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EXHIBITION GUIDE

Powder and Damask

Islamic Arms and Armour from the
Collection of Fadel Al Mansoori

27 August 2017 – 8 May 2018

Museum of Islamic Art



متاحف قطر
QATAR MUSEUMS

Welcome to the Museum of Islamic Art.

MIA is delighted to host the exhibition **Powder and Damask: Islamic Arms and Armour from the Collection of Fadel Al Mansoori**. This guide focuses on three key elements of the exhibition: edged weapons, firearms and Damascus steel. You can read the guide in conjunction with the exhibition panels or after your visit.

POWDER AND DAMASK

This exhibition explores the unprecedented levels of craftsmanship in the production of arms and armour that developed during the Ottoman, Safavid and Mughal empires. The resulting objects are both weapons and works of art, as seen in the selection of edged weapons and firearms on display. Damascus steel, a highly prized metal, valued for its strength and beauty, features in many of the objects.

Fadel Al Mansoori is a Qatari collector whose interest in Islamic arms and armour began six years ago. His passion is rooted in a fascination with Damascus steel, its distinctive patterns and the terminology used to describe the metal. His collecting strategy is based on two factors: 1) a classification system of his own devising and 2) the production date, which must be late-16th to mid-19th century.

Dismayed to find that comparatively little research had been done on Islamic arms and armour in the modern Arab world, Fadel set out to build a collection of historical and artistic importance. His aim is to offer rich material for further research, and add to the current understanding of Damascus steel, inspiring those who come after him.

Shishane gun
Ottoman, Balkans
Late 18th century
Damascus steel, wood, ivory, brass
FBR.2O15.GN.115



ISLAMIC ARMS AND ARMOUR

Arms and armour of the highest quality have been a feature of the Islamic world since the early days of conquest by the Umayyad dynasty from 634 CE onwards, when one army's possession of a superior weapon was often the determining factor in a battle. Islamic edged weapons in particular were renowned for their strength and durability, and were especially famous for the use of Damascus steel. Highly decorated weapons and armour were a sign of rank and status among the warrior classes, particularly important in times when wealth equalled power, resulting in unprecedented levels of craftsmanship in their production.

Islamic arms and armour vary greatly in design and decoration but generally are lighter than those found elsewhere – swords are thinner, shields are smaller and armour covers less of the body. Not only did this contribute to the Islamic armies' reputation for speed but also reflected the reality of the hot climates in many parts of the Islamic world. Despite their opulent decoration, weapons created for use in battle or the hunt never prioritised form over function.

Dagger (*Khanjar*)
Qajar, Iran
19th century
Damascus steel, ivory
FBR.2015.KJR.216

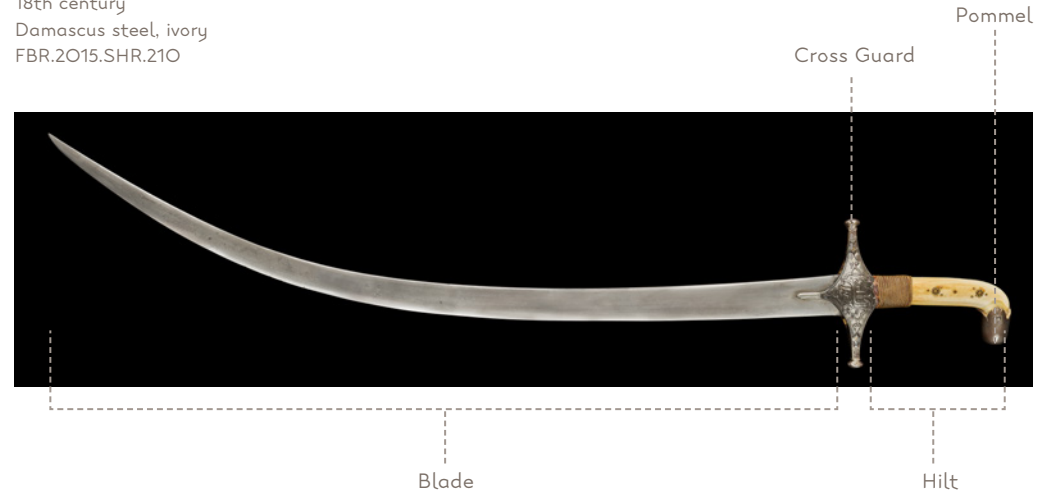
The *khanjar* is characterised by its curved double edged blade and carved ivory hilt. Some daggers from this period feature figures wearing fashionable European clothing making the weapons popular in the European market.



