

# UNRIVALED TURKISH SWORD WITH A UNIQUE DESIGN: “YATAGHAN”

**Prof. Dr. Tarık Baykara**

**Dogus University**

**Faculty of Engineering, Mechanical Engineering Department**

**Istanbul-Türkiye**

**tbaykara@dogus.edu.tr**

*Abstract:* “Yataghan”, a unique and unparalleled sword design with its inverse curved or concave shape blade could be traced through the history back to the *kurgan* culture of the Central Asian steppes dating to 2000-3000 BCE. Widely used during the Ottoman period in the Anatolian peninsula and in the Balkans, it was a traditional weapon used by *janissaries*-Ottoman infantry soldiers, *levents*-Ottoman marines and *zeibecks*-chivalrous gangs of the Aegean Region. The typical inverse curved shape was found in the Northern Ordos bronze blades of the Hunnic-Turkic heritage and evolution of the form can be traced through the ages into the final destination into the town of Yatagan located in southwest Turkey, greater city of Denizli and the town is still very famous for its blacksmithing. Therefore, the 5000 years old tradition could be followed for yataghans based on archeological excavations in the Northern Ordos Region, the Syberian steppes and the Inner Mongolia. A detailed investigation on the geometrical shapes and forms of both “yataghan” and “kinglu” blades (The Northern Ordos bronze blades) could reveal the evolutionary progress of these swords during the ages.

*Key Words:* Yataghan, swords, yataghan blade, inverse blade,

## 1. Introduction

Yatagan or Yataghan... “Yataghan” is a widely known traditional Turkish sword with a unique and unparalleled design which is one handed with an edge on concave/incurred blade and a short hilt without a guard. The design is excellent and unrivalled and symbolizes the Turkish identity/imagery as it was carried by *alps* -legendary Turkic warriors of the Asian steppes, *janissaries-Ottoman infantry soldiers*, *levents* -Ottoman marines and *zeibecks* -legendary chivalrous gangs of Aegean Region of the Anatolian Peninsula in 19th Century (Figure 1). Yataghan consists of a hilt made from processed horn or other materials such as wood, bone (mostly water buffalo), ivory, walrus or silver and formed of two prominent grip plaques attached through the tang. The rear end of the hilt, the pommel is usually shaped like large ears. That would be the reason that common people usually calls

yataghan sword as “Kulaklı (in Turkish)–Eared” (Figure 2).

Historically, curved shape swords are typical Turkic invention dated back to years 400-500 BCE during the dominance of Hunnic States of the Central Asian steppes. Most probably, variety of blade shapes, hilt geometry and sword design had been used during these ages due to harsh and hostile environment of vast and endless steppes. Concave or recurved blade shape should be one of those design types and bronze blades, knives and swords were used extensively in daily life of those nomadic Turkic tribes in hunting wild animals and fightings with their rivals and enemies.



**Figure 1. Eared, Yatagan swords carried by (a) Ottoman Admiral Hassan Pacha the Algerian; (b) an Ottoman marine (levent); (c) a zeibek from an old postcard dated 1903**

“Yatagan” or “Yataghan” is widely recognised as a Turkish sword with its recurved shape and eared handle without a guard and unique appearance as an effective and lethal weapon. The yataghan was extensively used in the Ottoman Period in the Anatolian region and all over the Balkans. The blade design has a “T” shaped cross sectional geometry where the flat upper side is made of soft low carbon steel but the recurved forward side is extremely sharpened and made of hard high carbon steel. Therefore the whole structure is originally designed to vary from soft to hard and sharp, lethal face as a functionally graded design for flexible uses.

“Yatağan” as a Turkish word is originated from the verb “yatmak (lie down)” and the true meaning is “the one who usually lies down”. The birthplace of the name, “Yatagan” is a small district in southwest Turkey, greater city of Denizli and the place is still very well known for its blacksmithing. Variety of products like knives, pocket-knives, choppers, daggers, chisels, hatchets etc. are still produced and marketed in this small district and many blacksmithing families are actively in the business that are selling such products worldwide through online shopping web sites.

