14

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Late 15th and 16th Century

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The most extraordinary feature of the hussars was the wing worn by some units. Made from a curved batten carrying eagle or vulture feathers, this could be attached to the rear of the saddle, or by crossbelts to the shoulders, making its wearers some of the most spectacular soldiers ever seen, especially with the *pair* of wings sometimes worn in the 17th Century. They are said to have made a rushing tornado-like noise in a charge, with similar psychological effects to the Stuka's scream, and also to have protected those who wore them against Tartar and Cossack lassoos.

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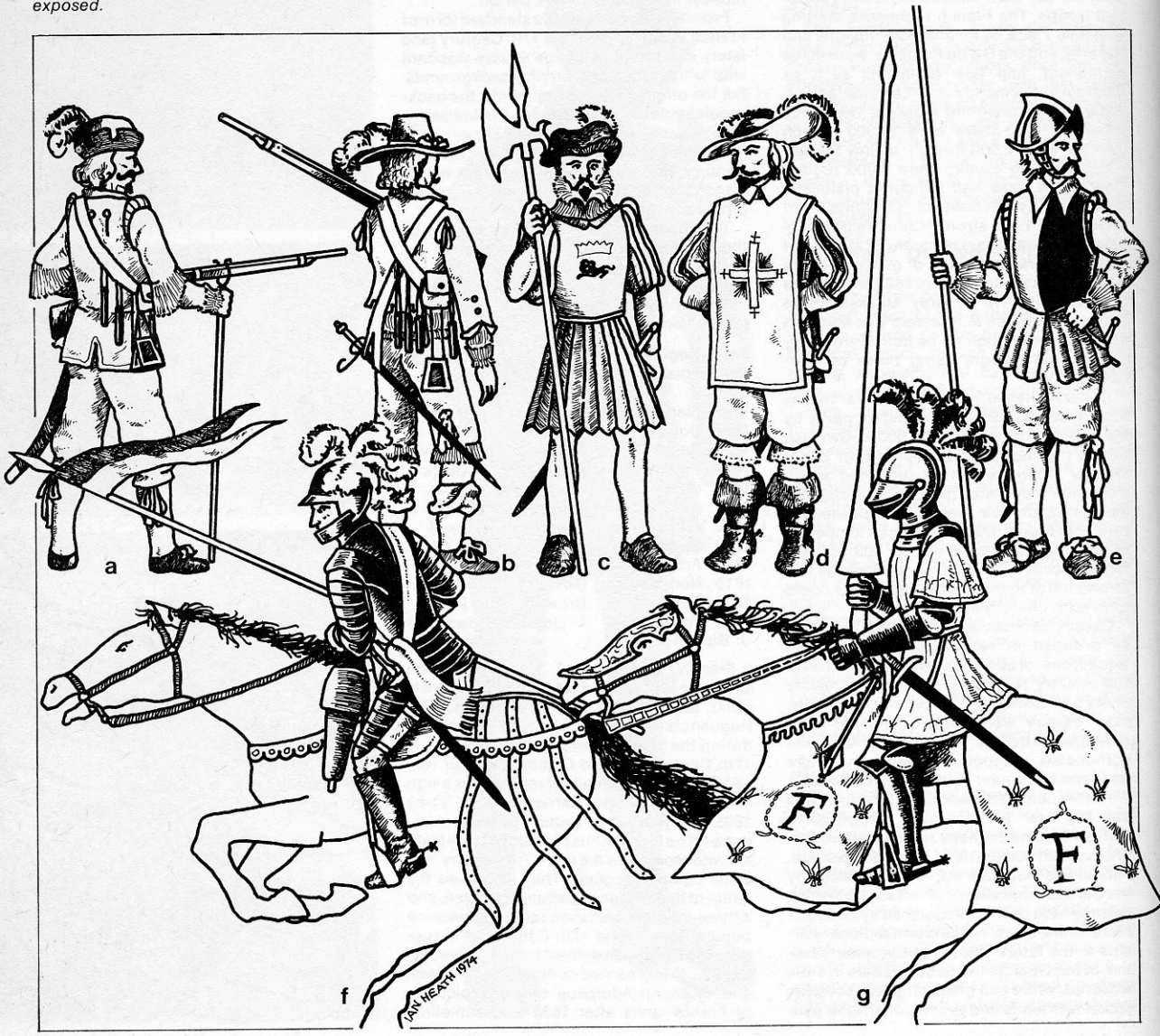
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and the sun (surrounded by varying numbers of pointed rays and displaying a smiling face). These were particularly used on cavalry standards and by Guards units. Thus, Charles VIII's Scots guards had a red, green and white flag with both devices in gold, the sun's rays covering the whole field; some of Louis XII's guards had a red and yellow flag with the saint (the field charged with porcupines, the King's badge). Other Guards flags varied, however: Henry II's Guards had white flags with a silver crescent and the motto 'Donec Totum Compleat Orbum', and under Louis XIII the Scots company of the Garde du Corps had a white standard with a greyhound running on a field surrounded by trees and the motto 'In Omni Modo Fidelis' (other companies may have had the same design on different coloured fields).

French dragoons, like those of other nations, carried swallow-tailed guidons; in the 18th Century, that of the Royal Dragoons, the only dragoon regiment founded before 1660, was blue, sprinkled with gold fleur de lys and with a gold sun with 12 pointed rays in the centre; fringe was gold and white.

The square cavalry flags of the late 16th and 17th Centuries would also be fringed; apart from the devices mentioned, they could carry others common at the time, such as the 'Fortuna' shown, arms holding swords and so forth, and bore a variety of mottoes and slogans.

a *and* **b** *French musketeers circa 1640; note short sabre carried by 'a'.* **c** *Scots Guard archer of Francis I's reign showing the type of dress and armament used on dismounted guard duty at court.* **d** *French musketeer, mid-17th Century. Hat grey or black with gilt trim and red plumes. Tabard or casaque blue, cross and edge white, 'flames' in angles of cross red for Grey Musketeers, yellow for Black. Jacket and breeches blue, trimmed gold. Boots black with red heels. Sword probably slung from embroidered shoulder belt. Cuirass under casaque.* **e** *French pikeman circa 1640; note extremely large garters and shoe bosses.* **f** *Guard Chevauleger, early 17th Century. Armour and horse trappings black. Sash white and gold, pennon black and white, plumes white (a 17th Century gendarme would be similar except for the lance); armour to knees. Note pistol holsters at front of saddle.* **g** *French Gendarme of late 15th or early 16th Century. Horse bard is that of Francis I — probably blue and gold. The rider could wear only the 'skirt' of his coat, leaving the rest of his armour (torso and arms) fully exposed.*



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fur cap, fur-trimmed and hooded caftan worn (in winter) over creamy-white linen tunic and trousers and high boots.

The 17th Century

Though the Polish state declined, the army remained very formidable. All the late 16th Century types remained in service. The infantry, who increased in recruitment and

Lithuanian hussar of the early 17th Century — an example of the less wealthy hussar types which existed alongside the more elaborately equipped. He wears a Kapalin helmet with leather cheek plates and a long blue ribbon at the back; a steel breast plate over 3/4 chain mail; red sleeved tunic, buff leather skirt and close-fitting black boots. His cap is of lynx or wolf skin. Horse furniture brown leather with a buff leather square under the saddle. He carries a ten foot lance with blue pennon, two pistols in saddle holsters and a sabre in a black leather scabbard.

a *'Drab' of the early 16th Century, still wearing mail shirt and visored infantry helmet. The halberd shown could be replaced by a long-shafted berdische axe, or the soldier could carry an arquebus.* **b** *Polish infantryman or Drabant, end of the 16th or early 17th Century. The plume probably indicates an NCO. NCOs would usually replace the arquebus with a half-pike with tassels below the head.* **c** *Hungarian-style Polish infantryman of the 17th Century dressed in the style called 'Hajduk'.* **d** *17th Century musketeer. Note the three-foot long axe which was used as a musket rest. The figure could also have a fur cap with turned-up brim.* **e** *Cap as worn by cossacks and dragoons.*



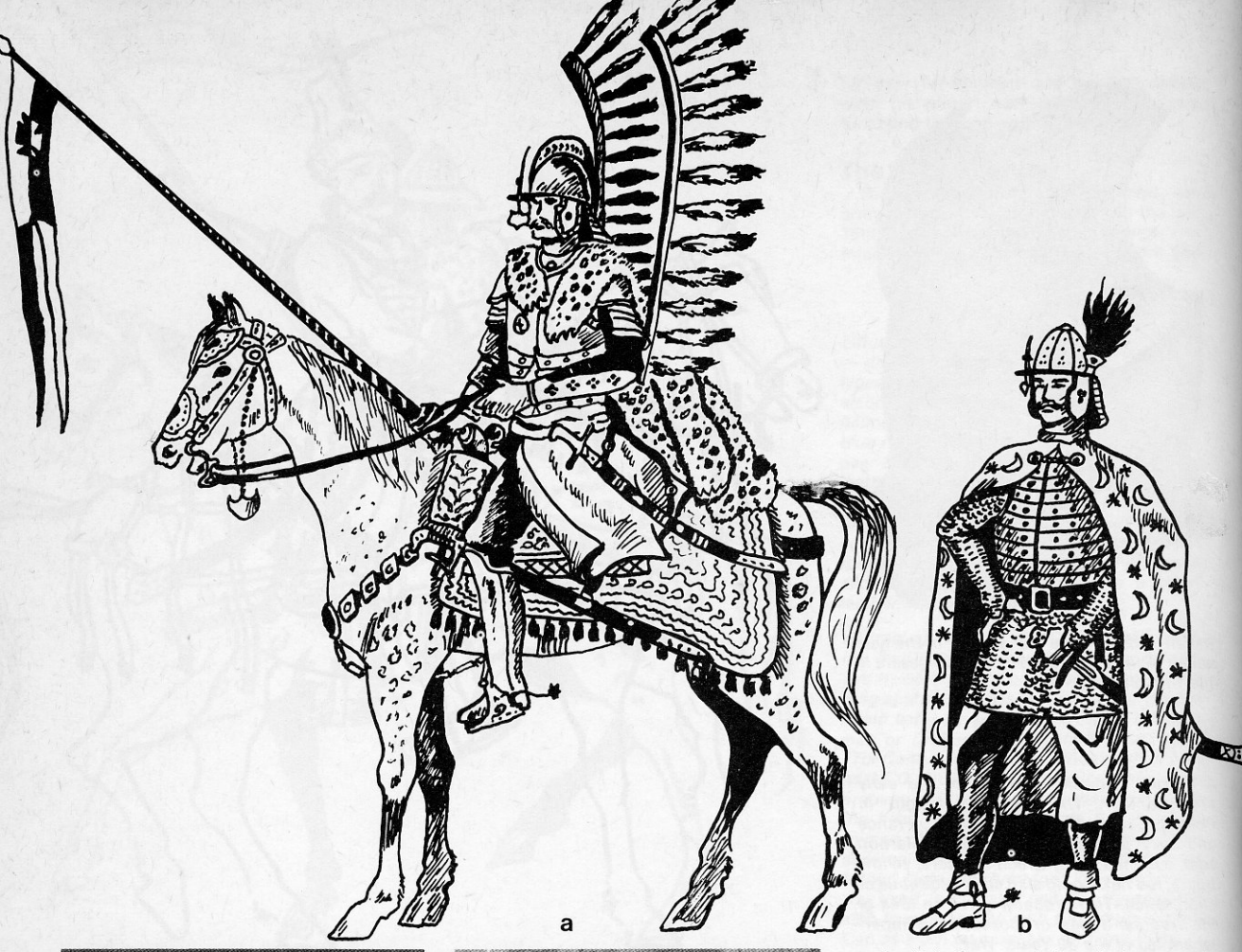
Italian 'lobster' style half-armour of the type called 'Anima' and used by heavy hussars in the 16th Century.

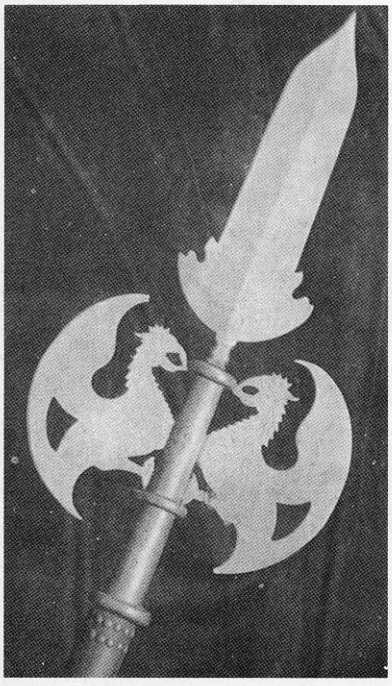


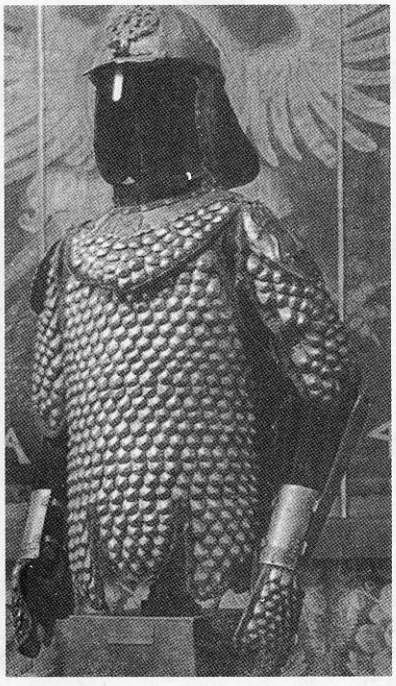
A Polish 'Lisowski Cossack' of the early 17th Century. This regiment fought in Poland, Czechoslovakia, Germany, France and Italy in the period 1616-26. Maroon coat, trimmed gold. Green trousers, yellow boots, red hat. Could also carry arquebus or short lance. This probably gives an idea of the irregular 'Poles' or 'Cossacks' in Imperial armies of the 30 Years' War.

a *Typical gentry dress worn by Polish officers, called 'Kontusz'. It was a long tunic worn over a shirt and breeches. An embroidered sash was worn with it. All colours were used, but usually in a subdued hue — for example, dark green or red instead of bright green or red. Over the kontusz was worn either a long cape or a long sleeved coat with a wide fur collar. Both had slits in the sides, through which the arms went. The capes and coats were mainly in buff, light brown or dark brown colours. A wide variety of fur hats was worn, of different shapes and colours. These were usually crowned with heron feathers.* **b** *A mid-17th Century dragoon, shown dismounted. Horse furniture was plain brown leather. He wears a brown fur hat with a red top, red tunic with white kerchief at neck, yellow gauntlets and dark brown boots. The wide and narrow bandoliers holding charges are light brown leather. Scabbard is black or green leather. Most units wore red (and were sometimes called 'redcoats'), but some favoured blue tunics of a darker hue.* **c** *Polish Rajtar, mid-17th Century. He wears a brown felt hat, wide brown belt, brown trousers and boots, with a long buff leather coat and white gauntlets. He would be armed with two pistols as well as the long sword illustrated, or a rapier.*









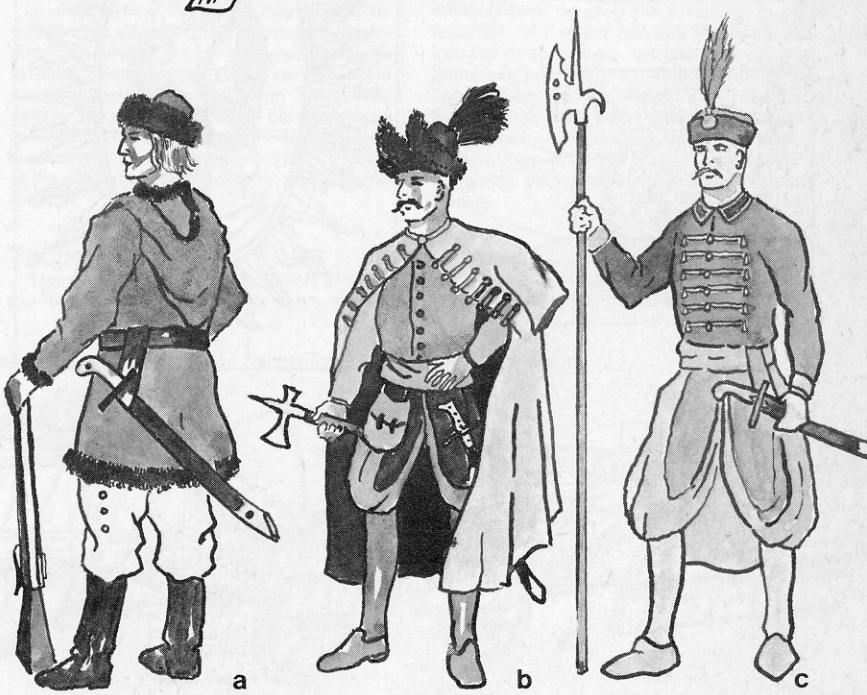
a *A 17th Century 'winged' hussar. His armour could be inlaid with brass. The feathers are natural, the wooden wing frame gilt. Lance pennon red and white. Cloak of panther, tiger, lynx or wolf skin. Coat red, brown or deep blue, boots red or yellow. Basic colour of saddle cloth wine red. Scabbards red, green or black with silver or gilt fittings.* **b** *A 16th Century hussar whose saddle would carry a single 'wing' of black feathers on a red frame. His helmet plume is black, cloak red with white decorations. His coat and saddle cloth would probably be red, trousers black and boots yellow. This figure wears a breast plate over mail, but could be dressed in mail only. Officers would have fur-trimmed caps, panther or tiger skin cloaks, and carry gilt maces. Both would have horse furniture as on 'a', but 'b' would have a feather plume on the horse's head.*

Far left *Polish Royal Guard halberd, 17th Century.*

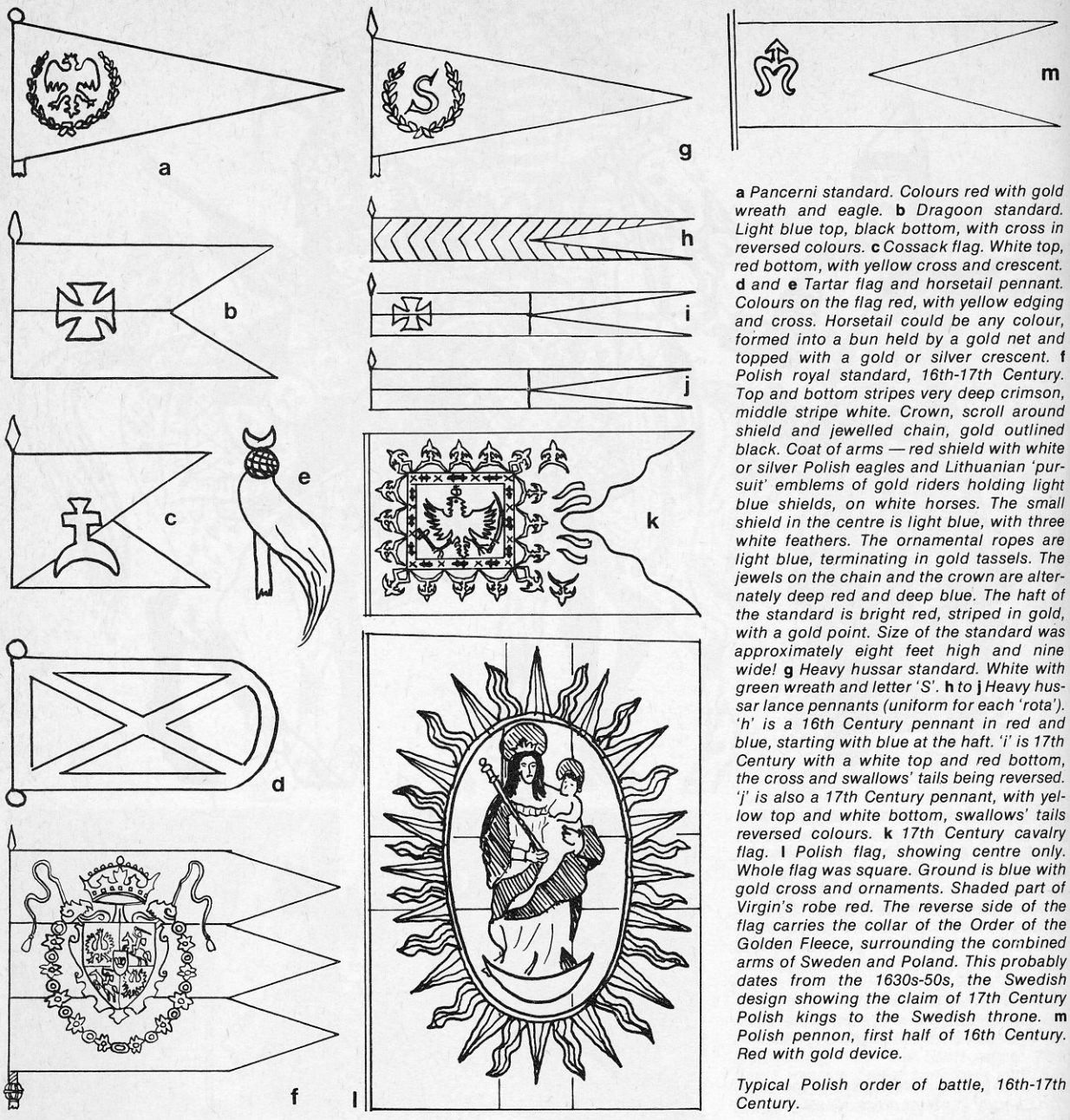
Left *Last type of Karacena or heavy hussar's armour used at the end of the 17th century.*



c *16th-17th Century Lithuanian Tartar. The cap could have a large turned-up fur brim.* **d** *17th Century Pancerni cavalryman. Harness etc yellow, red, green or blue with gilt or silver studs and fittings. Trappings usually some shade of red with silver or gilt fringes. Officers would carry a gilt mace, and might wear a fur-trimmed cap with long, trailing point.*

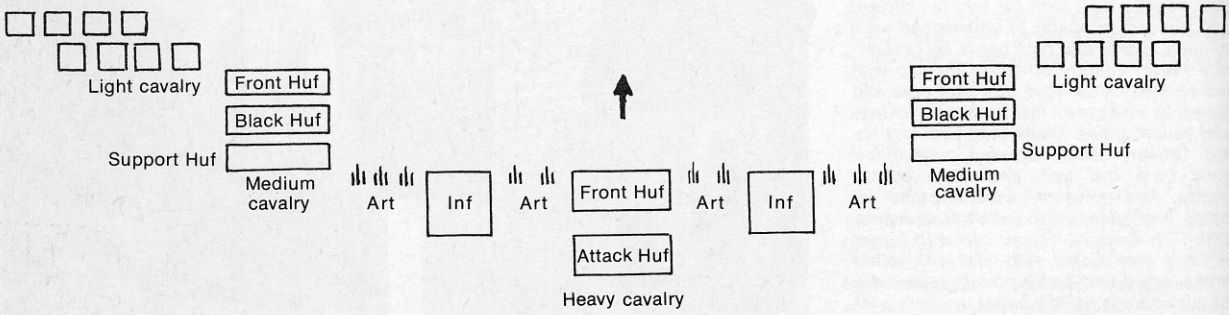


a *A Polish peasant infantryman of the early 17th Century in winter dress. He wears a fur cap, hooded coat with fur trim (all brown) and trousers, probably of unbleached wool or linen, tucked into high boots.* **b** *17th Century Polish infantry officer in fur cap with red plume, yellow shirt with buff coat and breeches with brown inserts, grey stockings and yellow shoes. Cloak blue with red lining. Officers usually dressed quite differently from the men, and often carried maces. Red or yellow were favoured for boots and shoes.* **c** *A Polish Guardsman, 16th-17th Century. Yellow cap with brown rim and grey plume. Red coat with yellow lining, braid and collar piping, blue cuffs. Blue stockings, yellow shoes.*



a *Pancerni standard. Colours red with gold wreath and eagle.* **b** *Dragoon standard. Light blue top, black bottom, with cross in reversed colours.* **c** *Cossack flag. White top, red bottom, with yellow cross and crescent.* **d** *and* **e** *Tartar flag and horsetail pennant. Colours on the flag red, with yellow edging and cross. Horsetail could be any colour, formed into a bun held by a gold net and topped with a gold or silver crescent.* **f** *Polish royal standard, 16th-17th Century. Top and bottom stripes very deep crimson, middle stripe white. Crown, scroll around shield and jewelled chain, gold outlined black. Coat of arms — red shield with white or silver Polish eagles and Lithuanian 'pursuit' emblems of gold riders holding light blue shields, on white horses. The small shield in the centre is light blue, with three white feathers. The ornamental ropes are light blue, terminating in gold tassels. The jewels on the chain and the crown are alternately deep red and deep blue. The haft of the standard is bright red, striped in gold, with a gold point. Size of the standard was approximately eight feet high and nine wide!* **g** *Heavy hussar standard. White with green wreath and letter 'S'.* **h** *to* **j** *Heavy hussar lance pennants (uniform for each 'rota'). 'h' is a 16th Century pennant in red and blue, starting with blue at the haft. 'i' is 17th Century with a white top and red bottom, the cross and swallows' tails being reversed. 'j' is also a 17th Century pennant, with yellow top and white bottom, swallows' tails reversed colours.* **k** *17th Century cavalry flag.* **l** *Polish flag, showing centre only. Whole flag was square. Ground is blue with gold cross and ornaments. Shaded part of Virgin's robe red. The reverse side of the flag carries the collar of the Order of the Golden Fleece, surrounding the combined arms of Sweden and Poland. This probably dates from the 1630s-50s, the Swedish design showing the claim of 17th Century Polish kings to the Swedish throne.* **m** *Polish pennon, first half of 16th Century. Red with gold device.*

Typical Polish order of battle, 16th-17th Century.



importance, would be replacing the arquebus with the musket, and by mid-century the 'Polish' infantry were adopting the new dress shown, still usually light blue, with red collar, frogging, sash and trousers and black boots. The two-handed berdische axe doubling as musket-rest made a formidable armament.

The aristocratic hussar became still heavier and more ornate, with three-quarter plate armour and pistols, like the mounted figure shown.

Cossacks were employed in increasing numbers. By 1625 Poland had six regiments, each 1,000 strong. In the mid-17th Century the 'registered' Cossacks wore white coats.

Three new cavalry types introduced at this time illustrate the Poles' readiness to adopt what was best from their enemies.

Mounted arquebusiers in foreign style were added to the heavy cavalry. They wore helmet and cuirass and carried an arquebus, a pair of pistols, and a rapier.

The 'Rajtar' was a new medium cavalryman, mainly depending on missile power and armed with a sword and two pistols. He was dressed plainly, in the style of his Swedish prototypes, with broad-brimmed felt hat, wide white collar, buff coat, red trousers and wide knee-boots, with plain leather horse-furniture.

The Dragoons carried a musket, two pistols, axe and sabre, and remained primarily mounted infantry until the late 17th Century. Their plain, full-skirted tunic was red for most units, blue for a few, trousers black, boots tan, horse-furniture plain leather. They were distinguished from their Western equivalents by their caps, of the Cossack style illustrated.

By the second half of the 17th Century the Polish cavalry were 20 per cent hussars, 20 per cent light cavalry, 60 per cent Pancerni, Rajtars, and Dragoons; earlier the proportions of hussars and light cavalry would be higher.

Artillery

At first relatively backward in this arm, Poland made great efforts to develop it, German and Dutch experts being brought in and arsenals set up, and by the end of the 16th Century it was quite effective. In the 17th Century it was greatly increased and by the second half of the century recognised as among the best in Europe.

The Poles produced first-class guns of standardised calibres, 3 pounders, and 6 pounder 'Octavs' were used to support infantry and 'Kartaunas' (cannon) of 12, 24, and even 48-pounder sizes were apparently used in the field also. For siege work there were even larger 'Kolyubrynas' and mortars up to 125 pounders.

Gunners were not actually uniformed but would usually be dressed in a simpler version of the clothing shown for a 'Drabant', probably in blue.

Officers of artillery were mainly European mercenaries who would wear their own style of dress, with plumed broad-brimmed hats and so on.

The Tabor

The baggage train or 'Tabor' was an important part of the army. The Poles adapted from the Czechs and Cossacks a train specially designed for tactical use. It was particularly important in Eastern territories, where there were few towns or fortified places. Both wagons and horses were protected by thick wooden mantlets, and the wagons were adapted to be pushed as well as pulled. They could be hitched together, and on the move up to 40 wagons formed a continuous train, a team of two horses being hitched to every second wagon, and one of four to every fourth one. Chief battle use was as a fortified base. The wagons, linked up in double lines, formed an oblong, often with artillery at the corners. The short sides of the oblong were of a single row, with teams still harnessed up, thus they could be suddenly opened for a surprise sortie by the Polish cavalry, a very successful tactic, as, for example at Obertyn (1530) where the Poles beat over three times their number of Wallachians.

In emergency, the tabor could even be used in the attack. To escape a surprise by stronger forces, the wagons, packed with infantry, were formed into several small columns and driven full-tilt at the enemy centre, the cavalry riding on the flanks and exploiting the break-through. This actually worked on more than one occasion, though at the cost of losing the slower-moving artillery.

Tactics

The usual formation for a Polish army — the 'Horns' — is shown. The heavy cavalry Hufs were drawn up three ranks deep, the mediums four. Less experienced troops among the latter were kept in the 'Black Huf'. The rear hufs were spaced a good distance behind the front ones to allow for manoeuvre.

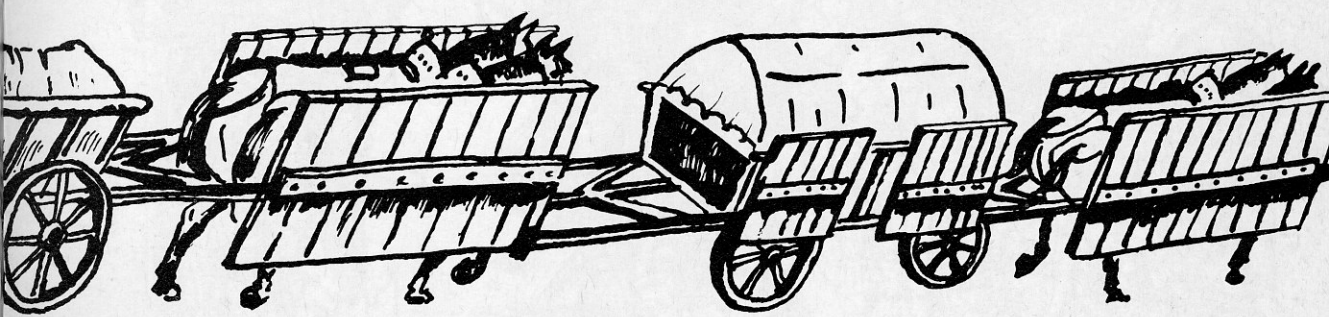
The Poles usually started with a weak attack from one wing to fix the enemy's attention. Next the light cavalry began to envelop him, causing his forces to bunch together. The heavy hussars then charged into the thick of them, the gap thus opened being exploited by the mediums; finally the light cavalry took up the pursuit. However, their tactics were very variable, based on the flexibility conferred by their cavalry organisation and the almost unstoppable full-gallop charge of the heavy and medium cavalry.



A Lithuanian 'Bojar' (noble) of the late 15th or early 16th Century. Surcoat red with brown pattern over mail. Red sleeves and trousers, yellow boots. Green lined fur cloak and green, fur-edged, saddle cloth. Shield red and white.

I should like to thank Roman Olejniczak for the drawings in this chapter.

Wagons of the Tabor or wagon train showing the protective mantlets and frames for attaching them together.



15

The Holy Roman Empire

The Imperialists

'Imperialist' in the 16th Century was not yet a political expletive, but referred to the forces of the only European Emperor, who presided more or less shakily over a conglomeration of semi-independent states stretching from the Rhine to Poland, from the Danish border to the edge of the Turkish Empire.

The selected Emperor was largely dependent on the troops and cash he could beg from the Imperial Diet or borrow from the Princes. There was no standing army till the end of the 30 Years' War, and it was then a modest force of nine regiments of foot and ten of horse, supported by the hereditary Hapsburg lands of Austria and Hungary. Hence the fact that the Lansknechts and Reiters spent most of their time and gained their chief fame, in foreign service.

Chief external enemies for the Imperialists were the Turks and the French, but they were also occupied against internal Protestant opposition, both in the 16th Century and in the vast and horrifying conflict of the 30 Years' War (1618-48) which I have taken as the close of our period.

The mass of a 16th Century Imperial Army would be of Lansknechts with pikes and firearms, but under Charles V (1519-58) Spanish troops would also be available, and they were in fact lent as late as the 30 Years' War, while Imperialist infantry normally followed Spanish tactics, with very large pike-squares surrounded with shot.

The Universal Soldier — the Lansknecht

The German Lansknecht of the 16th Century, of all the troops in history, must have the best claim to this title — for one hundred years they were the mercenaries *par excellence,* serving in every European army and fighting in almost every campaign, from England to Russia and from the Baltic to Tunisia.

The derivation of their name has been debated; the second half has the same derivation as the English 'knight', originally meaning 'fellow', or soldier; by analogy with the Swedish 'Landsknektarna' the whole would mean national or territorial soldiers. This was what the Emperor Maximilian intended the Lansknechts to be when he created them, in 1486, as part of a new standing army for the Holy Roman Empire, the 'Kaiserkyrisser' (the other parts being gendarmes d'ordonnance and artillery).

The Lansknechts remained soldiers of the Empire, but they soon became mercenaries too, since the nobles of Germany were not only allowed to serve foreign rulers, but also to raise troops to take with them. In any case the Empire could not maintain a true standing army so that professional soldiers were bound to take service elsewhere.

Lansknechts were not supposed to fight against the Empire, but many did: at Pavia (1525) the French had 8,000, known as the 'Black Band' (probably from the colour of their armour). Their leader, Georg Langenmantel, issued a challenge to single combat (a common pre-battle practice among Lansknechts), but Georg of Frundsberg and Marr Sittich, leading the Emperor's Lansknechts, shouted that they would not fight a 'Traitor to the Fatherland' and he was shot down. This seems to show a degree of patriotism, but the Germans were a very divided people, many princes opposed the Emperor, and later Lansknechts, though at first they had a bad reputation for mercenary tricks such as lightning strikes for double pay just before a critical battle, and always remained great looters, developed strong loyalties to their employers, especially the French (in the 1550s the French armies were more than half Lansknechts). As early as the Battle of Ravenna in 1512, the great Lansknecht leader Jacob Empser concealed the Emperor's letter recalling the Lansknechts to Germany, so that he could lead them into a last battle for France — and, as it turned out, go to his own death.

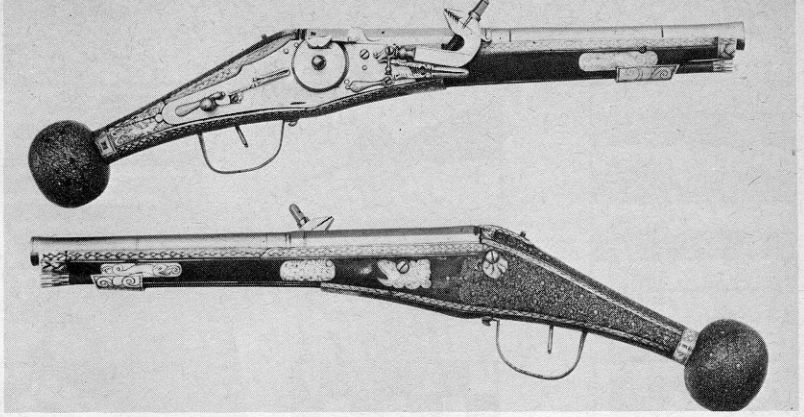
The raising of a Lansknecht regiment was the responsibility of its Colonel, who sent out Captains to raise their companies by beat of drum through the towns and villages of

Lansknecht arquebusiers of the early 16th Century.



Early 16th Century Lansknecht halberdier.





A pair of German wheel lock pistols of the later 16th Century. These are a rather expensive version of the type used by Reiters. Note ball butt, highly suitable for bashing the enemy with! (Tower of London).

North Germany. In this densely populated area there was no lack of recruits — 'If the Devil himself offered pay, they would swarm together like the flies in summer; it is enough to make you wonder till you died, where they all spent the winter', wrote one chronicler. Colonels could thus be quite selective. All recruits had to provide their own weapons, clothing and armour, and students and sons of rich families often volunteered. When they assembled as a Regiment, the recruits were drawn up in two lines facing each other and recruits had to prove their fitness by jumping a 'gate' of three pikes or halberds, before the clerk registered their names in the roll.

All swore loyalty to the Emperor and obedience to his Articles of War (these, among other things, forbade demands for extra pay before an assault, and departure on looting expeditions without the Colonel's permission).

Lansknecht companies were supposed to be 400 strong: Captain and Lieutenant were appointed by the Colonel, but lower officers or NCOs were elected by the men. In Charles V's time the company was supposed to include 100 'doppelsoeldner' — experienced and well-armed soldiers who got extra pay and took the post of danger in battle. 50 of them were to be arquebusiers. A Company of them was divided into 'Rotten' or files, of ten ordinary men or six doppelsoeldner.

Originally only 25 men in a company had arquebusses or crossbows, the rest having mainly pikes with some halberds and double-handed swords (favoured by officers and NCOs). In the 1520s one-eighth were shot, later probably more, including a gradually-increasing proportion of musketeers, but with recruits bringing their own arms there cannot have been much standardisation.

A Regiment had from ten to 18 companies, or in larger engagements regiments were formed in groups of four, each group forming a solid block, often as deep as it was wide. Officers and better-armoured pikemen formed the front ranks; halberdiers and swordsmen were the middle ranks, ready to issue out and attack the enemy flanks if the formation was halted; at the rear were more pikes, the last rank being doppelsoeldner whose job was to discourage those in front from retreating! Arquebusiers skirmished on the flanks, in rear, and sometimes in front.

Before battle the Lansknechts would pray or sing a hymn, then throw dust over one shoulder for luck. A brief speech from the Commander, '... We want, as God wills, to do our duty today and get rich . . .', then the close-packed square moved forward to sound of fife and drum, the latter a sort of 'pas de charge' of five beats, giving rise to the Lansknecht's rhythmic chant: 'Hut — Dich — Baur Ich Komm!' (Look — Out — Here I Come!').

They used shorter pikes than their bitter enemies the Swiss, and held them nearer the butt-end, sloping up instead of down. In defence they would form an 'Igel' (Hedgehog); either a circle or a square, surrounded by pikes, the front rank kneeling, with the light troops in the centre. There was often also a 'Blood Flag' or 'Suicide Squad' with its own captains and standards, whose men were usually chosen by dice (should appeal to wargamers!). They led the attack and were intended to hack the first hole in the enemy line with their 'two-handers'.

The most savage battles of the Lansknechts were against the Swiss — usually they lost but at Bicocca, under the great Georg Frunsberg, helped to defeat the Swiss charge. Authorities of the period classed them as inferior to the Swiss, equal to the Spanish, and superior to all other close-fighting infantry.

In the 'Evil War', as, for example, against the Swiss, the Lansknechts took no prisoners, but in the 'Good War' which became commoner in the later 16th Century they not only spared prisoners, but when two forces faced each other and one was hopelessly outnumbered, the smaller would automatically surrender, thus saving unnecessary bloodshed!

Lansknecht dress

This appears to have been of startling colour and originality from the first. When other troops complained to Maximilian about the Lansknecht's 'costly dressing-up', 'Give them a little happiness and pride in their lives, which are so full of danger', he replied, and an Order of the Imperial Diet guaranteed the Lansknechts freedom in this matter! This, plus the fact that there was no official

Lansknecht two-handed swordsman with mail cape and 'pluderhosen'. Mid-16th Century print.

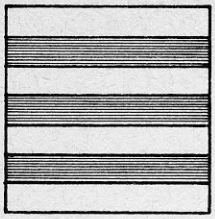


Lansknecht arquebusier.

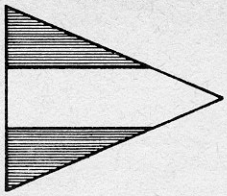


Officer in 'pluderhosen'.

