



DATE PALM

DATE PALM (*derakt-e kormā, nakl*; *Phoenix dactylifera* L., fam. Palmaceae), dioecious tree of great economic and cultural importance in Persia and the Middle East. It is indigenous to the geobotanical “Sahara-Sind region,” a desert or semidesert belt extending from the Indus valley to North Africa (Gaubā, 1951, p. 15; for distribution of the date palm in this region, see Dowson and Aten, p. 2; Dowson, tr., pp. 20-37). It is believed by some authorities to be native to the Persian Gulf area (Erbe) and by others to have been derived from the the wild or date-sugar palm of western India (Hindi *karjūra*, *Phoenix sylvestris* Roxb.; Zargarī, IV, p. 525; for a possible linguistic relation between Skt. *kharjura* and *kormā* “date” [Mid. Pers. *xurmā*], see Laufer, *Sino-Iranica*, p. 391).

The date palm in historical sources.

Date-palm cultivation is attested in ancient texts and representations from Mesopotamia (e.g., Gaubā, 1951, p. 15; cf. Hussain, tr., pp. 1-4; Dowson, tr., p. 25). In the Fertile Crescent the goddess Mylitta (Mesopotamia) or Astarte (Phoenicia) was represented by a female date palm. The attributes of the god Mithra may have included the male palm and the pyramidal [cypress](#) (Lajard, pp. 7-8, 273), as depicted on a marble relief of Roman provenience kept at the Villa Altieri, Rome (Vermaseren, pp. 152-53 no. 334, fig. 91; cf. Cumont, p. 195).

In the Achaemenid period, according to Strabo (15.2.7, 16.1.14), there was a Persian song on the 360 uses of a date palm. On a contemporary seal Darius is depicted on a chariot between two (female) palms and beneath the winged



Ahura Mazdā (Plate VII; cf. *Survey of Persian Art*, pls. 123A, G-H, 124D). Zoroastrians regarded the date palm as the most valuable of all trees except the mythical Gōkirin (*Bundahišn*, tr. Anklesaria, p. 157). There is a report of agricultural taxes in the time of Kōsrow I (531-79 C.E.), including 1 dirham for every four “Persian” date palms and 1 dirham for every six palms yielding dates of inferior quality (*daqal*); isolated palms were exempt from taxation (Ṭabarī, II, p. 962). In particular, dates from the province of Ḥīra in Mesopotamia (*armāv ī hēratīk*), when stuffed with walnuts (cf. the modern *rangīnak*, below), were considered a royal delicacy (*Xusrō ī Kavātān*, par. 52; cf. Ṭa‘ālebī, *Gorar*, p. 708; cf. the Pahlavi commentary on *Vd.* 2.28 in *Avesta*, tr. Darmesteter, II, p. 27). In the Parthian poem *Draxt ī āsūrīg* (ll. 1-27), a debate between a she-goat and a female date palm, the latter enumerates the benefits to humankind from her fruits, leaves, fibers, and so on.

A wealth of ancient lore on the date palm is included in the *Ketāb al-felāḥat al-nabaṭīya*, allegedly translated from Syriac by Ebn Waḥšīya in 291/903-04 (VII, pp. 51-271). The Kasdānī (Chaldean?) Yanbūšād is cited (VII, pp. 86-98) on similarities between the date palm and humankind: the existence of males, females, and hermaphrodites (*kontā*); similarity in the odors of date pollen and semen; the supposed susceptibility of the female palm to falling in love with a nearby male palm; comparable longevity; and erect stature (cf. Dīnavarī, p. 303 no. 26; Qazvīnī, pp. 177-78). Māsī Sūrānī (?) is cited (Ebn Waḥšīya, VII, pp. 55 ff.) as source for the claim that date palms were native to an island named Ḥārakān (the modern Kārg?) near the Persian coast; there were four kinds: two that grew at a distance from the sea, the ancestors of the *šahrīz* and *barenī* varieties of date, the ripe fruits of which were black and yellow respectively, and coastal varieties, the *šarafān* and *ṭabarzad* (see below).

Abū Ḥanīfa Dīnavarī (d. ca. 282/895) explored the rich Arabic terminology for the date palm (*naql*; II, pp. 293-324 no. 1061). Persian geographers from the 10th century onward have mentioned many date-growing localities in Persia (e.g., Eṣṭakrī, pp. 35, 90, 93-95, 127-28, 153-54, 166, 168, 200, 231, 233-34, 237, 274; *Ḥodūd al-‘ālam*, ed. Sotūda, pp. 91, 103, 127, 132, 141). In the 12th century Ebn al-Balkī (p. 140) reported that in the coastal districts of Korān and Īrāhestān in Fārs date palms were grown in deep pits, in order to make maximum use of the limited winter rain; only the crowns of full-grown trees showed above ground.

Early European travelers also counted dates among the best Persian fruits.



