A Quantitative Analysis of Theonyms and Panthea in the Hittite Cult Inventories

Michele Cammarosano

Abstract: The riches of the Hittite tablet collections are justly famous for the great mass of information they provide about deities, cult, and religious beliefs all over the Kingdom of Hattuša. The sheer amount of available texts and the fragmented state of many of them pose nontrivial problems for any systematic study of the Hittite religion. Expanding on the digital edition of the so-called cult inventories (CTH 526-530, ca. 450 fragments) and exploiting the potential of the related database, this paper provides for the first time a quantitative analysis of the panthea of local towns in the core area of the kingdom in the Late Empire period. The study is organized in two parts. Part One sets out the methodological basis for the analysis by examining the target corpus in terms of internal consistency, discussing the appropriateness of a distinction between "state" vs. "nonstate" cults both within the perspective of the current discourse on Hittite religion and specifically with regard to its consequences for the proposed analysis, and laying out the analytical principles used in the extraction of the relevant information. Part Two presents selected sets of data, explores ways to interpret and combine them, and investigates their significance for the study of local panthea in the Late Empire. The results are twofold. On the one hand, an innovative picture of the panthea under discussion is obtained, with substantial implications for our understanding of a number of deities, their relationship to each other, and their role within the religious life of provincial communities. On the other hand, the critical scrutiny of the nature and specific traits of the data sample highlights methodological pitfalls in a purely quantitative analysis of Hittite religious texts, and proposes correctives for mitigating their impact, thereby providing a significant case study for future research.

In memory of Silvin Košak

1. Scope and methods

The paper aims to present and discuss quantitative data on local panthea gained from a systematic analysis of the corpus of the so-called Hittite cult inventories¹. The first section sets out the basis for the subsequent presentation and discussion of the data through a critical appraisal of the justification criteria for the selection of the target textual material and a short presentation of the analytical principles applied.

¹ It is a great pleasure to thank Federico Giusfredi and Livio Warbinek for the invitation to a most stimulating conference and for their wonderful hospitality in Verona. This paper is dedicated to the memory of Silvin Košak: for his vast knowledge, immensely productive work, and tireless dedication, but also and most of all for his unique human qualities of modesty, dignity, generosity, and incredible and contagious joyfulness until the very last day. This paper expands on research that was carried out within the DFG funded project "Critical edition, digital publication, and systematic analysis of the Hittite cult-inventories" (German Research Foundation project no. 298302760), and is deeply intertwined with my previous work on the cult inventory texts: I beg the reader's pardon for the horrendous number of self-citations contained in the following pages.

Michele Cammarosano, University of Naples L'Orientale, Italy, mcammarosano@unior.it, 0000-0003-3571-9544 Referee List (DOI 10.36253/fup_referee_list)

FUP Best Practice in Scholarly Publishing (DOI 10.36253/fup_best_practice)

Michele Cammarosano, A Quantitative Analysis of Theonyms and Panthea in the Hittite Cult Inventories, © Author(s), CC BY 4.0, DOI 10.36253/979-12-215-0109-4.09, in Livio Warbinek, Federico Giusfredi (edited by), Theonyms, Panthea and Syncretisms in Hittite Anatolia and Northern Syria. Proceedings of the TeAI Workshop Held in Verona, March 25-26, 2022, pp. 69-88, 2023, published by Firenze University Press, ISBN 979-12-215-0109-4, DOI 10.36253/979-12-215-0109-4

1.1 The cult inventories as a coherent corpus

The so-called cult inventories are texts that report on the state of religious festivals, rites, cult objects, and cult supplies in a number of provincial towns and villages under Hittite control, thereby documenting the interaction between central administration and local settlements in the core area of the Empire in northern and central Anatolia. As I have argued elsewhere, they do not concern the official "State cults", but rather a variety of rites and customs, which in part preserve local traditions. The corpus presently counts ca. 500 tablet fragments, all of which are palaeographically datable to the Late Empire (13th century BCE)².

Previous research on this corpus is connected first and foremost with two groups of scholars. The first one consists of Carl von Brandenstein, Charles Carter, Liane Jakob-Rost, and Joost Hazenbos, who published critical editions of substantial chunks of the corpus and fundamental studies on the related research questions³. The second one consists of three scholars who specifically addressed the question of whether these texts should be interpreted or not as the result of a major operation of reform or reorganization of local cults promoted by king Tudhaliya IV: they are Albrecht Goetze, Emmanuel Laroche, and Philo Houwink ten Cate. The appraisal of this question followed a somewhat parabolic trajectory, starting with Goetze's (1933, 160 note 1; 1957, 169 with note 13) hypothesis of an operation of cultic "reorganization", then touching a climax with the assumption, by Laroche (1975), of a comprehensive and in part even revolutionary "reform" of local cults by Tudhaliya IV⁴, and finally redescending towards a more nuanced standpoint in Houwink ten Cate's study (1992), which stressed how the king's measures mentioned in these texts consisted of restorations and expansions rather than innovation of cults, and that their innovative character may perhaps have laid in the geographical scope and fervor of the operation. In a general reappraisal based on these and other studies, I argued for an even more minimalistic interpretation, according to which it is well possible that the bulk and in principle even all cult inventories go back to Tudhaliya IV, but there still is no convincing evidence to support this claim, and so it remains possible that some texts date back to Hattušili III (and/or, in principle, Šuppiluliuma II). Furthermore, I argued that the texts do not hint at a reform or a reorganization either, but rather at an inventorying process - a sort of census - with purposes of "quality control" and occasional measures aimed at reinforcement and restoration, a kind of practice which was arguably in use well before the Late Empire (Cammarosano 2012; 2018, 20-3).

Two basic methodological questions are of crucial importance for the purposes of a quantitative analysis of the corpus. One is whether the group of texts presently classified as cult inventories indeed constitutes a coherent corpus—meaning one that is de-

² Cammarosano 2018; 2021. The tablets are presently classified under entries 526-30 of the *Catalogue des Textes Hittites* (*CTH*, see www.hethport.uni-wuerzburg.de/CTH/, last visited 02/08/2023).

³ Cammarosano 2013; 2018, 19.

