Plymouth Museum & Art Gallery

Report on West Asian metalwork collection

Dr. Ken Teague, August 2007

Introduction

The West Asian metalwork collection consists of nineteen objects.

Current Information - Consists of the object name and a brief description of use and design (see Plymouth's collection list)

Materials - Most pieces are made in copper alloy i.e. brass, with one piece possibly in silver enamel, and another in semi-precious stones and silver work.

Provenance – Most of the collection derives from Iran, with some from Turkey and Syria, and possibly individual objects from Kuwait, Iraq, Afghanistan and Arabia.
Note: Finer provenancing would be helped by sourcing biographical details about the collectors, e.g. where they worked, lived or travelled etc.

Plymouth's Brief – Is to provide information on:

1. The use of these objects
2. Their design and manufacture
3. Their historical contexts
4. Their cultural significance

Overview

This report opens with an overview of **general points** to be made about Islamic metalwares.

1. The collection illustrates the three main fictional groupings if Islamic metalwares: Domestic, Religious and Military, plus other various objects.

   Domestic wares include plates, bowls, coffee pots, boxes with lids, vases and lamps- all utensils which are essential parts of a bride's dowry.

   Religious items include incense burners, used in the context of either the household or mosque (the difference is usually indicated by smaller sizes in the household context and larger in the mosque, but is not a rigid distinction).

   Military items are represented by the shield (L7.136.1), and may include the knife and sheath (1934.25.705), although this may also be classified as a domestic since most men carry knives on a personal basis.

   'Various' objects include the bracelet (1934.25.563); the pen and ink container (1959.179); and the rosewater sprinkler (1934.25.688). Individual objects are discussed below.

2. ‘Islamic metalwork was made primarily for secular use’ (Ward 1993, 19). There is some disagreement about the primary inspiration for Turkic metalwares.

3. Sassanian Persia was the basic inspiration or influence on pre-Islamic metalworking, ‘and had a lasting effect on Islamic metalwork over many centuries’ (Bamborough 1976, 100; Madel 1979, 36).

4. Metalworking was a particular craft among the Turkic peoples of the Altai region of central Asia and southern Siberia. Turkish historians e.g. Bodur (1987, 54-5, 69) trace their origins to the Huns, first recorded in the 4th C BC. From about the 6th Century AD onwards, some of these peoples began to migrate westwards. During these migrations many metalworkers settled *en route* across central and western Asia in Iran, Iraq, Syria and Turkey where they founded the Ottoman regime.

5. Most Islamic metalwares are made in base rather than in precious metals i.e. in copper and it’s alloys, primarily in brass (jewellery is obviously an exception to this statement).

6. Some techniques and designs spread and were common throughout the Islamic culture area e.g. inlay work from Mosul (see below), which makes precise provenancing difficult.

Historical Contexts

The historical contexts of the Plymouth Collection largely centre on Iran, Ottoman Turkey and Syria etc., and date from the last three (?) centuries. I discuss these contexts in turn.

Iran

The modern history of Iran (18^{th}-20^{th} centuries) is characterised by successive periods of warfare which were often initiated by neighbouring regimes in Afghanistan, Russia and Turkey, and Britain (concerned to secure the approaches to India). Given that metalworking was mostly based in urban centres, the craft suffered corresponding disturbances and lack of patronage.

In the early 18^{th} century persecuted Sunni tribes in Daghestan revolted against the Shia Safavid Shah. In 1722 the Afgan Ghilzias, also Sunnis, invaded Persia from the east, defeated the royal forces, and besieged the capital for six months before it fell. Thousands of Persians died from famine, disease and the Afghan attacks. Mahmud the Ghilzai leader deposed the Safavid Shah and took the throne. At the same time (1722) the Russian under Peter the Great invaded north Persia. Russia and Turkey signed a treaty partitioning Persia: Turkey seized much of western and north-western Persia whilst the Russians kept the north.

In 1725 Nadr Quli Beg gained control, defeated the Ghilzais and regained Isfahan. He then drove the Russians out of Persia, and invaded Turkey, taking Erivan and Erzerum in eastern Anatolia.