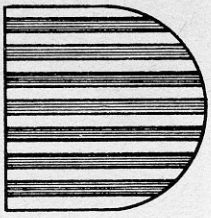




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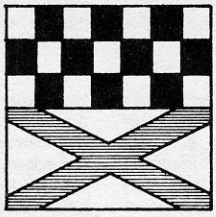
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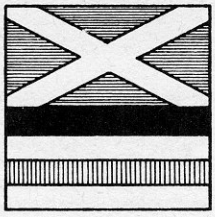
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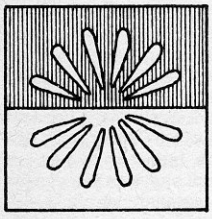
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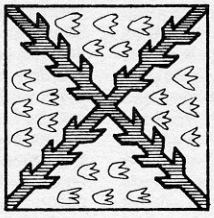
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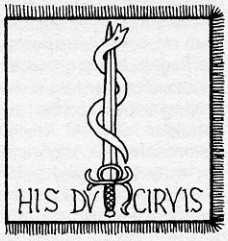
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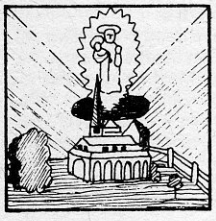
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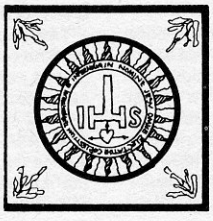
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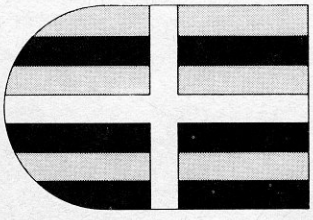
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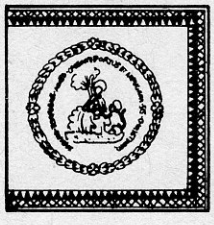
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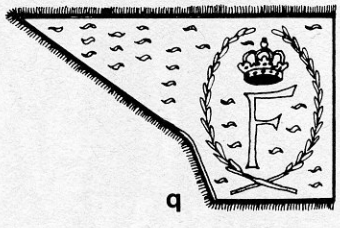
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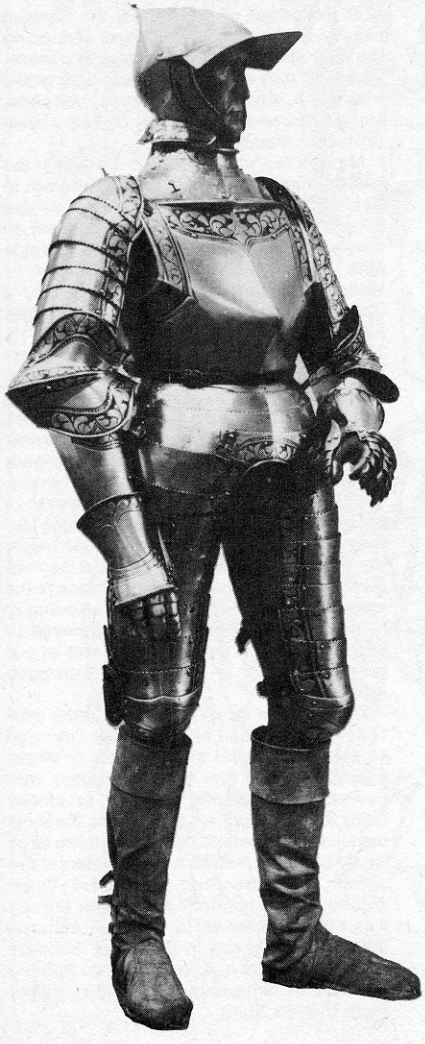
Right *Early 16th Century Lansknechts showing colours.*

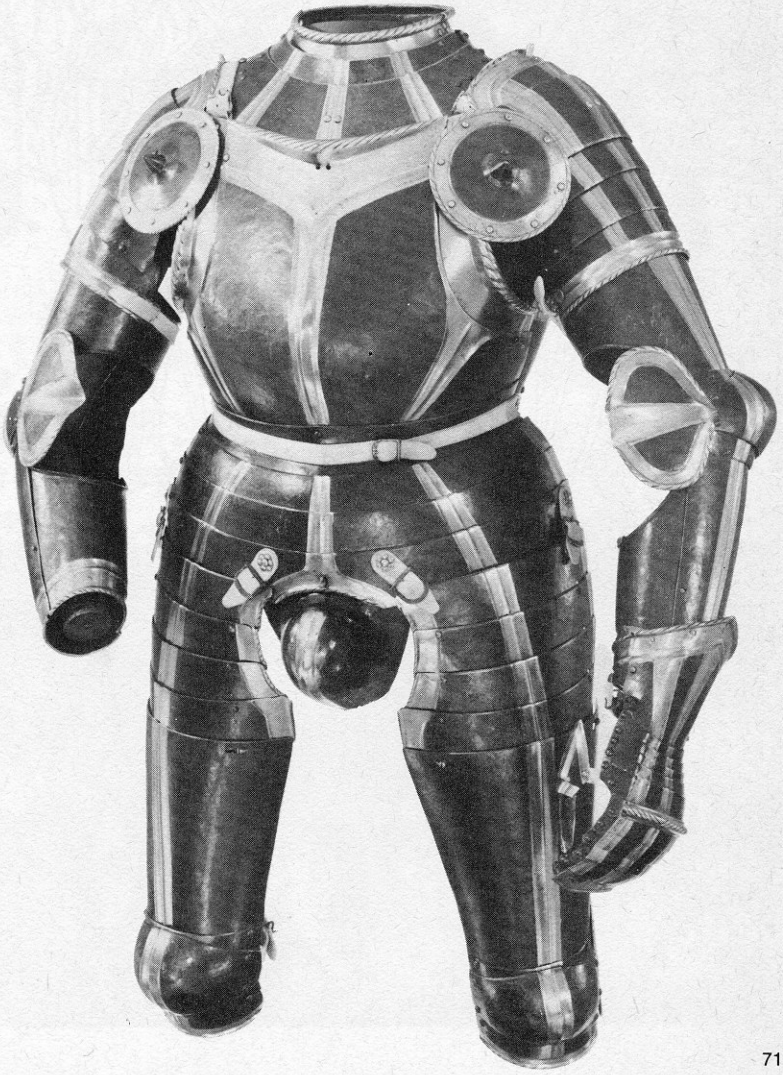
a-c *Three flags in the red and white Hapsburg colours. 'a' and 'c' are infantry flags of Charles V's time, 'b' is from an artillery wagon of Maximilian I's.* **d** *At Pavia, 1525. Another version shows three black (?) stripes on lower part of flag.* **e** *Also at Pavia. Black and white checks, red cross of Burgundy on white ground.* **f** *Pavia. Yellow cross on red. Stripes from top to bottom black, yellow, blue (?) and white (?).* **g** *Infantry flag of Charles V's time. Top yellow on blue, bottom white on yellow.* **h** *Imperial flag captured at Lutzen, 1632. Red cross raguly of Burgundy, other colours unknown. The cross of Burgundy was probably the most common symbol on Imperialist flags.* **i** *Standard of Imperial Cuirassier Regiment, 1631. (Fringes were usual on 17th Century cavalry standards.)* **j** *Standard of Tilly's Guard Regiment at Breitenfeld, 1631.* **k** *Standard from Tilly's army. The motto around the centre reads 'In Nomine Jesu omne Electatur Coelestium Terrestrium et Infernorum'.* **l** *Imperial infantry flag, early 30 Years' War. The background under the design would be the usual elaborate pattern brocade — presumably in only one colour.* **m** *'Fortuna' as she appears on flags of this period, normally sailing over the sea with the aid of this banner-like sail!* **n** *Flag, probably of the Black Band, at Pavia. White cross, red or blue (?) and black.* **o** *Imperial eagle flag, black on yellow, 1525. Eagle is usually crowned, but not in this example.* **p** *Colour of the Colonel's Company of Werner von Tilly's Regiment, 1633. Blue. Christ child, Mary, child of St John, lamb, meadow and trees in natural colours, Mary wearing red and gold. Halos and motto gold. Motto on reverse reads: 'DOMINA . SANCTA . MARIA . SALUM . FAC . IMPERATOREM . NOSTRUM . ET . AUDI . NOS . IN . DIE . QUA . INVOCAVERIMUS . TE. Blue edge, then outer border of blue lozenges on white (showing Bavarian origin), inner border of black and yellow triangles (for the Palatinate). Size 259 × 283 cm. Typical of Catholic 17th Century practice of having the Virgin Mary on the Colonel's colours, and also of the Austro-German tendency towards elaborate geometrical borders.* **q** *Croat cavalry standard. Petrositz Regiment, 1634. Note characteristic shape and Imperial monogram.*

Lansknecht armour, probably an officer's, circa 1550 (Tower of London).

Far right *German ¾ armour 'black and white', circa 1550. Reiter-type — gives an idea of the appearance of later Reiters, who would have worn similar armour with morion, burgonet or other open helmet* (Tower of London).


Orange
Yellow
Red
White
Green
Black
Brown
Blue





issue of clothing, ensured that there was no uniformity whatever.

Contemporary prints such as those of Durer give a good idea of the variety of possible types. One small concession to uniformity was that Lansknechts serving the Empire had to wear a red sash over armour, or a red cross (X) on the front and back of doublets.

Their costume was simplest at the start of the period, with tight sleeves, hose and breeches, and relatively little of the slashing of the outer garments, revealing contrasting colours beneath, so characteristic of the Lansknechts; stripes and parti-coloured garmets were already used.

The Rose figures illustrated give an idea of the dress around the 1520s or '30s, when it also became the fashion to have each leg differently clad — one often bare — while the prints show the baggy 'pluderhosen' characteristic of Lansknechts of the later 16th Century. Headgear was usually heavily plumed and sometimes tied on with a ribbon in the manner associated with Edwardian ladies! Helmets were usually sallets or pot-type in the early part of the period, open faced burgonets with peak and neck cover towards its end.

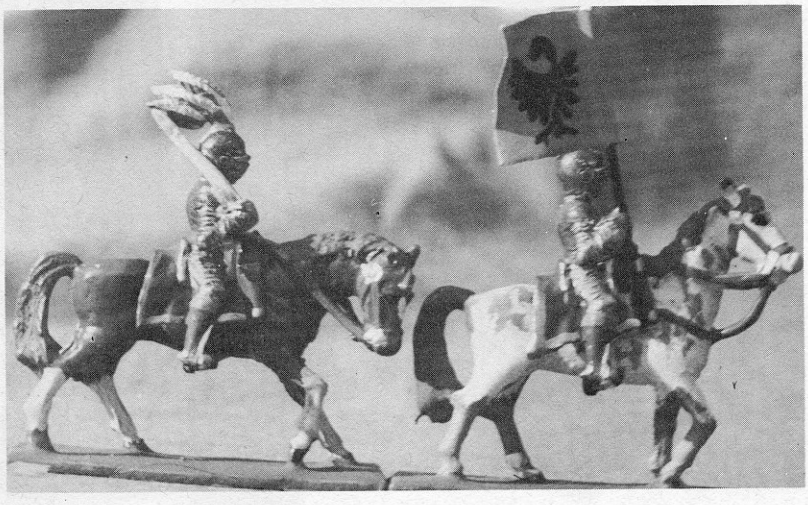
Armour seems to have been fairly rare at first (Lambert Simnel had some unarmoured Lansknecht pikemen who got badly shot up by the longbow at Stoke in 1487), but more widespread later. Mail capes and shirts were favoured but wealthier individuals could wear plate corselets, with or without laminated 'skirt' or fauld.

The appearance of the Lansknechts was followed by many other soldiers throughout Europe in the mid-16th Century, so that Lansknecht figures need not necessarily represent Germans, but the most extreme and grotesque styles were usually found among the latter.

Armoured Lansknecht officer (after Holbein) and Lansknechts of the first half of the 16th Century.



Imperial Cuirassiers — 25 mm scale Miniature Figurines' ECW figures.



Reiters

'Reiter' means simply 'rider', or cavalryman, but in the 16th Century, when German mercenary cavalry were used in great numbers, came especially to signify a mercenary mounted pistolier.

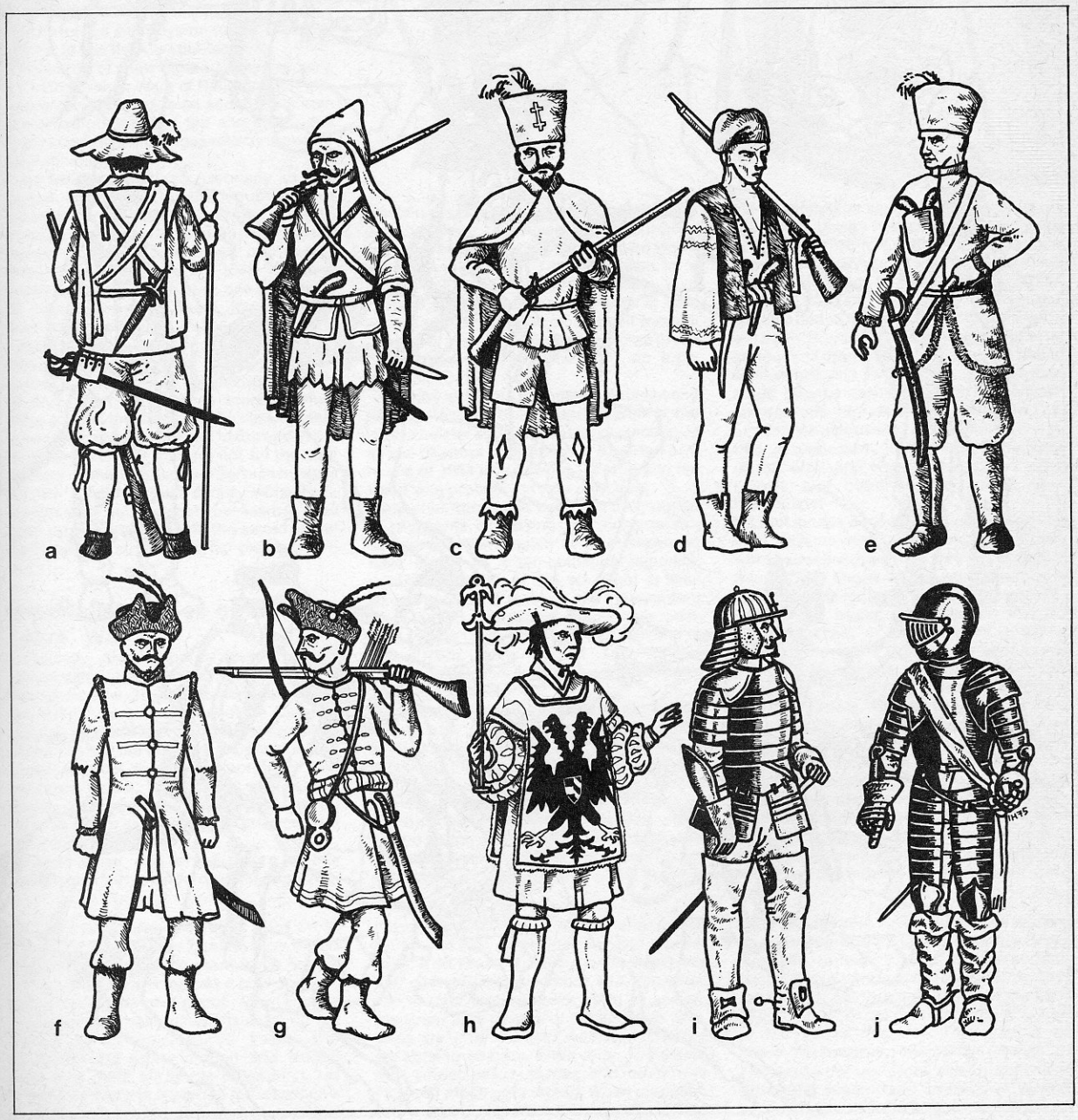
At the outset of our period, the German cavalry, like that of other nations, centred on the man-at-arms with full armour and lance. However, they seem to have been generally inferior to, say, their French counterparts, lacking horse-armour and not being well-protected themselves.

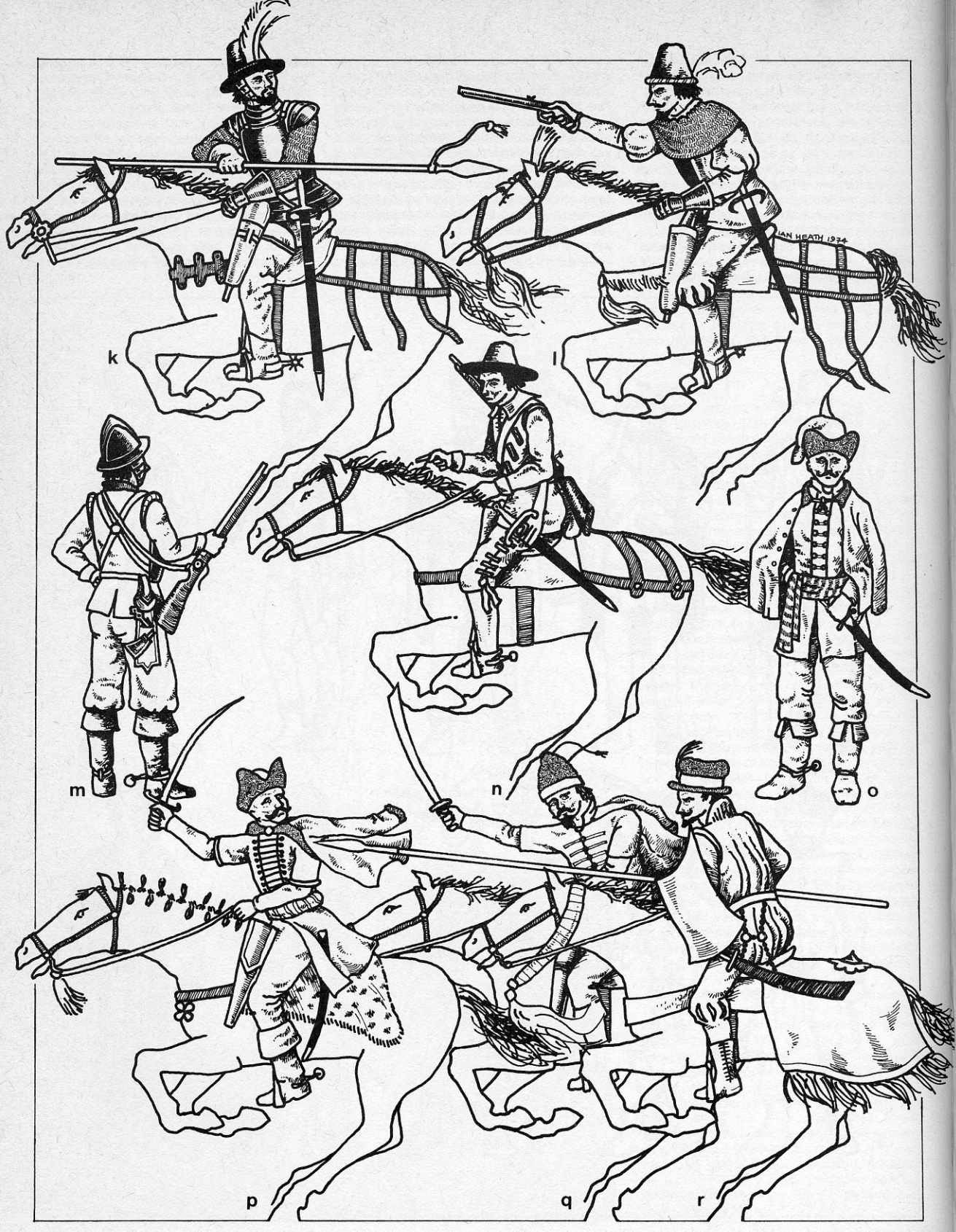
Maximilian's projected Compagnies d'Ordonnance were probably an attempt to deal with this, but apparently did not survive long. German men-at-arms also seem to have used deep formations, unlike the single rank used elsewhere. This deep column or wedge formation was recommended by a German writer of the 1480s (number of files in each rank, from the front): 7, 9, 11, 13, 15, 17, 19 (with banner), 21; then 20 ranks of 45.

The first German cavalry met in large-scale mercenary service appear around the 1540s, and may represent the lighter 'archer' types who would have supported the men-at-arms. These 'reiters', as hired by Henry VIII, were armoured cavalry on unarmoured horses, with as their main weapon a boar-spear (a broad-bladed spear around eight or nine feet long, usually witn a small cross-bar below the blade). The wheel-lock pistol, a German invention, was soon carried in addition to the spear, and by mid-century was displacing it, to produce the typical 'Reiter' who played an important role in warfare to the end of our period, serving in almost all European armies.

Their armour could vary from (in the mid-16th Century) mail shirt or cape, through corselet, often with mail sleeves, to three-quarter armour like that illustrated, with helmets from simple 'iron-hat' to closed types (open burgonets or morions the most usual). A Reiter would carry up to three large 'faustrohe' type pistols, two in holsters at the saddle bow, the third sometimes thrust perilously into his right boot. Their armour was often blackened (a common anti-rust measure) giving rise to the name 'Schwarz Reiter'. The French, either from their fighting qualities or behaviour off the field, called them Diables Noirs.

a *Imperial musketeer, 30 Years' War. Conical floppy felt hat seems to be typical and is seen on some cavalry and pikemen too. Musketeers, as well as pikemen and officers, are sometimes seen wearing a sash, as here. It is worn over the right shoulder, possibly so as to avoid obstructing the bandolier, worn over the left. Note hanging sleeves of the outer jacket, which seem to be common. The rag around the hat, and the sash, are likely to have been red. Dagger is attached to belt rear, not bandolier. Bandolier also carries a bullet bag and powder flask. The very voluminous breeches are also typical.* **b-e** *Grenz troops of the 17th Century. From left to right, their areas are indicated by their costumes — Karstadt, Warasdin, Zengg and Slavonia. The Slavonian is a cavalryman, the others could be infantry. The coats slung from the shoulder gave rise to the later Hussar pelisse.* **f-g** *Hungarian cavalrymen, from a 1636 print. Shaven heads and chins with big moustaches and eagle feathers in the caps seem to be typical. The chap on the right is obviously not fully won over to firearms yet! The fur-brimmed caps, like many Poles wore, and striped sash are also typical, as are the very tight trousers which bulge out slightly over their boots.* **h** *German Imperial Herald (after Holbein). Heralds like this were still used in the early 16th Century. Note double-headed black eagle, also seen on flags.* **i** *30 Years' War cuirassier in rather Eastern-style armour, similar to a Polish hussar.* **j** *Imperial cuirassier, 30 Years' War. Wears a helmet with barred visor, three-quarter armour, red sash and floppy leather boots. This is a fairly typical style of cuirassier armour, which could also be worn by Dutch, English or French cuirassiers of the period. Note peak at top of visor, shaped kneepieces and unusual elbow pieces.*




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o
p
q
r



Rose Models 54 mm scale Lansknecht figures (photo courtesy Rose Models).

Reiters were organised in rather large squadrons of usually 300 to 350 men, and in battle formed in close order blocks of ten to 20 ranks each. As with infantry 'shot', this deep order was primarily to give the rear men time to reload; each rank would ride up to close range of the enemy, fire, and file off to flank and rear to reload, until sufficient damage had been done to allow a ponderous charge to contact at the trot, using thrusting sword and clubbed pistols. They were rather vulnerable to lancers who charged home, partly because a rider with a large and not very gas-tight pistol could not fire straight ahead without injuring, or at least seriously annoying his horse, so that the rank engaged usually turned sideways-on to fire, thus getting hit in the flank by the lancers.

Accounts of their fighting prowess vary, but in the French Wars of Religion their efficiency was reported to be such that 'a man could see nothing but fire and steel', and heavy losses in some engagements argue for determination.

As well as pistoliers, Germany in this period produced smaller numbers of mounted arquebusiers, and the Turkish frontier was a useful source of irregular troops. The non-Turkish part of Hungary produced militia, and from 1548 'Hussars' (meaning the twentieth man, one from every 20 having to serve) were found in the Austrian forces, while in the 1530s Austria began to settle Serb and Croat refugees along her Turkish border in return for their service as 'Grenzers', or frontier troops. Infantry and cavalry from these sources would serve against the Turks but the cavalry seem to have first made an impact in Europe in the 30 Years' War, the infantry not till the 18th Century. In the 16th Century Serbian hussars carried a light Turkish lance, while Hungarians were horse archers but seem to have been primarily armed with the sword, especially the long straight armour-piercing variety.

Imperialist armies of the 30 Years' War

Typically, the Emperor found himself almost without an army at the outset, and had to borrow 25,000 mercenaries under Count Tilly from Bavaria and the Catholic League. To these and their successors were added in 1625 the first 'private army' raised under contract by the extraordinary and enigmatic Czech, Wallenstein, who earned wealth, a dukedom and finally assassination from his career as private-enterprise general and military entrepreneur.

Troop types and organisation at this period were fairly standardised, though Wallenstein's armies were better dressed and possibly more uniformed (being supplied with clothing from Wallenstein's own workshops) than those of Tilly (a believer in 'a ragged soldier and a bright musket').

Some of Wallenstein's regiments at least were identified by coat colour, but it was still necessary to wear a red sash or a scrap of red cloth since there was certainly no army uniform.

Infantry would be pikemen in corselet and perhaps tassets, or musketeers with at the most a helmet and buff coat for protection, in a ratio of about 2:3 (though a Bavarian ordnance of 1634 lays down a 1:2 ratio and the trend was probably in that direction).

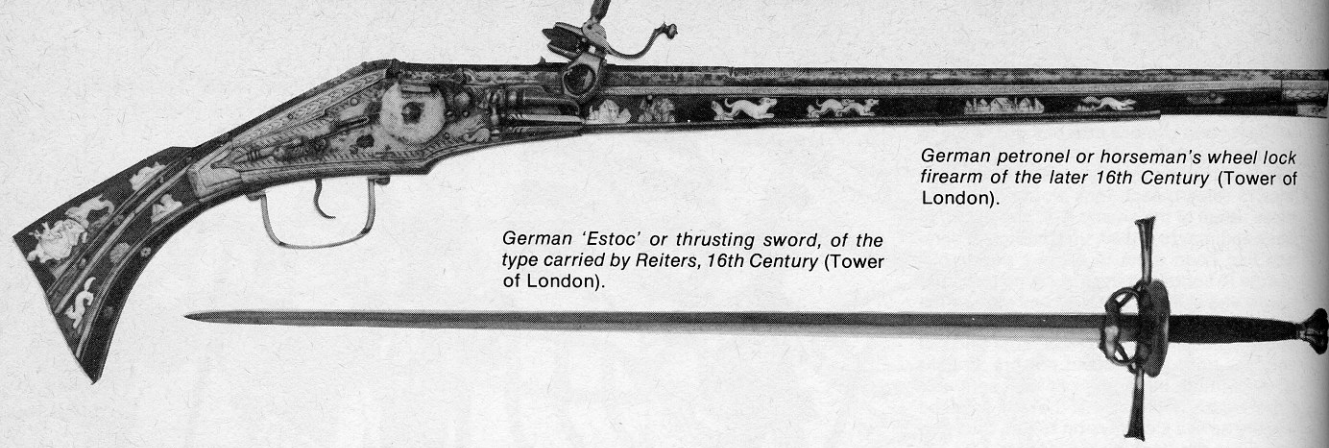
Imperial forces had begun to be grouped in regiments of varying size considerably earlier, and Wallenstein at least seems to have aimed at a ten-company regiment, though regiments of five, six, eight or even 20 companies still existed, and independent or detached companies were not uncommon. As company size had been reduced to 300 (from the 400 of the earlier Lansknechts), this would give a theoretical 3,000 like a Tercio.

In practice, desertion (often 50 per cent in winter) and 'dead-pays' (non-existent men whose salaries enriched their officers — universal at this period) would very greatly reduce this. At Lutzen (1632), Wallenstein's regiments were mostly 500 to 800 strong — perhaps connected with his apparent move toward Dutch or Swedish type tactics, with 'battallions' about 1,000 strong drawn up ten ranks deep on the battlefield, rather than the big Spanish type squares used previously.

German cavalry had abandoned the lance in the later 16th Century, and the only heavies now carrying it were bodyguards — Wallenstein had a splendidly accoutred guard of 200, and the Croats' commander, Isolani, had a lancer guard. Most cavalry were still 'Cuirassiers' wearing three-quarter armour and often a closed helmet, but armed with sword and two pistols. An arquebus could also be carried, though Wallenstein ordered his cuirassiers to give this up. Lighter 'Arquebusiers' or 'Carabiniers' carried arquebusses, and in the latter case pistols also, and would usually have open helmet, and often corselet, or at least breastplate.

Light lances were still carried by irregular light cavalry, with which Imperial armies were better provided than their opponents in this period. Those whose chief weapon it was were referred to as 'Poles' or 'Cossacks', while those whose main weapon was the 'panzerstecher', or long straight thrusting sword, were called Hungarians or Hussars. The most numerous and important of the irregulars, at least in Wallenstein's armies, were the Croats. Though their tactics were influenced by their usual enemies, the Turks, these Balkan frontiersmen were essentially firearm cavalry, with a short arquebus and often two pistols as well. They had sabres (slung from the saddle to facilitate dismounted action), and a quarter to a fifth of each company also had light lances, which could serve as pikes when dismounted. They could be un-armoured but some would have

k-l *Mid-16th Century Reiters. Note horse trappings, square-toed boots typical of this period, and hats which seem to be normal with early Reiters. 'k' carries a boar spear, 'l' has a mail cape and pistol. Note knotted horse tail and metal gauntlets worn on left (reins) hands only.* **m** *30 Years' War carabinier. He wears morion and breastplate only (held on by the crossbelts). His wheel lock carbine is carried (as usual) on a shoulder belt. His baggy breeches resemble those worn by infantry. Note leather holder with bullet bag, wheel lock key and powder flask.* **n** *30 Years' War dragoon in sleeveless buff coat and infantry shoes and stockings. The musket was normally slung as shown.* **o-p** *Croat light cavalry of the 30 Years' War. Caps are trimmed with wolf skin. Clothes are varying colours, often reds. The elaborate striped waist sashes and other trim included much gold thread. When mounted, sabre was slung from horse, not rider. A large saddle cloth could replace the leopard or other pelt. Hungarians often wore fleece over the saddle. Bridles etc were richly decorated, and red cloaks are sometimes mentioned.* **q-r** *Serbian hussars of the early 16th Century (of the type who later gave rise to the Polish hussars). These could be found in Austrian, Hungarian, Polish or Lithuanian forces. Note shield, convex in horizontal section and concave in vertical section. Hats seem to be fur.*



German petronel or horseman's wheel lock firearm of the later 16th Century (Tower of London).

German 'Estoc' or thrusting sword, of the type carried by Reiters, 16th Century (Tower of London).

breastplate or corselet, and helmets with peak and cheek-flaps could be worn. They evidently made an impression on their opponents, as 'krabater' still means 'a funny chap' in Swedish.

Finally, Imperial armies usually included a small body of dragoons, mounted infantry who did not fight on horseback. They carried axe and sword, and at the beginning of the 30 Years' War included armoured pikemen and officers with halberd, though later all were buff-coated musketeers. Cavalry were organised into 'Cornets', usually 100 each for the heavies, 60 for the arquebusiers, etc, though Wallenstein's were all supposed to be 100. Regiments had five to 12 cornets, but could in practice be as small as 100 men, though typical strengths would be 250 to 500. Battlefield 'squadrons' would also be around this size.

Among the most famous were Pappenheim's Black Cuirassiers. Deep formations were still used; Tilly formed his cuirassiers ten ranks deep, and lighter cavalry six, while Wallenstein, again more 'progressive', favoured eight and six ranks respectively (at Lutzen all his cavalry seem to have been six deep).

Artillery

Even in the 16th Century Imperial armies were well provided with artillery, the Emperor Maximilian I collecting no less than 105 pieces of varying size, and, as well as substantial arsenals, the Emperors appear to have maintained a permanent body of artillery technicians, organised on trade-guild lines. In the 17th Century, Wallenstein's army was particularly well-equipped, the Duke of Freidland 'borrowing' guns from the Dukes and Princes in whose territories he found himself. In 1632 his train had at least 44 cannon, 280 artillerists, 151 'Haiduken' (Hungarian irregulars possibly acting as guard, or as pioneers) and about 1,800 horses, hired, with their drivers, from civilian sources. Again, he seems to have moved toward the Swedish pattern, endeavouring to provide each infantry unit with two 'short-barreled' light guns (in his case six pounders).

Lansknecht in mail shirt.



Lansknecht with half pluderhosen.



Flags and uniforms

As stated, some Imperial units of the 30 Years' War had coats of a regimental colour. This might correspond with flag colours — in Wallenstein's army, Berchtold von Waldstein's Regiment had green flags, Max von Waldstein's yellow. Wallenstein's pages wore scarlet and light blue livery, so these colours might also appear on his lancer-bodyguard, and on his foot-lifeguard of 600, who had gold-laced clothing, silver-laced bandoliers, and silvered pike-points.

The Croats were very fond of gold lace, jewellery, and bright colours, especially red, and like most Balkan irregulars wore striped waistsashes. They avoided green and blue for fear of confusion with the Turks, and wore black boots for the same reason. They carried large triangular flags with devices including Fortuna and the Imperial Eagle.

The Lansknechts, and some 17th Century Imperialists too, were given to standards with geometrical patterns — checks, diamonds, etc, — in bright colours. The Imperial Eagle could appear on both white and yellow backgrounds, and on a white standard of 1620 was seen crowned, depriving Frederick of Bohemia of his crown. On some cavalry flags of 1631 it grasped the Pontifical Crown in its right talons, a sceptre in its left, with the motto 'Pro Ecclesia et Pro Imperio' (a heavy cavalry flag like this would be square, a light cavalry one usually with two rounded points).

Other common devices on Imperial flags of this period were the monograms of the Emperors Ferdinand II and III, and the Virgin Mary. It would appear that the custom of having a white Colonel's flag in Austrian regiments dated from the 30 Years' War.

When serving the Empire, the Lansknechts could carry the double Eagle illustrated, black on yellow, and brightly-coloured flags with geometrical patterns were also popular.

The standards were some six feet square, on short staffs, and their bearers were sworn to defend them to the death — the anti-German historian Paul Jovius told of a Lansknecht found with his right hand severed and his left broken, holding the flag in his teeth.

If serving foreign powers, the Lansknechts would bear *their* flags, and the example shown probably belongs to the French 'Black Band' — cross is white, background black and red or blue, I believe.

16

The Ottoman Empire

The Turkish Empire of the 16th Century covered most of the Middle East and much of Southern Europe.

The tide of Turkish conquest was still on the flood when our period begins, reached its highest mark with the reign of Suleiman the Magnificent (1520-66) but, as his armies were halted at Vienna in 1529 and Malta in 1564, the long slow ebb began, not so much because of any decline in the Turkish forces, but rather because the expansion of the Empire meant a 600 mile march for regular forces going on campaign, and because its boundaries had reached the further edge of the plains suitable for the operations of what was essentially a cavalry army.

However, by the late 17th Century the Turks could still menace Europe, as the seige of Vienna in 1689 showed.

The Turks were unique in the 16th Century in maintaining large regular forces, paid, disciplined, living in barracks and enjoying such 'modern' benefits as pensions and paid leave, and with the added stiffening of religious enthusiasm. Surprisingly, these regulars were not only slaves in official status, but also non-Turkish, being recruited by the 'Devschirme' — a tribute of male children levied from the Christian subjects of the Empire by the Sultan's officials. Brought up in the Imperial Household as 'ajenioghlanlar' (recruits) or (the best) as red-uniformed ichoghlan (palace pages) the children became fanatical Moslems, cut off both from the Turkish population (they were forbidden to marry) and by religion, from their parent's people, with loyalties only to their corps (they manned not only the regular army but palace and government also) and to the Sultan. It certainly worked, for European contemporaries all agree on the great superiority of the Turkish regulars — as one remarked 'On their side are the resources of a mighty Empire, strength unimpaired, experience and practice in fighting, a veteran soldiery, habituation to victory, endurance of toil, unity, order, discipline, frugality and watchfulness' — not qualities common in European forces of the period.

The Turks also held a technological lead over Europe at the outset of the period in the very large scale use of firearms and the possession of large State arsenals and even a highly-mechanised gunpowder factory!

Alongside this the Sultans had the resources of a huge and teeming Empire, and the combination of the élite regulars with semi-feudal levies and vast swarms of unpaid pillagers gave the Ottoman armies their peculiar and unique character.

They were engaged, usually successfully, with an enormous variety of enemies, including the Knights of St John, Moors, Druses, Mamelukes, Persians, Abyssinians and Portuguese, Poles, Cossacks, Muscovites, Wallachians, Hungarians, Spanish and Imperialists.

Spahis

Spahi simply means a soldier, but in this case a heavy cavalryman. The Sultans had basically two types of Spahi — the paid regulars of the Household Cavalry ('Spahis of the Porte') and a larger but less well-trained body of feudal cavalry.

The Household Cavalry formed six regiments, divided into squadrons of 20 men each. The four oldest were known as 'Boluks' and consisted of two regiments of Olufeci (or paid men) and two of Gureba (strangers). The latter were the only regulars not recruited by the 'devschirme', but as their name indicates they were non-Turkish, being recruited from Moslems from outside the Empire. In the early 16th Century these four regiments were all 500 strong.

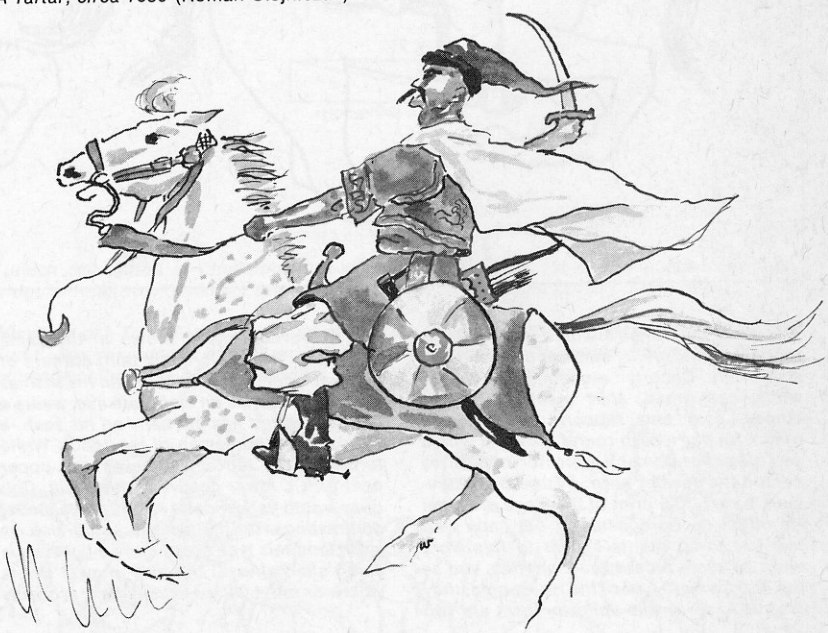
The new, larger and more honoured regiments were the Spahis, who formed on the Sultan's right in line of battle (3,500 strong in the early 16th Century) and the Silhidars ('swordbearers') who formed on his left (2,500).

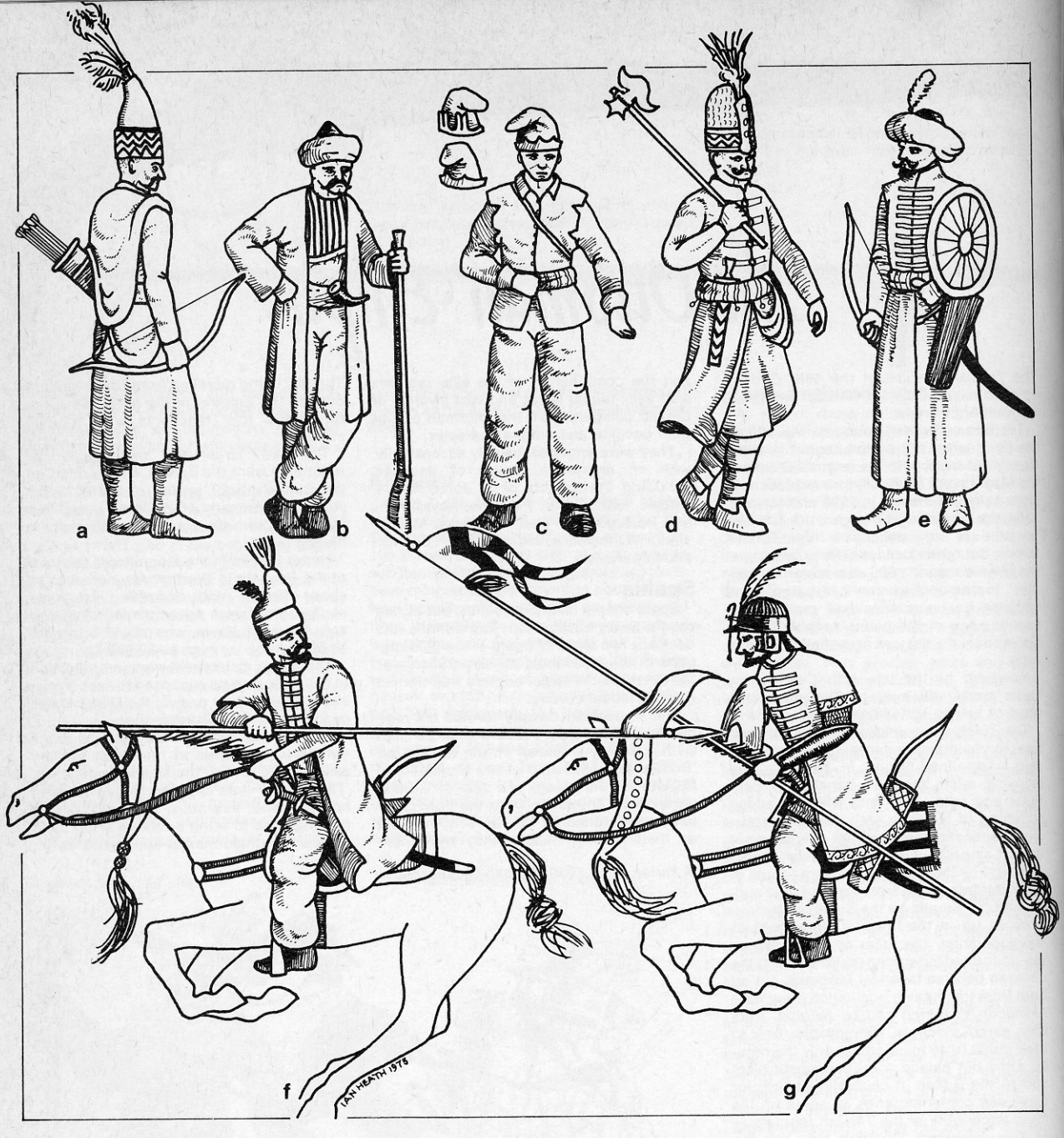
Under Suleiman the Magnificent the total of the Household Cavalry was increased to about 12,000, and according to some sources they were accompanied by armed and mounted slaves who could bring the whole number as high as 30,000.

The slaves maintained were in proportion to pay; a Spahi was supposed to keep five or six, a Silhidar four or five, the Olufecis two or three each, the Gureba none.

The 'feudal' Spahis held estates on a non-hereditary basis in return for military service. Those with the smallest estates — 'Timariots' — had to report for service with horse, armour and arms, those with bigger holdings had to bring a retinue of up to 18 'Jebeli' (mounted men-at-arms) with them.

A Tartar, circa 1630 (Roman Olejniczak).





a *Solak of the Sultan's Guard, 1580s. Dress probably white, gold helmet and sash.* **b** *Turkish 15th Century arquebusier. Turban white, cap green, shirt green and white stripes, coat and slippers red, trousers green. He has a sash round his waist with a sort of leather stomach protector in it, visible behind the powder horn.* **c** *Turkish artilleryman, based on a print of the siege of Malta. He might be Europeanised, but caps with five turned-up points similar to this were worn by some palace functionaries, and as the Topdjis were part of the Household, they may have worn this uniform. Inset are two alternative cap styles shown in the same print.* **d** *A 'Peyk'. Normally both corners of his coat would be tucked up into his sash as shown. He carries an elaborate axe, wears a gilt helmet and has gilt balls on his sash.* **e** *Turkish light horseman of the 1630s. White turban round red cap. Sleeves and upper coat green, lower coat red, shield gilt. Colours would vary widely. A sort of waistcoat contrasting with the sleeves could also be worn, and this type could carry a light lance as an alternative to the bow shown. Boots yellow or red.* **f** *Guard cavalryman, probably a member of the Muteferrika or Mulazims. Plumes white and black. Cap top white, bottom gold. Outer coat scarlet or purple. Inner coat purple, light blue or black with gold frogging. Sash red with gold decoration. Trousers purple or light blue. Shoes black. Scabbard black or gold. Stirrups gold, saddle cloth black or purple and gold, harness red with gilt fittings.* **g** *Spahi, wearing lobster-type helmet and with coat over mail. Shield would normally be carried on the left arm but is shown reversed here to illustrate other items of equipment.*

Weapons for all these cavalry comprised a light lance, usually painted green, with a pennon, a composite bow carried in a case on the left and a quiver of brightly painted arrows on the right — both cases were highly decorated. When the bow was in use, the lance was held between the rider's thigh and the saddle, point to the rear. A jewelled scimitar was also carried with often a two-foot javelin or 'gerit' and a short steel mace. A straight armour-piercing sword could also be used.