Marco Polo (ca. 1272) mentioned the extensive plantations of Yazd, Kermān, and Hormoz, remarking that the inhabitants of Hormoz lived “chiefly upon dates and salted fish” and made from dates and other ingredients “a good kind of wine,” which caused “an immediate flux” to those unaccustomed to it (pp. 41, 43, 46, 48). Don García de Silva y Figueroa, the Spanish envoy to Shah ‘Abbās I (996-1038/1588-1629), frequently mentioned date palms in southern Persia, particularly in Moğ/gestān, a coastal district near Jāsk. On the island of Hormoz he noticed that most local houses were made of canes covered with palm fronds; better houses had flat masonry roofs, where on hot nights wooden “beds” were partitioned off with palm wattles. In Lārestān and Jahrom dates were the staple food and the main article of trade; Figueroa believed those from Lārestān superior in size, color, and taste even to those of Baṣra and Iraq, which had from Xenophon’s time always passed for the best in Asia. In Jahrom he reported a “dense forest of palms . . . a good league long and half a league wide,” divided by mud walls into about a thousand plots, each containing between twenty and seventy trees belonging to a family or individual and “most of which were higher than the highest church tower in Europe.” Some palms bore “up to fifty date clusters,” weighing 30 pounds each; the inhabitants claimed that some clusters weighed more than 60 pounds. Figueroa believed that the quality of Jahrom dates was owing to the soil and to careful irrigation with well water (pp. 32, 34, 37, 39, 50-51, 77, 352-54). Later in the 17th century Jean Chardin (p. 157) asserted that Persian dates were tastier than those of Arabia and that the best were from Kahūrestān in Bandar-e ‘Abbās province, Sīstān, Persepolis, and the Persian Gulf littoral, particularly Jahrom. They were exported “dry in bunches, or loose,” but mostly “preserved in their own juice . . . in great gourds from 15 to 20 pound weight.” He recommended moderation to those unaccustomed to eating dates, for otherwise “they heat the blood,” a symptom called *garmī* “heat” in popular Persian medicine, even causing skin eruptions and weakening the sight.

Engelbert Kaempfer, a German physician who accompanied the Swedish ambassador to the court of Shah Solaymān in 1085/1684, discussed all aspects of the “*palma dactylifera*” (pp. 659-754). He recorded many vernacular terms (probably from Bandar-e ‘Abbās and the Hormoz area) related to palms and dates, some of them still used. He also distinguished two kinds of palm in southern Persia: cultivated and wild. The latter, called *Palma sylvestris persica* by Kaempfer and locally nicknamed Abū Jahl, was popularly believed to grow from date pits scattered on sterile soil. It must be the indigenous dwarf palm, *Nannor(r)hops ritchiana* (Griff.) Aitch., with tiny, almost inedible fruit, which



grows wild in parts of southern Afghanistan, western Pakistan, and southeastern Persia, reaching a height of 2.5-3 m (Zargarī, IV, p. 528). Among its vernacular names are *marez* in Afghanistan (Ṭābetī, 1355 Š./1976, p. 480), *mazrī* and *kīlū* in Pakistan (Bamber, p. 129), *phiš* in Baluchistan (Mayer, p. 138), and *dāz* (Īrānšahr, Nīkšahr; Ṭābetī, 1327 Š./1948, p. 119), *pīš*, *po/ūr*k (Bašākerd), *mazārī*, *kū*, and *kākol-zard* “yellow-crowned” in Persia (Parsa, V, pp. 57-59, VIII, p. 125). The fruit may be eaten during famine (see [BALUCHISTAN](#) i, p. 606), and its sturdy fronds (2-3 feet long; Bamber, p. 129) are used to make baskets, mats, cordage, hats, and the characteristic Baluchi sandals; in Afghanistan beads are sometimes made from the date pits (Hamadānī, p. 37; Ṭābetī, 1355 Š./1976, p. 480).

Contemporary production.

As the earlier geographical sources suggest, date palms grow in Persia as far north as the oases along the northern border of the Dašt-e Kavīr (for details, see Dowson, tr., pp. 21, 29-32). Reliable data are available only for the period 1326-59 Š./1947-80. In 1347 Š./1968 about 2 percent of Persian arable land (1,367 km²) was planted with 20-26 million palms, yielding approximately 325,000 metric tons of dates annually (‘Enāyat, p. 1; cf. Rūḥānī, pp. 273, 278, 283: 20-21 million, yielding 170,000-310,000 metric tons). Annual domestic consumption, concentrated in the southern coastal provinces, was estimated at 90,000-190,000 metric tons (Rūḥānī, p. 278). In 1369 Š./1990-91, 42,840,453 kg of dates were exported, a total value of Rls. 1,483,785,186 (ca \$1,059,847); 39,596,024 kg went to Dubai (Gomrok, 1370 Š./1991, p. 574).

Although Persian dates are among the world’s best, adverse factors have impeded their production and export. Aside from inherent factors (e.g., the interval of five to ten years or more before female palms bear fruit, the skill required for hand pollinating trees and harvesting the fruit) that do not permit quick profits, environmental, social, and administrative conditions also play a role. There is a shortage of sweet water for irrigation, and in districts irrigated by saline fluvial or marine waters, especially along the [Arvandrud](#) (Šaṭṭ-al-‘Arab) and Bahmanšīr rivers (Ābādān, Ḳorramšahr, Mīnū islet), date plantations gradually die (Komīsīūn, II, p. 1650; on similar conditions at Mīnāb, cf. ‘Enāyat, pp. 57, 68). Another problem is inadequate rural roads connecting the plantations, many of them in remote desert areas, with distribution and packing centers (‘Enāyat, pp. 49, 70).

The prevailing methods of harvesting, sorting, storing, and packing the crop



remain primitive and unsanitary (‘Enāyat, pp. 55, 56). In the date groves pests and diseases often rage unchecked, with resulting spoilage of about 50 percent of the annual crop; to this percentage must be added the approximately 100,000 tons of dates lost annually through fermentation and spoilage owing to improper handling and storage (‘Enāyat, pp. 50, 66, 76). The low standard of living among most date cultivators and their inability to invest in better irrigation and drainage systems, sanitary storage and handling facilities, and the like force them to sell their expected crops before the harvest (*salaf-forūšī*), at about 20 percent below market prices. These problems are aggravated by lack of coordination among growers, packers, domestic merchants, and exporters through efficient local **cooperatives** and trade unions (‘Enāyat, pp. 50, 57, 66, 72, 76; Edāra, p. 21). Regulation of standards, prices, sales, and exports is nonexistent or inadequate, with the result that goods vary in quality. In these conditions both growers and dealers, fearful of spoilage, often sell at very low prices to unscrupulous middlemen and traders, both Persian and foreign (cf. Sāzmān, pp. 82-84, on the emigration of date-farm laborers from Tangestān province to urban employment and the shift of land especially to cultivation of tobacco, which brings a quicker income).

