# SWORDS AND SABERS DURING THE EARLY ISLAMIC PERIOD

POR

### DAVID ALEXANDER

### **ABSTRACT - RESUMEN**

The present article offers a discussion on early swords and sabers during the Early Islamic Period, from the Topkapí Sarayi collection to written, iconographic and archeological sources.

El presente artículo trata las espadas y sables utilizados en los primeros tiempos del Islam a partir de la colección del Topkapí Sarayi y de las fuentes escritas, iconográficas y arqueológicas.

## **KEY WORDS - PALABRAS CLAVE**

Swords. Sabers. Islam. Topkapí Sarayi, Istambul.

Espadas. Sables. Islam. Topkapí Sarayi. Estambul.

# SWORDS DURING THE EARLY ISLAMIC PERIOD

The recent discovery in Spain of a ninth century sword represents a remarkable advance in our knowledge of early Islamic swords. This archaeological find is discussed in detail by Alberto Canto in this volume, the present article offers a discussion of early swords and sabers in general. Reference is also made to the so called *saif badawī* used in the investiture of 'Abbasid caliphs under the Mamluks; and to the origins of the saber which represents an eastern influence on the Islamic world

A sword is a weapon with a straight double-edged blade, generally pointed at its tip, and can be used for both cutting and thrusting; the hilt of a sword is generally symmetrical in form. A saber can be defined as a weapon with a single-edged blade, sometimes sharpened additionally along the lower part of its back edge, designed for cutting and slashing. Although sabers are usually curved, earlier examples are less so and some are virtually straight. Saber hilts are asymmetrical in form in conformity with the asymmetrical nature of their blades.

During the time of the Prophet the Arabs used swords, not sabers. This is confirmed by both textual evidence and material survivals. The earliest representations in sculpture and on coinage, always show Arabs with swords. This is the case with two eighth century examples from the Umayyad period both representations of rulers holding swords which may be *dhu'lfaqār*.<sup>2</sup> The first example is on the coinage of the Umayyad caliph 'Abd al-Malik where a figure is depicted holding a sword with scabbard.<sup>3</sup> The second example from the Umayyad palace at Khirbat al-Mafjar in the Jordan Valley is a plaster statue of a ruler holding a sword (Fig. 1).

<sup>&</sup>lt;sup>1</sup> The thin deeply curved examples from Iran dateable to the 17th to 19th century were designed for a draw-cut.

<sup>&</sup>lt;sup>2</sup> See Alexander (1999).

<sup>&</sup>lt;sup>3</sup> American Numismatic Society, New York, no. 1970.63.1 dated 75/694-95, ill. in Blair (1992: 65, fig. 6) and Alexander (1999: fig 3). This figure has generally been interpreted as that of the caliph, but it is also possible that it is a portrait of the Prophet.



Fig. 1. Ruler with sword from Khirbat al-Mafjar ca. 105-125/724-43.

The early sword hilts depicted on the coins and at Khirbat al-Mafjar all have rounded pommels, which are paralleled by several excavated hilts and also by a hilt found in a tenth or eleventh century Fāṭimid shipwreck off the coast of Turkey<sup>4</sup>. Hilts of this type are also depicted in the *Suwār al-kawākib al-thābita* of al-Ṣūfī dated 444/1009-10 (Fig. 2).<sup>5</sup>

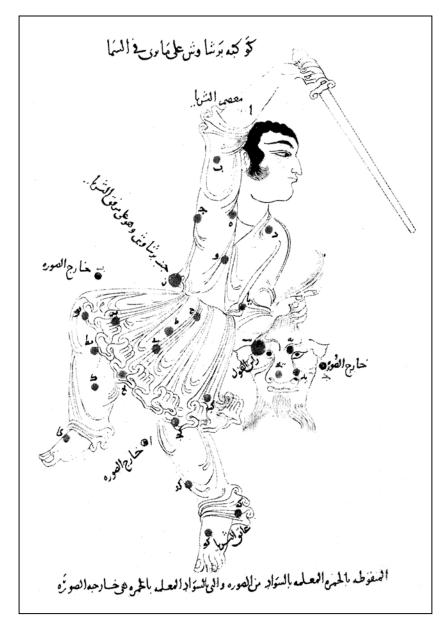


Fig. 2. Sword from *Suwār al-kawākib al-thābita* of al-Ṣūfī dated 444/1009-10, Bodleian Library, Oxford.

<sup>&</sup>lt;sup>4</sup> The hilt now in the Izmir Museum was first published in Bass (1978: 790). A line drawing of it and of another early hilt is in Nicolle (1982: 31). It is also published in Alexander (1984: cat. no. 53).

<sup>&</sup>lt;sup>5</sup> See Wellesz (1965: 7, 19). The sword on pl. 19 is suspended from a baldaric.

Later miniature painting, especially from Iran almost always associates straight double edged swords with the Arabs. They occur for example, in the illustrations to Rashīd al-Dīn's  $J\bar{a}mi^c$  al- $taw\bar{a}r\bar{i}kh$  of 714/1314-5 where Arabs are depicted with round pommeled straight swords suspended from baldarics, and in a sixteenth century painting showing a battle between two rival Arab clans (Fig. 3).

## EARLY ISLAMIC SWORD BLADES PRESERVED IN THE TOPKAPI SARAYI MUSEUM IN ISTANBUL.7

There are thirty-six sword blades in the collection of arms and armour in the Topkapı Sarayı Museum that are attributed, generally by inscriptions on the blades, to the Prophet, his companions and to the Umayyad caliphs; that is to the first/seventh and second/eight centuries. In addition one of these blades is attributed to the prophet Dā<sup>c</sup>ūd (King David)<sup>8</sup>

The only published work to deal with these blades in any detail is *al sayf fi al-Islam*, by Ünsal Yücel. He describes and illustrates twenty-seven of these early blades. Some were also published by Abd al-Rahman Zaki in 1979. The only other scholar to deal with this subject, especially providing an exhaustive analysis of the inscriptions and possible dating is Ludvik Kalus, who argues that generally the inscriptions seem to be later additions. Nevertheless, even if these were added during later periods it remains very likely that many of the blades are from the early Islamic period. Both the blades and the inscriptions are discussed in a manuscript which is scheduled to be published by the French Archaeological Institute in Anatolia.<sup>9</sup>

Of the thirty-six sword possibly early blades one is attributed to the Prophet<sup>10</sup>, one to the first caliph Abū Bakr (r. 11-13/632-34),<sup>11</sup> three to the second caliph 'Umar (13-23/634-44),<sup>12</sup> five to the third caliph 'Uthman (23-35/644-56)<sup>13</sup>. One sword is attributed to the Prophet's son in law and cousin 'Alī (r. 35-40/656-661) (Fig. 4) and another to his brother Ja'far al-Tayyār.<sup>14</sup> One sword blade is attributed to the Prophet's secretary Abū Ḥasan,<sup>15</sup> two are attributed to the

<sup>&</sup>lt;sup>6</sup> Blair (1995: e.g. folios 66a, 72a, 292a).

<sup>&</sup>lt;sup>7</sup> These blades are to be published in Alexander and Kalus forthcoming. In this catalogue of the sword blades in the Topkapı Sarayı Museum the inscriptions are discussed and analyzed by Ludvik Kalus.

