A BRIEF STUDY ON SWORDS

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What is a sword¹?

Physically considered, the sword is a metal blade intended for cutting, thrusting, or cut and thrust. It is usually but not always composed of two parts. The first and principal is the blade proper(taban, namlu). It's cutting surface called the edge(yalim), and it's thrusting end is the point (yalman).

The second part which adapts the weapon for readier use, is the hilt(kabza), whose several sections form a complicated and a enormously varied whole. The grip is the outer case of the tang, the thin spike which projects from the shoulders or thickening of the blade, at the end opposed to the point. Sometimes there are two short teeth or projections from the angles of the shoulders. These are called the "ears".

The tang which is of many shapes,-long and short, straight-lined or curvilinear, plain of pierced for attachment-ends in the *pommel* or *little apple*². Into which it should be made fast by rivets or screws. The object of this oval of metal is to counterpoise the weight of the blade and to allow of artistic ornamentation. The grip of wood, bone, horn, ivory, metal, valuable stones and other materials covered with skin, cloth and various substances whipped round with cord or wire is projected at the end abutting upon the guard proper by the hilt piece which also greatly varies. It may, however, be reduced to two chief types- the guard against the thrust, and the guard against the cut. The former was originally a plate of metal, flat or curved, circular or oval, affixed to the bottom of the hilt.

¹ The word is the Scandinavian Svard; tha Danish Svaerd; the Anglo Saxon Sweord and Suerd; the old German Svert, now Schwert, and the old English and Scotch Swerd. The westernward drift of the Egyptian Sf, Sefi, Sayf, Sfet, and Emsetf, gave Europe its generic term for the weapon (Burton, p. 123).

^{2 (}Burton, p.124).

The guard against the cut is technically called *the* "cross-guard³". This section of one or more bars projecting from the hilt between tang and blade. And receiving the edge of the adversary's weapon should it happen to glance or to glide downwards. The quillons may be either straight, or curved.

Opposed to the guard proper is the *bow* or *counter guard*. It is of two chief kinds. In the first quillons are recurved towards the pommel: second is a bar, or system of bars connecting the pommel with quillons. The former defends the fingers, the letter serves to protect especially from the cut the back of the hand and the outer wrist.

We may divide the shapes of blade into two typical forms with their minor varieties⁴:

- I. The curved blade(sabre, broadsword, scymitar, Yataghan, flissa etc.)
- a. Edged on both sides.
- b. Edged on concave side (yataghan, Old Greek, Kukkri).
- c. Edged on convex (common sabre).
- II. The straight blade (Espadon, rapier, claymore, small sword etc.).
- a. The cut-and-thrust, one- or two-handed.
- b. The broad and unpointed (headmen's instrument).
- c. The narrow used only for the point.

It is possible to make a third type of the half curved blade, adapted for cutting and thrusting, which we find in India and in Japan. It evidently connects two shapes.

There is no question of superiority between the thrust and the cut. As the picture(See appendix I) shows A, who delivers the point has an ad-

³ quillons.

^{4 (}Burton, p.126).

vantage in time and distance over B, who uses the edge. Indeed, the man who first 'gave point made a discovery which more than doubled the capability of his weapon⁵.

The people who fought from chariots and horseback -Egyptians, Assyrians, Tatars, Mongols, Turks, and their brethren 'white Turks' preferred for the best of the reasons the curved type. The straight sword, used only for thrusting, is hard to handle when the horse moves swiftly; and the broad straight blade loses it's value by the length of the plane along which it has to travel. On the other hand, the bend blade collects, like the battle axe, all the momentum at the half weak or centre of percussion, where the curve is greatest⁶. Lastly the drawing cut would be easier to the mounted man, and would most injure his enemy⁷.

SWORDS OF OTTOMAN PERIOD

The earliest specimens exhibited in Askeri Museum were looted from the Alexandria treasury during Sultan Selim's Egyptian campaign of 1516-17. These early Islamic swords of the medieval period and although the exact dates are unknown, they can be confidently assigned to eleventh and twelfth centuries. These rare broad, double edged weapons slightly pointed

^{5 (}Burton, p.127).

^{6 (}Burton, p.127).

