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CRAFTS

CRAFTS (*ṣanāyeʿ-e/honarhā-ye dastī*), categories of hand work in which utilitarian objects of artistic quality are produced. In this article the crafts of 20th-century Persia will be discussed; for the historical development, see individual entries on media and crafts, for example glass, metalwork, and others cited throughout the article. The modern crafts of Persia encompass such media as textiles, ceramics, metalwork, carving, and inlay work of various kinds (for details of the techniques and terminology of a wide range of 20th-century crafts, see Wulff, *Crafts*). Although crafts have always played a predominant role in the artistic history of Persia, in this century new market forces and social currents have interacted with deeply rooted traditions to produce new types of objects, as well as variations on more familiar ones.

The main published sources for the study of contemporary crafts in Persia are H. E. Wulff's *The Traditional Crafts of Persia. Their Development, Technology, and Influence on Eastern and Western Civilizations*, published in 1966 but based primarily on data collected while he was principal of the technical college at Shiraz between 1316 Š./1937 and 1320 Š./1941; *A Survey of Persian Handicraft*, edited by Jay Gluck and Sumi Hiramoto Gluck in 1977, which contains a variety of information collected by a team of field workers, lavishly illustrated with color photographs of outstanding works; and Jasleen Dhamija's *Living Tradition of Iran's Crafts*, published in 1979, which is focused more generally on the social and economic context within which the craftsmen functioned. Persian craftsmen work in several distinct types of milieu, including small industrial establishments, *bāzār* workshops, cottage

industries, and domestic manufacture in village and pastoral contexts. As recently as 1328/1910 a tabulation of urban activities compiled from Russian sources revealed that more than 5 percent of the urban work force in Persia was engaged in carpet production and another 25 percent in metalworking and other crafts (Floor, 1984, p. 5).

In the mid-19th century, when many Persian crafts suffered under the devastating economic impact of European imported goods, Persian reformers intervened to revive production and develop skills in Persia. Under Nāṣer-al-Dīn Shah (1264-1313/1848-96) Mīrzā Taqī Khan Amīr(-e) Kabīr established a number of state factories for the production of military uniforms, cloth, ceramics, glassware, carriages, and various items of household use. In 1268/1851 he also founded the Dār al-Fonūn (Polytechnic school) in Tehran, based on Western models. Artists trained there played a central role in revitalizing craft work in Persia (for a detailed discussion, see Ādamīyat, pp. 295-99, 353-67, 378-420). Toward the end of the century reform-minded clerics and merchants like Majd-al-Eslām Kermānī, Sayyed Jamāl-al-Dīn Wāʿeẓ Eṣfahānī, Mīrzā Naṣr-Allāh Malek-al-Motakallemīn, and Ḥājj Moḥammad-Ḥosayn Kāzerūnī founded in Isfahan the Anjoman-e šarqī (Eastern association) and Anjoman-e eslāmī (Islamic association) to promote consumption of indigenous products. In 1316/1898 a commercial firm, Šerkat-e eslāmīya (Islamic society), was established by the leading merchants of Isfahan; it manufactured and sold cloth but eventually failed (Ašraf, pp. 100-01; Floor, 1987, p. 31).

In rural areas traditional crafts remained more resistant to European tastes until well into the 20th century (see, e.g., Keddie). Craft work among the village and pastoralist populations of Persia is known mainly from contemporary ethnographic observation and description, as well as from ethnoarcheological studies, especially since the late 1960s (see, e.g., Digard; Black-Michaud, 1986; idem, 1989). Related studies have been focused on settled rural populations (e.g., Kramer, 1977; idem, 1982; Spooner, on the Baluch; Spooner and Mann for wool and cotton production in the Tūrān basin in northeastern Persia).

In the 1930s Reżā Shah Pahlavī (1304-20 Š./1925-41), in an attempt to preserve and encourage local production of textiles and other handwork, established schools for traditional crafts in major cities throughout Persia, including the Madrasa-ye ṣanʿatī-e Īrān wa Almān in Tehran. The emphasis on tradition received a new impetus in the 1960s, when foreign-trained Persian art students began to return home and consciously sought to revive some of the

styles and techniques of the past. At first the tendency was to copy older models closely, but eventually a more creative approach to tradition produced modern solutions.