Government and private processing and packing installations seem inadequate, though no current information is available. In 1347 Š./1968 there were sixteen small private packing houses in Korramšahr (‘Enāyat, p. 70) and a large state-owned plant equipped with machinery supplied by Hay’at-e ‘amaliyāt-e eqtešādī-e Āmrīkā dar Īrān (the American AID mission in Persia), with an annual processing capacity of 3,000-5,000 tons (Faršī, 1339 Š./1960a, p. 86). Before the war between Persia and Iraq in the 1980s there was also a plant producing 5,000 tons of date syrup (*šīra-ye kormā*) and about 2,500 tons of residue for cattle feed annually. Nearly 4.2 tons of syrup were obtained from every 6 tons of dates (Edāra, p. 16); it was used in chocolate, biscuits, canned food, and the like.

During the eight years of the war between Persia and Iraq, which involved the most important date-growing areas of both countries, there was severe damage to the plantations of Kūzestān and Kermānšāhān (Qašr-e Šīrīn and Qosravī; Sāzmān, p. 12; Edāra, pp. 29-38). The destruction of dams and irrigation installations flooded the groves, rotting the roots and contributing to a proliferation of weeds and pests, and spraying was prevented by the war. Some statistics, if reliable, suggest the sad state of date cultivation in Kūzestān (Edāra, p. 1). In the years 1362-63 Š./1983-84 and 1363-64 Š./1984-85 respective



yields were 141,052 and 30,577 metric tons, a drop of more than 78 percent (Edāra, p. 11). War damage in Kūzestān may be further estimated from official statistics of date trees and production for the whole country in 1367 Š./1988-89: 12,981,000 palms (of which only 7,844 were fruiting trees), with a yield of 173,940 tons (Markaz-e āmār, p. 54).

Cultivation.

Terminology. The long-standing cultivation of dates in Persia has engendered a rich vocabulary of vernacular terms, which have been generally neglected by Persian philologists. There are only two partial lists of classical Persian equivalents or definitions for terms from the vast Arabic vocabulary related to the *naḳl* or *naḳīl* and *tamr* (generic term for dates). The first is a short list in the earliest extant Arabic-Persian dictionary, by Zamaḳṣarī (467-538/1075-1144; I, pp. 106-08; see [DICTIONARIES i](#)). The second is a longer list compiled by Maydānī (d. 518/1124; pp. 513-18). Modern studies or lists at this writer's disposal include those by Georges Redard for the hamlet of Kūr (partly supplemented by Farahvašī, pp. 21-22; Ḥekmat Yaḡmā'ī, pp. 240-42 and passim), Īraj Afšār and M.-R. Moḥammadī for Bāfq (pp. 193-94), Aḥmad Sāyabānī for the *dehestān* of Fīn (in the *šahrestān* of Bandar-e 'Abbās); Koji Kamioka and Minoru Yamada for Lārestān (pp. 21-22), Īraj Rūḡhānī for Jahrom and adjacent localities (pp. 254-63, 269-72), and Sāzmān-e barnāma wa būdja-ye ostān-e Būšeḥr for the *šahrestān* of Tangestān (pp. 1-9 and passim). Ahmad Parsa (VIII, pp. 139-41) has included a list of eighty-four names (without a gloss) for date varieties in Makrān. Isolated dialectal terms also occur in some articles and vernacular glossaries (e.g., Sotūda).

Vernacular names for the date palm include *mō/og*, Kūr (cf. Mid. Pers. *muy*); *mok*, Kermān; *moḡ*, Fīn; *mok/h*, Tangestān; *mok*, *tarak*, Jahrom; *m'ug/ḡ* (?) Bandar-e 'Abbās, Jīroft, and so on (Rūḡhānī, p. 272); Baluchi *mòk*, Dezak; *mač*, Zābol; *māč*, Čāhbahār (all recorded by Redard, p. 215 n. 2); and *fašīl*, Lārestān (cf. *fašīl* "small young palm" and *naḳīl* "tall old palm" in Tangestān). A young palm grown haphazardly from a date pit is called *pešk* (originally "date pit") and *korost* (< *ḳod-rost*, lit., "grown by itself") in Fīn and *m/harvās* in Tangestān. A date-palm grove or orchard is generally called *naḳlestān*, *bāḡ* (garden), *šahr* (Bašāgerd; Redard, p. 215 n. 1), *mog/ḡestān* (Ḥekmat Yaḡmā'ī, p. 240), or *naḳīlāt* (an Arabic word found in some modern sources).

