

Bad Weather in Baghdad: al-Ṭurṭūshī and the “Eclipse” of 478/1085-1086

Mal tiempo en Bagdad: al-Ṭurṭūshī y el
“eclipse” de 478/1085-1086

David J. Wasserstein

Vanderbilt University

<https://orcid.org/0000-0002-0514-4199>

The article discusses an autobiographical passage in the life of al-Ṭurṭūshī (ca. 451/1059-520/1126, or Jumādā I 525/April 1131) contained in the *Siyar A'lām al-Nubalā'* of al-Dhahabī (673/1274-748/1348). The text reports a remarkable set of meteorological phenomena during al-Ṭurṭūshī's visit to Baghdad in 478/1085-86. Fierro interpreted the story as a description of an eclipse, and as lying at the origin of al-Ṭurṭūshī's turn to asceticism, paralleling a similar story about the earlier Muḥammad Ibn Waḍḍāḥ. I show here, based on astronomical records, that there was no eclipse at that time in Baghdad, consequently that what al-Ṭurṭūshī experienced could not have been one. Further, al-Ṭurṭūshī did not understand it as having been one. It could not, therefore, have been the cause of his turn to asceticism. The description points more naturally instead to a dust-storm, or simoom. There is therefore no link, literary or other, between this aspect of the life of al-Ṭurṭūshī and that of Muḥammad Ibn Waḍḍāḥ.

Key words: al-Ṭurṭūshī; Muḥammad Ibn Waḍḍāḥ; al-Dhahabī; eclipses; dust-storm; simoom; Baghdad.

El artículo analiza un pasaje autobiográfico de la vida de al-Ṭurṭūshī (c. 451/1059-520/1126, o Ŷumādā al-awwal 525/abril de 1131) contenido en el *Siyar A'lām al-Nubalā'* de al-Dhahabī (673/1274-748/1348). El texto informa sobre una notable serie de fenómenos meteorológicos acaecidos durante la visita de al-Ṭurṭūshī a Bagdad en 478/1085-86. Fierro interpretó la historia como la descripción de un eclipse y como el origen del cambio de al-Ṭurṭūshī hacia el ascetismo, paralela a una historia similar sobre el anterior Muḥammad Ibn Waḍḍāḥ. Aquí demuestro, basado en registros astronómicos, que no hubo eclipse en aquel tiempo en Bagdad, por lo que en consecuencia, lo que al-Ṭurṭūshī experimentó no pudo haber sido tal. Además, al-Ṭurṭūshī tampoco lo entendió así. No pudo, por lo tanto, haber sido la causa de su vuelta al ascetismo. La descripción apunta más bien a una tormenta de polvo o simún. Por lo tanto, no hay vínculo alguno, literario o de otro orden, entre este punto de la vida de al-Ṭurṭūshī y el de Muḥammad Ibn Waḍḍāḥ.

Palabras clave: al-Ṭurṭūshī; Muḥammad Ibn Waḍḍāḥ; al-Dhahabī; eclipse; tormenta de arena; Bagdad.

Abū Bakr Muḥammad b. al-Walīd b. Khalaf b. Sulaymān b. Ayyūb al-Fihrī Ibn Abī Randaqa al-Ṭurṭūshī (ca. 451/1059-520/1126, or Jumādā I 525/April 1131) was born in Tortosa in al-Andalus around the time when that city-state was about to become part of the kingdom of the Hūdids of Saragossa. The four generations (five with Muḥammad himself) of Muslim names and the Arab tribal affiliation al-Fihrī both point to a descent tied to the early invaders of the peninsula. The name Ibn Abī Randaqa, on the other hand, like the location of Tortosa close to the border between al-Andalus and Christian Spain, as well as its fate during the eleventh and early twelfth centuries, points to the complexities of the inter-religious and inter-cultural reality of life on the frontier. Ibn Khallikān tells us that “Randaka [he spells out the vocalization of all the letters in the name] is a Frankish word. I asked a Frank about it and he said that its meaning is ‘come here’”.¹

Al-Ṭurṭūshī left his home town early for studies elsewhere in al-Andalus and soon moved to the East, where he spent the rest of his life, dying in Alexandria probably in 520/1126.² In the biography devoted

¹ See Ibn Khallikan, *Kitab Wafayat al-A'ayan*, vol. 1, pp. 671-672, at the end of the entry, where the author also notes the location of Tortosa, “on the edge of the lands of the Muslims”; see also id., trans., *Ibn Khallikan's Biographical Dictionary*, vol. 1, p. 667, where the words are transliterated as “radd taal”, and, the translator says, “mean render, come hither, and may be held as equivalent to the Spanish words *renda-se aca*, which Ibn Khallikān and his Frank seem to have considered as the original whence *Randaka*, or *Rendaqué* according to the Moorish pronunciation, was formed.” This is not easy to understand, or to accept. We are not given the correct, or any, vocalization of the first of these two Arabic words. It is unclear why we should understand an <é> vowel at the end of Randaqa. We are not told why the first word should mean “come”, or *renda(-se)*? Even if it does, then it seems more likely that each word should be understood as meaning “come”, neither as meaning here/hither. More relevantly here, why should such a meaning, whatever form it takes, serve as the basis for some kind of name, or nickname? What do the elements “Ibn” and “Abī” suggest? While Ibn Khallikān may well have asked some “Frank”, for help, there can be no certainty about the relevance or reliability of anything that Frank may have told him. Dozy, *Supplément aux dictionnaires arabes*, does not have it. Corriente, *A Dictionary of Andalusī Arabic*, does not appear to notice it either. The difficulties remain.

