[The below sample represents my most recent editorial activity—of just a few days ago. My editing style is calibrated to the needs of whom I am editing for, so the volume of corrections/rewriting I engage in depends on the author’s preference]

**Arbitrary Constellations and the Writing of Imagination in Medieval Persian Natal Astrology[[1]](#footnote-1)**

Only translation and pseudepigrapha could connect the ancient Egyptian sky maps to the poetic imagination of Muslim translators in the book of medieval natal astrology extant today as *Tanklūshā*in Arabic and Persian manuscripts in Saint Petersburg, Leiden, Tehran, and Mashhad. The book is attributed to a Tanklūshā al-Bābilī al-Qūfānī (meaning Tanklūshā from Babylon from Qūfan). Different sources cite the author’s name in a variety of other forms such as Tinkalūs, Tinkalūsh, and Tinkalūshā who Claude Saumaise (also known as Claudius Salmasius) in 1648 speculated and Franz Boll in 1903 confirmed was the same person as Teucer of Babylon, the Egyptian astrologer possibly of the first century CE who was cited by the major astrologers, such as Antiochus of Athens, Rhetorius, and Abū Maʿshar al-Balkhī.[[2]](#footnote-2)

In his catalog of extant Arabic manuscripts, *Al-Fihrist*, Ibn al-Nadīm (d. 990) introduces a Tinkalūs al-Bābilīand a Ṭinqarūs al-Bābilīin two separate entries as one of the seven sages who were appointed by Żaḥḥāk in charge of the seven houses he had built in the name of the seven stars. Ibn al-Nadīm introduces the former as the author of the book *Kitāb al-wujūh wa al-* *ḥudūd* and the latter as the author of *Kitāb al-mawālid ʿala al-wujūh wa al-ḥudūd*. Teucer the Babylonian’s work is extant in excerpts that Boll published along with other newly discovered works of Vettius Valens, Antiochus of Athens, and a chapter of Abū Maʿshar’s *Al-madkhal al-kabīr*in 1903. These long-forgotten excerpts, for Boll, testified to an alternative representation of the sky and its constellation, which was called *Sphaera Barbarica*by the Greek to emphasize the non-Greek, non-Ptolemaic origins of the Egyptian and Babylonian description of the heavens. In *Sphaera*(1903), Boll elaborated on how the barbarian map of the sky relied on a constellation system of *paranatellonta*(παρανατέλλοντα), meaning “stars rising alongside,” and used technically in reference to constellations that rise simultaneously with zodiacal signs.

The books that bear their author’s name as their title are books that write up their authors. Such is the story of Tanklūshā the Babylonian’s book in Arabic and Persian. Tanklūshā the Babylonian existed among medieval Muslim scholars, such as Abū Maʿshar (787–886), Ibn Hibintā (fl. 950), al-Qifṭī (ca. 1172–1248), and Naṣīr al-Din al-Ṭūsī (1201–1274), only as a name cited with a few unverifiable excerpts attributed to his book. It was a Nabataean agriculturalist and toxicologist, Ibn Waḥshiyyah (d. ca. 930), the author of an influential Arabic treatise on the Nabataean Agriculture (*Kitāb al-filāḥa al-nabaṭiyya*), who claimed to have translated *Kitāb-i tankalūshā al-bābilī al-qūfānī fī ṣuwar-i daraj al-falak wa ma tadullu ʿalayhi min aḥwāli l-mawlūdīn*from Nabataean language into Arabic. In the Leiden manuscript of this book, ʿAbd al-Malik Zayyāt is identified as the one to whom Ibn Waḥshiyyah dictated his translation.[[3]](#footnote-3) Philological scholarship proves Ibn Waḥshiyyah’s work to be a pseudo-translation without no relation to the original Teucer’s work, which was translated presumably in Sassanian era from Greek into Pahlavi and reached Muslim astrologers in an Aramaic translation, all non-extant except for a few Arabic citations in Abū Maʿshar’s *Al-madkhal al-kabīr*or the Pahlavi anthology *Bazīdaj*. To add to the crisis of authorship around the book *Tanklūshā*, scholars have expressed doubt as to the historical existence of the Nabataean author of *Kitāb al-filāḥa al-nabaṭiyya* on agriculture and *Kitāb al-sumūm wa al-tiryāqāt*on toxicology, born in Qussīn, near Kufa in Iraq and dead around 930, Abū Bakr Aḥmad ibn ʿAlī Ibn Waḥshiyyah. Some of these theories assume Ibn Zayyāt the copyist to be the one who forged either Ibn Waḥshiyyah’s writings or Ibn Waḥshiyyah himself.[[4]](#footnote-4)

