List of Fruits and Nuts in the Zoroastrian Tradition: An Irano-Hellenic Classification*

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Persian taste for the good things in life was well-known to the Greeks and the Romans. When it came to gastronomy Herodotus mentions that the Persians could become very fussy about eating (7.119). The order of seating and eating etiquette is amply mentioned by both foreign authors and the Persians themselves. This taste for the finer things in life is best evidenced in a Middle Persian text, Xusrō ud Rēdag (Xusrō and the Page),1 where the best kinds of meats, desserts, wines and fruits are mentioned. It is this last group, namely the fruits, that is a point of study here which is dedicated to the Persian savant, Houšang A’lam whose work on flora and fauna in the Encyclopaedia Iranica2 and the Great Encyclopedia of Islam3 is of immense importance.

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3. Many of A’lam’s Persian entries in this encyclopedia has been conveniently gathered in H. A’lam, Jostârâ’i dar târikh-e ‘ulûm dar dore-ye islâmí, Tehran, 1381.
The Greeks and the Romans knew that certain fruits that had entered the Mediterranean world were Persian in origin or came via Persia. The most famous of these was the pistachio and a kind of walnut known as *Persicum* (Pliny xv.86). In late antiquity the peach was known to the Romans as *Amygdalus persica*, and its tree was known as *Melea persike* or simply *Persike* (Pliny xv.44). In fact, most European languages associate the peach with Persia. But these were only a few items of the fruity world of the Persians, and the Chinese also associated a large number of fruits with Persia or as coming from Persia. The earliest comprehensive list of fruits appears in late antiquity where a distinctive botanical classification emerged which was based on the Zoroastrian worldview. In this worldview the plants and fruits in their ideal and primeval state were without skin or a protective layer, or thorn, and were sweet. But the evil spirit, Ahreman, had attacked the world and contaminated the sweet and tasty fruits. This is the reason that some of the plants or fruits have poison and cause death now, as all that Ohrmazd has created is good and beneficent and can not cause harm to anyone. These matters can be understood by looking at the great Zoroastrian encyclopedic work, the *Bundahišn* which dedicates its sixteenth chapter to plants and fruits.

The classification of the fruits is very interesting in that they are divided in such a way that “there are 30 kinds of principal fruits” mēwag (ī) mādāḡwar  sûh  ēwēnag. The 30 kinds of fruits then are divided into three categories, where “10 kinds of which the inside and outside are edible” dah ēwēnag andarōn ud bērōn šāyēd xwardan; “10 are edible outside but not edible inside” dah bērōn šāyēd xwardan ud andarōn nē šāyēd xwardan; and “10 are edible inside and not edible outside” dah ān ū andarōn šāyēd xwardan ud bērōn nē šāyēd xwardan (XVI.26). This division has been pointed out by J.P. Asmussen to derive from the *Hexaëmeron* of Jacob of Edessa who lived in the late seventh century CE. This division may well be indicated by Jacob of Edessa, but it may very well be that the material here and that of the classification is much older than the seventh century CE. It is

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more probable that the Zoroastrians had already codified these matters well before the fall of the Sasanians, as Jacob of Edessa was living in a time of great turmoil in Persia (640-708 CE) and the Zoroastrian priests could not have worked on these matters then.

While the 30 kinds of fruit classification may be a late antique tradition, all of such classifications go back to much earlier period. It is Aristotle who classifies fruits as "some (fruits) have rind outside and flesh inside, others flesh outside and seed inside; in other ones comes immediately upon the seed with the envelope which encloses." Aristotle's pupil, Theophrastus, worked further on botany, publishing De historia plantarum (History of Plants) and De causis plantarum (The Reasons of Plant Growth). We know very little of the cultural and scientific contacts between Greece and Persia in the Hellenic age, but it is for certain that works in Greek were commissioned by the Arsacids (247 BCE-224 CE). We should not forget that another great botanist, Dioscoride had written an illustrated work on botany whose Arabic translation is in existence, but which could have reached Persia before the advent of Islam.