BASIC TERMINOLOGY

This exhibition focuses on edged weapons, including swords, knives and axes (West Gallery), and firearms (East Gallery). Here are some key terms for common parts of these weapons:

Sword (*Shamshir*)
Safavid, Iran
18th century
Damascus steel, ivory
FBR.2015.SHR.210



Shishane gun
Ottoman, Balkans
Late 18th century
Damascus steel, wood, ivory, brass
FBR.2015.GN.115

EDGED WEAPONS AND ARMOUR

As well as being used for combat and hunting, edged weapons and armour could be designed for ceremonial use, to be presented as a gift, or worn as a mark of social status. As such they often featured decorative elements of the highest quality, using a wide range of designs, materials and techniques as shown in the objects on display.

As a symbol of wealth and power, edged weapons were often encrusted with precious metals and jewels. Gilded or carved floral patterns, animal or human figures or calligraphic inscriptions of poetry or Qur'anic verses were also common, along with the dates of production and the name of the maker or owner(s).

Shield (*Separ*)

Qajar, Iran
19th century
Lacquered steel
FBR.2015.SHD.231

This shield is the best example in the exhibition of armour produced for ceremonial use. The shield is decorated with painted floral designs, figures of couples and Persian poetry, and is covered with a coat of lacquer to give a hard, smooth surface.



Sword (*Shamshir*)

Safavid, Iran
18th century
Damascus steel, ivory
FBR.2015.SHR.210

This sword is a typical example of a *shamshir*, a classical Iranian sword with a curved, single-edged blade, produced in the 18th and 19th centuries. It features an ivory hilt with a narrow, angled pommel and engraved cross guard in Damascus steel.



Knife (*Kard*)

Zand or Qajar, Iran
Late 18th century–early 19th century
Damascus steel, ivory
FBR.2015.SHR.221

This knife, or *kard* in Persian, is a stabbing weapon used to pierce chain mail, which would have hung from a warrior's belt. The hilt is made of ivory framed by an iron shim, a thin strip of metal used to reduce wear. The blade is decorated with gold inlay and chiselled in relief on each side of the blade.

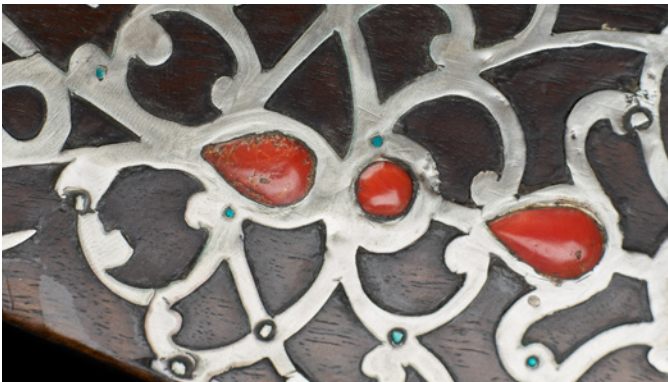
FIREARMS

The introduction of firearms into the Middle East, from the 14th century onwards, changed the nature of military encounters. As their use increased, their decoration became more ornate, turning them into works of art like edged weapons.