In 1736 the Safavid Dynasty was ended by an Afghan invasion, but Nadr defeated them with Afshar troops and took the Persian throne as Nadir Shah. He then invaded India and took Delhi. On his return journey to Persia he defeated the Uzbecks of Bukhara and Khiva in central Asia.

In 1747 Nadir Shah was murdered in Khurasan (north-east Persia). Eventually Agha Muhammad Khan Qajar united the Qajar tribes, captured Teheran which he made his capital, and took the title of *Shah* in 1795, founding the Qajar Dynasty. In 1797 Agha Muhammad was assassinated. Despite this the Qajars (an Iranian dynasty) ruled a unified Persia until 1925.

During the reign of Fath Ali Shah (1797-1834) intense European rivalry for control of Persia started between Britain and Russia.

In 1834 Muhammad Shah succeeded to the Persian throne, and besieged Heart to compensate for Russia gains in Persia. He failed to take it.

In 1847 Britain and Russia persuaded Persia and Turkey to define their frontier at the treaty of Erzerum.

As Shah Nasir al-Din (184801896) introduced reforms to modernise Persia in education, communications – post and telegraph – and enforced security. The Shah visited Europe three times, and many foreigners visited Persia during his reign. Naser al-Din also exploited the rivalry between Britain and Russia to maintain Persian independence until he was murdered in 1896.

In 1907, under the Anglo-Russian Agreement, and without consultation with the Persian government, Persia was divided into three zones or 'Spheres of Influence' one where Russian influence was predominant; one where British influence was predominant, and one neutral zone. By 1908 the Persian national finances were in chaos and the Russians seized Tabriz and Mashad.

In 1914 Persia declared neutrality in the First War, but sympathised with Germany as an enemy of Russia. The Russians and British then occupied parts of Persia during the First World War (Boyle 1978, 41-46).

In 1921 a *coup d'etat* displaced the Qajars and the final Qajar ruler, Ahmed Shah, was deposed in 1925 and the Pehlevi Dynasty was founded by Reza Shah Pehlevi. This dynasty in turn was deposed in 1979.

Persian metalworking declined after the end of the Safavids, and data is lacking for its development during the following period (Bamborough 1976, 117; Melikian-Chervani 1982, 274; but see Wulff, H.E 1966 for more recent accounts.

Turkey

After the Turkish adoption of Islam the Turks conquered Syria, Persia and Anatolia. From their base in Turkey/Anatolia, the Turkish Empire was ruled by a single dynasty, the Ottomans (c. 1281-1924) throughout the period of the formation of the Plymouth Collection.

The **Ottoman Empire** was characterised by its multi-cultural, multi-faith nature. Ottoman Turkey had a low degree of political unity, and diverse social and religious practices including Sunni (the majority) and Shia Islam, pre-Islamic, informal religions amongst nomadic peoples (Yoruk and Gypsies) as well as Armenian Christians (Greek Orthodox) and Jews. 'Anatolia was only technically Muslim' (Lewis 1971,11,16,121,170,173,175-7).

Ottoman state control of metalwork was considerable, and especially focused on Constantinople/Istanbul, the capital (see Metalcraftsmen below)

Syria

A Province, *vilayet*, of the Ottoman Empire. Major cities and metalworking centres from ancient times include Damascus, Aleppo and Hama; Syria's main port is Latakia. Syria is poor in mineral resources but metalwares form major exports (Hadlow & Abbott 1969, 53; Stamp 1957, 141).

Aleppo, aka Haleb, is on a major trade route to Mosul, and was an important city on Ottoman caravan routes (Goodwin 1999, 285-6; Stamp 1957, 119-120).

Damascus: an important, wealthy city and industrial centre on a caravan route. The Prophet's standard was housed here until it was moved to Constantinople in 1594 (Goodwin 1999, 118, 213).

In the 1780's a wealthy urban family household had copper platters, stewing pans and some tinned plates. Nomads had a cooking pot and perhaps a few plates (Quataert 200. 153-4).

