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Chapter 1

Introduction: Research Questions, Methodology, Structure, and Terminology

This study explores how the Pleiades⁴ were regarded within the Mesopotamian cultural framework. The idea to focus on a specific group of stars, or asterism, arose from the following core question: How were the stars perceived in Mesopotamia?

In ancient Mesopotamia, stars were not only seen as celestial bodies,⁵ but also as divine entities *per se*, or associated with gods who bore the same names. Moreover, celestial bodies were responsible for producing natural phenomena and for being mediators between the gods and humankind. This notion permeates the entire Mesopotamian culture, and it has sometimes been labelled as astralisation of ancient Near Eastern religions.

Astralisation literally means the "conversion" of an anthropomorphic being into an astral one, by describing it as a star, asterism, constellation, or planet. However, the term generically refers to the increasing overlap between the divine and the celestial domains, towards an assumed universality or cosmology (Pongratz-Leisten 2011). Among Assyriologists, astralisation has become a synonym for fallacy, because it is tied to the so-called "Pan-Babylonism" theory. The Pan-Babylonists at the beginning of the twentieth century assumed the existence of an "astral religion". They based their assumption on chronologically and scientifically inaccurate associations between mythology, astronomy, and astrology. Recently, the study of how celestial bodies were perceived in Mesopotamia was reintegrated into the Assyriological debate. Despite being wrong in their analysis and conclusions, Pan-Babylonists foresaw a pattern in Mesopotamian mythology; that is, all the main gods of the Mesopotamian panthea have astral features. But, how does astralisation work in Mesopotamia? Can we really talk about a conversion of the gods into stars? These questions are still in the process of being answered.

1.1. Research Question

The present study aims to introduce a new case-study for the topic of celestial bodies in Mesopotamia. In this respect, a case-study approach was chosen to capture the complexities of this topic, as portrayed by the perception⁷ of the Pleiades in Mesopotamia, which has

⁴ According to the Cambridge English Dictionary, "Pleiades" is a *plurale tantum*, so it is used with both plural and singular verbs, the latter especially in astronomy, where "Pleiades" stays for the star cluster M45. In this study, the author chose to use "Pleiades" as a plural noun, also in the English translations of the Sumerian and Akkadian language.

⁵ In this study, the term "celestial" is used for everything related to the sky.

⁶ E.g. see Jensen (1900; 1928) and Weidner (1915). A recent study on Pan-Babylonism has been published by Weichenhan (2016).

⁷ In this study, the perception of the Pleiades signifies what Mesopotamian culture believed – and thus expressed through language (Lakoff-Johnson 2003: 3–6) – the Pleiades to be and how they functioned.

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never undergone a thorough analysis. Thus, this study aims to answer the following research questions: How were the Pleiades perceived in Mesopotamia? What is their relationship with the concept of "god"?

The Pleiades were chosen as a case-study because they are among the oldest examples of a divine asterism known as a group of seven stars, not only in Mesopotamia, but also in a huge array of ancient cultures around the world. In Mesopotamia they are called MUL.MUL (lit. "stars") or *zappu*, "Bristle", and they are depicted as seven stars (e.g. Figure 4). They played a primary astronomical role at least from the end of the second millennium BC onwards, because they were a reckoning device for the Mesopotamian calendar. They are the protagonist of several Mesopotamian celestial omens, which are not merely a list of observations, but expressions of the relatedness of heaven and earth. Moreover, the Pleiades are identified with seven gods (dIMIN.BI, lit. "divine Seven"), several different forms of whom are known. The most famous are the Sebettu, characters from the poem of "Erra and Išum", seven warlike entities accompanying a god or the king on warpaths. Besides, the presence of a huge variety of divine heptads scattered throughout Mesopotamian mythology contributes to the creation of a complex scenario: there are attestations of seven heroes, seven sages, seven demons, and seven gods of fates, and they all have astral features.

The need for a new definition of astralisation in Mesopotamia provokes the following questions: Why did the Pleiades come to be identified with seven gods? Are the Mesopotamian heptads all related to each other and to the Pleiades? In order to answer these questions, the primary focus of this study is on attempting to trace a possible tradition, or more traditions, in the way the Pleiades were perceived.