In Tehran handicrafts were promoted commercially in a number of markets, including connoisseurs of traditional skills, tourists, ordinary household purchasers, and foreign importers. A major exhibition of Persian craft products, including common saddlebags, rough-textured bath mitts (*kīsa-ye ḥammām*), fleece-lined mantles (*pūstīn*) ornamented with embroidery, pottery, glass, beehive covers and batik from Tabrīz, Baluch and other needlework, and the like, at the Wakayama castle museum in Japan in 1963 received considerable publicity in Persia, which helped to create a favorable atmosphere in which Farangīs Yagānegī was able, with government support, to establish a handicrafts organization (Sāzmān-e ṣanāyeʿ-e dastī) and an associated emporium in Tehran (Markaz-e ṣanāyeʿ-e dastī; Gluck and Gluck, pp. 24-28). The latter opened in 1345 Š./1966, carrying predominantly purchases made by Moḥammad Narāqī in all parts of Persia, as well as products specially ordered in Tehran and Isfahan by Mehdī and Violette Ebrāhīmīān. Narāqī followed a policy of encouraging artisans to raise their initial cost bids, in order to elicit the best possible workmanship; unfortunately, after his death purchasing for the organization became bureaucratized, and cost-consciousness came to prevail over salability.

Courtly patronage played an important role in this revival. For example, in 1354 Š./1975 Queen Faraḥ instituted an award for excellence in handicrafts and helped to promote indigenous crafts by appearing in public wearing Persian-made textiles and accessories. Progress was not equal on all fronts, however. Production of *qalamkār*s (woodblock-printed cotton tablecloths, curtains, and bedspreads), perennial favorites in the Isfahan *bāzār* since the 19th century (Plate XII), when they were also exported in quantity (see čīt), was saved from extinction after World War II by foreign buyers. In the 1970s, however, it was curtailed by the Persian handicrafts organization for ecological reasons, as setting colors by rinsing the cloth in the river pollutes the water. A well-meaning attempt to “standardize production” led to enforced use of heavy chemical dyes with the consistency of automobile enamel and virtually destroyed the market. Another problem area was carpets, which for several decades had been a major source of foreign exchange. In the summer of 1345 Š./1966 a chartered plane carrying German carpet dealers visited Persia to persuade those controlling the industry to abandon cheap, garish

chemical dyes in favor of natural dyes; to stop attempts to compete with cheap European machine-made rugs; and to concentrate instead on quality despite high production costs, trusting to the connoisseurs' market to provide sufficient returns. The producers remained unconvinced, however.

After the Islamic Revolution of 1357 Š./1978 the government banned export of handicrafts and even carpets as part of a general policy designed to control the flight of wealth from the country. Although in the mid-1980s limited exports of carpets to Europe and Japan were allowed as barter for restricted imports, full legal exports based on bank transfers at market exchange rates were resumed only in 1369 Š./1990; in that year 70 percent of the income from carpet exports to Japan was from silk carpets, mostly made in Qom. The quality of workmanship and design in that city has risen in response to Japanese demand for fine workmanship, classic designs, and signed pieces. Qom designs, including the signatures, are also imitated in inferior work from Marāğa in Azarbaijan. There is considerable foreign demand for tapestry-woven kilims (*gelīm*s), which are now produced for the market in designs incorporating mixed elements from different regional traditions. Other significant exports to Japan are glass and turquoise-glazed ceramics from Isfahan.

On the other hand, limitations on imports, including clothing and cloth, encouraged revival of the *qalamkār* industry; as antipollution restrictions remained in force, better dyes were developed. Nor did the craft remain limited to tablecloths, curtains, and bedspreads. Japanese television coverage of the Isfahan *bāzār* in the mid-1980s showed great quantities of cloth and ready-made dresses of "Islamic cut" displayed in the *bāzār*. The main firm involved in this manufacture is Šerkat-e čītsāz. Large quantities of *qalamkār*s are currently shipped to Europe and Japan; they include both traditional nonfigurative patterns in three and four colors on heavy cloth tinted with pomegranate skins and newer blue-and-black floral patterns on heavy white cloth.

