

Russian Armor in the Time of Ivan the Terrible

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Class summary - An overview of the types of armor used during the reign of Ivan Grozny from the times 1555 - 1583. It will also cover modern merchants who sell items, and construction techniques. It will cover both heavy and fencing armor.

The armor used by the nobles, gentry and soldiers of Ivan the Terrible reflects a long evolution towards a mobile force to deal with a frontier that geographically has no mountains, oceans or deserts to act as barriers to enemies invading or raiding at will. It also reflects the height of this eastern style, lightweight horse-archer armor, even as Ivan was revolutionizing his army by organizing a mobile infantry force of musketeers that wore no armor, rode horses for the sake of mobility and fast response, but fought on foot using volley fire and free fire, but typically had garrison duties.

Special thanks to John Sloan of the Xenophon Group for his outstanding Russian Armor website. I cut and pasted the body of these class notes from his website and he deserves full credit and praise for this class!

Dospekhi - the generic term for personal body armor made of plates and/or scales.

In the 16th cent despite the rapid development of firearms, protective armor remained. Russian warriors still wore bakhterets, kolontar, zertsalo, and even kol'chuga.

Some Russian armor of the 16th century has its own interesting history. There is a kol'chuga (in the Moscow kremlin armory) with a small copper plate, on which is stamped the following inscription: "Belongs to prince Peter Ivanovich Shuyski." Boyar and voievode Peter Ivanovich Shuyski was killed in 1564 during the Livonian War. That very kol'chuga is believed to have been granted to Yermak (the conqueror of Siberia) by Tsar Ivan the Terrible. Perhaps it was because of that kol'chuga that Yermak drowned in the river Irtysh in the summer of 1584, when his detachment was defeated by the troops of the Tatar Kutchum-Khan. In 1646 that kol'chuga, which outlived both of its two owners, was discovered in one of the Siberian towns and returned to the tsar's arsenal.

In the 16th century a considerable part of Russian armor was still manufactured in Moscow, where, in accordance with government laws, many armorers were moved. Herbertstein wrote that a number of houses of blacksmiths and other artisans "who worked with fire" stretched along the outskirts of Moscow. Blacksmiths' works and the manufacture of arms were concentrated at that time in the area of Kuznetsky Most (bridge), contemporary Bronniy Street, and Staraya Kuznetskaya Sloboda in the region of Kotelniki, where, during recent excavations, builders found a tombstone which belonged to a certain "Grigory Dmitrievich" — "son of an armorer". Because of that discovery, it became known that in approximately the second half of the 16th century, hauberk (kol'chuga) production was separate from armor production as a whole. Some armorers began to specialize in the manufacture of mail exclusively. The Russian army finally

refrained from using that type of armor only at the close of the 17th century, not long before the time of Peter I.

Armor, made of scales (plates), in contrast to the "kol'chuga" (that is made of metal rings) was called "doshchatimi" in so far as its plates were reminiscent of embossed planks. In the course of the 14th century the term "bronya" as in "broni doshchati" gradually was changed into the word "dospek". In the 15th century a new term was used to designate plate armor, "pantsir", taken from the Greek language. All details of pantsiri were made by craftsmen — blacksmiths. Archeologists, working in ancient Russian towns, have found parts of dospekhi and blacksmith tools such as ancient anvils, hammers, pounding instruments of the smithy, and pliers that the blacksmith held to turn the object on the anvil. The tools were used to create dospekhi.

The pantsir introduced at the start of the 14th century in Russia combined several types of armor. The armor might be made of scales on the lower front part and plates or rings, on the chest and back. The warrior's chest was half protected by large tongue-shaped plates that were worn over the dospek. Later, in the 16th century, these received the name "zertsala" (mirror), since their smooth metal plates were specially polished to a high shine, and sometimes covered with gold, silver and engravings. Fine dospek were extremely expensive, beyond the means of private warriors. They might be worn on the battle field only by princes, voevode, and first rank boyars.