In contrast to the Turkish infantry, the cavalry considered firearms very dirty and dishonourable and virtually refused to carry them until the late 17th Century. A shield was strapped to the left arm. Like most Eastern cavalry shields this would be round and up to about 30 inches in diameter; in the early 16th Century it could be formed of cane rings bound with gold or coloured thread around a large steel boss, later it would probably be all-steel, often painted or engraved.

Armour was usually worn in battle, and the typical styles are illustrated. It was normally reinforced mail, and horses could also be protected, especially in the earlier part of the period, laminated, mail and leather armour all being used, with plate for the face. Cloth trappings might cover horse armour.

The dress of the Spahis was rich in the extreme. Contemporaries mention cloth of gold and silver, as well as scarlet, violet, dark blue and green, with gold embroidery, for the Spahis of the Porte; jackets or caftans worn over armour often had hussar-style lace on the front, a typical Turkish decoration; trousers were baggy, boots normally yellow. When turbans were worn they were always white, with a red or purple central cap and black feathers. Cloaks were often worn and were green and yellow for one 17th Century Household unit. Some accounts seem to imply the wearing of uniform colours by the Household units, but this would certainly not be the case with the feudal cavalry. Like the lighter Turkish cavalry the latter probably favoured green or blue caftans. Turks also wore white, yellow, violet and mouse-colour, but black was avoided and purple considered unlucky in battle. Horse trappings were extremely ornate, with silver fittings, jewellery, and very large, fringed saddle-cloths.

The Turkish 'heavy' cavalry would not usually stand against the heavier European Gendarmes and pistoliers, but would either rely on a screen of light cavalry to break up the European's order, or use their mobility and archery against such lumbering adversaries.

Light cavalry

Every Turkish force was surrounded by vast clouds of irregular light horsemen, giving them a great advantage in reconnaissance and intelligence. Nearly all would be irregular light horse-archers with composite bow and scimitar, though some might also carry spears.

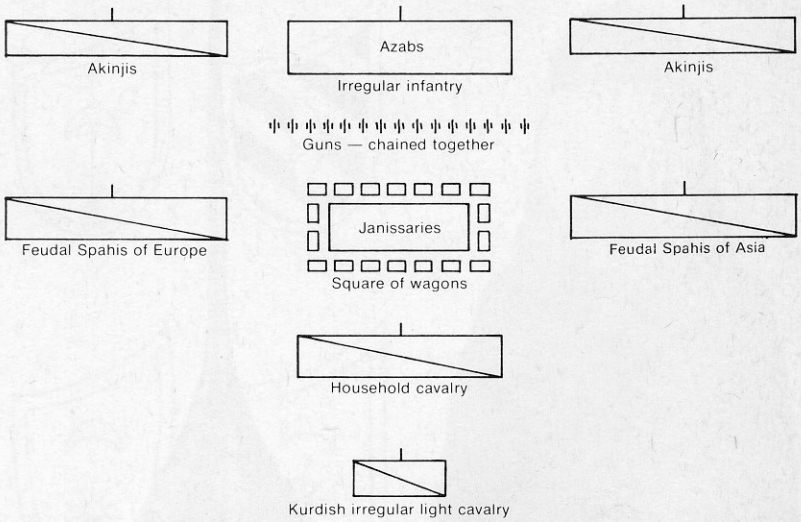
'Akinjis' (scouts) were usually Turks, in turban, caftan, and baggy trousers — 30 or 40,000 of them could be called on, fighting for plunder rather than for pay.



The Aga of the Janissaries (from Nicolay, Peregrinations Faites en Turqie, 1577).



Janissary officer (from Nicolay, Peregrinations Faites en Turqie, 1577).



Turkish disposition at Chaldiran. It is evident that they did not expect much from their irregular infantry, nor expect even the Janissaries to withstand cavalry in the open!

Members of a Turkish mounted band of the 16th Century, from a contemporary sketch. The Turks were very fond of bands, and were the first to take any into action. Other instruments, not shown, included oboes, triangles, 'jingling johnnies' and fifes.





A 'Delli' (from Nicolay, Peregrinations Faites en Turqie, 1577).

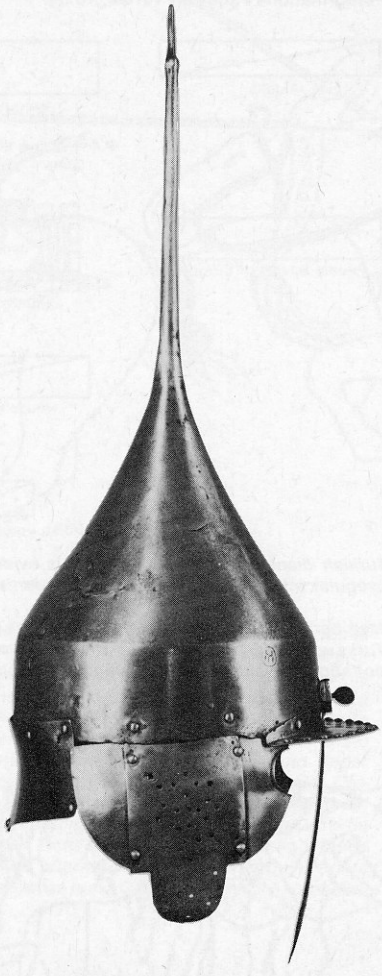


17th Century Turkish 'Chichale' type helmet of rawhide, covered with crimson velvet and with gilt mountings (Tower of London).

Turkish 16th Century armour (Tower of London).

15th-16th Century Persian helmet converted for Turkish use (Tower of London).





Next in importance were the Tartars, descendants of the Mongol hordes, fierce horse-archers on shaggy ponies. The eldest son of the Khan of the Crimean Tartars was always a hostage at the Sultan's court to ensure the alliance of these fellow-Moslems; and they too were paid from loot.

Other types included Kurds, Turkoman nomads; Wallachians and Moldavians under their native Voivodes or Hospodars; Arab mounted spearmen in their traditional dress, and Balkan horsemen of whom the most interesting were the 'Dellis' (mad-heads); volunteer Croat or Serb dare-devils, often Christians, who often formed the bodyguard of provincial governors and the like. (There was normally an obligation on the Pashas or Beys to maintain a group of mounted retainers in addition to the Imperial forces; a 'Defterdar' was supposed to keep 20-25 men, a Sanjek Bey 30-80, and a Beylarbey 150-200.)

Their headdress was a hanging cap of snow-leopard skin, decorated with eagle's wings, and their cloak another leopard skin; their shield, of the odd pattern also carried by Turkish infantry, had more eagle wings nailed to it; their saddle-cloth was a complete pelt (sometimes a lion's) and their jacket and wide breeches could be of lion or bear-skin, fur out. Their yellow boots carried foot-long spurs, and they bore mace and scimitar, as well as a very long straight armour-piercing sword slung horizontally beneath the right saddle-flap; their lance could have a small poleaxe blade below the point.

Another type of Balkan light cavalry found in Beys' and Pashas' followings were 'Beslis', who resembled, and probably included, Hungarian hussars.

Standards

The household regiments seem to have had flags: the Spahis red flags, the Silhidars yellow, the two Olufeci regiments red-and-white and red-and-yellow, and the two Guerba regiments green and white respectively. They were commanded by Agas.

The feudal Spahis were commanded by local governors drawn from the Household. The Sanjak-Begs had a flag surmounted by a gilt ball, while their seniors, the Beglar-Begs, like all high Turkish officers, had horsetail standards (one tail or 'tug' for a Beglar-Beg, four for the Grand Vizier or army-commander, seven for the Sultan). The horsetails were white, decorated with red and blue ribbons and carried on red poles surmounted by a gilt ball. Suleiman the Magnificent's also bore a great silver disc and a gilt crescent. The Tartars too traditionally carried horsetail standards.

Janissaries and others

Most famous of the Turkish soldiers and the very symbol of Ottoman rule from their foundation in 1362 to their abolition in the 19th Century, the Janissaries ('New Soldiers') were second only to the Spahis of the Porte as the heart of Turkish military power, and, outside Europe, the possession of disciplined firearm infantry was the chief advantage the Turks held over neighbours like the Mamelukes and Persians, who could often raise better horsemen.

The Janissaries are supposed to have been blessed and named by the Imam Hadji Bectach, and they certainly had close links with a Dervish-like religious order, the 'Ahis', who gave them their distinctive cap, their trousers, and their usual mode of address — 'Yoldas' or 'fellow-traveller'. From 1591, eight Bekasi Dervishes were attached to the 99th Orta (Company) and on parade marched before the Aga of the Janissaries in green costumes.

Originally, the Janissaries were raised from prisoners of war, but in the 15th, 16th, and early 17th Centuries were raised by the 'devschirme' as described for Spahis, there being 34 Ortas of ajenioghlanlar supplying recruits to the Corps. A few prisoners, purchased slaves and sons of former Janissaries also found their way in, but when in the 17th Century large numbers of Muslim recruits were introduced, they lost the superb discipline and esprit de corps which had characterised them earlier despite the occasional foray into politics (permission to marry, indulgence in business and inflation hitting their wages were other factors).

Organisation

The Ocak of the Janissaries was made up of three divisions, in the 1580s standing at;
The Cema'at (Company) — 101 Ortas, of which the 60th to 63rd were the Solaks of the Sultan's Guard.
The Boluk (Division) — 61 Ortas, of which the 19th, the Becsis, provided the sentinels of the army on campaign and the 65th, the Cardak provided the Aga's HQ Guard (including a group of halberdiers).
The Segmens (Dog-keepers) — 34 Ortas.

The officers at least of the Cema'at and the Boluk were distinguished by red and yellow boots respectively.

The whole Ocak was commanded by the Aga of the Janissaries, with as his assistants the commanders of the 2nd and 3rd divisions, the Kul Kahyasi and the Segman Basi (the higher officers were distinguished by three large white plumes and three smaller black ones, set fan-wise in their hats). The Ortas had their own commanders called Chorbaci (Soup-makers) assisted by a standard-bearer (Beyrakdar), clerk, imam, quartermaster and others including sergeants called 'scullions' (Kara Kullucu); an Orta could have as few as 100 or as many as 500 men, and there are said to have been 12,000 Janissaries under Suleiman the Magnificent, rising to about 27,000 toward the end of the 16th Century.

Each Orta had its own sign (examples include key, anchor, fish, flag and mace) which was marked on its tents and other property and originally tattooed on the men as well! It probably also appeared on the Orta flag. These flags are said to have been red and white striped (example illustrated).

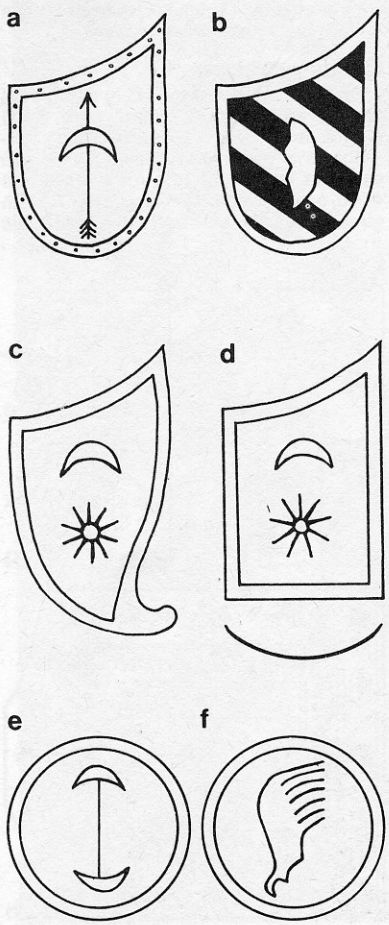
Even more important than the flag were the 'kasgan', two copper cauldrons, which were carried before the Orta on parade, slung from a pole carried by two men.

The Janissaries had many privileges, including the rather dubious one of being executed (when necessary) in private at night, with a gun to mark their body passing into the sea! They were immune from law and discipline except as administered by their own officers, they had a pension fund as well as regular wages, their own band and their own march step (three paces — pause, three paces — pause, with half turns to left and right). Apart from their military duties, which included liability to summer and autumn manoeuvres in peacetime, they also acted as police and actually included two bodies of detectives!

Arms and appearance of the Janissaries

The illustrations give a general idea of their dress. In contemporary Persian-style paintings they are shown in varied colours including black, blue, red and purple, but 16th Century Europeans were struck by the *uniformity* of their dress — 'The Make and Colour of their Clothes were almost the same, so that you would judge them all to be Servants of one Man' — and the uniform issued appears to have been of coarse blue cloth, though some of the Segmens, like the 33rd Orta, the Avcus, (huntsmen), may possibly have worn green.

Typical Turkish shield patterns. 'd' shows plan as well as front view.



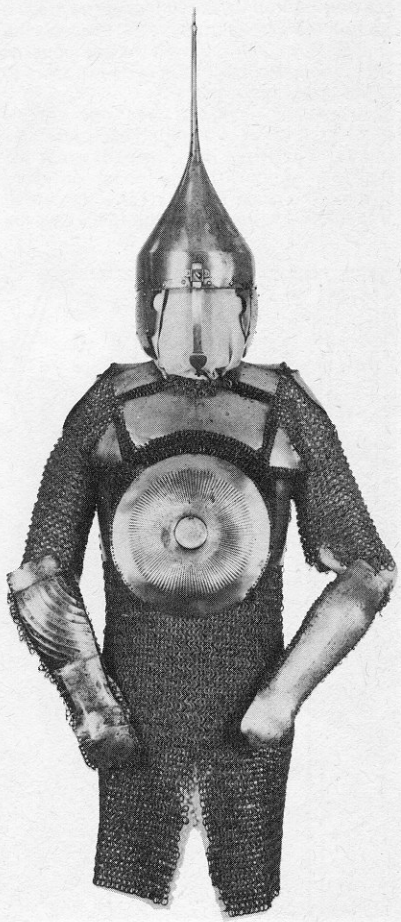
Over a short plain tunic, sometimes worn on its own, they had a short-sleeved caftan of near ankle-length; its front corners were normally hitched up and tucked into the striped sash, which ended in a gold or silver fringe; beneath were blue trousers and yellow stockings.

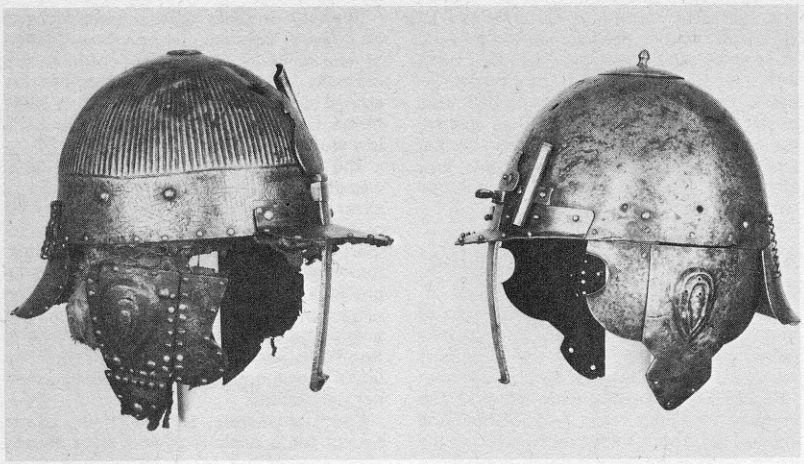
The characteristic sleeve-cap or 'zarcola' was of white felt with the band and frontal of silver or gilt; senior soldiers or members of picked 'forlorn-hope' groups such as 'Serden-gecti' (head-riskers) or 'Dal kilic' (bare-swords) were distinguished by semi-precious stones in the nasal and long heron or bird-of-paradise plumes. Apart from the powder-horn shown, a pouch usually hung from the sash. Except for officers the uniform was notably plain, neither slashed nor decorated.

The Janissaries shaved their heads except for a scalp-lock and were usually clean-shaven but for a large moustache, unlike the often bearded Turks.

Up to the 16th Century the Janissaries had sometimes worn armour, but this seems to have vanished during our period, while the composite bow also gave way to

Turkish armour of the 15th-16th Century with a Turkish-converted Persian 'Kulah Khud' helmet (Tower of London).





Turkish cavalry helmets (Tower of London).

the arquebus. Usual armament in the 16th Century was a long and richly-decorated arquebus, a scimitar, a dagger, and a small axe (usually thrust through the back of the sash). By the siege of Malta some Janissaries carried muskets, said to be more accurate than European ones; Turkish sniper-fire from over 500 feet range made a rampart sentry-walk untenable. Probably the musket gradually replaced the arquebus, as in Europe, though the Turks do not seem to have used musket rests.

Armament, however, was not entirely standardised, as by tradition each Janissary could choose his own weapons from the Imperial armoury before going on campaign. The great majority certainly carried firearms but a traveller of the 1580s says the remainder had half-pikes, while for close combat the Janissaries normally slung their muskets and relied on shield and scimitar, advancing with high wailing warcries.

Though they were highly-disciplined troops, at least in the 16th Century, the firing and battle formation of the Janissaries were probably of irregular type rather than following Western drilled patterns.

Other regulars

By Suleiman the Magnificent's reign the regular artillery or 'Topdjis' were 2,000 strong, and there were also 3,000 'Top-Arabacis' or drivers who conducted the vast ox-teams (a train of 40 guns in 1643 had 4,000 oxen) which normally drew Turkish guns. The 'Cecebis' (Armourers) 1,500 strong, not only maintained the artillery but guarded transport and stores on campaign. The first and last of these were recruited like the Janissaries (though renegade European 'experts' were also employed) and may well have been uniformed. There were also two feudally-organised bodies, the 'Humbaracis' (Mortar-gunners) and the 'Lagimcis' (Pioneers). The latter had English and Dutch officers in the 1640s.

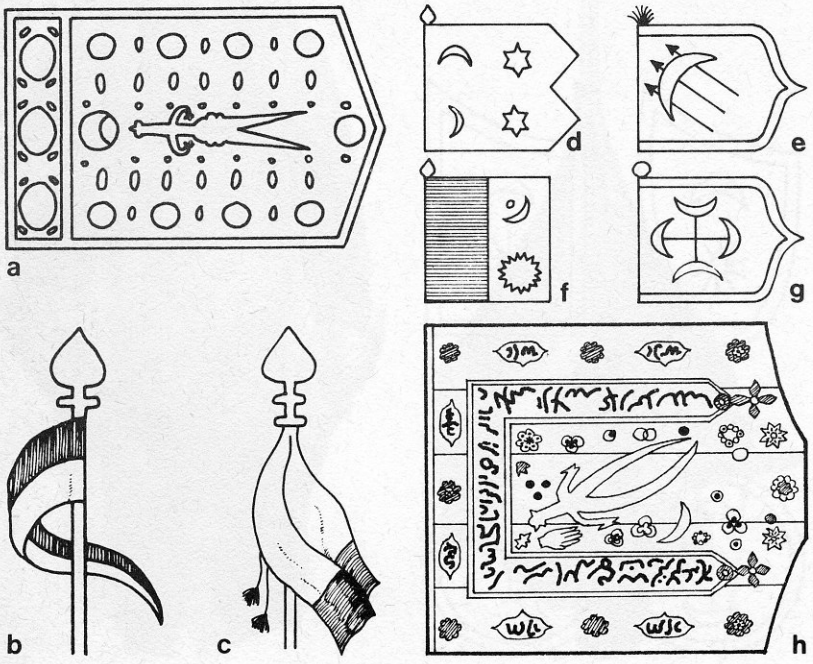
Turkish guns were mainly bronze, and to begin with huge stone-throwers were favoured. During the 16th Century smaller guns firing cast-iron balls, and European style field carriages, came into use, but Turkish artillery seems to have remained generally heavy and slow-moving. At the late 15th Century siege of Rhodes the Turks had 33 guns mainly firing stone balls, and 12 bronze mortars firing explosive shell: the heavier cannon averaged only two rounds a day, the mortars about five. At Malta (1564) their 80 or so guns again included 12 mortars (quite likely the *same* 12!) and ranged up to ten 80 pounders and one 160 pounder, while the armourers on this occasion also provided specialised siege-equipment such as incendiary sticky-bombs.

The Sultans' Guard

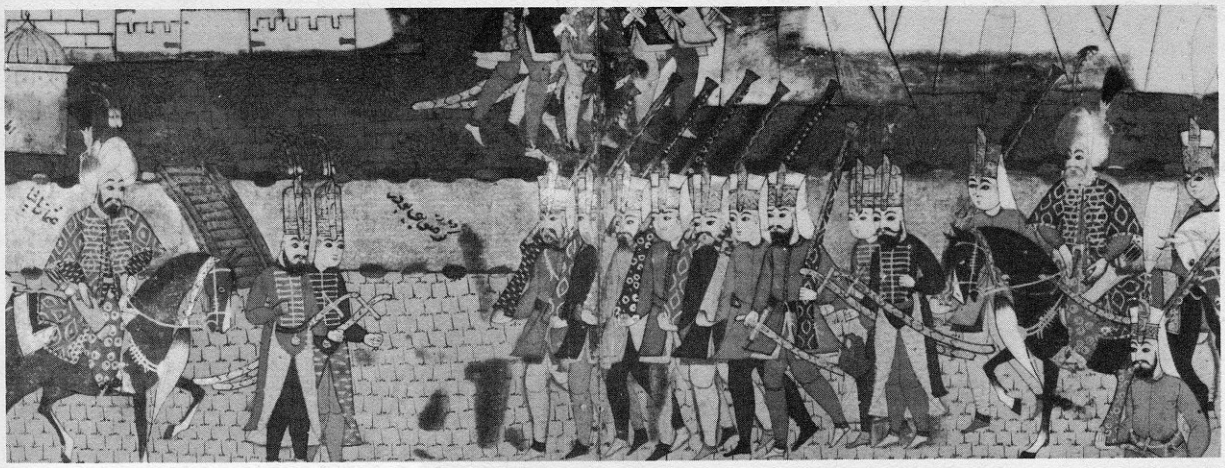
The Solaks — four 100-man Ortas of Janissary archers. They wore white silk tunics and helmets of beaten gold. Those who walked to the Sultan's left were left-handed (which is what Solak means). 60 always accompanied the Sultan on state occasions.

The Peyks (Messengers) — 150 men, richly dressed and perhaps armed with maces or axes. 30 accompanied the Sultan on parade.

The Muteferrika ('separated') — the Sultan's 'Noble Guard'. 100 to 400 high-born



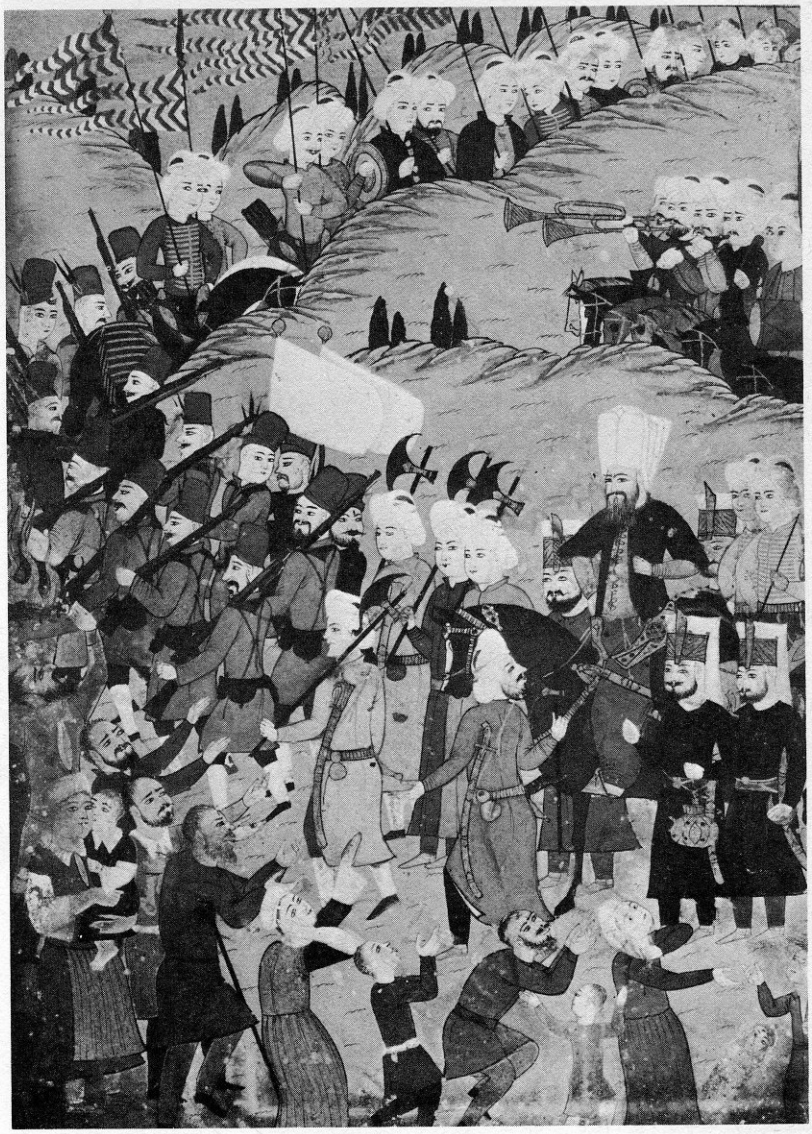
a *Sanjak, or Turkish battle flag. Scarlet silk, gold border, green decorations. The medallions bear the names of Mohammed and various Caliphs. The thing in the centre is Zulficar, the legendary sword of Mohammed's son-in-law, Ali.* **b** *Red and yellow cavalry standard from the first half of the 17th Century.* **c** *Flag from early 17th Century painting of Turks in Persia. It is red with a black sector at bottom and is probably rectangular. Tassels are green.* **d** *and* **f** *Turkish standards captured by the Spanish at Lepanto. Colours unknown but would incorporate the 'Muslim' colours' red, green, white or black.* **e** *and* **g** *Flags from a 1582 print of the siege of Malta.* **h** *Turkish flag, perhaps of an Orta of Janissaries. It is about six feet long in the centre and five feet three inches wide. The main inscription is a quotation from the Koran, in yellow, within a yellow border, on red. The hand symbol and the sword of Ali are also in red, the other decorations are of varying colours. The cartouches around the edge are inscribed 'Oh Lord'. The main flag stripes are, from top to bottom, white-red-white-red-white. This flag, which was carried on an 8½-foot pole ending in a multiple point in gilded copper, was captured during the siege of Vienna in 1683.*



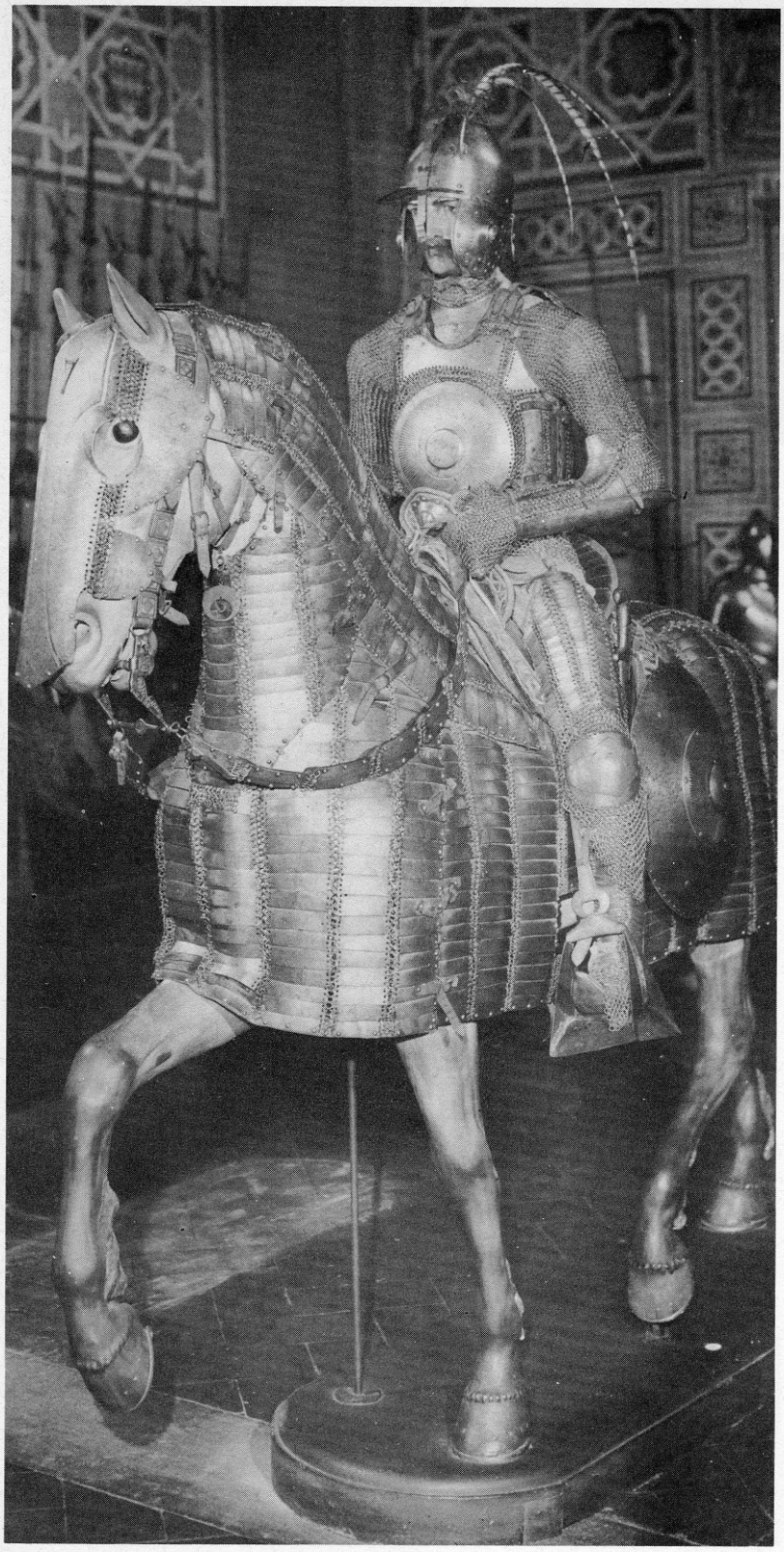
Above *Janissaries (note decorated muskets) and bodyguards. Former are wearing the shorter tunic normally covered by their longer caftan* (British Museum).

Right *Turkish troops in the Balkans, 1630. Cavalry are probably feudal Spahis. Some Janissaries and bodyguards can be seen at lower right, while infantry probably belong to the new mercenary forces such as Gonulla or Sarija. As they have no turbans they are non-Turkish, probably Bosnians or other Balkan troops. They have red caps, red, blue or brown costume, white leggings, black shoes and red equipment* (British Museum).

Below *A Janissary — a veteran or 'hero' to judge by his plume!* (from Nicolay, Peregrinations Faites en Turqie, 1577).







cavalry, with their own mounted retainers, who acted as his bodyguard on campaign.
The Mulazims — 300 picked men from the Spahis of the Porte, who accompanied the Sultan on campaign as bodyguard and ADCs.

(There were also 15 companies, each 42 strong, of the Cavuses, or Palace Guards.)

Other troops

In the 15th Century there were various kinds of infantry recruited, like many Spahis, on a feudal basis, but by the mid-16th Century these 'Ascaris' only accompanied the army as pioneers, though the 'Musellems' had a short period serving as marines. 'Azabs' (bachelors) seem to have been more like the irregular cavalry, volunteers serving for loot, and to have been employed during most of the period. Such troops would be irregulars in basically civilian dress, and their chief weapon was the composite bow, though spears, javelins, scimitars and shields were also used, and, toward the end of the 16th Century at least, irregulars would appear to have carried firearms, especially if raised in European provinces.

This was also true of the mercenary troops who began to be raised in the 17th Century to supplement the over-stretched and declining regular forces. They included 'Gonullas' (Frontier volunteers), Mustafiz (Fortress guards) and 'Sarijas' ('Yellow' — possibly from the colour of their flags though there is at least one description of light troops in all-yellow dress). Some of the 'Sarija' were musket-armed and guarded the baggage train.

Such mercenaries included light cavalry as well as infantry, and were not highly trained or disciplined, and probably not uniformed, though I have no details of their dress (one of the illustrations may give an idea of it).

'laylars' were a group of religious fanatics, apparently some thousands strong and distinct from the Dervishes, some of whom also fought. They were armed with scimitar and shield, wore gilt helmets and tunics of skins, decorated with characters in silver. They were used at the siege of Malta as a kind of 'suicide squad'.

Armies

Normally had more cavalry than infantry, and the following (modern) estimate of the Turkish army at Mohacs gives a fairly typical make-up: infantry — 2,000 Janissaries, 5,000 local levies; Cavalry — 7,000 Spahis of the Porte, 10,000 Asiatic feudal spahis, 15,000 European feudal spahis, and up to 20,000 Akinjis.

A typical disposition for a Turkish army is indicated by the diagram of their army at Chaldiran (1514, against the Persians) though here they had 55,000′ infantry to 85,000 cavalry.

A superb Turkish armour for horse and man, from the early 16th Century (Stibbert Museum, Florence). *Much of it is likely to have been covered with cloth trappings.*

17

The Muscovites

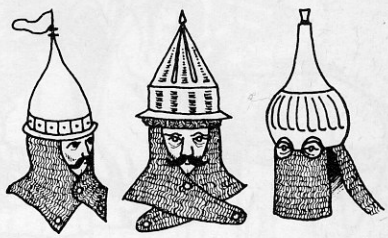
Russia in this period was still primarily the Grand Duchy of Moscow. It was only in 1480 that the Tsar dared withhold annual tribute from the Tartars, and the extension of Russian power thereafter, against Poles, Turks, Swedes and Tartars, and into Siberia and the Cossack lands, was slow and often reversed. Such as it was, the rise of Muscovy was largely due to the adoption of European military ideas, well before the thorough reforms of Peter the Great. The pattern of her armed forces was created by this process. The basis was a semi-feudal, Tartar-influenced cavalry horde, gradually supplemented by European types, and by mercenaries including Poles, Tartars, and, above all, Cossacks.

The cavalry army

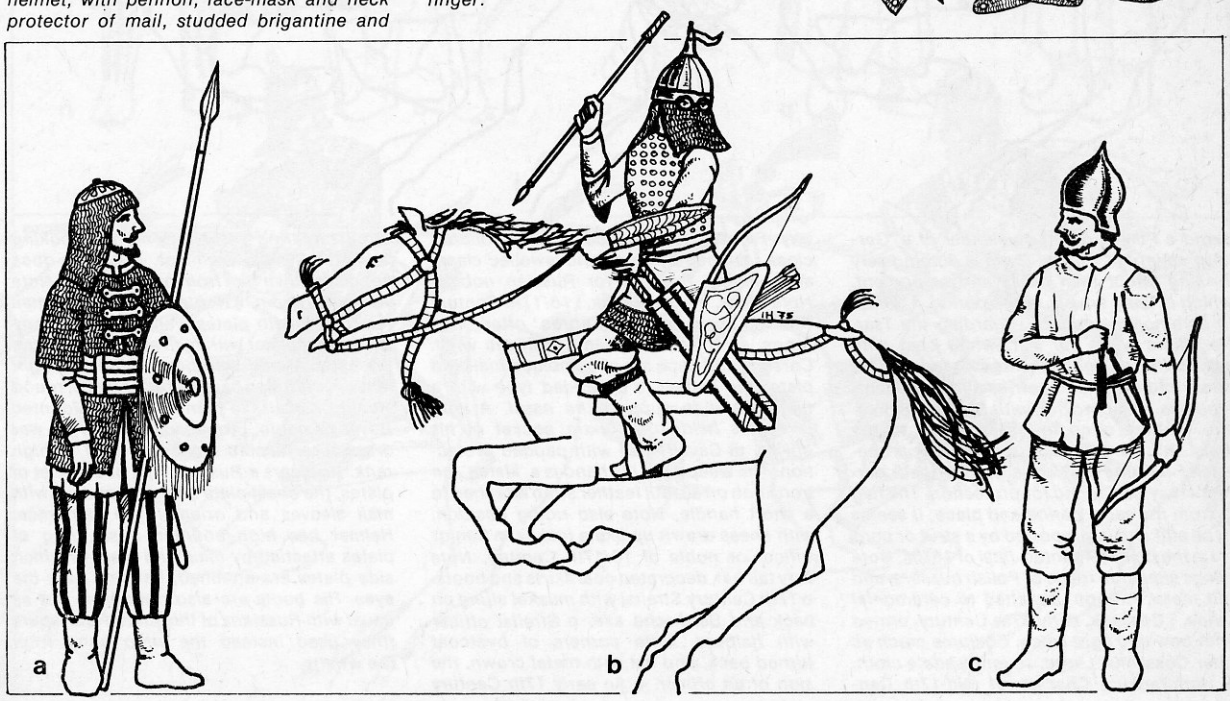
'All his men are horsemen, he useth no footmen, but such as go with the ordinance and labourers' wrote Richard Chancellor in the 1550s, and even a century later cavalry still greatly exceeded infantry in the Tsar's field armies.

This arm was drawn from three main sources: first, the entourage of the Tsar and princes. From Ivan the Terrible's day (1533-82) there was a 'Dvorani' or household force of 15,000 paid cavalry or noble pensioners. Second came the rest of the nobility and their followers. Ivan regularised their service by paying 110 great nobles to report once a year with their 65,000 retainers; the rest were only summoned in emergency. Third were the 'Sons of the Boyars' (Boyar=noble), a lesser military class who received small holdings of land in return for military service. Created by Ivan III (1462-1505), they were registered in the towns and mustered in town contingents, accompanied by varying numbers of armed servants.

The resemblance to the Turkish system is obvious and the general tactics and equipment also followed the Turkish or Eastern pattern. The better-off wore mail or scale armour, and helmets of Eastern type, though contemporary observers were par-



a *16/17th Century Russian cavalryman wearing 'saucer' helmet with mail hood (popular in the Caucasus) and mail shirt with plate 'corset'. He has a short straight sword and convex metal shield with fringe round edge, of a type often used by Russians.* **b** *Russian noble cavalryman in Sassanid-style helmet, with pennon, face-mask and neck protector of mail, studded brigantine and mail shirt. Note soft boots held up by a type of gaiter. He is armed with bow and three javelins in a case. Some alternative helmet types are shown right* **c** *Russian light horse archer of the 16th Century in padded doublet. Carries knife and bow, no sabre. Note riding crop hanging from right hand little finger.*





d *and* **e** *Pikeman and musketeer of a 'German' regiment, 1630s. There is nothing very striking about their dress and equipment, which is fairly typical of the period.* **f** *'Rindi' in ceremonial costume, guarding the Tsar. He wears white fur hat, white coat with ermine trim and gold chains crossed over his chest and back, and carries a highly decorated axe.* **g** *Zaporozian with Berdische poleaxe — they often fought stripped to the waist.* **h** *Late 16th Century Cossack arquebusier fighting in Siberia. His 'striped' garment may be padded for protection. The flag is from the same period and place; it seems to be stiff and is supported by a strut or cord from the pole.* **i** *Mounted Jiltsi of 1670s. Note wings similar to those of Polish hussars, and gilt metal 'dragon' attached to ceremonial lance.* **j** *Cossack, early 17th Century, armed with bow and light lance. Costume much as later Cossacks. Large, square, saddle cloth.* **k** *High-ranking Cossack of mid-17th Century. Plumed, fur-trimmed cap, fur-collared cloak fastened by loops and jewelled clasp, ankle-length robe as for Russian nobles. Note mace, a sign of rank.* **l** *16/17th Century Russian cavalryman. Sabres often had loops, so they could hang from the wrist. Corselet and cape are of combined mail and plate. His helmet is a padded type with a metal band to support the nasal. A light javelin is held in an extra pocket of his quiver.* **m** *Cavalryman with padded protection. The weapon in his hand is a 'kisten', an iron knob on a stout leather strap attached to a short handle. Note also riding position, with knees drawn up like a jockey.* **n** *Senior officer or noble of 16/17th Century. Note very tall hat, decorated coat skirts and boots.* **o** *17th Century Streltsi with musket slung on back and Berdische axe.* **p** *Streltsi officer with halberd. Note corners of overcoat turned back, and hat with metal crown, the sign of an officer.* **q** *An early 17th Century Streltsi wearing a strikingly modern-looking helmet.* **r** *Streltsi drummer. His dress does not distinguish him from other Streltsi. Note very small drum.* **s** *Noble cavalryman in mail reinforced with plates, vambraces on forearms and helmet with mail aventail covering the eyes. Armed with bow, sabre and light lance. Could also have kisten or mace, round shield, or small axe-cum-hammer.* **t** *Mounted Boyar or noble, probably an officer, in war dress. The faceted mace is a sign of high rank. He wears a Russian type of corselet of plates, the chest plate being octagonal, with mail sleeves and oriental-type vambrace. Helmet has high-mounted nasal, ring of plates attached by mail, and mail, to which side plates are attached, hanging over the eyes. His boots are also armoured, but as usual with Russians of this period lack spurs (they used instead the whip hung from the wrist).*


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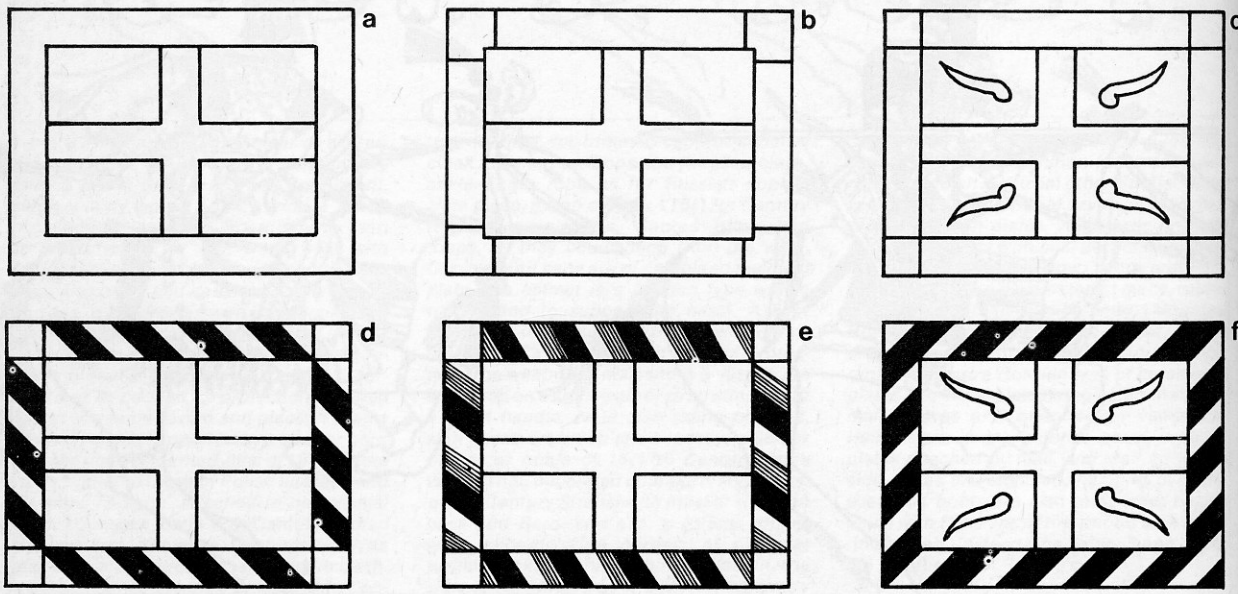


16th-17th Century cossack of a Polish-Lithuanian light cavalry regiment.

ticularly struck by the splendour of their appearance, with costly furs, silks and satins, gilt embroidery and inlays, elaborate, often jewelled, collars and horse trappings, and even *silver* mail. Servants and retainers often wore padded clothing, adequate to stop an arrow. Weapons included light lances, various maces (especially the 'kisten' shown), scimitars and light javelins, and by the later 16th century a few carried a case with two 'dags' (short pistols), but the Russian weapon *par excellence* was the Tartar composite bow. Relatively few carried lances, and they rode jockey-style, like the Tartars, with knees drawn up, ideal for the horse-archer but not for standing the shock of a lance charge. Russian horses were small but wiry geldings again unsuited to shock tactics.