1805 the Turks, with the aid of the British re-took the Syrian coast.
1826 the Ottoman government disbanded the Janissary Corps and confiscated every regimental cauldron as government property (Goodwin 1999, 298).
1920 after the dissolution of the Ottoman Empire Syria became a French mandate.
1944 Syria became an independent republic

The modern population numbers at 3 ½ m; 6/7 Sunni Muslims, 1/7 Christians (Stamp 1957, 134); OR 5,700,000m (Hadlow & Abbott 1969, 53). Turks and Christians shared churches in some towns (Goodwin 1999, 193, 269, 290, 300).

Metal Industry: Syria was especially noted for inlaid metalwork (Ashtor 1976, 244, 309). European merchants dealing in Syrian ports in the medieval period included those from Venice, Genoa, Amalfi and (after the 11thC) Pisa. European merchants exported copper, tin, lead and iron to Syria (Ashtor 1976, 196).

Metal craftsmen – organisation

Most metal craftsmen in the Islamic world worked in bazaar workshops in the towns, although some craftsmen were itinerant (Ward 1993, 22).

Manufacturing centres included:

Iran – Isfahan, and main centres in the north-east (Bamborough 1976, 105)
Turkey – Istanbul, Trabzon (silverwork) and . . .
Syria (part of the Ottoman Empire) – Damascus
Iraq (part of the Ottoman Empire) – Mosul, a great market noted for its metal workers (Hadlow & Abbott 1969, 58; Stamp 1957, 58). The styles of both Damascus and Mosul, main centres of inlay work, were very close (Mandel 1978, 38).
Afghanistan – Heart
Uzbekistan – Samarkand, Bukhara, Khiva

Patrons were rarely involved in the production of base-metal vessels (the majority of production in Islamic wares) (Ward 1993, 26).

In 19th C **Iran**, metal craftsmen formed craft guilds in urban workshops. From the 1930's onwards, under a centralised political regime which disliked separate associations, and favoured westernisation, these craft guilds declined (Mandel 1979, 41).

Craftsmen's groups had internal specialisation: some formed the basic shape, others cast the solid parts such as handles, others soldered the body and handles together; some decorated the vessels by engraving etc, appliqué work indicates Kashmiri and north Indian influences; others did tinning on food vessels (Melikian-Chirvani 1982, 274).

In **Ottoman Turkey**, despite the bureaucracy involved in metallurgy, a 'major industry', the metal trade flourished in both Istanbul, where there were factories and lanes of coppersmiths in the Grand Bazaar, and in the provinces, although artistry was not especially encouraged in the latter (Lewis 1971, 195-6). Officials, *Kadis*, inspected cooking vessels to ensure their tinning was correctly applied (Lewis 1971, 74, 82, 142-3, 193).

Metal craftsmen were organised in guilds whose representatives (Sheikhs) answered to central government and were responsible for the collection and payment of taxes as well as guild discipline and order. Guild legislation decreed that an artisan was to be given a

fair price for his work, and that he was prevented from overcharging for his products (Goodwin 1998, 116). Many craftsmen came to Istanbul from the provinces and from other countries, e.g. Damascus and Aleppo in Syria, as well as from Samarkand, each bringing their own forms and specialities (Lewis 1971, 151).

Manufacturing – Metal sources

Hodges (1971, 11) provides a map of mineral deposits in the Near East – a 'Mineral Crescent'. Metallic ores are present in the mountains of east Turkey and Syria, and in western and eastern Iran, including Khurassan (east Iran) – the richest source of metals in the Islamic world, and where there was a strong metalworking tradition (Hodges 1970, 48, 80; Ward 1993, 29, 53).

Hodges (1970, 108) also speculates that **tin** deposits (for bronze) were also found in this 'Mineral Crescent', but Ward (1993, 29) says that tin was imported into the Islamic culture area from southeast Asia, e.g. Malaya, until the 14th C; after this it was imported from Europe.

