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A new Sasanian helmet in the Musee d'Art Classique de Mougins

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Introduction

The helmet was an essential item for Sasanian warriors.¹ Several helmets dating from the Sasanian period are already well known and are found in various museum collections, for example, in the British Museum, the Baghdad Museum, the Metropolitan Museum of Art New York, and the Yale Art Gallery. With the exception of the 3rd Century Sasanian helmet from



Figure 1 – The Musee d'Art Classique de Mougins Sasanian helmet, anterolateral view. Photograph courtesy of the Musée d'Art Classique de Mougins

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¹ SKUPNIEWICZ (2007) 9 - 28; LITVINSKY (2003) 176 - 180.

Dura Europos (in the Yale University Art Gallery), all such helmets are normally termed “Sasanian spangenhelms”.² Many of them are highly decorated, with silver embossed foil (0.1 – 0.2 mm thick) covering the segments, or with copper-alloy covering on the strips.³



Fig. 2-3. From the left: The Musée d'Art Classique de Mougins Sasanian helmet, posterior view. Photograph courtesy of the Musée d'Art Classique de Mougins. The Musée d'Art Classique de Mougins Sasanian helmet, lateral view, Photograph courtesy of the Musée d'Art Classique de Mougins.



Fig. 4. The Musée d'Art Classique de Mougins Sasanian helmet, detail of the top plate. Photograph courtesy of the Musée d'Art Classique de Mougins.

² OVERLAET (1982) 189 - 206.

³ OVERLAET (1982) 189 - 206; KHORASANI (2006).



Fig. 5. The Musée d'Art Classique de Mougins Sasanian helmet, interior / inferior view. Photograph courtesy of the Musée d'Art Classique de Mougins.

Typology of Sasanian helmets

Before examining the Mougins Musée helmet in detail, it is important to look at the typology of Sasanian helmets. These can be broadly broken down into the following categories, based on their construction (not on their aesthetic appearance). This typology is further explained in accompanying Figures.

1. Single piece helmets. Such a helmet was excavated from the Persian Gulf (Figure 11) but is currently undated⁴. Such helmets are also known from the period of the Arab conquest⁵ and from Central Asia⁶ around the same period. They also appear on Sasanian art, notably in the rock-carved jousting scene at Firuzabad and in a cameo showing Shapur I's victory over the Roman Emperor Valerian.
2. Ribbed helmets. These consist of a single-piece helmet strengthened with multiple vertical and horizontal bands riveted on to it. Such helmets are better known in a Sarmatian context and famously appear depicted on Trajan's column. The helmet

⁴ TOFIGHIAN (2011) 1 - 5.

⁵ MOHAMED (2008) 314.

⁶ LITVINSKY (2003) 176 - 180.



Figure 6. – The Metropolitan Museum of Art Sasanian helmet, anterolateral view. The Metropolitan Museum of Art, Rogers Fund, 1962, www.metmuseum.org

from Taxila, dated to the Saka or Kushan periods, is of similar construction.⁷ A similar helmet is depicted on a Kushan terracotta from Kashka Darya.⁸ In a Sasanian context, such a helmet appears on a terracotta from Tepe Yahya (Figure 12) dated from before 400 AD.⁹ Comparable helmets are also known in Korea and Japan in late antiquity.

3. Bandhelms. These helmets are consist of a shell in two halves, joined by a coronal band. The most famous example of a Sasanian bandhelm is the ridge

⁷ MARSHALL (1951) 550; NIKONOROV (1997) 13, 67.

⁸ LITVINSKY (2003) 176 - 180.

⁹ LAMBERG-KARLOVSKY, LAMBERG-KARLOVSKY (1971) 102 - 111.

helmet from Dura Europos (Figure 13).¹⁰ Bandhelms may have their origin with the Kushans, as bandhelms are depicted on the sculptures of Khalchayan.¹¹ Bandhelms are extremely common on Haniwa Japanese figurines, and their use from Western Europe to Japan is testament to their popularity.

4. Concentric helmets. These are related to bandhelms, but consist of a number of coronal bands riveted together to form the helmet. There is one depiction of such a helmet in a Sasanian context. It comes from Naqsh-e-Rostam. However, such helmets also became popular in the 5th – 12th Centuries among the Romano-Byzantines.¹²
5. Crossed spangenhelms. In a Sasanian context, crossed spangenhelms consist of four plates that have been joined together with two spangen. The coronal spangen overlaps the top of the transverse spangen. This is the most common type of Sasanian helmet known from archaeological finds, and is the helmet most typically associated with Sasanian warriors. Examples can be seen in the British Museum, the Metropolitan Museum of Art New York, the Romische Germanische Zentralmuseum (RGZM) in Mainz, and the Baghdad Museum.

¹⁰ JAMES (2010) 104-105.

¹¹ PUGACHENKOVA (1966).Plate XXVI, XXVII.

¹² BISHOP, COULSTON (1993) 167 - 172.

Such helmets are also known in a Sarmatian context,¹³ Sarmatian context and the famous Sasanian examples may have had Sarmatian or Arsacid (Parthian) antecedents. See Figure 6-10.

1. Radial spangenhelms. This form of spangenhelms is made with multiple plates and multiple strips that meet at the apex. There are two such excavated helmets from a Sasanian context, both of which are Sogdian or Central Asian in form. It is unclear whether or not the low-dome helmet depicted on the Taq-e-Bostan equestrian relief is a radial spangenhelm or a low crossed spangenhelm.
2. Lamellar helmets. Lamellar helmets consist of plates laced together. There is one depiction of such a helmet from the Taq-e-Bostan capital.¹⁴ In construction, this helmet appears almost identical to a 5th Century example from Liaoning Province, China.¹⁵ This could again be seen as an example of Central Asian influence. Lamellar helmets are similarly known from several Eurasian finds¹⁶ and are ubiquitous in Inner Asian art.¹⁷ Another lamellar helmet was found at Shaikhan Dheri, in a Kushan context, and is dated to the 3rd century¹⁸.