Most of the lighter cavalry carried only a dagger or sabre beside the bow. Tactics were loose and irregular, relying on surprise, envelopment (assisted by the Muscovites' usual vast numbers) and fire, and avoiding close combat. Though not highly disciplined they were organised on similar lines to the Tartars, with squadrons of 100 and regiments probably 1,000, but the only divisions clearly observed were the five (later six) large 'Polks' or divisions into which the whole force was divided. These had their own standards (of St George) and commanders, and seem to have comprised Left and Right Wings, Van, Reserve, Main Body and Light Cavalry (one section was known as the Broken Band and supplied men for 'sudden exploits'). They had many trumpeters, but the leaders gave tactical signals on small brass drums (there were

a-g *Moscow Streltsi flags.* **a** *1st Regt: border yellow, cross white, ground raspberry; 2nd Regt: border yellow, cross white, ground grey; 3rd Regt; border white, cross raspberry, ground green; 8th Regt: green, white and orange respectively; 14th Regt: white, yellow and green.* **b** *4th Regt: border white, cross yellow, ground cranberry, corners yellow; 5th Regt: white, yellow, red, clear blue respectively; 6th Regt: clear green, dark raspberry, yellow and white; 7th Regt: black, yellow, clear green and yellow.* **c** *13th Regt: border and ornaments white, cross blue, ground bilberry.* **d** *11th Regt: corners yellow, borders white and blue, cross black, ground raspberry.* **e** *9th Regt: stripes white, yellow and red, ground and corners cerise, cross white.* **f** *12th Regt:*



also some huge drums carried on platforms across four horses and beaten 'in a wild manner' by eight men each!).

The Streltsi

Ivan the Terrible was responsible for a general reorganisation of the Russian forces, and perhaps his most important reform was the creation of a standing force of infantry, the Streltsi (sharp-shooters), a hereditary, town-based force. There were 12,000 in Moscow, of whom 2,000 formed a guard for the Tsar, and the total corps perhaps reached 40,000 strong. Though there seem to have been some Streltsi with pikes in the early 17th Century, they were normally armed with long arquebusses or muskets, clumsy matchlocks with straight stocks, and also carried sabres and berdische poleaxes with a spiked haft which could be used as musket rests. Though useful, they showed in the later 17th Century much of the Praetorian arrogance and rebelliousness of the contemporary Janissaries (who may have been the model for their corps), and the Moscow Streltsi were bloodily suppressed by Peter the Great in 1698, the rest being disbanded in 1710.

Streltsi regiments were divided into companies or Sotnia of 100, and (at least in the 1670s) ranged from 600 to 1,600 men. They wore no armour except helmets, and their issued clothing seems to have been semi-uniform from an early stage, with the regiments distinguished by colours, including red and green. The following list of the 1674 Moscow Streltsi probably gives an idea of earlier colours as their style of dress had certainly changed very little:

Regiment (named after Colonel)		Dress	Buttonhole-lace	Trim, lining	Hat	Boots
1st	Igor Lvotokhin	Red	Raspberry	Raspberry	Grey	Yellow
2nd	Ivan Poltev	Lt Grey	Raspberry	Raspberry	Raspberry	Yellow
3rd	Vasili Bokvostov	Lt Green	Raspberry	Raspberry	Raspberry	Yellow
4th	Feodor Golovinsk	Cranberry	Black	Yellow	Grey	Yellow
5th	Feodor Alexandrov	Scarlet	Dk Red	Lt Blue	Grey	Yellow
6th	Nikifor Kolobov	Yellow	Raspberry	Lt Green	Grey	Red
7th	Stepan Ivanov	Lt Blue	Black	Brown	Raspberry	Yellow
8th	Timofei Poltev	Orange	Black	Green	Cherry	Green
9th	Petr Lopokhin	Cherry	Black	Orange	Cherry	Yellow
10th	Feodor Lopokhin	Yellow-orange	Raspberry	Raspberry	Raspberry	Green
11th	David Vorontzov	Raspberry	Black	Brown	Brown	Yellow
12th	Ivan Naramansk	Cherry	Black	Lt Blue	Raspberry	Yellow
13th	Lagovskin	Bilberry	Black	Green	Green	Yellow
14th	Afanasii Levshin	Lt Green	Black	Yellow	Raspberry	Yellow

Foreigners, 'Soldiers', etc

After the disastrous 'Time of Troubles' in the early 17th Century, Russia began to recover under her first Romanov Tsars, and in the 1630s a new paid force began to be raised, consisting of four 'German' infantry regiments (in fact also containing English, Dutch and Scots mercenaries), and six 'Soldiers' regiments of Russian infantry trained and equipped on the same lines, and with foreign officers. The basic organisation was intended to be of 960 musketeers and 640 pikemen, in eight companies.

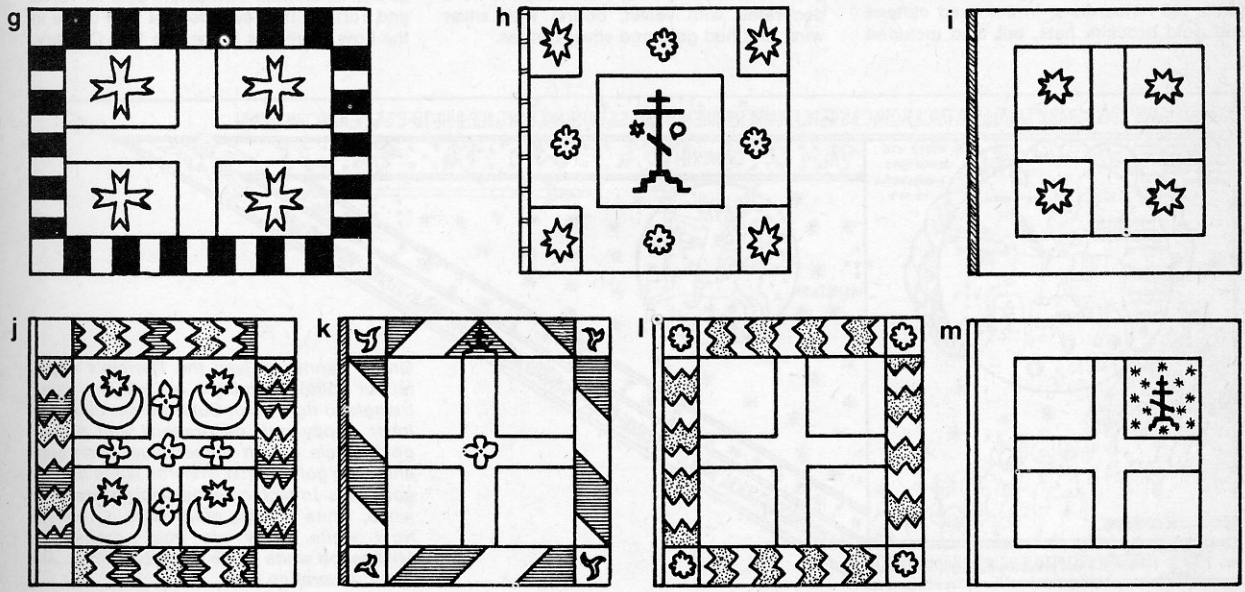
The 'German' regiments were dressed and equipped in Western fashion as shown, their dress being colourful and non-uniform; the Russian ones were armed the same but dressed similarly to the Streltsi. Later on the foreign troops tended to be replaced by new Russian units like the two 'Vibornie' ('chosen' or élite) Moscow infantry regiments (1642).

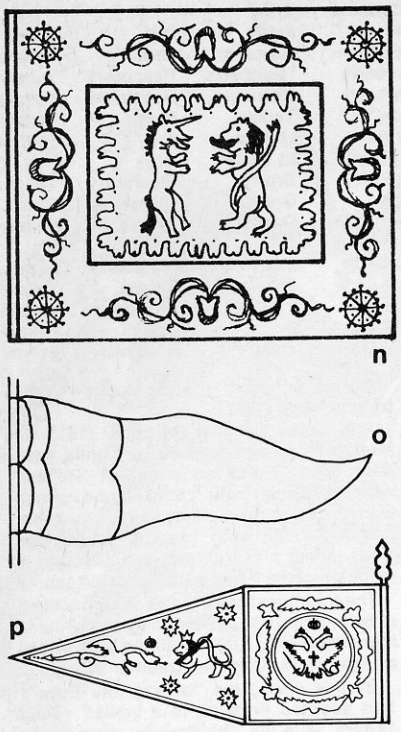
Also under Michael Romanov (1613-45) foreign or foreign-style cavalry units were introduced. These consisted of 'Reiters' wearing helmet and corselet and armed with a sword, two pistols and a carbine; dragoons with long musket, sword and short lance; and 'Hussars' or 'Lancers' in imitation of the Poles, with lance and sabre.

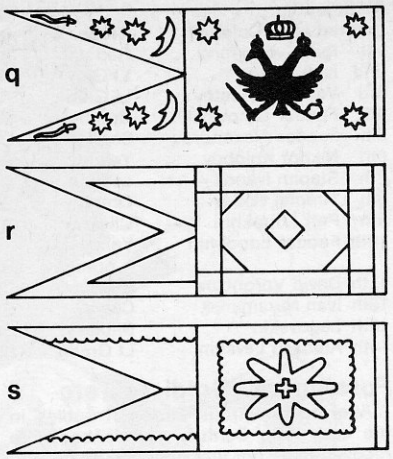
The traditional cavalry still predominated; in fact in the 1632 campaign against Poland there were only 7,000 of all the new troops as against 33,000 of the traditional types.

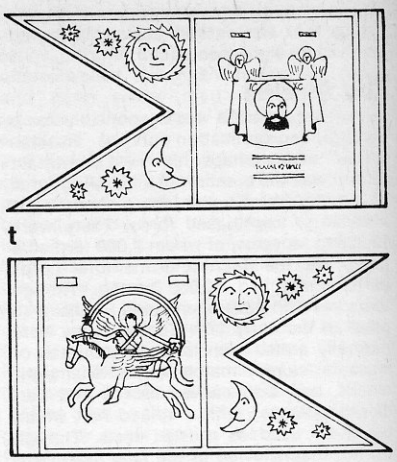
By this period the 'Sons of the Boyars' had adopted firearms to a limited extent. Tartars, as in the 16th Century, were widely employed, and they, like Bashkir and Kalmuk auxiliaries, still relied exclusively on the bow (the latter in fact up to Napoleonic times).

cross white, ornaments cerise, ground black, stripes yellow and cerise. **g** *10th Regt: cross black, ornaments raspberry, ground orange, corners white, stripes green and white.* **h-m** *Earlier Streltsi flags.* **h** *Pole blue, corners red, border white, centre red, 'flowers' red, stars, cross etc gold.* **i** *Pole raspberry, border green, cross black, ground white, stars raspberry.* **j** *Pole violet, corners black, cross white with small red crosses on it, ground red, moons and stars yellow, border emerald green, medium blue and light yellow.* **k** *Pole dark rose, corners dark blue with red ornaments, borders red and white, small cross at top yellow, main cross yellow, cross at centre red, ground light blue.* **l** *Pole dark rose, corners dark blue, flowers red, border white and yellow, cross red, ground dark blue.* **m** *Pole raspberry, border light yellow, main cross white, ground red, small cross and stars white.*









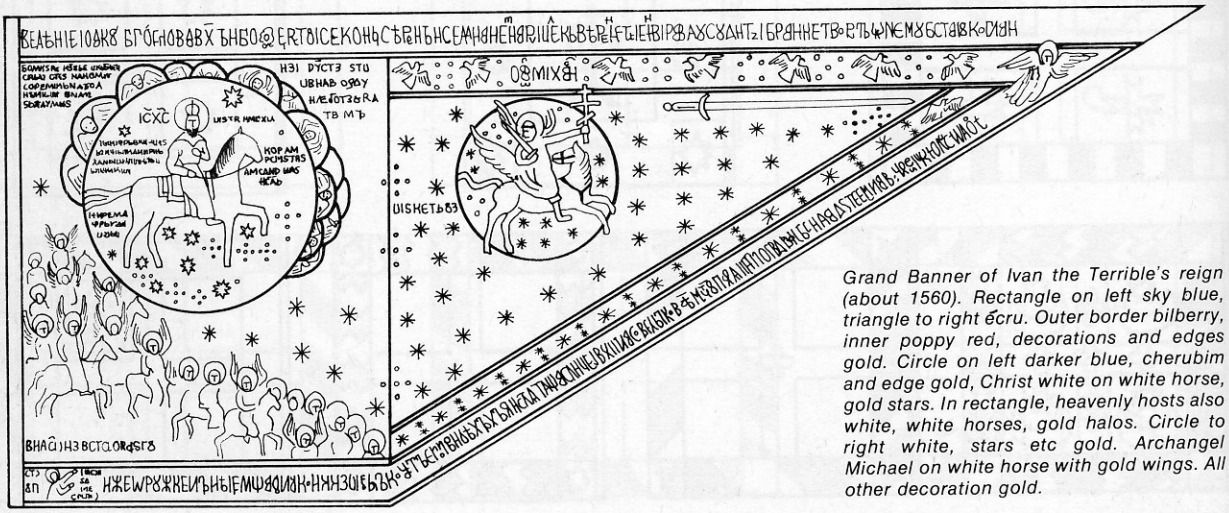
n *17th Century infantry flag. Border grey, ornaments at sides red, at corners red circles with black motifs. Centre sky blue with white 'toothed' border, lion and unicorn white.* **o** *Late 15th Century cavalry flag. Panels gold, white, red reading away from pole.* **p-s** *17th Century cavalry flags.* **p** *Light brown, gold border. Circle, dragon, lion, stars and eagle gold; cross on eagle and wings of dragon silver.* **q** *17th Century cavalry flag. Pole red; rectangle ground emerald green, eagle red, stars yellow; tails red, wavy knives green with orange handles, left stars orange, centre green, moons orange.* **r** *Pole black; rectangle ground blue, corners and central diamond white; border blue at top and bottom, black on sides, corners red. Tail red with white border.* **s** *Pole grey; rectangle ground white with red 'star' and border, central cross white. Tails white, red, white from top to bottom.* **t** *Two sides of 17th Century cornet, made of patterned or embroidered taffeta. All borders gold, square écru, tails sky blue. Stars etc gold and silver.*

Guards

Apart from the above-mentioned 2,000 'Streltsi of the Stirrup' (who wore red), and the permanently-paid cavalry, the Tsars at various times had special guard units. The 'Rindi' (men-at-arms) founded by Ivan III, were an immediate foot bodyguard of axe-men; on campaign they would have been equipped as noble cavalry. This might also be true of the 'Jiltsi' founded by Ivan the Terrible, who provided a guard of honour of 50 to 100 halberdiers, in coloured caftans and gold brocade hats, but also included later a mounted guard as shown. Ivan also raised the dreaded 'Oprichniks' clad in black robes and pointed hoods, with a dog's head and a broom at their saddlebow, but this short-lived force were political police rather than soldiers. Even shorter lived (1605-6) were the guards of the 'False Dimitri', 100, with partisans, in red with gold embroidery, 100 halberdiers in violet with red sleeves and red cord trim, and 100 with green sleeves and trim; their weapons were decorated with velvet, bound with silver wire, and had gold and silver fringes.

Cossacks

Cossacks were not a race but an anarchic society of free frontiersmen developing in the Dnieper-Don area at the beginning of our period. They did not really recognise the Tsar's — or anyone's — authority, but played a considerable role as mercenaries in Russian as in other service — they fought regularly for the Poles (who, by 1625, had six Cossack regiments of 1,000 men each), as well as on their own behalf against Turks and Tartars; they even fought for France in the Low Countries in the late 17th Century,



Grand Banner of Ivan the Terrible's reign (about 1560). Rectangle on left sky blue, triangle to right écru. Outer border bilberry, inner poppy red, decorations and edges gold. Circle on left darker blue, cherubim and edge gold, Christ white on white horse, gold stars. In rectangle, heavenly hosts also white, white horses, gold halos. Circle to right white, stars etc gold. Archangel Michael on white horse with gold wings. All other decoration gold.

and those who seized Azov from the Turks in 1637 were on their way to serve the Shah of Persia!

Poland employed them as early as 1524, and another of Ivan the Terrible's military reforms was to set up a system of 'Registered' cossacks like those of the Poles. At Pskov, 1581, there were 500 Cossacks in the Russian army fighting the Poles, and from Ivan's time Cossacks were conquering Siberia, more or less on behalf of the Tsar. Though superb fighters, they were not entirely to be relied on, and were to be found supporting the rebellions of the 'False Dimitri' and of Bogdan Khmelnitsky (1648).

The Cossacks were primarily cavalry, riding hardy ponies, and equipped with light lance, bow and sabre, later adding firearms (by the 1650s the Tsars demanded a carbine and two pistols as standard). In addition the average Cossack seems to have felt a bit naked without a sash-full of assorted knives and daggers at his waist. They also provided the finest infantry of the East, predominantly armed with musket and sabre, but also carrying berdische axes and even pikes. The Polish army employed up to 4,000 such infantry, organised in regiments of four 'rotas', each rota of five hundred-man 'setnia'. A 'setnia' was divided into two 50 man 'Kurens', each containing a few specially trained 'plastuns' (crawlers), scouts skilled in infiltrating enemy positions.

Cossack foot expeditions often travelled by river, in 'chaika' or 'seagulls' — open boats 60 feet by 12, with up to 30 oars and 60 rowers, steered by paddles at bow and stern.

Cossacks did not wear armour, and their dress was very varied and flamboyant: caftans, bolero-type jackets, blouses or coats in Russian style, tight Polish-type trousers or baggy Turkish ones, sheepskin caps or fur hats of many different styles. In general, they already resembled their descendants of later times in appearance. Colours varied, though red coats were favoured. The Zaporozians, who were chiefly infantry, shaved their heads but for topknots and wore long moustaches, while Terek and Yaik Cossacks sported large beards.

The mounted Cossacks seem to have used a decimal organisation in battle, with 100 man setnias and larger units up to 1,000, and generally formed in up to three crescent lines or 'lava', threatening to outflank their enemy whenever possible. Against the Tartars and similar enemies they made very effective use of their wagon train for defence; guns and wagons advanced in two parallel columns, wheeling in to form a triangular wagon-laager or 'Tabor', the wagons chained together, or even overturned and banked up with earth.

Flags

Cossack Atamans or leaders used horsetails like the Tartars, but Cossacks also used large triangular flags, like the crimson one carried by Mazeppa's followers later; also square or other flags with religious subjects like the red banner of Bogdan Khmelnitsky, which had an archangel on it. Types of Russian flags are illustrated. Under Ivan III the two-headed black eagle derived from Byzantium was adopted in place of St George and the Dragon, but the latter remained a very usual emblem on Russian banners.

Artillery and Train

Ivan the Terrible was said to be 'well furnished with great ordnance' and another aspect of his reforms was his creation of the artillery arm, involving the hiring of foreign gunners and gun-founders. His guns included mortars and a wide range of 'brass' cannon which put on quite an effective display outside Moscow. Guns produced in Russia included the 'Tsar Puchka' (King of cannon), which at 36 inch bore and 17 foot length is supposed to be the largest cannon built; according to an English witness Ivan had no less than seven such pieces among his artillery! In the 1580s the Tsar had at least 170 pieces, and a large number were taken into the field against the Poles, but the artillery was rather immobile and its effects limited by lack of understanding of its use, even in the 17th Century.

The Russians had their own version of the wagon laager, the 'gulay gorod' or walking castle; not only had they protected wagons similar to those of the Poles, but also a prefabricated wooden wall with loopholes, carried in the wagons and set up as a long double wall with a nine foot space between and closed ends, from which the infantry could fire.

18

The Persians and other easterners

Upper-class Persians were scarcely ever seen on foot, so it is hardly surprising that their army was based upon the mailed cavalryman, armed with light lance, composite bow and sword. References to 'Curats of shelles' suggest possibly scale armour too, or could mean the four-piece plate corselet, the 'char aina' (Four Mirrors), which was often worn over mail. Other additional defences included the 'bazuband' — arm protection made up of mail mitten, splinted armour round wrist, and plate vambrace — or, like Indians, Persians could wear the 'coat of a thousand eyes', a padded velvet garment covered with metal studs.

Round shields with four bosses, 24 to 30 inches in diameter, and made of steel or hardened leather, were also carried, and additional weapons included maces, and a pair of short steel javelins carried in a case. The horses could have leather or metal protection, usually covered by elaborately decorated cloth barding.

These cavalry were very like Turkish spahis, though better armed and better mounted, and during the 16th Century were raised in much the same way, by the grant of small fiefs in return for military service. Most came from the religio-military order of the 'Quizilbashes' of which the Safavid 'King of Kings' was the head.

There were also light horse-archers, probably representing slaves and servants as well as mercenary Kurds, Tartars, Georgians and so on, but they seem to have been less numerous than the 'heavies', who could make up some 60 per cent of a Persian army.

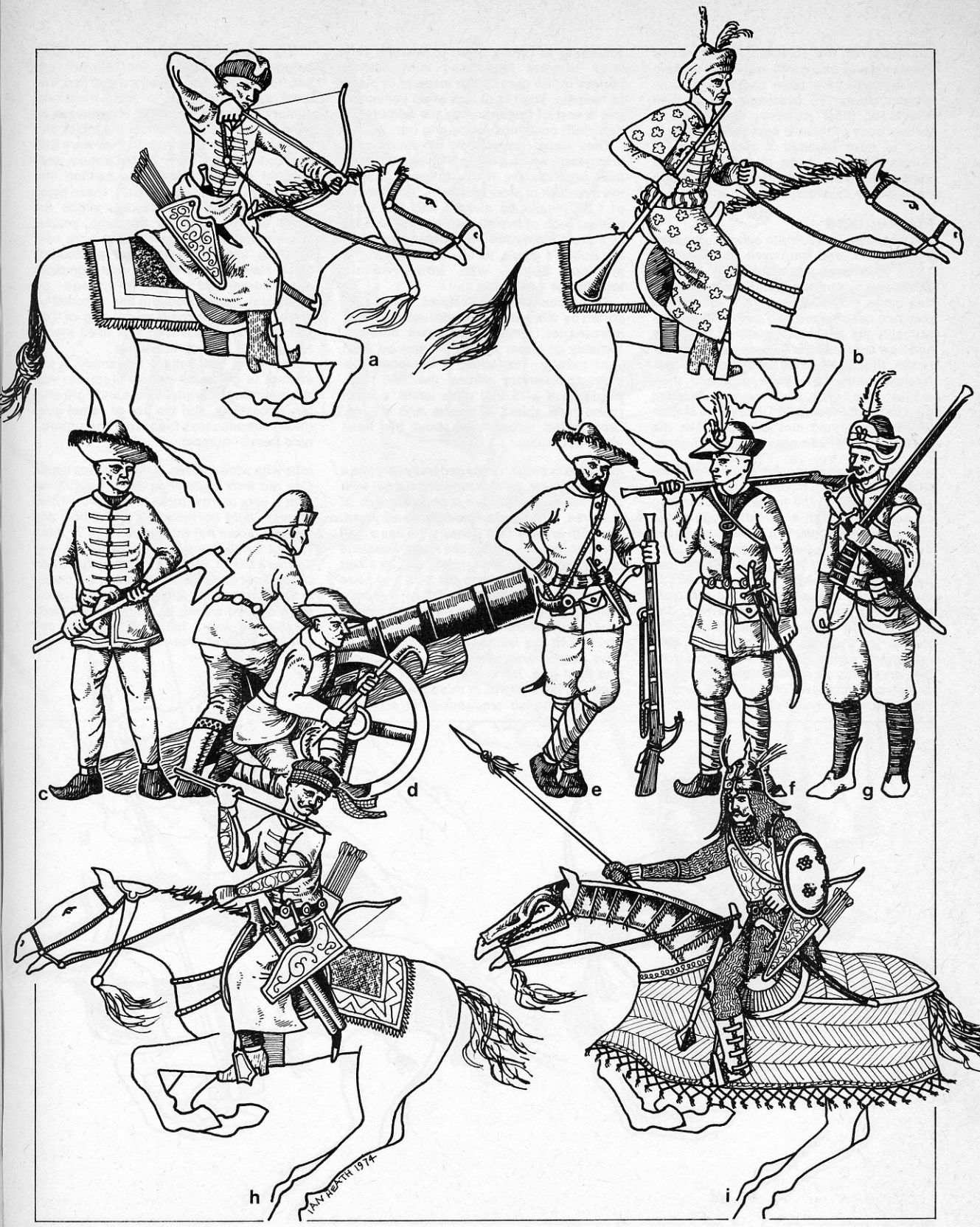
About one-third of Persian armies normally consisted of infantry, but in the 16th Century these seem to have been mainly poor quality levies, often of subject races. Notable among the latter were the Armenians, who wore long Turkish-style robes, and blue turbans 'mixed with red and white'. Armed chiefly with the bow, they protected themselves against cavalry with 'a long rowe of darts' (javelins) fixed in the ground.

Probably because of the relative lack of discipline, effective infantry, and firearms, Persian tactics, combining charges and envelopment, proved unsuccessful against the Turks in the 16th Century, but the great Shah Abbas (1587-1629) reversed this situation and regained Persia's lost territory. He was probably aided by the beginnings of decline in the Turkish forces, but his achievement was chiefly based on his reorganisation of the Persian army.

First, he caught up with the Turks by establishing a body of artillery — the 'Topchis' — equipped with Persian-cast brass cannon (some 500 being produced in his reign), and a force of 6,000 disciplined 'Tufangchis', or musketeers, drawn from Georgian and Armenian converts, equipped with muskets rather longer than European examples, and trained by Europeans including the English Sir Robert Sherley (firearms had been introduced to Persia in the late 15th Century by the Turkoman 'People of the White Sheep', and the first crude cannon cast, but as late as the 1570s the Shah was said to have 'No great ordinance or gunnes or harquebusses').

The cavalry, who remained the chief force, were also strengthened. Even at the beginning of our period, there had been a standing Royal Bodyguard of 500 men, but Shah Abbas made further moves toward a regular army, getting rid of half the 60,000 feudal 'Quizilbashes', and replacing them, not only with his pseudo-janissary infantry, but also with a paid regular corps of 10,000 'Qullar' or 'slaves'. They were probably so-called because mainly drawn from the

a *Persian light cavalryman, 17th Century (could be Turcoman, Tartar or similar). Shows shape of usual quiver. This one has green cap, trimmed with brown fur; scarlet coat with gold frogging; green sash; black boots (note high heels which seem to be usual with Persian horsemen). Harness red with gilt fittings. Saddle cloth green with red fringe and decoration. Quiver black with gold patterns and purple edge. Girth yellow.* **b** *Persian 16th Century trumpeter. Wears a common Persian white turban, with one red and two grey plumes, plus decorated clothing which was not exclusive to musicians. The trumpet could also have a sharp 'step' in the middle. A kettle-drummer would be similar.* **c** *Persian 'halberdier', 17th Century. He might well be some kind of guardsman. He has a felt hat and carries an axe of very characteristic shape. Hat red, crown grey, plumes black; black and white shirt; purple coat with black frogging; tight green trousers; white 'socks'; brown shoes; red sash.* **d** *Persian artillery, early 17th Century. Gun looks rather primitive, but this may be due to the original eastern artist. The pioneer is of interest with his typical felt hat and 'entrenching tool'. The other gunner wears a type of legging which could replace 'puttees' on other Persian foot.* **e** *and* **f** *Persian musketeers, 17th Century. Felt hats again of types often worn by Persian foot throughout our period, as are the grey-white 'puttees', white socks and black shoes. Persian musketeers replaced the bandolier of Westerners with the envelope-shaped pouches shown. Musketeer on left 'e' has black hat, crimson coat, red and silver waist sash, grey breeches, red strip at top of 'puttees', black powder horn on gold cord, black scabbards with gilt fittings, and gilt buttons. Royal Guard on right 'f' has grey-brown hat with crimson binding and yellow feathers in gilt holder; light green coat, crimson shirt and scarlet trousers. Trim on upper jacket is brown with red edges (could be fur). Gun may be flintlock as Shah Abbas had some 'fusiliers'. Other colours as for 'e'.* **g** *Persian musketeer, late 16th or early 17th Century. Elaborate turban. Sabre slung very high from shoulder belt, with one strap at front and rear. Usual 'envelope' pouch below powder horn. Stripes on musket butt, which are white, seem to be characteristic of Persians.* **h** *Persian cavalryman, 16th Century. Likely to have full mail under his long caftan, though only vambraces show. He is using a short javelin, the case for which can be seen beneath his quiver. His Scottish-looking headgear may be associated with the Quizilbashes, as it is often seen on the Shahs of this period and their followers. It consists of a red turban (purple for Shah Abbas) with a protruding piece and plume, and a white cloth with red lines, tied tightly round it. The large saddle cloth, round saddleflap and two cords across horse's chest are typical. He would also carry light lance and shield, and could have helmet and aventail like 'i'.* **i** *Persian cavalryman with typical spiked helmet with two plumes and adjustable nasal plus mail aventail, cut in points at bottom. He (rather unusually) wears his mail uncovered, allowing us to see the 'Char Aina'. His mail leggings with knee and foot protections are also unusual, though authentic. He carries light lance, sabre, bow in case, quiver on other side, mace at his saddlebow, and typical convex shield with pronounced rim and four bosses. Horse bard covered with cloth plate head defence.*


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Christians of the Caucasus, from whom Persian slaves also came, but some of them may actually have been captured or purchased slaves. To overcome the divisive effects of tribal loyalties, and create a further body of reliable cavalry, the Shah is said to have founded a special tribe of 'King's Friends' made up of those who joined his service, but this appears to have been a later development.

Mamelukes

A 'mamluk' was a white slave, purchased or captured, and employed as a soldier. There had been Mamelukes in Moslem Spain, but by our period they existed under this name only in Egypt and Syria, where they had become a ruling caste. They were probably the finest exponents of the lance and bow tactics of the Eastern mailed cavalryman, though they had an aristocratic preference for the shock weapon, and their armies were even more cavalry-orientated than those of Persia and Turkey. The Mamelukes were armed and equipped like the Turkish and Persian heavy cavalry, though, according to Oman, given to wearing very large turbans (decorated with ostrich plumes in the case of the leaders) in place of helmets. Their mail was often converted into a sort of brigantine by the addition of rich cloth coverings inside and out.

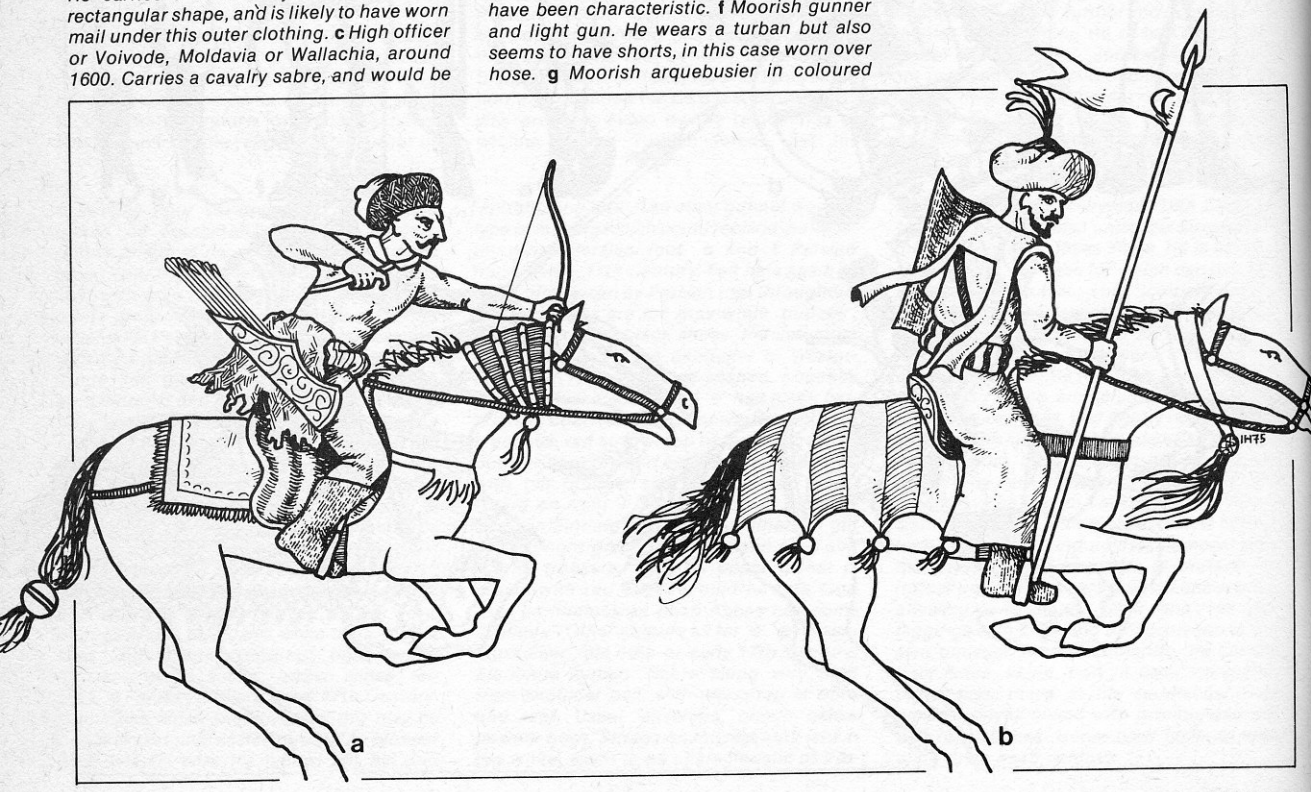
They were commanded by 'Amirs of a Thousand', which probably gives an idea of their organisation. If this followed that of the mamluks of Moorish Spain, 'Regiments' of 1,000 would be divided into five companies, each of five 40 man troops. An élite was provided by the 'Royal Mamelukes' of the Sultan's guard, as also by those of the previous Sultan, who would remain together as a separate unit.

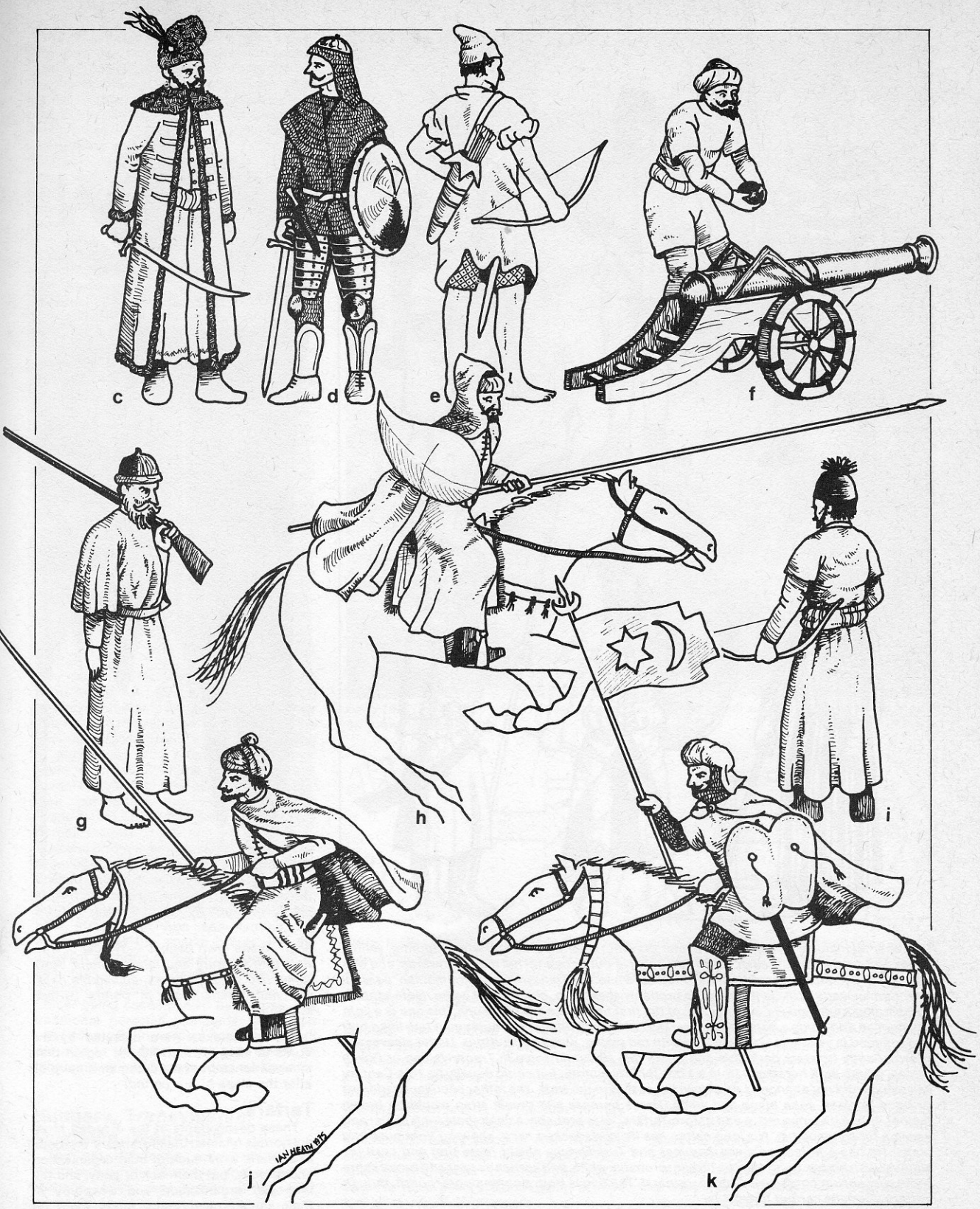
The Mamelukes themselves were supported by 'Korsans' — Abyssinian and other mercenaries, similarly equipped but presumably of lesser quality — and by Arab light cavalry. The latter, if equipped like their compatriots across the Red Sea, would have a 15 foot cane lance, a small round hide shield, a javelin, and a sling, kept folded turban-wise about the head when not in use.

The Mamelukes actually had artillery before the Turks did, in the 14th Century, but, like European chivalry, regarded firearms as a challenge to their traditional military skills and the social order based on them, so reserved cannon for the attack and defence of forts. However, in their wars with the Turks in the early 16th Century, they brought numerous immobile cannon into the field at al-Raydaniya (1517); these being used to defend a field-work, which the Turks easily turned. By this time, smaller firearms had also appeared, but were confined to low status infantry, particularly black slaves. In 1510, the first complete arquebus-armed unit, (at-tabaga al-Khamisia), was formed, but this 'patched-up army' was a badly-paid mixed bag of Turkomans, Persians and others, used mainly for garrison and marine duties.