The date palm is propagated only by planting shoots (*pājūš*; vernacular names: Ar. *fašīla*; *damīd*, Kūr; *dīmīt*, Tangestān, properly a shoot having developed



roots while still attached to the mother palm; cf. *mokoš* < *mohkoš* “palm killer,” *baḳtakan*, without independent roots and thus a parasite on the mother palm, Jahrom) of male or female palms eight to ten years old. Artificial pollination (*nar māyo*, Kūr; *gošn dādan*, Bāfq; *sāktan*, Jahrom; *bū dādan*, Tangestān, Kūzestān) is performed in two ways: Either the pollen (*garda*) is sprinkled on pistillate flowers (as at Kūr; Redard, p. 215), or some staminate spikelets (*toreng*, Bāfq) are placed among the pistillate spikelets, which are then loosely tied together with a string (as at Jahrom, Tangestān, etc.; Sāzmān, p. 93; Rūḩānī, pp. 17-19 with illustrations). This task is performed by skilled workers (*māher*, Jahrom; *zaʿīm*, Bandar-e ʿAbbās, Jiroft, etc.), who usually share the crop with the owner (Rūḩānī, pp. 17, 271). They tie a strong rope belt (*parvanda*, Kūr; *parven[d]*, Fīn; *parvand/g*, Tangestān; *parvand*, Jahrom; *parand*, Bandar-e ʿAbbās, etc.; *farvand*, Kūzestān, Iraq) 2-3 m long, made from palm leaflets, around the trunk as an aid in climbing (for a more elaborate version with a wooden prop, used in Tangestān, see Sāzmān, p. 6). Depending on the female variety, regional conditions, and so on, two to five male palms are required to pollinate one hundred females. Not all male palms produce suitable pollen for this process (Redard, p. 215; Sāzmān, p. 93; Rūḩānī, pp. 17, 76). In Tangestān newly planted palm shoots are watered from a *kantal*, consisting of two large tin vessels suspended from the ends of a wooden bar that is carried on the shoulders (Rūḩānī, p. 73). Shoots of desirable varieties used to be obtained gratis, but after severe war damage to the palm groves of Kūzestān they were selling for Rls. 800-1,000 apiece (Sāzmān, p. 51). Stunted shoots (*kačakī*, Fīn) are discarded, but the edible white medulla (*koj*, *panīr*, lit., “cheese,” Jahrom) is enjoyed for its crisp sweetness in Fīn (Sāyabānī, 1362 Š./1983, p. 873).

Felling healthy date palms is considered unlucky, the death of each tree being tantamount to that of a person (Sāzmān, p. 10), but sterile male palms and terminally diseased or infested palms are cut down; the trunks are used in construction (cf. Pliny, *Naturalis Historia* 13.9). According to the traveler Sven Hedin (apud Redard, p. 218 n. 4), the felling of a doomed palm tree is usually postponed until the mourning days of Moḩarram (cf. Kūr, where *panīr kardan* “making cheese,” i.e., cutting down a palm for its medulla, is usually carried out on a holiday; ḩekmat Yaḩmāʿī, p. 256 n.).

Crown and terminal bud. Usually the trunk of the date palm is topped by a single crown (*tāj*; *bašn* “top,” *Draxt-i āsūrīg*, l. 25; *kalle mog*, Kūr) comprising the fronds (*pīž*), the terminal bud, and the date clusters, though the *tabarzal* palm of Iraq may branch into two, three, or even four crowns (Hussain, tr., p.



41). All these elements are tightly interlaced at the base of the crown, which is protected by layers of tough, intertwined brown fibers (*pīž/j*, Kūr). These fibers are separated by soaking, then twisted and braided into cords (*sāzū*, Kūr), ropes, mats, and the like (Redard, p. 219; Hekmat Yağmā'ī, pp. 249-50). When a date palm is to be cut down, the fronds and date stalks are first cut off with a toothed sickle (*dās-e pangbor*, Tangestān) about 30 cm long and curved at the tip; then the top of the trunk is peeled to lay bare “the crisp delicious tissues of the terminal bud” (Milne, p. 276; *dallak*, Kūr; *del-e mok*, Tangestān) and the underlying pith, which is sawed off at its base. The pith, weighing 3-7 kg, is a crisp white marrow called “palm cheese” (*panīr-e mōg*, Kūr; *kūd*, Fīn), bland but highly nutritious (Redard, p. 219). At Fīn (Sāyabānī, 1362 Š./1983, p. 873), Jahrom (Rūhānī, p. 270), and probably elsewhere the expression *panīr(-e nakl)* also refers to the edible marrow (*koj*, Jahrom) of the basal part of the date stalk (20-30 cm long) discarded during pollination. This marrow is sweet in some varieties but somewhat bitter in others (for medicinal uses, cf. Dioscorides, 1.150). Cutting off the terminal bud will kill the palm (pace Pliny, *NaturalisHistoria* 13.9), even if the whole tree is not cut down.

Each frond (*šāka*; *be/arašk*, *galga*, Kūr; *šāk-e boğ*, *kod-e kormā*, Bāfq; *pīš*, Kermān; *tağ*, Fīn; *peš*, Lārestān; *gorz*, Tangestān), measuring up to 4-5 m in length, has three parts: the spatulate base (*kava/ešk*, *sāgarī*, Kūr; *kondelū*, Bāfq; *taftūk*, *tağot*, Fīn; *aspakū*, Lārestān; *tūkatak*, Jahrom; *tāpūl*, Tangestān), attached to the trunk; the strong, spiny stalk (*bāskīn*, *lows*, Kūr; *lot*, Fīn; *tātūk*, Bandar-e 'Abbās, Jiroft, etc.) and midrib (*gorz*, Tangestān; *tağ*, Bandar-e 'Abbās, etc.), 1-2 m long; and the pinnate section, or leaflets (*be/arašk*, Kūr; *boğ*, Bāfq; *balg-e pīs*, Kermān; *pīš*, Fīn; *pīš*, *pūš*, Jahrom), about 40 cm long. The bases of cut fronds are left on the tree to serve as footholds, and each year the dried old bases (*tāpūls*, etc.; *kaženg*, Kūr) are pruned for use as fuel and sometimes as floats for fishing nets; in Tangestān a wooden mallet (*dokū*) and a kind of chisel (*eškēna*) are used for this purpose. The copious tough fiber (*sīs*, Bāfq, Fīn; *perī*, Lārestān; *parīče*, Jahrom) from the juncture with the trunk is used in the manufacture of ropes, doormats, and, in Fīn, primitive footwear for laborers (on processing and braiding *parīče* in Jahrom, see Rūhānī, pp. 251-53). The stalks are also used as fuel and, with the spines removed, for threshing; at Kūr women use them for beating laundry. The leaflets are woven or braided into a variety of baskets (mostly for packing or carrying dates), mats, lids, bags, caps, brimmed hats, fans, and so on. They are also bundled into brooms (for braiding and weaving at Kūr, see Redard, pp. 217-18; Hekmat Yağmā'ī, pp. 247-48; for Fīn, Sāyabānī, 1363 Š./1984, pp. 150-54).