² For his biography see *EP*, vol. 10, pp. 739-740, *s.nomine* (by A. Ben Abdesslem); the entry on him by al-Dhahabī, *Siyar*, vol. 19, pp. 490-496, no. 285, has, in the note on p. 490, a list of other Arabic biographical sources on him. And see above all Fierro's introduction to her translation of Abū Bakr al-Ṭurṭūshī's *Kitāb al-Ḥawādith wa-l-bida'*, pp. 17-107 (hereafter Fierro, *Ḥawādith*); also Fierro, “Al-Ṭurṭūshī, Abū Bakr”, in *Biblioteca de al-Andalus*, vol. 7, pp. 500-531; for the date of his death, see the various possibilities at Fierro, *Ḥawādith*, pp. 24-25.

to him in the *Siyar*, al-Dhahabī includes a short autobiographical passage quoted from the subject himself. It runs as follows:³

He entered Baghdad in the lifetime of Abū Naṣr al-Zaynabī, and I think heard from him.⁴ And he said: I saw there a sign (Ar. *āya*) in the year [4]78/29 April 1085-17 April 1086 after the hour of afternoon prayer (Ar. *‘aṣr*). We heard a heavy noise, and darkness came, and suddenly there was a wind the like of which I had never seen, black and thick, you could actually make out its body (Ar. *yabīnu laka jis-muhā*), and the day grew dark. Its traces disappeared, so did that of the sun. And we stayed like that in the thickest darkness, (so that) one could not see one’s hand, and the people got excited, and we had no doubt but that it was the Resurrection, or an eclipse,⁵ or some punishment that had come upon us, and things stayed that way for as long as it takes for bread to be well cooked, and then the blackness turned to red, like the flame of a fire, or embers that are catching alight, and we had no doubt then but that it was a fire sent by God upon his servants, and we despaired of salvation. Then it stayed (like that) less than the length of time that the

³ Dhahabī, *Siyar*, vol. 19, pp. 490-496, no. 285.

⁴ Fierro, *Hawādīt*, pp. 38-39, is confused here. She reports that the biographical sources mention another teacher called Abū Naṣr al-Zaynabī, and, telling us that the only possible identification is with someone who lived too late to be a possible candidate here (al-Qāsim b. ‘Alī b. al-Ḥusayn; died 563/1168; she cites Kahhāla, *Mu‘jam al-Mu‘allifīn*, vol. 8, p. 107), suggests that man’s father, who had a different *kunya* (Dhahabī, *Siyar*, vol. 20, pp. 207-208, no. 131, Abū al-Qāsim ‘Alī b. al-Ḥusayn b. Muḥammad b. ‘Alī al-Hāshimī al-‘Abbāsī al-Baghdādī al-Zaynabī, 477/1084-85 – 10 Dhū al-Ḥijja 543/late April 1149, having served as *qādī al-quḍāt* in Baghdad since 513/1119-20). Given this man’s birthdate and the fact that al-Dhahabī thinks al-Ṭurtūshī “heard from him”, he seems unlikely too, as he was only about one year old when al-Ṭurtūshī arrived there. In fact, the identification is not so difficult. Abū Naṣr al-Zaynabī is Abū Naṣr Muḥammad b. Muḥammad (sic) b. ‘Alī b. Ḥasan b. Muḥammad b. ‘Abd al-Wahhāb b. Sulaymān b. Muḥammad b. Sulaymān b. ‘Abd Allāh b. Muḥammad b. al-Imām Ibrāhīm b. Muḥammad b. ‘Alī b. al-Baḥr ‘Abd Allāh b. al-‘Abbās al-Hāshimī al-‘Abbāsī al-Zaynabī al-Baghdādī; see Dhahabī, *Siyar*, vol. 18, pp. 443-445, no. 228. He lived from Ṣafar 387/February-March 997 to 21 Jumādā II 479/10 October 1086. Depending on when in the year 478 he arrived in Baghdad, al-Ṭurtūshī could thus have studied with him for as long as a year and a half – up to all of 478 and almost the first half of 479. Another Abū Naṣr al-Zaynabī (al-Yasa‘ b. Zayd b. Sahl; *ibid.*, XII, 633, no. 253) lived in the third Islamic century,