Legendary Seljukian Pioneer/ commander Osman Bey (death 1270 ACE) who was later called “Yatagan Baba” settled in this

small town during the historical migration of the Turkic tribes from the Iranian region to the Anatolian peninsula started back in 11th Century and continued onward for centuries. Those traditional recurved blades were produced here in this small village and thereafter called as the “Yataghan” sword. The reason for this commander to be called as “Yatagan Baba” was referred to his calmness before an attack to the enemy and “lying down” for a while before the final assault. There is still a legendary proverb referred to his calmness in the region stating: “He (Yatagan Baba) was the one who gains the victory while lying down”. His tomb is in the Yatagan Cemetery and respected as a holy place as the founder of the town of Yatagan (Figure 3) (1,2). Please also note the unusually non-symmetrical roofing of the tomb which is definitely unique and different.



*Figure 2. An original historical Yatagan sword with its scabbard*



*Figure 3. (a) Yatagan District in southwest of Turkey; (b) The tomb of Yatagan Baba in the Yatagan Cemetery.*

Oldest known and still existing yataghan swords dated back to 1526-27 made by the Ottoman Palace blacksmith and jeweler “Ahmet Tekelü” have been displayed in the İstanbul Topkapi Palace and New York the Metropolitan Museum (Figure 4). It should be noted that the name “Tekelü” means “the one from Teke region” and the Teke Region was known to be the vast area covering the location of Yatagan district as well. In this regard, the blacksmith master Ahmet Tekelü was most probably a Yatagan-born personality later moved to the imperial city of İstanbul. This sword can be distinguished as a Sultan Suleyman the Magnificent’s sword with its exquisite workmanship and rich use of precious materials. Ornaments and motives on the face of the blade is described as follows:

*“..The gold incrustation on the blade depicts a combat between a dragon and a phoenix against a background of foliate scrolls. These figures, like the gold-inlaid cloud bands and foliate scrolls on the ivory grips, are Chinese in inspiration, and were probably introduced into Ottoman art through contacts with Persia ([www.metmuseum.org/art/collection/search/24953](http://www.metmuseum.org/art/collection/search/24953)) “.*

Yatagan blades with their elegant engravings, decorations, calligraphies (mostly verses from Quran or proverbs or short poems) and plant/flower figures, beautifully ornamented hilt should be considered as an exquisite work of art. In this sense, those historical yataghans are displayed as exceptional objects in the recognised museums, exhibitions and auctions

worldwide. As a design marvel with the functionality as a lethal weapon and specific shape and form, yataghans constitute a high level technique and artwork-artisanship.



**Figure 4. Earliest known yataghan made by Yataghan-born Ahmet Tekelü dated back to 1526-27 (displayed in New York the Metropolitan Museum and Istanbul Topkapı Palace)**