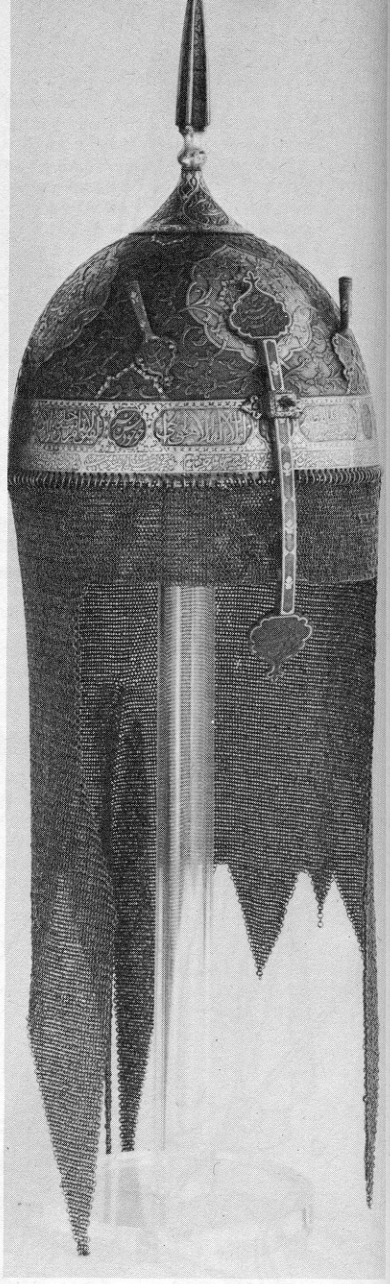
Under the last Sultan, Tumanbey, a last attempt to get some mobile firepower was the mounting of arquebusiers and light artillery in ox-carts, and the use of camel-guns (heavy arquebusses fired from the unfortunate beasts' humps).

a *Tartar wearing sheepskin cap and another sheepskin tucked through his sash, plus sheepskin boots. The horse's tail seems to be pushed through a sort of 'woggle' but may simply be knotted.* **b** *Mameluke, based on a later drawing but probably giving a fair indication of what they looked like in our period. He is dressed in white with a red cap in his turban and red stripes on the cloth trapper on the horse's hindquarters. The lance pennon is blue with a white crescent. He carries a Turkish-style shield of near rectangular shape, and is likely to have worn mail under this outer clothing.* **c** *High officer or Voivode, Moldavia or Wallachia, around 1600. Carries a cavalry sabre, and would be mounted in battle. Dress generally very like a Russian Boyar, but his lopsided fur hat with bunch of eagle feathers is characteristic of this area.* **d** *Hungarian medium cavalryman, late 15th or early 16th Century. He has a mail coif with 'saucer' on top, like Poles, Russians and others, a mail shirt, reinforced by a sort of mail cape tucked into his belt, and plate and mail leg protection. Other weapons would be likely to include bow and spear.* **e** *Moorish foot archer in loose white shirt, shorts and red leather hat, which seem to have been characteristic.* **f** *Moorish gunner and light gun. He wears a turban but also seems to have shorts, in this case worn over hose.* **g** *Moorish arquebusier in coloured robe with wide sleeves. Under-sleeves white. Cap red with white edge (this could represent a very narrow turban).* **h, i** *and* **j** *Three Moorish light horsemen. 'i' has a bow and wears a brown hat with tuft on top. 'h' has a 12-foot lance, hood of cloak worn up, and carries a shield. 'j' wears a turban with a sort of top-knot in it.* **k** *Moorish standard bearer in Spain in the late 15th Century. Note typical heart-shaped shield, here ornamented with tassels. He wears full mail including coif under a surcoat, cloak and turban.*




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l *Another Mameluke, also based on a later drawing, wearing blue and white clothing, yellow shoes and a red and white sash. His brown beehive-cum-coconut hat may be rawhide, and was also worn by Moors and Stradiots. Plumes white.* **m** *Transylvanian/Roumanian peasant infantryman, early 17th Century. Cap is probably sheepskin, cloak could be fur. Note sandals and binding round ankles.* **n** *A 'haiduk' of the first half of the 17th Century. This one is a light cavalryman and holds a horseman's axe. His hat is red with fur trim, outer coat red, lined buff and trimmed in yellow, jacket light blue with red piping, lining and buttons. Under sleeves are brown, baggy trousers dark blue and boots red. He could serve in Transylvanian or Polish forces.* **o** *Arab light horseman from a 17th Century picture, but could equally be 16th Century as costume did not change as quickly in the east as in the west. The rather peculiar headdress or hood is black, robe black and white. Horse harness and breast strap would be brown leather, fringe on lance red.* **p** *and* **q** *More Tartars. 'p' is probably a chief (note long plaits) and wears a fur-trimmed hat. His long caftan has its skirts tucked back, showing tight hose and boots. He has a horseman's war hammer and Turkish-type shield (note ring and cord for slinging it on his back.) 'q' wears a turban, probably white, and carries a spear and broad sabre (note suspension cords, usual for easterners). The flag is from a contemporary print, though Tartars normally carried horsetails.*

Shah Abbas' own helmet — typical of Persian 16th Century and later helmets. Note spike, two plume holders, adjustable nasal and mail aventail cut in points (British Museum).

The Mamelukes were defeated by the Turks in 1516-17, and did not regain their independence from the Ottoman Empire till after the close of our period.

Tartars

These descendants of the dreaded Mongol hordes retained their forebears' methods of warfare, with much of their organisation and ferocity, but their lack of unity, and the improved organisation and weaponry of their settled neighbours, made them no

longer the terror they had once been. Nonetheless, they were still given to slave-raiding forays against their Russian and Polish neighbours, and, though most often allied to their Turkish co-religionists, they could also be found allied with Cossacks, Muscovites and Poles, and fought against all of these and the Turks too.

The Tartar armies, at least in Western Asia, were entirely cavalry, except that the largest Khanate, that of the Crim Tartars in the Crimea, could call upon 800 musketeers from the Volga Germans when required.

Tartar dress was most often of black sheepskin (wool outwards), with hats of the same, or shirts and ankle-length kaftans like the Russians, but buttoned on the left instead of the right, with linen breeches and half calf length red or yellow boots. However, they were anything but uniform in dress (save in general grubbiness, if European witnesses are to be believed). Fur-trimmed hats were common, but many wore white cotton turbans, and indeed officers and leaders usually imitated Turkish dress, often including helmet and mail of Turkish, Persian or Indian make. They were also distinguished by long hair, sometimes plaited, from their followers, who usually shaved their heads. Armour was not usual among the Tartar rank and file, whose only protection was normally a round or semi-rectangular shield.

Tartars were horse archers first and foremost, all carrying the composite bow, and many had no other weapon. However, sabres, spears similar to European boar-spears, and lassoes were also employed, and a very few had pistols, though in general they lacked firearms, even in the 17th Century.

In tactics, they were irregulars, using deep but loose formations, and relying entirely on mobility and envelopment, their superb horsemanship allowing them to fire accurately when fleeing, or when galloping in circles, a tactic often adopted. Their tricks even included the use of mounted dummies to add to their apparent numbers! Like Red Indians, they would sometimes evade return fire by hanging down the side of their mounts by one arm and one leg.

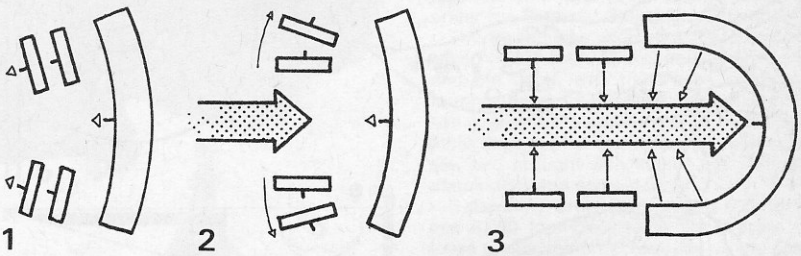
However, their armies were far from disorganised mobs. The full army or 'orda' was divided into groups of several thousand, known as 'czawul', which in turn were subdivided into units of '20 Standards', 800 men strong. An Aga commanded the czawul, a Bey the smaller group, and the different sections of the army were kept in communication by despatch riders, and directed by pipe and horn signals, each officer being accompanied by a piper. The traditional horsetail standards were also used for signalling orders, and the Tartars are said to have kept very good order so long as their unit commanders survived.

Hungary, Transylvania, Moldavia, Wallachia

The old Hungarian army, which was destroyed by the Turks at the battle of Mohacs, 1526, was made up of four elements.



Early 16th Century Persians. The tall pointed helmets were later supplanted by the type shown on drawing 'i' page 93.



Tartar tactics. **1** *Main Orda at rear, four Czawuls out in front.* **2** *Enemy attack and Czawuls give way, wheeling to flanks.* **3** *Enemy penetrates, centre gives ground, wings encircle enemy and advance Czawuls return to attack enemy flanks and rear.*

Firstly, the Magyar nobility, who formed about a third of the 12,000 cavalry at Mohacs. They included a Royal Guard of about 1,000, who were probably paid and semi-disciplined, but otherwise displayed an extreme, Hungarian, form of the indiscipline, rashness — and gallantry — of the Western feudal knight. By the 16th Century they had largely adopted the full plate armour and heavy lance of their Western counterparts, but the lesser gentry, and retainers who could not afford this, would seem to have used a combination of mail and plate, like Polish lancers.

Secondly, lightly-equipped horse-archers, as described and illustrated under the Imperialists; retainers of the nobles and Croatian and other mercenaries, making up the rest of the cavalry force.

Third came German mercenary troops, who formed rather under half the 13,000 infantry at Mohacs, and were armed chiefly with firearm and pike. Germans also supplied the artillerymen for the 80 or so small cannon brought into the field.

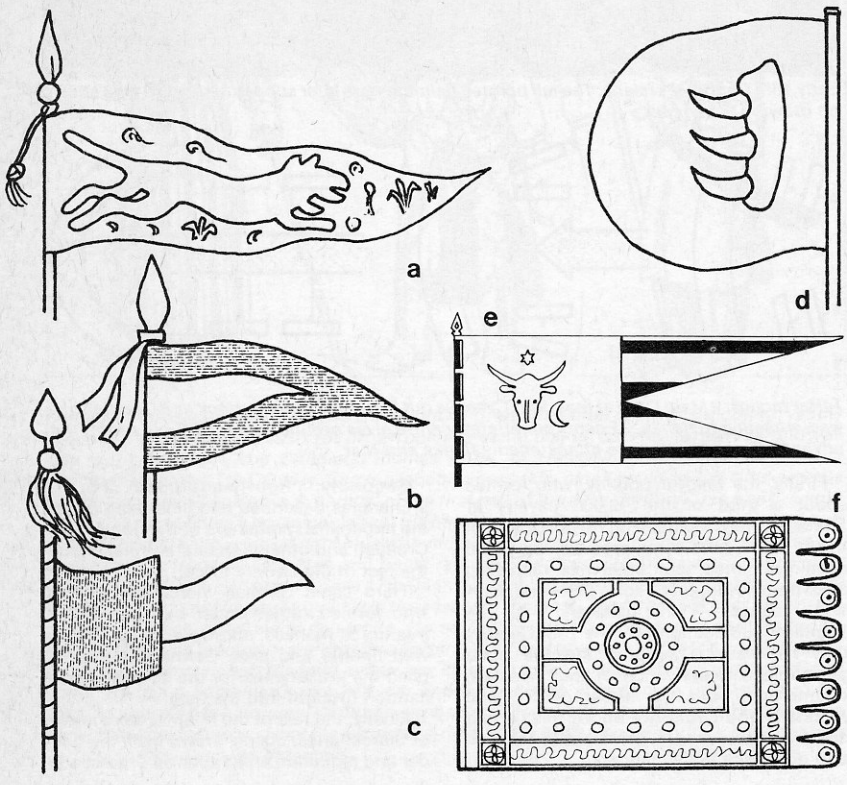
Finally, the rest of the infantry were levies or mercenaries, mainly drawn from the border and mountain areas such as Croatia and

Transylvania, since the Hungarian nobles, bitterly hated by their own peasants, were not about to arm them. Though most of them probably had some experience against the Turks, the military value of these troops was not very high; they were mainly skirmishers armed with the bow.

After Mohacs, much of Hungary fell into Turkish hands, and Hungarian light cavalry would be found in Turkish armies; a fringe remained under Austrian control, and the areas of Transylvania, Moldavia and Wallachia (more or less modern Romania) were left as semi-independent states in a sort of no-man's-land, between Austrians, Turks and Poles.

The Moldavians, under their Prince, Stephen the Great, had already, in 1500, beaten off Turkish invaders. Stephen maintained a small mercenary force paid out of taxes on the Black Sea ports, and had a bodyguard of nobles, but otherwise his army consisted of a national levy, both of nobles, and of all landed peasants. Nearly all were mounted for strategic movement, but actually fought on foot, making good use of rugged and wooded terrain, not only to protect themselves against the Turkish cavalry, but for sudden and decisive ambuscades. Their equipment was primitive; protection limited to padded clothing and wicker shields, and much of their armament of improvised peasant type — hooks, clubs, scythes and axes — although there were a large number of archers (in fact, a peasant turning up without sword and composite bow was liable to be beheaded), and a small element of relative





Above left *Wallachian cavalryman. From horse furniture and feathers on cap, probably an officer. Lynx fur cap and striped tunic are usual dress for Wallachians. Tunic is dark green with black stripes, coat light brown, and horse harness red with gilt fittings and tassels. Inset is a Wallachian wooden painted shield* (Roman Olejniczak).

a-c *Persian flags (horsetails were also used).* **a** *Purple with gold 'lion' and foliage (early 17th Century).* **b** *Many possible patterns included green with a gold centre or purple with a silver centre. Gilt ribbon (mid-17th Century).* **c** *15th Century. Colours include green-red, blue-red, or blue-yellow. Stripes on staff red or blue, and white.* **d** *Transylvanian standard. This device was used by Stephen Bathory (who became King of Hungary). Colour of device was white on blue ground.* **e** *Flag belonging to a 'Gospodar' (Prince) reconstructed from a 17th Century sketch of the battle of Obertyn. The bull's head is the symbol of Wallachia.* **f** *Moorish flag from Spain, 13th Century. Heavily embroidered.*

Right g *Persian Bazuband or arm protection. Shah Abbas' period — (?his). Note mail 'mitten' and splinted armour for wrist* (British Museum). **h** *Mameluke shield* (Tower of London). **i** *15th Century Mameluke helmet, designed to be worn over a turban* (Tower of London).

modernity was provided by a few men with crossbows and primitive handguns.

Early Wallachian armies would earlier have been rather similar, but in both states the gradual reduction of the peasants to serfdom tended through the 16th Century to erode both the peasant mounted yeomanry, or 'Calarasi', and the infantry, who had previously been provided by the poorer peasants.

By the time of Michael the Brave's victory over the Turks at Calugareni (1595), the infantry, though still present, was beginning to disappear, and later Wallachian forces were almost entirely of noble cavalry. These were organised in 'sotnias' or squadrons of 100, and were lightly equipped with spear, shield, sabre, and often bow, occasionally replaced with pistols. There were 20 standards of Wallachians in Polish service, where they were described as very brave, but great looters! They also served the Turks, and indeed in later years became chiefly a Turkish satellite.

Michael the Brave later ruled Moldavia and Transylvania also, and his army at Calugareni included a Transylvanian as well as a Cossack contingent (and Serbian and Albanian mercenaries), and Transylvanian princes of this period (who of course included the infamous 15th Century Vlad the Impaler, original of Count Dracula!) fought for and against most of their neighbours at one time or another, and were involved in the early stages of the 30 Years' War. Unusually for the area, the Transylvanian nobility (apart from Dracula, one presumes) got on relatively well with the peasantry, and so their armies maintained a fairly substantial infantry component as well as the usual levy of noble cavalry. After 1606, the Princes established landless warriors — 'Haiduks' — on holdings along the Frontier, on military service terms like the Austrian 'Grenzers'.

By the 30 Years' War, Prince Bethlen Gabor had a small standing army of infantry with firearms, and probably pikemen also. Cavalry would probably have included mailed lancers and light horse-archers. The standing army was supplemented by peasant foot with firearms.

The uniforms of 'Hungarian' troops in the Polish army, illustrated in Chapter 14, give a good idea of the dress of Transylvanians, since these were originally Transylvanians, introduced by Stephen Bathory, Prince of Transylvania in 1571, who got himself elected King of Poland. His symbol (looking rather like Dracula's false teeth) is illustrated, as is the Bull's head and Star used in Wallachia from the 14th Century. Matthias Corvinus of Hungary (died 1490) had a raven on some standards, which may have been employed later also, while from the early 17th Century, Hungarians already used red, white and green flags, though I have not discovered of what pattern.

Moors

The Moorish inhabitants of Spain were in decline, and were finally defeated close to the start of our period, so we are concerned here primarily with the Moors of North-West Africa. During the 16th and 17th Centuries, these hardy warriors fought the Portuguese, Imperial, and Spanish forces, the Turks, the Muslim Songhoi Empire of Northern Nigeria, as well as indulging in civil wars and large-scale sea-piracy.

On land, their chief arm seems to have been light cavalry. Some of these were clad in Turkish style, and armed with 12 foot light lance, composite bow, or even arquebus, but others sound very like their forebears of Roman times, wearing only a white turban, a fold of which went under the chin, and a sort of white loincloth, riding their ponies without either saddle or bridle, and being armed with 'three darts or long javelins, which they carry in their right hand' and 'a large crooked dagger called a sequin upon their left arm'. Heart-shaped shields were particularly characteristic of the Moors, at least in Spain, and were adopted from them by the Spanish genitors.

However, they also had some artillery, and considerable infantry, whose weapons included bows, crossbows, and firearms. They seem to have been formidable fighters, especially under Ahmed el-Mansur, 'The Victorious', who was declared Sultan after destroying the army of King Sebastian of Portugal at Kasr-al-Kabir (1578), and went on to capture Timbuktu and overthrow the Songhoi Empire with an army including 1,500 lancer cavalry and 2,500 infantry arquebusiers. The army included negroes and Turkish deserters, but many of the infantry were Andalusian mercenaries — I would assume Moriscoes who left Spain after the suppression of their revolt (which was assisted by Moors from Africa) in 1568.

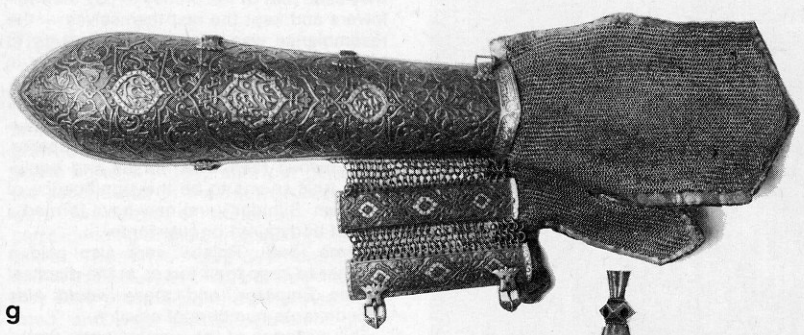
Abyssinia

The Ethiopians were another independent African nation who came into conflict with the Turks, or at least Arab forces with Turkish support. At first they were unable to make headway against Turkish firearms, but in 1541 got arms and aid from the Portuguese, and had considerable success under the Emperor Galawedos (Claudius).

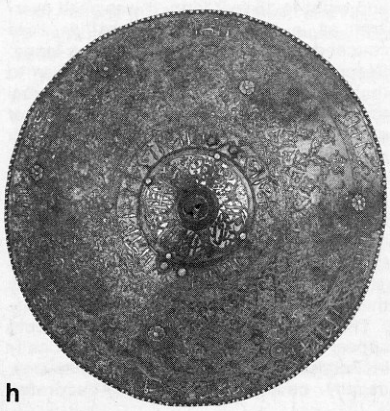
The Portuguese expeditionary force consisted of 400 men, all arquebusiers, a drum and fife band, and 130 slaves, who also fought. They bore the Royal banner of crimson and white damask, with a cross, and other flags of blue and white, with red crosses, and brought with them 1,000 stand of matchlocks and some cannon.

Galawedos' army consisted of 500 horse and 8,000 foot clad in the local dress of loose tunics and breeches, and, in the case of the foot, armed with bows, straight swords and hide shields; the horse rode with a loop for the big toe instead of a stirrup, would probably have been armed with light lance or javelin, and may have included a small proportion of mailed cavalry, as did those of the Wadj area, a tributary state, which, as well as 10,000 infantry with javelins, had 5,000 horse, mainly bareback light cavalry, but with 500 in mail and with horses caparisoned in antelope-hide. All these were lancers.

Generally the Ethiopians' discipline cannot have been high, though they were capable of fierce charges, but the Galla tribesmen were described as coming on, not without order, like barbarians, 'but in formed squadrons'.



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The Moghul Empire

Although somewhat beyond the general geographic limits I have taken, the armies of the Moghul Emperors of India I think qualify for inclusion, belonging as they do to the Islamic world, and in many respects following the pattern of those of Persia or Turkey, though with many distinctive features of their own.

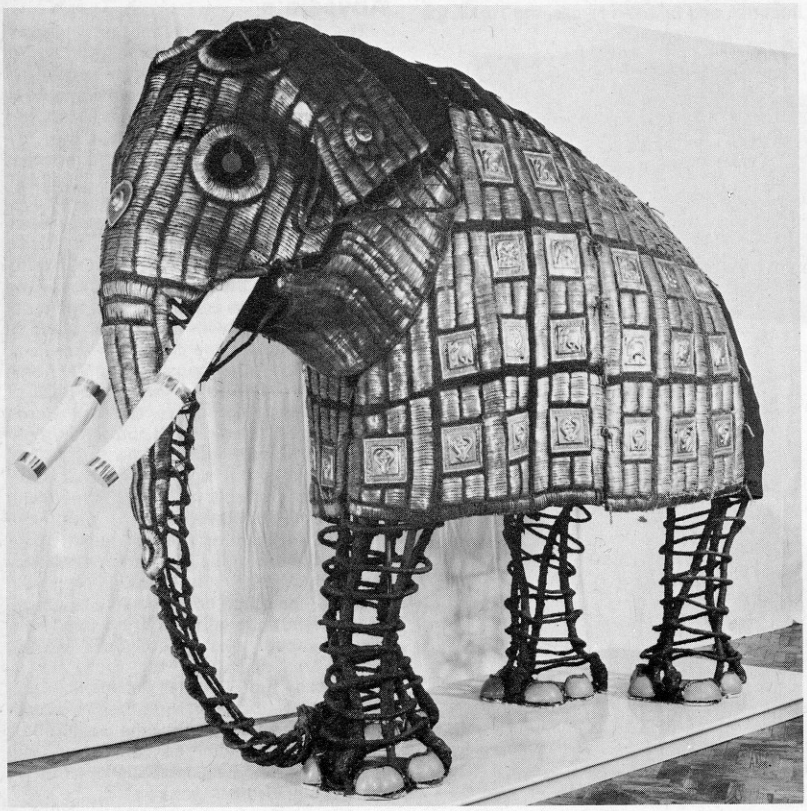
The beginning of the Moghul Empire was in the 1520s, when one of the Mongol conqueror Tamerlaine's descendants, Babur (ruler of a part of the latter's old empire), invaded India, and after winning victories over Afghans, Rajputs and others, set up the Empire at Delhi. The large paid army we are here concerned with, however, was more the creation of a successor, Akbar, in the second half of the 16th Century.

Babur's army was very largely of cavalry, of the Persian-Mongol type; this remained true of later Moghul armies, and Persians were often to be found serving in them, usually as officers (they claimed to be much better horsemen than Indians — but then, they claimed to be much better riders than *anybody*).

However, there was soon also an infantry component, partially equipped with firearms, which at the battle of Panipat (1525) occupied a sort of wagon-laager in the usual Eastern style: 700 ox-carts, some possibly equipped with guns, were connected with bull-hide ropes and portable breastworks. Two years later, at Khanua, wagons and guns seem to have actually *advanced* against the enemy, under the direction of Babur's Turkish gunner, Mustafa Rumi (Rumi=Turk).

In Akbar's day, the paid infantry and cavalry may have been roughly equal in number, at 12,000 each, but by the middle of the 17th Century the cavalry, very much the chief striking arm, outnumbered the 15,000 paid infantry and artillery by two or three to one.

Elephant armour — later than the period covered in this book, but probably similar to some earlier ones (Department of the Environment).



The cavalry

From Akbar's time, the bulk of the paid cavalry were provided by 'Omrahs' or 'Mansabdars', nobles or adventurers whose position was similar to that of colonels in 16th Century Europe, in that they were paid to raise and maintain a band of men; and that they used part of the money to pay their followers and kept the rest themselves — the resemblance was complete down even to 'dead pays' which were even commoner in India than in Europe.

There were in addition troopers — 'Ahadi', 'Silhidars' — who served individually and were paid directly by the Emperor. They owned their own horses and equipment (this seems to be the significance of the term 'Silhidar') and may have formed a sort of bodyguard or élite force.

Some Hindu Rajahs were also paid a retainer to keep their forces at the disposal of the Emperor, and these would also include large numbers of cavalry.

The weapons of the cavalry were, firstly, the light lance, in India made of bamboo and eight to 15 feet long. It was used overarm as a thrusting spear rather than couched under the arm like a true lance. Secondly, the composite bow, similar to that of the Persians or Tartars, and as usual these were supplemented by a variety of other weapons. Indians used maces with bladed, globular or three-ball heads; axes, including double-bladed and crows-beak patterns; swords — in this period apparently often long and straight; and daggers of many types, mostly curved, but including the unique 'katar' or fist-dagger with its 'H'-shaped hilt. By the mid-17th Century there were even some firearms in use.

The paid semi-regular cavalry would appear all to have been armoured, basically in Persian style with mail and char-aina, usually covered by a richly-decorated

short-sleeved coat. Very baggy trousers and shawls wrapped around the waist protected the lower part of the body, though Indians often wore rather tasset-like and distinctive leg-armour. Helmets were mostly of Mongol type, differing from the later Persian styles, firstly by their frequent lack of a nasal, secondly by the single plume springing from the point of the helmet (some had a spike with a small pennon). The 'coat of a thousand eyes', a sort of studded brigantine, could also be worn, and lighter irregular cavalry were often protected by padded cotton jackets and voluminous turbans, some of their folds swathed under the chin.

Most cavalry carried shields, either of steel, or of buffalo or rhinoceros hide with a metal boss; round and up to 24 inches in diameter, they were similar to Persian or Turkish examples.

Horses were sometimes protected in the Persian style (or in some cases by numerous cows' tails hung all round) but often had only very richly-decorated harness. They were sometimes trained to advance on their hind legs — a tactic particularly used against elephants, for some reason.

In battle, cavalry tactics were loose and irregular. Like most Easterners the Moghul horse were highly-skilled with their weapons but not trained, like Europeans, to act together in formation. Omrahs' and Mansabdars' bands would keep together, and there were officers referred to as chiefs of 500, 1,000, and up to 7,000 who might head larger bodies; large masses in fairly deep 'column of mob' seem to have been usual.

The infantry

Those in the pay of the Emperor in the 16th Century were probably about two-thirds archers, one-third firearm men. As time passed, the proportion of the latter grew, but there were many men with composite bows until long after our period. In the second half of the 16th Century there were two sizes of matchlock firearm, corresponding to the European musket and caliver. The former were described in the mid-17th Century as small but well-finished; they were often inlaid and otherwise decorated, and were kept in scarlet or green cloth covers when not in use. They had wooden forks or rests, which seem to have been hinged to the gun itself, and were perhaps rather short, as Indian musketeers sometimes sat or squatted to fire.

The infantry were far inferior in status and morale to the cavalry, and spent much of their time on the more menial duties of sentry-go and baggage-guard. In battle, like the cavalry, they kept no order, and either skirmished or were found defending laagers or field-fortifications.

The firearm men did not use the European bandolier, but wore waist-belts, often decorated, from which hung match, flint and steel, bullet pouches, powder flask and priming-horn.



Above right *Moghul cavalry and firearm infantry* (The British Library).



In addition to the firearms mentioned, there were also heavier 'jezails' like the wall-pieces used in Europe; they were indeed often so mounted in fortresses, but were also taken into the field on camel mountings. In the mid-17th Century the army included 300 camels so equipped.

Apart from the paid infantry and cavalry mentioned, Moghul armies normally contained vast hordes of local levies and militia, hired tribesmen, followers of local Rajahs and so forth. These would provide, chiefly, light cavalry and infantry, the latter being armed with bamboo spears, sword and shield, sling or bow. (Some tribesmen still used bamboo longbows as in Alexander's day.)

Such troops largely served to satisfy the Indian passion for numbers, and were normally useless, or even harmful, to their own side, both in battle and on the march, when, together with the invariable vast crowds of camp-followers and massive paraphernalia of the Emperor's camp and elephant-borne harem, they helped to slow down the army to the crawling pace which so irritated contemporary European observers like Sir Thomas Roe.

Artillery

The guns in use in the 16th Century were ponderous pieces, drawn by oxen — some required a team of 120 — and assisted over difficult going by elephants trained to push from the rear with their leather-padded foreheads. They seem to have been rigidly mounted on solid-wheeled carriages even into the 17th Century. The size of some siege guns was very great — in the 1630s, Shah Jehan had a pair of 17 foot 90 pounders known as 'Blessed Victory' and 'World Conqueror'; the weight of such weapons was probably the final factor in replacing Mongol mobility by Indian slowness.

By the mid-17th Century, however, a lighter and more mobile artillery force had been added to the heavy pieces, then 70 in number. This was the 'Artillery of the Stirrup' (so-called because in constant attendance upon the Emperor's person), and consisted of 50 or 60 small bronze field pieces, drawn, not by oxen, but by a pair of horses to each gun, and 'each well mounted on a painted carriage' with two ammunition chests, one before and one behind. They were ornamented with red streamers, and, to judge by later examples, one likely type of painted decoration would be a pattern of red hands.

The artillery, though important in sieges, played a secondary part in battle, and were usually placed in front of the army centre, where they could only fire before the main forces joined battle. Like the Turks, the Moghuls often chained their guns together or used natural cover or field defences to protect them from light cavalry, and they

Moghuls. Shows heavy cavalry, elephants (note armour, including upstanding 'ears' to protect driver) (The British Library).

also used the Turkish trick of lining up the guns behind a first line of skirmishers, so as to provide a sort of ambush for enemy cavalry breaking through.

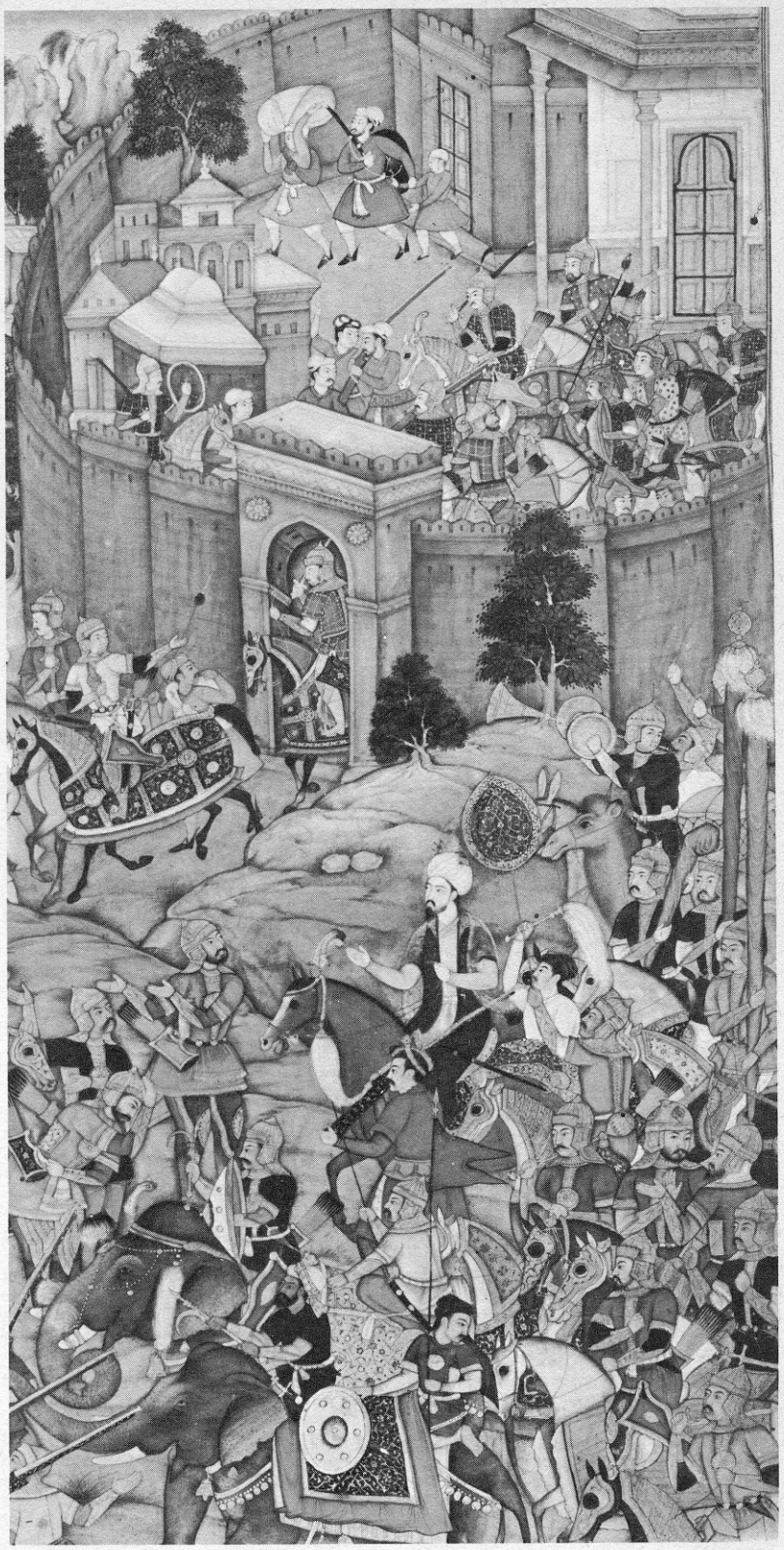
An interesting addition to the Moghul artillery was the rocket corps or 'Banandaz'. Rockets seem to have been already in use in India in the mid-16th Century. Consisting of an iron tube up to three inches diameter and about a foot long, tied with rawhide to a six to 12 foot bamboo, the rocket could carry an explosive head or sword blade up to 1,000 yards. While highly erratic and unreliable, rockets could be effective against large bodies of troops, especially cavalry, or for setting fire to buildings, and were much easier to transport than artillery. A camel-mounted rocketman, for instance, could carry ten, and although there may have been some launching-tripods, similar to those used in later British service, the standard method of launching required no apparatus at all, being simply to light the fuse and then *throw* the rocket in the right direction! Rocket sticks were often decorated with a small pennant while being carried.

Elephants

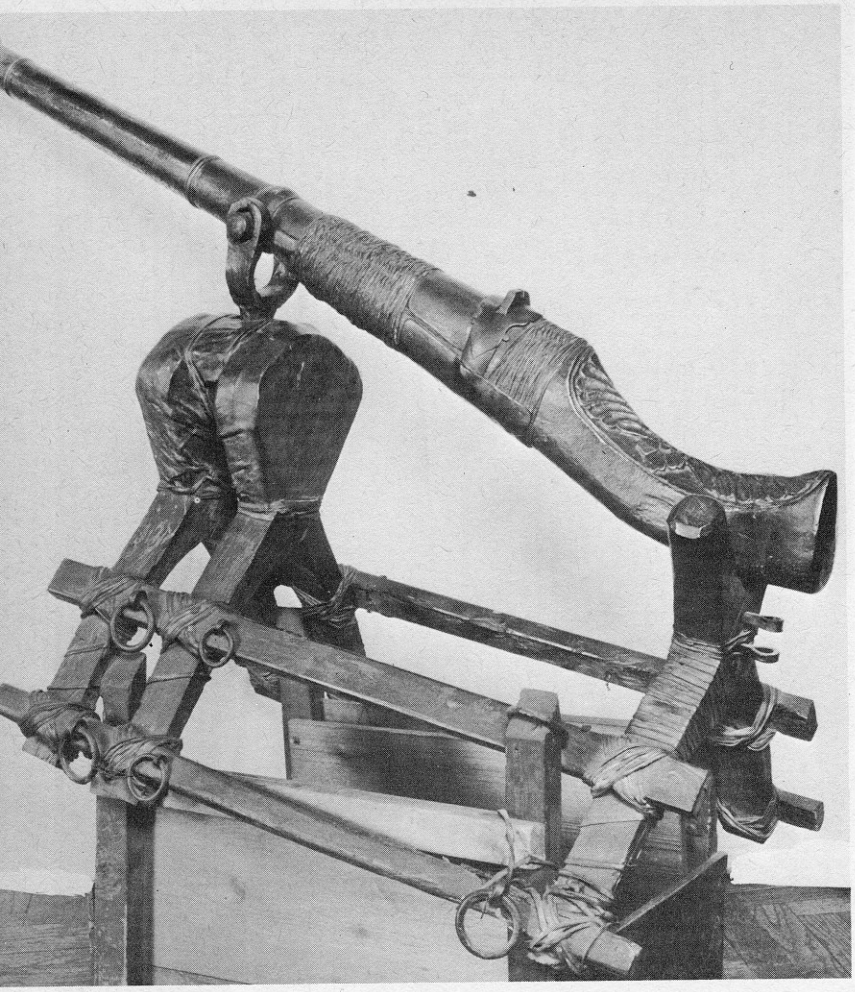
Another step in the Indianisation of the invading armies, elephants were not present in Babur's army but were used by his successors, their number probably at a peak in the late 16th Century. Jahangir, in the early 17th Century, used at least 300 elephants, but their numbers seem to have declined later, perhaps because of the intelligent elephant's detestation of loud bangs. Moghul war-elephants were trained with fireworks to accustom them to the sound of firearms, and some paintings show musketeers actually firing from elephant-howdahs, but artillery was another matter — in the early 18th Century Nizam ul Mulk lined up 225 elephants in front of his guns, as a test — after one volley (presumably of blank) most of them ran for miles, trampling 306 unfortunate infantrymen in the rush!

Elephant crews were sometimes mail-clad, and could be armed with lances, bows, swords and shields, as well as firearms. A war-elephant carried a box or turret-shaped howdah with three men in it; those of Jahangir had yellow banners at each corner, and at the front a 'sling . . . that carried a bullett as bigg as a great tennis ball' — presumably a catapult of some sort. The elephant itself could also be armed, wielding, according to some accounts, a sword or ball-and-chain in its trunk. This rather falls into the 'I don't know what effect they have on the enemy but, by God, they frighten me!' category of weapon, enhancing the already considerable danger to its own side presented by a panicking elephant.

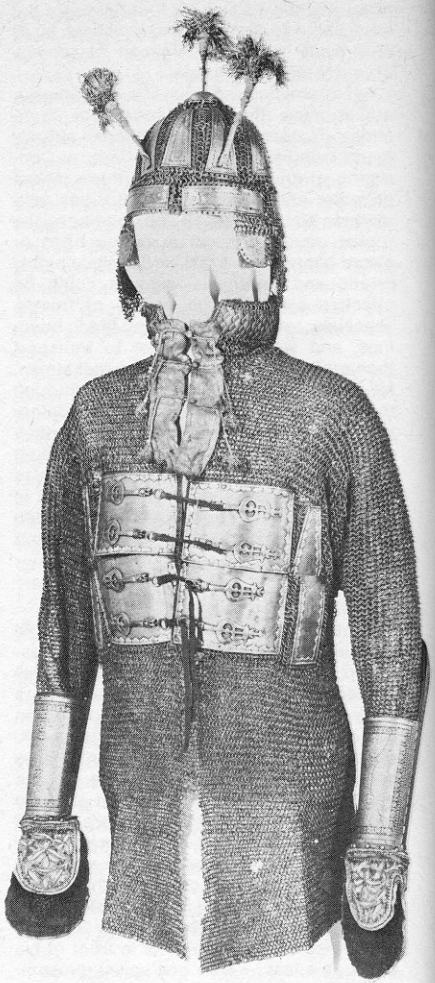
It was *de rigeur* for army commanders in



Moghul elephants, heavy cavalry, firearm infantry and camel-mounted band (on right) (The British Museum).



Indian camel gun, probably 18th Century, but earlier ones would be similar (Tower of London).



Indian reinforced mail, 17th Century. (In this case even the helmet is of small plates joined by mail.)

India to be mounted on elephants; while largely for prestige reasons, this also made the general visible to his troops, made a good vantage-point for signalling, and tended to raise the great man above the vulgar brawl going on below. Unfortunately, the commander was also a very good target for the enemy, and for this reason was sometimes provided with a seat with armoured sides three feet high and a scarlet canopy — a sort of 'armoured command vehicle'. Battles were often settled by making a dead set at the opposing commander's elephant. One precaution against this was to provide a number of elephant-mounted 'Monty's doubles', but this rather tended to defeat the original purpose of the exercise!

Elephants could also be provided with laminated steel armour of their own as shown, and might be provided with a metal head-plate to protect them from spikes when pushing down fortress doors, which also formed a frequent part of their duties.

Flags and costume

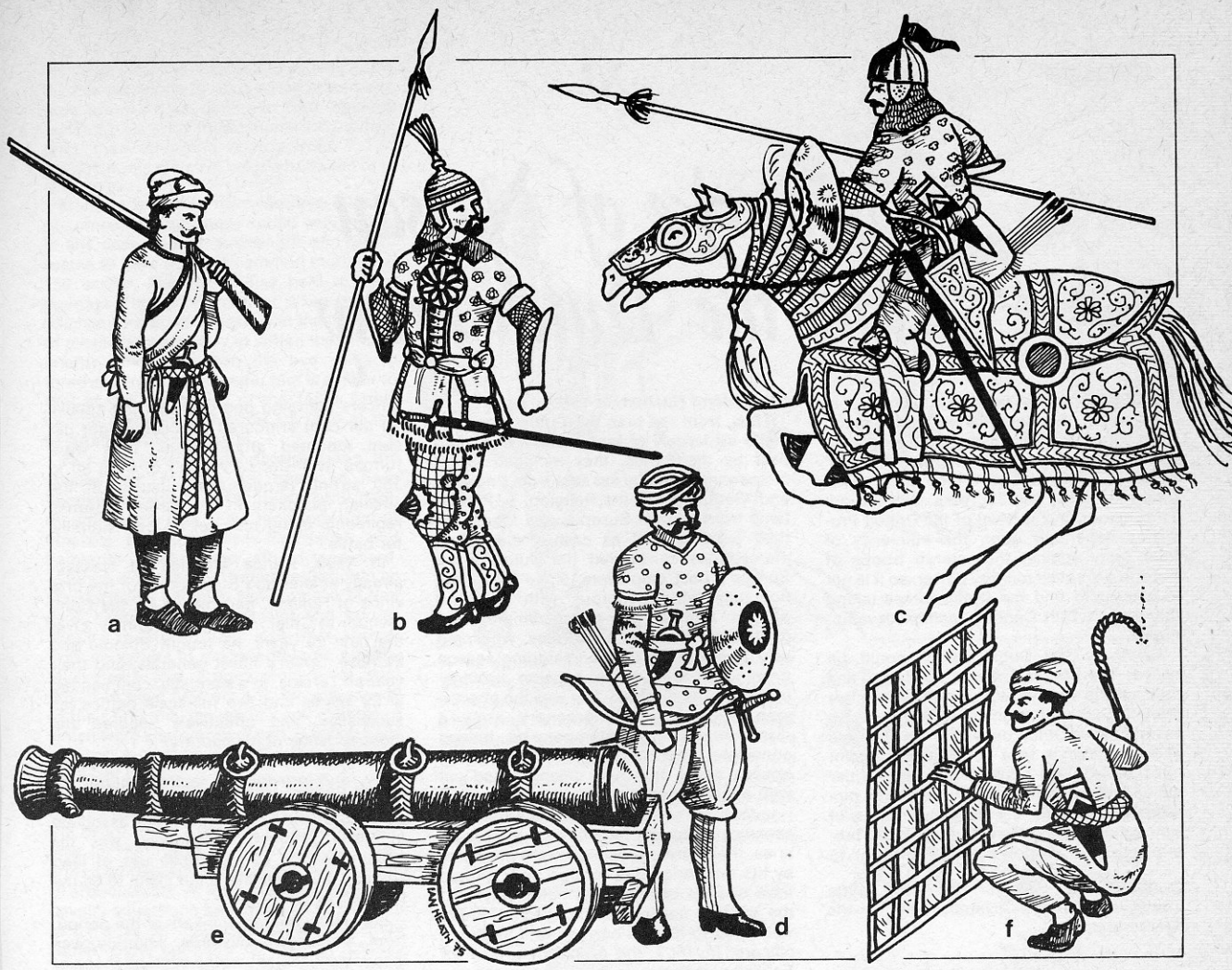
The Emperors had various personal or palace guards, and these seem to have included 'Surkh-posh' — 'wearers of red', presumably uniformed, from a fairly early date. Otherwise there was no uniformity. Infantry wore their normal dress, usually a loose tunic and baggy trousers; white would probably be usual, though contemporary paintings show a wide range of colours. The paid infantry may have worn red turbans — these were supposed to be worn by all in the emperor's employ, and were a common 'uniform' of Indian foot-soldiers in the early 16th Century, before the Moghul invasion.