Nonetheless the departure of many of the most original and highly skilled craftsmen from Persia has caused a serious break in many of the craft traditions of the country. At present the government, largely for economic reasons like creating jobs, is making efforts to restore craft production to prerevolutionary levels, an effort that is also being promoted by private entrepreneurs. Success has been greatest in Tehran, Isfahan, Shiraz, Mašhad, and the province of Gīlān, which is visited by many tourists in the summer.

Nevertheless, quality has not so far been a major focus of these efforts.

Textile crafts (see carpets; abrīšam; cotton). Historically textiles, including carpets, whether home production, contract work, or factory manufactures, have been probably the most important craft products of Persia (see Dillon; English; Spooner and Salzman; Friedl). Because of the pervasive use of woven products for furnishings, as well as clothing, in traditional environments they play a central role in formation of the dowry and contribute to defining status within the community.

Aside from carpets and *qalamkār*s several other important textile crafts have flourished in Persia in the mid-20th century. One of them is production of *kalāgī*s (head scarves) dyed by means of the batik process, a specialty of Oskū in Azarbaijan. Wax or gum pastes are applied in patterns on fabric, which is then dipped in the dye; the process is repeated to obtain different colors. After each stage in the dyeing the fabric is boiled to melt the wax and set the color, then rinsed and dried. This technique was introduced from Russia, and until 1343 Š./1964 it was confined to production of large artificial-silk head scarves for tribal women, with yellow or orange designs on a black ground. After the establishment of the Center for Persian handicrafts new colors and patterns were added to the traditional designs, and such new products as neckties, shawls, and lengths of cloth were also commissioned. This production has continued largely unchanged since the Revolution.

The women of the villages and towns along the Caspian coast, particularly around Qāsemābād in Gīlān, weave colorful traditional shawls in plaid designs (see clothing xxii) and bedspreads and curtains in more complex geometric designs, often including birds, animals, and men riding horses or camels (Gluck and Gluck, p. 178 ill.). These textiles are woven on narrow handlooms and stitched together. Although they were formerly of silk, the women are now dependent on synthetic thread imported and distributed throughout the country by urban merchants. As a result, though the quality of the workmanship and designs has remained high, the colors often seem garish.

A traditional type of brocaded head scarf, usually in red but sometimes in green or plum-colored silk, is produced in Zovīn, Khorasan (Gluck and Gluck, p. 183 ill.), and represents another successful mid-20thcentury revival of a traditional craft.

Several areas of Persia are particularly well known for distinctive

embroideries. The Baluch, Sangesarīs, and Kurds specialize in geometric and a large variety of other cross-stitched designs entirely or almost entirely covering the ground cloth; the work done by Baluch women, characteristically in red, orange, and black, is particularly renowned (see clothing xviii; for an illustration of a characteristic headscarf from the Sangesarīs, see Gluck and Gluck, p. 247 ill.). In a second type the pattern is transferred to the cloth and embroidered, with the plain ground cloth blending into the design. For example, in Gīlān both men and women work designs on wool flannel in chain stitch by means of a hook (*raštī-dūzī*); these designs usually include central medallions surrounded by borders and corner pieces heavily ornamented with *bota*s (teardrop or "paisley" shapes) and floral and bird motifs. In Kermān both light and heavy fabrics are embroidered with a different kind of chain stitch (*pata-dūzī*, *selsela-dūzī*). A third type of embroidery, drawn-thread work (*sokma-dūzī*), usually on a cotton base, is a specialty of Isfahan. In Tehran and other urban areas a few women still embroider luxury materials, stitching patterns in gold sequins (*pūlak-dūzī*), metallic-foil strips (*naqda-dūzī*), silver thread (*malīla-dūzī*), seed pearls (*morvarīd-dūzī*), and small stones (*sang-dūzī*).

In colder regions socks, mittens, and hats are knitted in colors and designs that are specific to each region. In Khorasan, for example, orange, teal, and black are preferred; in Gīlān softer colors; in Azarbaijan dark pink, green, and orange. The tops of traditional cloth shoes (*gīva*) are crocheted from cotton yarn, sometimes embroidered; they are then attached to soles of leather or compacted rags.