Mukhala gun
Ottoman, Algeria
19th century
Steel, wood, silver, coral
FBR.2O15.GN.119

This *mukhala*, or long gun, was made in Algeria during the period in which the country was part of the Ottoman Empire. Its decoration, particularly the use of silver inlay, is typically Ottoman but the Algerian influence can be seen in the thinner stock and red coral decoration.



The most elaborate firearms were commissioned in collaboration with leading artists, jewellers and gunsmiths and were encrusted with precious metals and stones, bone or even coral. Designs on weapons echoed the elaborate patterns found in contemporary manuscripts.



Toradar gun
Mughal, India
Late 18th century
Pattern welded Damascus steel,
wood, ivory, brass
FBR.2O15.GN.104

This Indian musket, or *toradar*, shows the high level of craftsmanship in the Mughal Empire. In particular, the barrel is embellished with complex patterns welded in to the steel.



DAMASCUS STEEL

Islamic arms and armour are perhaps most famous for their use of Damascus steel, which is known for its flexibility, durability and beautiful surface patterns. In the Middle Ages, the metal was associated with weapon production in the Syrian capital of Damascus, but in fact, weapons of this sort were produced across the Islamic world. There are two key types of Damascus steel: 'true', also known as 'Oriental', Damascus steel, and pattern-welded Damascus steel.

Sword (*Shamshir*)
Safavid, Iran
18th century
Damascus steel
FBR.2015.SHR.210



WHAT MAKES 'TRUE' DAMASCUS STEEL SO SPECIAL?

'True' Damascus steel was made from crucible steel ingots and contained a unique microcrystalline structure that when forged gave the distinctive patterns and the flexibility, durability and sharpness it was famous for. The metallic structure, not the pattern, distinguishes 'true' Damascus steel from pattern-welded Damascus steel, making it difficult, even for specialists, to identify without chemically analysing the content or taking a core sample.

The ingots were created by slowly melting iron ore in a crucible with added plant material for extra carbon (typically 1.2%–1.9% carbon content) followed by a long cooling process during which the microcrystalline structure formed. These crucible ingots contained trace elements of vanadium and manganese, which strengthened the chemical bonds and meant that, unlike normal steel, the structure was not broken down during forging.

This traditional crucible steel technique (called *ukku* in the Telegu language of India, *folad* or *boladi* in Persian and wootz steel by the British) had been lost by the end of the 19th century, and has never been successfully reproduced. A number of factors may have contributed to its loss including the breakdown of trade routes, the depletion in supplies of the correct ore, a drop in demand for edged weapons due to developments in firearms, and the subsequent loss of technical knowledge about its production.

HOW IS PATTERN-WELDED DAMASCUS STEEL PRODUCED?

The traditional technique of producing pattern-welded steel has been in use for as long as 'true' Damascus steel and the metal shares similar patterns and properties. It is used in many weapons but particularly for firearm barrels.

Pattern-welded steel has a low carbon-content and is produced by arranging iron and steel strips in alternate layers, which are then forge welded into one strip. The metal is repeatedly folded and hammered to form multiple layers, and as it becomes thinner a visible pattern of dark and light wavy bands appears on the surface. Parts of the surface are punched or removed to distort lines and create different patterns.

Kubur pistol with visible watery patterns on barrel
Ottoman, Montenegro
Early 19th century
Damascus steel, silver
FBR.2015.GN.126



PATTERNS

Detail of a sword (*shamshir*)
Mughal, India or Safavid, Iran,
early 18th century
Oriental or true Damascus
crucible steel
FBR.2016.SHR.208

This example shows the Muhammad's ladder pattern. The ladder can sometimes have double or even triple crosspieces or 'rungs'.

Visually, Damascus steel is most easily distinguished from other decorative metals by its beautiful wavy or 'watered' surface patterns. Only a few patterns are found in 'true' Damascus steel, with the most famous being the 'Muhammad's ladder' and 'Rose' patterns.



