeticism, and alchemy. Our brief foray through its Egyptian references helps us clarify that there are two

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[72] Sheppard, 88-89. Shepherd here confuses the serpentine sea monster with the *ouroboros*. Closer examination of the gnostic tractates shows that they preserve this distinction carefully: In *Pistis Sophia*, the outer boundary of cosmos is wrapped in 'a huge dragon with its tail in its mouth.' The author emphasises that the *ouroboros* 'is outside the world and surroundeth it completely', and later identifies 'the disk of the sun was a great dragon, with its tail in its mouth, which ascended to seven powers [an astral reference].' Shepherd claims that this text innovates the assimilation of the *ouroboros* with Helios-Phanes, but we are now aware that this in fact preserves that Egyptian sun-cult origins of the *ouroboros*. The *Acts of the Apostle Thomas* features the same extra-cosmic *ouroboros*, 'the serpent nature... who encircles the sphere [i.e. the cosmos]... who is around the ocean, whose tail lies in his mouth'. The fact that the *ouroboros* lies beyond the cosmos or ocean is vital, for the *ouroboros* in its original usage exists as an intermediate realm between mere materiality and transcendence. Shepherd is mistaken in identifying the *ouroboros* in 'The Hymn of the Pearl', where we find a 'snorting serpent' circling 'in the middle of the sea.' Shepherd is right to conclude that this serpent represents the evil principle of matter—however, we now know that this intra-cosmic serpent is Apophis or another sea serpent such as the biblical Leviathan. Shepherd's confusion is understandable, for later Jewish and Christian sources tried to merge both Apophis and the *ouroboros* with the serpent of the Garden of Eden. For example, the apocryphal *Acts of Kyriakos and Julitta*, features a dragon, 'King of the worms of the earth, whose tail lies in his mouth ... the serpent that led astray the first Adam'. Rather than a reproduction of the *ouroboros*, this is a polemic against its symbolic power.

forms of the rebirthing serpent: the *mhn* that coils like a fiery furnace, and the *wnwn,* that wraps around the one it intends to protect or capture. These, however, are the same serpentine entity, in its transformative and protective forms. The *ouroboros* of the PGM and GEM is clearly an extension of the latter aspect, replicated across millennia with astonishing accuracy.

The challenge for us, then, is to determine which role the serpent is playing on the gynaecological amulets: is the intention to capture the womb, or protect the womb? Our analysis of the PGM and GEM's metallurgical content helps us answer this question. Within the metallurgical definitions of kourotrophia, cooperation, and midwifery, the acts of protection and capture are one and the same. The *ouroboros* of the GEM is a continuation of the Pharaonic usage—a distinctly metallurgical schematic of rebirth and immortality.

Abbreviations

AWR	Abusch, I. Tzvi, and Daniel Schwemer, eds. *Corpus of Mesopotamian Anti-Witchcraft Rituals.* Vol. 1. Ancient Magic and Divination. Leiden: Brill, 2011.
BAM	Köcher, F. *Die Babylonisch-Assyrische Medizin in Texten Und Untersuchungen*. Berlin: De Gruyter, 1963.
BBB	Stol, Marten. *Birth in Babylonia and the Bible: Its Mediterranean Setting*. Cuneiform Monographs 14. Groningen: Styx, 2000.
BM	British Museum, London.
c.	circa
CAT	Rainey, A.F. *Canaanite in the Amarna Tablets*. Leiden: E.J. Brill, 1996.
CHA	Copenhaver, Brian P., ed. *Hermetica: The Greek Corpus Hermeticum and the Latin Asclepius*. Cambridge: Cambridge University Press, 1992.
CTA	Herdner, Andrée. *Corpus des Tablettes en Cunéiformes Alphabetiques* (Decouvertes à Ras Shamra-Ugarit de 1929 à 1939). 2 vols. Paris: Imprimerie Nationale, 1963.
DDD	Toorn, K. van der, Bob Becking, and Pieter Willem van der Horst, eds. *Dictionary of Deities and Demons in the Bible*. 2nd ed. Leiden: Eerdmans, 1999.
e.g.	for example
ETCLS	Black, J.A., G. Cunningham, J. Ebeling, E. Flückiger-Hawker, E. Robson, J. Taylor, and G. Zólyomi. *The Electronic Text Corpus of Sumerian Literature*. Oxford: Faculty of Oriental Studies, the University of Oxford, 1998. http://etcsl.orinst.ox.ac.uk.
ff.	and following (pages)