The cavalry were more elaborately clad, and were very colourful, surcoats and horse-bardings being often of cloth with flower patterns, or gold-embroidered. The bands of 'Omrahs' or 'Mansabdars' were usually drawn from a particular racial or religious group — Afghans, Rajputs, Moghuls and so on — and would perhaps be distinguished to some extent by ethnic styles of dress.

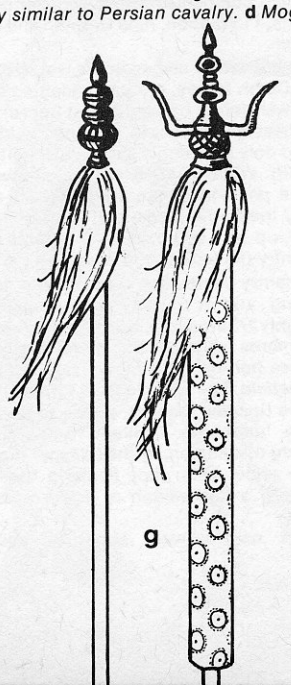
The Moghuls retained the traditional horsetail standards shown, and the army standard was a 'Tuman-tug' of three horse or yak tails hanging from a crossbar on a pole. Like many Hindu rulers, the Emperor had a State Umbrella and such things, at least in the early part of our period, could be carried in war as a sort of standard.

'Mansabdars' could be awarded distinctions from the standards normally carried before the Emperor, and it seems likely that these could serve as unit standards — a 'leader of a thousand' or above could receive an 'Alam', a triangular flag of red or green with a gold image (such as a lion, or a face with rays), and a gold fringe.

Large iron or copper kettledrums were also awarded to high officers, and, like the ten foot trumpets often carried, could probably serve for signalling purposes.



a *Indian musketeer of early 17th Century. Red and white turban, green coat, brown trousers, black slippers, checked sash at waist with knot and long ends at front, with match and pouch, also dagger. This particular man has a sort of blanket roll over his shoulder (white).* **b** *A noble moghul cavalryman in gold helmet with black plume, gilt armour on chest and arms, silver aventail of mail, grey tassets with gilt knee-pieces. Green jacket with black and gold decorations and white fringes, blue breeches with gold spots, red leggings with gold trim, and black boots. Black and white waist sash through gilt decorations, red sword suspension, black scabbard, gilt trim.* **c** *Moghul heavy cavalryman on barded horse covered with gaily patterned cloth. Small red pennon on helmet. In general almost exactly similar to Persian cavalry.* **d** *Moghul light horseman. Similarly dressed and armed to heavy, with exception of turban and lack of armour. Very puffed-out breeches could also be worn by armoured cavalryman.* **e** *Heavy siege gun on typical mounting.* **f** *The gunner holds a type of portfire, and shelters behind a small bamboo screen which seems to have been standard equipment for Indian gunners. (As it certainly would not stop bullets — or fragments of the gun — it is hard to see its purpose.) He has a 'katar' or fist-dagger in his waist-sash.* **g** *Two standards, both with gilt and red tops. The left has a black and white horsetail and a red cover (or possibly flag) with gold trim round the staff; the right a white horsetail and a black staff.*



20

Maurice of Nassau and the Dutch army

The Dutch army was born with the nation, in 1568, when the Netherlands started upon their long war of independence against Spain. War was continuous to the 12 Years' Truce of 1609, and was then once more renewed during the 30 Years' War period. Throughout, the survival of the United Provinces depended upon the efficiency of their army against the veteran troops of Europe's greatest military power, so it is not surprising to find the Dutch forces taking the lead in 16th Century tactical developments.

Relatively few Dutch troops could be raised. The population was not large, and their efforts were directed more to the sea than the land, though there were always several native Dutch units, and the vital role of town defence to a considerable extent depended on the bravery of local burgher militia (including in the early days such picturesque units as the ferocious corps of women, armed with sword, dagger and firearm, raised by widow Kenau Hasselaer to help defend Haarlem in 1572).

Dutch pikeman's armour, circa 1630, in the Tower of London (Department of the Environment).



Thus, from the first, the Dutch army was made up largely of foreigners. All of them paid by the States, they included 'pure' mercenaries, official aid sent from England, and 'Gentlemen of the Religion' — Protestants from all over Europe, who fought for their faith as well as cash. Experienced mercenaries considered the Dutch to be Europe's best employers, since they were not only fairly generous with pay, but offered regular year-round employment (unlike, for example, the Poles, who paid very well, but for the campaigning season only), and even some pension arrangements for the disabled. Nor was the possession of a largely-mercenary army a disadvantage — contemporaries indeed considered that the reforms of Maurice of Nassau could *only* have been carried out with a disciplined mercenary force.

Indeed, some of Maurice's reforms were specifically for the benefit of the mercenaries: their career prospects were improved by his insistence that foreign units should have officers of their own nationality, and the military college he founded at Breda was open to foreign-born as well as Dutch officers. In 1607, the army comprised 43 English companies, in three Regiments (the first English unit in Dutch service, in 1572, was eventually to become The Buffs); 32 French companies in two regiments; 20 of Scots, 11 Walloon, nine German and only 17 Dutch.

In the earlier stages of the war with Spain the Dutch forces, though managing to keep the war going, had an almost unbroken run of disaster, at least in the open field, lightened only by a single success, at Heiligerlee (1568). William the Silent was, however, a more persistent than lucky leader, and by 1580 the Netherlands total forces had been built up to 3,000 cavalry and some 28,000 infantry (including garrisons).

Infantry companies were, mainly, 150-200 strong, and at this date were made up of roughly 2/3 arquebusiers, 1/3 pikemen. Their regiments varied from three to 15 companies (ten or 11 being typical), but on the battlefield they seem to have formed usually in the Spanish manner, in one to three very large 'battalions' (called 'Hopen' by the Dutch) of pikemen, formed deeper than they were wide, with shot flanking them and forming a thin screen or 'forlorn hope' in front.

The cavalry were about 22 per cent lancers (carrying one pistol by the 1590s), 70 per cent armoured pistoliers, eight per cent mounted arquebusiers. They were formed in ensigns ('Vanen') of from 50 to 150 strong (arquebusiers usually in the smaller, pistoliers in the larger ensigns), regiments being only set up provisionally, for battle.

In 1590, Prince Maurice of Nassau, already soldier and Stadtholder of the province of Holland, became, at 23, the Commander in Chief of the Dutch armies. Over the next 20 years, he fought Spinola and Farnese, Spain's finest generals, and their veteran Tercios, to a standstill, commanded at 29 sieges and two full-scale battles, all successes, and effectively secured the independence of his country.

He also drastically reformed the Dutch army, and provided a tactical model for most of the armies (at least of Protestant powers) of the 17th Century. His associate in these reforms, incidentally, was his cousin William Louis, whose use of lead soldiers must give him a fair claim to be the first wargamer.

Like many military thinkers of the period, from Machiavelli onwards, Maurice was inspired by ancient works such as those of Vegetius and Leo; indeed, his enthusiasm seems at first to have been somewhat uncritical, extending to ordering his officers to learn Latin, and kitting out an experimental company Roman fashion, with sword, shield and spear.

More practical classical borrowings included the standardised layout of the camps in which his army spent the summer, neat company-streets with officers' tents at the end surrounding the train and the tall tent of the commander, also the regular drill and training, including mock-battles. Most important, however, was the new 'battalion', the basic infantry battlefield unit, reduced from several thousands to, officially, 550 (taken from the Roman cohort). Regiments would now form, usually, two or more battalions on the battlefield, each with pikes in the centre, musketeers on each side of them, and arquebusiers on the extreme flanks, eight to 12 ranks deep. The army as a whole formed, usually, three lines, with the battalions drawn up, as shown, in chequer-board fashion.

This network of small tactical units gave the Dutch far greater mobility and flexibility than their opponents, or indeed most contemporary armies.

Though the figure of 550 is usually given for the battalions, it appears in practice to have varied a great deal — in 1592, Maurice reviewed his army in battalions for the first time, their strengths varying from 750 to 1,030. Elton's diagram is for a battalion of at least 972.

Maurice is said to have reduced the size of companies, but these varied very widely in any case, though a strength of 113-120 seems to have become common in place of 150 earlier. Maurice is also held to have increased the proportion of pikes to shot (Michael Roberts suggests that the increase of pikes was necessary to stiffen the thinner infantry line). However, the two pikes to three shot ratio usual under him is similar to that of the companies of the 1580s listed, though certainly above the 1:2 ratio at the beginning of that decade.

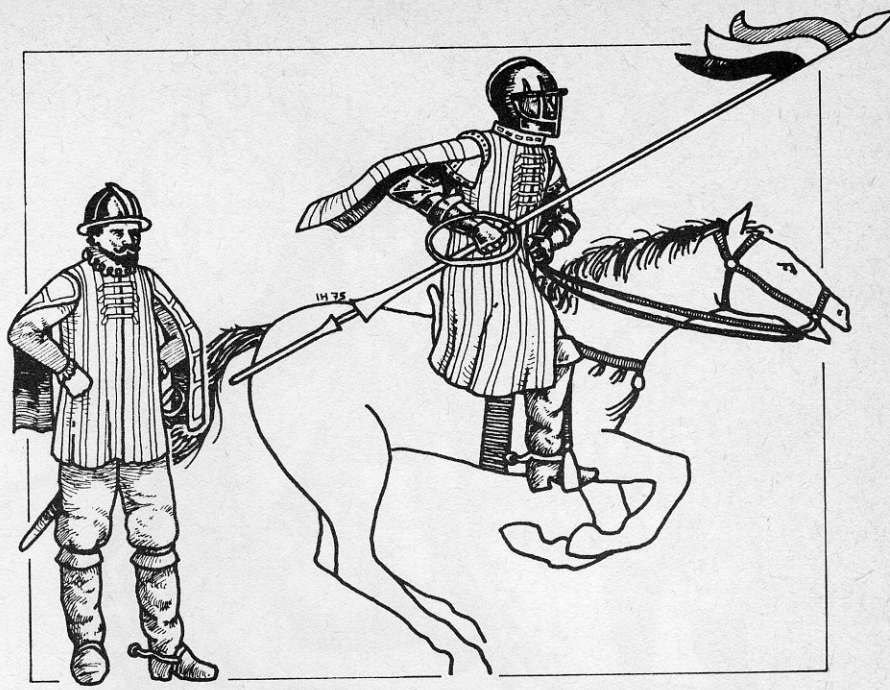
Nor did Maurice standardise upon the musket, which does not seem to have become the sole infantry firearm until 1622, though as the lists show the proportion of muskets to arquebusses increased, and halberds, two-handers, etc, disappeared. Maurice did order that equipment should be standardised: pikemen were to have 18 foot pike, helmet, gorget, corselet and sword; about a quarter of them also wore armour from shoulders to elbow and large tassets. Musketeers and arquebusiers were supposed to have helmets and swords as well as their firearms, the lengths and calibres of which were also standardised. (Musket balls weighed ten or 12 to the pound, arquebus balls half this.)

Maurice's most important change to the cavalry was the replacement of the lance by the pistol The 11 ensigns of lancers in service in 1597 were all converted to pistol-armed cuirassiers, along with three ensigns of arquebusiers. At the same time, the heavy cavalry squadrons had attached to them up to 81 boys on 'baggage-horses'. Servants rather than combatants, though usually armed with a pistol, these youths were mainly intended to relieve the cavalry and their expensive mounts from becoming exhausted or dispersed through the necessity of foraging. (English cavalry of this period, in Ireland, had similar servants.)

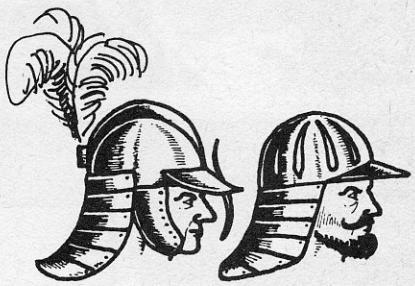
By 1606, the mounted arm, now given its own commander in Louis of Nassau, Lieutenant-General of the Cavalry, comprised some 40 ensigns, 2,853 Reiters and Cuirassiers with pistols, 890 Arquebusiers, 200 French lancers, and 350 Dragoons. These latter, mounted Dutch infantry, were a new experiment, and apparently not a successful one, since they re-mustered as Arquebusiers by 1621.

Like the infantry, the cavalry included many mercenaries, particularly Germans, but also the French mentioned, the Scots ensigns of Erskine and Hamilton, and the English ones of Francis de Vere, Sir Robert Sidney, and Thomas Viller. Maurice, however, seems to have increased the number of native Dutch cuirassiers. He had also improved cavalry training, especially in the use of firearms (he employed formations at least five deep, using caracole tactics), and though the ensigns remained independent he grouped them in regiments of three or four on the battlefield.

Maurice of Nassau and the Dutch Army



A carabinier and lancer of William of Orange's guard, 1580. Note sling on lance. Pennon probably orange-white-blue. Carabinier has hanging sleeves and decorated cabacete helmet. Colours unknown but stripes and borders are lighter than the ground colours. Also shown are two 'Dutch pots' of the early 17th Century. These were generally simple, with single or no nasal, fixed peak, and often minus cheek pieces or ridge.



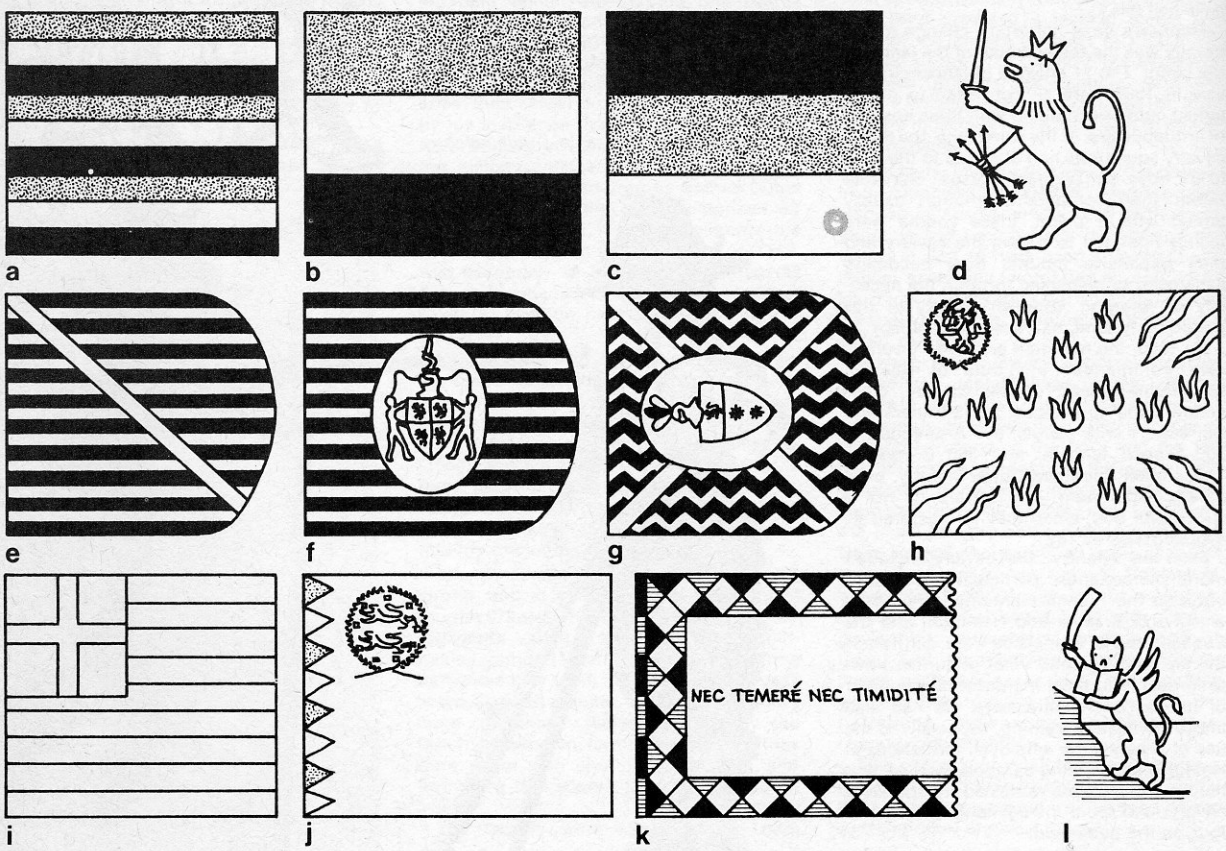
Rose Models 54 mm scale Dutch infantry figures.





Dutch cuirassier firing carbine, early 17th Century (De Gheyn).

a, b *and* **c** *Versions of the national tricolour, which was blue, white and* orange *in this period.* **d** *Lion, appearing on some Dutch infantry standards; likely to be in natural colours, red or gold.* **e, f** *and* **g** *Flags of Scots infantry, late 1570s or early 1580s. 'e' has a slogan on the diagonal, the decipherable part of which runs '...D. VIIL. DEFEND . AN . DAY . MANIEME....NO...' The arms on 'f' are those of Thomas Newton — quarterly, first and fourth argent a lion rampant sable, second and third gules a lion argent. Crest an arm with a sword. The arms on 'g' are those of Wemyss: gules, a lion rampant argent on a chief azure, two stars argent. Crest two white ostrich feathers, one red. Colours of stripes unknown. Another flag was like 'g' but with stripes only.* **h** *Flag of a company in Johan Ernst van Nassau's Regiment. Flag blue, 'flames' white or cream.* **i** *Carried by Dutch infantry, 1591. I think this belongs to an English unit and that the canton is probably a red St George's cross on a white ground.* **j** *Infantry company flag, 1621. Dark blue. Triangles orange and white, lions and wreath gold.* **k** *Infantry company flag, 1621. Dark blue. Triangles red and yellow, diamonds white, lettering gold. Probably had border all round.* **l** *Close-up of Venetian winged lion within wreath on 'h'. 'Cliff' green, sea blue, lion brown, sword and bible white, surrounding wreath gold.*



Standard equipment for the cuirassier was a helmet — referred to as a 'salade' but probably of the 'Dutch pot' type, at least in the 17th Century — gorget and corselet (all pistol-proof), shoulder armour, steel gauntlets and tassets from waist to knee, with two short (42 bore) pistols and a sword; horse to be at least 15 hands. Mounted arquebusiers (also referred to as Carabineers and Bandoliers) wore casquet or pot, gorget and corselet, carbine slung on a shoulder-belt, one pistol, and sword. The great success of the cavalry was Turnhout, 1597, where they overthrew both lancers and pikes practically on their own.

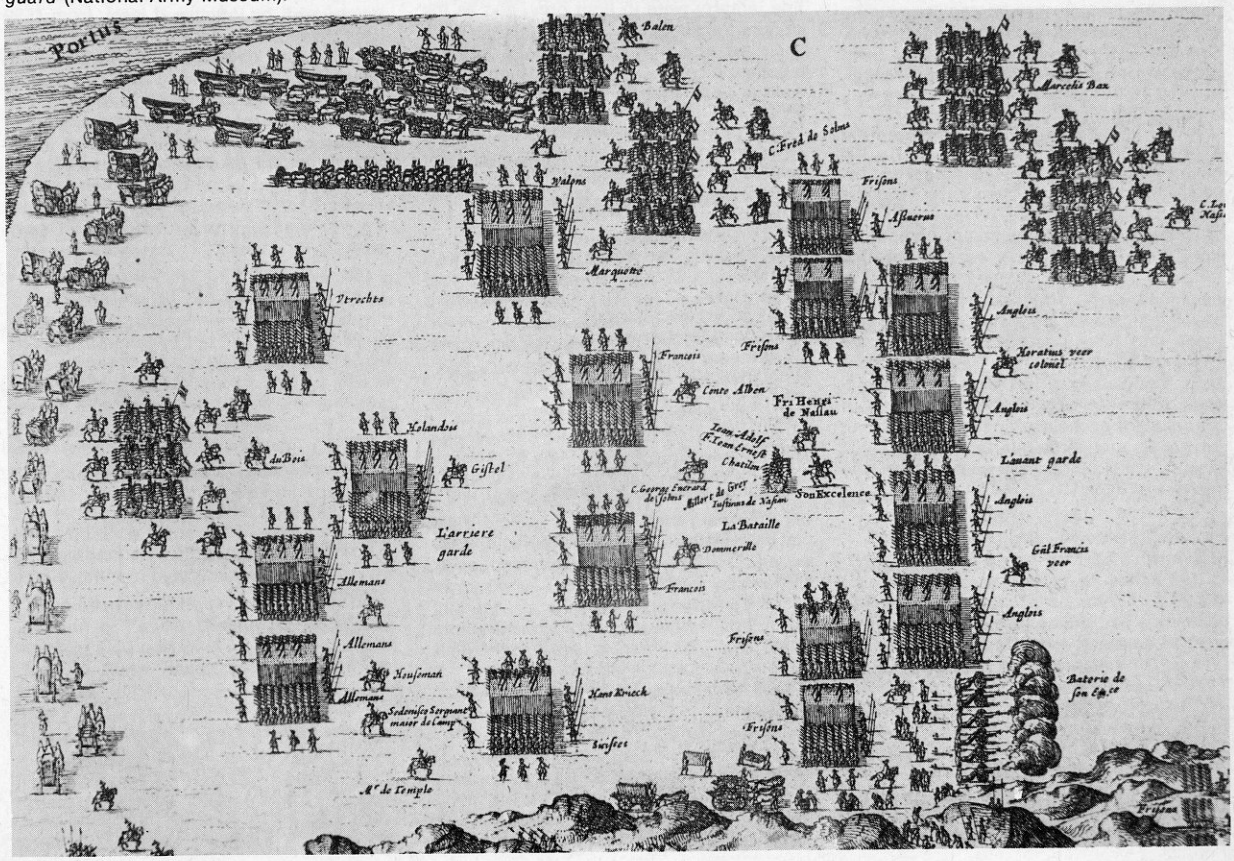
Finally, artillery also was improved by Prince Maurice: it was a vital arm in view of the number of sieges the Dutch had to undertake. Again training was improved, cannon were standardised (48, 24, 12 and 6 pounders) and the use of limbers (probably derived from the Spanish) increased their mobility. A siege train of about 1605, with six 48 and eight 24 pounders, had 316 horses in the teams (including spare spans), no less than 390 wagons, 30 cannoneers

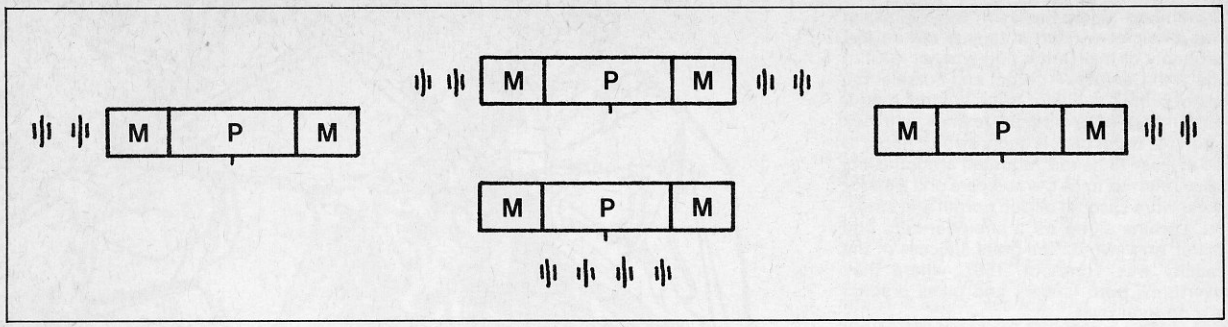


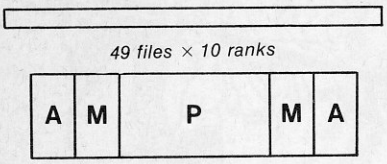
Right *Dutch musketeer, late 16th/early 17th Century.*

Far right *Dutch pikeman, late 16th/early 17th Century.*

The army of Maurice of Nassau at Nieuport, 1600, in 'battalions'. Notice the English regiments of the de Veres in the advance guard (National Army Museum).







Above *'A Brigade or Tertia, the Third Part of an Army, according to the Prince of Orange'. After Richard Elton's* The Compleat Body of the Art Military, *1650. Shows later development of Dutch practice. 'Battalions' are only six deep, and are supported by light guns, both features indicating Swedish influence. (M = musketeers, P = pikemen).*

Left *Diagram showing a Dutch 'Battalion' of 550 men in battle order. A = arquebusiers, M = musketeers and P = pikemen.*

and 300 matrosses (gunners' mates), 300 pioneers and a large body of technicians including a Petardier and a Master-Fireworker.

All in all the Dutch army was not especially large, but as well as its new tactics, gained in that it was among the best-paid, best-trained and best-equipped of its day (in the equipment field two Maurician innovations were effective hand-grenades — used for sieges — and telescopes for officers).

Dutch 30 Years' War period armies followed the lines already laid down, the main difference being that the musket had become the sole infantry firearm. By 1635 the infantry had expanded to 35 regiments, still of widely varying size, from nine companies up; Colonel's companies were 200 or 150, the rest 120 strong. Some units seem to have had early flintlocks rather than the usual matchlocks in Maurice's time, and these may have become standard by the 1630s, giving the Dutch a firepower advantage. The cavalry at last received a permanent regimental organisation (regiments of four ensigns each); ensigns were 100 strong on paper, and three-quarters of the 4,000 cavalry were cuirassiers with pistols, the rest arquebusiers.

Dress and flags

There was certainly no general uniform, and it is likely that companies rather than regiments wore coats of uniform colour, though a probable exception to this is the Guards Regiment, which, at least in the later 17th Century, wore blue. By that period the line infantry were in light grey, and as the original rebels against Spain, the 'Geux' or 'Beggars' also wore grey, this was probably a common colour. The national sign was an orange sash, though by the 1640s officers had taken to white sashes with coloured knots.

Flags were, of course, carried by each company and ensign. They would probably include the national tricolour, which was then *orange*, white and blue, and could appear in various forms. In the 16th Century, infantry flags seem usually to have been striped, sometimes with national or personal devices superimposed; the lion of Orange and Holland seems to have been much used, by infantry at least, from 1599 on.

In the early days of the revolt, William of Orange had flags showing a Pelican feeding her young, and some with the motto 'Pro Lege, Rege, Grege'. At Heiligerlee, Louis of Nassau's standards were inscribed 'Nunc aut Nunquam Recuperare aut Mori'.

Dutch infantry companies

Date:	1579	1587	1587	1596	1597
Officers	13	13	13	15	13
Pikemen	50	60	45	57	39
Halberdiers	—	18	12	—	—
Two handed swordsmen	—	6	4	—	—
Sword and Buckler men	—	3	3	—	—
Musketeers	12	24	18	36	28
Arquebusiers	75	73	52	41	31
Pages	—	3	3	2	2
Total	150	200	150	151	113

(The 'Officers' of the 1596 Company, for example, comprised a Captain, Ensign, Clerk, two Sergeants, six Corporals, two Drummers, a Surgeon and a Provost.)

21

Gustavus Adolphus and the Swedish army

The early Vasas

The Swedish army was born of the struggle against the Danes, which in the 1520s became a national fight for independence, successful with the crowning of Gustavus Vasa in 1523.

The Swedish infantry of these wars were drawn from the peasantry, who from early times were obliged to possess 'folk-weapons' for national defence, and who showed themselves tough adversaries even for professional soldiers, as at the battle of Brunkenberg in 1471, where they were able to mount a successful assault on a strong position even after two bloody repulses. Their arms were mainly crossbows and assorted pole-weapons.

Cavalry were provided by the nobility, whose obligations in this respect were regularised by Gustavus Vasa; the horsemen provided were half heavy (full-armoured lancers) and half light. Gustavus also supplemented the infantry with mercenaries, but found Swedes cheaper to hire than foreigners, and thus like his successors tended to rely on an army of his own subjects, giving the Swedish forces already their distinctive 'national' stamp in what was generally an age of mercenary forces.

Under him, and his successor Erik XIV, a system developed whereby the infantry were largely drafted, one man in ten from the peasantry aged 15 to 44 having to serve on a semi-permanent basis. Noble cavalry were supplemented by volunteers (farmsteads supplying man and horse escaping both draft and land-tax). Unlike infantry, who were billeted or kept in garrisons, cavalry seem to have gone home in time of peace. The system did not work entirely satisfactorily until Gustavus Adolphus' time, and ambitious plans, such as those of Erik or Gustavus Adolphus, still called for the employment of mercenaries also.

Swedish 16th Century infantry were organised in a 'Fanika' (ensign or company), which could be of varying composition and size, as these examples from Gustavus Vasa's time show:

Date:	1552	1552	1556
Halberds etc	4	29	19
Firearms	183	69	210
Crossbows	499	506	223
Total	686	604	452

These are largely of missilemen, and Gustavus Vasa, who tried to increase the use of pikes, which he introduced to Swedish service, met a great deal of resistance, the soldiers preferring missile weapons; Erik XIV had the same problem.

Erik was an extravagant and unbalanced monarch, and was quickly deposed (1568). However, he not only once more involved Sweden in external war, but also showed himself one of the first 16th Century military reformers to try to apply the principles of classical military writers to the new conditions of war. He attempted to standardise the infantry Fanika at about 500 men, with the composition shown. 12 formed a regiment, but in battle they were drawn up spaced out in two lines as shown, with two of the five 'quarters' of each Fanika detached as a 'forlorn hope' or screen; a disposition to some extent anticipating Maurice of Nassau's battalions.

Equipment was supposed to be standardised also, with pikemen wearing helmet, gorget, corselet and armour for the arms, the shot having helmets and long or short arquebusses. The cavalry 'Fana' (cornet) was standardised at 300 men (in five 'quarters', of which one formed a reserve). The heavy cavalry retained three-quarter armour but were equipped with two pistols, the lighter ones having arquebusses; both were formed in near-square formation, 15 ranks deep, and employed caracole tactics.

Probably these plans had limited success in practice. Certainly the effects were temporary, Erik's successor John III again allowing the proportion of shot to rise at the expense of pikes; infantry companies fell to about 300 men, and the composition of a 2,000 man infantry force of 1573 is probably fairly typical — 45 per cent pikes, six per cent halberds, 38 per cent arquebusses and 11 per cent crossbows (the latter evidently a favourite weapon, since it was retained so late by the Swedes. Gustavus Vasa had increased crossbow production, and by this time most were of steel). By the 1590s, the musket began to replace the arquebus, but pikes were still relatively in short supply, and war against the Poles, in open terrain, at the end of the century showed this up and forced the Swedish musketeers to protect themselves against the cavalry with sharpened stakes, later formalised as 'swine-feathers' (known elsewhere as 'Swedish feathers').

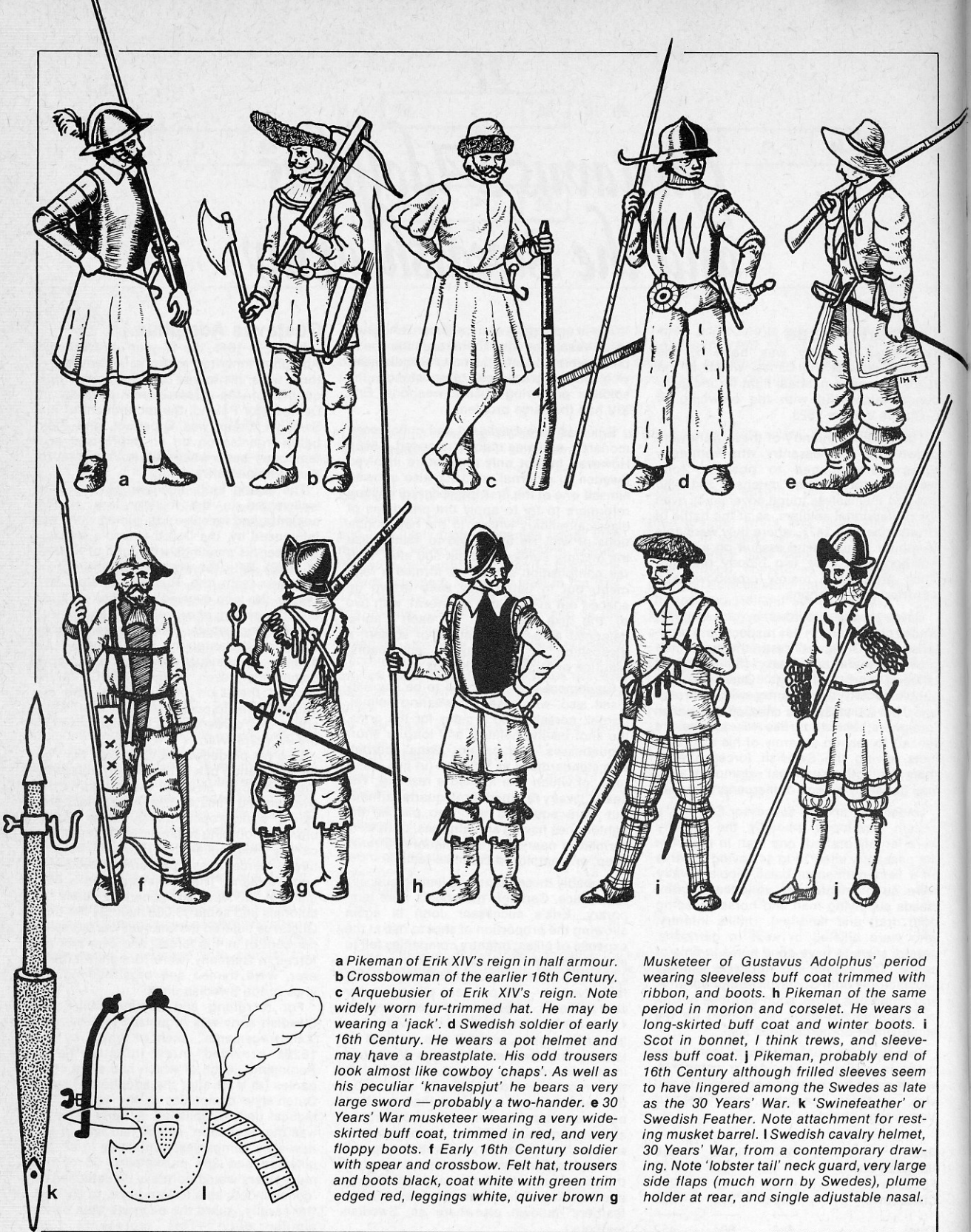
Gustavus Adolphus

When, in 1611, the 17 year old Gustavus Adolphus inherited a throne, an army, and three wars, his forces could not match the quality of the professional soldiers of Denmark or Poland, the recruitment of the Swedish forces was imperfect, and their battle-organisation on an improvised and temporary basis which did not conform to their administrative set up.

The young king, however, was already well-versed in the military lore of the ancients, and was also acquainted with, and influenced by, the Dutch example (especially after his meetings with John of Nassau in 1620). With the practical experience of his wars with the Russians, Poles and Danes, the king evolved by stages a highly effective system of organisation, equipment and training, which, with his own generalship and gallantry (he was wounded 13 times — an unusual record for a supreme commander, even in the 17th Century!), allowed the 'Lion of the North' and his national army to pursue a brief but brilliant, comet-like, career across the wider stage of the 30 Years' War.

Like his predecessors, Gustavus built on the foundation of a national army, raised by the methods already described, from Sweden and Finland (the Finns in fact providing a disproportionately large contribution amounting to nine infantry and three cavalry field-regiments). However, he also hired mercenaries, predominantly Scots and Germans. The Scots provided a field marshal, at least six generals, nearly 30 colonels and some 13,000 men. By the time Gustavus entered the German war, some 40 per cent of all his forces, and over half his forces in Germany, were foreign. All, however, were trained and organised on the lines of the Swedish units.

For recruiting and administration, the Swedish army was organised in Provincial 'Landsregements', each of which by the 1620s provided three infantry 'Field-Regiments', each of which had eight companies (at least after the adoption of small Dutch-style companies in the 1620s). The tactical unit, established as early as 1618, was the 'Squadron', which had four of the new-style companies, containing in all 216 pikemen and 288 musketeers. 96 of the musketeers would normally be detached or 'commanded' as a forlorn hope, to support the cavalry, guard the baggage train or for similar duty. (This represents four



a *Pikeman of Erik XIV's reign in half armour.* **b** *Crossbowman of the earlier 16th Century.* **c** *Arquebusier of Erik XIV's reign. Note widely worn fur-trimmed hat. He may be wearing a 'jack'.* **d** *Swedish soldier of early 16th Century. He wears a pot helmet and may have a breastplate. His odd trousers look almost like cowboy 'chaps'. As well as his peculiar 'knavelspjut' he bears a very large sword — probably a two-hander.* **e** *30 Years' War musketeer wearing a very wide-skirted buff coat, trimmed in red, and very floppy boots.* **f** *Early 16th Century soldier with spear and crossbow. Felt hat, trousers and boots black, coat white with green trim edged red, leggings white, quiver brown* **g** *Musketeer of Gustavus Adolphus' period wearing sleeveless buff coat trimmed with ribbon, and boots.* **h** *Pikeman of the same period in morion and corselet. He wears a long-skirted buff coat and winter boots.* **i** *Scot in bonnet, I think trews, and sleeveless buff coat.* **j** *Pikeman, probably end of 16th Century although frilled sleeves seem to have lingered among the Swedes as late as the 30 Years' War.* **k** *'Swinefeather' or Swedish Feather. Note attachment for resting musket barrel.* **l** *Swedish cavalry helmet, 30 Years' War, from a contemporary drawing. Note 'lobster tail' neck guard, very large side flaps (much worn by Swedes), plume holder at rear, and single adjustable nasal.*

'Corporalships' — a corporalship was either four six-man files of musketeers, or three of pikemen.) This corresponded to the Dutch battalion. In battle the Dutch normally drew up in three large groups — 'battles' or 'brigades', and Gustavus in the 1620s evolved the famous 'Swedish Brigade', originally of six, later of four or three squadrons. These brigades, rather than the regiments, were the higher tactical units. In the 30 Years' War they were kept permanently together, and stood at seven brigades of three squadrons each, as follows:

The Yellow Brigade — this was named after its leading unit, the Yellow or Household Regiment, Teuffel's Germans.
The Green Brigade — led by Hepburn's Green Regiment, and including Mackay's, this was largely or wholly of Scots.
The Blue Brigade — led by Winckel's Germans, and chiefly German.
The Red Brigade — Hogendorf's Red Regiment, Erik Hands' Ostgota Regiment, Karl Hards' Vastgota Regiment.
The White Brigade — led by Vitzthum's Regiment.
The Black Brigade (?) — Thurn's German regiment.
Ake Oxenstierna's Brigade — all Swedes.

Though the organisation of squadrons and brigades was kept up fairly well, it must be realised that, as in all armies of the period, there was a gap between this paper organisation and reality. Thus, in Germany, Gustavus' infantry regiments, though mainly of eight companies, were often down to a strength of only 500 to 600 men, and thus formed in practice one squadron rather than two. Several German regiments had 12 companies (but again fell short of two squadron strength), a few 16 companies.

As usual, discipline and training were probably more significant than the precise type of organisation, and Gustavus' army excelled in both respects.

The national basis gave a firmer foundation for discipline than in most contemporary armies, and religion reinforced this. Though all denominations were tolerated, the army had its own preachers and every man was issued with a prayerbook. Though there was no flogging, punishments were severe, including the 'gatlopp' (the origin of 'running the gauntlet') and death for such offences as 'despising divine service a third time'. In these respects, as in others, the Swedes provided a model for the later armies of Cromwell and the Covenant.

The tactics of the Swedes were a further development from the Dutch model. The musketeers, drawn up only six ranks deep, were trained both to fire by countermarch, *two* ranks at a time, and to 'double the files', extending into three-deep formation to deliver concerted volleys, every man firing at once, the front rank kneeling, the second crouching and the third standing upright.

To the weight of fire which this gave (it enabled Scots musketeers at Leipzig, 1631, to break an attack by Imperial cuirassiers by their fire alone) was added the fire of up to 12 light regimental guns attached to each brigade — a much closer combination of artillery and the other arms than previously attempted. After abortive experiments with copper and leather 1½ pounders had been dropped (unkind Germans accused the hungry Swedes of having *eaten* these weapons!), Gustavus' Scots artillerist, Sandy Hamilton, evolved light 3 pounders which, with the aid of pre-loaded cartridges, could fire (usually 'hail shot') *more* rapidly than the musketeers, while keeping up reasonably well with an infantry advance (they were, incidentally, Bofors' guns).

A 'fire-shock' was thus achieved, to be exploited by the Swedish pikemen, trained to charge in after a volley rather than passively defend the 'shot'; they could then fall back to allow the musketeers a second volley (volley-firing of course meant a fairly long interval between bursts of fire). Michael Roberts, in *Essays in Swedish History*, points out that the offensively-minded Gustavus had actually *increased* the proportion of pikes compared to that in the essentially defensive Dutch army. However, it must be pointed out that the *actual* pike strength in the Swedish army was below the theoretical — in the 30 Years' War by up to 25 per cent — whereas the musketeers were much closer to their establishment (perhaps the earlier Swedish anti-pike attitudes persisted?).