Category 5 (the crossed spangenhelm) requires further subdivision because of the substantial number of known helmets that can be placed in that group. Stylistically, they can be



Fig. 7-8. From the left: The Romische Germanische Zentralmuseum helmet, anterior view. Photograph courtesy of Damien Fegan. The Nineveh helmet from the British Museum, anterior view. © Trustees of the British Museum.

¹³ ZUBOV, RADYUSH (2014) 94 - 104.

¹⁴ SKUPNIEWICZ (2007) 9 - 28.

¹⁵ RONGJIN, SHAOYI (2008) 293.

¹⁶ SKUPNIEWICZ (2007) 9 - 28.

¹⁷ LECOQ (1925) 57.

¹⁸ NIKONOROV (1997) 14, 67; ALLCHIN (1970) 113 - 120.

placed into three sub-groups. The “Mesopotamian” and “North Iranian” groupings have already been proposed.¹⁹ North Iranian helmets typically have broad bands that are entirely separated and taper only slightly. Furthermore they do not feature the sharp angle (when seen from the front) known on the Mesopotamian group and on Arsaco-Sasanian *kolah* hats. A typical North Iranian helmet is the one seen in the Metropolitan Museum of Art (MMA), seen in Figure 6, and one of the Amlash helmets in the RGZM can also be placed into this category and is seen in Figure 7. The Mesopotamian group is more angular, and the front-to-back strip is connected with the side strips above the browband. A typical example is the Sasanian helmet in the British Museum, seen in Figures 8 and 9.



Fig. 9-10. From the left: – The Nineveh helmet from the British Museum, lateral view. © Trustees of the British Museum. The Nineveh keyhole helmet from the British Museum, posterolateral view. © Trustees of the British Museum.

In the light of several new helmets that have been excavated, a third group can now be proposed – termed “keyhole” helmets. There are now currently several known examples. In terms of their overall geometry they are similar to the Mesopotamian group, however the front-to-back and side strips are disjointed at the base above the browband, whereas in the Nineveh group they are continuous at the browband. The bands are cut in such a way that the exposed part of the segment resembles a keyhole. The most well-known example of such a helmet is in the British Museum and was excavated at Nineveh (Figure 10). However, several others have been unearthed in Siberia, often covered entirely in copper-alloy. Their presence in Siberia, and may have been linked with the fur trade.²⁰

Of note, there are two European helmets that match Sasanian helmets in construction and aesthetic. One is a 6th Century helmet also in the MACM, obtained on auction from Herrman

¹⁹ OVERLAET (1982) 189 - 206; JAMES (1986) 107 - 134.

²⁰ MIKS (2009) 395 - 538; FRYE (1972) 263 - 269.

Historica, and the other is in the Romische-Germanische Zentralmuseum (RGZM), also dated to the 6th Century. They differ from Sasanian helmets in their exact geometry and pattern of rivets, and are likely to have been made in Europe in a Sasanian fashion, rather than being Sasanian exports (such as the two keyhole helmets found in Siberia).

Sasanian helmets were often worn with additional protection for the back of the head and the neck.²¹ In the early Sasanian period, this could consist of either mail or scale armour. Mail is depicted as forming an aventail on a 3rd Century graffito of a spear-armed horseman from Dura Europos²², and fragments of mail were found in a 3rd Century context associated with the helmet from Dura Europos²³. Scale aventails are shown on the rock reliefs of Firuzabad and Naqsh-e-Rostam. By the late Sasanian period, this scale form had been replaced entirely by mail armour, and a mail aventail can be seen hanging from the helmet on the carving at Taq-e-Bostan, where it covers the face of the rider. Mail was also found inside the helmet bowl of the keyhole helmet from the British Museum, being made with extremely fine links. This indicated the use of a coif rather than an aventail. Coifs are also frequently depicted on the artwork of Sogdiana.²⁴



Fig. 11. A one piece helmet excavated from the Persian Gulf. Photograph courtesy of Touraj Daryaee.

²¹ ALOFS (2015) 132 - 154.

²² KUBIK (2015).

²³ JAMES (1986) 107 - 134 ; JAMES (2010) 104 - 105.

²⁴ AZARPAY (1981) 125.

The Musee d'Art Classique de Mougins helmet

The helmet in Musee d'Art Classique de Mougins (MACM) is of a new type aesthetically, but is still related to all known Sasanian helmets in construction. It is tall, at 34.5 cm, making it the tallest known Sasanian helmet. It is 14cm in width and 21 cm in length. The helmet came to the museum from a private collection in the UK, but its whereabouts prior to this is unknown. It is made in copper-alloy and steel with decorative elements in silver. (Fig. 1)



Fig. 12. A figure from Tepe Yahya showing a warrior wearing a ribbed helmet, 4th Century AD. Photograph courtesy of Carl Lamberg-Karlovsky.

The construction of this helmet is of the “bandhelm” variety. It features two halves of the hemisphere, joined together by a coronal strip, and strengthened with a browband. Curiously, the coronal band is

made up of two sections – one anterior and one posterior, joined at the summit of the helmet with a square plate decorated with a dotted motif and joined on by rivets. Silver crescent moons are riveted near the base of both the anterior and posterior coronal bands, while heraldic devices are also riveted onto the sides of the helmet. Unlike many known helmets, it does not feature a sharp angle on the coronal band. Several of the rivets are rod shaped with a square cross section, in a similar fashion to the helmet in the Metropolitan Museum of Art New York, while several other rivets are silvered and hammered flat. Four triangular rivets are seen on the top, attaching a plate at the summit of the helmet, to which is attached a ring, presumably for attaching a *korymbos* or ribbons. The browband, the crescent moon, the square plate at the summit, and the heraldic devices on the sides are all decorated with a dotted motif. The heraldic device consists of a larger crescent moon, joined by a strip to a smaller crescent moon within it. A series of holes can be seen on the lower edge of the browband, possibly for a leather edging or lining.