Source: <http://www.metmuseum.org/toah/works-of-art/1993.14>

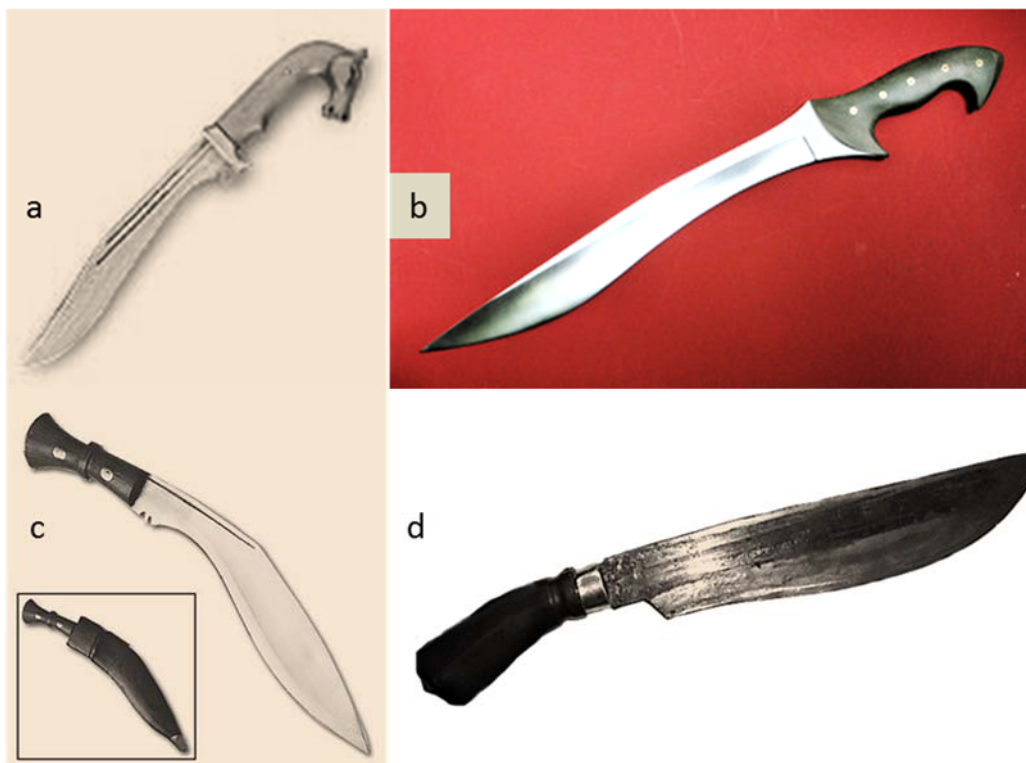
## 2. Origin of Yataghan Blades

Even though, the designated label, “Yataghan” was given to these stylemarked blades after the master blacksmith, Yatagan Baba who lived in 13th Century Southwest Anatolia, the traces of such unique form and geometry (inverse curved) in blades can be seen in the Turkic remnants of the 1000-3000 BCE Central Asian steppes. Archeological excavations of *Kurgans* (burial tombs of Hunnic–Turkic elites and warriors) reveal such “yataghan-like” bronze swords and blades widely known as “the Ordos Bronzes”. The Ordos Region was a vast area in the Central Asian steppes close to the Great Wall of China, approximately 250-300 km north of today’s

city of Beijing. Such inverse curved short blades can be considered as the early prototypes of Yataghans (Figure 5). In this, inverse curved short blades in variety of forms and shapes had evolved through the ages into the final form of yataghans. It is also well known fact that such inverse curved bronze blades were transferred to other cultures and “yataghan-like” shaped blades were seen in old Greek “Kopis”, in Spanish “Falcata”, in Nepal “Kukkri” and in Phillipines “Parang/Barong” (Figure 6)



*Figure 5. The Ordos bronze inverse curved blades*



*Figure 6. Other types of inverse curved “Yatagan-like” blades: (a) Spanish “Falcata” (b) Old Greek “Kopis” (c) Nepal Gurka “Kukri”(d) Phillipines “Parang”*

As about 5000 year old Turkic design, traces of “Yataghan” blades could be found in recently excavated archeological remnants of *kurgans* and also on the well known rock paintings which are called the “Deer Stones” of Central Asian nomadic Hunnic-Turkic tribes. Known as “Northern Type Ordos Bronzes”, those yataghan-like knives and short swords were entirely Hunnic/Turkic and represent an “advanced metallurgical” technology and craftsmanship and “advanced metallurgical melting, casting and alloying” knowledge of Hunnic-Turkic blacksmith masters (3). In this respect, the roots of the “Yataghan” blades could be traced back as early as 3000 BCE indicating a 5000 years old tradition. Some of those Northern type Ordos blades are shown in Figure 7. They were calling these short inverse curved blades, “king-lu”/“king-lak” which is considered as the earliest known recorded Turkish word according to Frederich Hirth (4,5). In Hunnic, it was “kingrak” or “kinlu” which meant “with scabbard” and during the later ages transformed to “kingrak”.

*Kurgans* were the burial mounds which were built all across the Central Asian steppes as graves and tombs of those elite Turkic warriors, tribal leaders and royal distinguished princes and leaders. *Kurgans* are particularly important as rich and great archeological sites which comprised of the personal belongings of the buried person like horse(s), precious ornaments, tools, swords and blades, even wheeled chariots and other properties. In this regard, such a vast cultural information can be extracted from such sites commonly called as *the kurgan culture*. From the excavated *kurgans*, we may find those “yataghan-like” blades and short swords as the origins of the “Yataghan”. The Hunnic-Turkic culture, based on earliest Chinese chronicle indicated the daily life of these nomadic people dating back to 2000-3000 BCE as follows: “... most of them are armoured cavalymen and possess bows and arrows and weapons like sharp blades and spears..”. Earliest remnants of those northern type Ordos bronze blades were short in length and mostly for daily uses for hunting, slaughtering sheeps, stripping the skins of these animals, sacrificing animals and as kitchenware. Since bronze alloys are highly

corrosion and erosion resistant in nature that they could remain unaffected inside of those *kurgans* and other burial sites for ages. Those Turkic tribes had appeared in historical records as powerful states challenging Chinese dynasties around 1000 BCE and afterwards, lasting struggles, rivalries and fightings had began (7). Therefore, those daily used tools based upon their extensive knowledge and cultural accumulation of copper and bronze metallurgy had evolved into effective lethal weapons of short swords, daggers and produced widely for defensive/offensive purposes in the blacksmithing workshops and tents of those nomadic Turks (3).