⁷ The superiority of curved blade for cutting purposes is easily proved. In every cut the edge meets its object with some angle, and the penetrating portion becomes a wedge. But this edge is not disposed at right angles with the sword: the angle is more or less oblique according to curvature, and consequently it cuts with acuter edge(Burton, p.129).

Osmanlı kılıçları narin olmakla beraber istimalinde meleke kesbeden bir adam (becerikli bir kullanıcı) elinde olursa ağızları körlenmez, namlıları kırılmaz ve parmak kalınlığında olan bir demir çiviyi kesebilir. Bu kılıç düşmanın zırhını miğferini vesair ve bilcümle eslihasını kestiği gibi bir anda başını ve sair insan azasını da bedenden ayırır. Osmanlı ile olan süvari harplerinde ufak tefek yaralardan nadiren bahsolunmasına sebep bu maddedir.

Bu kılıçların bir faydası da şudur ki doğru tutulursa inhina (eğrilme, eğim, kavis) derecesine göre bir yara açar. Kol ufkan kılıç ise elde doğru tutulursa bileğin hafif bir hareketiyle ağzı sola ve sağa çevrildikte eğriliği sayesinde vücut setr olunur (korunur, örtünür) bu madde dahi Osmanlı kılıçlarının gayet ala tadafui(savunma) vasıtalardan biri olduğunu tasdik ettirir(Cevad, p.162).

at tip. The flat iron hilt is separated from the blade by means of a straight narrow cross-piece ending in a stylized from of standard. These straight swords are lent a sense of movement by the finely engraved decorative blood grooves on the face of the blade, while most of them also display inscriptions engraved by the Mamluks. Another characteristic of these swords consist of small round pieces of brass inserted singly or in groups into the blade. These are generally agreed to have performed the function of charms; protecting the bearer of the sword⁸.

The hilt construction of Islamic swords differs from that of western weapons. The pommel for example, is not a weight to counterbalance the blade but merely a cap terminal for the grip. The tang of the blade is comparatively short and broad, and sometimes set at a slight angle to blade; the grip is either glued to the tang or riveted to it.

This seemingly a fragile method of hilt construction, at least in comparison with western swords, was in fact very effective. Anyone who has tried to dismount the blade of a Turkish or Arab sword from it's hilt will quickly appreciate how strong the adhesives employed were. This simple but effective hilt construction was certainly used by the ninth century. It has the great advantage of simplicity- a grip could easily be replaced with simple materials such as horn or wood. The grips of early mediaeval Islamic weapons were usually of wood covered with skin or leather.

The guard consisted of a simple cross with extensions known as "langests" protecting down the front of grip and down the face of the blade; these gave a firm seating to the grip and also ensured snug fit on the scabbard and as Islamic swords were almost invariably designed for cutting, especially from horseback, the lack of a defensive guard was not a serious disadvantage.

The introduction of single edged sword seems to have occurred in the eight or ninth century. A single-edged sword with a distinctive curve is shown on a ninth century fresco from Avolokitesvaru in eastern Turkestan, for example, and by the thirteenth century the standard "scymitar⁹" blade profile, with a distinct broadening towards the point, was

⁸ Emiroğlu, p,51-52.

⁹ Scymitar, the word is originally the Persian Shamshir (شعيشور); but as the greeks have

being depicted in manuscripts. It should be noted that curved blades only gradually became more widely used than straight-bladed weapons and until the fourteenth century both straight and curved blades seem to have been equally common. 10

Curved single edged blades became increasingly fashionable after 1400, especially in Persia and in those areas under Ottoman influence (by 1341 the Ottoman Turks had ousted the Seljuk Turks from Asia minor and by 1444 they were masters of the Balkans. As early as the twelfth century the blades engraved with names and titles. This tradition had become firmly established by the mid-fifteenth century, enabling many surviving blades to be dated within precise time brackets. In a few instances, details of the maker and place of manufacture 11) are also given. The inscriptions are usually inlaid in gold along the length of blade.

Light blade seems to have been very fashionable around 1500 especially in Mamluk lands. ¹² The Ottomans however, preferred a heavier broader blade. In Topkapi collections the swords of Mehmet the Conqueror(1451-81), and Bayezid II(1481-1512)¹³. These are massive broad-bladed weapons. One of the swords of Mehmet is clearly a two handed weapon(see Appendix III); the long grip is composed of ivory plaques and the heavy single edged blade has a long point, the inscription

have no sh sound, it made its way into Europe curiously disguished (Burton, p.126,ft.2).