BODY ARMOR

Tyegilyai — quilted coat — 16th Century.

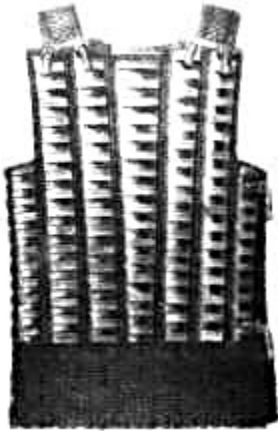
In the inventory of Ivan the Terrible's property, a teghily with gold and Venetian velvet, and several elaborate buttons and buttonholes is mentioned. The teghily was a kind of kaftan with short sleeves and a high collar. It resembled the western gambeson. Due to its protective characteristics this garment was used by poor warriors instead of armor. The teghily was made of wadding or hemp and quilted through. In this case teghily were made of thick cotton fabric with metallic rings or plates sewn on the breast. Sometimes parts of animals were used, by being boiled and painted into a mesh of animal tissue. This was cooled and dried hard. The "paper cap" could be considered to be an addition to the teghily. This head gear was made in a similar way of wadding of cloth - silk or cotton fabrics, and was sometimes reinforced by the mail net worn under the lining. Sometimes,

such caps were provided with a nose protector.



Kalantar' - plate armor

The kalantar' was used at Kulikovo in the 1380's. The armor was made in two halves, front and rear, like a vest without sleeves, which were clasped together on the warrior's shoulders and sides. Each half, from the neck to the waist, consisted of a number of metallic plates arranged horizontally and fastened together by a ringed mesh (kolchuga). These plates were larger than the ones used in making the bakhterets. The so called "skirt", which was mail ending at the knees, was attached at the waist. The kalantar's rear plates were thinner and smaller than the front ones. When the kalantar' was used as part of ceremonial armor, and was decorated with gold inlay, deep decorative patterns and engravings, its price rose to almost 1000 roubles - an astronomical amount for the 17th century. A Russian armor of the kalantar' type was highly regarded by the royalty of the time including neighbors of the Muscovite state.



Baidana — hauberk —

A Baidana is shown on the left (below). The term comes from the Arab word, "badan" - a short, ringed armor. The baidana is a form of armor made of metal rings. It differs from the kol'chuga itself only in the size and form of the rings. The baidana's rings look like washers rather than wire and are large and flat-forged or stamped from sheet metal. Notice the writing stamped into the rings. They were fixed either one upon the other, or on a nail or spike. As a result, the joint was fairly stable. These baidana were frequently split in front at the neck to allow them to be put on over the head. This opening was held closed by several clasps. The longer versions were split at the hem to enable the wearer to sit on his horse. The baidana was long, to the knees or below with long sleeves, or if it was shorter then was known as a half-baidana. The most famous existing baidana is the one that belonged to Boris Gudonov. It is in the Kremlin armory. On many of the rings of this armor is stamped the motto: "God is with us". A Baidana weighed up to 6 kg and might contain 10,000 rings. The baidana showed itself to be an effective defense against slashing saber blows, but did not suffice against thrusting weapons and fire because of the large diameter of the rings.

Besermen baidana as this type of armor is called in the Zadonschina, existed in Russia from 1200. In some cases, it was accompanied by other types of defensive armor