<sup>8</sup> TKS inv. no. 2/137, see Yücel (1988: no. 3).

<sup>9</sup> Alexander and Kalus forthcoming. The collection in the Topkapı goes back to the period of Mehmet II (r.848-50/1444-6 and 855-86/1481-81), but the largest groups of non-Ottoman arms to enter the collection probably were added after the battle of Chāldirān in 920/1514 and after the Ottoman conquest of the Mamluks in 923/1517. The blades attributed to the early Islamic period perhaps arrived with the Mamluk booty, but unfortunately, even this is uncertain for these blades are not mentioned in the early inventories and could also have been donated by courtiers or purchased from merchants.

<sup>&</sup>lt;sup>10</sup> TKS inv. no. 2/129, Yücel 1988, no. 1 and Alexander (1999: fig. 6); in addition another saber blade is also said to have belonged to Muhammad TKS inv. no. 2/130.

<sup>11</sup> TKS 2/131, Yücel (1988: no. 4).

<sup>12</sup> TKS inv. nos. 2/132, 2/133 and 2/134, Yücel (1988: nos. 5, 6 and 7); 2/133 bears and inscription stating that it was subsequently transferred to the Umayyad caliph Mu'awiya in the year 45/665-66 and later to the 'Abbasid caliph Hārūn al-Rashīd (r. 170-93/786-89). Ludvik Kalus regards all these inscriptions as contemporary and doubts that they are as early as the eighth century see Alexander and Kalus forthcoming.

<sup>13</sup> H/3775, 2/135, 2/136, 1/230, and 1/9 the first three are illustrated in Yücel (1988: nos. 8, 9, 10). no. 2/136 is a dhu'l-faqār, and is signed by the swordsmith Muḥammad ibn Abdullāh, another almost identical blade by the same smith is illustrated in Alexander (1999: fig 8), TKS inv. no. 1/205. No. 2/135 has a straight blade with a sharpened backedge and is technically a saber, it is included here because it appears to have originally been a sword blade and only later re-worked to function as a saber.

TKS 2/138 and 2/143, the former is published in Yücel (1988: no. 11), it is also illustrated in Alexander (1999: fig. 12), and in Zaki (1979: fig. 204) where it is called the sword of Zayn al-ʿĀbidīn. It has two gold filled holes near the tip of the blade. The latter is published in Yücel (1988: no. 16) and Alexander (1999: fig 12).

<sup>15</sup> TKS inv. no. 2/141, Yücel (1988: no. 14), it has one gold filled hole.



Fig. 3 Arabs with swords, the battle of the clans from a Majnun wa Layla of Nizamī, The Metropolitan Museum of Art, acc. no.13.228.9.

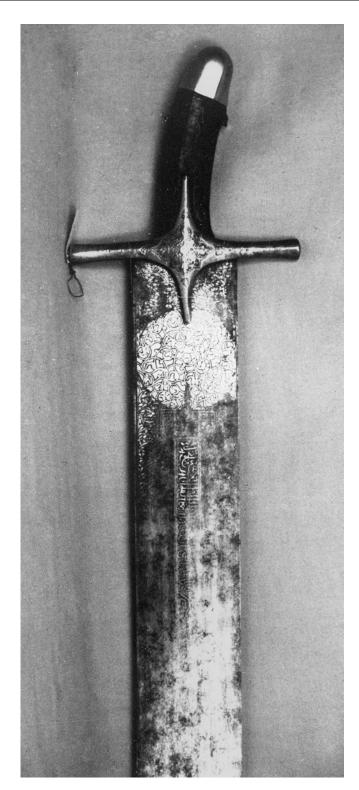


Fig. 4. *Saif Bedawī* ? so called «sword of ʿAlī», Mamluk ceremonial sword blade, 15th century Topkapı Saraı Museum, Istanbul. inv. no. 2/138

Prophet's companion Muʿād Jabal,¹¹⁶ two to the Prophet's companion Dirar b. al-Azwar,¹¹⊓ and one each to the companions Zubayr b. al-ʿAwān, Saʿd b. ʿUbāda and ʿUmar b.Yasar¹в. Three other blades are attributed to the Prophet's companions but their inscriptions are now too worn to read¹ゥ. There are also four blades attributed to the Prophet's great general Khālid b. al-Walīd²⁰ and five attributed to the early Umayyad caliphs, these include two bearing the name of Muʾawiya (r.41-60661-80)²¹. The other Umayyad blades bear inscriptions in the names of ʿUmar b. ʿAbd al-Azīz (99-101/717-20) and Hishām b. Abd al-Malik (r. 105-25/724-43).²² Finally there is a blade seemingly ascribed to an un-named ʿAbbasid caliph bearing the improbable date of 101/719-20.²³

Three further points can be made about this group of blades; firstly, the very fact that they are with one exception sword and not saber blades is important.<sup>24</sup> As noted above, the Arabs during the time of the Prophet used swords, and not sabers. The fact that so many sword blades survived presumably, in the Mamluk treasury, probably indicates that at the very least they were regarded as authentic by as early as the fifteenth century. Secondly, the attributions on the blades coincide almost too neatly with the most important individuals from the early days of Islam. As one would expect there is a complete series of blades attributed to the Prophet and the four «orthodox» caliphs, but also among the companions the attributions are to some of the historically more important. Such as for example Sa'd b. 'Ubāda who was a chief of the clan of Sā'ida, attended the important meeting at Akaba and was an early convert to Islam. He eventually became the leader of the Ansār and almost was elected the Prophet's successor. The same is true in the case of the Umayyad caliph 'Umar b. 'Abd al-Azīz who ruled for only two years and was distinguished not for his administrative skills but rather for his piety and sense of fair play. Thirdly, many of these blades, at least eight, are drilled with small holes filled with gold. A typical example is the blade attributed to the Prophet mentioned above. This sword is illustrated in a recent issue of *Gladius* where one of the gold filled holes is clearly visible.<sup>25</sup> An early type of sword blade described in written sources of the early Islamic period was the Samsām sword and these were apparently distinguished by having two holes drilled at the end of their blades. <sup>26</sup> It is possible that the metal filled holes on many of the Topkapı blades is an indication that they are very early in date.

<sup>&</sup>lt;sup>16</sup> TKS inv. no. 1/299 and 1/301

<sup>17</sup> TKS 1:204 and 1/207. Dirar was a clan leader and famous for having executed Mālik b. Nuwayra

<sup>&</sup>lt;sup>18</sup> TKS 2/140, 1/110 and 2/149. The former is illustrated in Yücel (1988: no. 13), it has two gold filled holes. The latter see Yücel (1988: no. 22), is signed by the smith Aḥmad al-Makī and has one gold filled hole.