fl.	flourished (time period)
GEM	Bonner, Campbell. *Studies in Magical Amulets, Chiefly Graeco-Egyptian*. Ann Arbor: University of Michigan Press, 1950.
ibid.	in the same source
i.e.	that is
KTU	Dietrich, M., O. Loretz, and J. Sanmartin. *Die Keil-Alphbetischen Texte Aus Ugarit*. Alter Orient Und Altes Testament 24. Neukirchen-Vluyn: Neukirchener Verlag, 1976.
lit.	literally (used for translation)
MAG	Blakely, Sandra. *Myth, Ritual, and Metallurgy in Ancient Greece and Recent Africa*. Cambridge: Cambridge University Press, 2006.
MCM	Abusch, I. Tzvi. *The Magical Ceremony Maqlû: A Critical Edition*. Ancient Magic and Divination, volume 10. Leiden: Brill, 2016.
MM	Heinrich Institoris (Kramer) and Jakob Sprenger, *Malleus Maleficarum*, ed. Christopher S. Mackay, vol. 2 (Cambridge, UK: Cambridge University Press, 2006).
MMA	Museum of Modern Art, New York.
NHC	Meyer, Marvin W., and Wolf-Peter Funk, eds. *The Nag Hammadi Scriptures*. 1st ed. New York: HarperOne, 2007.
PGM/PDM	Betz, Hans Dieter, ed. *The Greek Magical Papyri in Translation: Including the Demotic Spells*. Chicago: University of Chicago Press, 2007.

Time periods

Periodisation will always be both approximate and highly interpretive. Here I have listed the periods relevant to my analyses with the purpose of orienting the reader in time. I have simplified the numbers and included only those periods relevant to the thesis. All dates are to be read BCE unless specified otherwise.

MESOPOTAMIA *(General):*

Pre-pottery Neolithic	8500-6000
Pottery Neolithic	6000-4500
Chalcolithic (Copper Age)	4500-3000
Ubaid	4500-3500
Uruk	3500-3100
Early Bronze Age	3000-2000
Fara (Early Dynastic IIIa)	2600-2500
Middle Bronze Age	2000-1600
Ur III	2100-1950
Late Bronze Age	1600-1200

POLITIES:

Assyrian:

Old Assyrian	2000-1400
Middle Assyrian	1400-900
Neo-Assyrian	900-600

Babylonian:	
Old Babylonian	1900-1600
Middle Babylonian	1600-1000
Neo-Babylonian	650-550
Hittite:	
Old Kingdom	1600-1450
New Kingdom	1450-1350
Egyptian:	
Pre-dynastic	5500-3200
Proto-dynastic	3200-3100
Old Kingdom	2686-2181
Middle Kingdom	2055-1650
New Kingdom	1550-1069
Macedonian	332-310
Ptolemaic	305-30
Israelite:	
Judges period	1200-1020
Unified monarchy	1020-920
Babylonian exile	600-550
Minoan:	2500-1200
Neopalatial	1800-1500
Greek:	
Mycenaean	1600-1200
Archaic	800-450
Classical	500-330
Hellenic	330-30

Rome:	
Republic	500-30
Empire	30BCE-500CE
Persia:	
Achaemenids	550-330
Parthians	250BCE-225CE
Sassanians	225CE-650CE
Byzantine Empire	300CE-1450CE
Islamic Caliphates	650CE-1250CE
Ottoman Empire	1300CE-1900CE[73]

[73] Sources for periodisation: Andrew George, "Babylonian and Assyrian: A History of Akkadian," in *Languages of Iraq, Ancient and Modern*, ed. J.N. Postgate (London: British School of Archaeology in Iraq, 2007), 31–71; Alberto Ravinell Whitney Green, *The Storm-God in the Ancient Near East*, Biblical and Judaic Studies from the University of California, San Diego, v. 8 (Winona Lake, Indiana: Eisenbrauns, 2003); William J. Hamblin, *Warfare in the Ancient Near East to 1600 BC: Holy Warriors at the Dawn of History* (London: Routledge, 2006); Geraldine Pinch, *Handbook of Egyptian Mythology*, Handbooks of World Mythology (Santa Barbara, Calif: ABC-CLIO, 2002); Gerhard Böwering, Patricia Crone, and Mahan Mirza, eds., *The Princeton Encyclopedia of Islamic Political Thought* (Princeton, N.J: Princeton University Press, 2013).