⁵ Ar. *kh.s.f.* This is the Arabic verb normally used for lunar eclipses, not solar, though a solar eclipse seems to be the intention here (“the day grew dark. Its traces disappeared, so did that of the sun”). Solar eclipses use the verbal root *k.s.f.*, not *kh.s.f.* However, Lane’s entry for *k.s.f.* (the root for the verb for solar eclipses, not that used here) shows that the situation is rather more complex than this suggests. Although there is a formal distinction between the two words and their applications, and generally speaking the root *k.s.f.* is used for solar eclipses and *kh.s.f.* for lunar, nevertheless in practice either word can be used to refer to the eclipse of either heavenly body; furthermore, one can be used for partial loss of light from one of them and the other for total loss of its light; or vice versa (Lane, *An Arabic-English Lexicon*, p. 738, *s.radicē kh.s.f.*). Given the related meanings and the close similarity in the roots, this situation is not surprising.

darkness had lasted, and then it became clear, with praise to God for (our) safety, and the people looted each other in the markets, and grabbed turbans and goods. Then the sun rose and stayed for an hour (Ar. *sā'a*) until sunset.

Al-Ṭurtūshī's account is dramatic, all the more so for occurring in a biographical dictionary, generally among the drier and less exciting of Arabic literary genres. The noise and the heavy wind and the thick, almost palpable darkness at the start made him think that the end of the world, the hour of resurrection (Ar. *al-qiyāma*), had arrived; those around him shared that feeling. Then he calmed down a bit and thought rather in terms of an eclipse – the sun had become invisible – or possibly of some divine chastisement. Some time passed – the time it takes for bread to be well cooked, maybe a quarter of an hour or so – and the darkness gave way to heavy, flame-like redness in the air.

People still thought in terms of a castigation from heaven, reminiscent of the punishments described in the Qur'ān, and realized that they had no hope of salvation. However, more time passed, though less time than before, and nothing else happened. At last the air became clear again. As a result, people did what people do: they started looting each other's shops in the markets, grabbing turbans and goods. Finally, the sun re-appeared and stayed up for the hour remaining before sunset. This last fact places the event in the late afternoon, though as we do not have the month we cannot know the season and in consequence just how late in the day this was.⁶ The event may have lasted for the one and a half or two hours before sunset.

Short as it is, this is a text of great potential value. Like all texts relating human experiences of natural phenomena, it adds to our knowledge and, if used aright, can be put together with other sources to deepen our understanding of what happened. What, however, is being described here? Maribel Fierro, who published a translation of al-Ṭurtūshī's *Kitāb al-Ḥawādith wa-l-bida'* in 1993, discussed this passage in a long biographical study of the writer in her introduction to that work.⁷ She sees this (i) as a reference to a solar eclipse, not so much because of the use – which would as we have seen (in n. 5) be unusual – of the word *khasf*, but rather because of the reference to the sun dis-

⁶ Though see below.

⁷ Fierro, *Ḥawādith*, Section 4.3, p. 34.

appearing. While she reports that she has been unable to find a reference to such an eclipse, (ii) she understands al-Ṭurṭūshī to be describing his experience as one of an eclipse.⁸ Building in part on this passage and her understanding of its description as being of an eclipse, she goes on to suggest a “curious similarity” between al-Ṭurṭūshī and Muḥammad Ibn Waḍḍāḥ, of the end of the third/ninth century. In particular, she suggests (iii) that it contributed to his decision to seek a life of piety and asceticism; and, further, (iv) she associates the story with another story, about Muḥammad Ibn Waḍḍāḥ, implying a parallel between the sets of information that we have about the lives of these two men.

In what follows, I take issue with Fierro’s analysis of al-Ṭurṭūshī’s account. I argue that (i) what occurred was not an eclipse; (ii) it was not perceived as such by al-Ṭurṭūshī; therefore, (iii) it could not have had any effect on his decision to adopt a life of piety and asceticism; and lastly, (iv) because of this, we can not see this story as offering material to support a thesis about a set of parallels between al-Ṭurṭūshī and Ibn Waḍḍāḥ. That thesis in consequence falls.

It would be good if this were an eclipse, for a new testimony, particularly with the thickness of detail offered here by al-Ṭurṭūshī, would be a genuine gain. Eclipses, however, are not like many other natural phenomena. Storms and floods, earthquakes and volcanic eruptions and other such events are by their nature largely unpredictable and historical references to their occurrence often preserve the only record of them beyond geographical or archaeological traces of their effects. Pompeii and Santorini are important (not only) because of their rarity. Most such events are under-recorded in nature. Therein lies a large part of the value of written records.

Eclipses, by contrast, are entirely predictable. This is because they are the product of the movements in relation to each other of the earth, the moon and the sun. These have been well studied for millennia. Thales was famous in the sixth century BCE for predicting a total solar eclipse, probably that of 585 (and allegedly making money out of his knowledge).⁹ The result of such study is that we both know (with a de-

⁸ Fierro, *Hawādīt*, p. 34, n. 86.