<sup>&</sup>lt;sup>19</sup> TKS 1/5063 and 2/142, the third TKS inv. no. 2/148 is attributed to a companion but no reason is given and there is no inscription. The third blade 2/148 see Yücel (1988: no. 21), is decorated with a lion and dragon in combat; it is not inscribed and no reason is given for its attribution to one of the companions

<sup>&</sup>lt;sup>20</sup> TKS 2/144, 2/145, 2/146, and 2/147, see Yücel (1988: nos. 17,18,19 and 20), no. 2/147 has two gold filled holes and no. 2/145 is dated 1020/1611

<sup>&</sup>lt;sup>21</sup> TKS 1/83 and 1/84, Yücel (1988: nos. 23 and 24), the former has six gold filled holes arranged in groups of three; the latter carries an inscription stating that it was that it was made for the second caliph 'Umar b. al-Khaṭṭāb (13-23/634-44), acquired by Muʾawiya in the year 45/665-6 and another inscription in the same style stating that it was later the property of the 'Abbasid caliph Hārūn al- Rashīd (170-93/786-809). On the other side of the same blade is an inscription is in the name of the Mamluk sultan Qāitbāy (872-901/1468-96) see also Zaki 1953-54 p. 378, no. 1

<sup>22</sup> TKS inv. nos. 1/98,1/99 and 1/100

<sup>23</sup> TKS 1/103.

<sup>&</sup>lt;sup>24</sup> The exception is a saber blade alleged to have belonged to the Prophet TKS inv. no.21/130 see Yücel (1988: no. 2).

<sup>&</sup>lt;sup>25</sup> TKS inv. no. 21/129. Illustrated in Yücel (1988: no. 1) and Alexander (1999: fig. 6).

<sup>&</sup>lt;sup>26</sup> See below for a description of these swords and for the famous *Samsām* sword of al-Zubaidī.

# WRITTEN SOURCES:

Most of our information on early Arab swords is from literature. During the time of the Prophet several centers were important for the manufacture of sword blades. One chronicle refers to Mashrafīya swords, which apparently were produced in Mu'tah near the Dead Sea. These weapons were so highly regarded that in 8/629 Muḥammad ordered a raid on the city to capture them. <sup>27</sup>

In the case of other captured weapons we can be less sure about where they were produced. This is true of the weapons taken from the Jewish tribe known as the Banū Qaynuqā. In his  $s\bar{t}ra$  the Prophet's biographer Ibn Isḥāq (85-150/704-67), recounts that during the Prophet's life-time this tribe were noted as arms manufacturers, or as possessing large stocks of arms in Medina; it is possible that some of their arms were produced there<sup>28</sup>

Yemen was a major center of production in the pre-Islamic and early Islamic period, and its swords were praised by poets, warriors and scholars. In a poem by Ta'abbata Sharrā, for example, a warrior's Yemeni sword is described as «notched» a metaphor for a heroic weapon marked by use in battle:

he rode Terror alone, accompanied only by a notched Yemeni sword<sup>29</sup>

The anthologist al-Thaʿālibī (350-430/961-1038) quoting al-Jāḥiz says that the specialties of the Yemen:

include swords, cloaks, monkeys and giraffes...It is said that when a sword is made (of steel) from Qala' in India and tempered in the Yemen, then beware of it.<sup>30</sup>

According to the scientist Yūsuf Yaʿqūb b. Isḥāq al-Kindī (ca. 185-252/801- 66) various types of sword were forged in the Yemen, these included; a type he called «old» (in the sense of noble) which were of the highest quality, and distinguished by a knot-like pattern zigzagged over the length of their blades. They came in four different lengths and he reported that they:

have a white essence, green before throwing and red after.31

Another type were Qaljurī swords, plain light weapons about three to four handspans long.<sup>32</sup> There were also broad swords, Sarandībī swords, and ṣamṣām swords. Sarandībī swords were made from a mixture of iron imported from Sarandīb (Ceylon - Sri Lanka) and Salmānī iron from Iran.<sup>33</sup> Ṣamṣām swords seem to have been relatively broad and in the pre-Islamic period were distinguished by two holes at the end of the blade, and by two lines one of which was carved and «looked like a river».<sup>34</sup>

<sup>&</sup>lt;sup>27</sup> Hitti (1977: 147); also Ibn Isḥāq (1982: 413, 531-40).

<sup>&</sup>lt;sup>28</sup> The Banū Qaynuqā<sup>c</sup> were traders and goldsmiths. When they were expelled they left behind their arms, these were then distributed among the Muslims. The Prophet received a fifth share of these Wensinck and Parey (1978: 824-25). The Muslims also captured a considerable number of weapons, from the Jewish tribe Qurayzā see Lecker (1995: 10-11).

<sup>&</sup>lt;sup>29</sup> Jones (1999: 269), see especially Alexander (1999) for «notched» swords.

<sup>&</sup>lt;sup>30</sup> Tha<sup>c</sup>ālibī (1968: 122-23).

<sup>&</sup>lt;sup>31</sup> This may mean they looked white after polishing (see above) and were greenish before tempering, or green until a chemical compound was used to make the watering pattern.

<sup>32</sup> These may have been sabers, see below

The identity of this place name is uncertain, see Allan (1979: 83-84).

<sup>34</sup> Zaki (1952).

One of the most famous swords of the early Islamic period, was of this latter type and became known historically as «The samsām sword». Traditionally it was said to have been the sword of the pre-Islamic poet and warrior 'Amr b. Ma'dīkarib al-Zubaidī, and its story was related by the historian Ahmad b. Yaḥya al-Balādhurī (d. ca. 279/892)<sup>35</sup> According to his account one of the companions of the Prophet, Khālid ibn Sa'īd captured in battle the wife and some relations of 'Amr, the latter promised to accept Islam if they were released and later offered Khālid his sword *al-ṣamṣām* as a gift. When Khālid was killed at the battle of Marj al-Ṣuffar in 14/635 the sword was taken as booty by Mu'āwiyah. Its possession was disputed and the caliph 'Uthman awarded it to Sā'id b. al-'Āṣi ibn Umaiyah. It passed down through his family and eventually was sold to the caliph al-Mahdī for 80,000 dirhams. During the time of the caliph al-Hādī a poet described it as:

the best that a scabbard ever sheathed. Green in color between the edges of which is a garment of poison in which death is clad. If one unsheathes it, its brilliance dazzles that of the sun...<sup>36</sup>

Like the Yemeni swords mentioned by al-Kindī this famous sword also had a green color. By the time it came into the hands of the caliph al-Wāthiq-billāh it must have been dirty or rusty, for the caliph ordered that it be polished and tempered and as a result the sword was «changed».<sup>37</sup>

Al-Kindī mentions a smith named Zayd, working in Kūfa, and comments that one of the important types made in Kufa was the *baid* (white). He also noted that Baṣra was an important center of production, swords produced there seem to have been renowned for the strength of their steel:

Blades of Baṣrā which loathe the scabbard; which grow not blunt nor buckle.38

Al-Kindī recorded two types of Khurāsānī sword, The first was the *muḥarrar* which was covered with a small knot like pattern made by a chisel and then polished<sup>39</sup>. The second was a Salmanī sword which had a tiny watering pattern and he notes two sizes long and thin, and broad about four fingers wide and four handspans in length.<sup>40</sup> In addition he lists a number of other centers of production including; Khorāsān, Damascus, Egypt, Rum (Europe and Byzantium), Sri Lanka, and Qalaī, probably Kedah in Malaya.<sup>41</sup> The scholar and scientist Abu'l-Raḥmān al-Birūnī (362-ca 442/973-ca 1050) noted that Herat was famous for its high-quality steel,<sup>42</sup> and the historian Abu'l Ḥasan al-Mas'ūdī (d. 346/956) recorded that Zarikaran in the Caucasus produced coats of mail, stirrups, bridles, and swords.<sup>43</sup> In the western Islamic world, Toledo was regarded as one of the major centers of production.<sup>44</sup>

The swords most praised in early poetry and geographies were from India. The geographer Abū ʿAbdallāh Muḥammad b. Muḥammad al-Idrīsī (d. 560/1165) wrote of them:

<sup>&</sup>lt;sup>35</sup> Balādhurī traces the story to Hishām Ibn Muḥammad al-Kalbī , tr. Hitti (1916: 183-85).