Dates and pits. The spadix (*abare* “male spadix,” Jahrom) of the palm, whether male or female, develops within a spathe (*kavīle*, Kūr; *kāškīlū*, Kermān; *kārček* “dried spathe,” Fīn; *tārūne*, Jahrom, Shiraz; *tāre*, Tangestān). At Shiraz a distillate (*‘araq-e t̄tārūne*) is obtained from the fresh, fragrant male spathes; it is advertised as a “hot” tranquilizer and soporific, an “unequaled nervine,” and “very useful for rheumatism, articular pains” (from a brochure published by Iran Targol Co., Tehran; cf. Tonokābonī, p. 730). The fertilized female spadix gradually develops into a cluster of dates (*hū*, Kūr; *pang*, Kermān, Fīn, Lārestān, Jahrom, Tangestān), consisting of a main stalk (*tambar*, Kūr; *košmalg*, Bāfq; *bokom*, *kowsala*, Lārestān; *narī*, Tangestān) branching into many peduncles (*terend/t*, Kūr; *teleng*, Fīn; *šen*, Tangestān), to each of which several dates are attached by hard perianths (*kolāhak*, *kūna*; *kolā[h]jū*, Kūr; *kālū*, Bāfq; *kofār*, Lārestān; *kalāfa*, Jahrom, etc.; see Dowson and Aten, p. 70).

Traditionally between five and seven stages of maturation were recognized. Ḥakīm Moʻmen Tonokābonī (comp. 1080/1669-70; p. 215, s.v. *tamr*) reported seven: *ṭalʻ* or *walīʻ*, inflorescence (male or female), when the spadix is still encased in the spathe; *balah* (Pers. *gūra-ye qormā*), with tiny green dates; *kalāl*, in which the dates are becoming yellow and sweet; *bosr*, when they have become yellow and sweet; *qasb* (in the Ḥejāz; Pers. *qormā-ye sang-šekan*; *qasbak* in Fārs; Jazāyerī, p. 156), in which the dates are still dry; *roṭab*, in which the dates are ripe and juicy; and *tamr*, in which ripe dates have withered slightly on the tree. In modern terminology the equivalents to the *ṭalʻ* and *qasb* stages are not usually distinguished (for names at Fīn, see Sāyabānī, 1362 Š./1983, pp. 873-75). Fresh dates in the *kalāl* (*kā/arak*; *hāarak*, Kūr; *kāarak*, Jahrom, Tangestān; *kara/ūk*, Kermān; *harak/g*, Makrān) stage are seldom served or sold other than locally. They are usually boiled, dried until they are very hard and wrinkled, then pitted and threaded on strings; in this form they will keep a long time. Certain varieties are preferred for this purpose: in Makrān (Pakistan) the *mozātī*; in Mīnāb and elsewhere the *hallo*, *mordār-sang*, *šāhānī*, *šakar-pāra*, and *zarag*; in Kūzestān and Iraq the *ke/abkāb* (in Iraq *čebčāb*) and *bore/aym* (Dowson and Aten, pp. 84-85, 89, 89-90). Commercial *kāraks* are generally brittle and pleasantly sweet.

Usually each date has a pit (*hasta*; *pešk*, Kūr; *kolpī*, Bāfq; *dendel[ū]*, Kermān; *eštak*, Fīn; *astok*, Lārestān), though at Šahdād there is a small (26 x 18 mm) seedless variety, of fine quality, called *bī-dandalū* or *hasekū* (Dowson and Aten, p. 6; Komīsīūn, II, p. 1651). For both genetic and practical reasons date pits are not used for propagation of valued palms. Owing to their nutritious content,



however, they are sometimes ground domestically into a meal that is fed, by itself or mixed with herbage, to cattle (‘Enāyat, pp. 9-10; Rūḥānī, p. 248). According to Ḥekmat Yağmā’ī (p. 253), people of Kūr used to save them to grind into flour during famine. As there are no mills for date pits in Persia, quantities are exported to other countries in the Persian Gulf area, where they are milled commercially for cattle feed (Edāra, p. 16). In Persia date-pit charcoal is used by smiths to polish gold and silver articles (Rūḥānī, p. 248).