Glossary

An, Anu	Mesopotamian sky god, pantheon *paterfamilias*. Also appears in Hittite myths.
Abrasax	Basilidean gnostic divine name.
Achaean	Archaic Greeks, perhaps Mycenaean. In the *Iliad*, they engage in extended conflict with Trojans (Anatolia).
Adamas	In some gnostic tractates, Adamas is first man (an immortal androgyne) created in *Genesis* 1. Second Adam is the mortal, corporeal man created in *Genesis* 2.
Adonai	Hebrew divine name used in syncretic magic alongside or in place of Yahweh.
Agamemnon	Archaic Greek king and warrior in the *Iliad* who commanded the Achaean forces. Known for sacrificing his daughter Iphigeneia in order to attain success at Troy.
Agathos Daimon	Greek folk god celebrated during feasting, later elevated in syncretic texts as a great god.
Ahura Mazda	Creator god of Zoroastrianism.
Akmon	Greek mythic metallurgist. Ancestor of the Dactyloi.
Amazons	A mythical race of female warriors found in Greek literature, likely based off of the women of nomadic states (e.g. Scythians).
Anat	Canaanite goddess of warfare. In Ugaritic texts, she is the sister or consort of the storm god Baal.
Anduruna	Sumerian abode of the gods.
Anubis	Egyptian god of the dead.
Anunna gods	A group of the most senior gods of the Sumerian pantheon, as opposed to the group of more minor gods (Igigi).

Aphrodite — Greek goddess of love, beauty, and pleasure.

Apollo — A widely-renowned Greek god with a complex tradition. His domains include sun and illumination, prophecy, healing, music, and poetry.

Apophis, Apep — A howling Egyptian serpent, considered an anti-deity, who each night tries to prevent the rebirth of the solar disk.

Apsu — The primordial waters of Sumerian and Akkadian myths. Sometimes represented by a proto-deity of the same name.

Ares — Greek god of war.

Argonauts — Famed Greek warriors who sailed aboard the *Argo*.

Argos — The Greek craftsman who build the boat (the *Argo*) in which the Argonauts sailed. The boat had magical and oracular powers.

Artemis — Greek goddess of hunting, wild animals, childbirth, and virginity.

Aruru — Sumerian mother goddess. Closely associated with Ninmah.

Asalluhi — See Marduk.

Asherah — Canaanite goddess, gradually absorbed into the cult of Yahweh. Subject of a Hebrew fertility cult. Associated with trees and groves. Understood to be equivalent to Ašratum of the Amorites and Athirat of the Ugaritians.

Ašipu — Babylonian exorcist who cast out demons and witches.

Ašratum — Amorite goddess. See also *Athirat* and *Asherah*.

Aššur — Assyrian solar deity. God of neo-Assyrian henotheism.

Aten — Egyptian solar disk. The only deity worshipped in royal ritual during the reign of Pharaoh Akhenaten.

Athena — Greek goddess of warfare and craft. Born from the head of Zeus.

Athirat — Chief goddess of the Ugaritic pantheon. Consort of El. Presides over the sea, the steppes, and motherhood. See also *Ašratum* and *Asherah*.

Atrahasis	Akkadian hero who builds a boat to escape Enlil's catastrophic flood. Often compared to the Hebrew Noah and Greek Deucalion.
Atum	Egyptian primordial creator god, who parthenogenetically produces the first gods of the pantheon through masturbation. The senior deity of the Ennead.
Baal	Canaanite storm god. Known as Adad or Hadad across the Semitic ancient near east. King of the Ugaritic pantheon. Chief opponent of Yahweh in the Hebrew scriptures.
Barbelo	Gnostic characterisation of the androgynous Father's womb force, who acts as the voice of the Father's thoughts.
Bes	Egyptian dwarf god who, through dancing and fighting, wards off evil forces. Associated with birth and infants.
caduceus	The herald's wand carried by the Greek messenger god Hermes, often depicted with ascending snakes coiling up the wand.
Cain	In Hebrew scriptures, firstborn son of Eve. Forefather of the Cainites, a tribe of metallurgists. A positive or negative figure in gnostic tractates.
Chemes	The fictitious inventer of alchemy in ancient times, mentioned by Zosimos.
Chnoubis	Platonic hybrid form (snake, lion, human) representing the material, spiritual, and rational forms of man. Adopted in gnostic magic as symbol of man's ascent away from materiality towards transcendence.
Dactyloi, Dactyls	Greek clan of daimon metallurgists.
Daedalus	Famed Greek metallurgist.
Daimons	Greek personifications of human skills, attributes, and conditions. They are neither deities nor mortals. However, their cults were very popular and later made illicit by Christian authorities (hence 'demon').