<sup>36</sup> Hitti (1916: 185).

<sup>37</sup> Hitti (1916: 185).

<sup>&</sup>lt;sup>38</sup> Ibn Isḥāq (1982: 421).

<sup>&</sup>lt;sup>39</sup> Allan p. 83.

<sup>40</sup> Salmanī because the iron came from Salman

<sup>&</sup>lt;sup>41</sup> Zaki (1953-54: 368), for the trade between Arabia and South East Asia see Wink (1990 esp: pp. 78-86).

<sup>42</sup> Zaki (1953-54: 372).

<sup>43</sup> Minorsky (1958: 155).

<sup>&</sup>lt;sup>44</sup> See Bruhn de Hoffmeyer (1982: 36-37). It is possible that the smith Aḥmad al-garbī who made the sword illustrated in fig. 6 was from Spain.



Fig. 5. Saif Bedawī? so called «sword of 'Umar», Mamluk ceremonial sword blade, 15th century Topkapı Saraı Museum, Istanbul. inv. no. 1/129; signed by Muḥammad.

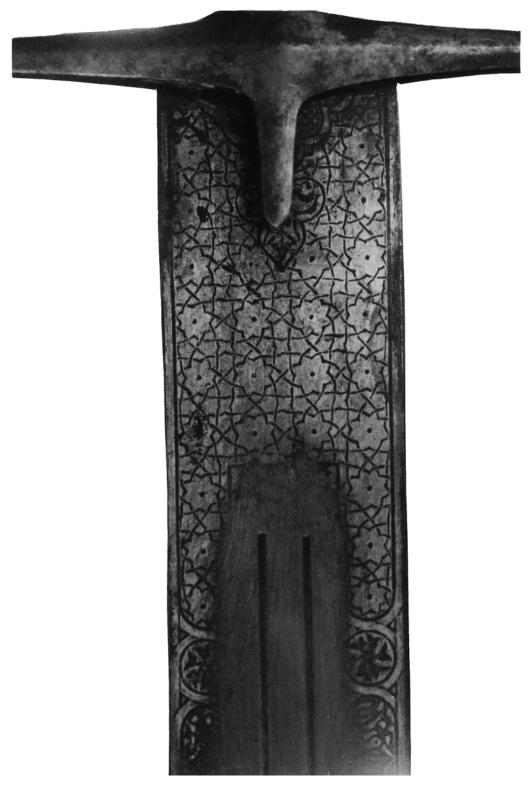


Fig. 6. *Saif Bedawī*? Decorated Mamluk ceremonial sword blade, 15th century Topkapı Saraı Museum, Istanbul. inv. no. 1/128, signed by Aḥmad al-garbī.

The Indians are very good at making various compounds of mixtures of substances with the help of which they melt the malleable iron; it then turns into Indian iron, and is called after *al-hind...*their craftsmen make excellent (swords) surpassing those made by other peoples. In the same way, the Sindī, Sarandībī and the Baynīmanī iron vie with one another for superiority as regards the climate of the place, skill in industry, the method of melting and stamping and beauty in polishing and scouring. But no iron is comparable to the Indian one in sharpness.<sup>45</sup>

Some of these Indian swords were noted for their wide blades, and they seem to have been so highly esteemed that they were treasured heirlooms whose origins were ascribed to the distant pre-Islamic period:

Men who smote the front ranks of the enemy with broad-bladed Indian swords.<sup>46</sup> Every fine sharp Indian blade, inherited from the days of  ${}^{\varsigma}\bar{A}d$  and Jurhum.<sup>47</sup>

There is even some information in the early texts about armourers; In addition to the smith mentioned above Ibn Isḥāq cites the names of at least two armourers: Khabbāb b. al-Aratt, an early companion of the Prophet and a swordsmith in Mecca, and a certain 'Umayr, a sword polisher.<sup>48</sup> Polishing is often mentioned in the early chronicles and poetry and it seems that highly polished swords were preferred:

I would smite his nape with a sharp sword, a blade white as salt from polishing.<sup>49</sup>

As noted above straight double edged swords were widely regarded as a typically Arab weapon, perhaps because they had been traditionally used by the Arabs but perhaps also because this type of weapon was associated with the Prophet. These associations explain why in later periods Arabs are almost always portrayed as using swords and wearing them suspended from a baldaric, for this was how Muhammad wore his.50 The use of sword and baldaric was consciously abandoned by the 'Abbasid caliph al-Mutawakkil (r. 232-247/847-61) in favor of the saber and belt.<sup>51</sup> But the use of sword and baldric seems to have retained a ceremonial and religious significance. For example, the Zangīd ruler Nūr al-Dīn (r. 541-69/1146-74) was anxious to demonstrate that he was a pious traditionalist, searching out the old methods preferred by the Prophet<sup>52</sup> consequently, among his reforms he re-adopted the custom of wearing a sword suspended from a baldaric. His successor Sala al-Dīn (533-589/1138-1193), known in the west as Saladin did the same<sup>53</sup> and it is noteworthy that he was buried with his sword, «he took it with him to Paradise.»<sup>54</sup> During the Mamluk period the saber seems to have been the preferred weapon of the warrior elite but the most finely decorated edged weapons were swords (Figs. 4,5,6) Swords were used in the most important ceremonial events in the Mamluk period, that is, in the investiture of Mamluk sultans and caliphs of the restored 'Abbasid dynasty55 where the ruler was «girded» with the «Bedouin

<sup>45</sup> Maqbul Ahmad (1960: 23).

<sup>46</sup> Ibn Isḥāq (1982: 354).

<sup>47</sup> Ibn Ishāq (1982: 439).

<sup>&</sup>lt;sup>48</sup> Ibn Isḥāq (1982: 162, 356).

<sup>49</sup> Ibn Isḥāq (1982: 369).

<sup>50</sup> See Alexander (1999).

<sup>&</sup>lt;sup>51</sup> See Hitti (1977: 327). That is a belt around the waist often with pendant straps. see below, esp. note 81.

<sup>&</sup>lt;sup>52</sup> Conversation with Julian Raby and Caroline Alexander, November 1998.

<sup>&</sup>lt;sup>53</sup> Conv. Caroline Alexander, October 1998.

<sup>&</sup>lt;sup>54</sup> Quoted in Lane-Poole (1898: 66). Another sword said to be from the tomb inscribed with the name of Najm al-Din Ayyub and signed by the swordsmith Alī ibn Selim is in the Askeri Museum, Istanbul 2355, see Yücel (1988: no 34), its pommel is missing but the short straight cross guard has sculpted and pierced quillons that are of the general type represented as «Arab» in miniature painting of approximately this period.