Real or unreal, Ibn Waḥshiyyah’s *Book of* *Tanklūshā the Babylonian*was a pseudo-translation from a non-existent original text, most likely produced out of imaginary reconstructions, which was translated into Persian by an anonymous translator, on an unknown date in the medieval past at the order of an unnamed king. In Persian, the work is known as *Tarjuma-yi ṣuwar-i daraj*(Translation of the Figures of Degrees) or *Tang-i Lūshā*. The latter variation on the name *Tankilūshā* originates in an etymological reading of the word as meaning “The Book of Lūshā,” with *Tang*(meaning “the book”) added to “Lūshā,” which was believed to be the author’s name. The Persian poet from the Caucasus, Khāqānī Shirvānī (d. circa 1190) alludes to this variation in his well-known Christian qaṣīda.[[5]](#footnote-5)

*Tanklūshā*is structured like a manual of natal astrology. Following an introductory note on the nature and use of talismans, the twelve zodiacal signs (*ṣūrat*), each in thirty degrees, are listed. Each degree is reported in a double paragraph comprising firstly of a description of the co-rising constellations on the sky, one on the right and the other on the left, and second, a precept on the character or fate the person who is born on that degree would acquire. The described heavenly images provide a rich source of medieval iconography in Arabic and Persian. Also, the manual’s double structure in which a depicted imaginary constellation gives rise to an interpretation provides a valuable example of contingent hermeneutics in Islamic literatures along with other examples such as dream writing (*khāb-nāma*) and bibliomancy (*fāl-nāma*).[[6]](#footnote-6)

In *Tanklūshā*, the dream-like conjunction of arbitrary objects gives rise to medieval versions of a Surrealist aesthetics of the “beautiful as the chance meeting on a dissecting-table of a sewing-machine and an umbrella.” It is in these arbitrary constellations that the sky — variously rendered as *charkh*, *gardūn*, *falak*, all meaning “turning,” and all representing fate in classical Persian literature — shows its aleatory face in an extremely graphic way.

Whereas an extant *Teukrotext* maps each of the twelve zodiacal signs only in three decans, thereby generating maximum thirty-six images, *Tanklūshā*offers a far wider variety with three hundred and sixty images depicted. Compare the representation of Aries in three decans in the following translation of a *Teukrotext* with the first draft of my translation of the first ten degrees of the sign Aries (*burj-i ḥamal*) in *Tanklūshā*.

A**ries** — with its first decan there arise Athena and the Tail of the Whale and the third part of the Triangle and the Cynocephalus bearing torches and the head of the Cat of the Dodecahōros. With the second decan there arise Andromeda and the central part of the Whale and the Gorgon and Perseus’ Harpe sword and half of the Triangle and the central part of the Cat of Dodecahōros. With the third decan there arise Cassiopeia sitting on the throne and Perseus upside down and the head of the whale and the rest of the Triangle and the tail of the Cat of the Dodecahōros.[[7]](#footnote-7)

The comparison relates the *Teukrotext* and the Arabic/Persian *Tanklūshā* in terms of interpolation not of translation. The Arabic and Persian texts correspond in terms of translation––in a literalist sense. The Persian text bears nuances of and references to a dialect spoken on the Southern shores of the Caspian Sea.[[8]](#footnote-8) This paper does not contribute to the determination of the hypotexts, hypertexts, and intermediary texts of *Tanklūshā*; the occultist aspects of the work, which characterize it in relation to practices of alchemy and talisman, call for a comparative anthropological research, which is not intended by this paper either.

I have chosen to situate *Tanklūshā* within a literary context, explore the production of images in the text, and examine the arbitrary links that relate the described images to the prescribed judgement, which also involves a sort of interpretation, on that image. Under this lens, *Tanklūshā*’sintra-textual relations appear astonishingly arbitrary on two levels: not only in the symbolic irrelevance of the described images and the deducted characters attributed to the people born under those images but also in the very original formation of the images out of the chaotic infinite potentials offered by “the starry heavens above,” one of the two things that had filled Kant’s mind “with ever new and increasing admiration and awe.”