The preference for non-ferrous metals in the Islamic World – bronze, bell metal and brass (with silver inlay) dates from the silver 'famine' of the 10-12th C, when these base metals were used as substitutes for precious metals. This preference may also have been reinforced by Koranic scriptures, which were against the use of precious metals. Brass, the alloy of copper and zinc in various proportions, was introduced into the Islamic metal repertoire in the 15th C. Due to its propensity to *verdigris*, a metal disease, brass was unsuitable for tablewares and cooking vessels unless it was **tinned** (Ward 1993, 29). This preference base for metals persisted despite the influx of silver from the transatlantic trade, c. 1500-1800, which reached inner Asia through Europe and China. Precious metals were still used in the manufacture of women's jewellery and as inlays on weapons.

Local ores were abundant in eastern Anatolia, western and eastern Iran and Turkestan until the 19th C when they were no longer exploited. Iran became dependant on imported metals from Russia and India (Kalter 1984, 137; Melikian-Chirvani 1982, 274), and Lewis (1971, 142) notes that the main imports of tin, iron and lead into the Ottoman Empire derived from England.

In Ottoman Turkey where mineral resources were considerable, mines were exploited by the state, and were developed only as necessary. Silver, gold, copper and iron were all mined. The discovery of valuable ores were reported and surveyed by state officials, samples were taken and analysed. If approved for exploitation, one or two neighbouring villages were made responsible for enforced work (corvee) on the mines and were exempted from taxes in compensation, with experience foreman seconded from other workings. Miners' rights and duties were strictly state-controlled (Lewis 1971, 165).

Istanbul's needs for metals were not met before those of the provinces. Copper cauldron makers of provincial towns such as Sivas, Tokat and Amasya bought copper from local mines but had to have a letter of authorisation from central government beforehand (Lewis 1971, 82, 142-3).

A major difference in preferences is apparent between Central Asia and Turkey: in Central Asia e.g. Uzbekistan – Bukhara and Kokland, brass was the standard material employed with tin-plated copper the exception, whilst tin plated copper was the most common and highly valued material in Iran during the Safavid period and afterwards, and in Ottoman Turkey (Kalter & Pavaloi 1997, 313).

Tinning – copperwares used as kitchen utensils are dangerous unless the inner surface is lined with a tin alloy to prevent oxidisation caused by acids in foods. The surface is cleaned with acid and sand, heated, then rubbed with sal ammoniac and sand and a tin stick, which melts and covers the surface. The technique is still practiced in Turkish cities from Istanbul to Trabzon.

Manufacturing methods

Islamic metalworking techniques included: casting, using piece moulds or lost wax; sheet metal working by forging and hammering, or spinning on a lathe.

Techniques of surface decoration on metalwares **repousse, stamping, piercing, engraving, chasing, inlay and overlay work**.

Repousse – hammering thin sheet metal from inside the vessel against a firm but yielding material such as bitumen or pitch or a sandbag; this created a relief design which could be very elaborate.

Stamping or **punching** – pattern forming on surfaces by hammering with punches with patterned surfaces on the outside.

Piercing – removing metal to make holes in the object, with hammer and chisel, fretsaws, drills and files, making a lighter piece, was especially popular on Iranian openwork wares.

Engraving – removing metal from the surface of an object with a chisel, to create complex designs, e.g. of figures, floral motifs etc.

Chasing – incising, punching and tracing the surface without removing any metal, to add detail and texture.

Overlay – the application of another material e.g. gold or silver to imitate precious materials, or tin to proof a brass or copper vessel against verdigris.

Inlay – the laying of materials into a metal surface. Base metals were inlaid with gold, silver and copper or a black material such as *niello* (a mixture of metallic sulphides), or bitumen to contrast with engraved designs. In lay into grooves or undercut depressions was a skilled, time-consuming technique especially popular in Islamic wares (Kalter 1984, 137-143; Teague 1990, 26-30; Ward 1993, 35-7).

The Mosul technique of silver or copper inlay onto a bronze core was especially done on ewers, jugs and large candlestick, and flourished throughout the Islamic world except in Spain and western parts of North Africa (Talbot Rice 1975, 110).

Metalworkers in western and eastern Iran and in Bukhara produced bronzes with a high (@ 20%) tin content, which allowed them to be forged like iron when red hot, but were malleable after quenching, and so were suitable for **inlay** work.