Damgay	Slavegirl in the Ugaritic pantheon. Bears offspring of the paterfamilias El.
Damnameneus	A Dactyl.
Delphi	The most famous oracle in Greece, dedicated to the god Apollo, who had taken the position from Gaia.
Demiurge	Greek title, meaning ‘craftsman’. Name given to the Greek philosophic, hermetic, and gnostic creator god who fashions the material world.
Deucalion	Greek mythic craftsman who, together with Pyrrha, survived Zeus' flood and repopulated the earth. Often compared with Hebrew Noah and Mesopotamian Atrahasis.
Dionysus	Greek god of pleasure and frenzy.
Dodona	The oldest oracle in Greece, dedicated to Zeus.
Durmahu	The Babylonian cosmic 'wire' on which the stars hung and travelled the night sky. In the *Enuma Elish*, this is made of the dismembered tail of the dragon-form Tiamat.
E-Apsu	Sumerian temple of the Apsu in Eridu. Once dedicated to Nammu, it became the temple of Enki.
Ea	Akkadian god of wisdom and craft.
Echo	A Greek nymph, cursed to echo everything said to her.
Eilithyia	Greek goddesses of birth and midwifery.
El, Elohim	Chief god and *paterfamilias* of the Canaanite pantheon. Later absorbed into the cult of Yahweh.
Enki	Sumerian god of wisdom and craft.
Enlil	Sumerian god of the sky and king of the pantheon.
Ennead	Dynastic Egyptian set of nine gods. Later interpreted in Hellenic philosophy and astrology as the ninth realm of heaven.

Epimetheus	Greek Titan of afterthought. Brother of Prometheus (forethought).
Ereshkigal	Sumerian goddess of the underworld.
Erichthonius	Greek mythic metallurgical hero. Born of Hephaistos' semen released during attempted rape of Athena, when it falls to the earth. Believed to be the first king of Athens.
Eridu	The first and most emblematic city of Mesopotamia. Eridu never became a full-fledged city, but instead represented the ideology of urbanism and functioned as a temple complex.
Eve	Ancient Semitic snake goddess, associated with life and fertility. Related to Anatolian goddesses Khebat and Kybele (Roman Cybele) as well as Sumerian Kubau. Appears in the Hebrew scriptures as Khava and in Quran as Hawwa.
Gaia	Greek primordial goddess of the earth.
Girra	Akkadian god of craftsman's fire.
Great Mother/Magna Mater	Titles for Graeco-Roman mother goddesses Rhea and Cybele.
Ham	In Hebrew scriptures, son of Noah. Cursed for having mocked his father. Later Jewish, Christian, and Islamic texts understood Ham to be the forefather of black Africans, who have been cursed with dark skin.
Harpocrates	Greek god based on Egyptian Horus. Son of Isis, and keeper of secrets.
Hathor	Egyptian mother goddess. In dynastic texts, she is associated with gold and depicted as a mother cow birthing the sun disk.
Hawwa	See *Eve.*
Hekate	Greek goddess of magic, witchcraft, and the darkness of night.
Heket	Egyptian goddess of fertility, midwifery, and protection. She wields blades and assists in royal births.

Hektor	In the *Iliad*, the son of the king of Troy and chief warrior of the Trojans. Killed by Akhilles in revenge for Patroklus' death.
Helen	Daughter of Zeus by the mortal Leda. Abducted by Trojan warrior Paris, leading to the Trojan War of the *Iliad*.
Helios	Greek god of the sun.
Hephaistos	Greek god of metallurgy and smithing.
Hera	Greek mother goddess. Queen of the gods, consort of Zeus.
Herakles Dactylos	A Dactyl.
Hermes	Greek messenger god. Later associated with Egyptian Thoth and thence with metallurgy in the hermetica.
Hermes Trismegistus	An apellation of Hermes, meaning 'Hermes the Thrice Great'. Becomes an independent character in the hermetica, a wise man and founder of the hermetic theurgy. Also considered an alchemist.
Horon	Canaanite god who protects against harmful beasts.
Horus	Egyptian astral god, the embodiment of kingship. Son of Isis.
Hubur	An epithet of Tiamat, associated with primordial waters and fertility. Also the name of the Sumerian underworld river.
IABE	Samaritan form of YHWH.
IAO	Greek form of YHWH.
Igigi gods	The minor gods of the Sumerian pantheon. See *Anunna*.
Inanna	Sumerian goddess. Little is known of her, although she appears to be associated with love, stars, and fertility. Most information on Inanna antedates her association with Semitic Ištar, goddess of warfare and eroticism.
Iphigeneia	Daughter of Agamemnon, sacrificed to ensure his military success.
Ištar	See Inanna.

