Was Muscat hit by a tsunami in 1723? Historical evidence and geological data on palaeo-tsunami in Oman

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• Recent additional research in the archives: evidence of “heavy rains”, which discredits the hypothesis of a tsunami.

• August 1723: Muscat hit by a powerful natural disaster: almost certainly a tropical storm or a cyclone.
• Storm surge, heavy destructions.
• Some records state that “earthquake(s)” followed the storm.

• 1723 disaster not recorded in studies of natural hazards. Only briefly in a few history studies.

• New evidence discovered in the Portuguese archives (Lisbon and Goa).

• Evidence overall reliable: Portuguese networks of trade and intelligence.
• Omani and Dutch records, travel accounts: event not mentioned.
• Heavy destructions in the bay of Muscat and around:
  - Numerous ships sunk, destroyed or damaged,
  - small Portuguese bastion (Sirāt al-Gharbiya) on the western side of the bay pulled down,
  - part of the town wall destroyed,
  - unknown number of domestic buildings destroyed.

Engraving of Muscat from the voyage of E. Kaempfer in 1688
in A. Bocarro, *O livro das plantas de todas as fortalezas* [...], ca. 1635
French report written in Bandar-Abbas, September 25 1723:

Padéry to Dubois, Bandar-Abbas, 25.09.1723, Ministère des Affaires Etrangères, archives diplomatiques, MAE/CorrPol/Perse/vol. 6, doc. 91, folio 327.

Translation:

“[...] a great hurricane made to be destroyed during the last month of August in the port of Muscat 21 ships and various other big ships; the biggest ships were owned by this Republic; the remaining of their vessels which have not been submerged are out of order; [they] intend to send them to Surat for refitting; in the same time several houses have been ruined by the water of the heavy rains and more than two hundreds weapons have been submerged.”
“From Surat, I have received sure news according to which from the power of a big storm, and earthquakes, which occurred in Muscat, the Arabs have lost eleven big ships, and six small ones, which were in that port, and I am convinced that it was all their fleet [...] and was destroyed a great part of the walls of this town, and was submerged [or engulfed, q.v. *submergir*] the main bastion, which was at the bar [port entrance] for its defence, and that was burnt by the element of fire, which was seen with this same storm, a whole village neighbouring the wall of this same city. These pieces of news are brought to your Excellencies by João Gomes Febos, without doubt, considering the circumstances, they must be taken as certain.”
• Historical Archives of Goa, letter dated January 16 1724

Viceroy of Portuguese India to king of Portugal, Goa, 16.01.1724, Historical Archives of Goa, Livros das Monções 89, f. 450.

Published in A.B. de Bragança Pereira (ed.), Arquivo Português Oriental (nova edição), Bastorà (Goa), Tipografia Rangel, vol. 1-3-3, 1940, p. 201.

“From the aforementioned João Gomes Febos, and some people who came from Muscat, we still receive news of the civil wars which, since a long time, have been persisting in all Arabia Felix [i.e. Oman], [...] and to this disorder is added the one from a storm which in the bay of Muscat has sent to the bottom eleven ships, four belonging to the Imam, as well as a great number of terraquins belonging to traders, and which has destroyed a bastion, and in the inland lands have been destroyed some villages because of an earthquake [terramoto] which followed this storm.”

The underlined part might also be translated as “some villages were swallowed up by the earth because of an earthquake”.
“On the 6th of November [1723] the government received letters from the General of the North, Luís de Melo de Sampaio, who had been during this monsoon appointed by the King as General of Ormuz, the Strait [i.e. of Ormuz], and of the fleet of the open sea, with the piece of news that the port of Muscat was flooded [q.v. Port. alagar] by an inundation which made the seas rise and which demolished to the ground the main part of the fortress of Santo António, which in another times the Portuguese had built for the defence of this bar [port entrance], and that this ruin, combined with the devastation”.
• **Extreme wave event** explicitly mentioned:

  • “the port of Muscat was flooded by an inundation which made the seas rise and which demolished to the ground the main part of the fortress of Santo António.”

  • Studies of **storm surges** in Oman and NOAA IBTrACS tropical cyclone database (www.ncdc.noaa.gov/ibtracs):

    - storms over Oman and the North-western Arabian Sea have never been recorded in August,

    - storms in July and September also extremely rare (and none after mid-July).
in H.M. Fritz et alii, “Cyclone Gonu storm surge in Oman”, 2010
1723 disaster shows that unusual off-season storms must not be ruled out.

- Portuguese evidence: “earthquake(s)” => much probably an interpretation by distant informants of landslides and collapses due to flash floods and wadi flooding.
- But both Arabo-Persians and Portuguese aware of earthquakes and their effects => rather common and discussed in the erudite literature.
- Can we rule out totally the hypothesis of actual earthquake tremors?

- Besides Arabic and Persian evidence, need for research in the European evidence (accounts and archival records) ca.1500-1840: Portuguese Imperial records, Dutch records (VOC), English records (East India Company, French records (diplomatic records and East India Company), various accounts.
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