Infantry equipment was also improved, though some of the more radical innovations attributed to Gustavus appear to be mythical. So far as possible musketeers were given uniform weapons, probably firing a ball of ten to the pound, as in the Dutch army, and in the later part of Gustavus' reign Swedish-made muskets were shortened (to 1.2 metres overall). This, with a lighter stock, cut the weight by about a third (judging by weapons in the Stockholm Armemuseum). Gustavus did not achieve total standardisation, nor did he go over to flint or wheel-locks, the majority of Swedish weapons retaining the matchlock, which was more reliable and more within the capabilities of Swedish lockmakers.

Though he abolished the 'swine-feather Gustavus did *not,* as is often said, abolish the musket-rest (though 'commanded' musketeers may have dispensed with it). Much the same applies to his reputed shortening of Swedish pikes to 11 feet. This error seems to arise from the 11 foot *partisans* which were carried by the King's Lifeguard of Foot (one company), and possibly also by the Household Regiment, in place of pikes. Swedish regulations originally called for pikes over 18 feet long, and a 1619 Order only reduced them to 17 feet 6 inches, though some were probably unofficially shortened by those who had to carry them.

Musketeers were supposed to wear an open helmet, and carried the usual sword and bandolier with 12 cartouches, while pikemen had helmet, gorget, corselet, and originally thigh-pieces or short tassets, though these may have often been omitted. Officers carried partisans, and up to the 30 Years' War were distinguished by gilded gorgets. Under-officers of pikes carried pikes; of musketeers, carried partisans.

Cavalry and artillery

Though Gustavus' infantry were the mainstay in his earlier wars, and were fully capable of offensive action, by the entry into the 30 Years' War he had developed a highly effective cavalry which became the ultimate striking-force of his army, as it was of most 17th Century armies. Few, ill-mounted and ineffective at the beginning of his reign, his cavalry were developed in the hard school of war against the Polish lancers, and by Breitenfeld (1631) formed about a third of his army and were superior to their Imperial opponents. Among the best of his horsemen were the Finns, known as 'Hakkapelis' from their warcry (which meant 'chop 'em down', the Finns being apt to refuse quarter), who in his earlier wars provided as much as half Gustavus' horse. Gustavus himself normally led one of the cavalry wings.

The mounted arquebusiers, who were usually unarmoured, disappeared early in his reign, as unfit for the offensive. Heavy cuirassiers in three-quarter armour survived into the 30 Years' War period, but declined in numbers, owing to their high cost. Each was supposed to be accompanied both by a mounted servant equipped like the 'light cavalry' and a baggage-servant with a packhorse. Those who remained were mainly supplied by the nobility.

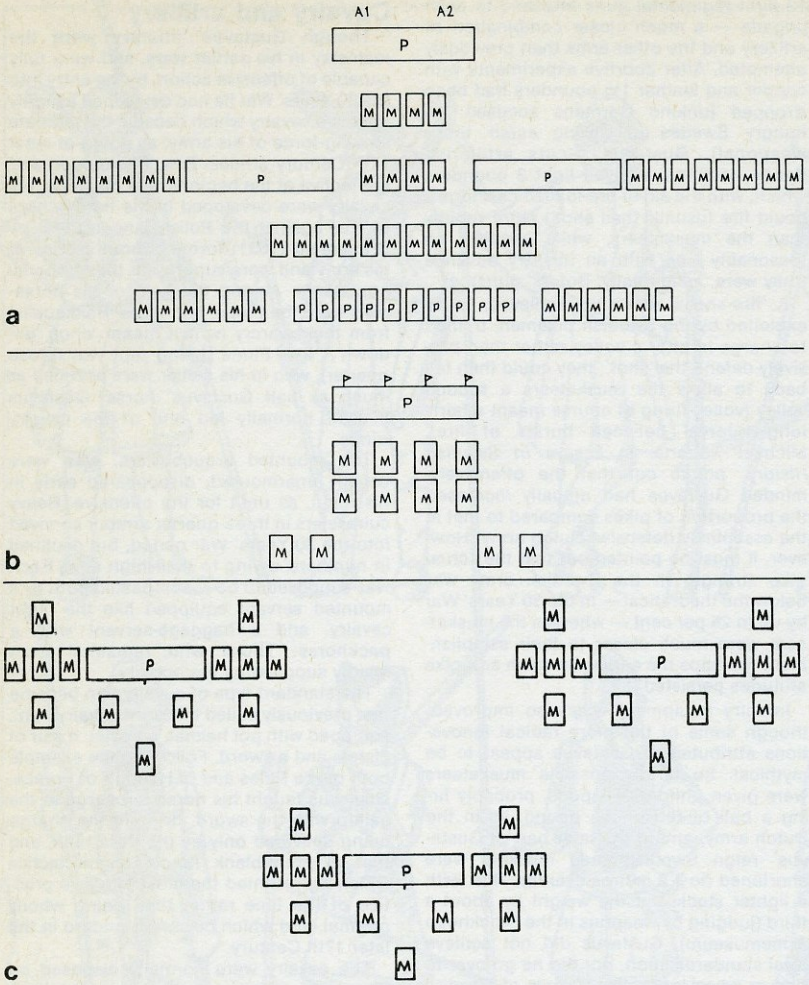
The standard type of cavalryman became that previously called the 'light cavalryman', equipped with pot helmet, corselet, a pair of pistols and a sword. Following the example both of the Poles and of Henri IV of France, Gustavus taught his horse to charge at the gallop with the sword, firing in the charge being delivered only by the front rank, and that at point-blank range; shock tactics which represented the most effective practice of the time rather than being wholly original, and which became standard in the later 17th Century.

The cavalry were normally disposed on the wings of the army, drawn up in two lines of squadrons, themselves disposed only three-deep. Between these units, bodies of up to 200 'commanded' musketeers were placed, to give fire support.

A cavalry regiment was supposed to be of eight companies of 125 men each, and was disposed in battle in two squadrons; however, in practice the regiment could be of four to 12 companies, while squadrons could have only three companies.

Dragoons were introduced in 1611, equipped like those of other nations. Their main role was to provide further fire support for the cavalry, and they are said to have been less often used on foot than those in other armies. However, under Gustavus they represented only about five per cent of the Swedish cavalry.

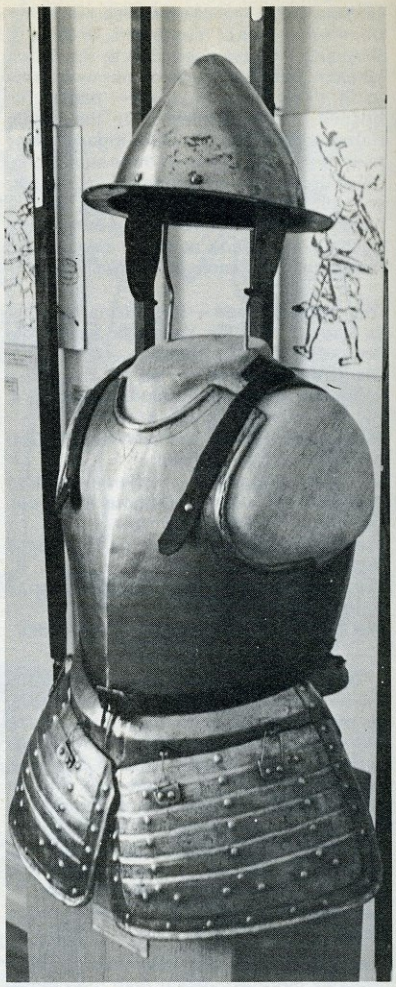
The Swedish artillery was more integrated into the army organisationally as well as tactically than that of other nations. Crews were made soldiers by Gustavus, rather than the semi-civilian skilled artisans that they tended to remain elsewhere. As a corollary, the Swedes were the first to introduce any real artillery organisation, in the form of companies in 1623, regiments six years later, each of four gunner companies, one



a *A Swedish Brigade, according to Lord Reay's diagram. This appears to have two regiments of two squadrons each. Small 'boxes' are four files wide by six ranks deep, large blocks of pikemen are 36 files wide by six ranks deep. P = pikemen, M = musketeers, A1 and A2 = the colonels in front of their regiments.*

b *A squadron drawn up with the pike block 36 files wide by six deep, musketeers four files wide by six ranks deep* (from The Swedish Discipline).

c *'A Regiment according to the Swedish Brigade' after Richard Elton's* Compleat Body of the Art Military. *Here the pike blocks are 26 files wide.*



Swedish pikeman's armour. 17th Century, showing the simple style, although a helmet with moveable peak and large cheek pieces, as shown for cavalry, could also be used (Kungl Armemuseum, Stockholm).

of pioneers and one of engineers.

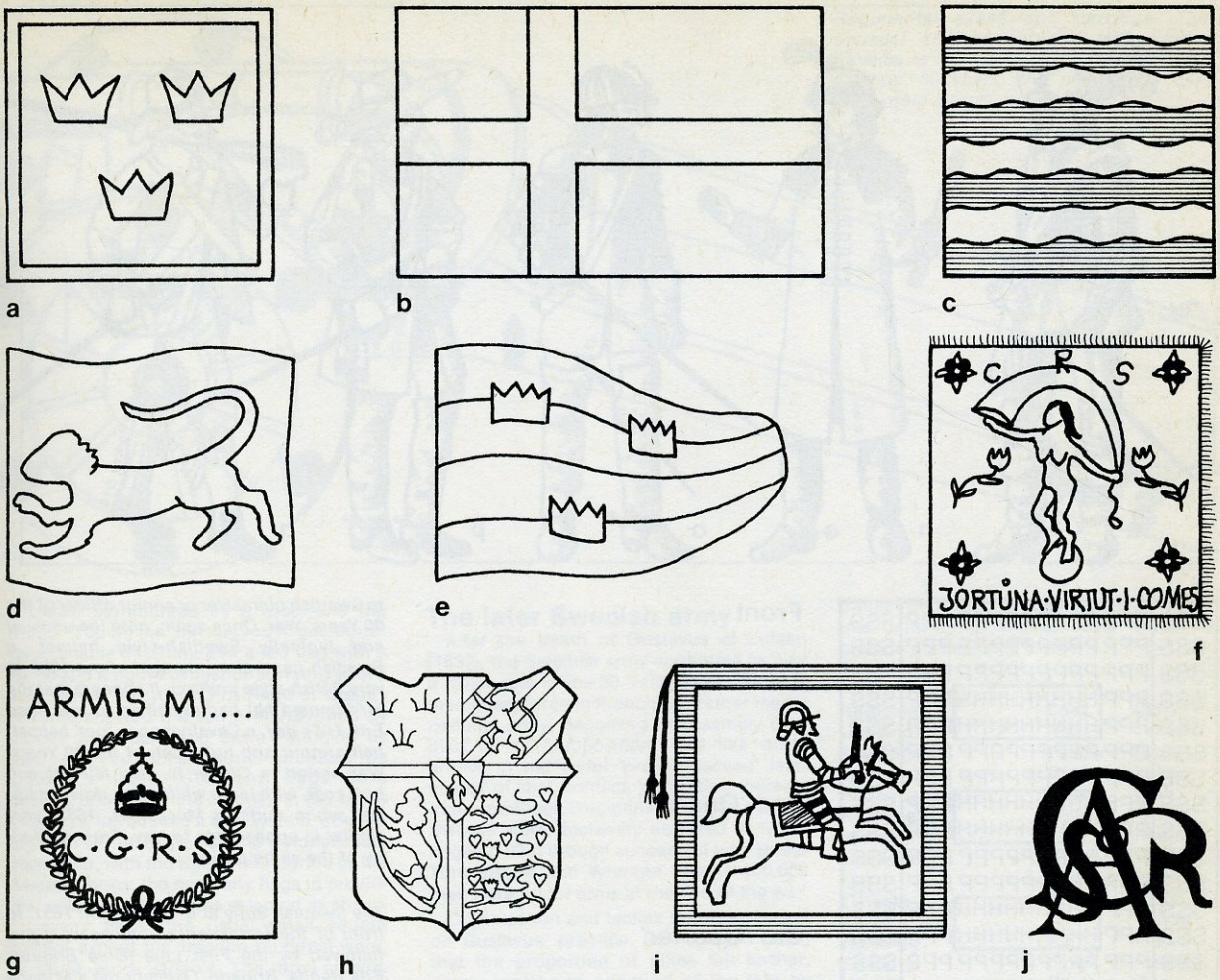
The guns themselves were standardised by Gustavus — 6, 12 and 24 pounders — and were shortened and lightened for mobility. The 6 pounder, like the regimental guns, used cartridges, though not 'fixed' ammunition. Except at sieges the heavier artillery was naturally much less numerous than the infantry pieces — at Breitenfeld 12 to 42.

Dress

16th Century dress was mainly either peasant costume or similar to Continental military fashions with Lansknecht-style slashing and so on. Some clothing was issued and this may have tended to be of uniform colours. Erik XIV's coronation procession included a 900 man Fanika uniformly clad in blue, white, red and yellow, possibly a guard unit.

Early in Gustavus Adolphus' reign most of the Swedish infantry were in peasant dress, long jerkins or smocks, though the foot guard company were uniformed, probably in blue. By 1625 the Household Regiment (I think of horse) had blue coats decorated with broad yellow lace, while the Life Guard of Foot company received a black and yellow uniform, with fringes in the same colours for their partisans.

Troops of the line soon started to receive official issues of clothing; this established uniform *style* of dress — cassock, sleeveless jerkin, loose breeches and woollen stockings with, as might be expected, unusually thorough provision for winter, including leather boots and fur cloaks. As usual in this period, the question of actual uniform is a vexed one, but it does seem clear that some — possibly most — of Gustavus' infantry regiments wore coats of uniform colour. Red was certainly ordered for companies of the Smalands, Ostgota and Upplands Regiments, with yellow, blue or black trim; Thurn's regiment seem to have been bluecoats, and there are other references to bodies of Swedish infantry in blue, yellow, black and light grey uniform coats. This would mean uniformly-clad squadrons, but not brigades. The 'colour' titles of the Brigades seem to be from the leading regiment in each, and these in turn named from the colours of their standards rather than their coats (however this might not always be so — for example the red-coated Ostgota Regiment was in the Red Brigade). Coat colours certainly did not



a *Cavalry flag of Gustavus Adolphus' time.* **b** *National flag, yellow on blue, introduced by Gustavus Vasa.* **c** *Blue and yellow infantry flag of the 1620s.* **d** *and* **e** *16th Century flags.* **f** *Viborg and Nyslott Cavalry Regiment, 1665.* **g** *Infantry company colour, 1658 (inscription incomplete).* **h** *Royal Arms, end of 16th Century. In the upper left quadrant are three gold crowns on blue. Upper right, a gold lion on blue with three white stripes. Lower left, a yellow lion and axe on red. Lower right, three blue lions on yellow with red hearts.* **i** *Company flag of Robert Monroe's Regiment, Gustavus Adolphus' period. Horse white, other colours unknown.* **j** *A monogram of Gustavus Adolphus (GARS). These letters could also appear in the style shown on 'g'.*

always match those of the regimental standards.

The Scots infantry probably retained, at least to begin with, some items of national dress, such as the blue bonnet, and, for Highlanders, tartan trews; the Green Brigade certainly had pipers.

Cavalry also had sometimes uniform coats — there was another blue-clad regiment beside the Household. However, helmet, corselet, buff-coat, gauntlets and leather breeches and boots would cover up the clothing and convey a fairly uniform impression in any case. Another 'standard' item worn by musketeers and cavalry if not wearing helmets was the wide-brimmed tall-crowned Swedish-made felt hat, which was grey.

Like other forces, the Swedes were forced to use field signs (like the green sprigs worn at Breitenfeld) for army identification, with field words for further security ('God with us' at Leipzig, 1631). This was probably especially necessary as in Gustavus Adolphus' time they appear to have lacked a standard colour for officers', cavalrymen's and pikemen's sashes, various colours including sky blue, yellow and green being worn. Earlier, Erik XIV had in one campaign ordered blue sashes to be worn, together with red feathers or fox- or squirrel-tails in his soldiers' caps, but had later switched to red, then green sashes. In the later 30 Years' War, after Gustavus' death, blue sashes, usually with yellow borders, became standard.

Flags

The modern national flag was introduced by Gustavus Vasa, and may sometimes have been carried by Swedish troops in the 16th Century, but apparently not in the 17th. Multicoloured flags with stripes or geometrical patterns were common in the 16th and early 17th Centuries, King John III (1568-92) ordering that such flags should carry a yellow cross as national badge. Lions, and the Scandinavian three-crown device, in use since the 15th Century, also appeared.

The earliest Swedish military flag to have survived is the striped infantry one shown, dating from the 1620s, in national flag colours, and very like Dutch ones of similar period. Blue-and-yellow and orange-and-green infantry flags mentioned as carried by Swedes in the 30 Years' War could well be of this type.

Under Gustavus, common styles for infantry flags were a plain ground with a crown over either the royal arms or the royal monogram (Gustavus would use G.A.R.S. for 'Gustavus Adolphus Rex Sueciae'). Such flags often bore mottoes, such as 'Gustavus Adolphus Rex Fidei Evangelicae Defensor'. Other patterns include a white flag bearing



SSS	PPP PPPPPPPPP PPP	SSS
SSS	PPP PPPPPPPPP PPP	SSS
SSS	PPP PPPPPPPPP PPP	SSS
SSS	PPP HHHHHHHHH PPP	SSS
SSS	PPP HHHHHHHHH PPP	SSS
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Front

1st 'Quarter'

2nd 'Quarter'

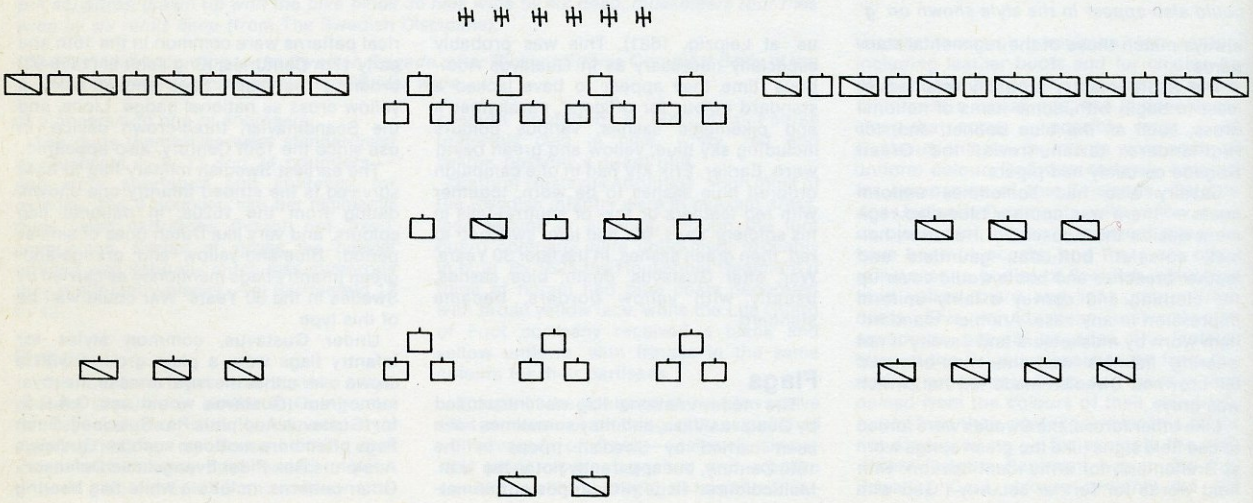
3rd 'Quarter'

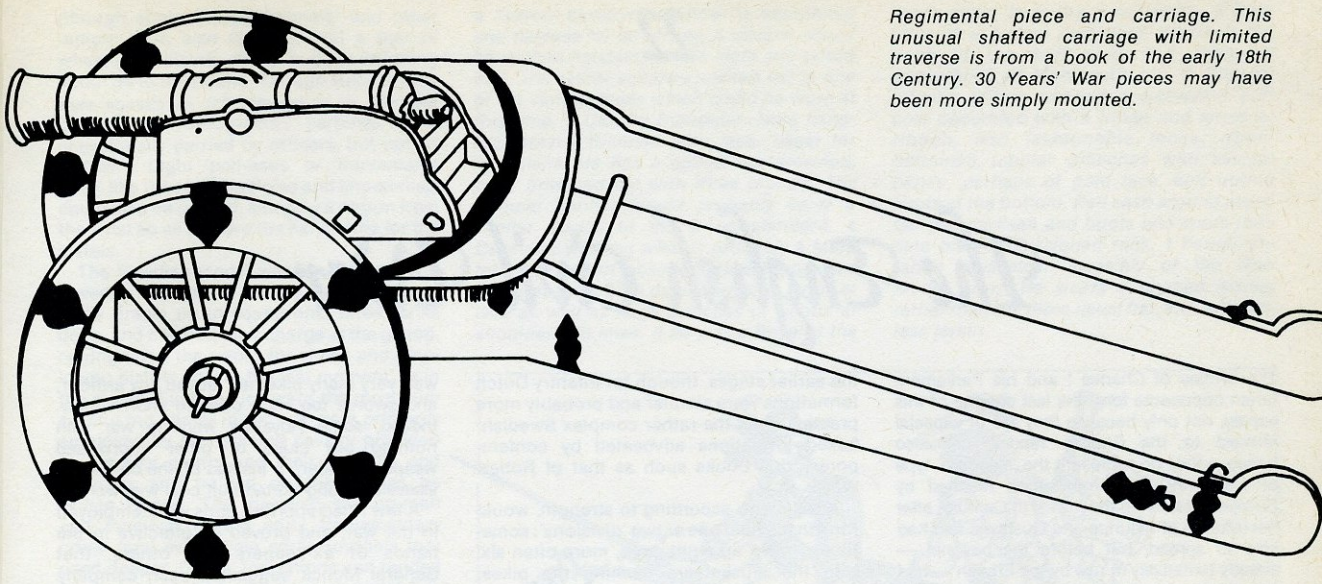
Above *A 'Fanika' of Erik XIV in battle order*

P = pikemen H = halberdier S = shooter, probably with arquebus

m *Swedish cuirassier or senior officer of the 30 Years' War. Once again, note the unusual and typically Swedish-style helmet.* **n** *Swedish general or marshal about 1650 in very Polish-style uniform. It appears that the fur-trimmed hat had remained in use since Erik XIV's day.* **o** *Cavalryman in 'pot' helmet, half armour and buff coat, of the 30 Years' War period.* **p** *Officer in grey felt hat and buff coat, with large white lying down collar and white cuffs.* **q** *Musketeer, 1665, very similar in appearance to, say, French infantry of the same period.*

The Swedish army at Breitenfeld in 1631. In front of the formation are 12 heavy guns, followed by the First Line (Blue Brigade, Erik Hands' Brigade, Oxenstierna's Brigade and Yellow Brigade). Behind these come the First Line's Reserve then the Second Line (Vitzthum's Brigade, Green Brigade and Thurn's Brigade), and finally the Second Line's Reserve.





Regimental piece and carriage. This unusual shafted carriage with limited traverse is from a book of the early 18th Century. 30 Years' War pieces may have been more simply mounted.

a crown surmounted by a rose, and the motto 'Touch me not or you'll get burnt' (presumably in Latin), and a red flag with a flame and a figure of Justice carrying sword and scales, inscribed 'Pro Rege et Grege'. Another showed the sun overshadowed by clouds with 'Sero sed Serio'. Judging by later practice, these would probably be Colonel's flags. Company flags bore devices chosen by the colonel. In the 1650s Charles X introduced a new system 'in keeping with earlier customs'; the Colonel's flag was white, with the King's monogram or the Swedish arms, the company flags in provincial colours with devices selected as above.

Cavalry flags (the usual small square pattern except for dragoon guidons) were, as usual, more variable. The three-crowns design is often shown; others include a blue and orange flag with an arm holding a sword and the inscription 'Si Deus pro nobis, quis contra nos?' and a sceptre crossed with a sword and the motto 'Ensem Gradius Sceptrum Themis Ipsa Gubernat'. Gustavus' escort carried a black and gold cornet, and other colours included blue and white, blue and red, red, white, blue, orange, yellow and green.

The later Swedish army

After the death of Gustavus at Lutzen (1632), the Swedish army continued to play a major role in the 30 Years' War, but as a mercenary force in French pay rather than a national army, becoming increasingly German in its composition, and like other armies in the awful 'broken-backed' later stages of that conflict, subsisting increasingly upon loot. Discipline declined, and the Swedes were decisively defeated at Nordlingen (1634) though successful later under Torstensson and Wrangel. Nearly 100,000 men were under arms at the end of the war.

Organisation and tactics remained based on Gustavus' practice, but it would seem that the proportion of pikes fell further, approximating to one-third of the foot by the end of our period. Among the horse, the proportion of dragoons greatly increased. Armour largely vanished from the foot.

After the war, Charles X reorganised the army, returning to national lines and adopting the first complete or nearly-complete system of uniform. Half the infantry regiments had matching coat and trousers, the other half contrasting ones. The list below, though from 1675, probably gives an idea of this uniforming, and in some cases the colours go back still further.

Regiment	Coat	Cuffs
Uppland	Red	Yellow
Skaraborg	Yellow	Black
Abo	Grey	Yellow
Sodermanland	Yellow	Blue
Kronoberg	Yellow	Red
Jonkoping	Grey	Red
Bjorneborg	Red	Blue
Dal	Blue	Red
Ostgota	Red	Black
Tavastehus	Red	Yellow
Halsinge	Red	Green
Elfsborg	Grey	Isabelle
Viborg	Blue	Red
Nyslott	Green	White
Vastgota	Grey	Yellow
Vastmanland	Green	Red
Vasterbotten	Blue	White
Kalmar	Grey	Green
Nyland	Grey	Red
Narke-Varmland	Red	White
Osterbotten	Grey	Blue
Jamtland	Grey	Green

22

The English Civil War

The armies of Charles I and his Parliamentarian opponents form the last chapter of this survey, not only because they are of especial interest to the English reader, but also because they do represent the 'standard' type of weaponry and organisation reached by European forces in the mid-17th Century, after the reforms of Maurice and Gustavus had had time to spread, but before the bayonet — already tentatively in use by the French — had brought to an end the pike and musket period. Though initially improvised and amateur forces, they had a large leavening of professional officers from Dutch and Swedish service, even at the outset, and by the end of the wars Parliament had produced, in the New Model, a force whose discipline, spirit, organisation and equipment were probably superior to any contemporary.

Infantry

The New Model infantry (formed 1644) were intended to comprise 12 regiments, each of 1,200 men in ten companies (the Colonel's company 200 strong, Lieutenant-Colonel's 160, Major's 140 and the rest 100). One third were to be pikemen, the rest musketeers. This represents the 'ideal' strength and combination of arms of the contemporary infantry regiment. Probably based on later Dutch models, it bears a very close resemblance to later Swedish, French or even Imperial units of the time, as well as representing what both sides in the Civil Wars aimed at.

In practice, it proved difficult to bring even the New Model to full strength, and both Royalist and Parliamentary regiments could have as few as six companies, and were sometimes down to 200 men or so, while 800-900 was about the maximum strength. The gap between establishment and actual strength was even wider in the 16th and 17th Centuries than in later periods, as has already been shown, and in the Civil War the raising of troops was particularly local, personal and haphazard, especially on the King's side, while practices like the recruitment of prisoners of war (though common in Europe also), would be likely to mean many troops of limited enthusiasm, and a high rate of desertion. Nor was the 2:1 ratio of muskets to pikes always achieved: the Royalists in the early part of the war, in particular, were short of muskets and had some units with as many as half the men pike-armed.

Both Swedish and Dutch tactical formations were employed, the latter especially in the earlier stages, though for infantry Dutch formations were simpler and probably more practical than the rather complex Swedish-based formations advocated by contemporary drill books such as that of Robert Ward.

A regiment, according to strength, would form in the field one or two 'divisions'; sometimes drawn up eight deep, more often six, with the musketeers flanking the pikes. Some musketeers would be detached ('commanded') to form a 'forlorn hope' screen, often lining a hedge or ditch, and others would often be found on the flanks giving fire support to the cavalry in Swedish fashion.

At first, fire was generally by countermarch, but in Parliamentary armies of the later war years, and in at least one Royalist force — Montrose's Scots-Irish army — the Swedish 'salvo' or simultaneous three-rank volley was used, the shot being reduced from six ranks to three by 'doubling the files' before firing.

Weaponry was nearly standardised. Musketeers were equipped with Dutch-pattern matchlocks (though units with 'firelocks' — early flintlocks — were formed to guard the artillery and train, where lighted matches might have proved too great a hazard), and normally carried rests, though some firelocks and commanded musketeers may have dispensed with these. Bandoliers with the '12 apostles' — 12 cartouches with powder charges — dangling from them were usual, though, especially in the early days, a good many men had to use their pockets instead. A sword (costing four and sixpence) was carried, but the clubbed musket itself was usually preferred for hand-to-hand combat. Most musketeers wore no protection, but some may still have worn helmets or buff coats.

Pikes were at least 16 feet long on issue, but their bearers often shortened them to make them easier to handle (one way of detecting inexperience in an enemy unit was by spotting the wavering of their pike points in the breeze). Pikemen also had a cheap sword, and normally a helmet (likely to be of open, brimmed, type, lobster-tail pots being normally reserved for cavalry use), and a corselet, the breastplate at least being 'shot-proof'. Tassetts to protect the thighs were worn by some, including the London Trained Bands, but both these and the gorget (except as a sign of rank) were on the way out. Again, especially at the beginning of the war, very many pikemen lacked any armour, and swords too were often in short supply. Indeed, some Royalists went to war with nothing but clubs or other improvised weapons. Under, or instead of, the corselet, a sleeveless, long-skirted buff coat was worn.

A few rifled sporting guns were employed in the war, and proved so effective in the hands of ex-keepers and others, that General Monck suggested each company should ideally have half-a-dozen such snipers. This idea, however, seems never to have been adopted.

Finally, partisans were still carried as a sign of commissioned rank, while NCOs and colour-guards could have halberds.

Cavalry

The proportion of cavalry in a Civil War army could vary a great deal: the New Model approached Monck's ideal ratio of one cavalryman to every two infantry, having 11 600 man regiments of horse, and again this might be taken as about that usual, but the Royalists in particular could have up to half a field army of cavalry.

In theory, cavalry regiments were of six troops, and the troops usually 71 strong, giving an overall strength of about 420-500 men. In practice, a few units, especially those of commanders, were stronger than this (for example, Rupert's own regiment had ten troops, Cromwell's 14). Many were smaller, and their troops also understrength, especially in the Royalist army. Parliamentarian troops were sometimes overstrength, and in the New Model were to be of 100 men.

In battle, cavalry regiments were formed into tactical units, squadrons, normally of two troops each.

The great majority of horse were of the 'light cavalry' pattern standardised by the Swedes during the 30 Years' War: that is, they were protected by corselet (breastplate shot-proof, backplate pistol-proof), buff coat, and very voluminous floppy leather boots, whose tops would reach the thigh if turned up (which they seldom were). A helmet would normally be worn. This could be a 'lobstertail' or 'Dutch' pot — the English versions usually having a more elaborate three-bar facial protection than earlier Continental models (which normally had a single adjustable nasal, or none); alternatively a 'secret' or steel skull-cap worn beneath a broad-brimmed felt.

They were armed with a long straight 'tuck' suitable for both cutting and thrusting

(though some 'Pappenheimers' and other rapiers were also carried), and a pair of wheel-lock pistols firing bullets weighing about 34 to the pound. Though such cavalry were sometimes still referred to as 'Harquebusiers' or 'Carbineers', carbines were occasionally carried by officers, but not by troopers. Light 'poll-axes' or 'horseman's axes' like those of the Poles and Imperialists could also be carried, slung by a ribbon from the wrist so as to leave the hands free for the pistols.

The Swedish model was most clearly followed in the case of cavalry, who were normally drawn up in squadrons, three ranks deep, and finished their charge at the gallop, relying upon the sword for shock and employing pistols only at the last moment, or in the melée. Such tactics were the most successful but earlier in the war were primarily employed by the dashing cavalry provided by Royalist gentry and their servants and retainers and trained on these lines by Prince Rupert. The 'decayed serving-men and tapsters' of the early Parliamentary horse (and even some early Royalists too) used deeper 'Dutch' formations and tended to advance at the trot, relying on pistol fire. Occasionally charges were received at the halt, with the disastrous results to be expected, though this is probably to be attributed to inexperience, not any particular tactical system. The 'Cuirassiers', with three-quarter armour and closed helmets, a few units of which were used by Parliament (Essex's Life Guard and Sir Arthur Haselrig's 'Lobsters') also used Dutch tactics: as Captain Rudd stated in 1663, the Cuirassier 'is commonly to give the charge upon a trot, and seldom gallopeth, but upon a Pursuit. Having spent both his pistols, and having no opportunity to load again, he must then betake himself to the last refuge — his sword'.

Even in the later stages of the war, the Parliamentarians quite often formed six deep, and gave the charge at 'a good round trot' rather than a gallop, though relying on the sword; this may be related to the success of Cromwell and others in keeping their men in hand and rallying them ready for further action, whereas victorious Cavaliers were likely to be spread all over the surrounding countryside; often a decisive factor, as it was, for example, at Marston Moor in 1644. However, in the earlier part of the war both sides' cavalry frequently vanished from the field in rout or pursuit, leaving the infantry to fight it out alone, while, to be fair, there are instances of Royalist units which rallied and charged for a second or even third time in a single action — something which could hardly be said of the British heavy cavalry of Napoleonic times, for instance.

Whatever happened, the success or failure of the horse, and in particular its reappearance on the field in time to affect the infantry fight, was still commonly the decisive factor in battle.

Dragoons

The New Model had one Dragoon Regiment, with ten 100 man companies, and in most major encounters of the Civil War each side had one or two Dragoon regiments.

a *Typical cavalryman showing equipment and harness for an officer. A trooper would have plain holsters, saddle cloth and sword belt. The rather square-crowned hat is one of the various types which could be worn at this time.* **b** *Cavalry trumpeter. Note hanging sleeves trimmed with lace, usual for musicians. He has a typical low-crowned, curly brimmed hat with three plumes. The trumpet banner would probably carry a similar device to the troop standard.* **c** *Drummer wearing what is probably a Montero cap, a short jacket and rather long, narrow breeches, both decorated with strips of lace as well as large bunches of ribbon at shoulder and knee. If he was a Royalist the drum might bear the Royal arms.* **d** *Rear view of a typical musketeer showing the back of the buff coat and probable appearance of Monmouth cap.* **e** *Royalist infantry officer wearing a sleeveless buff coat decorated with a fringe and knots of ribbon, and fashionable loose, open-bottomed tubular breeches with several bands, perhaps of gold lace, and ribbon knots at the bottom. Red sash around waist. Gorget, partisan and boots and spurs indicate his commissioned rank.* **f** *Parliamentarian musketeer, possibly of the New Model Army. He wears a plumed helmet rather than the more usual hat, and a sleeveless jerkin.*



Monck recommended that an army have as many troops of dragoons as regiments of horse (ie from one-fifth to one-quarter the strength of the horse), and in fact it seems that a single dragoon troop or company was sometimes incorporated into a cavalry regiment, though separate regiments, usually of five or six troops or companies, were probably more usual. Dragoons were trained to 'give fire on horseback' and very occasionally did deliver mounted charges, but they were still essentially mounted infantry and had not yet managed to assimilate themselves into the cavalry.

Their dress appears to have been that of the infantry musketeer, save that boots and spurs replaced shoes and stockings and a helmet was sometimes worn, so they were ill-protected for a cavalry fight. They had swords, but only the officers carried pistols, the rest having either a 'dragon' (a musket-bore firelock with a 16 inch barrel) or a shortened but wide-bore firelock musket, neither, again, well suited to a mounted melee (both were normally slung from a swivel on a broad leather shoulder-belt). Their mounts were also small and cheap, unfit to stand against cavalry chargers.

Lacking pikes, they would have had a hard time trying to stand against attack on foot either, and their true tasks were mainly of a skirmishing nature, screening flanks or retreats, seizing strategically placed patches of cover ahead of the main army, or giving mobile fire support to the cavalry. Not surprisingly, dismounted behind a hedge was their favourite battlefield station.

Artillery

Parliament in general were better supplied here — Essex, for example, surrendering 49 guns in Cornwall in 1644. The Royalists captured plenty of guns, but perhaps lacked the funds to bring many of them into the field — the artillery train, said Clarendon 'is commonly a spunge which can never be filled or satisfied'. All field armies of both sides included artillery, however. The largest guns used in the field were demi-cannon, while the 'standard' size would be around that of the Saker (about 3¼ inch bore, 5¼ pounder). Parliament in particular employed some lighter guns attached, in pairs, to infantry units, in the Swedish manner, and apparently used some battery-guns also.

Gun teams would be of hired civilian drivers and farm horses (or occasionally oxen in the West country); field guns requiring from one to nine horses, and crews from three to nine for a demi-cannon (three gunners and six matrosses, or gunners' mates). Gunners and matrosses were sometimes equippped with poleaxes. The Royalist train of 1643 had 575 men, including 69 gunners, 88 matrosses, 200 pioneers and 44 conductors, plus 275 civilian carters.

Flags

The infantry used the usual large (but light) standards of the period (about six foot six inches square in England); there was one for each company, and they normally followed the system illustrated, in both armies, though there were exceptions, such as the black and white flags of Prince Rupert's Regiment. Colonel's company flags, though supposed to be plain, frequently bore some device.

Cavalry flags were of the small square (two foot by two foot) variety with a fringe; each troop had one and they seem to have had an extraordinary variety of slogans, devices, political cartoons and so forth upon them, including for example a Royalist example bearing a trooper with a sword in one hand and a 'less martial instrument' in the other, with the motto 'Ready with either weapon', or the green flag said to have been taken from the Cavaliers at Marston Moor, bearing a pair of horns and the inscription 'Cuckolds we come'. Dragoons had fringed guidons with two rounded tails, following the infantry system, but of similar size to the cavalry standards. Infantry standard colours often, but by no means always, matched the regiment's coat-colour.

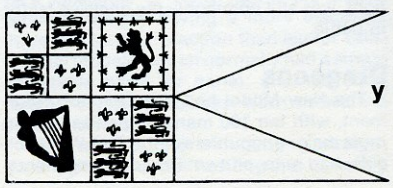
Dress

The two sides were distinguished by sash colours, Royalist officers, cavalry and pikes wearing red or rose, Parliamentarians generally orange-tawny. However, there are instances of Parliamentarians wearing red sashes, and senior officers are sometimes shown wearing blue. Infantry regiments seem in many cases to have worn coats (and sometimes also trousers and caps) of a regimental colour (see table), but both armies had their units in red, in blue and so on, so this would be of limited use for recognising one's own side in battle. Distinctions such as plumes and hat-bands in the sash colours are sometimes mentioned but again weren't universal, so it was still necessary to adopt a field-word and field-sign, such as the white bands or white papers in their hats employed by the Parliamentarians at Marston Moor.

Low, laced shoes of brown or black were worn by the infantry. Stockings were usually grey (and sometimes with an outer pair hanging baggily round the angle). Very voluminous breeches, usually secured at the knee with a ribbon, and sometimes of regimental colour, were often decorated with a coloured strip with contrasting edging and a row of buttons, at each side. Coats too could be decorated with ribbons or striped rolls at the shoulder, or with bands of 'lace' edging at border, button holes or on sleeves (thus, some Royalist whitecoats at Marston Moor had red and blue lace in a cross on their sleeves), and often had a contrasting lining, though this would not show much, as lapels, skirts and cuffs were not usually turned back at this time. Nearly all troops would show large white cuffs and turn-down collars (often lace for officers), and headgear included broad-brimmed felt hats (usually grey or black, with plumes most often in black or white), knitted 'Monmouth caps', and the rather mysterious 'Montero'.