Hatice Gonnet's "note additionelle" (apud Neve 1987) provides a telling example of the dangers of a hastily juxtaposition of archaeological and philological evidence: «Les récentes découvertes de la mission allemande à Boğazkale, que dirige Peter Neve, mettent au premier plan l'activité religieuse de Tudhaliya IV: vingt et un temples dans la ville haute, dans le triangle situé entre la Porte dite du Roi, celle des Sphinx et Sarıkale, et le temple 5, situé plus à l'Est [...] sont en effet attribués par Peter Neve à ce roi. M. E. Laroche avait, d'après les textes, étudié la réforme religieuse de Tudhaliya IV et sa signification politique [...] L'archéologie vient ici confirmer de façon spectaculaire ce que nous apprennent les textes, qui, à leur tour, permettent d'interpréter ces découvertes». Subsequent work carried out by Jürgen Seeher and others, however, disproved this thesis, showing that the temples of the Upper Town are much older than Neve thought. fined by nontrivial, specific features such as to characterize it uniquely with respect to other textual genres. The other is whether the corpus can be considered to be in some way representative of the Hittite local panthea of the provincial towns and villages in the core area of the Empire. The more positive the answer to these questions, the more meaningful a quantitative analysis of the corpus will be.

In order to address these issues, it is conducive to distinguish between two levels, namely form and content, or more specifically, text genre and types of cults involved. On the formal level, there is no doubt that we can define the corpus by using specific features, and that by doing this we reflect an emic distinction. Table 1, based on Cammarosano 2013; 2021, 3-29, presents the formal features that characterize cult inventories in respect to the corpus that is closest to them in nature and content, namely the so-called festival texts⁵.

Festival texts	Cult inventories		
Texts are arranged by festivals	Texts are arranged by towns		
Presence of archaic or archaizing <i>ta</i> "and" is normal	Absence of archaizing <i>ta</i> "and"		
Preference for full and phonetic spellings	Preference for abbreviated and heterographic spellings		
No use of the sign DIN for /dan/	Use of the sign DIN for /dan/ is normal		
Incipits: "When "; preambles are possible	Incipits: normally consist of a place name; no preambles		
Colophons are sometimes signed by the scribe	Colophons are never signed by the scribe		
Cursive script is rare	Cursive script is frequent		
Textual tradition; parallel texts and duplicates are normal	No textual tradition; parallel texts and duplicates are exceptional		

Tab. 1: Formal features that are characteristic of festival texts vs. cult inventories.

The most fundamental difference between the two genres in terms of formal organization of the texts is that cult inventories are arranged by town(s) and not by festival(s) or other components of the cult, and tend towards a comprehensive treatment of the relevant components of the cult, while festival texts are arranged by festival(s), i.e., aim to treat one or more specific festival ceremonies, never the cults of an entire town. This difference is not only apparent from the content of the tablets, but also correlates with the diverging patterns of their colophons, showing that the distinction of the two genres is emic and must correspond to different functions within the cult management practices of the royal chancery.

On the level of content instead, matters are much more complicated. Expanding on work by, among others, Manfred Hutter and Piotr Taracha, I proposed a basic dichotomy between two classes of cults, which are conventionally labeled state cults and local (nonstate) cults:

A festival text provides detailed information about the performance of specific festival(s). Whether performed in the capital, in local towns, or in more than one location, these rites normally pertain to the so-called 'state cults'. In short, this basically means that the king takes part in the ceremonies. [...] In contrast, the purpose of a cult inventory

is not to pass on information for the correct execution of specific festivals, but rather to provide informative or prescriptive reports on the cults of a given town at a specific time. [...] Indeed, almost half of the inventories do contain festival descriptions. But the festival description is never autonomous: on the contrary, it is embedded in the higher-level section of the text pertaining to the relevant town. Furthermore, the cult inventories are never concerned with the so-called state cults; they treat festivals which do not involve the king. [...] The dichotomy lies between 'state' vs. 'nonstate' cults, not between 'cults performed in the capital' vs. 'local cults': as already noted, those local cults where the king takes part are treated in festival texts and not in cult inventories. It is also worth observing that while the cult inventories never treat state cults, the converse is not true: i.e., a festival text may treat either a 'state' or a 'nonstate' cult. (Cammarosano 2013, 68-9 with note 22; similarly, Cammarosano 2018, 14; for an

updated estimate of the proportion of texts containing festival descriptions, see below).

Now, if cult inventories tend to treat the cults of a town comprehensively, and they never treat "state cults", what about the towns where both state and nonstate cults were celebrated? Should we conclude that cult inventories did not treat any of them? Of course not, as also shown by texts which can be safely classified as cult inventories based on the above formal features, and still pertain to towns such as Nerik, Karahna, and Zippalanda, where several state cults (with the participation of the king) also took place, which are treated in festival texts. The point is that cult inventories by their nature tend towards completeness: but they never contain "descriptions" (or "protocols") of those cults which the Hittite ruling dynasty considered of such importance to request the direct participation of the king, queen, or princes. These were the cults which we may consider as the official cults of the state, the "state cults", which are the object of festival texts. Obviously, in most cases there was not even the need to "exclude" the state cults from the inventory, since the bulk of the settlements treated in the cult inventories are villages and small towns, which are not attested in any other text, and where Hittite royals certainly did not have to take part in recurring festivals, if anyone of them ever passed there.

This view has been recently questioned by Alice Mouton, who does not consider the participation of royals in the celebrations as a valid criterion for a distinction between different kinds of festivals:

[L]'absence physique du Grand Roi hittite lors d'une cérémonie religieuse n'est pas un critère suffisant pour ne pas rattacher cette cérémonie au culte étatique: de nombreux personnages officiels, en particulier des membres de la famille royale (princes et princesses royaux, principalement) ou des gouverneurs locaux, sont habilités à représenter le pouvoir royal hittite lors de cet événement. Cela est d'autant plus vrai que les textes d'inventaires cultuels qui constituent la documentation de référence de l'auteur pour analyser les cultes locaux n'ont pas pour but principal de décrire en détail les cérémonies religieuses ayant lieu dans les différentes localités de «province», mais bien plutôt de faire la liste des besoins matériels relatifs à ces célébrations. L'absence du Grand Roi hittite ou de l'un de ses représentants ad hoc dans les quelques courtes descriptions de fêtes cultuelles qui apparaissent incidemment ici et là n'est donc pas significatif. (Mouton 2021, § 4).