Isis	Egyptian goddess associated with magic, motherhood, and kingship. Later the centre of an oriental mystery cult popular in Rome.
Jason	Greek hero, leader of the Argonauts.
Kaberoi	Greek clan of daimon metallurgists.
kaššaptu	Babylonian demonic witch.
Kelmis	A Dactyl.
Keš, Kiš	Sumerian city state.
Khava	See *Eve*.
Khebat	See *Eve.*
Khepri	Egyptian god of the nascent sun disk, a form of Ra.
Khnum	Egyptian craftsman god, associated with fertile floods and pottery. As potter, Khnum forms the body of the king and attends royal births.
Kneph, Kmeph	Egyptian serpent that surrounds the cosmic egg.
Korybantes	Greek clan of daimon metallurgists.
Kothar-wa-Hasis	Ugaritic god of metallurgy and smithing.
Kotharatu	Ugaritic goddesses of conception, birth, and midwifery.
Kouretes	Greek clan of daimon metallurgists.
Kronos	Greek Titan of time's destructive powers.
Kubu	Mesopotamian spirits of miscarried and stillborn foetuses and small infants.
Kumarbi	Hittite (Hurrian) chthonic god, who is deposed as king of the pantheon by his son, Teššub.
Kybele/Cybele	Phrygian (Anatolian) chief goddess. Her domains include birth, motherhood, and wild animals. The Greeks associated her with Rhea. See also *Eve.* See also *Great Mothe*r.

Leto	Greek Titaness of birth and motherhood. Mother of Apollo and Artemis by Zeus.
Leviathan	Levantine sea serpent (Lotan) mentioned in Ugaritic texts and later in the Hebrew scriptures.
Lithargoel	In the gnostic tractates, a guise of post-ascension Jesus. Name means 'bright stone of god'.
Logos	Greek philosophical concept absorbed into gnostic, hermetic, Jewish, and Christian discourse as the divine utterance of creation.
Mami	Akkadian mother goddess.
Marduk	Akkadian god. Originally minor tutelary god of Babylon, a small village. Oldest records associated Marduk with punishment. Merged with beneficent god Asalluhi, thereafter seen as god of redemption. Son of Ea. The god of neo-Babylonian henotheism.
Mehen	Egyptian boardgame in the shape of a spiralling serpent. Serves as metaphor for the rebirth of the pharaoh.
Mehet Weret	Egyptian primeval cow goddess, representing the fertility of the primordial flood. Later epithet of goddesses Hathor, Isis, or Neith.
Melqart	Phoenician god associated with Baal and Herakles Dactylos.
Mene	Greek goddess of the moon and months. Closely associated with Selene.
Metis	Greek Titaness of wisdom and wise counsel.
Mithras	Iranic god who became the centre of a popular Roman mystery cut which accepted only soldiers and leading military men as members.
Moirai	Greek goddesses of fate who spin thread to determine a person's lifespan. Named Clotho, Lachesis, and Atropos.
Monad	Greek philosophic and gnostic term for unity of the divine.

Mopsos	A Greek Argonaut and seer.
Moses	Biblical leader of the Hebrew people. Considered a wise man by the Greeks. A magical character in Graeco-Roman syncretic ritual. Also considered a hermetic and alchemical authority.
Mot	Ugaritic god of death, who is selected by the divine *paterfamilias* El to be his successor. Later defeated by the storm god Baal.
Mummu	Babylonian god, colludes with the proto-god Apsu against Tiamat's will.
Muses	Greek goddesses of knowledge and arts (music, poetry, song, dance, theatre). Named Calliope, Clio, and Urania. Calliope is the mother of Orpheus.
Myron	Famed Greek metallurgist.
Nammu	Sumerian proto-goddess, associated with the Apsu waters. Mother of Enki.
Narcissus	Mythic character who falls in love with his own beautiful reflection. Son of minor gods. Rejects the love of the nymph Echo.
Nephthys	Egyptian goddess, sister of Isis.
Ningirima	Sumerian goddess of incantation.
Ninhursag	Sumerian mother goddess.
Ninmah	Sumerian mother goddess.
Ninsun	Sumerian mother goddess, Lady Wild Cow. Also depicted as the mother of Gilgamesh.
Nintu, Nintur	Sumerian goddess of birth and midwifery.
Nisaba	Sumerian goddess of writing and administrative record keeping.
Nymphs	Greek minor fertility goddesses, presiding over specific natural phenomena.