¹⁰ North, p.138.

¹¹ North is claiming this but I've never seen.

¹² North, p.139.

¹³ These examples show that the Turkish sword had previously passed a transition period. Especially the larger of two of Mehmet II's curved swords is the earliest example of the essentially Turkish type which followed the trancision. With its entirely original parts, this sword is of special importance. Its slightly curved hilt can be regarded as a forerunner of the eightheenth century Turkish hilt. In the middle of the thick, single edged, slightly curved blade is a wide blood groove extending to the point. Following the development of ths form into the more pronouncedly curced sword of Bayezid II, the Trkish sword reached its culmination in the time of Selim I, and especially, Suleiman the Magnificent when thie shape of the sword assumed foremost importance. While the straight, heavy medieval sword had assured a powedful blow, the light, curved turkish swords allowed more movement. For this reason the relationship between the length of the sword and the amount of curveture was always taken into consideration (Tezcan, p.33).

appears in a widish channel which runs the length of blade.

In the early part of the sixteenth century the heavy Ottoman blade gave way to much lighter, more strongly curved type usually forged with a ridge at the back for strength. These blades have a pronounced widening at the section near the point and a broad channel running some way down the centre of the blade. The general effect is very elegant and style remained fashionable, with minor adaptations until the nineteenth century. The tradition of inlaid work in gold and silver continued but the prayers, genealogies, poems and formalised titulatures which are such an enjoyable part of the study Islamic blades are unfortunately rare. The poems especially, found on swords and daggers, often contain powerful images of love or war.

Characteristics of Turkish hilts of the first half of the 16 th century is the skillful use of ivory, silver and niello. The cruciform guard, small pommel cap and short grip were retained until the seventeenth century. The silver gilt form was was certainly still in use in the late seventeenth century and some examples with enamelled floral decoration may be of early eighteenth century date. The blades fitted to them are almost invariably straight broadsword blades of German origin. 14

In the seventeenth and eighteenth centuries there is a tendency for Ottoman sword to become shorter, even more strongly curved, and broader, with a very thick ridged back. The cap pommel replaced with the characteristic pistol shaped grip made of horn or ivory. The scabbard was of wood mounted in embossed silver. Swords of this type seem to have been used over a very wide geographical area and are often found in European collections. taken as trophies in sea fights. 15

Many Ottoman blades are decorated with engraved and chiselled decoration in addition to gold inlay work. From the sixteenth century it became fashionable to chisel out areas of the blade near the hilt with

¹⁴ North, p.140.

¹⁵ An interesting example can be seen in the National Maritime Museum at Greenwich, London. On the blade is the marker's name, Mustafa, the name of the owner, Haj Mahmud bey, and its date of manufacture, 1768/9. It belonged to a Lieutenant William Tottenham, who fought in the Greek war of Independence(1822-29) and took part in the attack on Morea Castle in the Peloponnese(North, p.142).

arabesques. In the finest work the blade is cut away in closely interwoven floral designs and the gold set flush with the surface, giving a very rich effect.

The most remarkable distinguishing feature of the Turkish swords lies in the decoration. The whole length of the blade is normally covered with plant and geometrical motifs together with medallions and cartouchhes with inscriptions in cufic or tuluth containing eulogies of the sultan, prayers for his success or verses from the Qur'an. We also encounter inscriptions giving the name of maker of the sword together with the names of Allah and the prophet Mohammed. One group of straight Ottoman blades, identified a dating from the second half of the sixteenth century, is demascaned in gold and silver with dragons and simorgs ¹⁶ and also with Persian verses. Most of these exotic blades are mounted in fine early seventeenth century European hilts, suggesting that they were either captured during Turkish advances into Eastern Europe or sent as gifts to leaders whom that Turks hoped to influence.

Yataghan¹⁷,

The traditional Turkish sword. In its classical form it has a short hilt without a guard, with two prominent ears $^{\bar{1}\bar{8}}$ forming the pommel. The single edged blade usually formed as a very elonged "S" shapealthought examples with straight blade are certainly known. The basic hilt shape is pre-Islamic and hilts from Luristan dating from 1000 B.C. in bronze are almost identical 19 in construction 20 .