Alice Mouton concludes that both the cults treated in festival texts and in cult inventories share one and the same nature. She acknowledges that the two groups of texts represent two distinct genres, but considers that they treat basically the same kind of cults from two distinct perspectives of management: [J]e ne suis pas convaincue que «culte étatique» versus «culte non-étatique» (on préférera l'expression «culte local» aussi employée par l'auteur) soit le bon critère pour distinguer les fêtes cultuelles qui sont décrites par les textes de fêtes cultuelles de celles qui se retrouvent sur les textes d'inventaires (voir p. 14). Les deux types de textes ont, comme l'indique l'auteur (p. 14), des fonctions différentes, mais ce n'est pas pour autant forcément le cas des fêtes cultuelles qu'ils décrivent. À mon sens, ce n'est pas la présence éventuelle du Grand Roi hittite qui tient lieu de critère pour décrire une fête cultuelle sur un type de texte plutôt que sur l'autre, mais bien seulement la fonction même de ce texte: dans un cas, il s'agit d'aide-mémoire pour les officiants (dans le cas des textes de fêtes cultuelles), dans l'autre, de documents s'adressant plutôt aux administrateurs des temples (dans le cas des inventaires). La porosité même de ces deux genres – une liste d'offrandes apparaît souvent dans un texte de fête cultuelle et une description de fête est fréquemment insérée dans un texte d'inventaire – montre que les fêtes qu'ils décrivent sont, en réalité, considérées comme relevant toutes d'une même nature. (Mouton 2021, §5, see also §§ 2-4).

While the call for a reappraisal of the alleged dichotomy between state and nonstate cults is absolutely appropriate, some objections may be raised against this line of reasoning and especially against its conclusions. First, it is true that for the sake of completeness one should mention the queen and princes besides the king as the actors who can be used as a diagnostic criterion for the definition of the "state cults" (although this does not solve the question, since they as well are absent in the festivals treated in cult inventories). But the king is not simply a top-ranking priest who can be substituted by "governors" or even by a prince for the fulfillment of his religious duties if need be. His person took an absolutely special place between gods and humans in the cosmic order, and his personal attendance – where required by the cultic protocols – was of foremost importance for the correct performance of the rite⁶. Consequently, it is perfectly plausible to suspect that his presence (or absence) in a specific cult ceremony could make a qualitative difference.

Second, to state that festival descriptions appear in cult inventories only "incidentally here and there", representing a rather accessory element in the corpus, and their concise character may obscure the possible (even if only occasional) participation of the king or other royals is very questionable. Festival descriptions are present in the majority of the texts for which a typological classification is possible, and represent one of the most prominent and indeed precious features of the corpus despite their concise and in some respects stereotyped character; the kind of offerings foreseen, as well as the use of the 3rd plur. (impersonal) and the frequent explicit reference to a *sanga*-priest make it clear that no royal person is involved⁷. Even if it were true that festival descriptions occur only occasionally among cult inventories, the fact that lists of offerings as well as festival protocols are found in both (and other) genres would not hint at the festivals treated in the two genres having the same nature.

⁶ I am not aware of any evidence to the contrary. Schwemer (2022, 361) notes that «Conflicts between the king's numerous cultic obligations and other duties of his office probably occurred fairly regularly, but they did not always result in the cancellation of a religious festival. The Hittite administrators were able to find practical solutions. The king could compensate for a missed festival by including additional offerings in the following year». For the special position of the king in the cosmos, see most recently Schwemer 2022, 356-59 with literature.

⁷ Cammarosano 2021, 9 (figures); 2018, 103-38 (discussion).

Third, if the two genres were to treat the same class of festivals from different perspectives, why not a single example of a festival treated in both genres has come to light? What we observe is rather the opposite: when available, cult inventories and festival texts concerning the same town tend to complement each other as far as the treated festivals are concerned⁸.

Fourth and most important, a differentiation between the cults treated in the two groups of texts derives precisely from their content, since an intriguing complementarity is observable across the two genres in specific features of the rites and offerings described therein (Tab. 2, based on Cammarosano 2013; 2021, 3-8).

Cults in festival texts	Cults in cult inventories
Royals usually participate	Royals never participate
No bipartition of offerings "at the altar" vs. "provisions"	Bipartition of offerings "at the altar" vs. "provisions"
Greater detail, great variety of ritual acts	More concise character, standard set of ritual acts
Frequent offering of wine	Wine offerings virtually absent
Athletic contests: running and horse race	Athletic contests: "popular" disciplines (boxing, wrestling, shot put, weightlifting, cheese fighting)

Tab. 2: Content features that are characteristic of cults treated in festival texts vs. cult inventories.

Alice Mouton (2021, §3) is absolutely right in stressing the interest in the provincial cults by part of the central administration as the fundamental motivation for the very existence of the cult inventories, and in pointing out that both the cults treated in festival texts and in cult inventories were part of the «vaste nébuleuse que représente le 'culte étatique', c'est-à-dire le culte dans son expression centralisée autour de la capitale Hattuša»⁹. And certainly several festive ceremonies exist, which resist a classification in either group: the basic dichotomy of state cults vs. nonstate cults is not meant to explain the full variety of Hittite cults¹⁰. But this does not mean that we should boil them all together into the same soup. On the contrary, the above listed contrasts, especially the presence (vs. absence) of royals, the different partition of offerings¹¹, and

- ⁹ Already e.g., Goetze 1957, 161, lastly Schwemer 2022, 360: «the royal administration of the Hittite state is not only responsible for the timely and complete execution of the festivals whose performance is led by the king, the queen, or a prince, but also tries to control and preserve the standards of smaller, local cults whose rites did not involve royal participation», also 390.
- ¹⁰ Cammarosano 2021, 5-8 provides some preliminary notes on selected "hybrid and ambiguous cases", but obviously much more awaits to be identified and discussed.
- ¹¹ That this is not merely a formal feature is shown by the analysis of the quantities of offerings labeled "provisions" (*aššanumaš*) in cult inventories: they hint at the participation of a substantial portion of the local community in the cult meal (Cammarosano 2018, 154-57), and are unparalleled in the offering lists of festival involving the king.

⁸ A telling example is that of Karahna, for which both a cult inventory (KUB 38.12) and a festival text (KUB 25.32+) are available. Both tablets claim comprehensiveness (colophon of KUB 38.12: "One tablet, complete. Town of Karahna"; colophon of KUB 25.32+: "One tablet, complete, of the festivals of Karahna"), but their content shows that KUB 25.32+ treats only those rites to which the king takes part, while conversely KUB 38.12 may be described as a report on the ongoing reorganization of some of the cults of Karahna, and mentions a number of festival of local character that certainly could not be all attended by the king (see McMahon 1991, 53-82; Cammarosano 2018, 383; 416-32).

a complementary distribution of specific kinds of athletic contests¹² speak for a substantial difference in the nature of the two groups of festivals.

One important point where Alice Mouton's criticism hits the mark is the problematic character of the label "state" vs. "nonstate" cults. Admittedly, this terminology misleadingly suggests that the state had no interest or grasp on the latter, while rather the contrary is true, as has been repeatedly observed. It may be therefore better to speak of "local cults not involving royals" (or similar). Also, much more work is required to differentiate between the many festivals included in the festival texts and to explore along which lines they can be grouped together. Most importantly, it is necessary to better understand how the participation of the king (and more generally of royals) can be used as a defining criterion for the (emic and/or ethic) characterization of festivals, and in which terms this makes a difference in their organization, performance, perception, and categorization¹³.