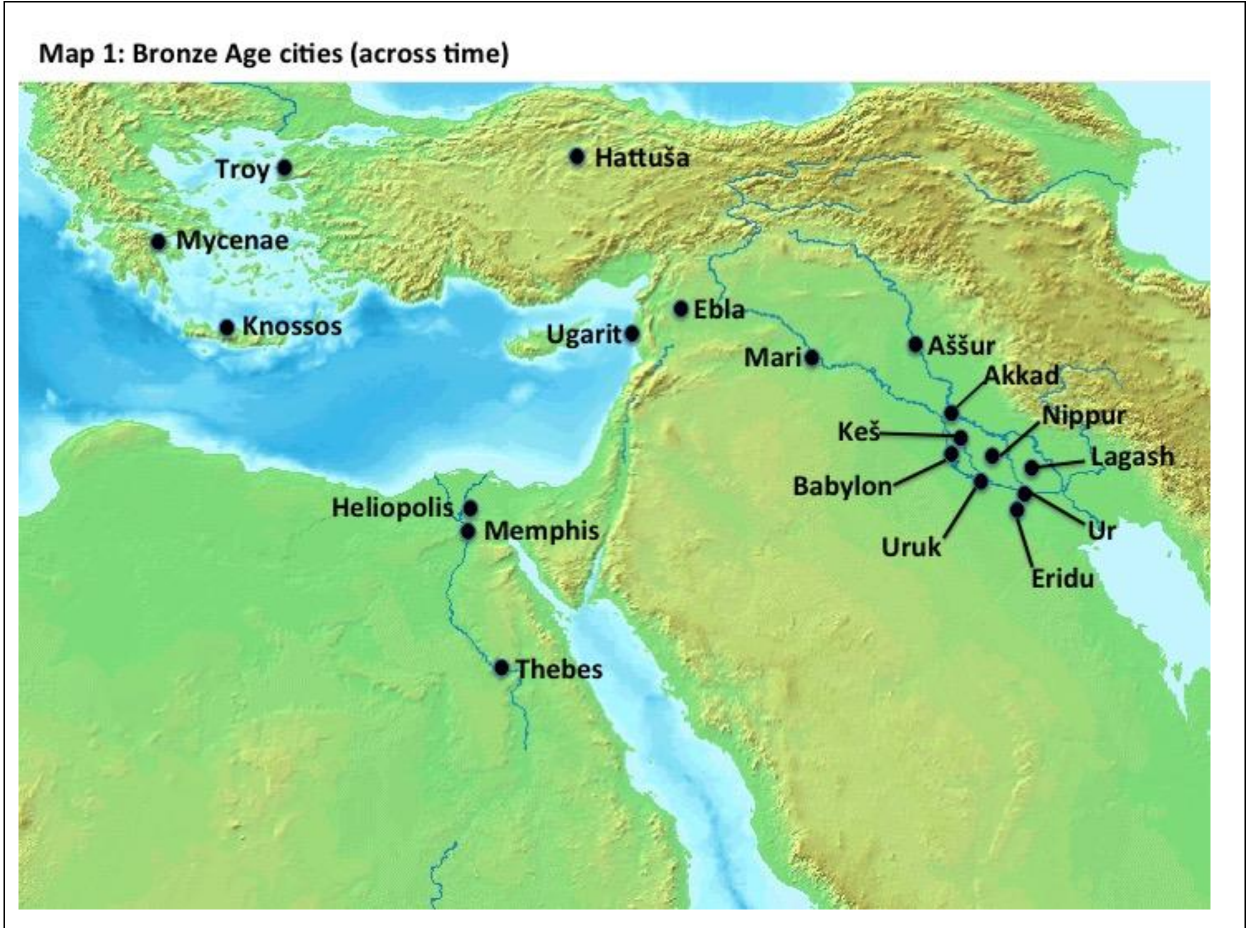
Odysseus	Homeric warrior and culture hero whose exploits are detailed in the *Iliad* and the *Odyssey*.
Ogdoad	Dynastic Egyptian set of eight gods. Later interpreted in Hellenic philosophy and astrology as the eighth realm of heaven.
Orpheus	Mythic Greek bard who travelled to the underworld and returned to life. Subject of the Orphic Mysteries. Son of the Muse Calliope.
Orphica	Textual fragments of the Orphic Mysteries, most importantly the theogonies and rhapsodies.
Osiris	Egyptian god of death and resurrection. Consort of Isis.
Ouranos	Greek primordial god of the sky. Consort of Gaia.
Pan	Greek god of nature and pastorals.
Pandora	The first woman in the Greek anthropogony. Created by Hephaistos at the command of Zeus. When her virginity is taken by Epimetheus, Pandora brings disasters to mankind.
Patroklus	Beloved friend of Akhilles. Achaean warrior.
Penelope	In the *Odyssey*, wife of Odysseus and queen of Ithaca.
Perseus	Greek warrior. Renowned for killing Medusa.
Pleroma	In the gnostic tractates, the realm of divine perfection and unity.
Poimandres	In the hermetica, the embodiment of the divine Mind. Brings revelation to the hermetic initiate.
Poseidon	Greek god of the sea and earthquakes.
Priam	In the *Iliad*, king of the city state of Troy. Father of Hektor.
Priapus	Greek ithyphallic dwarven god. Presides over agriculture and land ownership. May be related to the Dactyloi.
Prometheus	Greek Titan of forethought and craft, fire and pottery.
Pu'ah	A Hebrew midwife mentioned in *Exodus*.