Felt (*namad*), made of compacted wool fibers, neither spun nor woven, is important both for clothing and for use in the home as protection against cold and damp. Hats, shepherd's cloaks, floor mats, saddle cloths, tent doors, roofing materials, and weather stripping are characteristic felt products (Andrews, 1973). Among the Qašqāʾīs in the 1940s a particular form of felt cap (*do-gūšī*), derived from earlier models, was adopted as an emblem of tribal identification (Beck, pp. 144-45; see also clothing xxiv). Fulling is strenuous work (Wulff, *Crafts*, pp. 222-24; Gervers and Gervers) and is usually performed by men, often itinerant specialists (Martin); in Fārs some women also do this work, however. Māzandarān produces a particularly soft felt, whereas that from Fārs is rather coarse. Other centers for felt manufacture are Semnān, Qūčān, Kermānšāh, Gonābād, and Torkaman Ṣahrā.

Baskets are woven or coiled from various fibers and grasses, even from

leather strips. Reed baskets are a specialty of the lowlands and marshy areas in southern Persia, around Behbahān, Būšehr, and Bandar(-e) ʿAbbās. Elsewhere in Persia mats, screens for tents, trays, lidded containers, and fans are among the objects produced by means of twining or interlacing fibers. Several regional and tribal groups specialize in distinctive objects. The Qašqāʾī make lidded storage boxes from reeds combined with colored wools. Basket weaving for the tourist market is a major craft industry in the entire Caspian area. Rush mats (*ḥaṣīr*) from Māzandarān are decorated with designs in relief. In Baluchestan huts are built of cane.

Ceramics. An apparently unique characteristic of the Persian pottery made in the 20th century is that it recapitulates almost the entire technological evolution of the medium, as it has been documented from archeological excavations; in that sense Persia is a living museum of ceramic history. Probably the earliest technique still in use is found among Baluch nomads around Kalporegān. The fabric is a red clay heavily tempered with chopped straw. Pots are hand-thrown by women on a primitive tournette consisting of a clay saucer without an axle; this saucer sits on a layer of dry sand spread on a second saucer, which facilitates revolving the pot. After the vessels have been turned geometric and occasionally animal designs are painted on the surface in a matte black. The pots have traditionally been hardened in an open fire of desert brush, gathered, like the clay, by men, who are freer than women to leave the protection of the community; as the use of such fuel has now been declared ecologically damaging, it has been replaced by straw in some areas. The resulting wares closely resemble those of the 5th-2nd millennia b.c.e. excavated in the surrounding area.

The next technological phase documented from archeological excavation is firing in small walled enclosures with no roof, as in Asālem in Ṭāleš (Gluck and Gluck, pp. 50-51), where modern wares strongly resemble those of the late 2nd and early 1st millennia from nearby Mārlīk and other sites in Gīlān and Māzandarān. They too are thrown by women on a tournette of nested plates or a pair of boards separated by sand. The clay and sand are gathered by men from pools at the base of waterfalls and contain a high proportion of organic matter. The women then knead, or wedge, the clay, sometimes with other clay or river sand, to remove air bubbles, then leave it to be seasoned for up to six months. Contemporary potters report having heard from their grandmothers that long ago the clay was seasoned for two or three years, watered and stirred regularly, thus involving a high investment in labor and storage space. Firing

takes a few days and is followed by long, slow cooling, which is also supposed to have taken much longer in earlier times. Men travel with donkey loads of these wares, selling them from village to village, though they now face serious competition from plastics, metalwork, and cheap imported chinaware.

The small, closed kiln probably represents the next stage of technical evolution. At Mīnāb, east of Bandar(e) ʿAbbās, figurines of animals and horsemen are heat-hardened gradually in home ovens as a side product of cooking. They are sold as toys at village markets.