Comparison with other helmets

The overall shape and construction lies somewhere between the helmet from Dura Europos²⁵ and the known helmets from Cheragh Ali Tepe.²⁶ The helmet from Dura Europos has been labelled as a “ridge helmet” due to the large ridge seen on the front-to-back strip, but we can nevertheless categorise it as a bandhelm because of the construction. Unlike all other known

²⁵ JAMES (2010) 104 - 105.

²⁶ OVERLAET (1982) 189 - 206; GRANCSAY (1963) 253 - 262.

Sasanian helmets, it is made entirely of iron and features no copper-alloy decoration. It is 25 cm tall, 25.5 cm long, and 16 cm wide. It features several small holes spaced closely together along its lower edge which were used for suspending a mail aventail and possibly a mail face covering. Like a helmet depicted on the much later rock relief at Taq-e-Bostan, it has separate eyebrows that are riveted on to the surface. James²⁷ has interpreted this as evidence for a nasal plate,²⁸ however it is more likely that it was used as a point for hanging the mail face covering, as seen on the equestrian relief at Taq-e-Bostan. The Dura Europos helmet has a fairly sharp and angular shape, accentuated by means of the ridge. Ridges do not appear on any other known Sasanian helmet, but the angular shape is typical for helmets of the Mesopotamian group. This helmet is frequently cited as the origin for late Roman ridge helmets.²⁹ Much like the Dura Europos helmet, the MACM helmet only has a coronal band and no transverse band, but unlike the Dura helmet, it lacks a ridge, a cylindrical finial, eyebrows, and holes for mail, and the coronal band is made in multiple parts. In fact the holes on the MACM helmet are more likely to have been holes by which an edging or lining was laced on as they are too far apart and too far from the edge of the browband to have been used for directly hanging a mail aventail. Furthermore, the MACM helmet is much more ornate.

The shape of the MACM helmet bears much greater similarity to the North Iranian group of spangenhelms than it does to any other group. The coronal band is broad and relatively flat, similar to the examples in the Musees Royaux d'Art et d'Histoire in Brussels, and the Metropolitan Museum of Art in New York. The crescent moon on the front of the helmet is similar to a helmet in the Romische-Germanische Zentralmuseum in Mainz. The rod shaped rivets, which are used on the bowl of the helmet, are also similar to the Sasanian helmet in the Metropolitan Museum of Art, New York.³⁰

The heraldic devices on the side of the helmet are not known on any other surviving helmets, but may be seen in Sasanian art. In particular, the third knight on the Firuzabad combat scene wears a helmet with a heraldic device marking his clan, and such a device is also seen on a defeated rider at Naqsh-e-Rostam. Devices were clearly common on headgear and many examples are known from seals and rock reliefs.³¹

Dating the helmet

The helmet was not acquired through a controlled excavation and as a result it is not possible to give a definite date. The Mougins Musee has provisionally dated it to the 4th - 6th Century. However several features can be used to date the helmet – namely the overall construction, the presence of heraldic decoration, and the style of the rivets used in its

²⁷ JAMES (2010) 104 - 105.

²⁸ JAMES (2010) 102 - 105.

²⁹ JAMES (1986) 107 - 134.

³⁰ GRANCSAY (1963) 253 - 262.

³¹ GYSELEN (2008) 32 - 34.

construction. The remarks on the dating of the helmet will come only from an aesthetic and typological viewpoint, rather than from any analysis of the metal.

1) Construction

In terms of construction, bandhelmms may represent a transitional form between single-piece helmets and spangenhelms. Bandhelmms in Iran had a longevity of at least 300 years, from the early Kushan period, until the early Sasanian period. However, due to the lack of a large enough sample of formally dated helmets, it is impossible to give a firm period by which they were phased out. There are no bandhelmms in the artwork of Sogdiana or Xinjiang. The latest known bandhelm from a West Asian context is a Roman ridge helmet from Jordan, provisionally dated to the 6th Century AD.³² Bandhelmms were known and well used in western and northern Europe during the 6th and 7th Centuries AD and numerous examples have been found, alongside examples of crossed spangenhelms.³³ Additionally, they are commonly seen in the terracotta figurines of Haniwa Japan, where they are often accompanied with an exaggerated ridge, in a manner similar to that of the Dura Europos helmet. Post Sasanian Iranian art rarely shows military costume, and Nishapur art from the Samanid and Ghaznavid period is often too stylised to make out clear details on the construction of the depicted subject.

Another interesting aspect of the helmet's construction is the plate at the top of the helmet. Such plates are rare on Sasanian armament, but are observed in three other known helmets – namely the keyhole helmet from the British Museum, the low-dome spangenhelm from the Romische Germanische Zentralmuseum (RGZM), and the complex multi-part Amlash-style helmet from the Los Angeles County Museum of Art (LACMA). All three of these helmets date from the late 6th – 7th Centuries, and as such, a plate on the top can be seen as a feature of late Sasanian helmets. In the case of the MACM helmet, this square plate was structural and not purely decorative, and was used to join together the anterior and posterior coronal bands. It is unknown whether the plate on the summit was structural or purely aesthetic in the British Museum, RGZM, and LACMA helmets.

Aesthetically the construction bears greater similarity to the Amlash / Northern type helmets than the Mesopotamian / Nineveh or keyhole helmets. Northern helmets have a broad coronal band without an exaggerated angle, similar to the MACM helmet, whereas the coronal band on the Nineveh helmets is generally sharply angled and much narrower. The earliest date for a Northern type helmet is the 4th – 5th Century Sasanian helmet in the MMOA (tentatively dated)³⁴. However the geometry of the coronal band did not change significantly from the 4th – 5th Century to the 6th – 7th Century, as can be evidenced in the Amlash helmet from Brussels³⁵. The only differences between the Brussels helmet and the

³² NICOLLE (1996) 22.

³³ MORTIMER (2011) 28 - 44.

³⁴ GRANCSAY (1963) 253 - 262.

³⁵ OVERLAET (1998) 267 - 297.