1.2. A Short History of the Study of the Pleiades in Mesopotamia

There is no comprehensive study or analysis of the role of the Pleiades, the seven stars, or seven gods in ancient Mesopotamia, yet there are useful short studies and collections of references. For instance, in their astronomical role, the Pleiades in Mesopotamia have been identified and studied by Schaumberger (1935: 336–344), who defined the so-called

⁸ The common characteristic in the perception of the Pleiades around the world is being a cluster of stars, usually a group of seven (Urton 1987–2005: 2865). For instance, they are seven in Mesopotamia, in Greece (i.e. seven daughters of Atlas) (see 2.1.), in the Aboriginal and Oceanic culture (i.e. seven sisters) (Orchiston 1996: 320; Kelley-Milone 2005: 344), in China (i.e. seven sisters), in North America (i.e. seven women), in India (i.e. seven wives) (Young 1987: 8734–8735), Japan (i.e. seven stars) (Renshaw 2012), and Mesoamerican cultures (i.e. seven stars) (Aveni 1996).

⁹ It is interesting to note that, where myths have been developed around the Pleiades, they are usually associated with women (see fn. 8). Whereas in Mesopotamia, the Pleiades are associated with the Sebettu, a name from the feminine of the numeral seven (*sebe*, fem. *sebēt*), but indicating seven male entities (see fn. 87). The only possible reference to a group of seven divine feminine entities is an element of the Pre-Sargonic (ca. 2700–2350 BC) onomasticon, PN-^dsi-bi, which would be the masculine singular of the numeral seven (Wiggermann 2011a: 460). There are also "seven (and) seven daughters" (DUMU.MUNUS IMIN IMIN) of Anu in a few incantations dating to the Old Babylonian period (ca. 2000–1500 BC) (Farber 1990: 306–308, 2.2, 2.3, 2.4, 2.6).

Plejaden-Schaltregel,¹⁰ and Weidner (1967), who identified the famous Gestirndarstellung text depicting the Pleiades (see Figure 4). A summary about the Pleiades in Mesopotamia was published by Hunger (2005), and Verderame (2016) who first discussed the association of the Pleiades with two different divine heptads. Stockhusen (2019: 44–45, 53–55, 204–205) in his dissertation provides references, comments, and insights on the Pleiades within the study of celestial bodies in the Ancient Near East.

The Sebettu and their association with the Pleiades and other divine heptads were first mentioned by Jean (1924), who hypothesised the existence of three simultaneous traditions: the Pleiades, the seven sons of the god Enmešarra – who later became the Sebettu – and the seven sages. A more specific study on the Sebettu within the poem of "Erra and Išum" was published by Graziani (1979), who assumed that the origin of the Sebettu could be west Semitic because the Pleiades were depicted as seven dots on the Syrian and Cappadocian iconography dating to the second millennium BC. Nevertheless, van Buren (1939–1941), who collected the seals in which the Pleiades are drawn as seven stars or dots, had already noted how the Pleiades are more unambiguously depicted on seals only from the first millennium BC onwards. Indeed, the presence of the seven dots in the earlier glyptic is not necessarily related to the Pleiades. ¹¹ More recently, the Sebettu were studied by Wiggermann (2011a), Verderame (2017), and Konstantopoulos (2015) in her PhD dissertation. Konstantopoulos focused on the demonic values of the gods, and her study provides valuable and helpful insight into the difficulty of grasping the identity of demons and divine heptads scattered through the Mesopotamian literary tradition.

Regarding the association of the number seven with the Pleiades, a useful collection of essays was compiled and edited by Reinhold and Golinets (2008), who highlighted textual and iconographic references about the importance of the number seven in the Ancient Near East.

1.3. Methodological Approaches

In order to answer the research questions, several quotes from individual sources are commented on and compared with each other within this study. The analysis of the textual sources starts from what is preserved in the Mesopotamian lexical lists about the stars, the Pleiades, and the heptads; then it continues to their practical, divinatory, religious, and magical role, as reflected by Mesopotamian textual culture. The corpus of sources at the basis of the investigation comes from the vast panorama of Mesopotamian cultural tradition, dating from the second until the end of the first millennia BC (i.e. the end of the Late Babylonian period, ca. 30 BC). The texts are mainly in Akkadian (Assyrian and Babylonian language), though several Sumerian literary texts dating to the Old Babylonian period (ca. 2000–1500 BC) are discussed as well. The great majority of sources comes

¹⁰ The *Plejaden-Schaltregel* is an "astronomical" rule used to establish the Mesopotamian calendar (see 4.2.2. § 1a).