Astrological constellations have been a generative trope in modern critical thought, and have been used to signify the relativity of representation. Walter Benjamin and Theodor Adorno have developed constellation as a model of critical thinking most enthusiastically.[[9]](#footnote-9) In an oft-cited analogy from the ‘Epistemo-Critical Prologue’ to *Ursprung des deutschen Trauerspiels* (1928), Benjamin suggests, “Ideas are to objects as constellations are to stars,”[[10]](#footnote-10) thereby highlighting projective construction of our truths. The lines that connect groups of stars in a constellation project an earthly observer’s will to allegorize. The semblance of an animal, a person, or an object in the night sky reflects desire to interpret, rather than represent any truth about the stars surrounded by thick darkness which Khāqānī, in one of his prison poems, described as “un-pipped dice [*kaʿbatayn-i bī-naqsh*].”[[11]](#footnote-11) In contrast to much classical Persian poetry in which the firmament (*falak*) stands for predetermined destiny, Khāqānī describes the firmament as a *tabula rasa*, containing a full range of potentialities.

Adorno uses constellations to draw attention to the instability of truth and the volatility of all representation: “Truth is a constantly evolving constellation, not something running continuously and automatically in which the subject’s role would be rendered not only easier but, indeed, dispensable.”[[12]](#footnote-12) Constellations provide useful conceptual frameworks in literary studies, especially when focused on how arbitrary connections and aleatory causes contribute to the formation of idea and making of the text and its interpretations. On its textual surface, without regard of its astrological origins and talismanic uses, *Tanklūshā* offers a radical allegorization of fate in the images it inscribes on the blank dark night sky. The author’s imagination is at times so nuanced that it discerns the constant trembling of a dead body (Taurus. 11), or recognizes the ethnicity of a Turkish man and a woman from Kabul (Taurus. 13), or elaborates the story of a murdered body––“There arises in this degree a man murdered on the mountain. Nobody knows who he is and who killed him. People have learned by experience when they take the dead body to the desert, it will rain if there are any clouds in the sky; otherwise clouds will come, rain will fall, less in the summer, more in the winter” (Capricorn. 15); or makes the terrifying declaration that no one is born in the last degree of Aries because “it is empty and dark, and nothing in it but a handful of pebbles.”

Allusions to *Tanklūshā* in medieval Persian poetry evoke the work in close association with imagination (*khayāl*). Persian poet Niẓāmī Ganjavī (d. 1209) refers to “Tanklūshā”twice in *Haft Peykar* (Seven bodies) as a superior work of the imaginative faculty.[[13]](#footnote-13) Once, he describes the Palace of Khavarnaq as a “Tanklūshā of one hundred thousand *khayāl*.” And near the end of *Haft Peykar*, he encourages ambitious imagination in his readers by addressing them as “Tanklūshā of this *khayāl*.” [[14]](#footnote-14)

“You are the key to all locks.

You are the Tanklūshā of this imagination.

All take their images from you.

Why should you take them your omens?”

تنگی جمله را مجال تویی

تنگلوشای این خیال تویی

هریک از تو گرفته تمثالی

تو چه گیری ز هر یکی فالی(829)

While inviting his readers to abandon fatalist attitudes, Niẓāmī identifies astrological constellations as human projections, and questions the absurdity implied in human beings’ submission to the creations of their own imagination. Niẓāmī’s humanism defines a point of future reference for *Tanklūshā* even when the book has long lost its pseudo-scientific authority: a handbook of literary imagination.

In another medieval Persian allusion to *Tanklūshā*, Khāqānī Shirvānī, a contemporary and acquaintance of Niẓāmī mentions *Tanklūshā* once in Christian qaṣīda.[[15]](#footnote-15) Beginning with a compliant of the heavens’ crooked paths, Christian qaṣīda can be read as Khāqānī’s ethology of the sky in its twists of fate.[[16]](#footnote-16) At the peak of his boasting of his vast knowledge in Christian scriptures and interpretation, theology, medicine, astrology, Khāqānī, who has already expressed his disappointment with his Muslim patron, weighs up, in a tongue-in-cheek manner, the option of taking refuge in a Christian ruler’s court in Rūm and presenting his unbounded poetic talents by creating a book superior to Parthian prophet Mani’s acclaimed illustrated holy book, *Arjang* and to what he calls *Tangilūshā*. The reference to *Tanklūshā* marks a turning point in the course of Khāqānī’s interior monologue: Immediately, Khāqānī comes to himself and repents of his “corrupt thought [*sawdā-yi fāsid*]” and satanic inspiration (*talqīn*).