¹⁶ Monstrous birds which according to Persian myth, had the power of speech and reason.

¹⁷ There some explanations on the origin of the name but the most approved is: The name is given to this sword due to carrying style, which was customarily worn thrust into a waist sash(Ulumay, p.4).

¹⁸ In some places of Anatolia(Aydın, Ödemiş etc.) people call this weapon as "Kulaklı" for this reason (Ulumay, p.4).

¹⁹ This explanation made by Anthony north, I'm not in favor of that. When we look at the photograph of the mentioned sword, it is creating a sense of zorlama. But in my research I found some resemblances with two concave side edged swords Old Greek and Kukkri blade of Gurkhas. (Burton, p. 236-263),

²⁰ North II,.p25.

The yatagan was extensively used in Turkey and in those areas under Turkish influence, such as Balkans, but its history and apperance in medieval times is not known since the earliest recorded examples, made of iron, date from sixteenth century.

The yataghan was really a short sword and consisted of a single edged blade with a marked forward curve. Each side of the blade had a blood groove and was decorated with inscriptions giving the name of owner, the name of the swordsmith, and date of its manufacture, encased within cartouches embellished with plant motifs. The blades were also adorned with passion flower and seal of solomon motifs, names of the seven sleepers(eshab-1 Kehf)etc²¹.

Undoubtly the finest and one of the earliest examples of the type was the weapon made for Suleyman the Magnificent, who ruled over still expanding Ottoman empire from 1522 to 1566. This sword now lies in the treasury of Topkapı Palace and is or particular interest in that it is not only dated 1526/7, but also has the name of the artist who made it, Ahmet Tekelü, on the back of the blade. It is a weapon of unparalleled richness and

21 In some yataghans,

In the first part:

In the second part:

- a- Some messages to enemies,
- b- Verses from Qur'an and hadiths,
- c- Kelam-ı kibarlar, such as;
- Yaklaşma yanıma bıçağımla yanarsın.
- Yarasını görünce cerrahı mum gibi ararsın.
- Hamd-u Minnet olan hüda verdi bize devleti Hazret-i Ali'dir pirimizin söhreti.
- Elde bıçak gerek Süphan arkasında yiğit gerek.
- Bu bıçak cümle düşmanı eder tarumar intikam alır sanki aduvden müntezar bu sana seyf ola Aliden zülfikar.
 - Gafil, gafil olma sakın insan cihana gönlü ile gelmez.
 - Bu dünyanın cezasından sefasına yoktur fırsat gelsen gafil, gafil olma sakın.
 - Bu bıçağın darbından cümle düşman tarumar her belayı def eder ol gani pervendigar.

a- The name of swordsmith and his title(mahlas). Ex:Amil-i Abdi.

b-The name of owner. Ex: Sahib Ahmet Ağa.

c-The date of manufacture. Ex: Sene 1129,

d- armourer's marks, a tugra or Turkish reign mark.

one of works of art of the Ottoman period. The hilt is of ivory overlaid with gold delicately carved with cloudbands and scrolls. The blade is set with applied figures of a simorgh and a dragon amid applied gold floral scrolls. Near the hilt the blade is inlaid with gold verses in praise of Sultan Suleyman²².

The majority of yataghans date from the period 1750-1860, and from the number of plain, wooden -hilted weapons that survive in areas such as Vienna, unsuccessfully besieged by the Turks in 1683, they were honest fighting weapons as well as parade weapons. Occasionally blades were cut down from broadswords, or cavalry swords, but in general the forward-curving single edged blade was used. Various hilt materials were employed. -wood, bone, ivory, silver- and sometimes made in the late eighteen century and the first half of the nineteenth. Silver hilts mounted with filigree and coral, for example, are associated with Bosnia; many of these are dated 1800 or thereabouts. The scabbards of the richest examples are of wood, entirely mounted with silver embossed in the flamboyant late Ottoman style. Having no guard, the yataghan fitted closely into the top of the scabbard; this was customarily worn thrust into a waist sash, retained by hook.

The Iranian swords of the sixteenth and seventieth centuries known as Shemsir 23 . The distinguishing teature of this swords lies in the downward curve of the fine filt. The finely wrought blade is decorated with Persian inscriptions in small cartouches and medallions 24 .