¹¹ More specifically, he suggested that the seven sparse dots of the early glyptic are the representation of seven casting lots related to the seven cities of Sumer (see 2.3.3.).

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from the library of Ashurbanipal (ca. 668–627 BC) in Nineveh;¹² a more limited number of discussed sources comes from Nippur dating to the Old Babylonian period (ca. 2000–1500 BC), from Aššur dating to the Middle and Neo-Assyrian period (ca. 1400–612 BC), from Sultantepe dating to Neo-Assyrian period (ca. 911–612 BC), and from Uruk dating to the Hellenistic period (ca. 323–63 BC).

Since in this study there is such a varied collection of textual evidence from ancient Mesopotamia – not only in time but also in genre – the chapters are structured according to the types of sources and contents; within the chapters, the sources are organised chronologically. Arranging the structure of the chapters on the basis of content first and then on chronology of sources was dictated by the methodology adopted while conducting the research: that is a historical and philological approach to the sources, complemented with two more interdisciplinary perspectives that are explained below according to their field of application, the micro-level (i.e. individual textual sources), and the macro-level (i.e. relationship between various textual genres).

On a micro-level, the methodological approach points towards tracing a tradition in the perception of the Pleiades in Mesopotamia. The textual sources are chronologically organised, presented with transliterations and translations of Sumerian and Akkadian exemplars into English, and commented on philologically whenever needed. Next, they are compared according to the concept of intertextuality.¹³ Intertextuality means that any text of any kind can be read and thus interpreted through other texts which shaped and encoded its meaning. Traces of intertextuality have been already found in Mesopotamian literature. 14 For instance, Hallo (2010: 607–622) discussed intertextual relationships in the framework of Sumerian proverbs. He noticed that Sumerian epics have a proverbial character, and the proverbs recur, or are even quoted, in later sources: "Rather we have here the apparently deliberate harking back from one genre to another or from one context to a thoroughly different one, with at least the implication that the source of the allusion is familiar to the 'author', perhaps even to the audience." And then: "The study of intertextuality in cuneiform literature cannot begin and end with Sumerian proverbs" (Hallo 2010: 611, 622). Annus (2016) investigated intertextuality in the myth of Adapa, the king of Eridu, dating to the second and first millennium BC: "The comparisons that my intertextual research will develop are considered as interrelated visual patterns, having a complex pictorial and metaphoric imagery" (Annus 2016: 5). More recently, Wisnom (2020: 1-23) has built her study by drawing on the concept of intertextuality, searching for similarities in three different myths: Anzû, Enūma eliš, and the poem of "Erra and Išum". She has

¹² What is known as Ashurbanipal's library is a label for a great amount of Assyrian and Babylonian cuneiform texts excavated in Kuyunjik, and which are dated between ca. 800 and 612 BC. See online at the website *Ashurbanipal Library Project* (http://oracc.museum.upenn.edu/asbp/ accessed 25.01.2023), and Fincke (2003–2004) for the Babylonian texts.

¹³ For the meaning of intertextuality in semiotics, see Kristeva (1986: 34-61) and Eco (1979).

¹⁴ For a list of references to Assyriologists who mentioned or shortly discussed intertextuality, see Wisnom (2020: 10-11).

focused on structural allusions, i.e. intertextuality in the plot and characters of the above-mentioned myths.

In this study, the idea of adopting an intertextual approach is to go beyond the identification of simple parallelisms between the texts, and to understand their "meaning", i.e. trying to answer the research question going beyond the formal aspects of the texts. Intertextuality has been traced in quotations and repetition of names, epithets, or topoi, i.e. features of the Pleiades that recurrently appear in the divinatory and astral compositions and, less frequently in myths, prayers, inscriptions, and rituals, which likely triggered a specific idea, tradition, or reference in the ancient reader's mind. Once the features of the Pleiades had been established (i.e. parameters), they have been sought in the sources, where patterns arose (i.e. intertextuality). The major advantage of intertextuality is that, whenever the textual sources are compared, they disclose a persistent network of quotes and analogies, which can be then chronologically organised, and which allow new interpretations. Unfortunately, as Annus (2016: 3) put it, "in studies of intertextuality, one has to reckon that some links might be missing, which at times can make the approach more speculative." Wisnom (2020: 9-10) also underlined the absence of explicitness in cuneiform literature, or a "guide" to understand allusions and analogies between texts; in this respect, the situation of Mesopotamian culture is, for instance, different from that of the Classical one, in which ancient authors often deliberately explained allusions.