In his monumental studies on the culture of the Hunnic Turks, Professor Bahaddin Ogel revealed the origin of the curved blades as the Altai Region where those tribal nomadic Hunnic Turks were lived for ages. One of his important works entitled as “On the origin and evolution of Turkic sword (in Turkish)”, he indicated that this curved design was later transferred to China and Japan and other regions (6) (see Figure 8).

Similar depiction of “yataghan-like” Turkic blades originated in nowadays Siberia is also given by another worldwide known Turkish historian Professor Z. V. Togan as follows: “.. in Siberia specifically in the region of Minusinsk, those excavated blades of inverse curved copper blades, short bronze blade with hilts which has circular hole or ornamented animal figures at their pommels.... products of similar cultures..” (8).



**Figure 7. Norther type Ordos “yataghan-like” inverse curved blades used by nomadic Hunnic-Turk tribes, 2000-3000 BCE**



**Figure 8. Earliest Ordos bronze swords of nomadic Hunnic Turks given in Professor Ogel’s monumental work of “On the origin and evolution of Turkic sword (in Turkish) (6)”**



**Figure 9. Late Bronze Age (2000-3000 BCE) “Deer Stone” engravings of the Hunnic Turks revealing daily tools, weapons and earliest bronze “yataghan-like” short blades (9).**

Figure 9 shows a late Bronze Age (2000-3000 BCE) “Deer Stone” engravings of the nomadic Hunnic Turks depicting daily tools, weapons and earliest copper and/or bronze inverse-curved short blades. Integrated blade and hilt structure and a circular hole or animal figure at the end of the hilts are typical. Those circular holes were for tying the blade to the wearer’s belt. It should be noted that wearing belt was a common custom in the daily life of those hunter-gatherer Turkic nomads. Another interesting point in these “deer stone” pictures is the use of scabbard with typical tips commonly seen in these short swords and blades. Hereby, it should be noted that such unrivalled Turkic design of “yataghan-like” blades could be traced back to 3000 BCE in the vast steppes of the Central Asia originated in the culture of the nomadic Hunnic-Turkic tribes (9).

### 3. Evolution of Yataghan-like Blades: From “Kinglu” to the “Yataghan”

Unfortunately, despite a huge collection of bronze blades and swords, there are very limited samples of early iron or steel blades with inverse curved blades due to severe corrosion problem of these metals and alloys. In the following age, commonly called the Iron Age, those short blades and swords were made of forged iron and much harder and strong high carbon steel blades were started to appear in harsh battles and fightings with new sword’s forms and shapes.

Figure 10 shows a very rare example of yataghan-like shaped short blade (23.4 cm long) made of forged iron excavated in the Shaanxi region with similar integrated blade and hilt structure and a circular hole at the end of the hilt. Cross section of the blade pointed as a shaded triangle denotes that the sharper edge of the blade is in the inverse-curved side and the upper side is flat. Both blades reveals the similarity to the yataghan-like blades and demonstrate the harmonious transformation from bronze to iron-steel (9). Therefore, it

could be indicated that the holy Hunnic blades of “kinglu” had started to transform into “kingrak” or “kingırlık” of later periods.

On a typical short “kinglu” sword which is supposed to belong an elite personality (warrior or a noble prince) integral blade and hilt structure and the rear end of the hilt, the pommel was ornamented with one of the sacred animal figure depicting a deer, horse, mountain goat and bull. This means that these “kinglu” blades were also holy and blessed tools for sacrificing these animals in their temples (11). Those short blades with circular hole at the rear end of the hilt would probably belong to ordinary people or soldiers for daily uses or fightings.

