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CARDAMOM
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CARDAMOM, *hel* in modern Persian (earlier *hīl*; arabicized as *hāl*; from Skt. *elā*), the aromatic seeds of several plants of the family Zingiberaceae.

Cardamom is mentioned in Zoroastrian literature under the name of *kākūla* (from Assyrian *gāqūlu* [Meyerhof, Ebn Maymūn, no. 116, n., p. 58] or Akkadian *qāqūlā* [Levey, Kendī, no. 226, pp. 313-14], both akin to Arabic *qāqol(l)a*) in the *Bundahišn* (TD_2, p. 118.6; tr. Anklesaria, chap. 16.21, pp. 150-51; English tr. of the *Indian Bundahišn* by E. W. West, *Pahlavi Texts*, pt. 1, SBE 5, p. 103) in a category of aromatics including frankincense, sandalwood, camphor, etc.

In the medico-pharmacological literature of the Islamic period, cardamom is usually dealt with under its common Arabic name *qāqol(l)a*. The following Persian, Arabic or arabicized names are also found: *hīl/hālbowwā/bawwā* (Pers. *hīl-e boyā/būyā*, lit. "sweet-smelling *hīl*," e.g., in Jorjānī, p. 619, s.v.) for a kind of cardamom (see below); *kīr-e boyā/būyā* (e.g., ibid., p. 637, s.v.), arabicized as *ḵīr-bawwā/bowwā* (e.g., in Ebn Sīnā, I, bk. 2, p. 464, s.v., ʿAqīlī Ḵorāsānī, p. 928, s.v., *Borhān-e qāṭeʿ*, ed. Moʿīn, II, s.v.; corrupted as *jarbawwā* [?] in Ebn Maymūn, no. 116, pp. 15, 58) for the same kind; *šūšmīr* (e.g., in Anṭākī, I, p. 220, s.v. *qāqola*; in Tonokābonī, p. 552, *šūšmīr* [?] = "the small *qāqola*"; cf. ʿAqīlī who gives *šūšmā* as the Syriac name of cardamom [p. 669, s.v. *qāqola*], but who elsewhere mentions *šūšmīr* as a "reportedly Greek" word [p. 950, s.v.]; corrupted as *šamšīr* [?] in Ebn Maymūn, loc. cit.).

The various cardamoms on the market are the seed pods or seeds of four genera of plants—*Alpinia*, *Amomum*, *Elettaria*, and *Renealmia* (Balfour, I, 3rd

ed., p. 580). The earliest distinction of cardamom varieties in the Islamic period is the one between *qāqola* and *hīl/hāl*(*-bawwā*), e.g., in Ebn Māsūya/Māsawayh (d. 243/857; pp. 9, 20), ʿAlī b. Rabban Ṭabarī (*Ferdaws al-ḥekma*, comp. 236/857; p. 398), Ebn Sarābīūn (3rd/9th cent.; nos. 260, 265, 426; see also below), Masʿūdī (d. 345/956 or 346; *Morūj*, ed. Pellat, I, pp. 194-95), and Abū Manṣūr Heravī (fl. ca. 370-80/980-90; pp. 258, 342). Ebn Sarābīūn, while adhering to this distinction, seems to have further distinguished between *hīl* and *hīlbawwā*. Similarly, Ebn Sīnā has, in addition to *qāqola* (loc. cit., p. 417, s.v.), a distinction between *hīl/hālbawwā* (p. 298, s.v.) and *ḵīr-bawwā* (p. 464, s.v.; Jorjānī [d. 531/1136] seems to have followed Ebn Sīnā in this trifold distinction: *qāqola*, p. 633, *hīl-e būyā*, and *ḵīr-e būyā*, loc. cit.). Concerning the difference between the two articles, in addition to a short statement about their medicinal properties, Ebn Māsūya, who includes them among his twenty-four *afāwīh* (aromatics, p. 9), furnishes a little information (p. 20; the following translation is done also with a view to the quotation from it by Bīrūnī, Ar. text, p. 299): "*Qāqola* comes after *harna/owa* [the fruit of agalloch, *Aloexylum agallochum* Lour.] as to fragrance, which is like that of camphor. It enters into [the composition of] women's perfumes. It is brought from *belād Sofāla* (the land of Sofāla). It [consists in] a grain [sic, *ḥabb*, probably meaning "seed pod"] like large chickpeas, sheathed [i.e., in a capsule], which, when crushed, produces small grains (like wheat grains). . . *Hāl-bawwā* is like the granules [i.e., seeds] of a crushed *qāqola*. It [also] is used in women's perfumes. It [also] is brought from the land of Sofāla" (Sofāla in these two cases may be taken to refer to the former Sofala district on the coast of southeast Africa, because the author specifies in the case of some other aromatics that they came from *Sofālat al-Hend* "Sofāla in India").