My translation of *Tanklūshā*, presented here, contains the accounts of the entire thirty degrees of the sign Aries (*burj-i ḥamal*), according to Rahim Reza-zadeh Malek’s edition. At the time of this translation, I did not have access to the illustrated edition Rokn al-Din Homayunfarrokh published under the title *Tang-i Lūshā yā ṣuwar-i daraj* (Tehran: Entesharat-e daneshgah-e melli-ye Iran, 1979). For the original text, see the scanned images from a late seventeenth century manuscript (MS. 63173, Majles Library, Tehran, Iran) I have interposed between my translations.

**Suggested readings:**

Persis Berlekamp, *Wonder, Image, and Cosmos in Medieval Islam* (New Haven; London: Yale University Press, 2011).

Titus Burckhardt, *Mystical Astrology According to Ibn ʿArabi*, tr. Bulent Rauf (Louisville, KY: Fons Vitae, 2001).

Edward S. Kennedy, “A Survey of Islamic Astronomical Tables,” *Transactions of the American Philosophical Society*, New Series, 46/2 (1956): 123–77.

David A. King and Julio Samsó (with a contribution by Bernard R. Goldstein), “Astronomical Handbooks and Tables from the Islamic World (750–1900): An Interim Report,” *Suhayl: International Journal for the History of the Exact and Natural Sciences in Islamic Civilisation* 2 (2001): 9–105.

Farid Qasemlu, “Tanglūshā,” in *Dānish-nāma-yi jahān-i islām*, vol. 8(Tehran: Bonyad-e da’erat al-maʿaref-e eslami, 2004), 328-331.

Rahim Reza-zadeh Malek (ed.), *Tanklūshā az mu’allifī nā-shinākhta ba żamīma-yi madkhal-i manẓūm az ʿAbd al-Jabbār Khujandī* (Tehran: Miras-e Maktub, 2005).

Benno Van Dalen, *Islamic Astronomical Tables: Mathematical Analysis and Historical Investigation* (Farnham, Surrey: Ashgate, 2013).

Keiji Yamamoto and Charles Burnett (eds.), *The Great Introduction to Astrology by Abū Maʿšar*, vol. 1. The Arabic Original and English Translation (Leiden/Boston: Brill, 2019).

**Keywords:**

constellation – *Tanklūshā* – astrology – pseudepigrapha – pseudotranslation – imagination

1. TKK [↑](#footnote-ref-1)
2. See Carlo Alfonso Nallino, *ʿIlm al-falak ʿinda al-ʿarab fl̄ al-qurūn al-wusṭā* (Roma: np, 1911), 198; and Franz Boll, *Sphaera. Neue griechische Texte und Untersuchungen zur Geschichte der Sternbilder* (Leipzig: Teubner, 1903), 491. [↑](#footnote-ref-2)
3. Rahim Reza-zadeh Malek (ed.), *Tanklūshā az mu’allifī nā-shinākhta ba żamīma-yi madkhal-i manẓūm az ʿAbd al-Jabbār Khujandī* (Tehran: Miras-e Maktub, 2005), cvii. [↑](#footnote-ref-3)
4. For scholarly speculations on the origins of *Tanklūshā*, see D. Chwolson, *Über die Überreste der altbabylonischen Literatur in arabischen Übersetzungen* (St. Petersburg, Buchdruckerei der Kaiserlichen Akademie der Wissenschaften, 1859), 130ff; Alfred von Gutschmid, “Die Nabatäische Landwirtschaft und ihre Geschwister,” *Zeitschrift der Deutschen* *Morgenländischen Gesellschaft* Vol. 15, No. 1 (1861): 1-110, 177; Carlo Alfonso Nallino, *ʿIlm al-falak ʿinda al-ʿarab fl̄ al-qurūn al-wusṭā* (Roma: np, 1911), 196-203; A. Borissov, “Sur le nom ‘Tankaloûchâ,’” *Journal Asiatique* 226 (1935): 300–5; Fuat Sezgin, *Geschichte des arabischen Schrifttums* (Leiden: Brill, 1979), 71-73. Reza-zadeh Malek finds evidence as to a Middle Persian lineage (cxxiv). [↑](#footnote-ref-4)
5. In the “I’ll compose in the name of Caesars many books better than the Chinese Artang and Tangelusha.” Shouldn’t you spell this consistently with *Tanklūshā* in your title? (Khāqānī Shirvānī, *Dīvān*, ed. Ziya al-Din Sajjadi (Tehran: Zavvar, 2003), 27.