The transformation of those inverse-curved “yataghan-like” blades through the centuries is best presented in Figure 11 showing two amazingly similar short blades. The one in the left was from the 18th Century Ottoman era and the one on the right was from approximately 1200-1800 BCE Hunnic Turkic period. Identical form, shape and geometries of the two blades is significant and the best examples showing the 4000-5000 year old tradition of “yataghan-like” blades. In both blades, the ratio of hilt/blade length and the location of geometrical patterns and figures are identical (which will be confirmed by geometrical measurements and given in the last section). Those criss-crossing patterns in the hilt of the Ottoman blade could also be seen in some Ordos bronze blades as well. Those prominent grips at the end (‘kulak’ for the Ottoman blade) were formed for firm grasping of the hilt i.e. same function. In later periods, around the 10th Century, those nomadic Turkic tribes migrated to the Anatolian Peninsula and this migration continued through the next centuries for a complete settlement of Turks in the region. Traditional blacksmithing craftsmanship was brought in the region along with many other customs and traditions.





**Figure 10. A very rare sample of short sword made of iron (upper) and a bronze blade (below) (10).**



**Figure 11. A short yatagan made in 18th Century (left); A short Ordos bronze blade “kinglu” from 1200-1800 BCE Hunnic Turks.**

Surely, “yataghansmithing” was one of those craftsmanships but those “yataghan-like” inverse curved blades were either called “kinlu (with scabbard)” or “kingirlik”. Most probably, the Seljukian commander Osman Bey, later known as “Yatagan Baba” for other reasons (due to his calmness and his habit of lying down before the final assault to the enemy) was settled in the southwest Anatolia with his family, his comrades and other ironsmiths. Since the inverse curved blades, knives and swords made by Yatagan Baba and his comrade ironsmiths

started to gain certain reputation and admiration due to the sharpness, durability and innovative masterly crafted forms and shapes of these blades, people were started to call these type of blades “Yataghans” referring the ironsmiths of the town of Yatagan. As a matter of fact, the town of Yatagan was later known as the center of arms/weapon production throughout the next centuries (extensive gunpowder production was also common during the first half of the 20th Century) and the legends indicate that the weapons of the army of the Sultan Mehmed II the Conqueror were also produced in this district and were extensively used during the siege of the Constantinopolis in 1453.

#### 4. The Yatagan Sword

Under tough, harsh and hard conditions of immensely vast steppes, struggle for existence, survival and raising generations were the impulses of the earliest Turkic tribes and they were known as relentless and fiercest warriors. Defensive/offensive arms and weapons were their indispensable tools in their daily lives. Sword (“kilinc” in Turkish), knives, spears, axes, maces, bow-arrow were their essential weapons. Sword i.e “kilinc” was their favorite and unseperable weapon which symbolizes the typical Turkic identity and character.

Based on their extraordinary craftsmanship in ironsmithing, they had excelled the sword design in variety of forms like curved short blades, knives, swords, daggers, machettes and yatagan-like inverse curved blades. Among almost all the Turkic tribes, both ironsmithing and its tools and wares were considered as sacred and blessed objects. Those blacksmith masters were also occupying a distinguished seat in the royal court and they were respected as holy (some of them were *shamans* as well) and respected, charismatic personalities (called as “*tarhans*”) carrying the

secrets of this metallurgical craftsmanship through the generations (8).

During the ages in BCE i.e. the Copper Age, the Bronze Age, short knives were invented for hunting, cutting and thrusting in daily life, slaughtering and stripping the skins of sacred animals and widely used for a long periods of time. Thereafter, the blades were lengthened using forging techniques and shaped in the curved forms along with the hilt design integrated into the blade using a guard or without a guard. Those Turkic blacksmiths were leading innovative personalities in their times and they were continuously seeking for better weaponry, better quality, lighter weights, better thrusting and cutting forms, more practical uses and other applications. Since they were also excelled in swordsmanship, they knew the sword dynamic for better use in fightings and combats with masterly thrusting and cutting techniques. In this regard, those curved blades had different cutting and thrusting styles depending on the center of percussion and the center of the weight. Legends indicate that those Turkic warriors as elite class noblemen should show their masterly competence in swordsmanship through the single thrust of the blade and cutting a baby camel or a sateen silk into half or tear down layered hairfelts.