Simple clay beads glazed in turquoise represent another technical advance. Such “donkey beads” (*ḵar-mohra*), charms against the evil eye for animals, children, and mentally-impaired women, are now made only in Qom in Persia. Wulff (1968) and Jay Gluck (Gluck and Gluck, pp. 56-57) each independently interviewed one of the two manufacturers of these beads. A powder of standard copper-blue glaze is mixed with ground river pebbles and ash of glasswort (Russian thistle) to produce a vibrant, opalescent blue; the inclusion of powdered pebbles and ash also prevents glazed beads from adhering to one another during the firing. In 1356 Š./1977 the beads were being sold at wholesale for about a penny apiece. The glaze mixture is also exported in ready-to-use powdered form to other kilns in Persia where turquoise-colored glazed wares are manufactured, notably Qomša (known as Šahreżā for a period under the Pahlavis) near Isfahan; Lālejīn, a suburb of Hamadān; and Naṭanz. No other source for it is known from either texts or oral tradition. Turquoise glazes made from copper mixed with other kinds of ash are far inferior in color and opalescence; for example, although the biscuit body and often the painted decoration of imitation Šahreżā wares made at Yazd since 1354 Š./1975 are superior to those of the originals, the blue color is not.

In antiquity the kilns of Hamadān were noted for a green copper glaze, which is still made today at Lālejīn. Another characteristic color on Persian ceramics is a blue derived from cobalt that is darker but more vibrant than similar Prussian blue (Plate XIII). It is known as *lājvardī* because its color resembles that of lapis lazuli. In ceramics it is used mainly as an underglaze. Nowadays cobalt glazes are imported.

In modern Persia most glazed ceramics, except for better-quality tiles, are coated with an additional clear overglaze (Plate XIV). A substance made of pulverized glass from old bottles is applied to the surface; it melts during firing to produce the transparent overglaze. At Šahreżā in 1348 Š./1969 Gluck

saw in the glazing room waste pits full of coca-cola, vodka, and whisky bottles to be used for this purpose.

The light, delicate white wares of Yazd and Meybod are particularly distinguished by the so-called sun-face (*ḵoršīd ḵānom*, lit., "lady sun") design painted in blue or black in the bottom of the pot or bowl and surrounded with fish and bird motifs or sometimes also on the outer walls of the vessel (Gluck and Gluck, p. 77 ill.). At Naṭanz there were at one time thirty potters producing *čīnīsāz* (stone-paste ware) vases, painted in softer shades of gray, pink, yellow, and blue; in 1355 Š./1976 only one elderly craftsman was still active. Small animal figurines, particularly cats and horses, are also produced in Naṭanz.

Feldspathic china clays somewhat similar to those used in making porcelain in the Far East occur in the vicinity of Qomša and Eṣṭahbānāt southeast of Shiraz, but the high soda content would cause most vessels to collapse at temperatures necessary to fuse porcelain. In 1328 Š./1949 Maḥmūd Farščīān, now a noted painter in traditional style, produced as part of his thesis project for the Isfahan arts college a tall, slender-necked bottle in porcelain from Persian clays, with both underglaze and overglaze painting according to a Safavid design (Gluck and Gluck, p. 95 ill.). Porcelain insulators for utility poles have been made locally for years, but they are mold-cast, and the consistency of the raw material does not lend itself to free working or throwing on the wheel.

Although little pottery has been exported since the Revolution, most production seems to be continuing. Small amounts of black underpainted "Šahreżā ware" with a turquoise glaze, made in Qomša or Yazd, are sent to Japan; the vessels are porous, fragile, and decorative but not very practical. Some white-ground polychrome wares from Yazd and Meybod have also been exported. The quality of the ceramics exported to France, however, was so poor that orders have been discontinued. Nevertheless, since the establishment of the Islamic Republic many kilns have prospered making tiles for the numerous new mosques that have been constructed; those specializing in a harder, heavier biscuit, at Lālejīn and Tabrīz, have been particularly successful.

Glass. By the early Qajar period glass produced in Persia was imitative of European styles (see glass, crystal). In the 1960s, after Roman Ghirshman published a colored photograph of a Sasanian cobalt-blue footed goblet with affixed glass rings from the Nara temple collection in Japan (p. 331 fig. 442),

Mehdī Ebrāhīmīān and Narāqī had it reproduced in quantity and marketed. Jay Gluck also ordered a reproduction made from a photograph of a tall glass pitcher preserved since at least 752 c.e. in the imperial repository at Shosoin in Japan. Narāqī and Ebrāhīmīān together, and later separately, founded glass works in southern Tehran and Isfahan. Although they specialized in reproductions of Sasanian, medieval, and 18th- and 19th-century glass objects, the craftsmen also spontaneously developed new adaptations of the old designs. No raw materials were used, however, but only recycled bottles and panes, which yield a more brittle glass; the technique was also far inferior to that of revival kilns in Majorca and Venice, and no export market developed.