Later, most probably as an influence of old Indian pharmacology, a distinction was introduced between *ṣēḡār* "small, lesser" and *kebār* "large" *qāqolas*. Among our authors Majūsī (d. 384/994?) is the earliest to have mentioned this distinction, without, however, saying anything about the difference; he deals separately with *hīl* and *qāqola*, "which is of two kinds—large and small," both having the same medicinal properties (*Kāmel al-ṣenāʿa* II, pp. 113-14). This new distinction was also retained by later medico-pharmacological writers of the period, down to the last among our great authors, ʿAqīlī Ḵorāsānī (*Maḵzan al-adwīa*, comp. 1183/1769-70; pp. 669-70). For instance, Ebn Sīnā (d. 428/1037), also mentioning similar virtues for both large and small *qāqolas*, adds, however, a brief characterization for each kind (op. cit., p. 417): "The large one, looking like a small nut [*jawza*, also meaning "a walnut"], is black,

pungent like cubeb, aromatic, coming off from a white grain [i.e., seed-capsule]; the small one looks like clove, and is aromatic, too." The description by Bīrūnī (d. 440/1048; loc. cit.) is much more informative: "*Qāqola* comes from the Land of Gold [*Arż al-ḏahab*, i.e., southeastern Asia]. It is called *kakūlā* [?] and *elā* in Hindi [var. Sindhi]. It is of two kinds, large and small. The large one has a sheath [a pod] like the nut [*jawz*, i.e., seed-capsule] of wild rue; its seeds are black, looking like coriander seeds, and said to be round. Each [pod] is divided into three *boyūt* (cells, valves)—the seeds [thus] being agglomerated in three groups. It has a camphoraceous taste. It is high priced and much esteemed. The lesser one is oblong like a pistachio. It is used as a substitute for *ḵīr-bawwā*, but the two are not identical as some people think, because the grains of *ḵīr-bawwā* are larger, three-sided, downy, and exported without their pods [*manṯūr*^{an}, lit. "scattered"]. The Indians call [the seeds of the lesser cardamoms *īl/ayl* [?] when they are *manṯūr*, and *elāyačī/īlāyačī* when they are encased [in their pods]. [The word] *īl/ayl* sounds like [Persian] *hīl*, which is [synonymous with] *ḵīr-bawwā*." (According to Platts, s.v., Hindi *elāčī* "cardamom" is formed of Skt. *elā* and Hindi *-čī*, from Pers. diminutive suffix *-ča/-če*, thus lit. "small cardamom.")

Despite the following clarifications by Dymock et al. (III, pp. 428-37), the identity and terminology of the above-mentioned cardamoms remain uncertain and confusing. The "small *qāqola*" of the Islamic period writers, an Indian spice (sometimes called Malabar cardamom), corresponds to the *elā* mentioned by Suśruta (a famous Indian surgeon-pharmacologist most probably of the 6th cent. b.c.), and is the fruit of *Elettaria cardamomum* Maton (= *Amomum repens* Sonnerat); the "large *qāqola*"(sometimes called Nepal cardamom), corresponds to Suśruta's *sthulaila* (lit. "large *elā*"), and is yielded by *Amomum subulatum* Roxb. As to *hīl/hāl*(*-bawwā*), they state that it was a cardamom of African provenance (sometimes called nutmeg cardamom), the fruit of *Amomum korarima* Pereira. "Persian and Indian writers [were] evidently not acquainted with it, although they [have copied] the description given by the Arabs [i.e., Arabic-writing authors such as Ebn Sīnā]. . . who no doubt were acquainted with the genuine article," and who have "correctly described it under the name of Hil-bawa" (p. 436). According to Dymock et al., "the Nutmeg Cardamom, or true *Cardamomum majus*, made its appearance in the Bombay market in 1885. . . and is also known. . . by its Arabic names of *Heil* and *Hab-el-habashi* [i.e., *ḥabb al-ḥabašī*, lit. "Abyssinian grain(s)"]" (pp. 436-37). Following are some other synonymies or statements which do not accord with the above explanations. The Spanish Arab botanist-pharmacologist Aḥmad