This brings us to the question of representativeness. As has been recalled above, cult inventories never contain descriptions of festivals that involve royals, but the converse is not true: while the bulk of the festivals treated in festival texts involves royals, some do not. This asymmetry has implications for assessing the representativeness of the cult inventories in respect to local cults not involving royals. Certainly, we cannot claim that they are the only evidence for this kind of cults: some festival texts, as well as other texts from other genres (like edicts, oracle reports, letters), provide information on them. All should be ideally considered in a study that claims comprehensiveness. Nevertheless, the genre of the cult inventories clearly constitutes the principal body of evidence for their study. The size of the corpus, its scope, and its above-discussed internal consistency allow one to consider the results of a quantitative analysis as a meaningful insight not only of the genre itself, but also of the panthea and festivals of the core area of the kingdom in the Late Empire¹⁴.

1.2 Principles of analysis of the texts

The evidence discussed in the following sections originate from the comprehensive edition of the corpus produced between 2016 and 2020 at Würzburg University within the DFG funded project "Critical edition, digital publication, and systematic analysis of the Hittite cult-inventories"¹⁵. In particular, the quantitative analysis draws on data from the relational database *Hittite Local Cults* (www.hethport.uni-wuerzburg.de/HLC/, last visited 02/08/2023), which aims to collect selected information contained

- ¹² See Cammarosano 2018, 127-29. Corti 2017, 8-9 (followed by Gilan 2021, 34-5) claims that a "cheese fighting" contest takes places in the (state cult) festival for mount Hazzi (*CTH* 785) as well, but in fact this is a rite involving cheeses which has nothing in common with the contest attested in the cult inventories, see already Cammarosano 2014, 161 apropos KUB 45.49.
- ¹³ The concept of "state cult" is frequently used in Hittitological literature, and is regularly connected to the participation of the king in the rites, see e.g., Schwemer 2016, 23; it is also explicitly used in opposition to cults considered have a "local" character without being embedded in the "state cult", see most recently Hutter 2021, 96-7; 232-33, and *passim*, who stresses that it is sometimes difficult to attribute a festival to one or the other class (p. 97). Goetze (1957, 161) observed that «Die hethitischen Texte sind offizielle Dokumente, nicht private. Was sie zur Kenntnis des Kultes beitragen, betrifft darum fast ausschließlich den Staatskultus, den der König als oberster Priester der Landesgötter leitet»; p. 165: «Die Opfer sind die Alltagsform des Kultes. Seine Höhepunkte erreicht er in den Festen. [...] Am prunkvollsten waren die Feste, die der König als oberster Priester selbst vollzog».
- ¹⁴ Distortions arising from the overrepresentation of specific towns are discussed below.
- ¹⁵ www.hethport.uni-wuerzburg.de/txhet_kultinv/, last visited 02/08/2023.

in the cult inventories corpus in a structured form, in order to allow specific, flexible queries and optimize data retrieval¹⁶.

The fundamental principle for the analysis of the information contained in the texts consists of the distinction between "texts" and "textparts" (TPs). Whenever it was deemed possible and appropriate, a text has been subdivided into textparts, which are to be considered as meaningful sections of it. Most typically, the various textparts of a text correspond to the inventory of different towns. This distinction has implications for the usage of the database, insofar as the material can be analyzed both "per texts", that is, grouping together the data contained in a single text, and "per textparts", that is, considering each textpart as a separate entity.

Divine names have been recorded on two levels. In the first place, deities have been recorded under their various manifestations as attested in the texts using a standardized orthography. Additionally, divine names that can be considered as distinct manifestations of an overarching deity or as distinct writings of one single deity have been tagged as "Deity-Types" on a separate level (again, a certain degree of arbitrariness and uncertainty applies). For example, all manifestations of Storm-gods have been tagged as "Deity-Type: Storm-god"; likewise, the spellings "DLIS", "Šawuška", and "GAŠAN URUŠamuĥa" have been tagged as "Deity-Type: Šawuška", and so on. Obviously, the statistical evaluation of the worshiped deity changes depending on whether they are grouped into "types" or not. In conclusion, the consideration of the quantitative figures presented in the following sections will always have to bear in mind three principal caveats: the degree of arbitrariness that is inherent in the selection and grouping of elements of the textual material, the overall very fragmentary character of the extant tablets, and corpus-internal factors that may distort the general picture by overrepresentation of certain traits.

2. Local panthea

Having discussed the significance of the target corpus and the adopted analytical principles, we can now dive into the examination of the data. This section will first present the basic figures related to the deities attested in the corpus, then explore the connection between deities and towns where they are worshiped, and finally discuss relevance and implications of the presented evidence.

2.1 Deities worshiped

Cult inventories contain a great number of divine names, many of which are hapax legomena. In order to investigate the local panthea, it is conducive to single out those divine names which correspond to deities worshiped and link them to specific settlements whenever possible. A first breakdown of the deities worshiped reveals a pool of 571 deities attested across 416 texts and 1122 textparts¹⁷. Most of them are treated in one text only: a tangible manifestation of the extreme variety and idiosyncrasy of the local

¹⁶ The following paragraphs explain the basic principles applied in the selection and grouping of the textual material, presented in more detail in Cammarosano 2021, 10-11 as well as in the guide to the database at www.hethport.uni-wuerzburg.de/HLC/, last visited 02/08/2023. The database has been realized by Christoph Forster in the frame of the project thanks to funding provided by the Chair of Ancient Near Eastern Studies of Würzburg University. In the spirit of FAIR data and Open Data, all data can be freely exported in CSV format. Together with the hyperlinks to the digital text editions, this is meant to encourage data reuse as well as independent verification of the evidence.

¹⁷ See Cammarosano 2021, 64-73.

panthea (Fig 1)¹⁸. A relevant portion of them, namely one-third, consists of divine natural manifestations: mountains, springs, and rivers (Fig 2). Of the gods, one in four is a Storm-god (^D10, ^D1ŠKUR). Only 31 out of 128 Storm-gods are attested in more than one text and only 4 in at least 10 texts, namely the Storm-god without further specifications, the Storm-god of Nerik and of Zippalanda, and the Storm-god of the Thunderstorm (Fig 3). 20 manifestations of Solar deities and 19 of Stag-gods are attested, whose names are invariably written by means of the Sumerograms UTU and KAL respectively.