MMOA helmet are the style of the rivets used, and that the Brussels helmet also features a feathered decoration on the spangen as well as the plates.

2) Rivets

Rivets are a feature commonly used to date Sasanian helmets. It has been noted that the rivets in the early Sasanian helmet at Dura Europos were of a simple, slightly domed shape. However, the late Sasanian helmets from Nineveh and Sogdian helmets often have large, fully spherical rivets that add to the decorative effect, as do the “keyhole” helmets. Smaller spherical rivets can also be seen on some late Sasanian swords,³⁶ for example, the silver-decorated sword in the British Museum.

In addition to the above types of rivet, we also observe triangular rivets and rod-shaped rivets on Sasanian armament. Rod shaped rivets, seen on the MACM helmet, are also seen on the Sasanian helmet from the Metropolitan Museum of Art, which has been dated tentatively to the 4th – 5th Centuries.³⁷ These rivets are frequently square in cross section, as can be seen in detail in the MACM helmet. In the MACM helmet they are used to join the coronal band to the segments in a fashion similar to the Metropolitan Museum of Art (MMA) helmet. Triangular rivets are seen in the Sasanian gauntlet from Amlash,³⁸ where they were used on the wrist / forearm portion of the gauntlet. They are otherwise rare. However, they are observed on a Tibetan helmet in the Metropolitan Museum of Art, dating from the 8th – 10th Centuries.³⁹ Triangular rivets in the MACM helmet have been used to attach a plate to the top of the helmet. The flat rivets seen in MACM helmet are not seen anywhere else and represent a new form of rivet in Sasanian armament. Here they are used to attach the browband to the upper portions of the helmet, and an additional central rivet lies in the middle of the browband for purely decorative purposes. This feature can also be regarded on the 7th Century Amlash helmet in the RGZM, and the LACMA helmet (also dated 7th Century), and as such, can be regarded as a late feature. Despite their flattened shape, it is clear from their size and colour (silvered) that they were also intended to have a strikingly decorative effect. Finally, the MACM helmet also features spherical rivets, which are here used to join the heraldic motifs and crescent moons onto the helmet bowl and bands. These types of rivets are known from the Amlash helmet in the RGZM. Spherical rivets are believed to be a feature of the 6th - 7th Centuries and not earlier.

The use of decorative rivets can also be evidenced in the post-Sasanian period, and are seen on an Umayyad fresco at Qasr Amra in Jordan, dated to the early 8th Century AD. Here, a warrior wears a helmet with a zig-zag outline and a shape matching Sasanian crossed spangenhelms – the zig-zag outline can be interpreted as decorative rivets. In contrast, the rivets on the MACM attaching the heraldic silver plates to the helmet are small

³⁶ OVERLAET (1982) 189 - 206; (1998) 267 - 297; MASIA (2000) 185 - 289.

³⁷ GRANCSAY (1963) 253 - 262.

³⁸ NICOLLE (2012) 38.

³⁹ LARocca (2006) 68 - 69.

and unremarkable – in a fashion similar to the RGZM helmet, which features a decorative moon in the middle just above the browband.

The MACM helmet features four types of decorative rivets, and one type of unremarkable, purely structural rivet. With the exception of the large, flat, silvered rivets, the other rivet types (rod shaped, spherical, and triangular) are known from other items of Sasanian armament and vary in their date. The earliest estimation of the other helmet featuring rod-shaped rivets is from the 4th Century (although this is speculative), whereas the latest estimation of the gauntlet featuring triangular rivets is the 7th Century. Spherical rivets are only known from the 6th Century onwards, and do not appear on earlier helmets. It is unknown whether this helmet represents an earlier introduction of triangular and spherical rivets, a 300 year longevity of rod-shaped rivets, or whether the late features on the MACM helmet can be used to redate the MMOA helmet to the late Sasanian period.

3) Decoration

In terms of decoration, the helmet features the decorative rivets mentioned above, a dotted motif on the browband, and heraldic elements riveted onto the coronal band on the sides of the helmet. Other helmets featured an embossed feather motif, the use of fabric coverings, and markers of rank may have been applied via the use of diadems and *korymboi*.

The dotted motif on the browband is a relatively unusual feature on this helmet. It has two parallels: in the low-dome helmet in the RGZM; and the one piece helmet excavated from the Persian gulf,⁴⁰ however, the execution of the motif is very different. The RGZM helmet appears to feature a thin sheet of foil, onto which are stamped four rows of dots two rows at the top of the sheet and two rows at the bottom. The Persian gulf helmet has a double row of large circles embossed onto a separate sheet of metal and attached as the browband (in a fashion similar to the depiction of Shapur II's crown in the MMOA and what might be a diadem around a lamellar helmet depicted on a capital from Taq-e-Bostan). In contrast, the dotted motif on the MACM helmet appears to be stamped directly onto the browband, and consists of one disjointed row. There are no dots in the centre at the back, whereas at the front, there are two rows, and the slight curvature of the lines make them appear more like eyebrows. This is a completely new feature on Sasanian armament and has no parallels in other Sasanian or any other late antique helmets; in contrast, the dotted motif on the RGZM helmet is continuous and straight. However, several Sasanian helmets did have cut-outs for the eyes giving the appearance of eyebrows. The keyhole Nineveh helmet in the British Museum has cut-outs at the front (shaped to the eyes), and smaller cut-outs at the back (possibly purely decorative in nature). Structurally separate riveted eyebrows with a cut-out are seen on the Dura Europos helmet, the helmet depicted at Taq-e-Bostan, and several helmets shown in the artwork Sogdiana.