There are also literary references to designs such as *kara khorasan*, a term used to describe patterns which are predominantly black in colour. Other patterns are grouped according to how curved or straight the lines within the steel are, for example 'watery' and 'wavy'.



Detail of a dagger (*khanjar*) with
kara khorasan blade
Qajar, Iran, 19th century
Damascus steel
FBR.2016.KJR.218

GLOSSARY OF DECORATIVE TECHNIQUES

Chiselling/chasing: incised, punched or traced designs on a surface made using various tools to raise, depress, or otherwise push aside the metal without actually removing any

Engraving: removing metal by cutting grooves with a sharp chisel or burin; also used to make lines or 'crosshatching' to prepare the surface for an overlay

Metal Inlay or damascening: the application of brass, silver or gold wire which is hammered into grooves in the surface of an object

Overlay or onlay: the application of gold or silver foil or wire on the surface of the object, also referred to as 'false damascening', cheaper than metal inlay

Embossing/repoussé: the design is hammered on the reverse of the metal sheet against a firm but elastic material (wood, bitumen), so that when it is turned over, the pattern appears in relief (raised)

Koftgari: an Indian technique of encrusting precious metals using a shallow inlay technique (where the surface is engraved with a hard steel needle or *silai*) or overlaying crosshatching with gold

Gilding and silvering: embellishing with gold or silver leaf using an adhesive (water or oil gilding), a medium (paint or lacquer), by cold mechanical hammering or with 'fire' (mixture of gold and mercury called an amalgam heated to boil off the mercury)

FURTHER READING

Inspired by the exhibition? Want to find out more about Islamic Arms and Armour? Visit our Library! Here is a small selection of books from our collection. Use the code in brackets to locate the book or browse our online catalogues.

Coe, Michael D. **Swords and Hilt Weapons**, London: MMB, 1993 (U852 .S96 1989)

North, Anthony, and Victoria and Albert Museum.

An Introduction to Islamic Arms, London: H.M.S.O., 1985

Diehl, Victor et al. **Weapons of Warriors: Famous Antique Swords of the Near East**, Atglen, PA: Schiffer Pub., 2012 (NK6773 .D54 2012)

خضراوي، محمود رمضان. الأسلحة الإسلامية في قطر، دراسة أثرية فنية: "مجموعة مختارة من ٢٠١٠ الأسلحة الإسلامية في ضوء مجموعة خاصة". الدوحة، (U856.Q28 R34 2010)

Elgood, Robert. **The Arms and Armour of Arabia in the 18th–19th and 20th Centuries**, Aldershot, England; Brookfield, Vt.: Scholar Press; Ashgate Publishing Co., 1994 (UA821.A73 E44 1994)

مركز الملك فيصل للبحوث والدراسات الإسلامية. الأسلحة الإسلامية: السيوف والدروع. معرض مقام في قلعة الفن الإسلامي، الرياض، ١١٤١ هـ – ١٩٩٠ (U813 .I85 W43 1991)

Figiel, Leo S. **On Damascus Steel**. Atlantis, Fla.: Atlantis Arts Press, 1991 (U799 .F54 1991)

King Faisal, Center for Research and Islamic Studies. **Weapons of the Islamic World: Swords and Armour**, Riyadh: King Faisal Center for Research and Islamic Studies, 1991 (NK66O8.9.A8413 1991)

Nasser D. Khalili Collection of Islamic Art, and David Alexander. **The Arts of War: Arms and Armour of the 7th to 19th centuries**, New York: Nour Foundation in association with Azimuth Editions and Oxford University Press, 1992 (NK66O8.9 .A4 1992)

Knife (*Kard*)
Zand or Qajar, Iran
Late 18th century–early 19th century
Damascus steel
FBR.2015.SHR.221



EXHIBITION ACTIVITIES

For lectures, activities and workshops held in association with this special exhibition please see www.qm.org.qa/education or www.mia.org.qa/whats-on

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