Yatagan blades as an excellent design optimization capable of effective and lethal cutting, thrusting and stabbing moves for swordsmanship. It is undoubtedly a deathly and lethal weapon for both cavalry and infantry (12). A typical traditional Yataghan shown in Figure 12 has the following features:

- Total length (app) including the hilt: 60-90 cm
- Length of hilt: 15-20 cm
- Length of blade: 45-70 cm
- Width of the blade: 3-5 cm
- Weight: 850-900 gm

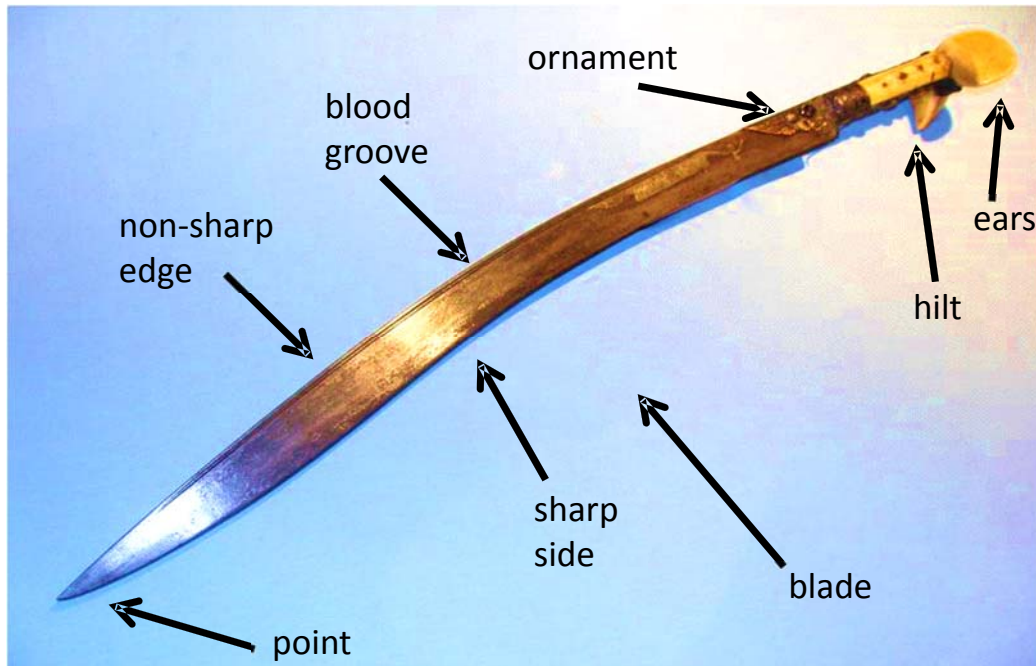
A complete set of Yatagan and its structure typically includes the following parts and sections:

1. The blade (sharp inverse edge and flat blunt side)
2. The hilt
3. The scabbard

#### **4.1. The Blade**

“Yatagan” or “Yataghan” swords differ from classical curved Turkish swords with recurved shape and eared pommels and handles without a guard. The blade design has a “T” shaped cross sectional geometry where the upper side is made of soft low carbon steel but the recurved forward side is made of hard high carbon steel. Controlling of the carbon content was achieved through advanced forging, quenching and heat treatment techniques. Therefore, the whole structure is originally designed to vary from soft, non-lethal to hard, sharpened and lethal face as a functionally graded design for flexible uses. Therefore, this sword could be used in various kinds of close street fights, quarrels (using the soft back side not for piercing and cutting) and in deathly combats (using the sharpened and strong inverse laid side and tip for thrusting, cutting and perforating) against opponents. Both sides of the blade have “blood grooves” and the surfaces were ornamented with traditional plant and flower motifs. The surfaces of the blade were also decorated with inscriptions from the Holy Quran, proverbs and simple poets along with the name of owner, the name of the swordsmith, and date of its manufacture (12).

The sharpest section of the Yataghan is its end point and inverse or concave edge traditionally called “yalman” in Turkish which comprises the hardest and most durable high carbon content part. Such a graded structure from soft low carbon to hard and sharp high carbon content ensures the Yataghan sword’s effective and deathly functions when it was thrust into the opponents. The detailed geometrical form depicts a very elongated “S” shape with double curves and the inverse or concave edge composes the unique “Yataghan’s” characteristic shape.