In terms of decorative appliques, the MACM helmet features four appliques, decorated with dots, and riveted onto the helmet. On each side of the helmet on the iron

⁴⁰ TOFIGHIAN (2011) 1 - 5.

segments is a motif consisting of a small crescent inside a larger crescent, made out of copper alloy and attached with silver spherical rivets. This motif bears some resemblance of motifs seen on certain Hephthalite crowns⁴¹ on their coins and paintings, although more frequently, Hephthalite crowns consist of either circles or tridents inside a crescent moon.⁴²

The use of appliques on the side can be seen on other helmets, being seen at Firuzabad on the third knight, and at Naqsh-e-Rostam on the defeated tumbling knight, however, it is unclear whether these are metal appliques riveted onto a metal helmet, metal appliques applied onto a textile cover, or textile based decorations such as painting or embroidery on a textile cover. Regardless of the construction, they nevertheless prove the existence of heraldic motifs emblazoned onto the side of helmets – a practice also common with hats.⁴³ In these examples, they were used to indicate the identity or family of the wearer,⁴⁴ and it is possible that the motif on the MACM helmet may have been used in a similar fashion, rather than serving as a mark of rank linked with Central Asian crown typology. The exact identification of such a motif remains unknown, as there are at present no known seals or inscriptions with the motif of a small crescent inside a large crescent.



Fig. 13. The Sasanian ridge helmet from Dura Europos, 3rd Century AD. Yale University Art Gallery.

⁴¹ HAMID (2014).44, 50 - 52, 59 - 65.

⁴² HAMID (2014) 45, 55, 66; KAGEYAMA (2007) 11 - 22; STARK (2009) 287 - 305.

⁴³ GYSELEN (2008) 32 - 33.

⁴⁴ GYSELEN (2008) 32 - 33.

The helmet also features two riveted moon motifs – one on the front, and one on the back made out of silver and riveted on with copper alloy spherical rivets. The use of a crescent moon can also be seen in other helmets. For example the Sasanian helmet from the RGZM features a silver crescent moon riveted above the browband and again decorated with a dotted motif. The crescent moon was an important feature in Sasanian visual language and can frequently be seen on the crowns of later Shahanshahs, as well as on diadems; a practice that was particularly common in Central Asia, and India⁴⁵. It is also incorporated into architectural visual language, such as at Taq-e-Bostan. The helmet in the RGZM only features a crescent moon on the front, whereas the MACM helmet has a crescent on the back also. In both cases, there are rivets on each point of the moon, and in the middle. In both cases, the dotted motif forms an outline of the crescent moon, but it also marks out a midline on MACM helmet. It is likely that the crescent moon here served as an indicator of social status or rank, rather than heraldry, due to the presence of crescent moons on Iranian and Central Asian crown forms. The crescent moon does not feature heavily in Iranian iconography in the early Sasanian period. Yazdgerd I (399 – 420) is the first Shahanshah to feature a crescent moon on his royal portrait on his coinage, where it appears to be the only decorative element in a diadem surrounding a cap and *korymbos*. However, Shapur II (309 – 379), on his bust in the MMOA, sports a crescent moon applied onto the anterior merlon on his crown. From the time of Kavad I (488 – 531), the use of a crescent moon on the front of the crown became ubiquitous, and this persisted into the post-Sasanian period and into Central Asia as well. In northwestern Europe, the crescent moon motif was also found in late antiquity⁴⁶. Due to the longevity of the crescent moon motif, and the presently unknown significance of the motifs on the side of the helmet, these silver appliques cannot definitively help us with dating, although the similarity with the 6th – 7th Century Sasanian helmet in the RGZM cannot be ignored or understated.

Other Sasanian helmets have been decorated in a number of ways. One of the most common form of decoration (from museum pieces) is to cover the iron segments with a thin sheet of silver that has a feather motif embossed into it. This motif may have been linked to the deity Verethragna⁴⁷ and was common on Sasanian swords, where bronze and gold are also used⁴⁸. The Brussels helmet features a feather motif made using dots on the copper-alloy spangen of the helmet as well as on the segments. Such a motif has also been noted on Hunnic weaponry⁴⁹ and in Korea as well, indicating that it was widespread over Eurasia and may have had Central Asian origins. The motif only appears during the middle and late Sasanian period so it may have been introduced from Central Asia.

⁴⁵ KAGEYAMA (2007) 11 - 22; STARK (2009) 287 - 305.

⁴⁶ MORTIMER (2011) 46.

⁴⁷ OVERLAET (1982) 189 - 206; GRANCSAY (1963) 253 - 262.

⁴⁸ KHORASANI (2006) 94 - 97.

⁴⁹ OVERLAET (1982) 189 - 206; (1998) 267 - 297; MIKS (2009) 395 - 538.

Textile covers for Iranian helmets have also been noted.⁵⁰ It is difficult to interpret monochrome iconography such as coinage and rock reliefs and make definitive statements about the exact nature of the items depicted. However, some evidence for this may be drawn from such iconographical sources. From the pre-Sasanian period, coinage of Tanlis Mardates from Margiana often show him in eastern Iranian armour. The details of the tall armoured collar (neck armour) and the scale or lamellar cheek pieces are clearly visible, but there are no details on the helmet bowl indicating its construction, even though from its shape it is likely to have been of the same type as the bandhelm from Khalchayan. This lack of detailing on the helmet, along with the presence of a heraldic motif, may suggest a textile cover. From the early Sasanian period, the third knight at Firuzabad wears a helmet similar in shape to the Dura Europos helmet but also incorporates a heraldic symbol. It is unknown whether or not this was done directly onto the metal helmet itself or was done on a textile cover. From the post-Sasanian period, there is a coin of Yazid ibn-Muhallab showing him in military attire.⁵¹ On the obverse we see him wearing a tall item on his head in the same shape as a *kolah*, but decorated with appliques, a crescent moon finial, and a *korymbos*. The *korymbos* and crescent moon finial are unknown on Sasanian *kolahs* but are seen on crowns, and *korymboi* are common on helmets as possible markers of status.⁵² On the reverse, we see him in full lamellar or scale armour. The detail on his helmet can be compared and contrasted with the details on the helmet of Abzay, from Bishapur, from the Umayyad period (Figure 14), which is clearly of a Sasanian crossed spangenhelm in which construction and the spangen are clearly visible. The helmet of Abzay also features wings and a crescent finial. As with the Firuzabad knight, it is not clear entirely from ibn-Muhallab's coin whether the helmet is a solid metal structure, similar to the 8th Century Arab helmet, although of a different shape,⁵³ or whether it is a Sasanian spangenhelm with a fabric cover. However the shape is identical to Sasanian helmets, including the one depicted on the coinage of Bishapur, but is quite different to the one piece helmets from both Arabia and Sogdiana.