Metalwork (see ahān; berenj; bronze; copper). In the 20th century Shiraz has been a major center for silver work, including combinations of embossed and engraved designs often incorporating motifs from nearby Persepolis (Gluck and Gluck, p. 18; Daniel; Wulff, *Crafts*, pl. 3 following p. 8). Tinned copper was produced in a number of centers (Plate XV); a type with incised designs was characteristic of Isfahan (for an illustrated step-by-step description of the manufacture of an ewer, or *āftāba*, in Isfahan in about 1349 Š./1970, see Westphal-Hellbusch and Bruns, pp. 90-115). Many of the artisans in these two cities were Jewish, and Jewish themes were included in the decoration of a number of objects made between the 1950s and the Revolution, primarily for the tourist market (Loeb, 1977a; idem, 1977b, p. 152). In addition, there seems to have been a thriving production of “antique” scientific instruments in brass at Isfahan in the same period (Loeb, 1977a). Zanjān is particularly known for filigree work made from thin silver wires, but similar work was also done in Tehran and Isfahan. Ordinary implements and utensils often revealed high levels of artistry, for example, the traditional locks and keys collected and published by Parvīz Tanāwolī (Tanavoli).

Stone. Carved stone has not played a significant role in the 20th-century architecture of Persia. On the other hand, the treatment of a particular stone, *sang-e sabz* (lit., “green stone”), as a ceramic material is peculiar to Persia. This stone, sometimes identified as steatite or soapstone but actually a hard chlorite with a high aluminum content, has been mined at Šahdād in Kermān province and worked nearby since at least as early as the 3rd millennium b.c.e. (see chlorite); it is currently also shipped to Mašhad, where it appears to be worked by means of tools and technology that can be traced to antiquity (Wulff, *Crafts*, p. 222; Gluck and Gluck, pp. 32-35). A softer, pale-gray talc mined near Mašhad itself is worked in a similar fashion. The objects, mostly

dīzī (see āb-gūšt) cooking pots, are turned on a bow-powered hand lathe and must be placed in home ovens (*tanūr*) to be hardened and blackened. In practice this procedure is left to the buyer and takes place gradually. Used *dīzī*s are almost as hard as cast iron and sound like metal when struck; striking a new piece will chip or even shatter it. A few of these vessels, mostly of Mašhad talc, are embellished with sgraffito designs (Gluck and Gluck, pp. 3537 ills.) and are intended to resemble hammered or incised metalwork. After turning them the craftsman oils the surface so that the engraved designs stand out in the natural light gray of the stone. These objects are fragile and have thus earned an unfair reputation for shoddiness. Lathe-turned stone vessels are also made at Qom (Gluck and Gluck, p. 39 ill.).

Until recently an imitation-seal industry thrived at Shiraz; seals, particularly in agate, were made occasionally as personalized accessories for connoisseurs but predominantly as forgeries for the Tehran antiquities market. Originally the designs or inscriptions were incised on ancient blanks, but, as the available supply ran out, new blanks were made; according to Shiraz artisans, they were heat-hardened after having been incised and "aged" (Gluck, interviews with Shiraz artisans in 1347 Š./1968 and 1355 Š./1976).

Wood. Although parts of the Caspian provinces are densely forested, trees are scarce on the Persian plateau. In many parts of Persia wood is so valuable that door jambs, lintels, and roof beams are removed and carried away when populations are relocated, as after an earthquake or a flood. In addition, Yomūt Turkmen in the northeast and Šāhsevan tribal groups in the northwest construct the frames of their circular tents from wood, usually willow (Andrews, 1980).

Wood from fruit and nut trees (peach, pear, walnut, almond), as well as beech, poplar, and willow, is used for furnishings (cabinets, chests, trunks, doors, cradles) and small decorative or functional objects like combs, spoons, and spindles. A kind of folding stand for the Qurʾān and other books (*raḥla*) is made by carving interlocking hinges from a single board (see Kurz). Softer woods are reserved for fine objects and especially for the carving of the printing blocks used in making *qalamkār*s (see above) and the manufacture of ladles (*čamča*s) with openwork handles, used for serving *dūg* (diluted yogurt) and fruit drinks.