Varieties. Although the generic term for dates in Persia is *ḵormā* (Mid. Pers. *xurmā*, *armāv*; Parth. *amrāw*; Arm. loanword *armav*; Pashto *ḵorma*; Baluchi *ḵorma*, *hòrmag*, *ormāg*; Kūrī *hòrma*; Lārī *ormā*; Redard, p. 216 n. 1; Elfenbein, p. 89), there are approximately 400 varieties of dates (Dowson, tr., p. 82) known by a plethora of vernacular names, many of them synonyms, variants, or corrupted forms. In Kūzestān and Kermānšāhān the names are generally those used in Iraq (for descriptions of the most common or important varieties in various parts of Persia, see ‘Enāyat, pp. 23, 28-37; Rūḥānī, pp. 254-63; Sāyabānī, 1362 Š./1983, pp. 875-78; Sāzmān, pp. 106-07; Redard, p. 216; Faršī, 1339 Š./1960b, p. 77; Komīsīūn, II, p. 1651; Dowson, tr., pp. 82 ff.). The most productive variety is the *barḥī*; depending on conditions, each tree may yield up to 250 kg of dates a year. It does not normally live longer than twenty years, however (Wezārat, p. 10). The *sāyer* date palm, which accounts for more than 90 percent of the date crop in Kūzestān and ranks first in Persian date exports, produces an average of 18-20 kg of dates a year and remains productive for 100 years, with a peak between the ages of twenty and sixty years (Wezārat, p. 10; Rūḥānī, p. 254; Dowson, tr., p. 64). The best dates in Persia, however, ranked with the famous *daqalat-al-nūr* of Algeria, are the *šāhānī* of Jahrom and the *možāfatī* of Bam. The latter, a dainty, dark-red variety and the most expensive in Persia, is not readily exportable because it is at its best when ripe and juicy and thus subject to spoilage. The *šāhānī*, constituting the greater part of the crop from Jahrom, is the most esteemed variety in Persia. The honey-colored *ašrasī* of Qašr-e Šīrīn, rated second quality; the commercially unimportant dates of Kūr and Bāfq, harvested and consumed at the *ḵarak* stage; the seedless *porkū* of Šahdād; and the dark-yellow *batābe* (?; 6-8 cm long) of Kāš are mainly consumed locally. The inferior *kā/arūk* of Bam is fed to cattle (Faršī, I/7, p. 77; Rūḥānī, p. 255; Dowson, tr., p. 32; ‘Enāyat, pp. 30-31, 37, 60, 71).

Domestic and commercial uses.

Culinary uses. Pitted dates, whole or mashed, are the main ingredient in



several Persian confections and a principal component in a few cooked dishes. Hard dates (picked at the *kalāl* stage) are cooked and added to *rešta-polow* (a traditional rice dish made on the eve of Nowrūz) and *‘adas-polow* (lentil pilaf; Montazemī, pp. 567, 571; Hekmat, pp. 70-71). Several sweets are made with mashed ripe dates or date syrup, for example, *ḵormā-berīzū* (Kermān; *ḵormā-berīz*, Fīn), in which date paste is kneaded with wheat flour fried in ghee (Sotūda, p. 67; Sāyabānī, 1362 Š./1983, p. 879); *čangāl* (Fīn), a paste of soft dates kneaded with roasted and ground wheat grains (Sāyabānī, 1362 Š./1983, p. 879); *ḵalwā-ye ḵormā*, mashed fresh dates mixed with fried flower, spread on a platter, and cut into lozenges, served at funeral ceremonies and on the holy days of Ramažān and Moḥarram almost everywhere in Persia (for a Šīrāzī variant, see Hekmat, p. 140); *arda-ḵormā*, date paste kneaded with *arda* (ground sesame) and spices like cardamom and ginger, then flattened and cut into lozenges (Shiraz); and *ḵalwā kanaftī*, thick date syrup mixed with hemp seeds (Kermān; Sotūda, p. 64). More complex pastries include *kolomb/pe*, fried mashed dates combined with chopped walnuts, cinnamon, and cloves, then shaped into small balls, wrapped in thin pieces of leavened dough, and baked, usually at Nowrūz (Kermān; Sotūda, p. 137); *komāč/j-e se(he)n*, two layers of dough made from ground wheat and *sehen* (malt) holding a layer of mashed dates, sprinkled with ground walnuts, cumin, and nigella seeds and baked (Kermān; Sotūda, p. 139); *rangīnak*, pitted *roṭabs*, stuffed with walnuts and coated generously with fried flour, then sprinkled with cinnamon, powdered sugar, and sometimes chopped pistachios and then cut into lozenges (originally a Šīrāzī sweet but now popular all over the country; Hekmat, p. 142; Sāyabānī, 1362 Š./1983, p. 880).

Manufacture and uses of date syrup and sap. Date syrup (*šīra-šahd-e ḵormā; robb, seylān*, Kūzestān; *dūšow*, Kūr) is obtained either by pressing fresh dates (producing an average of only 2 kg of juice per 100 kg, and thus expensive) or by boiling dates of poor quality to a syrupy consistency and straining them. The residue (*hal*, Kūr) of the latter process is fed to cattle (Rūḥānī, pp. 243-44; Sāyabānī, 1362 Š./1983, p. 880; Dowson and Aten, pp. 114, 354). Date syrup is used in various sweets, to preserve or pack choice dates in earthenware jars, and on bread as a main dish. In Kūzestān syrup from the surplus date crop is consumed locally and also exported to the islands and emirates of the Persian Gulf; a factory for vacuum-packing the syrup in metal boxes was recently established in Kūzestān (Enāyat, p. 28; Rūḥānī, p. 245).

Whereas in Pakistan the sap of *Phoenix sylvestris* is systematically collected to



make date sugar (*gūr*; Balfour, I, p. 896), in Persia sterile male date palms and female trees that produce low-quality dates are sometimes tapped for *šīra*: After the young male or female date clusters have been cut off, a container is fixed under the tip of each severed stalk to collect the sap, which continues to rise for weeks or, in female palms, even months. It contains up to 14 percent sucrose, which crystallizes as sugar when the sap is boiled down; the residual molasses is fermented for wine or vinegar (Milne, p. 275). Another alcoholic drink made from dates, *‘araq-e kormā*, was popular in southern Persia in the 19th century (Schlimmer, p. 179).