Textile covers may also have been used on Roman and Central Asian helmets. A few of the 7th Century David plates shows Roman soldiers wearing helmets with a spotted design. The spotted design comprises of three dots close together, arranged in a triangle. This is the famous cintamani motif, which was ubiquitous in Sasanian Iran and would later become very popular among the Ottomans. Soudavar⁵⁴ has linked this motif to Tishtrya. The same decoration appears on some of the cavalrymen depicted on the 8th – 10th Century Anikovs plate. Here, some cavalrymen wear helmets with a dotted decoration (previously

⁵⁰ ALOFS (2015) 132 - 154.

⁵¹ HAIDER (1991) 26.

⁵² SKUPNIEWICZ personal correspondence.

⁵³ MOHAMED (2008) 314.

⁵⁴ SOUDAVAR (2009) 20.

interpreted by Nicolle⁵⁵ as mail) whereas others wear helmets with a spangenhelm construction.⁵⁶

Textually, there is an indication of fabric covers over helmets when Khosrow I is assisted by a group of Qarenid knights who were covered in green, including their horses.⁵⁷ The use of horse armour indicates a heavily armoured cavalry unit, with their armour and helmets covered with a green textile.

There is one Sasanian helmet that was actually found with traces of textile remaining the Mesopotamian helmet in the British Museum. This helmet has fairly plain, undecorated iron segments and rivets of an unremarkable shape. The fabric on this helmet was likely decorated and divided into three bands that featured the feather motif in different orientations. It is likely that this motif was embroidered onto the textile covering. However, on this helmet, the textile decoration only covered the iron segments and not the copper alloy frame.

Helmets could also be ornamented with symbols of rank. We have already discussed the use of the crescent moon above, in relation to the MACM and RGZM helmets. Related to the crescent moon is the spread wing motif, a motif that may have been linked with royalty and the royal *farr*.⁵⁸ The wing motif is rarely seen on Sasanian helmets but is noted on one rock relief depicting Hormozd II (302 – 209) at Naqsh-e-Rostam. The headdress of Hormozd II at Naqsh-e-Rostam may be a helmet as it is depicted in a military context. However, it may also be a crown, and certain details of it are very similar to the crowns on his coinage. In coinage from the time of Kavad I onwards, wings became a ubiquitous feature on the finials of crowns. The helmet of Abzay from 8th Century Bishapur, on his coinage, shows wings around the base of the helmet and a crescent moon surmounting it the placement of wings here is similar to that in Central Asia. Wings on helmets were much more common in Central Asia and Inner Asia. From a Sogdian context, they may be seen on the famous Kulagysh plate showing two warriors on foot duelling.⁵⁹ They can also be seen attached to the helmet of a warrior in one painting at Panjakent, and wings may also be depicted in a stylised fashion on the Anikovs plate. They are exceedingly common among the 6th – 8th Century sculptures of warriors from Qarashahr, where they are worn around the base of the helmets, and wing-like features appear in on helmets depicted in the 8th – 10th Century paintings from Dunhuang, where they appear like cheek pieces cut and folded up to resemble wings, in a manner similar to much later Tibetan and Bhutanese helmets.⁶⁰ Wing motifs also appeared on several Korean helmets during to the later part of the Korean Three

⁵⁵ NICOLLE (1999) 257 - 258.

⁵⁶ NICOLLE (1999) 257 - 258.

⁵⁷ POURSHARIATI (2008) 113; SKUPNIEWICZ (2014) 35 - 59.

⁵⁸ COMPARETI (2010) 201 - 232.

⁵⁹ NICOLLE (1996) 59.

⁶⁰ LARocca (2006) 134 - 136.



Fig. 14. The Taq-e-Bostan capital, showing a figure in armour and a lamellar helmet. Photo from: <http://www.skyscrapercity.com/showthread.php?t=1522763>.

Kingdoms period. The combination of a crescent moon and pair of wings was common on Central Asian diadems,⁶¹ and it may be possible to trace a link from the crescent moon and wings on Sasanian and Central Asian helmets to the *kabuto maedate* and *fukigaeshi* on much later Japanese helmets.



Fig. 15. Coin of Abzay, Bishapur, showing the ruler in a winged Sasanian spangenhelm. Photograph courtesy of A. H. Baldwin & Sons Ltd, London, www.baldwin.co.uk.

⁶¹ HAMID (2014) 44, 51 - 53, 62 - 63; KAGEYAMA (2007) 11 - 22.

Other marks of rank that could be applied to helmets included diadems and *korymbi*. The use of different diadems as markers of rank, role, and status has been expanded upon and catalogued by Gyelesen,⁶² although here the majority of the diadems were worn around hats rather than helmets.⁶³ The only military depiction showing a specific diadem was the spahbed, shown on their seals from the time of Khosrow I's reforms onwards. The spahbeds are shown with a diadem consisting of five or six crescent moons worn at the base of their helmets on their seals. This is a feature seen on the majority of spahbed seals, but not seen anywhere else, and thus it can be concluded that such a design was linked to the rank. A seal of a *marzban* also shows a particular type of diadem, consisting of five repeated motifs of a trident inside a spread wings motif.⁶⁴ However, this is again worn around a hat rather than a helmet and it is unknown whether this was common for all marzbans. Diadems are not commonly seen on early Sasanian depictions of helmets, but can be seen on the lamellar helmet depicted on the Taq-e-Bostan capital, and can be seen around a crown worn around the helmet of the lancer at Taq-e-Bostan also. *Korymbi* on military attire likely evolved from the horsehair plume which was used during the late Arsacid period, as can be seen on the Parthian knights at Firuzabad. They were also common on Sasanian crowns and on helmets, where they may also have served as markers of rank.⁶⁵