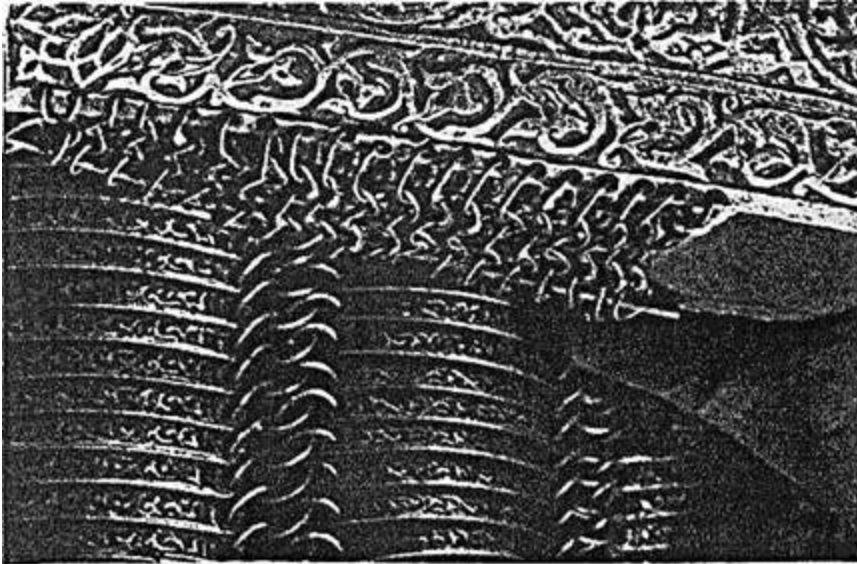


Bakhterets .

One type of Bakhterets is shown on the right. This was a type of pantsir orkol'chuga — mixed scale or plate (lame) armor— 16th century. This armor was called "bakhterets" or "bekhterets" (from the Mongol word "bekter" which denotes a type of armor).

"Bakhterets" were assembled of narrow oblong horizontal and slightly curved iron plates, (lame) arranged in vertical rows. It could contain 1500 narrow lames in 12 to 21 rows. The long sides of the lame overlapped. The short lateral sides of these plates were fastened together with rings. This provided exceptional flexibility with tripple strength armor protection. It could be worn over a kol'chuga. The assembled sections of this kind of armor were clasped or fastened at the wearer's left side and shoulders by metal-tipped straps. A shirt and sometimes sleeves and a collar were attached to the "bakhterets." In this case the combination looks like a kol'chuga with chest section replaced by plates instead of rings. The average weight of such armor was 10-12 kg, and its length was about 66 cm. Examples in the state armory are elaborately embossed in filagre of silver and gold designs.





A barmitsa is shown here. This one is made of linked plates. Another version was a mail net of small iron rings, the barmitsa, that protected the neck and shoulders of the warrior. It was attached beneath and to the sides of early helmets from the 10th century on. The misurka was a skull cap with a similar woven mesh attached to the lower edge. This kind of barmitsa resembled a tightly woven fish net or a Moslem woman's veil. It could be made in one continuous net or assembled out of pieces. This type served the same purpose as the western aventail. Sometimes a neck and shoulder protection for the wearer's front was made of small metal plates. This was called a zarukovya. It somewhat resembled a large gorget.



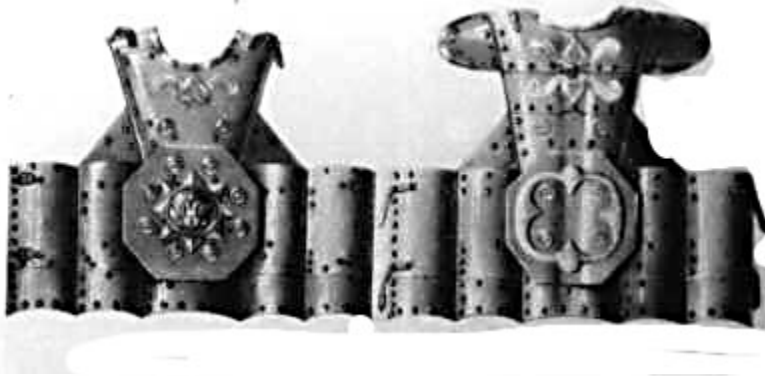
Chadari

(horse cloths composed of metallic plates, sewn on to fabric, which covered the croup, sides, and chest of a horse and served as protection) were luxuriously decorated with gold, enamels and jewels