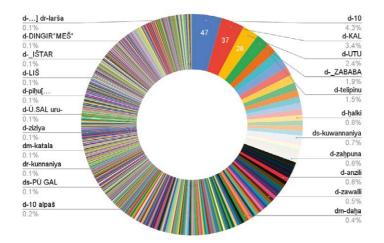


Fig. 1. Breakdown of deities worshiped.

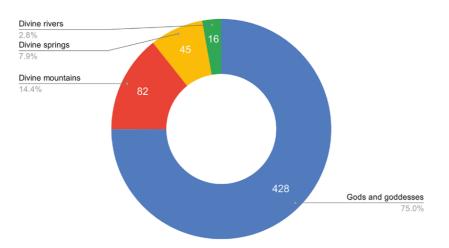


Fig. 2. Breakdown of deities worshiped, grouped typologically.

¹⁸ In this and the following figures, the conventional semantic markers employed in the database are used: uru- and kur- for geographical names (corresponding to the determinatives URU "town" and KUR "district" respectively); d-, dm-, ds-, dr- for divine names (corresponding to the determinatives DINGIR "deity", HUR.SAG/KUR "(divine) mountain", PÚ "(divine) spring", and fD "(divine) river" respectively); mr- and ms- for personal names (of men and women respectively).

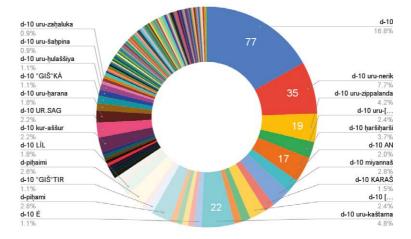


Fig. 3. Storm-gods worshiped.

Table 3 lists the most frequently attested gods, sorted by rate of attestation across textparts as "deity types", that is, grouping together distinct manifestations of the same archetypal god, when this is applicable.

Tab. 3: Deities worshiped, attested in \geq 15 textparts, sorted by rate of attestation across textparts as "deity types" (if applicable).

Deity (types)	Textparts
Storm-god	285
Sun-god/Sun-goddess	96
 Stag-god	78
Šawuška/Ištar	42
Storm-god of Nerik	35
Heptad	28
Zababa	26
Ištar of Nineveh	22
	22
Storm-god of Kaštama	22
Pirwa	19
Storm-god of Zippalanda	19
Yarri	19
Storm-god of the Thunderstorm	17
Telipinu	16
Sun-goddess of Arinna	15

Already at a first glance one notes the absence of many deities who are otherwise known to have a prominent position in the Hittite religion, and conversely, the presence

here of deities who play a rather minor role in major festivals and divine lists in treaties, like the Heptad, Zababa, Huwattassi, Pirwa, and the Storm-god of the Thunderstorm.

2.2 Deities and Towns

While the identity, typology, and frequency of occurrence of the various deities attested in the corpus provides an immediate picture of the "actors" involved, the rate of attestation of a deity per se is no guarantee of either reflecting its relevance within a local pantheon or of giving a measure of its "weight" vis-à-vis the other ones. To obtain more significant data of the role of a deity within the corpus, it is conducive to consider additionally the number of towns where he or she is worshiped.

As a result of various possible combinations of features to be considered, we get different rankings. Table 4 presents numbers with which six such rankings can be obtained, dependent on whether deities are counted across textparts or texts, hypostases are considered separately ("not grouped") or grouped together into deity types, and on the number of towns where a deity (considered either separately or grouped into deity types) is worshiped.

	Not grouped /textparts	Not grouped /texts	As deity type /textparts	As deity type/texts	No. of towns (deities not grouped)	No. of towns (deities as deity types)
Storm-god	77	47	285	131	39	31
Sun-god/ Sun-goddess	50	26	96	54	27	28
Stag-god	57	37	78	50	35	27
Šawuška/ Ištar	3	3	42	22	1	16
Storm-god of Nerik	35	15	35	15	19	19
Heptad	26	12	28	13	16	16
Zababa	23	21	26	23	9	11
Ištar of Nineveh	22	8	22	8	10	10
Huwattašši	22	7	22	7	14	14
Storm-god of Kaštama	22	4	22	4	14	14
Pirwa	17	14	19	16	8	8
Storm-god of Zippalanda	19	13	19	13	5	5
Yarri	18	9	19	10	11	11
Storm-god of the Thunderstorm	17	10	17	10	9	9
Telipinu	16	16	16	16	2	2
Sun-goddess of Arinna	15	15	15	15	5	5

Tab. 4: Deities worshiped, attested in \geq 15 textparts, sorted by rate of attestation across textparts as deity types.

By comparing the position of a deity across rankings obtained by using different criteria, one immediately gets an idea of the corresponding shifts in rank: note, for example, the difference in the placement of Šawuška/Ištar depending on whether her manifestations are grouped together or not. One element of stability here is represented by the dominance of the Storm-god, Sun-goddess, and Stag-god at the top of the ranking (for some discussion see further below, § 2.4).

Most conducive for a quantitative exploration of the local panthea of the corpus is in my opinion the consideration of the number of towns where the gods are attested, while taking deities as "deity types" (when applicable). Fig. 4 shows a scatterplot of the most attested gods, considered as deity types and sorted primarily by rate of attestation in texparts, secondarily by number of towns where they are worshiped.

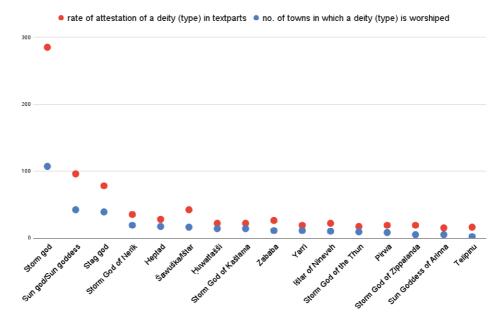


Fig. 4. Breakdown of deities worshiped (scatterplot of columns 4 and 7 in Tab. 4): frequency as deity type (calculated across textparts), and number of towns in which a deity (type) is worshiped.

The scatterplot reveals a roughly three-tiered structure: the Storm-gods dominate by far the ranking, followed at due distance by solar deities and Stag-gods, then by the rest, with Šawuška, Storm-god of Nerik, and the Heptad coming first in the sequence. The preeminence of the Storm-god is perhaps not surprising, but certainly noteworthy in its extent. One is reminded of a passage from the *Instructions for Military Officers and Frontier Post Governors* where, stating their duty to care for the restoration of local cult images and shrines, the king stresses that "reverence for the deities shall be maintained; for the Storm-god, though, reverence shall be firmly established", thus insisting on the special place due to the Storm-god in the pantheon¹⁹. This is perhaps the only passage to witness something that comes close to a policy of generalized influence from the Hittite king into the local cults, in this case aimed at reinforcing the position of the local Storm-gods within the respective panthea.