Other remarks on the MACM helmet

It must be noted that despite several symbols indicating a high status for the wearer of the helmet, such as the crescent moon and the silvered rivets, the helmet itself is of exceptionally crude workmanship when compared with other known Sasanian helmets. Even the low-class Dura Europos helmet appears to have more consistent shapes, axes, and lines than this seemingly high status MACM helmet. The riveting appears uneven, and many of the straight lines are not fully straight. We can observe irregularities in the shape of the browband, the rivets are set slightly differing distances from each other and are not in a straight line, and there is a great deal of deviation in the holes at the base of the helmet used for attaching an edging or lining. The centre of the coronal band doesn't appear to be perfectly in line with the centre of the browband, and the embossed angle going along the midline of the coronal bands is disjointed in parts. The embossed midline on the anterior and posterior coronal bands are also misaligned and do not meet perfectly in the middle at the summit of the helmet. In contrast, the other known Sasanian helmets have relatively perfect geometry, even accounting for damage over time. The relative high-class of the decorations on the helmet does not correlate with the irregular workmanship on the helmet. Might it be possible that this Sasanian helmet is in fact a post-Sasanian helmet produced for a local lord with limited resources but attempting to imitate earlier high status Sasanian warriors? This is

⁶² GYSELEN (2008) 35 - 37.

⁶³ GYSELEN (2008) 35 - 37.

⁶⁴ GYSELEN (2008) 35.

⁶⁵ SKUPNIEWICZ personal correspondence.

a question that unfortunately can only be answered by metal analysis to give a firm date to the helmet. Nevertheless, is a tempting possibility when we consider some of the other irregular features on the helmet such as the variable dating and style of the rivets.

Remarks on the development of Iranian helmets in late antiquity

Taking into account all iconography and known examples of helmets, we have a large sample size dating from the Arsacid and Kushan periods until the post-Sasanian period and we may be able to construct a speculative timeline of the development of Iranian helmet technologies. This can be augmented by examples of similar construction from across Eurasia. In the ancient and late antique periods, we can observe a trend from one-piece helmets, to helmets made of multiple parts riveted together. In the medieval periods and beyond, this trend reverses somewhat and helmets made of a single piece once again become common.

The earliest helmets in Asia (excluding scale and lamellar helmets, which have an entirely different genealogy) were one-piece helmets, such as the one-piece bronze “Kuban” helmets worn by the Sakas and Scythians. Numerous examples of these have been excavated⁶⁶. Subsequently Hellenistic type helmets were introduced by the Greeks following Alexander’s invasions.⁶⁷ These one piece helmets may have given rise to the earliest bandhelm, such as those seen at Khalchayan. As in Europe several centuries later, this would make production easier and cheaper and allow greater numbers of helmets to be produced.⁶⁸ These bandhelms may have led to the development of crossed spangenhelms by the addition of a transverse band, or to radial spangenhelms by splitting the coronal band in two, adding other radial bands, and a centre or finial at the top. It should be noted that although crossed spangenhelms were ubiquitous in Iran, the earliest find of a radial spangenhelm is from the early 4th Century in Roman Egypt – the Deir el Medineh helmet – although there is iconographic evidence for the use of radial spangenhelms in Europe two centuries prior to this. Unfortunately, due to the lack of adequate iconography or archaeological finds, it is not yet possible to construct the genealogy of radial spangenhelms in Central Asia. However, such helmets became ubiquitous in this region from the 6th Century onwards, as can be evidenced in Sogdian artwork.⁶⁹

One piece helmets may also have given rise to ribbed helmets. With the exception of the Taxila helmet, which is poorly described, all evidence for such helmets in western and Central Asia come from iconography rather than finds and so their exact construction and evolution remains unknown. However, there are a number of Japanese ribbed helmets that consist of a coronal band and ribs going in the same direction, so it is possible that such helmets were derived from bandhelms rather than directly from one piece helmets.

⁶⁶ LITVINSKY (2003) 176 - 180.

⁶⁷ NIKONOROV (1997) 48.

⁶⁸ JAMES (1986) 107 - 134.

⁶⁹ AZERPAY (1981) 125.

Conclusion

The new Sasanian helmet in the MACM has several features that make an exact attribution and dating of the helmet difficult. These features include the overall bandhelm construction, the rivet shape and style, and the decorative motifs used on the helmet. The helmet is unique among all known Sasanian helmets and this can provide useful insight on the development of helmets and armament in Sasanian Iran and western and Central Asia as a whole. Further analysis, including metal analysis, may be required for definitive dating of this magnificent piece.