Pyrrha	Greek goddess, daughter of Titan Epimetheus and Pandora. Wife of Deucalion. Survives the great flood and repopulates the earth.
Pyrrhichē	Greek warrior's fire-dance.
Pythia	Greek oracle. Mouthpiece of Apollo at Delphi.
Qadištu	Akkadian priestess class, sometimes with a midwifery role.
Qingu	Consort of Tiamat.
Qudšu	Canaanite tree goddess, epithet of Athirat.
Ra, Re	Egyptian sun god. King of the pantheon.
Renenutet	Egyptian folk goddess of grain and harvest.
Rešef	Canaanite god of pestilence and plague.
Rhea	Greek Titaness of the earth, fertility, and motherhood. Mother of Zeus and consort of Kronos.
Rigmu	Babylonian term for various disturbing sounds.
Sabazios	Thracian sky god, later absorbed into the cult of Zeus.
Šamaš	Akkadian god of the sun.
Selene	Greek goddess of the moon.
Semele	Greek mythic princess, mortal mother of Dionysus by Zeus. She dies at the sight of Zeus' radiance, whereafter Zeus gestates her unborn son.
Shai	Ptolemaic Egyptian god of fate. Equated with Greek folk god Agathos Daimon.
Shiph'rah	A Hebrew midwife mentioned in *Exodus*.
Sibyl	Greek oracular prophetess. A collection of her oracles was highly valued by the Romans. Later texts use Sibyl as a mouthpiece of syncretic Jewish oracle.
Sin	Akkadian god of the moon. Equated with Sumerian Nanna.

Sophia	Greek personification of wisdom. Adopted as a characteristic of Yahweh within Jewish wisdom literature. An emanation of the One God in various gnostic tractates. Sometimes Sophia's error is considered the origin of darkness and materiality.
Tališ	Slavegirl in the Ugaritic pantheon. Bears offspring of the *paterfamilias* El.
Telchines	Greek clan of daimon metallurgists.
Teššub	Eventual king of the Hittite pantheon. Storm god.
Thalatta	Greek proto-goddess personifying the Mediterranean sea.
Thapiti Nahari	Major epithet of Ugaritic sea god, Yamm. Lit. 'Judge River'.
Themis	Greek Titaness of divine law.
Thetis	Greek goddess of the sea. Leader of the fifty sea nymphs, the Nereids.
Thoth	Egyptian god of wisdom, knowledge, and healing. Also presides over midwifery, destiny, and pottery.
Tiamat	Babylonian proto-goddess who dwells in the Apsu. Distant ancestress of the entire pantheon. In the *Enuma Elish*, she is defeated by Marduk.
Trojans	In the *Iliad,* inhabitants of the city state of Troy on the Mediterranean cost of Anatolia. Defeated by the Achaeans.
Ulikummi	Hittite stone monster, son of Kumarbi and a female rock cliff. His immense growth threatens the cosmos and the pantheon, but he is eventually overcome by Teššub's faction.
Ummul	Sumerian mythic deformed creature created by Enki during his competition with Ninmah.
Upelluri	Hittite god supporting the cosmos. Similar to Greek Atlas.
Uraeus	Egyptian rearing cobra. The primary symbol of the absolute power of the king. Originally, the uraeus was the folk goddess Renenutet.