   بنام قیصران سازم تصانیف

   به از ارتنگ چین و تنگلوشا [↑](#footnote-ref-5)
6. For a study on aspects of the Islamic aesthetics of the aleatory, see Massumeh Farhad, Serpil Bağcı, and Maria V. Mavroudi, *Falnama: The Book of Omens* (Washington D. C.: Arthur M. Sackler Gallery, Smithsonian Institution, 2009). [↑](#footnote-ref-6)
7. Quoted in Lucia Bellizia, “[The *Paranatellonta*in Ancient Greek Astrological Literature](https://www.apotelesma.it/wp-content/uploads/2016/09/The-Paranatellonta-in-ancient-Greek-astrological-literature.pdf),” tr. Margherita Fiorello, *Apotélesma*, at: https://www.apotelesma.it/wp-content/uploads/2016/09/The-Paranatellonta-in-ancient-Greek-astrological-literature.pdf [accessed 9 November 2021]. [↑](#footnote-ref-7)
8. Reza-zadeh Malek, cxxviii. [↑](#footnote-ref-8)
9. For philosophies of constellation, see the collected essays in *MLN*, Vol. 126, No. 3, GERMAN ISSUE: Constellations /Konstellationen (2011), including Andrea Krauß, “Constellations: A Brief Introduction,” *MLN*, Vol. 126, No. 3, GERMAN ISSUE: Constellations /Konstellationen (2011): 439-445; Graeme Gilloch, Walter Benjamin: *Critical Constellations* (Cambridge: Polity Press, 2002); Susan Buck-Morss, *The Origin of Negative Dialectics: Theodor W. Adorno, Walter Benjamin, and the Frankfurt Institute* (New York: The Free Press and London: Collier Macmillan Publishers, 1977): 90-101. [↑](#footnote-ref-9)
10. Walter Benjamin, *The Origin of the German Tragic Drama*, tr. John Osborne (London: Verso, 1999): 34. [↑](#footnote-ref-10)
11. Khāqānī Shirvānī, *Dīvān*, ed. Ziya al-Din Sajjadi (Tehran: Zavvar, 2003), 173.

    این فلک کعبتین بی نقش است

    همه بر دستخون قمار کند

    For an analysis of this verse in the context of medieval Iranian prison poetry, see Rebecca Ruth Gould, [↑](#footnote-ref-11)
12. Theodor W. Adorno, *Critical Models: Interventions and Catchwords*, tr. Henry W. Pickford (New York: Columbia University Press, 2005), 131. [↑](#footnote-ref-12)
13. Ziva Vesel, “Teucros in Nizami’s Haft Paykar,” in *A Key to the Treasure of the Hakim: Artistic and Humanistic Aspects of Nizami Ganjavi’s Khamsa*, ed. Johann-Christoph Bürgel and Christine van Ruymbeke (Leiden: Leiden University Press, 2011), 245–52. [↑](#footnote-ref-13)
14. “One firmament sitting cross-legged;

    Nine other firmaments flying around it.

    A pole of bodies in the north and the south,

    A Tanklūshā of one hundred thousand imaginary figures.”

    فلکی پای گرد کرده به ناز

    نه فلک را به گرد او پرواز

    قطبی از پیکر جنوب و شمال

    تنگلوشای صد هزار خیال

    Niẓāmī Ganjavī, *Dīvān*, ed. Hasan Vahid Dastgerdi (Tehran: Amir Kabir, 1956), 632. [↑](#footnote-ref-14)
15. In the “I’ll compose in the name of Caesars many books better than the Chinese Artang and Tangelusha.” (Khāqānī Shirvānī, *Dīvān*, ed. Ziya al-Din Sajjadi (Tehran: Zavvar, 2003), 27.

    بنام قیصران سازم تصانیف

    به از ارتنگ چین و تنگلوشا [↑](#footnote-ref-15)
16. “The sky’s paths are more crooked than the Christian script.

    They keep me in chains forever.”

     فلک کژروترست از خط ترسا

    مرا دارد مسلسل راهب‌آسا

    (23) [↑](#footnote-ref-16)