Gāfeqī (d. a.d. 1164) mentions two kinds of *qāqola* (apud Ebn al-Bayṭār, II, pt. 4, p. 2): the large one, equivalent to *hīl*, is "male" (*ḏakar*), and brought from Yemen and India; the small one, equivalent to *hāl*, is "female" (*onṯā*). Ebn Maymūn (Maimonides), another scholar from Spain (a.d. 1135-1204), has the following synonyms. (ibid.): *hāl* = *qāqolla ṣaḡīra* (lit. "small *qāqolla*") = *hāl-bawwā* = *jar-bawwā* = *šamšīr* (for the correct form of the last two, see above). Anṭākī (d. 1008/1599) has this to say (loc. cit.): *Qāqolla* is of two kinds, large and small; it is also called *hīl-bawwā*, *hāl*, and *šūšmīr*; the proveniences of all its varieties are "the land of Deccan and the mountains of Malacca (*Maḷʿaqa*)." ʿAqīlī Ḵorāsānī (loc. cit.) provides the following equivalents (along with detailed botanical descriptions showing his deep knowledge of the matter): *Qāqola* is called *qaṭīdāūs* [i.e., *kátidaús*] in Greek, *šūšmā* [?] in Syriac, *hīl* in Persian, and *hāl* in Arabic; it is an Indian fruit with two kinds—large and small; the large one = male *qāqola/hīl* = *qāqola-ye zanjī* ("Ethiopian/ East African cardamom") = *baṛī elāyačī* (in Hindi, lit. "large cardamom"); the small one = female *hīl* = *šūšmū/šomošor* = *ḵīr/hīl/hāl-bawwā* = (*čhotī*) *elāyačī* (in Hindi, "[small] cardamom").

In the course of centuries the medical men of the Islamic period have discovered more and more medicinal virtues for cardamoms. Ebn Māsūya (3rd/9th century) says only that *qāqola* "is good for the stomach" and that "*hāl-bawwā* is stronger than *qāqola*, and better than it for the stomach" (loc. cit.). Ṭabarī, his contemporary, is even more laconic (p. 398): "*Qāqola* is hot and dry, moderate, digestive," and "*hāl* is milder than it." Heravī (4th/10th century), who seems to have been acquainted with the works of some Indian *ḥakīm*s, provides much more medical information (but he does not speak of the Indians' "small" and "large" cardamoms): "*Qāqola* is hot and dry in the 2nd degree. It fortifies the stomach and the liver, makes the breath pleasant, stops nausea and vomiting, astringes nature, promotes digestion, and removes moistness from the throat" (p. 258); "*hāl* is [also] hot and dry in the 2nd degree, strengthens the stomach, liver, and all nervous organs; it makes the breath pleasant, triturates/dissolves calculi; it is digestive and carminative" (p. 342). Ebn Sīnā (5th/11th century) is more specific: "*Qāqola*, [either large or small]. . . is hot and dry in the 3rd degree. In addition to calefaction, there is some stypticity in it, especially in [the variety] which has a *qamʿ* [stalk?], and particularly in the *qamʿ* itself. [If taken] with mastic water and the juice of both [sweet and sour] pomegranates, it stops vomition and nausea, and fortifies the stomach" (op. cit., p. 417, s.v.). "*Ḵīrbawwā*, imported from Sofāla, is a small grain like the small *qāqola*. It is hot and dry in the 3rd degree. Its strength is

similar to that of clove. It is abstergent (*jālī*), a liquefier (*molaṭṭef*, [i.e., of humors]), and [in this] it is milder than *qāqola*. It is good for cold stomachs and livers, and is better than the latter for the stomach. It checks vomition" (op. cit., p. 464, s.v.). "*Hīl/hāl-bawwā* is the same as *ḵīr-bawwā* . . . [but] it is hot in the 1st. . . ; it [helps] much to digest food" (op. cit., p. 298, s.v.). Majūsī, in addition to many uses of *hīl* and *qāqola* as "simples" (loc. cit.), employs *qāqola* also in compound medicines, e.g., in an electuary with honey (also containing opium poppy seeds, opium, tragacanth gum, and saffron) against babies' sleeplessness (II, p. 54; German tr. of the recipe in Kahle, p. 19), and both small and large *qāqolas* in the composition of a *ḵandīqūn* (i.e., a medicinal mixture of wine with honey, various aromatics, etc.—said to be "an invention of Persian *ḥakīm*s"; see, e.g., Tonokābonī, p. 365, s.v.), which is "beneficial to the stomach, against dyspepsia, abdominal ache, quartan fever, and which fortifies old men" (II, p. 591; German tr. of the elaborate recipe in Kahle, p. 40). (For a cumulative account of the medicinal uses of cardamoms, see ʿAqīlī Ḵorāsānī, loc. cit.).