Uttu	Sumerian goddess of weaving.
Utu	Sumerian god of the sun. Equated with Akkadian Šamaš.
Yahweh	Edomite god of copper smelting, later adopted by Israelites as their main (and later, only) deity.
Yaldabaoth	Gnostic demiurge. Produced by Sophia's error.
Yamm	Ugaritic god of the sea, who is selected by the divine *paterfamilias* El to be his successor. Later defeated by the storm god Baal.
Yarih	Ugaritic moon god.
YHWH	Tetragrammaton. Hebrew spelling of Yahweh, later used in esoteric reflections, and in magic and occult rituals.
Zeus	King of the Greek Pantheon. Lightning-wielding storm god.

Maps



Map 2: Bronze Age states and linguistic-cultural regions (across time)

Map 3: Iron Age cities (across time)
Rome
Athens
Sparta
Nineveh
Aššur
Jerusalem
Babylon
Alexandria
Leontopolis
Memphis
Thebes
Elephantine

Map template from 'World Map A with Frame', https://commons.wikimedia.org/wiki/File:WorldMap-A_with_Frame.png.

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Illustrations

Image 1: Ubaid ceramic. Eridu (Southern Mesopotamia), sixth to fifth millennium BCE.

Metropolitan Museum of Art (New York City) no. 49.133.4.

https://www.metmuseum.org/art/collection/search/324088. Public domain

Image 2: Sumerian proto-cuneiform pictograms (Jemdet Nasr period, 3100-2900 BCE). Administrative record for barley distribution.

Metropolitan Museum of Art (New York City) no. 1988.433.1.

https://www.metmuseum.org/art/collection/search/329081. Public domain.

Image 3: Collection of Minoan gold rings at the Herakleion Museum, Crete. Neopalatial period (1500 to 1400 BCE).

See below for close-up images of rings no. 17 and no. 19.

Herakleion Archaeological Museum (Crete) no. 17, no. 18, and no.19. Image by Olaf Tausch. https://commons.wikimedia.org/wiki/Category:Minoan_golden_rings_in_AM_Herakl ion#/media/File:Minoische_Siegelringe_01.jpg. GNU Free Documentation Licence, Creative Commons 3.0.

Image 4: Minoan old ring no.17 at the Herakleion Museum, Crete. Neopalatial period (1500 to 1400 BCE).

Human figures tug on trees and hug stones, while a goddess(?) sits on a brick curb to the right. An epiphanic figure (bee-like and possibly also anthropomorphic) flies between the seated goddess and one of the tree tugging humans.

Herakleion Archaeological Museum (Crete) no. 17 (the 'Ring of Minos'). Image by Jebulon.
https://commons.wikimedia.org/wiki/File:Ring_of_Minos_archmus_Heraklion.jpg.
GNU Free Documentation Licence. Creative Commons 3.0.

Image 5: Minoan gold ring no.19 at the Herakleion Museum, Crete. Neopalatial period (1500 to 1400 BCE).

Central human figure embraces a stone, while another tugs at a tree. Epiphanic figure (appearing bird-like) flies nearby.

Herakleion Archaeological Museum (Crete) no.19. Image by Olaf Tausch. https://commons.wikimedia.org/wiki/File:Minoischer_Siegelring_06.jpg. GNU Free Documentation Licence. Creative Commons 3.0.

Image 6 Panathenaic amphora (c. 530 BCE).

Scenes from the Panathenaea. Obverse: goddess Athena with shield and spear. Reverse: young warriors compete in a foot race.

Metropolitan Museum of Art (New York City) no. 14.130.12.
https://www.metmuseum.org/art/collection/search/248902. Public domain.

Image 7: Ptolemaic or Roman-Egyptian Bes (fourth century BCE to second century CE).

Limestone sculpture.

Metropolitan Museum of Art (New York City) 22.2.23.

https://www.metmuseum.org/art/collection/search/547866. Public domain.

Image 8: Magical amulet (Roman-Egyptian, second to third century CE).

Harpocrates sitting on a lotus, surrounded by magical names and an *ouroboros.*

Metropolitan Museum of Art (New York City) no. 41.160.638.

https://www.metmuseum.org/art/collection/search/253781. Public domain.

Image 9: Magical amulet (Roman-Egyptian, second century CE)

Serapis surrounded by *ouroboros* and glossolalia.

Metropolitan Museum of Art (New York City) no. 10.130.1390.

https://www.metmuseum.org/art/collection/search/248222. Public domain.

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