Encrustation – the setting of gems and other materials, e.g. filigree, thin wire, to form a relief decoration on metalwares. Bukhara was especially noted for mirror glass and mastic inlays on metal objects, which indicates influence from Kashmir and north India.

Decorative motifs – Decorative motifs on Islamic metalwares include: arabesques (scrolls formed of plant tendrils – the quintessential motif in Islamic metalwares), panels with animals, real and mythic, birds, geometrics, endless knots (from Buddhist iconography) inscriptions, usually in Kufic or Nakshi (Bamborough 1976, 105) or garbled script (see pen and ink containers (1959.179), and human figures. Whilst representations of human figures were forbidden in the Q'ran a teaching which the Ottomans adhered to, they are frequently met with in Persian/Iranian wares, for example the matchbox (1934.25.616) and the vase (1934.25.648) which depict a kneeling figure of a man, a 'hero' (a feature of several pieces in the collection and a popular motif in Iran).

Plymouth Collection

1908.180 – Plate, inlaid brass, Turkey. Decorated with a monogram *tugra*. This differs from the Sultan's monogram (See Levey 1975, 64; Rogers & Ward 1988, 57-8, 218), so may indicate that the plate was owned by minor royalty. Part of a set of wares (up to 50+ pieces), used to serve cold buffet ap[petizers, *dostarkhan* (bread, sweets, fruit) to guests.

1934.25.119 – Bowl, Iran; cooking vessel or perhaps a wash basin, tinned sheet copper (cheaper than brass), maybe made from local or imported metal from England (Allen 1979, 34-6; Ward 1993, 106).

1934.25.436 – Coffee pot, brass; Syria or Turkey (see Bodur 1987, 147)

1934.25.563 – Bracelet, silver-plated brass? Or white metal Turkey? Seven panels of semi-precious stones, alternating blue (4) and red (3) inset into a six pointed star and scrollwork on a black background, the panels are joined by chain links, with a pendant coin. Bracelets were part of a set rather than isolated pieces. One of their functions was talismanic. A popular combination was turquoise, coral and silver (Kalter & Pavaloi 1997, 287), which is echoed in this piece. These materials might be locally produced or imported from Europe, India or Indonesia; silver was obtained from melted down coins from China, Iran and Russia. In the early 20th C jewellery made from precious materials might be borrowed or rented since it was too expensive to buy (Lindisfarne-Tapper & Ingham 1997, 62).

1934.25.616 – matchbox with lid, brass, Iran decorated with an embossed human figure? A 'hero'.

1934.25.619 – Incense burner, brass Syria or Iran (see Mandel 1979, 40-41), 19th C? pierced sheet metal and solid-cast legs (indicating it was made by multiple, specialist craftsmen).

1934.25.633 – Coffee pot or 'pouring vessel' (Kalter & Pavaloi 1997, 313), brass (/ silver inlay on the body)' Kuwait (but see K&P 1997, 313 for similar specimens from Heart and Bukhara). Craft specialisation in manufacture is indicated by the combination and sheet and solid cast elements.

1934.25.705 – Knife and sheath, steel, brass, bone, leather (sheath), Afghanistan, but could equally be from an urban workshop in Turkey or Iran (see Kalter 1983, 88)

1934.25.631x – a lid with a lotus bud finial and enamelled inlays of green foliage with dark blue flowers, silver? West Asia? Or Bukhara?

1934.25.648x – Vase and lid, brass, Iran? Early 20th C. A footed vase in openwork, with two handles with dragon (?) heads (dragon heads prevent contamination of the contents) and panels with figures (an Iranian motif).

1934.25.688x – provenanced as a ‘vase and lid’, but is surely a rose water sprinkler, *golabzan*, brass, Iran, but could equally be Indian; used to perfume the house or person (Holbein Hendley 1895, PI X, PI XII; Melikian-Chirvani 1982, 388; Ward 1993, 10).

1934.25.742x – Plate, enamelled brass with floral inlays, West Asia; arabesque scrolls but the shapes perhaps indicate Russian influence? In northern Iran? Late 19th C.

1934.25.762x – Copper bowl with everted rim, Iran? Domestic ware with a rough finish? Remnants of trimming inside.