The streaming of Greek knowledge into Persia in late antiquity is well attested by the Zoroastrian tradition itself where works on astronomy (star-ôšmârîšm), geometry (zamîg peymânîh), physics (êîhr-šnâšîh), philosophy (ţîlásôftîh), and probably botanical sciences (ûrwar-šnâšîh) were influenced by Greek, Indian and Chinese works. Where there are discrepancies between Greek and Zoroastrian doctrines in Middle Persian...
texts, Zoroastrian logic and science always prevailed. This is due to the fact that Zoroastrianism demanded respect for religion first and foremost something found in other religious traditions as well.\textsuperscript{11} What is impressive is that the Zoroastrians were able to somehow bring a \textit{modus vivendi} among such topics as philosophy, science and religion, while in other religious traditions of Late Antiquity and the Medieval period this effort unraveled.

We can pinpoint the periods for intense contact between Greek and Persian culture mainly with Šābuhr I in the third century and Xusrō I in the sixth century CE. According to the fourth book of the \textit{Dēnkard}\textsuperscript{12} king Šābuhr had the following sciences collected:

\textit{ahtar bisīkēh ud star-gōwišnīh ud čandišn ud zamān ud gyāg ud gohr ud jahīn ud bawišn ud wināsīn ud jadag-wiherīh ud gōwāghī ud abārīg kirīgīh ud abzīr andar hindōgān ud grōm ud abārīg-iz zamīgīhā pargan-dag būd}

on medicine, astronomy, movement, time, space, substance, accident, becoming, decay, transformation, logic and other crafts and skill which were dispersed throughout India, Rome and other lands.\textsuperscript{13}

Again during the rule of Xusrō I in the sixth century there was another and better documented effort to accumulate knowledge from outside of the Sasanian Empire. Emperor Justinian’s zealotry forced some of the pagan philosophers to leave their homeland. These were not any ordinary philosophers, but the most prolific and important the Eastern Roman empire possessed. They included Damascius of Syria and his pupil Simplicius who was the most prolific Aristotelian commentator at this time,\textsuperscript{14} along with other scholars. King Xusrō Anōšāg-ruwān was receptive of them and commissioned translations of philosophical works.\textsuperscript{15} One person above all,

\textsuperscript{11} Shaki 1970: 300.
\textsuperscript{12} Choksy 2004: 60.
namely Paul the Persian is important in this activity who translated Aristotelian works dedicated to the monarch, while another, Priscianus Lydus, wrote books on Aristotelian physics, theory of the soul, meteorology, and biology in Persia. It may be so that the philosophical material existing in the *Dēnkard* have their origins from this period. There are other materials that were brought to the Persian court at this time and the main reason for such an effort was that if there was to be a revitalized empire, it needed to be on par with its neighbors in terms of learning and the sciences. These matters appear to have very much occupied Xusrō I’s mind and he took important actions to secure and rejuvenate the Sasanian Persian Empire.

The botanical classification of the *Bundahišn* may be part of this influence from the West. Below, the section on fruits will be transcribed and translated, followed by notes to clarify this part of the great Zoroastrian encyclopedic work. This section of the *Bundahišn* is found both in the Iranian (TD1 fols. 48r-v; TD2 fols. 61r-v; DH fols. 191r-v) and the Indian *Bundahišn* (66r) which is the sixteenth chapter of Anklesaria’s translation, and F. Pakzad’s critical edition of the text. J.P. Asmussen’s English, M. Bahār and R. Behzādi’s Persian translations are compared and further suggestions given for the ambiguous readings.

mōwag (i) mūdawar sīh ēwēnag aziś dāh ēwēnag andarōn ud bērōn sāyēd xwardan ċiyōn anźir26 ud šēb ud bēh27 ud wāḍrăng28 ud āngūr29 ud tūr-bun30 ud urmēd31 ud mūn ān ān bērōn sāyēd xwardan ud andarōn nē sāyēd xwardan ċiyōn xormā32 ud šiftālūg33 ud zardālūg ud srinjad i was-gōnag ud kunūr34 ud ālūg35 ud šāl ud dāh ān i andarōn sāyēd xwardan ud bērōn nē sāyēd xwardan ċiyōn gōz36 ud wālāmī37 ud anār38 ud anārgēl39 ud pondīk40 ud šāhbalūt41 ud wan42 i ġurgānīg Ḷē pistag43-iz xwānēnd

26. Ficus carica; Laufier conjectured that the Chinese a-zi and *a-zir is derived from an Iranian word; compare Kurdish hežir (without n). Strabo (II.1.14) mentions of the large yielding Hyrcanian fig tree which gave one bushel and a half, see B. Laufier, Sino-Iranica, Chinese Contributions to the History of Civilization in Ancient Iran with Special Reference to the History of Cultivated Plants and Products, Taipei, 1919 (reprint 1967), pp. 410-412.