⁹ The reliability of the story is not wholly above doubt. See, e.g., Panchenko, “Thales’ Prediction”, pp. 276-288; Stephenson and Fatoohi, “Thales’ Prediction”, pp. 279-282. Thales’ prediction of an eclipse arouses almost as much scholarly interest as the star of Bethlehem, and the literature mounts.

gree of accuracy for the distant past that is highly impressive, at least to the non-specialist) when eclipses have occurred and will occur and also have good records of a great many historical eclipses.¹⁰ We also have lists and tables showing such detail as where and how much they are visible, for not all are visible or visible to the same degree everywhere. In pre-World Wide Web days Schove and Fletcher published a book-length table of eclipses and comets;¹¹ and more recently, taking advantage of computerization, the United States National Aeronautics and Space Administration (NASA), has made available catalogues and tables for all kinds of eclipses, both solar and lunar, running from 1999 BCE to 3000 CE.¹²

These tables and lists make it possible to check whether what al-Ṭurṭūshī experienced was in fact an eclipse of the sun. Using the NASA tables, we can see that there were several solar eclipses around the year 478/29 April 1085-17 April 1086:

1. 2 October 1084
2. 26 February 1085
3. 28 March 1085
4. 23 August 1085
5. 16 February 1086
6. 12 August 1086
7. 1 August 1087

¹⁰ Fierro, *Hawādīṭ*, draws attention to a text describing a total solar eclipse that took place on the last day of the Islamic year 471/1079, written by the Sevillian scholar Ibn Mu‘ādh, surviving only in Hebrew translation. See further on this Wasserstein, *Rise and Fall of the Party-Kings*, p. 285, n. 29 (to p. 284). But this, of course, is of little help on this occasion – the eclipse in question took place far away from Baghdad, and a number of years earlier. For astronomical knowledge in al-Andalus earlier see Vernet, *Lo que Europa debe al Islam*, esp. p. 118, with reference to Vendrell, *El comentario de Ibn al-Muṭannā*; see also Goldstein, *Ibn al-Muthannā’s Commentary*, esp. pp. 120-142, on Solar Eclipses. And above all, Samsó, *Las ciencias*, index, for Ibn Mu‘ādh, Ibn al-Muthannā and al-Khwārizmī.

¹¹ Schove and Fletcher, *Chronology of Eclipses*. This in effect replaced for many purposes the great *Canon der Finsternisse* of Theodor von Oppolzer (1887).

¹² Generally, <https://eclipse.gsfc.nasa.gov/eclipse.html>; for solar eclipses see <https://eclipse.gsfc.nasa.gov/SEcat5/SEcatalog.html>; for lunar see <https://eclipse.gsfc.nasa.gov/LEcat5/LEcatalog.html> (Newer versions of these are at <http://www.eclipsewise.com/solar/JSEX/JSEX-AS.html>, for solar eclipses; and at <http://www.eclipsewise.com/>

The NASA tables also allow us to know which eclipses were visible in Baghdad. Of those in our list, No. 1 was visible in Baghdad but is out of range in terms of date; Nos. 2 and 3 are out of range in terms of date and were not visible in Baghdad; No. 4 fits into the date range but it was not visible in Baghdad; No. 6 is out of range in terms of date and was not visible in Baghdad; and No. 7 is out of range in terms of date.

This leaves only No. 5, the eclipse of 16 February 1086/28 Shawwāl 478.¹³ The date of this eclipse lies within the year 478 H. and it was visible in Baghdad. It began at 16:44 local time, reached its maximum at 17:40 and ended at 17:51, for a total time of approximately an hour and 7 minutes. Could it have been seen and described for us in this passage by al-Ṭurṭūshī? Several reasons come together to make this doubtful. First, and most importantly, al-Ṭurṭūshī tells us that after the event came to an end the sun re-appeared for an hour or so before finally setting for the day. However, we know from the modern tables that this eclipse ended at 17:51.

When was sunset on that day? Again the internet comes to our aid: if we ask when sunset is on a given day in Baghdad (or anywhere else) the internet immediately tells us. Thus, for the place and day I am writing this, Nashville, Tennessee, on 12 August 2018, the result is 7:41 p.m. If we ask for the time of sunset for a different place or a day far in the past, it gives us that too. Thus for Baghdad today, it gives us today's date and the time 6:52 p.m. For Baghdad on the same date in 1700 it gives us that date and the time 6:49 p.m. And for Baghdad on 16 February 1086 it gives us the date 10 February 1086 and the time 5:47p.m.

It gives us what at first sight looks like a mistaken date, 10 February 1086, instead of 16 February 1086. If we want the date of 16 February 1086 we have to play around and ask eventually for 22 February 1086. The reason for this is not a bug in the system but simply that by the

lunar/JLEX/JLEX-AS.html for lunar). I am grateful to Dr. Fred Espenak, emeritus astrophysicist at the National Aeronautics and Space Administration/Goddard Space Flight Center, for directing me to these latter websites.