1959.179 – Pen and ink container, brass, with decorative script engraved and punched. A type which is ‘universal across the Islamic world, e.g. Arabia, Turkey (Bodur 1987, 113; Lewis 1971, 67); Uzbekistan (Gafur Gulyam 1986); Afghanistan (Melikian-Chirvani 1982, 237); Iran (Ward 1993, 83); Kashmir, India or North Africa.

AR.1983.1249.1-3 – Vase and lid (openwork/broken) and finial, brass with engraved decoration of arabesques, lotus petals and human figures, Iran.

AR.1983.1249.4 – Stand, brass Iran? A candle stand with 8 legs (see Melikian-Chirvani 1982, 87, 89). Solid legs and openwork body and lattice work top suggest multiple craftsmanship.

AR.1983.1250 – incense burner or brazier and lid, brass, Iran. A footed brass bowl in openwork with cartouches of kneeling figures, and dragon-head (?) handles (? Part of a set with AR.1983.1249.2).

AR.1983.1255 – Coffee pot, brass, Gulf-type, Iran. Fluted, angular body on a cylindrical base, a solid-cast ‘strap’ handle riveted to the lid and neck. Sheet and solid cast parts indicate multiple craftsmen. It has similarities with Bukharan vessels (see Kalter & Pavaloi 1997, 315-15, 321-3; Abdullayev et al 1984, 90-1).

1.7.136.1 – Shield, brass, Arab Culture area, West Asia. A buckler with a low columnar boss, brass domes and plates decorated with openwork scrolls and solid plates riveted and bound onto a black base. Surely Osmanli Turkish 18th-19th C (see Bodur 1987, 182).

Recommendations

1. Close examination of motifs etc. needs more time and money to pay for travel and subsistence.

2. Laboratory analysis of the materials

3. The addition of biographical information on the collectors involved in the Collection.

References

Abdullayev, T. Fakhretdinova, D. Khakimov, A. 1984. *A Song in Metal, Folk Art of Uzbekistan*, Gafur Gulyam: Tashkent.

Allan, J.W. 1979 *Persian Metal Technology 700-1300 AD*, Ithaca Press: London

Arts Council, 1976, *The Art of Islam*

Ashtor. E., 1976 *A Social and Economic History of the Near East in the Middle Ages*, Collins: London

Bamborough, P,. 1976 *Treasures of Islam*, Blandford Press: Poole

Bodur, F,. 1987 *The Art of Turkish Metalworking*, Turk Kulturune Hizmet Vakif: Istanbul

Boyle, J. (ed) 1978. Persia. History & Heritage, Melland: London

Goodwin, J., 1999. *Lords of the Horizons*, Chatto & Windus: London

Hadlow, L & Abbott R 1969 *Asia* University of London Press: London

Hodges, H. 1964 *Artifacts*, John Baker: London

1970. *Technology in the Ancient World*, Penguin

Kalter.J 1984 *The Arts and Crafts of Turkestan*, Thames & Hudson: London

Kalter. J & Pavaloi, M. 1997 *Uzbekistan* Thames & Hudson: London

Levey, M. 1975 *The World of Ottoman Art*, Thames & Hudson: London

Lewis. R 1971 *Everyday Life in Ottoman Art*, Thames & Hudson: London

Lindisfarne-Tapper & Ingham

Mandel. G 1979 *How to Recognise Islamic Art*, Penguin

Melikian-Chirvani, A.S 1976 *Islamic Metalwork from the Iranian Lands (8^{th}-18^{th} Centuries)* Victoria & Albert Museum.

1982. *Islamic Metalwork from the Iranian World*, HMSO: London

Quataert, D 2000 *The Ottoman Empire, 1700-1922*, Cambridge University Press

Stamp, L.D. 1957 *Asia. A Regional and Economic Geography*, Methuen: London

Talbot Rice.D 1975 *Islamic Art*, Thames & Hudson: London

Teague, K. 1990 *Metalcraft of Central Asia*, Shire: Princes Risborough

Ward. R. 1993 *Islamic Metalwork*, British Museum Press: London