The most famous type of Persian wood-inlay work, *ḵātam-kārī*, has been a specialty of Shiraz in the 20th century. Strips of bone and rare woods are glued

together in bundles; then each bundle is sliced horizontally to produce a variety of thin star and other shapes, which are glued in mosaic patterns onto furniture and small objects like boxes. A final polishing and varnish provide a shiny, protective outer surface. In recent years brass strips have been added to these designs.

Leather (see čarm; dabbāḡī). The preparation of animal hides was usually separate from the actual processes of leatherworking, tooling, and finishing, which might take place in stalls in the *bāzār*s. Saddles, harnesses, and other riding equipment, including the reinforced edges of woven saddlebags, are manufactured in rural areas and villages in or near regions where horses are an important part of the local economy (Martin).

BIBLIOGRAPHY

F. Ādamīyat, *Amīr Kabīr wa Īrān*, 4th ed., Tehran, 1354 Š./1975.

A. Amanat, ed., *Cities & Trade. Consul Abbott on the Economy and Society of Iran 1847-1866*, London, 1983.

P. A. Andrews, “The White House of Khurasan. The Felt Tents of the Iranian Yomut and Goklen,” *Iran* 2, 1973, pp. 93-110.

Idem, “The Turkmen Tent,” in L. W. Mackie and J. Thompson, eds., *Turkmen. Tribal Carpets and Traditions*, Washington, D.C., 1980, pp. 39-59.

A. Ašraf, *Mawāneʿ-e rošd-e sarmāya-dārī dar Īrān. Dawra-ye qājārīya*, Tehran, 1359 Š./1980.

L. Beck, *The Qashqai of Iran*, New Haven, Conn., 1986.

J. Black-Michaud, *Sheep and Land*, Cambridge, 1986.

Idem, “Carpets and History,” *Aramco*, May-June 1989.

R. Chenciner, ed., *Embroidered Flowers from Thrace to Tartary*, London, 1981.

D. J. Content, ed., *Islamic Rings and Gems. The Zucker Collection*, London, 1987.

V. C. N. Daniel, “Persian Silver,” *The Antique Dealer and Collectors’ Guide*, May 1952, pp. 26-27.

J. Dhamija, *Living Tradition of Iran’s Crafts*, New Delhi, 1979.

J.-P. Digard, *Techniques des nomades baxtyâri d’Iran*, Cambridge, 1981.

R. J. Dillon, “Carpet Capitalism and Craft Involution in Kirman, Iran,” Ph.D. diss., Columbia University, New York, 1976.

V. Enderlein, *Orientalische Kelims*, Berlin, 1986.

P. English, *City and Village in Iran. Settlement and Economy in the Kirman Basin*, Madison, Wisc., 1966.

M. L. Entner, *Russo-Persian Commercial Relations, 1828-1914*, Gainesville, Fla., 1965.

W. Floor, *Industrialization in Iran 1900-1941*, Centre for Middle Eastern and Islamic Studies, Occasional Paper 23, Durham, 1984.

Idem, “Economy and Society,” in C. Bier, ed., *Woven from the Soul, Spun from the Heart. Textile Arts of Safavid and Qajar Iran*, Washington, D.C., 1987, pp. 20-32.

P. Fontaine, “The Carpet Weaving Industry in the Arak Region. Permanence and Change in the Technical Organization of Production,” *Oriental Carpet and Textile Studies* 3/1, 1987, pp. 52-64.

P. A. de Franchis and J. T. Wertime, *Lori and Bakhtiyari Flatweaves*, Tehran, 1976.

E. Friedl, *Women of Deh Koh*, Washington, D.C., 1989.

M. Gervers and V. Gervers, “Felt-Making Craftsmen of the Anatolian and Iranian Plateau,” *Textile Museum Journal* 4, 1974, pp. 14-29.

R. Ghirshman, *Iran. Parthians and Sassanians*, tr. S. Gilbert and J. Emmons, London, 1962.

J. Gluck and S. Gluck, eds., *A Survey of Persian Handicraft. A Pictorial Introduction to the Contemporary Folk Arts and Art Crafts of Modern Iran*,

Tehran, 1356 Š./1977.