¹⁹ Instructions for Military Officers and Frontier Post Governors, CTH 261.1 §§ 33', translation after Miller 2013, 229, see also 382 note 408.

2.3 A geographical perspective

A look to the towns inventoried reveals a picture of extreme fragmentation analogous to the one already seen for the deities. Of the 180 "towns" (URU) that are attested across 95 texts, only 21 are treated in more than one text, and only two in more than two texts (Šamuḥa and Nerik). For our purposes, it is conducive to include in the count attestations that can be assigned with reasonable certainty to a specific town or its immediate vicinity (Fig. 5).

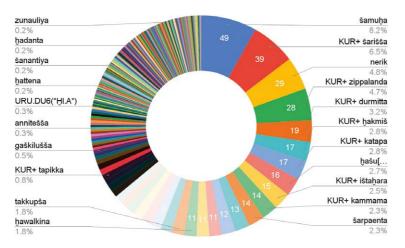


Fig. 5. Breakdown of towns inventoried, counted by frequency in textparts, including attestations that can be assigned with reasonable certainty to a specific town or its immediate vicinity (label "KUR+...").

The best documented towns are Šamuĥa and Šarišša, because of the presence of cult inventories in the locally discovered tablet archives, as well as Nerik, doubtless because of the cult restorations promoted by Hattušili III and Tudĥaliya IV, and Zippalanda, which we know to have been an important cult center down into the Late Empire period. However, the peculiar value of the cult inventories lies precisely in the richness of the dozens of attested villages attested in just one or two texts. Despite their being often hapax legomena, Adam Kryszeń was able to trace many back to a specific geographical sector, whereby we conventionally distinguish between a northern sector, including Nerik (with Kaštama), Hakmiš (with Ištaĥara), and Hattena; a central sector, including Hanĥana, Katapa, Durmitta, Wašĥaniya, Hattuša, and Zippalanda; a western sector, including Kaššiya, Tapikka, Karaĥna, Šamuĥa, and Šarišša; finally a southern, "Cappadocian" sector, to which 12 texts mostly treating what seem to be small settlements may be attributed, although the localization is admittedly uncertain (Tab. 5)²⁰.

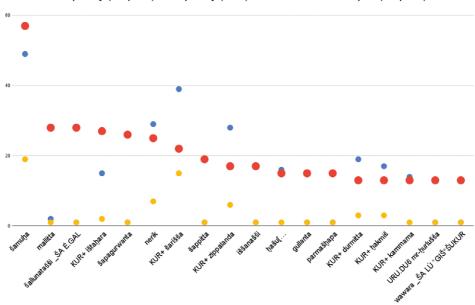
An interesting breakdown of the geographical data is to count how many gods are worshiped in each town. The scatterplot presented in Fig. 6 (see the numbers in Tab. 6 thereafter) includes towns with six or more deities worshiped, sorted by number of deities worshiped. The blue and red dots correspond to the rate of attestation of each town in textparts and texts respectively. By far on top of the ranking both for rate of attestation and for number of gods worshiped comes Šamuḥa, a reflection of the cluster of tablets recovered there, followed by some obscure villages, arguably in the Cappadocian area of the middle Kızılırmak, for which the available texts meticulously list a number of cult stelae and the corresponding deities. Noteworthy is the position of a few "outliers", especially Ḥanḥana and Katapa, which happen to be treated in several texts, but with a comparatively smaller number of gods attested

²⁰ For a detailed appraisal of the geographical sectors, see Kryszeń 2021, 31-62 and Cammarosano 2021, 91-3.

as deities worshiped. Thus, the ranking of towns varies greatly depending on whether one considers the rate of attestation or the number of gods worshiped. It is important to stress that in neither case the ranking is representative of geographical-religious structures, rather it is dependent on the nature and character of the corpus as a whole.

Sector	Principal towns	No. of texts
Northern sector	Nerik (with Kaštama) Hakmiš (with Ištahara) Hattena	36 texts (7 of which concern Nerik)
Central sector	Hanḥana Katapa Durmitta Wašḥaniya Hattuša Zippalanda	23 texts (5 of which possibly concern Zippalanda)
Western sector	Kaššiya	4 texts
Eastern sector	Tapikka Karaḥna Šamuḥa Šarišša	37 texts (of which 19, from Kayalıpınar, concern Šamuḩa; 14, from Kuşaklı, concern Šarišša)
Southern "Cappadocian" sector (?)		12 texts (none of which is securely attributable)

Tab. 5: Geographical sectors and principal towns.



• frequency (textparts) • frequency (texts) • no. of deities worshiped (textparts)

Fig. 6. Towns inventoried, with \geq 6 deities worshiped, sorted by number of deities worshiped. Numbers include attestations that can be assigned with reasonable certainty to a specific town or its immediate vicinity (label "KUR+...").

Tab. 6: Data for Fig. 6, sorted by number of deities worshiped. The varying font size aims to give a measure of the very different ranking that is obtained by sorting towns by rate of attestation in textparts. Numbers include attestations that can be assigned with reasonable certainty to a specific town or its immediate vicinity (label "KUR+...").

Town	Frequency (textparts)	Frequency (texts)	No. of deities worshiped (textparts)
Šamuḥa	49	19	57
Šallunatašši ŠA É.GAL	1	1	28
Mallitta	2	1	28
KUR+ Ištaḥara	15	2	27
Šapagurwanta	1	1	26
Nerik	29	7	25
KUR+ Šarišša	39	15	22
Šappitta	1	1	19
Iššanašši	1	1	17
KUR+Zippalanda	a 28	6	17
Gullanta	1	1	15
Parmašhapa	1	1	15
Hašu[16	1	15
URU.DU ₆ ^m Hurlušša	1	1	13
Wawara ŠA LÚ ^{GIŠ} ŠUKUR	1	1	13
KUR+ Kammama	14	1	13
KUR+ Hakmiš	17	3	13
KUR+ Durmitta	19	3	13
Kanzana	1	1	12
Tabbaruta	1	1	12
Kaštama	5	2	12
KUR+ Hattuša	11	4	12
Šarpaenta	14	2	12
Paḥaḥanta	1	1	11
Šuranḥapa	1	1	11
Arumašši	1	1	10
Mamnanta	1	1	10
KUR+ Hanhana	11	12	10
Hawalkina	11	1	10
Takkupša	11	1	10