¹³ JavaScript Solar Eclipse Explorer (<https://eclipse.gsfc.nasa.gov/JSEX/JSEX-index.html>) Cat. No. 07329. The parallel Lunar Eclipse Explorer (<https://eclipse.gsfc.nasa.gov/JLEX/JLEX-AS.html>) is unhelpful here: it also shows a single eclipse visible in Baghdad in 478/29 April 1085-17 April 1086. This is Catalogue No. 07427 of 1085 Sept 6 (13 Jumādā I 478). It began at 13:58; totality began at 15:49; totality ended at 17:28; and the eclipse ended at 19:19 (long after sunset).

latter half of the eleventh century a difference of some six days had grown up between the date as determined by the Julian calendar (introduced by Julius Caesar a millennium earlier) and what we may term the real date. It took until the introduction of the reforms of the Gregorian calendar, beginning in the sixteenth century (earlier in some countries, later in others, e.g., in Britain in 1752, where reactions included riots with crowds allegedly calling out “Give us our Eleven Days”,¹⁴ and in Russia, where the reform was introduced only in the twentieth century, following the so-called “October” – in reality November – Revolution), for the calendar in daily use and astronomical reality to come back into a sound relationship, giving us the calendar in universal use today.¹⁵ In the eleventh century the difference was about six days. Thus the difference between 16 and 10 February. The difference between the sunsets of 10 and 16 February in 1086 was in any case very small. It meant that sunset on the day of the eclipse occurred within a minute or so of the end of the eclipse. And that means that there was not an hour of sunshine, if the event was as described by al-Ṭurṭūshī, between the end of the eclipse and sunset. That alone excludes the possibility of an identity between this eclipse and what al-Ṭurṭūshī describes.

Other features of the story support this conclusion. First, as anyone who witnessed the great total eclipse of the sun of 21 August 2017 can confirm, the day does not actually grow dark when the sun is eclipsed. The light becomes slightly less strong, as at twilight or around dawn, but that is all.

The most signal difference, however, lies in the description of the atmospheric and physical conditions in al-Ṭurṭūshī. Al-Ṭurṭūshī’s description in fact fits perfectly with a completely different kind of event, a weather phenomenon well known in the Middle East. He mentions a loud noise, heavy darkness, wind, lasting for quarter of an hour or so; this was followed by more of the same, for a further quarter of an hour,

¹⁴ For an illustration of the slogan, see William Hogarth’s “An Election Entertainment”, No. 1 of the four-part series “Humours of an Election”, published in 1755, available online at the Wikipedia entry for “Humours of an Election”; and in print in Paulson, *Hogarth*, vol. 2, p. 192, Plate 248. The placard showing the slogan lies under the feet of the man sitting on the floor, front centre right, and is scarcely visible, but it can be seen with a magnifying glass.

¹⁵ See most enlighteningly Blackburn and Holford-Strevens, *The Oxford Companion*, pp. 683-688, with 372-373, 221.

except that the darkness turned to redness before a final return to normalcy, about an hour before sunset. All this conforms to the weather phenomenon known as the simoom (or simoon). The word itself is Arabic, related to the root *s.m.m.*, which gives us the word *samm*, poison, encouraging in some observers the notion that the name of the simoom derives from and points to its effect. Lane, in his great *Lexicon*, tells us that the word is feminine, means either a hot wind or a cold wind (though he suggests that the latter is an error), and explains it as¹⁶

a violent and intensely-hot wind, generally occurring in the spring or summer, in Egypt and the Egyptian deserts usually proceeding from the south-east or south-south-east, generally darkening the air to a deep purple hue, whether or not (according to the nature of the tract over which it blows) accompanied by clouds of dust or sand, and at length entirely concealing the sun; but seldom lasting more than a quarter of an hour or twenty minutes.

Wensinck, in the *Encyclopaedia of Islam*, is less picturesque, but more detailed:¹⁷

a hot wind of the desert accompanied by whirlwinds of dust and sand, and set in motion by moving depressions which form within the trade winds of calm zones of the high, subtropical depressions... especially characteristic of the Sahara, in Egypt, in Arabia and in Mesopotamia.

More modern visitors and writers offer similar descriptions. In the nineteenth century, Richard Burton refers to the simoom in his *Personal Narrative*;¹⁸ so does Lane, again, in his *Manners and Customs*:¹⁹

Egypt is also subject, particularly during the spring and summer, to the hot wind called the “samoom,” which is still more oppressive than the khamáseen winds, but of much shorter duration, seldom lasting longer than a quarter of an hour or twenty minutes. It generally proceeds from the south-east, or south-south-east, and carries with it clouds of dust and sand.

Perhaps the best description, however, comes earlier, in the eighteenth century, in James Bruce’s Abyssinian travels:²⁰

¹⁶ Lane, *An Arabic-English Lexicon*, p. 1420.

¹⁷ Wensinck, “Samūm”, *EP*, vol. 8, p. 1056.

¹⁸ For Richard Burton, see his *Personal Narrative*, vol. 1, p. 265, n. 1; vol. 2, p. 69.

¹⁹ Lane, *An Account*, p. 2 (his account here is closely parallel to what he reports in the *Lexicon*).

²⁰ Bruce, *Travels*, p. 360.