J. Housego, *Tribal Rugs. An Introduction to the Weaving of the Tribes in Iran*, New York, 1978.

C. Issawi, *The Economic History of Iran, 1800-1914*, Chicago, 1971.

A. Ittig, "The Kirmani Boom. A Study in Carpet Entrepreneurship," *Oriental Carpet and Textile Studies* 1, 1985, pp. 111-23.

N. R. Keddie, "Material Culture and Geography. Toward a Holistic Comparative History of the Middle East," *Comparative Studies in Society and History* 26, 1984, pp. 709-35.

A. F. Kendrick and C. E. C. Tattersall, *Hand-Woven Carpets. Oriental and European*, London, 1922.

C. Kramer, "Pots and Peoples," in L. D. Levine and T. C. Young, Jr., eds., *Mountains and Lowlands. Essays in the Archaeology of Greater Mesopotamia*, Bibliotheca Mesopotamia 7, Malibu, Calif., 1977, pp. 91-112.

Idem, *Village Ethnoarchaeology. Rural Iran in Archaeological Perspective*, New York, 1982.

J. Kröger, *Glas*, Islamische Kunst, Loseblatt-katalog unpublizierter Werke aus deutschen Museen 1, Mainz, 1984.

O. Kurz, "Folding Chairs and Koran Stands," in R. Ettinghausen, ed., *Islamic Art in The Metropolitan Museum of Art*, New York, 1972, pp. 299-314.

L. D. Loeb, "Creating Antiques for Fun and Profit. Encounters between Iranian Jewish Merchants and Touring Coreligionists," in V. L. Smith, *Hosts and Guests. The Anthropology of Tourism*, Philadelphia, 1977a, pp. 185-92.

Idem, *Outcaste. Jewish Life in Southern Iran*, New York, 1977b.

M. Martin, "City and Country. Rural Textile Production in Northeastern Iran," in C. Bier, ed., *Woven from the Soul, Spun from the Heart. Textile Arts of Safavid and Qajar Iran*, Washington, D.C., 1987, pp. 121-33.

R. Neumann, *Persiche Seiden*, Leipzig, 1988.

L. J. Olmer, “L’industrie persane, rapport sur une mission scientifique,” *Nouvelles archives scientifiques* 16/4, 1908.

J. Opie, *Tribal Rugs of Southern Persia*, Portland, Ore., 1981.

E. Sevrugian, *Die gewerbliche Wirtschaft Persiens gegen Ende der Kadjarenherrschaft*, Heidelberg, 1967.

B. Spooner, *The Cultural Ecology of Pastoral Nomads*, Reading, Mass., 1973.

Idem and H. S. Mann, eds. *Desertification and Development. Dryland Ecology in Social Perspective*, London, 1982.

B. Spooner and P. Salzman, “Kirman and the Middle East. Paul Ward English’s *City and Village in Iran. Settlement and Economy in the Kirman Basin*,” *Iran* 7, 1969, pp. 107-13.

P. Tanavoli, *Locks from Iran. Pre-Islamic to 20th Century*, Washington, D.C., 1976.

Idem, *Shahsavan. Iranian Rugs and Textiles*, New York, 1985.

S. Westphal-Hellbusch and I. Bruns, *Metallgefässe aus Buchara*, Berlin, 1974.

H. E. Wulff et al. “Egyptian Faience. A Possible Survival in Iran,” in *Archaeology* 21, April 1968, pp. 98-107.

(This article has been compiled from personal observations and reports by Carole Bier, Mehdī Ebrāhīmīān, Iran Ala Firouz, and Jay Gluck.)

Plate XII. Textile printer (*qalamkārsāz*) stamping design with inked wooden pattern block, Isfahan, 1355 Š./1976. Photograph courtesy of Judith Lerner.

Plate XIII. Painting ceramics in a government workshop at Hamadān, 1356 Š./1977. Photograph courtesy of Judith Lerner.

Plate XIV. Applying glaze to pottery bowls by dipping, Eṣṭahbānāt, 1355 Š./1976. Photograph courtesy of Judith Lerner.

Plate XV. Tinner (*safīdgar*) coating copper tray in the *bāzār* at Yazd, 1356 Š./1977. Photograph courtesy of Judith Lerner.