Town	Frequency (textparts)	Frequency (texts)	No. of deities worshiped (textparts)
Hurma	9	2	9
KUR+ ^{íD} Zuliya	10	2	9
KUR+ Harziuna	13	2	9
Kišanta	1	1	8
Wiyanuanta	6	2	8
Šapinuwa	1	1	7
Zipi	1	1	7
Šippa	2	2	7
Hulaššiya	6	1	7
Guršamašša	9	1	7
Parnašša	12	1	7
Ikšuna	1	1	6
Hapatha	2	1	6
Kašha	3	1	6
KUR+ Wašḥaniya	7	2	6
KUR+ Katapa	17	4	6

2.4 Discussion and outlook

One of the most salient features of the two datasets consisting of the gods worshiped and of the town inventoried is that in both of them most items are attested in one or two texts only, with a very small number attested broadly. While in the case of the towns the performance of the few "popular" centers is mostly dependent on tablet findspots and special relevance within the inventory process, the ranking of the few "popular" gods is likely to reflect their relevance among the local cults treated in the corpus. I have argued that the most appropriate way of forming a ranking is to sort them by the number of towns where they are attested. In this way an iceberg-structure emerges, with the main body made up by the mass of hundreds of highly localized gods who form the bulk of the dataset and witness to the bewildering variety of the local cults, and the tip made up by the few broadly attested gods. This in turn may be parsed into four tiers, with the Storm-god (or better, his local manifestations) as undisputed leader, followed at due distance by Sun-goddesses and Stag-gods; then the Storm-god of Nerik, the Heptad, Šawuška/Ištar, Huwattašši, and the Storm-god of Kaštama; finally, but here the step from the previous tier is rather minimal, Zababa, Yarri, Ištar of Nineveh, the Storm-god of the Thunderstorm, Pirwa, the Storm-god of Zippalanda, the Sun-goddess of Arinna, and Telipinu (Table 7).

A closer look at the texts behind these data, however, reveals an important caveat. While the top-ranking position of Storm-god, solar deities, and Stag-god is firmly rooted in their ubiquitous presence across all geographical sectors, a number of the deities in the second and third tier to a significant extent owe their position to one single text, namely KBo 70.109+ // KUB 38.6+. The largest of the entire corpus, this cult inventory contains no less than 29 textparts that arguably concern small settlements of the

Cappadocian area of the middle Kızılırmak²¹. For each town, a great number of cult images, mostly cult stelae, are listed, and crucially, some of the listed deities occur in most settlements. As a consequence, this single tablet holds a very special place in the corpus and in some respects is able to "distort" the picture obtained by a purely quantitative appraisal of the frequency of attestation of these deities. This is true especially for Huwattašši, the Storm-god of Kaštama, and Ištar of Nineveh, for all of whom the attestations in KBo 70.109+ // KUB 38.6+ make up a big proportion of their overall occurrences, and to a lesser extent also for the Heptad, Šawuška, Yarri, and the Stormgod of the Thunderstorm (see the figures in Table 7).

Tab. 7: The most "popular" deities in cult inventories, based on their rate of attestation in textparts ("Frequency") and the number of towns where they are worshiped ("Towns"), and sorted by the latter feature. Deities are grouped into deity types whenever applicable. In brackets are the numbers that derive from KBo 70.109+ // KUB 38.6+.

Deity	Frequency	Towns
Storm-god	285 (26)	107 (17)
Sun-god/Sun-goddess	96 (18)	42 (12)
Stag-god	78 (15)	39 (11)
Storm-god of Nerik	35 (18)	19 (11)
Heptad	28 (11)	17 (9)
Šawuška/Ištar	42 (17)	16 (11)
Huwattašši	22 (16)	14 (12)
Storm-god of Kaštama	22 (19)	14 (12)
Zababa	26 (2)	11
Yarri	19 (10)	11 (5)
Ištar of Nineveh	22 (15)	10 (10)
Storm-god of the Thunderstorm	17 (7)	9 (4)
Pirwa	19	8
Storm-god of Zippalanda	19	5
Sun-goddess of Arinna	15	5
Telipinu	16	2

Thus, if on the one side it would be unjustified to arbitrarily exclude this text from the corpus, on the other it is important to be aware of its disproportionate weight in the ranking presented above (no other text has a comparable effect in the corpus). It is therefore appropriate to consider what the ranking would be if this particular text is left aside (Table 8). In respect to the previous one, the "winners" in the modified ranking are especially Zababa, Pirwa, and Yarri, while Huwattašši, the Storm-god of Kaštama, and Ištar of Nineveh appear now at the bottom end of the rank. There is good reason to consider this "adjusted" list as a better, if imperfect, mirror of the deities who were most widely worshiped in the local panthea of the core area of the Hittite kingdom in the Late Empire. Overall, the ranking does not change significantly depending on whether the deities are sorted by number of towns where they are worshiped or by frequency of attestation in textparts, but it is worth noting that in the lat-

²¹ Cammarosano 2015; 2018, 433-70, with previous literature and discussion.

ter case Śawuška, the Storm-god of Zippalanda, and Telipinu take a more prominent role, while especially Yarri and the Storm-god of the Thunderstorm shift towards the bottom end of the rank.

Tab. 8: Same of Tab. 7, excluding KBo 70.109+ // KUB 38.6+ from the count. Upwards and downwards arrows (plus italics) mark those deities whose rank is significantly dependent on the inclusion of KBo 70.109+ // KUB 38.6+ (see Tab. 7). The varying font size aims to give a measure of the partly different ranking that is obtained by sorting deities by "Frequency" instead of "Towns".

Deity	Frequency	Towns
Storm-god	259	90
Sun-god/Sun-goddess	78	30
Stag-god	63	28
↑ Zababa	24	11
↑ Pirwa	19	8
Storm-god of Nerik	17	8
Heptad	17	8
↑ Yarri	9	6
Šawuška/Ištar	25	5
Storm-god of Zippalanda	19	5
Sun-goddess of Arinna	15	5
Storm-god of the Thunderstorm	10	5
Telipinu	16	2
↓ Huwattašši	6	2
↓ Storm-god of Kaštama	3	2
↓ Ištar of Nineveh	7	0

Let us try to draw some conclusions from the figures seen so far. A first basic feature emerging from a systematic analysis of the corpus is the variety and fragmentation of the local panthea. No two ones are identical, and the bulk of the attested deities are hapax legomena. Typologically, a great deal of them are the divinized natural elements: mountains, springs, water courses, and more. Within this variety, some deities stand out as "supralocal" ones, these have been characterized above as forming the tip of the iceberg.²² While the overwhelmingly preponderance of the Storm-god is little less than obvious in an ancient Near Eastern land based on rainfed agriculture and the presence of a solar deity who in most cases doubtless is his spouse as the second most widespread deity follows as an expected consequence, the fact that the popularity of the Stag-gods almost equals that of the solar deities represents an important takeaway. It shows that the favor he enjoyed in the late Empire was firmly rooted in the religious life of local communities. Importantly, the position of the three deities at the top of the ranking tells us that they are the most widespread gods attested in the local cults treated in the corpus as a whole, but does not necessarily imply either that they stand at the head of the respective individual panthea or that they constitute a triad: on the contrary, the available evidence speaks against the latter hypothesis (Cammarosano 2021, 73-5).