As we were advancing, Idris suddenly cried out, "Fall upon your faces, for here is the simoom!" I saw from the south-east a haze come, in colour like the purple part of the rainbow, but not so compressed or thick. It did not occupy twenty yards in breadth, and was about twelve feet high from the ground. It was a kind of blush upon the air, and moved very rapidly, for I scarce could turn to fall upon the ground, with my head to the northward, when I felt the heat of its current plainly upon my face. We all lay flat on the ground, as if dead, till Idris told us it was blown over. The meteor or purple haze which I saw was indeed past, but the light air that still blew was of a heat to threaten suffocation.

So too, though from more of an armchair perspective, another Scot, James Bell, writes of the "Semoum":²¹

The winds which blow over the desert are of a dry, hot, and suffocating nature, ... The most dreaded of all winds is the famous *semoum* or *samiel*... which prevails in the desert bounded by Bassora, Bagdad, Aleppo, and Mekka, and the effects of which are suffocation and immediate putrefaction of the body.

More recently, Charles M. Doughty, in his *Travels*, gives an account of experiencing such a wind too:²²

A strong simûm one of these nights blew down upon us,^{3/4}it is the hot breath of the Tehâma flowing over the Harra: ... These hot winds, which the Aarab call thus, "infected," are common in the long summer half of the year;... I found the simûm the most days blowing in the high desert... and when all the atmosphere was on fire in the sun... Camels, it is said, may die, for want of breath, in the hot wind.

Another, only a little more modern, explorer, Wilfred Thesiger, in his famous memoir, *Arabian Sands*, gives an account of suffering from such a dust storm in the desert.²³ For the Iraq area in particular, sources are fewer, but for this we do have modern maps and statistical data, prepared by the Climatological Section of the Meteorological Department at Baghdad Airport in the years after World War II.²⁴ And stunning

²¹ Bell, *A system of geography*, vol. 4, pp. 230-231. For James Bell (1769-1833), who is not nearly so well known as Bruce or the other travellers, see the entry in the old *Dictionary of National Biography* (by C.H.C.) and that, with the date of birth corrected to 1770, in the new *Oxford Dictionary of National Biography* (by Elizabeth Baigent).

²² Doughty, *Travels*, vol. 1, p. 488.

²³ Thesiger, *Arabian Sands*, p. 322.

²⁴ See *Climatological Atlas*, with dust maps at pp. 141-153 (The work is available online, via the National Oceanic and Atmospheric Administration library, at ftp://ftp.library.noaa.gov/docs.lib/htdocs/rescue/cd024_pdf/005ED2C1.pdf; I am grateful to Katie Rowley, reference librarian at the NOAA library, Maryland, for her help in finding the bibliographical data for this work).

pictures (from above) of dust/sandstorms in the area of Iraq and the Persian Gulf, taken by NASA satellites, can now be seen online.²⁵

We do not yet have for the medieval Arab world a work like Emanuel Le Roy Ladurie’s *Histoire du climat depuis l’an mil*.²⁶ But we do have occasional material that goes some way to fill the gap. Thus, for the present case, we have a couple of passages in a source from close to the time in question. Ibn al-Jawzī (510/1126-597/1200) arranges his great *Muntazam* in the form of a biographical dictionary, with the subjects classified according to the dates of their death, and he prefaces each year’s notices of deaths with a short account of the events of the year. Under the year 478/1085-1086, he includes such information as that an earthquake occurred in Arrajān in the first month of the year, Muḥarram (May 1085).²⁷ In Rabī‘ I (July 1085), a baby boy was born to the caliph al-Muqtaḍī, and a few weeks later, in Jumādā I (September 1085), a plague began in Baghdad. More relevantly for our purpose, in the month Rabī‘ I (July 1085):

A great wind blew after the evening prayer, and the world grew dark and very gloomy, and there was a lot of thunder and lightning and great amounts of sand and dust landed on the roofs, and lights flared all over the heavens, and thunderbolts fell in al-Sinn and Bawāzinj,²⁸ and many palm trees were broken on the Nile, and boats were sunk, and many people were knocked over, and this continued until the middle of the night until they thought that it was the Resurrection. Then it cleared.

With the signal differences that it places the event after the evening prayer and that it includes places from a wide geographical span – Bawāzinj is “a town in the province of Mosul on the right bank of the Lesser Zab, not far from its mouth” (*EP*, vol. 1, 1110), and the Nile is

²⁵ See, e.g., https://archive.org/details/persian_tmo_2007137. Plenty of others are available at [https://archive.org/search.php?query=iraq+and+the+persion+gulf&and\[\]=mediatype%3A%22image%22](https://archive.org/search.php?query=iraq+and+the+persion+gulf&and[]=mediatype%3A%22image%22).

²⁶ Though see now, for a wider range of topics and a narrower chronological range, Mikhail, *Water on Sand*.

²⁷ See for this earthquake the apparently independent report in Suyūfī, *Kashf al-Sal-sala*, p. 35; trans. by Nejjar in Suyut’i, *Kashf aḥ-Ḥalḥala*, p. 21.