Kuyak

Armor made of metal plates (usually round, but possibly rectangular) not connected to each other by rings as a kalantar, but fixed, each separately, to the leather or cloth base, was called a "kuyak". The 'kuyak' was therefore different from the much earlier type of armor in which the individual metal plates were attached to each other by thongs or rivets. Kuyaki were manufactured with or without sleeves. They could have flaps, like a caftan. The kuyak was frequently worn over the kol'chuga. Kuyaki could be strengthened on the breast and back by large armor plates "shields". This type of armor existed in Russia from the 13th to the 17th century and had close analogs in the West called a brigantine, but the brigantine had the metal plates inside (under) the leather coat. The term kuyak itself, from Turkic term, appeared only in the 16th century. It was frequently lined along the edges at armpit, neck and waist with fur lining to preserve body heat. The Chinese had a similar type of armor.



Yushman — 16th Century.

Still another type of armor combining rings and scales or plates was called a yushman . The first literary mention is from 1548, but it was surely developed earlier. Here is a gorgeous yushman in the collection of the Artillery Museum in St. Petersburg. The yushman or Yumshan, (from the Persian word "dyawshan", was a mail shirt with a number of horizontal plates, interlaced with its front and back parts. It differed from the kolantar in having smaller plates. The yushman weighed 12-15 kgs. It was assembled of around 100 plates, fixed one upon the other with small gaps. The yushman could be worn over the kol'chuga. It had a longitudinal section from the neck to the skirt, was put on by the sleeves, like a kaftan, and clasped by means of a kjurka (a buckle) and loops. The yushman's scales (plates) sometimes were covered with gold or silver. Such armor was very expensive. The arms of warriors who wore a yushman, or other types of such armor, were protected from the shoulder to the wrist by narutchi (vambrace).



Zertsalo - plate armor — 17th Century.

To strengthen the mail coat (kol'chuga or pantsir), Russian warriors of the 16th - 17th centuries wore additional, partial armor (dospek), put on over the main armor. It consisted usually of four plates, front, back, and sides. The plates, which very seldom weighed more than two kg, were fastened together and put on the shoulders and sides by means of straps with clasps (such straps were called naplechniki or naramniki. The Zertsalo was ground and polished to a mirror like shine (from which comes the name of the armor), often gilded, engraved, and chased, had practically only decorative significance by the 17th century. The style originated in Nepal or Persia, where it was called char-aina ("four mirrors") and was widely used also from India to Turkey. The Russian style was developed from that used in Turkey.

A splendid impression is given by the sight of the precious armament, which could have only belonged to Tsars and voivodes. Ceremonial armor was decorated with silver, gold, jewels, and was distinguished by filigree engravings. By the end of the century the Zertsalo had completely lost its significance, together with other types of protective armor. In the exhibit of the Kremlin armory, there are well preserved, complete zertsalo with helmet, naruchi (arm guards) and ponozhi (greaves).



ARMS & LEGS (See below-right hand picture-far left figure)

Naruch - western vambrace

It resembled the Persian bazuband more than the western vambrace. In Poland it was called a karwasz. This was worn to protect the forearm, especially by warriors whose kol'chuga did not have sleeves. Naruchi consisted of a convex main plate to cover the outer side of the arm, with the elbow end frequently rounded. This was fastened to chrevtsi (rectangular plates) bound at the wrist and fixed to the arm by means of small straps. The main plate in some naruchi extended well past the elbow ending in a semi-circular fashion. Often the naruch was attached directly to the rukavitsa, mail or scale gauntlet. Wealthy warriors might have highly decorated naruchi.