Bibliography

- ALLCHIN F. R. (1970), *A piece of scale armour from Shaikhān Dherī, Chārsada (shaikhān dherī studies, 1)*, „Journal of the Royal Asiatic Society of Great Britain & Ireland (New Series)”, 102, 113 - 120.
- ALOFS E. (2015), *Studies on Mounted Warfare in Asia III: The Iranian Tradition Cavalry Equipment, Infantry, and Servants, c. CE 550-1350*, „War in History”, 22. 2, 132 - 154.
- AZARPAY G. (1981), *Sogdian Painting: The Pictorial Epic in Oriental Art*, Los Angeles/London.
- BISHOP M. C., COULSTON J. C. N. (1993), *Roman Military Equipment from the Punic Wars to the Fall of Rome*, London.
- COMPARETI M. (2010), *The Spread Wings Motif on Armenian Steles: Its Meaning and Parallels in Sasanian Art*, „Iran and the Caucasus”, 14. 2, 201 - 232.
- FRYE R. N. (1972), *Byzantine and Sasanian trade relations with northeastern Russia*, „Dumbarton Oaks Papers”, 26, 263 - 269.
- GRANCSAY S. V. (1963), *A Sasanian Chieftain's Helmet*, „The Metropolitan Museum of Art Bulletin, (New Series)”, 21, 253 - 262.
- GYSELEN R. (2008), *Great-commander (vuzurg-framadar) and court counsellor (dar-andarzbed) in the Sasanian empire (224-651) : the sigillographic evidence*, Roma.
- HAIDER S. Z. (1991), *Islamic arms and armour of Muslim India*, Lahore.
- HAMID N. (2014), *Agency in Material? The Iconography of Headdresses at Bamiyan and what it suggests about Relations with neighboring regions between the 5th and 8th Centuries A.D.*, Leiden.
- JAMES S. (1986), *Evidence from Dura Europos for the Origins of Late Roman Helmets*, „Syria”, 63, 107 - 134.
- JAMES S. (2004), *Excavations at Dura Europos: Final Report VII: Arms and Armour and other Military Equipment*, London.
- KAGEYAMA E. (2007), *The Winged Crown and the Triple-crescent Crown in the Sogdian Funerary Monuments from China: Their Relation to the Hephthalite Occupation of Central Asia*, „Journal of Inner Asian Art and Archaeology”, 2, 11 - 22.
- KUBIK A. L. (2015), *A new view on the possible reconstruction of the “famous clibanarius” graffiti from Dura Europos*, „Akanthina” forthcoming.
- LAMBERG-KARLOVSKY C. C., LAMBERG-KARLOVSKY M. (1971), *An early city in Iran*, „Scientific American”, 224. 6, 102 - 111.
- LARocca D. J. (2006), *Warriors of the Himalayas. Rediscovering the Arms and Armor of Tibet*, New York.
- LECOQ A. von (1925), *Bilderatlas zur Kunst und Kulturgeschichte Mittel-Asiens*, Berlin.
- LITVINSKY B. A. (2003), *Helmet: In Pre Islamic Iran*, „Encyclopaedia Iranica”, 12. 2, 176 - 180.
- MARSHALL J. H. (1951), *Taxila : an illustrated account of archaeological excavations carried out at Taxila under the orders of the Government of India between the years 1913 and 1934*, London.

- MASIA K. (2000), *The Evolution of Swords and Daggers in the Sasanian Empire*, „Iranica Antiqua”, 35, 185 - 289.
- MIKS C. (2009), *Relics of an Early Medieval Elite Tomb*, „Jahrbuch des Römisch-Germanischen Zentralmuseums”, 56, 395 - 538.
- MOHAMED B. (ed.), (2008), *The Arts of the Muslim Knight. The Furusiyya Art Foundation Collection*, Milano.
- MORTIMER M. (2011), *Woden's warriors : warfare, beliefs, arms and armour in Northern Europe during the 6th and 7th centuries*, Little Downham, Cambs.
- KHORASANI M. M. (2006), *Arms and Armor from Iran: The Bronze Age to the End of the Qajar Period*, Tübingen.
- NICOLLE D. (1996), *Medieval Warfare Sourcebook: Christian Europe and Its Neighbours*, London.
- NICOLLE D. (1999), *Arms and Armour of the Crusading Era, 1050-1350: Islam, Eastern Europe and Asia*, London.
- NICOLLE D (1996), *Sassanian Armies: Iranian Empire Early 3rd to Mid-7th Centuries AD*, Montvert Publications.
- NICOLLE D. (2012), *The Great Islamic Conquests AD 632-750*, Oxford.
- NIKONOROV V. (1997), *Armies of Bactria*, Stockport.
- OVERLAET B. J. (1982), *Contribution to Sasanian Armament in connection with a decorated Helmet*, „Iranica Antiqua”, 17, 189 - 206.
- OVERLAET B. J. (1998), *Regalia of the Ruling Classes in Late Sasanian Times: The Riggisberg Strap Mountings, Swords, and Archer's Fingercaps*, [in:] *Entlang der Seidenstrasse: Frühmittelalterliche Kunst zwischen Persien und China in der Abegg Stiftung*, K. OTAVSKY (ed.), Riggisberg, 267 - 297.
- POURSHARIATI P. (2008), *Decline and Fall of the Sasanian Empire: The Sasanian-Parthian confederacy and the Arab conquest of Iran*, London/New York.
- PUGACHENKOVA G. A. (1966), *Khalchayan*, Tashkent.
- RONGJIN B., SHAOYI Z. (2008), *Armor restoration*, Elephant Prints.
- SKUPNIEWICZ P. (2007), *Helm wojownika przedstawionego na kapitelu w Tak-e Bostan*, „Acta Militaria Mediaevalia”, 3, 9 - 28.
- SKUPNIEWICZ P. (2014), *Sasanian Horse Armour*, „Historia i Świat”, 3, 35 - 59.
- SOUDAVAR A. (2014), *Mithraic Societies: From brotherhood to religion's adversary*, Houston.
- STARK S. (2009), *Central and Inner Asian Parallels to a Find from Kunszentmiklós-Bábony (Kunbábony): Some Thoughts on the Early Avar Headdress*, „Ancient Civilizations from Scythia to Siberia”, 15, 287 - 305.
- TOFIGHIAN H. et al., (2011), *Sasanians in the Persian Gulf according to Archeological data*, *Sasanika Archaeology* 4, 1 - 5 [<http://www.sasanika.org/wp-content/uploads/sas-arch211.pdf> , access: 1.05.2015].
- ZUBOV S. E., RADYUSH O. A. (2014), *Шлемы Среднего Поволжья в среднесарматское время*, „Уфимский археологический вестник”, 14, 94 - 104.

Summary

This article will describe a previously unknown helmet in the Musée d'Art Classique de Mougins (MACM) in southern France. The helmet is of the “bandhelm” variety and is decorated with heraldic motifs plus silvered rivets. The helmet bears some resemblance to known helmets from Cheragh Ali Tepe / Amlash but also differs in several crucial ways. In the light of this new example, a new typology of Sasanian helmets and some novel insights on the development of Sasanian helmets is also offered.

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