<sup>55</sup> Mayer (1952: 8-10).

sword» *saif badawī*. There are no surviving descriptions of such swords but it can be suggested as a hypothesis that the exquisitely decorated Mamluk sword blades now preserved in Istanbul are in fact *saif badawī*. The most important of these are the so called «sword of 'Alī» (Fig. 4), another attributed to the caliph 'Umar (Fig. 5) and a third signed by a swordsmith from the Islamic west, perhaps from Spain (Fig. 6).

#### THE SABER DURING THE EARLY ISLAMIC PERIOD

The saber was probably introduced into the central Islamic lands by Turkic warriors from Central Asia who were employed as royal body-guards during the reign of the 'Abbasid caliph al-Mu'taṣim (r. 218-27/833-42), and it is noteworthy that al-Kindī writing at approximately this time mentions a curved blade type<sup>56</sup>.

For some time before this the saber had been the favored edged weapon of the Central Asian nomadic mounted warrior and its use by them has been extensively discussed by Denis Sinor and Helmut Nickel.<sup>57</sup> It is however, unknown exactly where or when the saber was first developed; but from as early as the seventh century A.D., there is evidence for its widespread use from Hungary in the West to China and Japan in the East.<sup>58</sup> It is even possible that the *gladius huniscus* referred to by the Anglo-Saxon theologian and scholar Alcuin (117-189/735-804), writing in 180/796, was in fact a saber, indicating that it may have been introduced into Europe by the Huns.<sup>59</sup>

Some of the earliest surviving sabers are from China and Japan and include two seventh century Chinese blades with ring pommels from imperial graves at Pei-chueu-shan near the Eastern Tang dynasty capital of Luoyang in Honan Province (Fig. 7); and an 8th century Japanese saber known as Kogarasumaru «little crow» (Fig. 8). The hilt of Kogarasumaru has not been preserved but the blade is only very slightly curved and is sharpened along about one-third of its back edge. Both Chinese weapons have retained their scabbards, albeit in a very worn excavated condition and both have ring pommels sculpted with dragon heads.<sup>60</sup> These sabers were intended to be worn, in typical saber style, slung from a belt around the waist. This is indicated by the P-shaped scabbard mounts on one of the sabers. Thin leather straps would have been attached to the top of each P-form and from thence to the warriors belt. Because sabers were almost invariably worn slung from a belt around the waist their scabbard mounts are therefore always on one side and are often P-shaped or semi-circular. Furthermore because they were worn at the waist they were called by the Japanese tachi or slung sword.<sup>61</sup> Another early Chinese saber, probably dating to about 750 A.D. is preserved in the Shosoin Treasury in Japan (Fig. 9). This weapon has a hilt slightly inclined away from the principal cutting edge of the blade and has a scabbard with P-shaped mounts, like most sabers it has a sharpened back-edge. The saber is one of thirteen similar weapons taken from the Treasury during a revolt in 764 A.D. Its fittings are not completely original as they were restored in 1897-98.62

<sup>56</sup> See footnote 76 below

<sup>&</sup>lt;sup>57</sup> Nickel (1973) and Sinor (1981), Sinor p. 141 for example quotes from the Russian *Primary Chronicle* where a turkic Khazar is reported to have contrasted the Khazars use of the saber with the Slavs dependence on the sword

<sup>&</sup>lt;sup>58</sup> See, for example, Arendt (1935).

<sup>&</sup>lt;sup>59</sup> «...Dirigere studuimus unum balteum et unum gladium huniscum et duo pallia sirica.» See Schlosser, Schriftquellen zur Geschichte der Kunst, 1892, p. 19, quoted in Hampel (1897-99: vol. 1, 99).

<sup>&</sup>lt;sup>60</sup> Ring pommels also occur on Western swords of the late Roman period see Schwietering (1930: 240-243) and Riyadh (1996: vol 2, cat. no. 51, 56-57).

<sup>61</sup> For these sabers see Grancsay (1986: 69-71) and Nickel (1973) for a discussion of P-shaped scabbard mounts.

<sup>62</sup> Catalogue of the Shosoin (1932: vol. IV) and Shirakihara (1978).



Fig. 7. Two 7th century Chinese blades from imperial graves at Pei-chueushan, MMA, acc. nos. 1930.30.65.2 gift of Clarence H. Mackay and 1930. 30. 65.1 gift of George D. Pratt.

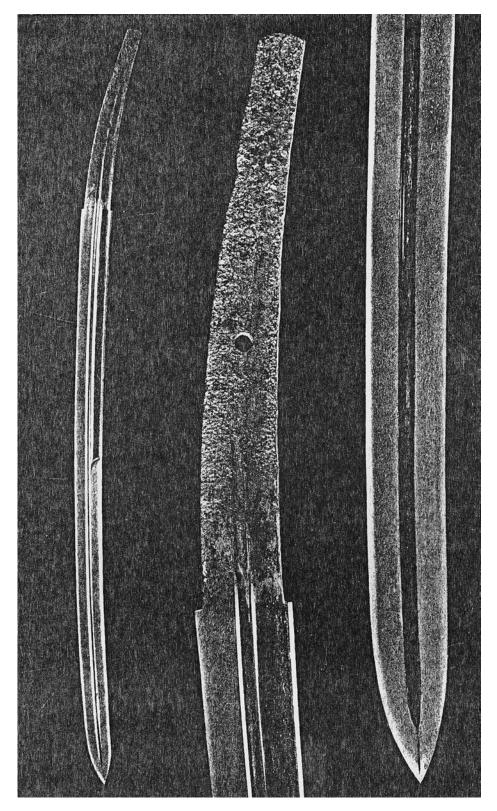


Fig. 8. Kogarasumaru «little crow», Japanese 8th century.

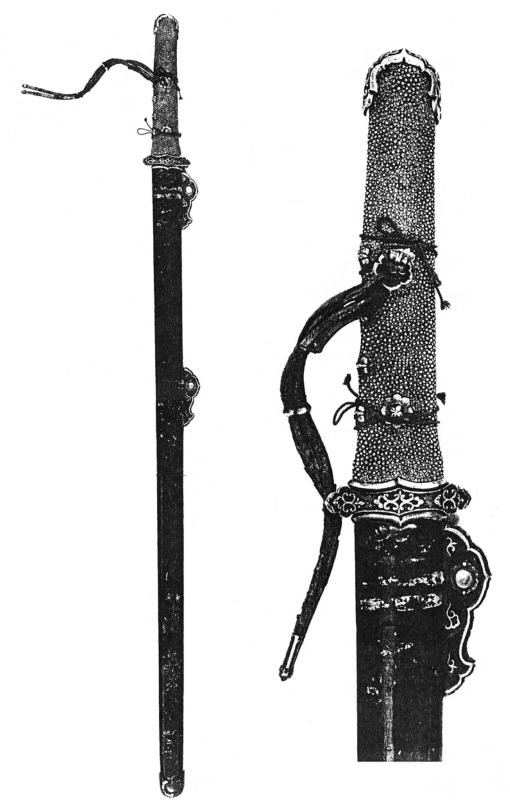


Fig. 9. Chinese saber from the Shosoin Treasury in Japan 8th century.



Fig. 10. Turkic saber from Srotzki in the Altai, Bilsk Museum, Russia.