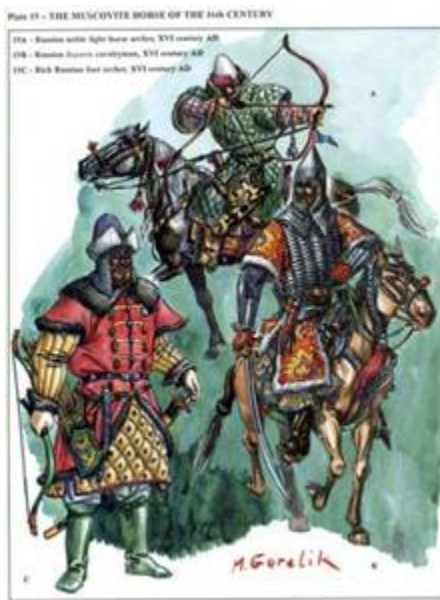
Buturlik

This was a kind of ponozhi, protection for the calf or shins. There were three kinds of such shin and calf protection armor. This was also called a burulik. The word is of Turkic origin and the armor was used by Mongols and Tatars. One type was made of three long pieces connected with metal rings so that the assembly protected the whole leg from ankle to knee. The second was composed of one, wide plate in front and two narrow plates to each side. The third was made of only one piece and protected the outside, exposed side of the calf. It was held in place by leather straps around the leg. In Western Europe such armor was known from ancient times under the term, greaves.

Rukavitsa .

Here gauntlets or mittens to protect the hand. They were made of leather or quilted padding, with a metal fishnet or series of flexible plates on the upperside. As can be seen here, the upper side could be elaborately decorated.

HELMETS & ACCESSORIES



Kolpak .

A helmet consisting of a lower part, beneto, made of a cylindrical ring 2 or 3 inches wide and a smooth conical upper part, the nabereshye. It looks like a funnel sitting on a tin can.

Prilbits .

A style of the barmitsa worn with a misyurka, if this mail was attached directly to the helmet instead of to a skull cap, then it was a type of barmitsa. This one covered the front of the face like a Moslem woman's veil. It had narrow slits for the eyes. The lower part was called a bentsa and the upper part the cherepa.

Shapka .

The variety of protective headgear was called the shapka bumazhnaya,,,"paper cap" It was manufactured of cotton and silk fabrics covering a interior wadding of cloth or paper and sometimes was strengthened by a mail net fastened inside. It was frequently strengthened with the attachment of an iron nose guard and ear and neck guards. It was used on a large scale in the 16th century, especially by poorer warriors. Another helmet was the shapka medlenaya, a copper cap which is frequently shown with elaborate decorations. The man on the left is wearing a kolantar and the man on the right has on a kuyak. And the third was the shapka zhel'eznaya, a very simple, cheap, iron cap. They are wearing the padded cloth tel'yagi. One of them looks almost like a helmet from World War One. All these were relatively simple and generally worn by lower ranks or foot soldiers. All military headgear had a leather skullcap inside to protect the wearer from chafing.

Shishak

In the 14th century we see for the first time, in original written sources, records of headgear called shishak (a conical helmet with a knob on top). Here is an illustration of a shishak. In this the helmet has also a prilibitz and the warrior is wearing a bakhterets. According to the opinions of archeologists, this kind of protective head gear spread all over Russia during the 12th- 14th centuries. It was introduced from Turkey, but may have had already a Hellenistic origin. The western term is zischagge. It differed from the shelom and the kolpak by having a very long pointed top (shish), which ended in a sharp point. In some the transitional section between the cylindrical lower ring and the narrow spike was hemispherical and ribbed or fluted. In others this section was more conical in form. A barmitsa (veil of mail) was frequently attached to the lower edge.

Yerikhonka .

The Yerikhonka or shapka yerikhonka appeared in the 14- 17th centuries. It was a tall, (but not as tall as a shishak) Mongolian-appearing helmet with a cylindrical venetz (lower edge of the crown) and very high conical naversheniye (upper edge of the crown), with repye (metallic decoration often of copper). The ear flaps, peak, and rear section were attached to the venetz of the yerikhonka. The "nose" with shyurapt passed through the peak on a kind of slide with set screw to lock it in place. Usually only rich and noble warriors wore such helmets, and decorated them with gold, silver, and jewels. All the protective head gear mentioned was worn over a cap or a thick cloth lining to protect the head