27. Cydonia vulgaris.
29. Viitis.
31. Also Persian armād, arūd.
32. Phoenix dactylifera; The Chinese were introduced to dates via the Sasanians known as is’en nien tsea “jujubes of thousand years,” and also known as Po-se tsao “Persian jujube.” The Persian word for date is also adopted in Greek χοορμᾶς; Albanian korme, but also eastward, Javanese karna, Malayian, Dayak and Sunda korma, Laufier 1919: 385-386.
34. Ziziphus.
35. Prunus domestica.
36. Jugland; another form of this fruit is known as Juglans regia “Royal walnut,” i.e., Persian walnut.
37. Amygdalus communis.
38. Asmussen has forgotten to transcribe the word and only mentions it in the translation and this is because it appears in the Indian Bundahīšn and Pazand version, see Behzādī 1368: 189, n. 83.
39. Cocos; In Middle Persian it is also known as gōz i hindāg “Indian walnut / nut,” see Xurō ud Rēdag (50), Monchi-Zadeh 1982: 74.
40. Hazelnut, Persian “fandagh” has its origins in the West, probably from the Pontic region, hence Middle Persian pondīk (Greek) xovrxov, Kurz 1983: 566.
41. Castanea; as opposed to Castanea sativa which is the European chestnut.
There are 30 kinds of principal fruits, ten kinds of which the inside and outside are edible: fig and apple and quince and Citrus medica and grapes and mulberry and pear and now another 10 are edible outside but not edible inside: date and peach and apricot and many kinds of oleaster and lote and plum and jujube and 10 are edible inside and not outside: walnut and almond and pomegranate and coconut and hazelnut and chestnut and the Hyrcanian tree which is also called pistachio.

Commentary
-wādrang: This fruit was identified by Theophrastus in the fourth-third millennium BCE as *Citrus medica* "Median apple" and also as *mēlon persikon* "Persian apple," and by Pliny in his *Historia naturalis* as *malus medica*. In Persian the fruit is also known as *bāzrang / bādrang, wārang, bālāng, and tōrang*, but the fruit appears to have come from India (compare Sanskrit *mātulwaṅga*). It is from Persian *torang* that it has found its way into Arabic as *toranj, otranj*, and in Hebrew as *troj*. Consequently in some medieval texts it is called *toffah ma‘t* which is a mistake based on Greek *mēlon medikon*, taking the region of Media (Māḏī) as *ma‘t* and so imagined as "watery apple." This fallacious idea has provided interesting traditions in the larger Iranian world, where for the Persian New Year celebration *beh* was placed in a water bowl and consequently called *sēh ī abī*.

-nūn any: Asmussen conjectures *nūn any* "now other" which was based on H.W. Bailey's suggestion to him (private letter), or *nūm pas" now onward"* supported by TD1 and TD2 which is rendered by the *Indian Bundahlān* as *abārīg az ēn ēwēnag*.^46^

-zardālug ud *srinjad ī was-gūnag*: Asmussen has read the second word as *srinjad / sinjad* "jujube" which is the wrong translation. The Persians have been known to suck on this fruit *sinjad mekidan*! and it is not a

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43. *Pistaca*.
44. Zizyphus spina-christi, A’lam 2001: 222.
jujube. As for first word Zardālūḡ it is certainly known as “apricot” (Arabic) mešmeš.\(^{47}\) The Indian Bundahišn provides spēd\(^{48}\) instead of srinjad. The problem is what to do with the next word sywk / synk?\(^{49}\) Anklesaria has read the fruit as zardālūḡ i spēd sinīg “the small apricot of white-breast.”\(^{50}\) One may follow Anklesaria’s suggestion in another manner. It is not uncommon in Middle Persian literature to identify a specific plant or fruit with a region to distinguish it from a similar fruit. For example “Chinese ginger” sinjiwēl i čīnīk (46);\(^{51}\) and “Indian nut” gōz i hindūg which refers to anārgūl (50).\(^{52}\) In Iran there is a fruit known as zard alī-ye mančūrī (prunus mandshurica koheime) “Manchurian apricot / peach,” which give us a further evidence for the fruit being mentioned.\(^{53}\) This matter brings to mind E. H. Schafer’s important work entitled The Golden Peaches of Samarkand, which mentions the golden peaches sent to China (sēn / sīn / čīn) from Samarkand were considered the proxies of all exotic goods in medieval China.\(^{54}\) One can take the fruit as zardālūḡ i spēd “white apricot,” as we have various kinds of apricot attested in Iran. In the Tārīkh-e Beyhaghi we get such a list “red Persian apricot, white, bolboli, satīdī, garmeh, bū’āmarī.”\(^{55}\) But this is a secondary suggestion. After zardālūḡ one may be able to read the next two words as srinjad i was-gūnag “many kinds of oleaster,” by minor emendation as Porouchani has done.\(^{56}\) Indeed there are many kinds of srinjad / sinjad and in English it is known as Russian olive.\(^{57}\)