*Figure 12. A typical traditional yatagan*

**4.2. The Hilt**

The hilt of the Yataghan sword also displays an original and unique design and has variety of features as shown in Figure 13 along with a typical “ear” shaped pommel. As indicated before, such an “ear” shaped form was for a strong and non-slipping handling and

grasping. The “Eared” form made it easily thrust into the waist sash and retained there as shown in Figure 1 and therefore rendered the wearer a charismatic and gallant look during parades or in their daily lives.



*Figure 13. A historical yataghan dated 1811 with walrus hilt and gold ornaments*



**Figure 14.** An “eared” pommel yataghan-like short sword dated 2000 BCE

Historical roots of such a hilt design could also be traced back to 2000 BCE as shown in Figure 14 revealing a section of a short yataghan-like sword without a guard and an “eared” pommel. Various hilt materials were used: wood, horn (mostly water buffalo horns were preferred for better formability and quality), bone, ivory, walrus, silver. The hilt was usually decorated with precious stones mostly corals (13).

### 4.3. The Scabbard

Scabbards known as the sheath of yataghans were manufactured by other master artisans specialized in various techniques that some were using leather covered woods and some were using carved silver metals. Dragon headed ornaments with precious stones, gold and silver were common decoration motifs. A typical scabbard of the yataghan is shown in Figure 15 and comprises of the following sections: a. Inlet port; b. Collet; c. Sheath or fender (13).



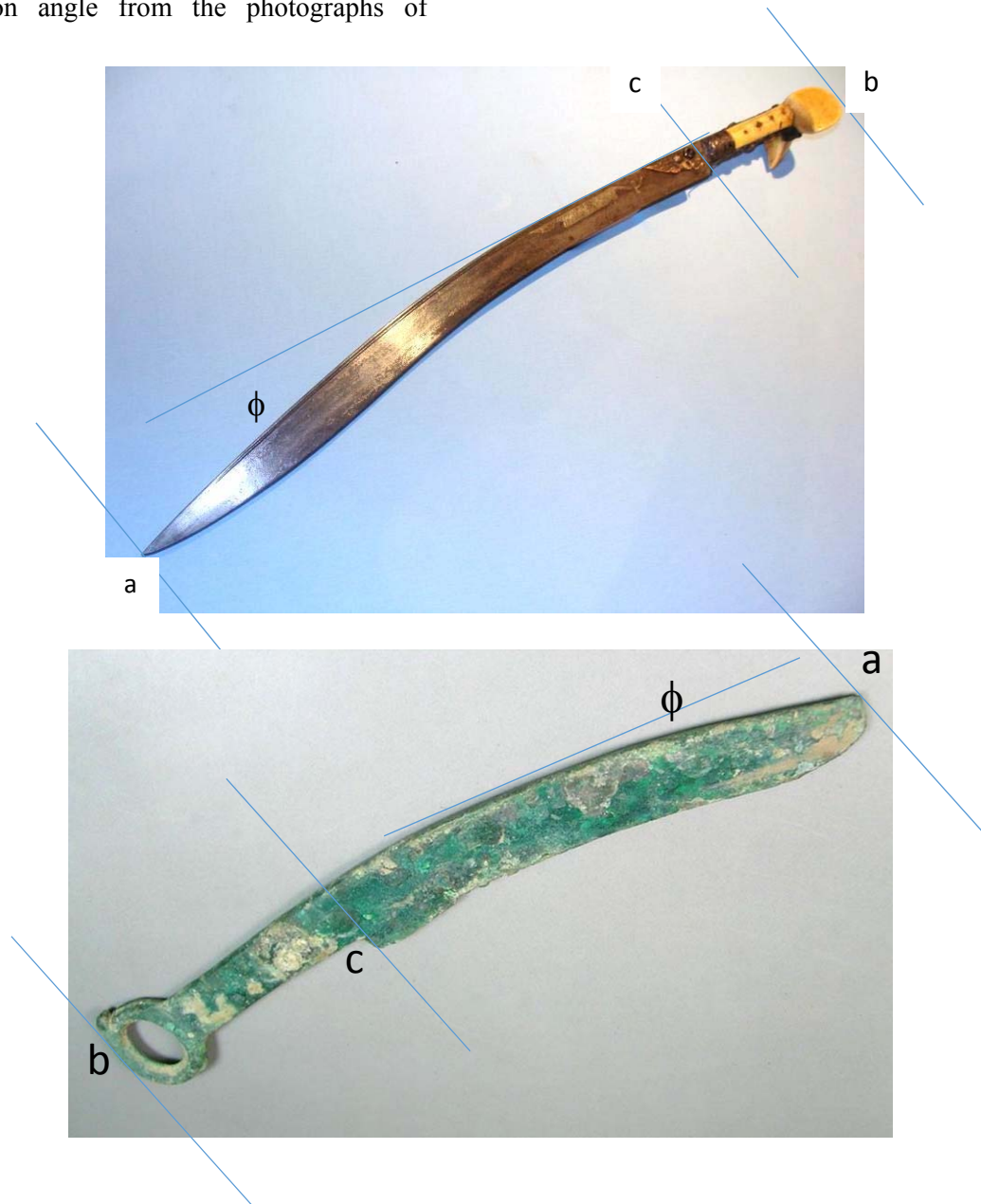
**Figure 15.** A yataghan and its scabbard