On a macro-level, the methodological approach points towards understanding the relationship between the celestial realm (i.e. Pleiades) and the divine realm (i.e. seven gods). To achieve this, this study benefits from the definition of metaphor in cognitive science. According to this definition, the metaphor is not merely a literary tool, but the means through which human beings conceive and describe reality (i.e. metaphorical thought). The metaphors exist between different domains of knowledge, being at the basis of human reasoning and, consequently, shaping language and culture (i.e. metaphorical language) (Ortony 1993; Lakoff-Johnson 2003). When this way of reasoning is applied to Mesopotamian literacy, one suddenly realises that cuneiform knowledge is quite unique, because it was built by a scholarly effort to match two cultural units – or different languages (i.e. Sumerian and Akkadian) – in one writing system.

The definition of metaphor can be applied in two directions. First, a "metaphorical language" arises especially when comparing lexical lists and ancient commentaries to other textual sources (Maul 1999; Frahm 2011: 70–76). The gist of the Mesopotamian literary system is what Rochberg (2016: 92) defined as the "orthographic-semantic method", which is a tendency of Mesopotamian scribal culture to shape cuneiform knowledge around metaphors and analogies built through orthography and semantics. In this respect, the concept of analogy as a strategic tool of knowledge (also scientific knowledge) is relevant too (Gentner-Holyoak-Kokinov 2001). Second, the concept of "metaphorical thought", first addressed by Rochberg (1996) in the framework of celestial divination, is useful in investigating the many analogies between the physical and metaphysical domains in the Mesopotamian textual sources (i.e. naturalistic, divine, astral, chthonic domain, etc.). The idea of a metaphorical language and a metaphorical thought is particularly useful in studying

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Mesopotamian literacy: this approach was chosen to allow a deeper content analysis of the sources, to understand why an asterism like the Pleiades (i.e. astral domain) was identified with seven gods (i.e. divine domain). However, methodologies like this one are relatively new in Assyriological studies and therefore less refined. Annus (2014; 2016: 111–122) discussed the need to find a more "rigid" validity for the comparative methods used in historical humanities. He refers to the types of comparisons used in cognitive science, according to which the patterns and the metaphors are inherent to human reasoning. As Annus argued, by looking beyond the borders of historical humanities, combined approaches may be a fruitful way to re-think and improve the categories we use in historical humanities, even if they only produce hypotheses at first. In

1.4. Chapter Structure and Remarks on Terminology

This book is composed of seven chapters (including this introduction as chapter 1 and a conclusion as chapter 7), two appendices (App. A and B), plates, and an index of logograms and Akkadian words. Each chapter is based on the above-mentioned methodological preliminaries (see 1.3.). The structure of each chapter is explained below (see 1.4.1.–1.4.7.), with remarks on the aim of individual chapters and specific choices in terminology.

1.4.1. Chapter 2

Chapter 2 introduces the key-issues related to the perception of the Pleiades in Mesopotamian culture. The first part of the chapter discusses and compares the characteristics of the celestial bodies and the gods, on both a philological and ontological level. The theories of Pan-Babylonism are also introduced against the new perspectives on the relationship between the celestial and divine realms. The second part of the chapter establishes the features of the Pleiades as both a celestial and a divine heptad in the lexical lists of Mesopotamia, as well as their iconography. In the third part of the chapter, there is an excursus regarding the importance and the meaning of the number seven in Mesopotamia. The number seven, which has puzzled scholars since the earliest epochs, was considered a sort of mystical number in the whole of the Ancient Near East.¹⁷ It is the fixed

¹⁵ A thorough study with similar approaches is conducted by the ERC project "REPAC. Repetition, Parallelism and Creativity: An Inquiry into the Construction of Meaning in Ancient Mesopotamian Literature and Erudition", directed by Nicla De Zorzi in Vienna.

^{16 &}quot;Scholars are very often short of historical evidence, working in the realm of hypotheses. How certain situations may have evolved historically is very often beyond our epistemic reach. However, this fact should not serve as the excuse for not exploring the problems of importance." (Annus 2014: 369).

¹⁷ See the famous and interesting article by the psychologist Miller (1955) who noticed that the short-term memory span for an adult comprises at maximum seven items and – only by coincidence – the same number is the limit of the one-dimensional absolute judgement in adults. Miller also humorously commented upon the fact that the "magical" sense of the number seven had haunted him for decades, as well as inspiring people and scholars since the dawn of human history.