Classical Persian hūlā is a kind of (Middle Persian) šafālūḡ (Persian)


\(^{48}\) Behzdī 1368: 189, n. 81.

\(^{49}\) Pakzad’s reading as sywk / sûγag, 2005: 217, n. 225.

\(^{50}\) Anklesaria 1956: 150.

\(^{51}\) Monchi-Zadeh 1982: 73.

\(^{52}\) Monchi-Zadeh 1982: 74.


\(^{55}\) Ṭārīkh-e Beyhaghi, Tehran, 1317, p. 279.


\(^{57}\) A’lam 2001: 222.
śaftālū which is also known as śaftālū-ye ārdī. 58 Here ārdī refers to the
color “white” of the peach. It is interesting that before our fruit in question,
which may very well be the famous Golden Peaches from Samarkand,
śaftālūg is mentioned which may support my suggestion. Another, more
remote possibility has to do with the region of Persia known as sīnak where
its fruit is cherished in Persia, hence śaftālū-ye sīnak / sīnakī.

-sāl: This word is particularly difficult to interpret. Asmussen suggests
that the word ddar could simply be a mistake for adar, i.e., xyūr
“cucumber.” 59 It is unlikely that cucumber, which should really be classified
as a vegetable, is making its appearance here. Pakzad is also uncertain of the
reading and leaves it as sīl / sgēl or sgēr and we have to wait for his notes and
translation. 60 If we look at the list we are dealing with they include
plums, peaches and apricots. If we read the word as sīl / sāl it may
connected with the fruit known today as sāl-zālak (reduplicated sāl?) which
is a kind of wild plum known as “hawthorn” or crataegus oxyacantha and
sometimes categorized as an apple or plum 61 which fits the context here in
our passage. I still would take Porouchani’s suggestion that the word is sāl
where in Hebrew sāl / Arabic dāl as “wild jujube” known in Persian as
ommāb-e bārri. 62

wan i gurgānīg / pistag: In the Xusrō ud Rēdag (51) it is mentioned as
bistag i gurgānīg “Hyrkanian pistachio.” This was the famous fruit which
the Greeks were introduced to in the Hellenistic period and was first planted
in Italy in the first century CE.

Conclusion
It appears that in the sixth century CE during the influx of information from
India and the Eastern Roman empire a large amount of scientific
information came into Iran. Under the patronage of Xusrō I a campaign of
translation from Sanskrit and Greek into Middle Persian took place. One of
these new scientific approaches was in regard to the classification of fruits
and nuts, something that had begun with Aristotle in Greece and through the

Syriac intermediary it reached the Persian Zoroastrian priests and scholars. Consequently this Greek classification found its way in the Bundahišn. In many ways the Xusrō I model of a translation movement was copied in the ʿAbbasid period where many of the works which existed in Middle Persian were translated into Arabic. In the Arabic sources there are a few references to bayt al-hikma (house of wisdom, i.e. library) which, according to Ḥamza al-Iṣfahānī, was the Sasanian term for library,63 which may be rendered in Middle Persian as *handarz-xānaq. It was this bayt al-hikma which allowed for the seeping of Indic and more importantly Greek scientific knowledge into Sasanian empire.

This classification passed onto the Islamic world where according to Tabari64 and Masʿūdī65 these thirty kinds of fruits were given by God to Adam when he fell from paradise onto earth. These two Muslim Persian scholars provide a list of some of the fruits missing from the Bundahišn which thanks to Aʿlam have been identified as (I) melon xarboza; (II) fruit of doom palm moqi; yellow plum ṣāhlūj; and (III) opium poppy capsule, acorn, and banana.66 The Aristotelian classification persisted in Iran, but with an Islamic theological twist, and through the Zoroastrian Middle Persian intermediary.