## 6. Geometrical investigations on the “Yataghan” and “Kinglu” blades

A detailed investigation on the geometrical shapes and forms of both “yataghan” and “kinglu” blades could reveal the evolutionary progress of these swords during the ages. Such a geometrical analysis could be based on the normalized measurements of certain ratios of lengths and inverse curved inclination angle from the photographs of

yataghan and kinglu blades. As shown in Figure 16, typical photographs of a yataghan and Ordos bronze blade are given for the geometrical parameters. The following parameters could be used for such an analysis:

**ab**-Total length; **cb**-Hilt length; **ac**- Blade length;  $\phi$ -inverse curve inclination angle



*Figure 16. Geometrical parameters for the measurements of both yataghan and kinglu blades*

Table 1 shows the results of the normalized measurements on both blades. Figures are the average of 12 measurements for “yataghans” and 11 measurements for “kinglu” blades found in the literature, annals of museums, web sites and other sources .

**Table 1 Normalized measurements on “yataghan” and “kinglu” blades**

<i>Blades</i>	<i>cb/ab x100 ratio of the hilt length to total length</i>	<i>ac/ab x100 ratio of the blade length to total length</i>	$\phi$
“Yataghan” swords(long)	21.8	78.2	6.9 °
“Yataghan” swords (short)	36.1	63.9	7.3 °
“Kinglu” swords(short)	44.8	55.2	7.2 °

The data show an extraordinary resemblance of both type of short swords of “yataghan” and “kinglu” blades. Particularly, measurements of the inclination for the inverse curve i.e. the angle in between the straight tangent line and inclination line,  $\phi$ , which is measured as 7.2 ° – 7.3 ° as shown in figures given in the Figure 16. For the short swords of “yataghan” and “kinglu”, the ratio of the hilt length to the total length 36.1 % and 44.8 % respectively. Such a long design of hilt might be for ease of handling and grasping. Evolution of the “yataghan” into long swords demonstrating the enlengthening of the blade size as 78.2 % to the total length which rationalizes the purpose of the uses of yataghans in fightings and combats.

Relative parameters measured and normalized as percent ratio of hilt and blade lengths demonstrate the evolution of such blades through the ages based on their uses, practical and easy handling, appropriate sword dynamics and uses in infantries or cavalries. There had been a consistent continuity during the ages.

## 7.Conclusion

The Hunnic-Turkic nomads of the Central Asian steppes invented a unique design of inverse-curved or concave “yataghans” through their masterships in metallurgy and blacksmithing. Initially, yataghan-like short knives and short swords had been produced for daily uses for cutting, slaughtering and stripping of skins of sheeps, cows, goats, deers and others. Thereafter the design had evolved into a lethal, deathly swords of those Hunnic-Turkic armed cavalries assaulting the Great Wall of China starting in 400 BCE. Remnants of the *kurgans* (burial tombs) of those elite warriors, royal princes and leaders revealed the early uses of such yataghan-like inverse curved blades through the ages and evolution of such an unparalleled design of swords could be traced. The town of Yatagan was the final destination of “yatagansmithing” and the label, “yataghan” was termed after the chief ironsmith “Yatagan Baba” for this type of blades. Therefore, the 5000 years old tradition could be detected for yataghans based on the archeological excavations in the Northern Ordos region (150-200 km North of today’s Beijing), the Siberian steppes and inner Mongolia. Relative parameters measured and normalized on both “yataghan” and “kinglu” blades as percent ratio of hilt and blade lengths demonstrate the evolution of such blades through the ages.

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