²⁸ Bawāzinj, recte Bawāzīj (the difference is simply a matter of the distribution of diacritical dots), is a Syriac diocese near Mosul (known in Syriac as Beth Wāziq). See *EP*, vol. 1, p. 1110 (E. Herzfeld); Ibn Ḥawqal, *Configuration de la Terre*, vol. 1, pp. 219-220, vol. 2, 238-239. There is also an entry for it in Yāqūt (see next note), vol. 1, p. 750. For al-Sinn, see *ibid.*, index.

presumably a reference to Egypt, while the point of view of the author as narrator seems to be Baghdad itself – this looks very like what we have from al-Ṭurṭūshī. However, Ibn al-Jawzī has more. In the month of Jumādā II (October 1085), he tells us:

a black wind blew and the heavens grew dark, and during that time fire and dust like mountains came between the heavens and the earth, and it cleared and (we found that) many people and animals had died, and thieves entered the baths and took the people's clothing, and they plundered the markets, and boats sank, and the top of the minaret of Bāb al-Azaj fell off.

Which of these is more relevant for al-Ṭurṭūshī? Both of these descriptions match closely what we have in al-Ṭurṭūshī's account. But the latter one seems closer to al-Ṭurṭūshī, partly because of the reference to plundering of people's property, but especially because the reference to Bāb al-Azaj locates the event in Baghdad: Bāb al-Azaj is a huge quarter in the east of Baghdad, which produced numerous men of learning.²⁹ Either way, however, what we have is an account of a severe weather event in Baghdad in the year to which al-Ṭurṭūshī's autobiographical note ascribes his experience.

This is less surprising an interpretation of what al-Ṭurṭūshī describes than we might think. Whatever the effect on those who see it may be, an eclipse is no more than a covering of one celestial body by another or by the shadow of another. What al-Ṭurṭūshī describes, on the other hand, is something far more terrestrial than astronomical. The only reference in his text to matters heavenly is the passing remark that people thought that what was happening might be, among other possibilities, an eclipse (the sun did, after all disappear from sight). But that is listed only as one possibility among others, and is clearly not intended as a serious product of scientific observation or study.

We can arrive at a closer approximation, if not to the date at least to the time of day when the event occurred. Al-Ṭurṭūshī tells us that the event took place after the *'aṣr*, the time of mid-afternoon prayer. The rules for determining the time of this prayer are fairly complex, but

the *'aṣr*, according to the Shāfi'ees, Mālikees, and Hambel'ees, is when the shade of an object, cast by the sun, is equal to the length of that object, added to the length of the shade which the same object casts at noon; and, according to the

²⁹ See the entry on it at Yāqūt, *Geographisches Wörterbuch*, vol. 1, p. 232.

Hanafees, when the shadow is equal to *twice* the length of the object added to the length of its mid-day shadow.³⁰

However, since we know that sunset took place about an hour after the end of the event described here by al-Ṭurtūshī, this suggests that the time of the simoom lay between late afternoon and early evening.

Our passage is of importance on several grounds. First, it is autobiographical. What it tells us is, not surprisingly, something a little out of the ordinary, an anecdote about the man’s life that one might expect to come from the man himself rather from the larger context or the outward circumstances of his life. But we are not told where it comes from, whether it is an orally transmitted piece of information, coming down a line of transmitters from the man himself to al-Dhahabī (or his immediate source), or occurs in one of the man’s voluminous writings.

Although it begins with the word *qāla*, “he said”, it is not clear whether it is from an oral source or from a written text by the man himself. The word *qāla* does not, especially by the time of al-Dhahabī, require us to imagine actual speech, as distinct from expression in writing, any more than the words “say”, “said” in English demand that we understand actual speech as against writing (“Gibbon, in *The Decline and Fall of the Roman Empire*, says that...”). Al-Dhahabī does not tell us his source. He says that al-Ṭurtūshī “entered Baghdad in the lifetime of Abū Naṣr al-Zaynabī, and I think heard from him”, and then goes straight into the quotation given above. This if nothing else supports the identification of the Zaynabī mentioned here as the one who died in the year following al-Ṭurtūshī’s arrival in Baghdad, but it also tends to confirm the correctness of the date 478 in the sentence that follows.

What then is the character of this autobiographical anecdote in the words of al-Ṭurtūshī? It is not attributed by al-Dhahabī to any written work, in particular not any autobiographical work, by al-Ṭurtūshī himself, nor to any oral source. Among the many works by al-Ṭurtūshī listed or identified by Maribel Fierro, one offers a possible source. This

³⁰ Lane, *An Account*, p. 60, n. 4; at p. 201 Lane gives some actual times, for Cairo. See also Lane, *An Arabic-English Lexicon*, p. 2062, col. b, sub voce ‘aṣr, where Lane tells us much the same, adding only that the time “commences about mid-time between noon and nightfall”. For modern aids to determination of the time of ‘aṣr, see https://en.wikipedia.org/wiki/Salah_times#Time_calculation; and <http://praytimes.org/calculation/>.

is a book of *Fawā'id*, not extant today. Fierro describes *Fawā'id* as in general collections of anecdotes, some autobiographical, and suggests that the genre was popular at the time. She adds, however, that it is unclear who might have compiled such a collection, the subject of the collection himself or one of his disciples.³¹ In the present case, of the *Fawā'id* of al-Ṭurṭūshī, she tends to the latter option, but that of course, especially as the work itself seems not to have survived, need have no bearing on the background of this specific anecdote. It may have the *Fawā'id* of al-Ṭurṭūshī as its source or it may come from some other work, known or unknown. It may even have come down to al-Dhahabī via an oral transmission. Whatever its background, it does not seem to play a very significant role in the writer's work. That suggests that we should not perhaps attribute to it too much significance.