The date palm in literature and folklore.

Many casual references to the bountiful, shade-giving date palm are found in classical Persian poetry (see Dehḵodā, s.vv. *naḵl*, *kormā-bon*, etc.). A long, nostalgic poem devoted to praise of the date palm by Ḥabīb Yaḡmā’ī (d. 1363 Š./1984; quoted by Ḥekmat Yaḡmā’ī, pp. 268-70), a native of Kūr, is, however, unique in Persian literature.

Information about contemporary folklore concerning the date palm is scanty. The ill fortune associated with cutting down a healthy tree has already been mentioned. At Kūr two palm-wood sticks (*jarīdatayn*) inscribed with the Throne verse (Qur’ān 2:256) are placed under the arms of a dead person, to serve him or her as a staff on Resurrection Day (Ḥekmat Yaḡmā’ī, pp. 254-55). In addition, the funeral procession is headed by a man who carries two green palm fronds on his shoulders, to be buried with the corpse; it is believed that, as long as these fronds remain fresh, the dead individual will be free from “the torment and pressure of the tomb” (Ḥekmat Yaḡmā’ī, p. 377). During the mourning ceremonies on ‘*Āšūrā*’ (10 Moḥarram) a large wooden structure called a *naḵl*, which somewhat resembles a date palm, is paraded in some parts of Persia as the symbolic bier of Imam Ḥosayn.

In the past there seem to have been craftsmen, called *naḵlband* (lit., “date-palm tier/assembler”), who made ornamental wax replicas of date palms and artificial plants, flowers, and fruits (*Borhān-e qāṭe’*, ed. Mo’īn, s.v.; *Ānand Rāj*, s.v.).



BIBLIOGRAPHY

- Ī. Afšār and M.-R. Moḥammadi, *Vāža-nāma-ye yazdī*, Tehran, 1369 Š./1990.
- E. Balfour, *The Cyclopaedia of India and of Eastern and Southern Asia . . .*, 3rd ed., 3 vols., London, 1885; repr. Graz, 1967-68.
- C. J. Bamber, *Plants of the Punjab*, Lahore, 1916.
- J. Chardin, *Travels in Persia*, London, 1927.
- F. Cumont, "The Dura Mithraeum," ed. and tr. E. D. Francis, in J. R. Hinnells, ed., *Mithraic Studies I*, Manchester, U.K., 1975, pp. 151-214.
- Abū Ḥanīfa Dīnavarī, *Ketāb al-nabāt. Le dictionnaire botanique*, ed. M. Ḥamīd-Allāh, II, Cairo, 1973.
- Dioscorides, *De Materia Medica*, tr. J. Goodyer (1655), ed. R. T. Gunther as *The Greek Herbal of Dioscorides*, Oxford, 1934.
- V. H. W. Dowson, *Date Production and Protection, with Special Reference to North Africa and the Near East*, Rome, 1982; tr. R. Sanadgol as *Tawlīd o morāqabat-e kormā . . .*, Tehran, 1370 Š./1991.
- Idem and A. Aten, *Dates. Handling, Processing and Packing*, Rome, 1962.
- Draxt-i āsūrīg*, ed. and tr. Y. Māhyār Nawwābī, Tehran, 1346 Š./1967.
- Ebn Waḥšīya, *Ketābal-felāḥat al-nabaṭīya*, facs. ed., 7 vols. in 5, Frankfurt, 1984.
- Edāra-ye koll-e kešāvarzī-e Kūzestān, *Āmār-nāma-ye naḵīlāt-e ostān-e Kūzestān*, n.p., 1365 Š./1986 (mimeograph).
- J. Efenbein, *A Vocabulary of Marw Baluchi*, Naples, 1963.
- R. 'Enāyat, *Kormā-ye Īrān*, Tehran, 1347 Š./1969 (mimeograph).
- L. Erbe, "Date," in *Encyclopedia Americana* VIII, 1984, p. 519.
- B. Farahvašī, *Vāža-nāma-ye kūrī*, Tehran, 2535=1355 Š./1976.



M.-H. Faršī, “Elal-e rokūd-e šāderāt-e ƙormā-ye Īrān,” *Īrān-e ābād* 1/8, 1339 Š./1960a, pp. 83-86.

Idem, “Ƙormā-ye Īrān,” *Īrān-e ābād* 1/7, 1339 Š./1960b, pp. 76-78.

García de Silva y Figueroa, *L’ambassade de Don Garcia de Silva Figueroa en Perse*, tr. A. de Wicquefort, Paris, 1667.

E. Gauba, “Botanische Reisen in der persischen Dattelregion,” *Annalen des Naturhistorischen Museums in Wien* 57, 1949-50, pp. 42-52; 58, 1951, pp. 13-32; 59, 1952-53, pp. 119-34.

Gomrok-e Īrān, *Sāl-nāma-ye āmār-e bāzargānī-e ƙārejī-e . . . sāl-e 1369*, Tehran, 1370 Š./1991.

N. Hamadānī, “Balūčestān,” *Īrān-e ābād* 1/11, 1339 Š./1960, pp. 35-39.

‘A. Ḥekmat Yağmāī, *Bar sāḥel-e Kavīr-e namak*, Tehran, 1368 Š./1989.