From the middle of nineteenth century onwards Turkish swords start to lose it's purely traditional character and come more and more under European influence. This change is particularly striking in the hilt and cross piece, and in the way the pommel and crosspiece are connected by a guard to form a protection for the hand. At the same time the decoration clearly betrays Baroque and Empire influences, particularly in the style of the plant motifs²⁵.

Watered steel was especially good for the manufacture of cutting

²² North, p.142.

²² Scymitar.

²⁴ Emiroğlu, p. 52.

²⁵ Emiroğlu, p.53.

weapons because it combined hardness with elasticity and could be hardened very fine, tough edge. Watered steel as a raw material was supplied in the form of flat cakes known as "wootz", which were than forged by specialist craftsman into the required shape. By skillful forging, the smith was able to arrange the watering of blade into particular patterns. The highly prized Mohammed's Ladder pattern, which has a series of transverse 'rungs' down the length of the blade, was produced by cutting horizontal grooves across the plane of the blade, then forging this flat²⁶.

Swords made for rulers and army commanders by wandering artizans, and the fame of individual craftsman is testified by the swords with fake signatures of famous swardsmiths. Who are Hacı sungur, Ameli Esadullah, Hayrettin, Mehmet, Seyyit Bayram, Zülfikar, Zeki Memmet etc²⁷.

Decorating Techniques,

Swords were reowned for the quality of their blades²⁸ which used watered steel²⁹, the surface appears like moiré silk with alternating bands of light and dark wavy lines. This effect was created by forging the blade from steel ingots containing a very high proportion of carbon. The dense, dark areas on a blade are the carbon whereas the light coloured areas are formed by particles of iron carbide. The contrast was enhanced by etching the surface with acid. Surface color could also be altered by using different chemicals and by repeatedly etching the surface, which tended to darken it.

²⁶ Kılıç sanat tarihleri kılıçın kılıç yumurtası denilen çelikten yapıldığını ve en iyi kılıçın şam çeliğinden yapılabildiğini yazarlar. Dımışki yahut Şami ve İrani adlarındaki kılıçlar çok meşhurdur. Kılıçın en büyük kıymeti ona verilen suda ve çeliğindedir. (Ergin, p.51).

²⁷ In his article, Prof. Eyice shows some cases,in which its very hard to differentiate the names of Swordsmiths. For example, we can see the title of Haci Sungur on the swords as a smith name in a very large period of time, about 150 years which excesses the maker's life two times. An explanation exist for such a problem. Some of famous swordsmith names were used as "pir"names by several swordsmiths (Eyice,p.173,176).

²⁸ Eyice, p. 167.

²⁹ Bu kılıçlar iyice işlenmiş olursa, esbab-ı tezyiniye den kıymetli bir maden ile müzeyyen (süslü) olmadıkları halde yine ondan yüz dukaya kadar satılır.... Bu kıymetli kılıçlar taban denilen şeyden mamul olup, bir kılıcın taban olup olmadığı bir düka yahut sair iyi bir altınla üzerine yazı yazılmak mümkün olup olmadığıyla fark olunur(Pakalın, p.258).

For the decoration of fine quality arms, every skill of the armourer and metal worker was employed. The tradition of inlaid work in gold and silver was very strong. Silver is very commonly used for scabbard and hilt mounts all over the Islamic world. Other techniques such as and use of lacquer are also found. Finely pierced steel work was also a speciality of craftsmen, who often combined it with the use of so called damascening gold and silver. This is a form of inlay producing by tapping thin ribbons of gold and silver wire into a surface which has been cross- hatched with a sharp engraving tool. The surface is usually darkened and blued with the aid of chemicals to provide a vivid contrast with the gold and silver. Scrollwork arabesques, floral decoration and inscriptions were all put on swords and daggers using this technique. Superficially, damascened work, when it is well-done, can look impressive, but ribbons of precious metal were easily removed by cleaning and any rust tended to lift them away from the surface. The best inlaid work involved cutting away the surface of steel with a chisel, leaving a dovetail recess into which gold and silver wire was than hammered. Not only did this give a very firm seating for the inlays, it also permitted comparatively large pieces of gold and silver to be used. This could then be engraved or modeled to the required profile. But inlaid work of this quality is comparatively rare.

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