Another takeaway emerges when considering the remaining ones of the most attested deities, namely the difference in respect to the deities who are prominent in the state pantheon, as known from lists of deities in treaties and other official systematizations of the divine assembly (Singer 1994; Beckman 2004; Schwemer 2006; 2022, 368-69; Hutter 2021, 186-89). The above considerations fit well the picture gained through a more traditional look at the local panthea of the cult inventories, one that focuses on the deities who we know to be characteristic of distinct religious milieus, namely the Hattian, Hurrian, and Luwian ones, and highlights different patterns of distribution depending on the various religious-cultural milieus to which they can be attributed (Cammarosano 2021, 75-91; 96-7). Expanding, revising, and correcting this picture, also with consideration of further evidence – from within and outside the cult inventories corpus – remains among the much work that has to be done towards a better understanding of local panthea of Hittite Anatolia, and more in general of Hittite religion.

Bibliography

- Beckman, Gary M. 2004. "Pantheon. A. II. Bei den Hethitern". *Reallexikon der Assyriologie und vorderasiatischen Archäologie* 10: 308-16.
- Cammarosano, Michele. 2012. "Hittite Cult Inventories Part Two: The Dating of the Texts and the Alleged 'Cult Reorganization' of Tudhaliya IV". Altorientalische Forschungen 39: 3-37.
- Cammarosano, Michele. 2013. "Hittite Cult Inventories Part One: The Hittite Cult Inventories as Textual Genre". *Welt des Orients* 43: 63-105.
- Cammarosano, Michele. 2018. *Hittite Local Cults*. Atlanta: Society of Biblical Literature (WAW 40).
- Cammarosano, Michele. 2021. At the Interface of Religion and Administration: The Hittite Cult Inventories. With a contribution by Adam Kryszeń. Wiesbaden: Harrassowitz (StBoT 68).
- Corti, Carlo. 2017. "From Mt. Hazzi to Šapinuwa. Cultural Traditions in Motion in the First Half of the 14th Century BC". *Mesopotamia* 52: 3-20.
- Gilan, Amir. 2021. "'Let Those Important Primeval Deities Listen': The Social Setting of the Hurro-Hittite Song of Emergence". In *Gods and Mortals in Early Greek and Near Eastern Mythology*, eds. Adrian Kelly, and Christopher Metcalf, 19-36. Cambridge: CUP.

Goetze, Albrecht. 1933/1957. Kleinasien. München: Beck (1st ed. 1933; 2nd ed. 1957).

Houwink ten Cate, Philo H. J. 1992. "The Hittite Storm-God: His Role and His Rule According to Hittite Cuneiform Sources." In *Natural Phenomena: Their Meaning, Depiction*

²² They actually consist of abstractions, since for each of them we group together a plethora of local hypostases: they certainly enjoyed at least to some extent a specific identity from place to place, in principle even from cult image to cult image (Cammarosano 2021, 95). The fact however that hypostases were grouped together into typologically distinct deities already in ancient times, and labeled accordingly, confirm that our abstraction is legitimate and meaningful.

and Description in the Ancient Near East, ed. Diederik J.W. Meijer, 83-148. Amsterdam: North-Holland.

- Hutter, Manfred. 2021. Religionsgeschichte Anatoliens: Vom Ende des dritten bis zum Beginn des ersten Jahrtausends. Stuttgart: Kohlhammer.
- Kryszeń, Adam. 2021. "The geography of the Hittite cult inventories". In At the Interface of Religion and Administration: The Hittite Cult Inventories, ed. Michele Cammarosano, 31-62. Wiesbaden: Harrassowitz (StBoT 68).
- Laroche, Emmanuel. 1975. "La réforme religieuse du roi Tudhaliya IV et sa signification politique." In *Les syncrétismes dans les religions de l'Antiquité, Colloque de Besançon (22-23 Octobre 1973)*, eds. Françoise Dunand, and Pierre Lévêque, 87-94. Leiden: Brill.
- McMahon, Gregory. 1991. *The Hittite State Cult of the Tutelary Deities*. Chicago: The Oriental Institute of the University of Chicago (AS 25).
- Miller, Jared L. 2013. *Royal Hittite Instructions and Related Administrative Texts*. Atlanta: Society of Biblical Literature (WAW 31).
- Mouton, Alice. 2021. Review of Cammarosano 2018. Syria, doi.org/10.4000/syria.11322
- Neve, Peter. 1987. "Boğzköy-Hattuša: Ergebnisse der Ausgrabungen in der Oberstadt". *Anatolica* 14: 41-71.
- Rieken, Elisabeth, and Daniel Schwemer. 2022. "hethiter.net/: HFR Einleitung (2022-05-12)". https://www.hethport.uni-wuerzburg.de/HFR/, last visited 02/08/2023.
- Schwemer, Daniel. 2006. "Das hethitische Reichspantheon: Überlegungen zu Struktur und Genese". In Götterbilder - Gottesbilder - Weltbilder. Polytheismus und Monotheismus in der Welt der Antike. Bd. I: Ägypten, Mesopotamien, Kleinasien, Syrien, Palästina, eds. Reinhard Kratz, and Hermann Spieckermann, 241-65. Tübingen: Siebeck & Mohr (Forschungen zum Alten Testament 2/17).
- Schwemer, Daniel. 2016. "Quality Assurance Managers at Work: The Hittite Festival Tradition". In Liturgie oder Literatur? Die Kultrituale der Hethiter im transkulturellen Vergleich: Akten eines Werkstattgesprächs an der Akademie der Wissenschaften und der Literatur Mainz, 2.-3. Dezember 2010, ed. Gerfrid G. W. Müller, 1-29. Wiesbaden: Harrassowitz (StBoT 60).
- Schwemer, Daniel 2022. "Religion and Power". In *Handbook Hittite Empire: Power Structures*, ed. Stefano de Martino, 355-419. Berlin-New York: de Gruyter (Empires through the Ages in Global Perspective 1).
- Singer, Itamar. 1994. "The Thousand Gods of Hatti: The Limits of an Expanding Pantheon". In *Concepts of the Other in Near Eastern Religions*, eds. Ilai Alon, Ithamar Gruenwald, and Itamar Singer, 81-102. Leiden: Brill.