F. Hekmat, *The Art of Persian Cooking*, New York, 1961; repr. Tehran, 1349 Š./1970.

W. B. Henning, “A Pahlavi Poem,” in *Selected Papers*, Acta Iranica 15, Leiden, 1977, pp. 349-56.

M. Honari, “Importance de palmier-dattier dans la vie des habitants de Xor,” *Objets et mondes* 11, 1971, pp. 49-58.

A. A. Hussain (‘A.-A. Ḥosayn), *Date Palms and Dates with Their Pests in Iraq*, Baghdad, 1974; tr. ‘A. Ṭabīb-nežād as *Derakt-e ƙormā wa āfāt o bīmārihā-ye ān dar ‘Erāq*, Ahvāz, 1368 Š./1989.

M.-M. Ja‘farī, “Ƙormā-bon wa vāzahā-ye vābasta be ān dar fārsī-e Dāstestān,” *Pažūheš-nāma-ye Farhangestān-e zabān-e Īrān* II, 1356 Š./1977, pp. 63-94.

Ġ. Jazāyerī, *Zabān-e ƙvorākīhā*, 3rd ed., Tehran, 1354 Š./1975.

E. Kaempfer, *Amoenitatum Exoticarum Politico-Physico-Medicarum . . . , Lemgoviae (Lemgo)*, 1712.

K. Kamioka and M. Yamada, *Lārestāni Studies I. Lāri Basic Vocabulary*, Tokyo, 1979.



Ş Kīā, “Korma-bon wa vāzahā-ye vābasta be ān dar fārsī-e Jahrom,” *Pažūheš-nāma-ye Farhange-stān-e zabān-e Īrān* I, 1354 Š./1976, pp. 85-102.

Komīsiūn-e mellī-e Yūneskū dar Īrān, *Īrānšahr*, 2 vols., Tehran, 1342-43 Š./1963-64.

F. Lajard, *Recherches sur le culte du cyprès pyramidal chez les peuples civilisés de l'antiquité*, Paris, 1854. Markaz-e āmār-e Īrān, *Sar-šomārī-e 'omūmī-e kešāvarzī-e 1367*, Tehran, 1371 Š./1992.

Abu'l-Fatḥ Aḥmad b. Moḥammad Maydānī Nišābūrī, *al-Sāmī fi'l-asāmī*, facs. ed., Tehran, 1345 Š./1966.

J. L. Mayer, *English-Baluchi Dictionary*, Lahore, 1909; repr. Lahore, 1975.

L. and M. Milne, *Living Plants of the World*, New York, n.d.

R. Montazemī, *Honar-e āšpazī . . .*, 9th ed., Tehran, 1361 Š./1982.

H. J. Moore, Jr., “*Palmae*,” in K. H. Rechinger, ed., *Flora Iranica* 146, Graz, 1980.

G. Pāk, “‘Māhīā,’ ‘moḳ’ dar janūb,” *Honar-e mardom* 128, 1352 Š./1973, pp. 58-73.

A. Parsa, *Flore de l'Iran* V, Tehran, 1950; VIII, Tehran, 1960.

Marco Polo, *The Travels of Marco Polo*, tr. W. Marsden, ed. M. Komaroff, New York, 1953.

Zakarīyā' Qazvīnī, *'Ajā'eb al-maklūqāt wa ḡarā'eb al-mawjūdāt*, 4th ed., Cairo, 1970.

G. Redard, “Le palmier à Khur,” in W. B. Henning and E. Yarshater, eds., *A Locust's Leg. Studies in Honour of S. H. Taqizadeh*, London, 1962, pp. 213-19.

Ī. Rūḥānī, *Kormā*, Tehran, 1367 Š./1988.

A. Sāyabānī, “Kormā-ye Fīn (moḡ),” *Āyanda* 9/12, 1362 Š./1983, pp. 871-83.

Idem, “Šanāye'-e dastī az derakṭ-e kormā,” *Āyanda* 10/2-3, 1363 Š./1984, pp. 150-59.

Sāzmān-e barnāma wa būdja-ye ostān-e Būšeher, *Barrasī-e kormā wa masā'el-e*



ān dar šahrestān-e Tangestān I, n.p., 1364 Š./1985 (mimeograph).

M. Sotūda, *Farhang-e kermānī*, Tehran, 1335 Š./1956.

Ḥ. Tābetī, *Deraktān-e jangalī-e Īrān*, Tehran, 1326 Š./1947.

Idem, *Jangalhā, deraktān o deraktčahā-ye Īrān*, Tehran, 1355 Š./1976.

Moḥammad-Mo'men Ḥosaynī Tonokābonī (Ḥakīm Mo'men), *Toḥfat al-mo'menīn (Toḥfa-ye Ḥakīm Mo'men)*, Tehran, 1360 Š./1981.

M. J. Vermaseren, *Corpus Inscriptionum et Monumentorum Religionis Mithriacae* I, the Hague, 1956.

F. Viré, "Nakhl," in *EI2* VII, pp. 923-24.

Wezārat-e āb o barq, *Ḳormā*, Tehran, 1349 Š./1970.

Xusrō i Kavātān ut rētak, ed. and tr. D. Monchi-zadeh, in *Monumentum Georg Morgenstierne* II, *Acta Iranica* 22, Leiden, 1982, pp. 47-91.

Abu'l-Qāsem Maḥmūd b. 'Omar Zamaḳšarī, *Pišrov-e adab/Moqaddemat al-adab*, ed. M.-K. Emām, 2 vols., Tehran, 1342 Š./1963.

R. Zamānī, "Deh-e Salm," *Honar o mardom* 119-20, 1351 Š./1972, pp. 30-38.

'A. Zargarī, *Gīāhān-e dārū'ī*, 4th ed., IV, Tehran, 1369 Š./1990.

Plate VII. Impression of cylinder seal, showing Darius I between two palm trees, the British Museum, London, no. 89132. Photograph courtesy of the Trustees of the British Museum.