Why does this matter? Fierro sees the passage as an account of an eclipse; al-Ṭurṭūshī's reaction as recognition of it as an eclipse and, hence, as some sort of divine sign (*āya*) and therefore as one of the things that induced him to seek a life of austerity and piety. She suggests, perhaps in support of her argument, that there may be a Qur'ānic echo ("Creo que parafrasea Corán XVII, 107") in the expression "permanecieron las tinieblas menos de un poco" (sic; Ar. "*thumma makathat* [scil. *al-nār*] *aqalla min mukth al-ẓulām*"). This seems exaggerated: the only connection between this expression and the Qur'ānic passage seems to be the presence in each of a word from the root *m.k.th*, a root that is otherwise unexceptional.³² That one word in the passage seems to echo a word that occurs in the Qur'ān might be taken to suggest a written original, but that is merely a possibility, by no means a certainty, given al-Ṭurṭūshī's extreme austerity and piety – he might well simply have been the sort of man to whom using expressions from the Qur'ān came as naturally as using biblical expressions used to be in English. And in any case, the presence here of a single word that also occurs in the Qur'ān scarcely justifies the suggestion of a Qur'ānic echo.

Fierro's proposal has its attractions, as contributing to building up a picture of the man as driven by his experiences to a life of asceticism. However, it is unnecessary and goes beyond what the evidence permits.

³¹ Fierro, *Hawādīṭ*, p. 57, no. 6.

³² This is the only occurrence of the noun from this root in the Qur'ān; there are six other occurrences of words from the same root. See the dictionaries.

As we have seen, this was not an eclipse; none was visible in Baghdad at the time in question and this description is not a description of an eclipse. Although his reaction did suggest that an eclipse was among the possibilities some people considered as an explanation, that need not be seen as anything more than a rhetorical flourish. Al-Ṭurṭūshī himself did not identify the event as an eclipse; and as to an inducement to a life of piety, we have nothing that hints at that. His account of it occurs only in a very isolated and out of the way passage in a single text associated with him, and there is nothing in it that otherwise hints at a link with the move to piety. In any event, al-Ṭurṭūshī was already well on the road to that very pious and austere lifestyle when this event occurred, and as we have seen he himself does not appear in this little text to attribute very much significance to it. The real value of the passage lies in its contribution to our materials for the history of weather a millennium ago in the middle east.

One further conclusion seems justified. Fierro suggests that there is a “curious similarity” between al-Ṭurṭūshī and the third/ninth-century Cordoban *‘ālim* Muḥammad ibn Waḍḍāḥ.³³ They both, she says, composed treatises against innovations, and for both the experience of a solar eclipse was decisive (she also adduces elsewhere “some experiences suffered by al-Ṭurṭūshī that appear to have provoked in him a spiritual crisis: the eclipse of the sun in Baghdad and the voice that reproached him for having allowed himself to fall asleep in the mosque in Jerusalem”)³⁴. The latter example, along with another that she reports in the same place, may possibly have had such an effect – they are more properly to be seen as religious experiences. The first, however, the eclipse of the sun, happened only in the case of Ibn Waḍḍāḥ.³⁵ As we have seen, al-Ṭurṭūshī witnessed no eclipse in Baghdad, and we have no record in the text by al-Ṭurṭūshī himself that he understood what he experienced there to be anything of the sort. The similarity between the two writers thus boils down to the single fact that both wrote treatises against innovations.

³³ Fierro, *Ḥawādīṭ*, p. 34.

³⁴ Fierro, *Ḥawādīṭ*, p. 83.

³⁵ For references to the event and to the participation of Ibn Waḍḍāḥ in special prayers on that occasion, see Fierro’s introduction to Muḥammad b. Waḍḍāḥ al-Qurṭubī (m. 287/900), *Kitāb al-Bida’*, p. 15. In fact, the story about Ibn Waḍḍāḥ is also demonstrably invented. I propose to study the problems raised by this story separately.

Our sources for the middle ages, even the Islamic middle ages, are very limited, so we are often compelled to squeeze them hard in order to extract the little juice that they contain. Al-Andalus is no exception to the general rule where sources are concerned. Little stories and anecdotes from or about the people we are interested in often have much to tell us. Sometimes, they do no more than expand the broader picture of that we are studying. And sometimes, as this case may well demonstrate, a story is just a story.

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