Our information about the use of cardamom as a condiment in Persia is scarce and much later. The earliest reference to it in our sources is in the *Dīvān* of Bosḥāq Aṭʿema (d. ca. 830/1426-27), where he just names *hīl* (p. 12, v. 3) along with other spices—*felfel* (pimento?), Chinese cubeb, nutmeg, mace, and cloves (*mīḵak* and *qaranfol*). Nūr-Allāh, a cook at the court of the Safavid ʿAbbās I (r. 985-1038/1587-1628) and author of the cook book *Māddat al-ḥayāt*, uses *hīl* in the following dishes: with ginger, nutmeg, and cloves (all pounded) as spices for a kind of pilaw with lamb (p. 215); with cinnamon, pepper, and cloves for a *qalya* (p. 235); with the same plus ginger for a *šūr-bā* (p. 244); and with the latter spices plus Kermān cumins for the "simple *šola-palāv*" (p. 248). ʿAlī-Akbar Kāšānī, chef at the court of the Qajar Nāṣer-al-Dīn, uses *hel* (with cinnamon, cloves, etc.) in the "simple *palāv*" (*Sofra-ye aṭʿema*, comp. 1301/1884; p. 10), *hel* alone (pounded) in *ḥalwā-ye gol-e zard* (*ḥalwa* with the petals of a species of yellow wild rose; p. 47), in *ḥalwa-ye ḵormā* (*ḥalwā* with crushed stoned dates; p. 48), in an ice cream (p. 71), in *kāčī* (p. 83), in pickled stuffed eggplants (p. 61), and in pickled *gol-e bādīān* (flowers of star anise?).

Nowadays in Iran, cardamom as a drug is used only against *sardī* ("coldness," Galenically speaking), and as a carminative—probably hence the name *hel-e bād* (lit. "wind cardamom") sometimes given to it or to a variety of it (see, e.g., Ṣalāḥ-al-Dīn Aḥmad et al., list of the simples in a traditional drugstore in Tehran, pp. 1-5, s.v., = *Amomum cardamomum* L.; Bahmanyār, ed., Heravī, p.

258 n., mentions *hel-e bād* as a modern synonym for *qāqola-ye kebār*; Šakūrzāda, p. 136 n., explains that *hel-e bād*, also called *hel-e ḡorāb* [lit. "crow's cardamom"?], resembles the *hel-e rasmī* ["standard/common cardamom"], but it is scentless and somewhat larger). A few uses of cardamom in Khorasan folk customs and practices in connection with childbirth are reported by Šakūrzāda: Both *hel-e bād* and *hel-e rasmī* are used in the *kāčī* for mothers after parturition (p. 136); if the newborn is a girl, a little powdered *nabāt* (q.v.) and cardamom is sprinkled between her legs "so that her. . . may become sweet and fragrant" [during her adult life] (p. 137); the day before the mother takes her first bath after childbirth, the midwife makes a head plaster to fortify her hair, which includes such ingredients as pounded raw chickpeas, yolks, cumins, *hel-e bād* and *rasmī*, roasted wild rue, and myrtle leaves (p. 147). Further, in Khorasan, if a millipede gets into an ear, in order to make it come out, a mortar in which pungent spices such as cardamom, cinnamon, cloves, and pepper have been pounded, is held at the ear's entrance (p. 276).

In contemporary cookery and confectionery, cardamom is used in most *ḥalwā*s, some sweets (e.g., *masqaṭī*, and *āb-nabāt-geyčī*), many preserves (*morabbā*s, q.v.; e.g., those of carrot, *šaqāqol* [see carrot], quince, and watermelon rind), some sweetmeats (e.g., *bāqlavā*, and *qoṭṭāb* [q.v.]), some homemade pastries (e.g., *bereštūk* and *rangīnak*), (optionally) in *kāčī*, some pudding-like sweet dishes such as *šīr-berenj*, *šola-zard*, and *ferenī*, etc. Local culinary uses or variant uses of cardamom are also recorded, for instance, by Ḥekmat for the province of Šīrāz (e.g., in *fesenjān* optionally, p. 92, in "yogurt *ḵᵛoreš*," p. 101, "sugar *ḥalwā*," p. 139, and *ḥalwā-ye gol* ["flower *ḥalwā*," with the petals of jasmine, sour orange, quince, or yellow wild rose], pp. 141-42), and by Ḵāvar for Gīlān (e.g., in the pastry *rəštə -ḵūškār*, pp. 189-94, in *pələ̄-dānə* [pp. 168-69] and *raqāyeb* [sic, i.e., *raḡāyeb*; pp. 172-73] *ḥalwā*s).

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