A large group of early sabers have been recovered from various archaeological sites in southern Russia and the Altai and westwards into Hungary. These are remarkably similar to the far-Eastern examples and are a further indication that the type was the preferred weapon of the steppe nomads, and that it was their influence that led to introduction into such diverse geo-political regions. A dateable example is a saber found at Koban in the northern Caucasus. The grave also contained Umayyad and 'Abbasid coins dating to between 740 and 799 A.D. and consequently the grave is dateable to the late eighth or early ninth century A.D.<sup>63</sup>. Arendt who published this saber also lists fourteen others of the same general type. Another dateable example was found in the grave of a Turkic chieftain at Srotzki in the Altai (Fig. 10).<sup>64</sup>

<sup>63</sup> Arendt (1935: p. 49, no. 3).

<sup>64</sup> Arendt (1935: pl. XXXI).



Fig. 11. Turkic saber, Naturhistorisches Museum, Vienna.



Fig. 12. «Saber of Charlemagne» Kunsthistorisches Museum, Vienna.

The grave also contained Tang dynasty coinage of the 10th century.<sup>65</sup> The hilt and scabbard fittings are of gilt bronze decorated with lions and palmettes and although most of the grip is missing several of the thorn like studs used to form the finger indentations have been preserved. Also found in the grave were a number of small pendants two of which are in the form of mounted warriors.<sup>66</sup>

The construction of the grips on sabers of this type is clearly illustrated in an example now in the Naturhistorisches Museum, Vienna (Fig. 11). The hilt and the semi-circular scabbard mounts of the Vienna saber are decorated with a tiny ovular floral forms. Its rounded pommel cap is riveted to either side of the tang and the grip is slightly inclined away from the cutting edge of the blade; there are four studs along the inside of the grip. The grip would have been bound with leather leaving slight indentations for the fingers. The slight inclination of the hilt and the finger rests are features almost invariably found on saber hilts and function together to give greater force to a slashing cut.

One of the earliest surviving sabers is also one of the most famous. This is the so-called «saber of Charlemagne» part of the regalia of the Holy Roman Emperors and now preserved in the Schatzkammer of the Kunsthistorisches Museum in Viennæ<sup>7</sup> (Fig. 12). Traditionally, it is said to have been found in 391/1000 by the emperor Otto III in the tomb of Charlemagne (125-199/742-814). Two other stories have at one time or another been accepted about its origin.; according to one tradition it is said to have been captured by Charlemagne during his war against the Avars; and in another it is said to be one of the gifts sent by the 'Abbasid caliph Hārūn al-Rashīd (170-193/786-809) to Charlemagne.<sup>68</sup>

The «saber of Charlemagne» has a hilt of gold, silver gilt and ray-skin a round pommel with elongated sides through which a rivet secures it to the tang and is decorated with an arabesque strap-work and palmette design. The short and stumpy quillons are slightly downcurved with rounded tips. The slightly curved single-edged blade is sharpened along its back edge and is inlaid with a metal strip engraved with a design of stylized dragons in combat.69 The scabbard has mounts decorated en-suite with the hilt. There is nothing specifically «Islamic» about this saber, indeed its form and design have more in common with Avar and Turkic workmanship of the eighth century, and it is comparable with many of the surviving early sabers; including especially one found at Geszteréd in Hungary (Fig. 13).70 The Geszteréd saber is very similar to the of «saber of Charlemagne» in its shape and especially in the strap-work and palmette decoration on its hilt and scabbard fittings.<sup>71</sup> The saber from Koban is also of this same general type and as noted above it was found in conjunction with 'Abbasid coins of dates which roughly correspond to the reigns of Charlemagne and Hārūn al-Rashīd.<sup>72</sup> Given that the «saber of Charlemagne» is of this period and even allowing that it is probably of Avar or Turkic workmanship it remains possible that the traditional story is true and that it was included amongst the exotic gifts sent by Hārūn.<sup>73</sup>

<sup>65</sup> Zakharow (1935: 28).

<sup>66</sup> The saber is now in the Bilsk Museum

<sup>&</sup>lt;sup>67</sup> See Filitz (1971: cat no. 162). The saber has been published many times, some of the most important publications include Arendt (1935) and Kirpičnikov (1972).

<sup>&</sup>lt;sup>68</sup> Charlemagne sent two embassies to Hārūn al-Rashīd and was sent in return a number of precious gifts including an elephant and an Indian chess set; see Sourdel (1978: 118).

<sup>&</sup>lt;sup>69</sup> A similar strip was excavated in Kiev in 1310/1892 and is tentatively dated by Korzuchina to the 11th century, Korzuchina (1959: 82-84, ills. 4,5,6),

<sup>&</sup>lt;sup>70</sup> Also similar is a saber found in an Alanic grave at Zmeyskaya in the Caucasus see Kuznetzov (1961: pl. 7).

<sup>&</sup>lt;sup>71</sup> Jósa András Museum, Nyíregyháza, inv. no. 61.201.9, see especially Dienes (1972: 16-17, pl. 13). Other sabers of this type and from approximately the same period include a Chinese example of about 133/750 in the Shosoin Treasury in Japan, see Shirakihara (1978) and Shōsōin (1932).

<sup>&</sup>lt;sup>72</sup> Arendt (1935); coins found in other sword burials include Tang coinage of the 7th to 10th century found at Bilsk; 'Abbasid and Samanid coins found at Saltovo 8th and 9th, Zakharow (1935).

<sup>73</sup> Hitti (1977: 298); account from Pertzii and Kurze (1895: vol. 43, 114, 123-24).

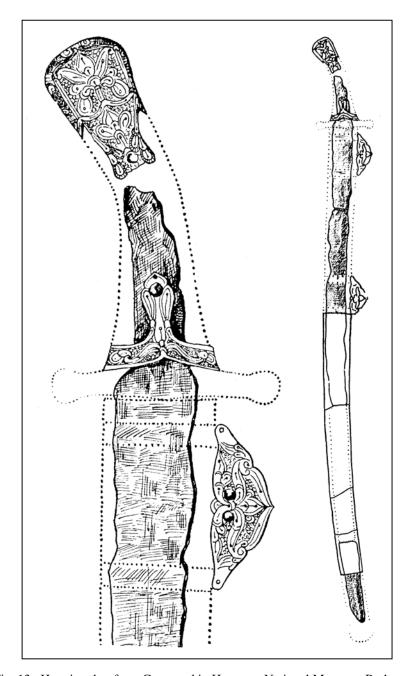


Fig. 13. Hunnic saber from Gesztered in Hungary, National Museum, Budapest.

A distinguishing feature of the «saber of Charlemagne», indeed of many of these early sabers, is the way the hilt is bent or crooked just below the pommel. This kind of bend occurs on a number of the other early sabers, and is partly a result of the way the pommel is riveted to the tang and partly, and more importantly, a functional feature intended to increase the ability of the mounted warrior to swing his weapon at an opponent. Much later, and perhaps by direct descent, this kind of crooked hilt became a hall-mark of Tartar sabers dateable to the sixteenth century and later.

The earliest surviving Islamic saber was unearthed at Nīshāpūr in Iran, and clearly shows that this type of weapon was used in an Islamic context by the ninth century.<sup>74</sup> (Fig. 14). The Nīshāpūr saber probably belonged to a Turkic slave warrior of the Sāmānid dynasty founded by Nasr ibn-Ahmad which ruled in Nīshāpūr from 261-390/874-999. Its hilt, in excavated condition and now fragmentary, consists only of a pommel and guard, each of the elements retaining fragments of the original wooden (and probably leather-covered) grip. The pommel of flattened oval section is formed of two identical plates of cast and gilt bronze seamed along the edges; the sides are straight, the end of flattened ogee shape. Each face is decorated with raised trefoils facing inward. The guard is also of gilt bronze, formed of two identical halves, presumably once riveted together, that fit around the tang of the blade (a portion of which projects above the guard). The quillons are straight, of rectangular section, and taper toward the cinquefoil palmette-shaped tips. The faces of the guard have raised edges, with raised leaf forms in the center and within the tips. The heavily corroded iron blade, apparently straight and single-edged, is now obscured by the remains of the wooden scabbard lining that cling to it; the blade is broken into six pieces, but although it is very corroded traces of a sharpened back edged section remain. Portions of the two upper scabbard mounts remain, each consisting of two gilt-bronze sections with raised cutout trefoil decoration around their inner edges. The band at the mouth of the scabbard is shaped to accommodate the pointed quillon block and has riveted along its back edge a double-ogival bracket with matching trefoil decoration. Of the lower mount only a small portion remains attached to the blade, while a larger section, including the riveted-on bracket, is now broken away. Found with the sword was a ring held by a plate raised as a (gorgon's?) face, which may have served as a mount at the end of the grip to secure a wrist strap.

A wall painting unearthed at Nīshāpūr depicts a saber of this type and shows how a fully armed warrior of this period may have looked, This fresco represents a mounted falconer whose high rank is underlined by a belt with six pendant straps. He was perhaps one of the Turkic slave warriors of the Sāmānids, and is girded in the Hunnic fashion with two blades, one a saber and the other a long, thin straight sword (Fig. 15).<sup>75</sup> The saber is short and slightly curved, and the sword long and thin with a rounded pommel. This could be a *qarachur*<sup>76</sup> a type of long sword that the Saljūq vizier Nizām al-Mulk (408-85/1018-92) said was given to Turkic slave warriors in their third year of training.<sup>77</sup> A thirteenth-century account by Fakhr-i Mudabbir indicates that the ability to use both weapons was a highly regarded skill.<sup>78</sup> In addition to the Nīshāpūr fresco which definitely shows the warrior equipped with weapons

<sup>&</sup>lt;sup>74</sup> Found during The Metropolitan Museum's excavations of 1939, MMA. 40.170.168; see Hauser and Wilkinson (1942).

<sup>&</sup>lt;sup>75</sup> In the tenth-century version of the Germanic epic *Waltharius*, the hero Walther «arms himself in the Hunnish fashion . . . with a double-edged long sword, spatha, belted to his left hip . . . and a single-edged half-sword, semispatha, at his right.» see Nickel (1973: 138).

Two possibly related words were often used to describe early swords and sabers, these are *qarachur* and *qaljuri*. According to al-Kindi *qaljuri* was a sword made in the Yemen that is light in weight and about three handspans long. Allan (1979: 86 and 137) calls it a long curved sword. Al-Kindi's use of the word in unclear as in the surviving manuscripts of his work it is variously called *uri*, *quyuri*, *unuri* and *qubuzi*, all of which were rendered by Zaki (1952: 17, note 8) and described as curved. *Qarachur* is defined by Niẓām al-Mulk as a long sword given to a Turkish slave warrior at the Sāmānid court after his third year of service. However this might possibly refer to the belt from which the sword was suspended i.e., the black belt, and was therefore a reference to a form of investiture. Fakhr-i Mudabbir describes it as a long curved sword Allan (1979: 89). Allan thinks this may be the long sword represented in miniature painting. He does not regard it as the same as the *qaljuri*. See also Doerfer (1975: 433, no. 1442).

<sup>77</sup> Nizām al-Mulk wrote that in their first year the trainees served on foot and were not permitted to mount a horse; in their second year a they were given a Turkish horse and plain harness; in their third year a long sword called a *qarachur*; in their fourth year a better saddle, clothing and a mace; and in their fifth year parade dress, see Barthold (1958: 227).

<sup>&</sup>lt;sup>78</sup> Allan (1979: p. 90). Fakhr-i Mudabbir reported that Sultan Maḥmūd of Ghazna fought with both sword and *qalachuri* Although there is some disagreement as to whether a *qarachur* was in reality a sword or saber there is no doubt that the early reports refer to two distinct types of weapon.



Fig. 14. Saber from Nīshāpūr, MMA. acc. no. 40.170.168



Fig. 15. 9th century wall painting from Nīshāpūr; National Museum, Teheran

of both types, similar long swords or sabers appear with regularity in Saljūq miniature painting of the thirteenth century.<sup>79</sup>

<sup>&</sup>lt;sup>79</sup> See Riyadh (1996: cat. no. 58), Although no early long, thin swords survive, numerous examples remain from the Mamluk and Ottoman periods, when these stiff, thrusting blades seem to have been forged with three or four sides. The English traveler, Sir John Smithe, writing in about 1000/1591, described such weapons «tocks very conveniently worne after the Hongarian and Turkie manner under their thighs which tocks are long narrow stiffe swords onlie for the thrust» Quoted in Norman (1980: 23). In modern Turkish these weapons are called *Mec*, and in other parts of Europe they are variously known as *Tuck*, *Estoc*, *Panzerstecher* or *Hegyestor* 

A painted shield of about 104/722 found at a castle on Mount Mugh near Samarqand<sup>80</sup> shows that the saber was used in this area by the eighth century. A little later the 'Abbasid caliph al-Mu'taşim employed Turkic warriors from Transoxiana and it is logical to assume that at this time they introduced the saber into the heartland of the Islamic world. Both paintings and literary accounts of the period support this supposition. A ninth-century painting from Sāmarrā shows a warrior wearing a pendant belt around his waist with a sling suspension of the type designed to support a saber.<sup>81</sup>

The history of Nishapur, like that of many other Central Asian states was turbulent. It was founded by the Sasanians and later after the Arab conquest became successively a capital for the Ṭāhirid dynasty under 'Abdullāh ibn Ṭāhir; then for the short lived Saffārid dynasty and then for the Sāmānid's. This Iranian clan defeated the Saffārids and founded an empire extending from Iraq to India. Their capitals were at Samarqand and Bukhara but Nishapur was one of their major commercial centers. The Sāmānid's were soon replaced by a succession of minor dynasties and then in 618/1221 Nishapur was destroyed by the Mongols.

David Alexander Puycesi. France

# **BIBLIOGRAPHY**

ALEXANDER, D. G. (1984): *Dhu L-Fakar*, Ph.d. dissertation, 2 vols, University of Michigan microfilms.

ALEXANDER, D. (1999): «Dhu'l faqār and the Legacy of the Prophet», in Gladius, XIX: 157-187.

ALEXANDER, D: KALUS, L. and TECZAN, T. (Forthcoming): Catalogue des armes des mains de la collection du palais du Topkapi à Istanbul, I,épees et armes apparentes.

ALLAN, J. W. (1979): Persian Metal Technology, 700-1300 AD, London.

ALLAN, J. W. (1982): Nishapur: Metalwork of the Early Islamic Period, New York.

ARENDT, Wsewolod W. (1935): «Türkische Säbel aus den VIII.-IX. Jahrhunderten.» in A. A. Zakharov and W.W. Arendt, *Studia Levedica: Archaeologischer Beitrag zur Geschichte der Altungarn im IX. Jh.*, Archaeologica Hungarica, Budapest, 48-86.

BARTHOLD W. (1928): Turkestan, down to the Mongol Invasion, tr. H.A.R. Gibb, 2nd ed., London.

BASS, G. (1978): «Glass Treasure from the Aegean». *National Geographic*: vol. 153, no. 6, June 1978, pp. 768-93.

BLAIR, Sheila S. (1992): «What is the date of the Dome of the Rock?». Oxford Studies in Islamic Art: IX, 59-87.

BLAIR, Sheila S. (1995): A Compendium of Chronicles, Rashid al-Din's Illustrated History of the World, London

<sup>80</sup> Hermitage Museum, St. Petersburg, inv. no. CA-9093, illustrated in Vienna 1996, cat. no. 162, p. 296.

<sup>&</sup>lt;sup>81</sup> Herzfeld (1927: vol. 3, LXVI). Medieval Islamic belts generally consist of a buckle and clasp with long decorated ends and a series of spacers attached to the leather or fabric waist. Several fine examples have survived including one probably from Greater Syria now in the Furusiyya Art Foundation, Vaduz, decorated with a *waq-waq* tree motif, an Artukid belt British Museum in Istanbul 1983, no. D.127; and two Ayyubid belts. One of the latter is of gold and inscribed with the name of the Ayyubid prince and patron of the arts Abu 'l Fidā' Ismā'īl (672-732/1273-1331). L.A. Mayer Collection, Jerusalem, see Hasson (1987: no. 127); the other Ayyubid example is in the Benaki Museum, Athens; see London (1976: no. 653). Belts in this style were widely popular and were even introduced into Europe, perhaps by returning Crusaders. An example can be seen on a statue dateable to about 648-659/1250-60 of Margrave Eckhard in Naumberg Cathedral; and several complete belts found in the Judengasse in Salzburg, see Svol (1980).

DIENES, I. (1972): The Hungarians Cross the Carpathians, Budapest.

DOERFER, G. (1975): Türkische und Mongolische Elemente im Neupersischen, vol. 4, Wiesbaden.

FILLITZ, H., (1971): Katalog der Weltlichen und Geistlichen Schatzkammer, Kunsthistorisches Museum, Wien, Vienna.

HAUSER, W. and WILKINSON, Ch. K. (1942): «The Museum's Excavations at Nishapur.» *Metropolitan Museum of Art Bulletin*: 37, 83-119.

HAMPEL, J., (1899): «Der sogenannte Säbel Karls des Großen.» Zeitschrift Für Historische Waffe-Und Kostümkunde, 1, no. 2: 45-49.

HARPER, P. O. and MEYERS, P. (1981): Silver Vessels of the Sasanian Period, I: Royal Imagery, New York.

HASSON, R. (1987): Early Islamic Jewellery, Jerusalem.

HERZFELD, E. (1927): «Die Malereien von Samarra.» Forschungen zur islamischen Kunst, Die Ausgrabungen von Samarra, 3, Berlin.

HITTI, P, (1916): The Origins of the Islamic State, New York.

Hitti, P. (1977): History of the Arabs, New York.

Bruhn De Hoffmeyer, Ada (1982): «Arms and Armour in Spain II.» Gladius. Madrid.

ISTANBUL (1983): Topkapi Sarayi Müze. *The Anatolian Civilizations*. vol. 3, *Seljuk/Ottoman*, exh. cat. Filiz Cagman et al.

JONES, A. (1992): Early Arabic Poetry, vol. 1, Oxford.

KIRPIČNIKOV, A. N. (1972): «Der Sogenannte Säbel Karls Des Grossen.» Gladius, 10: 69-80.

KORZUCHINA, G. H. (1950): «Ancient weapons of the 11th century», Sovetskaja Archeologija, XIII: 63-91.

Kuznetzov, V. A. (1961): «Alanskie plemena Severnogo Kavkaz.» *Materialy i issledovaniia po arkeologii S.S.S.R.*: no. 106.

LANE-POOLE, S. (1898): Saladin and the Fall of the Kingdom of Jerusalem, London.

LECKER, M. (1995): Muslims, Jews & Pagans, Studies on Early Islamic Medina, Leiden.

LONDON (1976): Hayward Gallery, The Arts of Islam, exh. cat., London.

MAQBUL, A. S. (1960): India and the Neighbouring Territories in the Kitāb Nuzhat al-Mushtāq fī 'Khtirāq al 'Āfāq of al-Sharīf al-Idrīsī, Leiden.

MAYER, L. A. (1952): Mamluk Costume, Geneva.

MINORSKY, V. (1958): A History of Shervan and Darband, Cambridge.

NICKEL, H. (1973): «About the Sword of the Huns and the 'Urepos' of the Steppes.» *Metropolitan Museum Journal*, 7: 131-42.

NICOLLE D. and MCBRIDE, A. (1982): The Armies of Islam 7th-11th Centuries, London.

NORMAN, A. V. B., (1980): The Rapier and the Small Sword 1460-1820, London.

SCHWIETERING, J., (1930): «Schwerter mit Ringknauf» Zeitschrift Für Historische Waffe-Und Kostümkunde: Vol. 8.

SHIRAKIHARA, Kazumi, (1978): «The Origin of the Sword Mounted with Gold and Silver in the Shosoin Treasuries.» *Orient*, 14: 35-53.

SHŌSŌIN (1932): Imperial Household Museum, Catalogue of the Imperial Treasures in the Shōsōin, Tokyo.

SINOR, D. (1981): «The Inner Asian Warriors» Journal of the American Oriental Society: vol. 101, no. 2, 133-44.

SVOL, C. (1980): «Der Schatzfund aus der Judengasse.» Weltkunst: 50, 23, 352-54?

THA ĀLABĪ (1968): Abu Manṣūr ʿAbd al-Malik b. Muḥammad b. Ismā ʿīl al-Tha ʿālabī, *Laṭā ʾif al-Ma ʿārif*, tr. C.E. Bosworth, Edinburgh.

VIENNA (1996): Kunsthistorisches Museum, Weihrauch und Seide, intro. Wilfried Seipel, Vienna.

WELLESZ, E. (1965): An Islamic Book of Constellations, Oxford.

WENSINCK, A. J., and PARET, R. (1978): «Kaynukā» in Enclyclopaedia of Islam, New Edition, p. 824.

YÜCEL, Ünsal, (1988): al sayf fi al-Islam, Kuwait.

ZAKHAROW, A. A., (1935): «Beiträge Zur Frage Der Türkischen Kultur Der Völkerwanderungszeit.» Studia Levetica Archäologischer Beitrag zur Geschichte der Altungarn im IX. Jh., Archaeologica Hungarica: 16, 6-47.

ZAKY, Abdul Rahman, (1952): «Swords and their Kinds» *Bulletin of the Faculty of Arts*, (Cairo): XIV/2, 1-36.

ZAKY, Abdul Rahman, (1953-54): «Islamic Swords in Middle Ages.» in *Bulletin de l'Institut d'Egypte* 36, fasc. 2, 365-79.

ZAKI, Abdul Rahman, (1979): «Medieval Arab Arms» R. Elgood (ed), *Islamic Arms and Armour*, London, pp. 202-12.