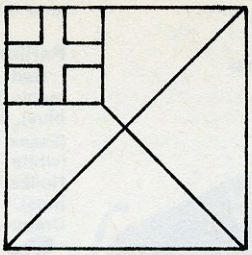
Officers were distinguished as usual in the period, by more ornate clothing, including lace collars and cuffs, gold lace bands on hats and clothing, and inlaid armour. Musi-

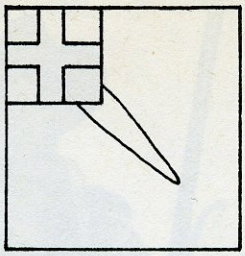
Infantry flags: **a** *John Hampden's Regiment (Parliament): probably green. Colonel's Colour (normally plain, but could carry motto, as here).* **b** *Colonel Charles Gerard's Regiment (Royalist). Lt-Colonel's Colour (ie plain, but with St George's cross). Blue and yellow.* **c** *New Model Army — Red Regiment. Major's Colour (as Lt-Colonel, plus 'stream'). Red, white stream.* **d** *Colonel Talbot's Regiment (Royalist). 1st Captain's Colour (one device, in this case a dog, on the field). Yellow.* **e** *Colonel John Lamplugh's Regiment (Royalist). 2nd Captain's Colour (two devices). Yellow, black crosses.* **f** *Lord Saye and Sele's Regiment (Parliament). 3rd Captain's Colour (three devices). Blue, gold lions.* **g** *2nd Regiment of London Trained Bands (Colonel Pennington)* and *New Model Army, White Regiment. 4th Captain's Colour (four devices). White, rose lozenges.* **h** *Sir John Gell's Regiment (Parliament). 5th Captain's Colour (five devices). Yellow, blue stars.* **i** *Tower Hamlets Regiment, London Trained Bands. 6th Captain's Colour (six devices). Red, white discs.* **j** *Lord Brook's Regiment (Parliament). 7th Captain's Colour (seven devices). Purple.* **k** *King's Life Guard. Captain's Colour. Red, gold lion etc. In all these cases, the St George's cross is red on white. It should be noted that nearly all these flags are based on written descriptions, some incomplete, and while colour and type of device are correct, there may be errors in detail or arrangement.* **l** *Dragoons — 2nd Captain's guidon. Dragoons had fringed guidons like this, but generally following the standard infantry system. Cavalry flags:* **m** *Earl of Essex (Parliament). Cornet. Orange-tawny. Bore this motto only, but not necessarily arranged in exactly this way.* **n** *Lord Capel (Royalist). Cornet. Sceptre and crown gold, on a blue flag.* **o** *Cornet. A Royalist Captain of Horse. Very suitable for wargamers!* **p** *A Company colour of Rupert's Bluecoats. Black and white. All had varying numbers of black rings placed diagonally running downward from the staff, and black triangles in varying arrangements. This looks as though it might be the 1st Captain's Colour.* **q** *Major Guntier (Parliament). Top yellow, flag probably red. Armour grey and gold, sword silver, hilt gold, hand flesh.* **r** *Earl of Stamford (Parliament). Blue, motto black on white.* **s** *Colonel Lambert (Parliament). Blue. Column and sleeves yellow, crown gold and red, hand flesh, motto black on white, land brown.* **t** *Major Ludlow (Parliament). Probably green. Bible white, other devices gold.* **u** *Lord Lucas (Royalist).* **v** *Royalist Cornet 1644. White, red cross, blue and white fringe (reconstructed).* **w** *Royalist Cornet. 1644. Black with black and yellow fringe (reconstructed).* **x** *Marquis of Winchester (Royalist).* **y** *Royal Standard. Fleur de lys and harp gold on blue. Scots lion and border red on gold. English leopards gold on red. Tails, if present, were probably red.*

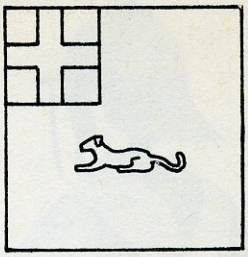


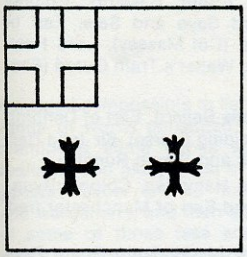


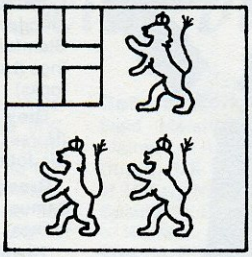
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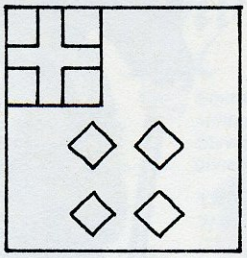

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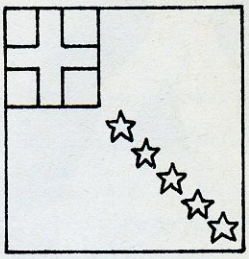

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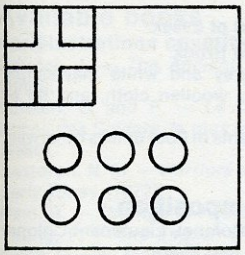

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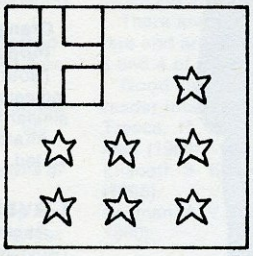

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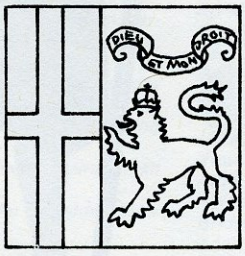

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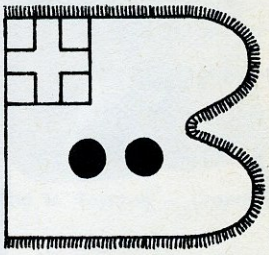

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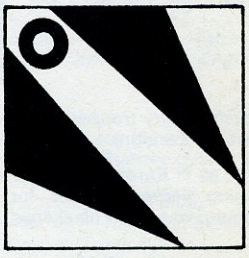
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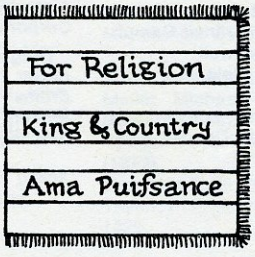


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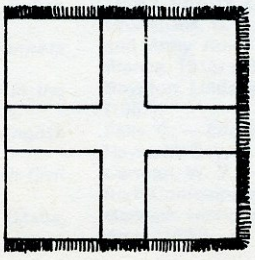
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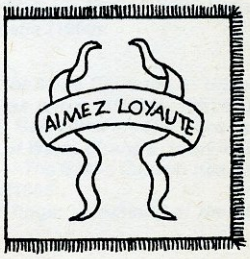


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English cavalry trooper's equipment circa 1645 and English pikeman's armour circa 1620 (Tower of London).

cians, as in Europe, often wore coats with hanging sleeves. Armour, for cavalry and pikemen, was often blackened.

English Civil War coat colours

Royalist

Red — King's Life Guard, Queen's Life Guard, Sir Allen Apsley, Sir William Saville and Rupert's Train Guard (Firelocks).

Blue — Prince Charles' Regt (Col Woodhouse); Prince Rupert's Regt (Col Sir Thomas Lunsford), Lord Hopton, Charles Gerard and Sir William Pennyman.

Green — Earl of Northampton, Robert Broughton and Henry Tillier (last two from Ireland).

Yellow — Sir John Paulet, Colonel Talbot, Sir Charles Vavasour and Sir Francis Gamul.

Black — Sir Thomas Blackwall.

Grey — Sir Henry Bard, Colonel Pallard and Thomas Pinchbeck.

White — Earl of Newcastle, Lord Percy's Regt (Firelock Train Guard), Colonel Hawkins, Sir Ralph Dutton and John Lamplugh.

Parliamentarian

Red — New Model Army Infantry Regiments (Different facings — for Fairfax's Regt blue), most Eastern Association Regiments (Essex Regts — lined blue), Lord Montagu (white facings), Lord Robartes, Denzil Holles, Sir Michael Liversey (Horse: blue facings), Ralph Weldon and New Model Dragoon Regt (probably).

Blue — Sir Henry Cholmley, Sir William Constable, Sir Arthur Haselrig, Colonel Mandeville, Lord Saye and Sele, Earl of Stamford's Regt (Col Massey), Lord Hastings (Horse) and Waller's Train Guard (Firelocks).

Grey — Thomas Ballard, Earl of Denbigh (Horse), Lord Fielding (Horse), Sir John Gell, Sir John Merrick and Simon Rugeley.

Green — John Hampden, Colonel Byng, Samuel Jones and Earl of Manchester (red linings).

Tawny — New Model Train Guard Regt (Firelock).

Orange — Earl of Essex.

Purple — Lord Brook.

(Note: both 'grey' and 'white' may simply indicate undyed woollen cloth, and be of similar hue.)

All are Regiments of Foot unless otherwise stated.

Cavalry composition

Regiment — Colonel, Lieutenant Colonel (Royalists only) and Major.

Troop — Captain, Lieutenant, Cornet (officer, carried standard), Quartermaster, three Corporals, two Trumpeters, Saddler, Farrier and 60 Troopers.

Infantry composition

Regiment — Colonel, Lieutenant Colonel, Major, Chaplain, Quartermaster, Provost (discipline), Surgeon (and mate), Carriage master and Drum Major.

Company — Captain, Lieutenant, Ensign (officer, carried standard), Gentleman of the Arms (Royalists only), two Sergeants, five Corporals, two Drummers and 100 men.

Dragoon Regiments varied, but were closer to infantry than cavalry. They had drums. The New Model Regiment had the officers of a cavalry regiment, the NCOs of a foot regiment.

A

Select bibliography

It would be impossible to list here the whole range of works consulted, so I have first mentioned some books which are both available and likely to be of interest to the general reader and to military modellers and wargamers, and then added a brief list of some of those less accessible works which seem of importance.

Available books

For illustrations covering this period

Boudet, J. — *The Ancient Art of Warfare* (1969).
Funken, L. and F. — *Le Costume et les Armes des Soldats de tous les Temps,* Vol 1 (1966).
Saxtorph, N. M. — *Warriors and Weapons of Early Times* (1972).
Held, R. — *The Age of Firearms* (1957).
Young, P. — *The English Civil War Armies* (1973, Osprey Men at Arms Series).
Potter, R. and Embleton, G. — *The English Civil War* (1973).
Cimarelli, A. — *Arms and Armour* (1973).
Pope, D. — *Guns* (1965).
Melegari, V. — *Great Regiments* (1969).
Wilkinson, F. — *Arms and Armour* (1971), *Battle Dress* (1970), *Edged Weapons* (1970).

For contemporary evidence available in recent reprints

Cruso, John — *Militarie Instructions for the Cavallrie* (modern replica of contemporary manual).
Balbi, F. — *The Siege of Malta* (trans E. Bradford) (1965).
The French Wars of Religion. Blaise de Monluc (Ed I. Roy).
The English Civil War. Richard Atkyns, John Gwyn (Ed P. Young, N. Tucker — this and the above are in Longmans Military Memoirs series).
de Commynes, Philippe — *Memoirs* (trans M. Jones) (Penguin, late 15th Century).

Relevant paperback books

Firth, C. H. — *Cromwell's Army.*
Rogers, H. C. B. — *Weapons of the British Soldier.*
Fraser, G. M. — *The Steel Bonnets* (Anglo-Scots Borderers).
Oman, C. W. C. — *The Art of War in the Middle Ages* (early short version).
Young, P. and Holmes, R. — *The English Civil War.*
Woolrych, A. — *Battles of the English Civil War.*
Bradford, E. — *The Great Siege* (Malta, 1565).

General Works

Field Marshal Viscount Montgomery of Alamein — *A History of Warfare.*
Dupuy, R. E. and T. N. — *The Encyclopaedia of Military History.*
Spaulding, O., Nickerson, H., and Wright, J. — *Warfare.*
Preston, R. A., Wise, S. F., and Werner, H. O. — *Men in Arms* (1956) (also Boudet, above).

There are also excellent sections on warfare and armies in the period in Volumes 2, 3 and 4 of the Cambridge Modern History.

Good introductions for the younger reader include:

Treece, H., and Oakshott, E. — *Fighting Men* (1963).
Ellacott, S. E. — *Spearman to Minuteman* (1965).
Norman, A. V. B. — *Warrior to Soldier* (449-1660).

Less widely available books

General

Oman, C. W. C. — *A History of the Art of War in the Middle Ages,* Vol 2 (1924), and *A History of the Art of War in the 16th Century* (1937).
Dodge, T. A. — *Gustavus Adolphus, A History of the Art of War from the Middle Ages to the War of Spanish Succession* (1895).
Carman, W. Y. — *A History of Firearms from the Earliest Times to 1914* (1955).
Lot, F. — *L'Art Militaire et les Armees au Moyen Age,* 2 vols (1946).

15th Century: Italian Wars

Mallet, Michael — *Mercenaries and their Masters* (1974).
Vaughan, Richard — *Charles the Bold* (1973).
Deuchler, F. — *Die Burgunderbeute* (1963).
Taylor, F. P. — *The Art of War in Italy, 1494-1529.*

16th Century English:Irish

Cruikshank, C. G. — *Elizabeth's Army* (1966) and *Army Royal* (Henry VIII's invasion of France, 1513) (1969).
Boynton, Lindsay — *The Elizabethan Militia* (1967).
Falls, C. — *Elizabeth's Irish Wars* (1950).
Hayes-McCoy, G. A. — *Irish Battles* (1969).
Carman, W. Y. — *British Military Uniforms from Contemporary Pictures* (1968).
Barwick, Humphrey — *A Brief Discourse of Arms* (1594).
Smith, Sir John — *Observations and Orders Military* (1591).
Styward, T. — *A Pathway to Martiall Discipline* (1581).

17th Century British

Ward, Robert — *Animadversions of War* (1639).
Elton, Richard — *The Compleat Body of the Art Military* (1650, 68).
Terry, C. S. (Ed) — *The Army of the Covenant* (1916-17).
Rogers, H. C. B. — *Battles and Generals of the Civil Wars* (1968).
Young, P. — *Edgehill 1642, Marston Moor 1644.*
Young, P., and W. Emberley — *The Cavalier Army* (1974).
Young, P., and M. Toynbee — *Cropredy Bridge 1644.*
Adair, J. — *Cheriton 1644* (1973).
Wenham, P. — *The Great and Close Siege of York* (1970).
Edward, Earl of Clarendon — *The History of the Rebellion and Civil Wars of England* (1849).

France

Lot, F. — *Recherches sur les effectifs des Armees Francaises des Guerres d'Italie aux Guerres de Religion* (1962).
Andre, L. — *Michel le Tellier* (1906).
Bayard, Chevalier de — *The Loyal Serviteur* — History of Bayard (Trans 1883).
Forbes Leith, W. — *The Scots Men at Arms and Life Guards in France* (2 vols) (1882).
La Noue — *Military Discourse* (1587).
Davila, Enrico C. — *History of the Civil Wars of France* (Trans 1758).

Holy Roman Empire

Blau, F. — *Die Deutschen Landsknechte* (1882).
Ballagi, A. — *Wallensteins Kroatische Arkebusiere* (1884).
Loewe, V. — *Die Organisation und der Verwaltung der Wallensteinischen Heere* (1895).
Rothenberg, G. E. — *The Austrian Military Border in Croatia* (1960).

Spain

Soto, S. M. Conde de Clonarde — *Historia Organica de las Armas* (10 vols, 1851-62).
de Mendoza, Bernadino — *The Theorique and Practice of Warre* (Trans E. Hoby 1597).
de Gaury, G. — *The Grand Captain* (Gonzalo de Cordoba) (1955).
Williams, Sir Roger — *Actions of the Low Countries.*

Holland

de Gheyn, J. — *Maniement d'Armes* (1619).
Ten Raa, F. T. G., and de Bas, F. — *Het Staatsche Leger* (5 vols) (1911-21).
Ferguson, J. — *Papers illustrating the History of the Scots Brigade in the Service of the United Netherlands,* Vol 1 (1899).

Moghul India

Irvine, W. — *The Army of the Indian Moghuls* (1903).
Bernier, F. — *Travels in the Mogul Empire 1665-8* (1891).

Sweden

Roberts, Michael — *Essays in Swedish History* (1965), and *Gustavus Adolphus* (2 vols).
Swedish General Staff; Military Historical Division — *Gustav II Adolf* (1932), and *Sverigs Krig 1611-32* (8 vols) (1936-9).
The Swedish Intelligencer Compleat (1634).
Monro, Robert — *Robert Monro his Expedition with the Worthy Scots Regiment Levied in August 1626* (1637).

Turks, Mamelukes etc

Ayalon, D. — *Gunpowder and Firearms in the Mameluke Kingdom* (1956).
Gibb, H. A. R., and Bowen, H. — *Islamic Society and the West* (2 vols) (1950).
Forster, E. S. (Ed) — *The Turkish Letters of Ogier Ghiselin de Busbecq* (1927).
Lybyer, A. H. — *Government of the Turkish Empire under Suleiman the Magnificent.*
Nicolay — *Peregrinations faictes en la Turquie* (1577).
Rycaut, Sir Paul — *History of the Turks* (1669).

Russia

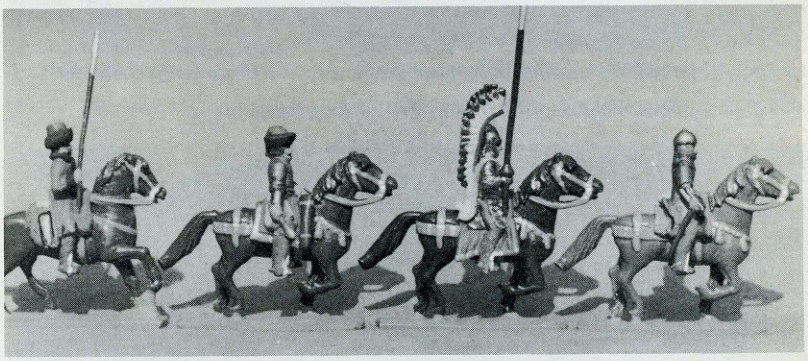
Viscovatov, A. V. — *Historical Description of the Uniform and Armaments of the Russian Armed Forces* Vol I (Russian text) (1899).
von Herbestein — *Notes upon Russia* (1557).
Russia at the Close of the 16th Century (Hakluyt Society) (1856).
Early Voyages and Travels in Russia and Persia (Hakluyt Society) (1886).
Longworth, P. — *The Cossacks.*

B

Military modelling and wargaming

One purpose in writing this book was to help open a new historical field to the growing band of followers of these history-based hobbies. The period from 1470 to 1650 has many advantages for them, with its great colour and variety in appearance — what troops of any era could provide a more interesting subject to the modeller than the German Lansknechts, the Polish Winged Hussars, the Turkish Dellis or the French Gendarmes d'Ordonnance, or a greater variety of flags and standards than those which flew over every company of infantry or squadron of horse in this brilliant era? For those whose bent is research, there is still much fascinating work to be done on this very inadequately-explored period, while the lack of uniformity in so many of its troops gives free reign to the imaginative.

Though the manufacturers of military miniatures do not, as yet, pay as much attention to this period as to, say, the Napoleonic or Ancient eras, they are producing an increasing number of figures, and at the end of this section will be found a list of those available at the time of writing.



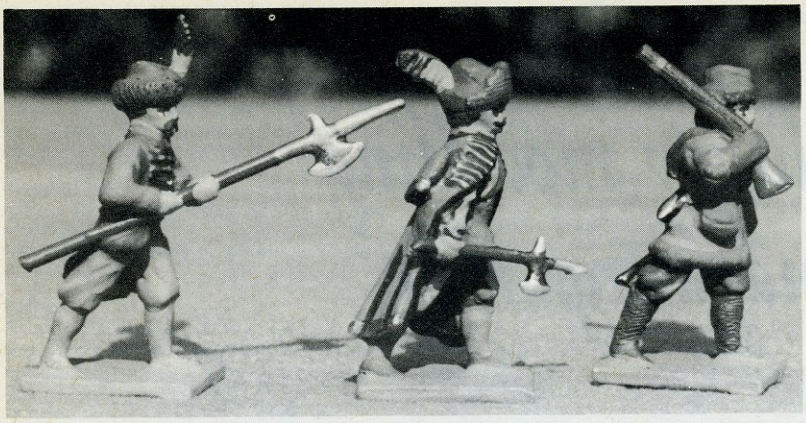


Top *Miniature Figurines' Polish-Lithuanian Cossack, cavalry officer, winged hussar and Pancerni medium cavalryman with war hammer.*

Right *Warrior Lansknechts.*

Below *Miniature Figurines' 30 Years' War range figures.*





Miniature Figurines' Renaissance Polish halberdier, officer and peasant arquebusier.

Miniature Figurines' light lancer and halberdier from the Aztec range.



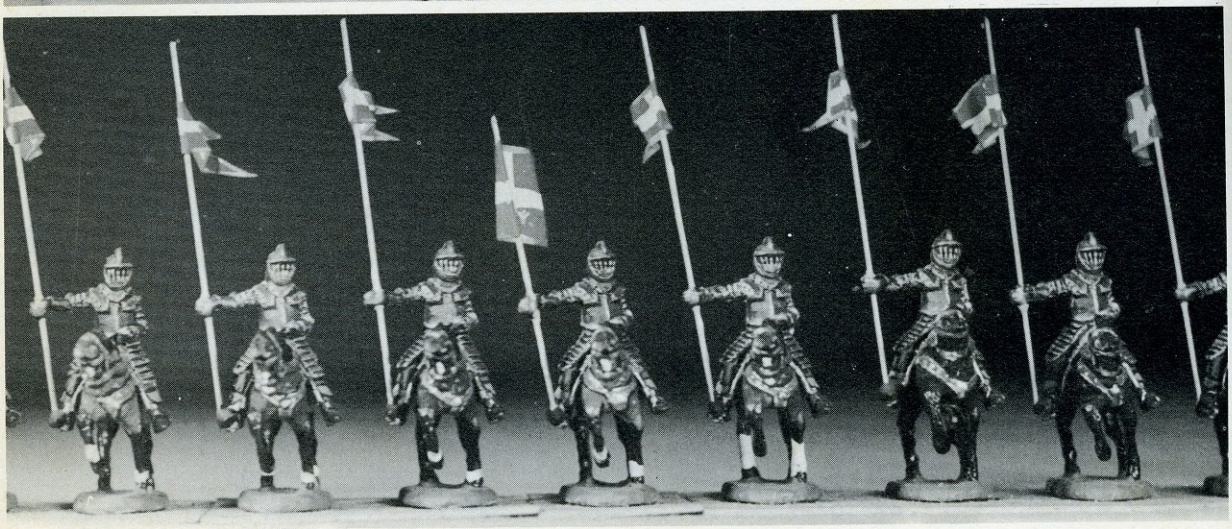
There is already in existence a society for those interested in the military history and armies of this period, whether from the wargaming point of view or otherwise, run on similar lines to the better-known Society of Ancients, and producing a bi-monthly magazine *The Arquebusier,* and those interested are strongly recommended to join the Pike and Shot Society.

Forming wargames armies

The growth of this period as a subject for wargames has probably been encouraged by its appearance over the last four years as one of the periods for championship games at the National Wargames Convention, but so far much of the interest has been rather narrowly concentrated on the English Civil War, probably because this was the only part of the period for which both models and information were readily available. However, the period as a whole offers many advantages to the wargamer, beyond those of variety and colour already mentioned. He has a wide choice of very differently-constituted armies, a most interesting variety of weapons and armour, and withal a period whose limited weapon ranges and rather formal formations and tactics are quite easily adaptable to the table-top.

Another advantage is the interchangeability of many figures and troop-types, which means that a limited collection of model units can form several different field armies, according to the types selected and the standards used. In 16th Century armies, units of Lansknechts can serve in Imperial, English, French, Danish and other armies, or as Swiss; Reiters can be similarly widely used, as could various 'standard' types showing little national differentiation, such as half-armoured pikemen, mounted arquebusiers and gendarmes; similarly, Tartars and Cossacks in the East, where also a mailed lancer with bow and lance could be used in many roles. For the mid-17th Century, English Civil War types both horse and foot can be used almost unchanged for the whole

Warrior Figures' late 16th Century Gendarmerie formed 'en haie'.



range of Western and middle European armies.

The reasonably skilled converter can produce many of the troop-types described in the book from the very inexpensive Airfix range of figures, while lead figures from other periods, such as Ancient Huns and Vikings, Napoleonic Bashkirs and Mamelukes, Colonial tribesmen, and Crusade period Saracens, can be used in addition to the figures mentioned below, and the Medieval ranges mentioned include many figures suitable for troops of the late 15th or very early 16th Centuries.

Figures available

90 mm Scale — *Men O' War,* 17 Hassendean Road, Blackheath, London (infantry musketeer 1608-40). *Lippett Figures,* 46 The Old High Street, Folkestone, Kent (Cortez).
77 mm Scale — *Series 77,* 25 Britannia Drive, Gravesend, Kent (Lansknechts, Trophy of Arms, etc).
54 mm Scale — *Rose Miniatures,* 15 Llanover Road, Plumstead, London SE18 (Lansknechts and Dutch 17th Century infantry). *Lasset,* Greenwood and Ball, 61 Westbury Street, Thornaby on Tees (Lansknechts). *Trophy,* 1 Adlington Road, Oadby, Leicester (Lansknecht, Polish Winged Hussar). *JAC Models* (English Civil War figures). *Sanderson* (Cavaliers; casual poses). *Rubin Figures* (Winged Hussar).
30 mm Scale — German flat figures (zinnfiguren) cover most main types of period, especially good on 30 Years' War. *Willie Figures,* 60 Lower Sloane Street, London SW1 (English Civil War).
25 mm Scale — *Miniature Figurines,* 28-32 Northam Road, Southampton (very good and large English Civil War range; 30 Years' War range; Renaissance range including English, Polish, Swiss, French, Turks and Lansknechts; Aztec range including Aztecs and Spanish Conquistadores; also suitable medievals etc). *Warrior Metal Miniatures,* 23 Grove Road, Leighton Buzzard, Beds (only other maker in this scale doing 16th Century figures — Spanish and Turkish ranges, also Lansknechts, 16th Century artillerymen, and large English Civil War range). *Rose Miniatures* (small range of English Civil War figures, Poles and Turks). *Hinchliffe Models Ltd,* Meltham, Huddersfield (considerable English Civil War range; good artillery including Cannon Royal). *Garrison,* Greenwood and Ball (small English Civil War range). *Tradition,* 188 Piccadilly, London (small English Civil War range). *Hinton Hunt,* River Road, Taplow, Bucks (fair size English Civil War range; figures a little smaller than others mentioned; some useful Medievals).
20 mm Scale — *Phoenix Model Developments,* The Square, Earls Barton, Northants (fair Civil War range).
15 mm Scale — *Miniature Figurines* (fair English Civil War range). *Peter Laing,* Min-

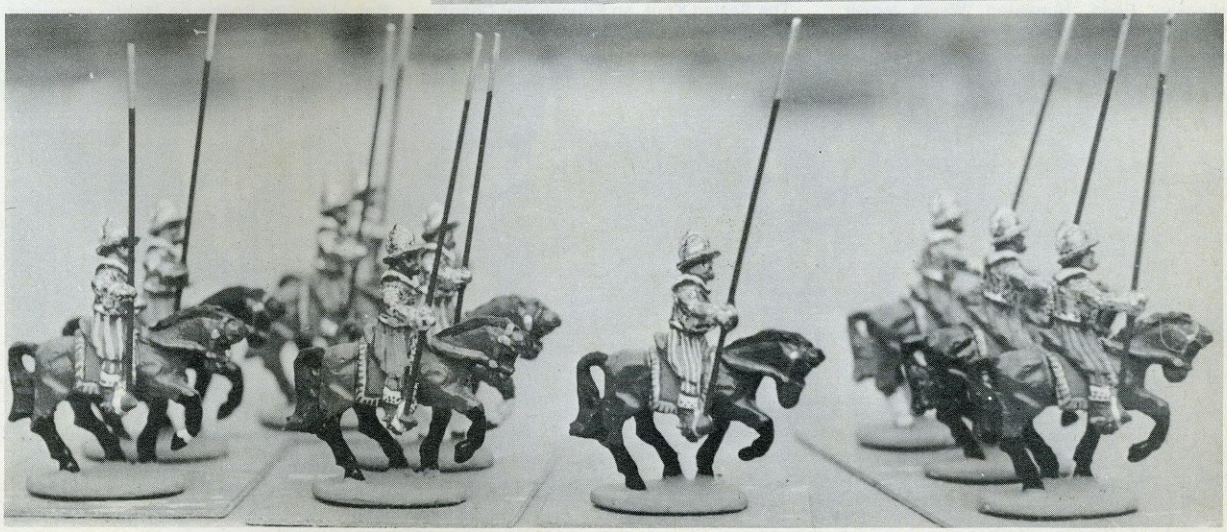


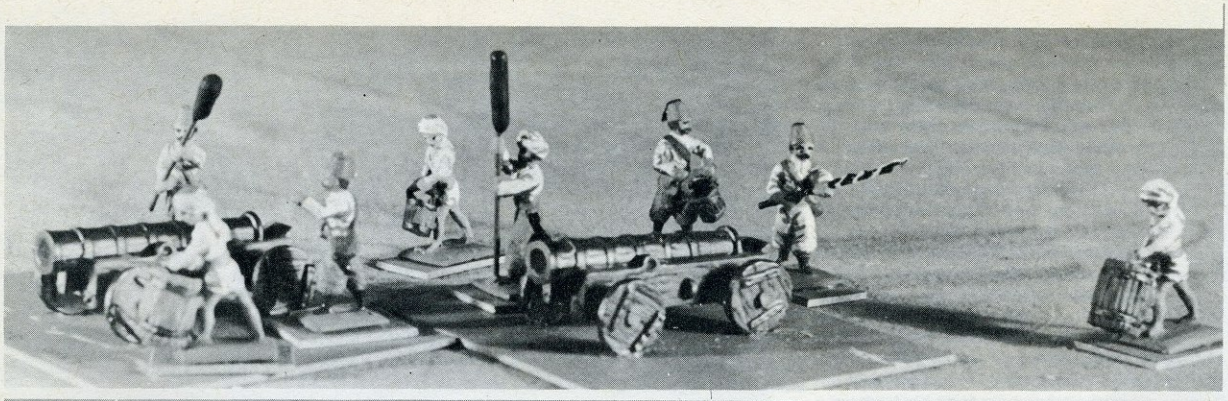
Hinchliffe Colonial figures used as Turks.

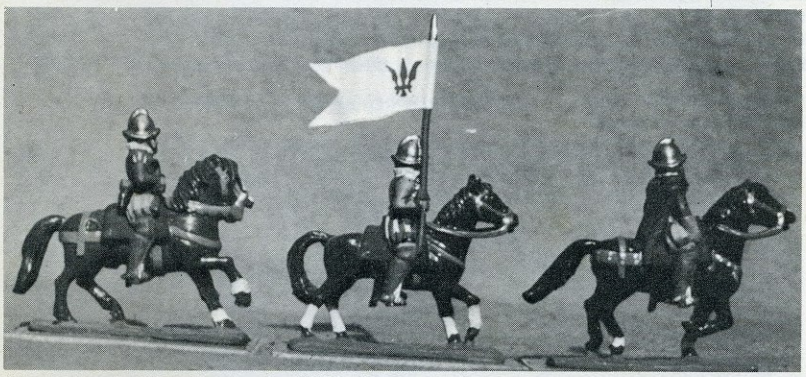
French mounted arquebusier and officer (probably early to mid-16th Century) from Minifigs' Renaissance range.



Warrior 'demilances'.









den, Sutton St Nicholas, Hereford HR1 3BD (quite a wide English Civil War range with one or two other figures such as lancer, and good range of Marlburian transport and artillery which can also be used).

Pike and Shot Society

Treasurer, Pat Wingfield, 95 Spring Hill Drive, Crofton, Wakefield, W. Yorks.

Wargames Rules

The enterprising wargamer will no doubt produce his own set from the information herein, as the author has done. Several sets are available, (a) From David Millward, 259 Hinckley Road, Nuneaton, Warks (cover whole period); (b) From P. H. Manning, 117 Hilary Road, Maidstone, Kent (for English Civil War, 15 mm scale); and (c) From The Wargames Research Group, 75 Ardingly Drive, Goring by Sea, Sussex (covering whole period; at the time of writing under development; may not be published yet).

Board Games

Two board games based on this period — 'Renaissance of Infantry' and 'Musket and Pike' are available from Simulations Publications UK, Freepost, Altrincham, Cheshire WA15 6BR.

Re-enactments

The Sealed Knot, an Educational Charity, has members throughout the country and re-enacts battles, sieges and other events of the Civil Wars. It was founded by Brigadier Peter Young, DSO, MC, who is its Captain Generall. Applicants for Membership should write to Lt Colonel Hastings Read, FH, 101 Graham Road, Great Malvern, Worcs.

Top *Turkish heavy guns of the early 16th Century. The guns are Minifigs' and the figures are converted from their Egyptian Campaign and Colonial ranges.*

Above left *Mounted crossbowman, lancer and officer from Minifigs' Aztec range.*

Above *Hinton Hunt billman and Miniature Figurines' bowman.*

Below *Warrior Spahis on Minifig armoured horses.*



The Renaissance was one of the most colourful and exciting periods of military change and innovation in Western history, yet this book is the first to bring the entire panoply within the reach of the English reader. Copiously illustrated with more than 200 photographs and drawings, it covers not only the organisation and tactics of 15th-17th Century armies, but also — most importantly — how they were dressed and equipped.



JAN JISKRA

When the Hussite Revolution came to an end at Lipany in May 1443 large numbers of Hussite soldiers drifted eastwards to Slovakia and Hungary. Small groups as well as larger formations offered their services to feudal lords or towns and cities. These trained, seasoned and disciplined soldiers, probably the only such soldiers in Europe at the time, formed the principal cardre of the Polish army. King Vladislav appointed the well-known Hussite commander Jan Capek from San as leader, and they fought the encroaching Turks.

Coupled with the appearance of large numbers of the finest troops in Europe looking for employment and an increasing menace from Turkish expansion was a duel for power between two great men — Janos Hunyadi and Jan Jiskra. Hunyadi's fame has spread across Europe in the five centuries since his death. But his reputation, however justified, has obscured Jan Jiskra, and their political and military struggles for the Hungarian throne.

There is very little written about Jiskra in English — yet he was an important person in a turbulent age. A brilliant soldier, a diplomat and a man who took loyalty seriously. What follows is a brief outline of his career — to my knowledge it is one of the very few articles to appear on Jiskra, and is probably the only one to appear in a popular magazine.

According to Aneas Silvius's chronicle of the times Jan Jiskra was descended from a noble family who had settled in Moravia. Unfortunately there seems to be no records in Moravian history of such a family, and the first mention of Jiskra comes from the Western part of Czechoslovakia. He is mentioned in Bohemian history in 1436 in connection with the castle Karlstejn. Like so many others from this period his early life is lost, but it is known that he spent his youth in Italy, where he studied methods of warfare. Italy at that time was considered the Master of the Arts of warfare, and Jiskra's contemporaries saw in him another Jan Zizkra.

By 1437 his reputation had reached the ears of the Emporer Sigismund and he was engaged to take an army against the Turks. He was given overall command of an army, along with 1800 "lots" of Czech "grose" (similar to an English shilling) with which to pay his soldiers. Jiskra led his army, composed mainly of ex-Hussites, along the Danube and engaged the Turks. The expedition was a military success and was also noted for the kindness with which the army treated the civilian population. This was most unusual for the times, but then the army was composed mainly of religious dissenters, who despite their ferocity in battle retained their Christianity when dealing with the local people.

Jiskra's growing reputation led him into the service of Albrecht II, and ultimately into conflict with the other rising star Janos Hunyadi. In 1440 Albrecht died, leaving his pregnant widow Alzbeta in the trustworthy hands of his commander Jan Jiskra.

Shortly after her husband's death Alzbeta gave birth to a son, Ladislav. Being born after his father's death he is known to history as Ladislav *Pohrobek* or posthumous. Whilst Jiskra was willing to serve Alzbeta as Queen until her son was old enough to accept the crown, the Hungarian nobility demanded a king who could rule them immediately. They elected King Vladislav II of Poland as their ruler and denied Ladislav Posthumous his right to his father's kingdom.

Alzbeta was not prepared to give up her son's birthright so easily, and she placed Jan Jiskra in charge of her forces and made him Governor of the Northern territories of Hungary. Jiskra's mercenary force included some of the greatest military men of the time. Ex-Hussite commanders like Jan Smirkovsky of Zdaru, Jan Talafus of Ostrava, Mikulas Brcal of Dobre and others helped to secure the Northern counties, and to establish his base at Kosice, in Eastern Slovakia.

Kosice was an important town on a major trade route. The castle on Hradova Hill had been built in the previous century by Omedel, who had recognised the strategic importance of the town. Kosice, more especially its castle, controlled two main trade routes; one leading from the Balkans through the Tisza Plain to Prussia, and the other across Galicsa to Russia.

Slayed the Poles and Magyars exceedingly well

Slovakia then became a battleground, as both factions recognised and fought for the strategic importance of the Eastern Slovakian towns, and the economically important towns of Central Slovakia. Jiskra extended his grip over Slovakia, occupying Levoca, Bardejor, Kremnice, Stavnice Bystrice, Novou Ban, Presov and Kezmarok.

He fought against Vladislav's Poles as well as the Hungarian nobility, and his success was recorded in a letter from the Prague Archbishop Mikulas to Oldrich of Rozbosk in Vienna:

"In two weeks Jiskra from Kosice slayed the Poles and Magyars exceedingly well!"

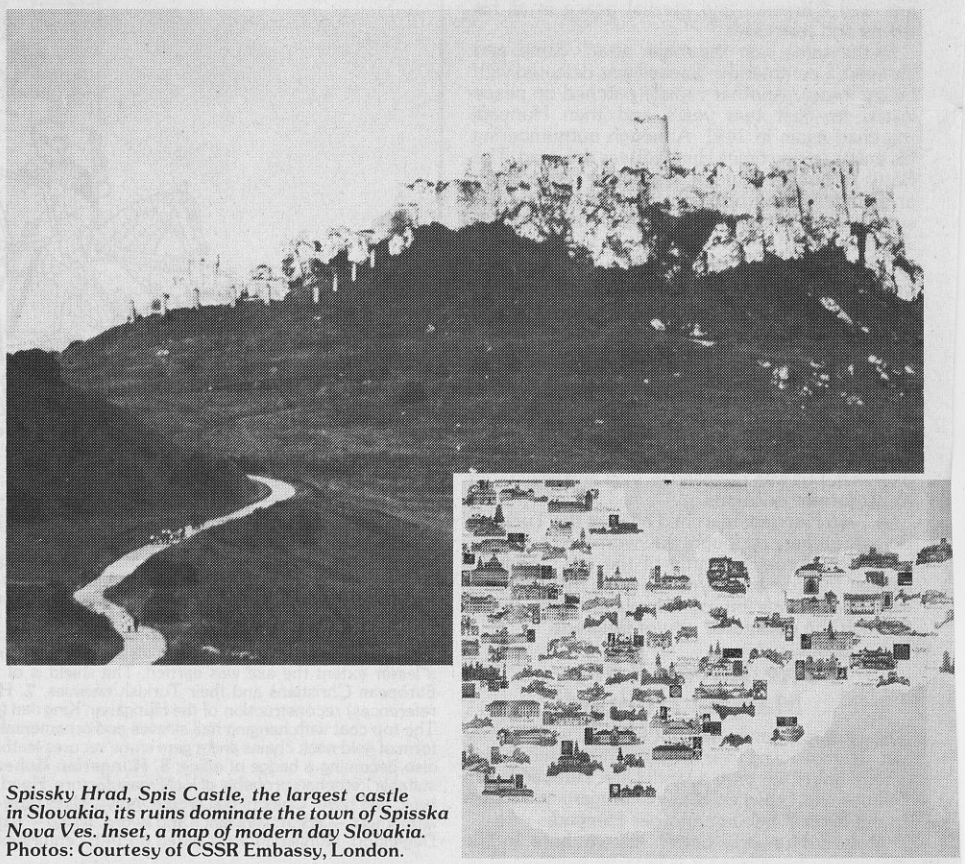
In 1442 he captured Nitra, Trnava and Trencin and fortified these towns by building massive castles in each. The same year he gave battle to Vladislav outside Prespurk (now Bratislava) and routed the Pole who had to retreat "in great shame" and "with great damage." Vladislav fled to Trnava but Jiskra's force overtook him and stopped him attempting to take refuge in the town. As a reward Queen Alzbeta made him Lord of Sarys and gave him jurisdiction over all of Northern Hungary.

In 1442 both sides finally agreed to a peace settlement. Shortly after the cessation of hostilities Alzbeta died suddenly. There was suspicion that she had been poisoned, although nothing was ever proved. Jiskra continued to defend the young Ladislav, although the Hungarians again asked and accepted the Polish King Vladislav to rule over them. The Northern territories, what is now Slovakia, never accepted Vladislav's claim to rule them and remained loyal to Jiskra who governed them for Ladislav Pohrobek.

Vladislav and Hunyadi turned their attention to the growing danger of Turkish expansion, and their presence in the Southern counties gave Jiskra a chance to fortify Slovakia. Craftsmen and traders were encouraged to move from Moravia and Bohemia to the Northern counties, bringing trade and prosperity with them. Although Jiskra was a Feudal Overlord he appears to have treated his subjects well, and kept their loyalty and goodwill.

In 1443 Vladislav and Hunyadi went on the offensive against the Turks. Jiskra offered his services, but withdrew them when he learnt of a plot to kill him. The campaign of 1443/4 was very successful and in 1444 the Turks signed a Ten Year Truce with Hungary, but the Pope's personal envoy Cardinal Julian Cesarini en-

Bob Black relates the story of a 15th century Czech hero, providing references for modellers and wargamers on how soldiers dressed at the time



Spissky Hrad, Spis Castle, the largest castle in Slovakia, its ruins dominate the town of Spisska Nova Ves. Inset, a map of modern day Slovakia.
Photos: Courtesy of CSSR Embassy, London.

couraged the Hungarians to break the peace, telling them that Christians need not keep their word to Turks. Jiskra considered this treachery and stayed well out of it. He was right for at the Battle of Varna the Hungarian army was smashed and Vladislav and Cesarini killed.

Jan Jiskra continued to build up the Northern territories in the name of the young king Ladislav, but despite his fighting on the boy's behalf he had never met him. So in 1445 he went to Vienna to meet Alzbeta's son.

A reward for service

Aneas Silvius was an eyewitness to this meeting between the boy-King and his faithful soldier. The bearded warrior kissed the hand of the young king and told him of all he had done in the service of Ladislav's family — being faithful to his father, his mother and the boy-king himself. Jokingly he asked how Ladislav would reward his knight.

The six year old boy beckoned his Chamberlain Jan Uhgnad forward. Uhgnad wore a purse around his waist from which alms were given out to the poor. Ladislav awarded the contents of the purse — just six coins — to Jiskra. Despite his reward being small Jiskra was pleased with his gift. He had the six coins mounted in gold and set in a chain which he always wore.

After this brief meeting Jiskra returned to Hungary. Vladislav's death had shaken the internal structure of the country, and now the feudal lords met to decide who should rule Hungary. It was agreed that Ladislav Posthumous should be king, but as he was too young to rule a council of seven Captains were appointed to govern in his place. Both Jiskra and Hunyadi were elected to this council. But a year later the Hungarians decided to place the entire country in the hands of one man — their most famous and respected Captain, Janos Hunyadi.

Jiskra had no intention of giving up his lands and castles in Slovakia and was prepared to fight for them. Hunyadi encouraged the Slovak warrior Pancrac of St. Mikulas to attack Jiskra's towns. In 1447 Banska Bystrica was attacked and Spis was pillaged. Jiskra marched to defend his towns and Pancrac was driven off. Hunyadi agreed to pay 10,600 pieces of gold in compensation, but these were never forthcoming. Jiskra reasoned the Hungarians would attack again, and in order to have a free hand when they did he made peace with Pancrac. In 1449 Pancrac agreed "to keep a just and Christian and eternal peace in all his towns and fortresses."

In the same year the major attack came, and Hunyadi's commander Szekeli was defeated with heavy losses. Another rapidly patched up peace lasted for just two years and then Hunyadi marched again in 1451. Although outnumbering his enemy many times Hunyadi was defeated. The Battle of Lucenec on 7th September represented an all-time low for the Hungarian. His prestige was suffering badly from his inability to deal with Jiskra.

Although the main battles were over the pillaging and fighting continued on a smaller scale. Once again it was the inhabitants of Slovakia who were to suffer in these raids.

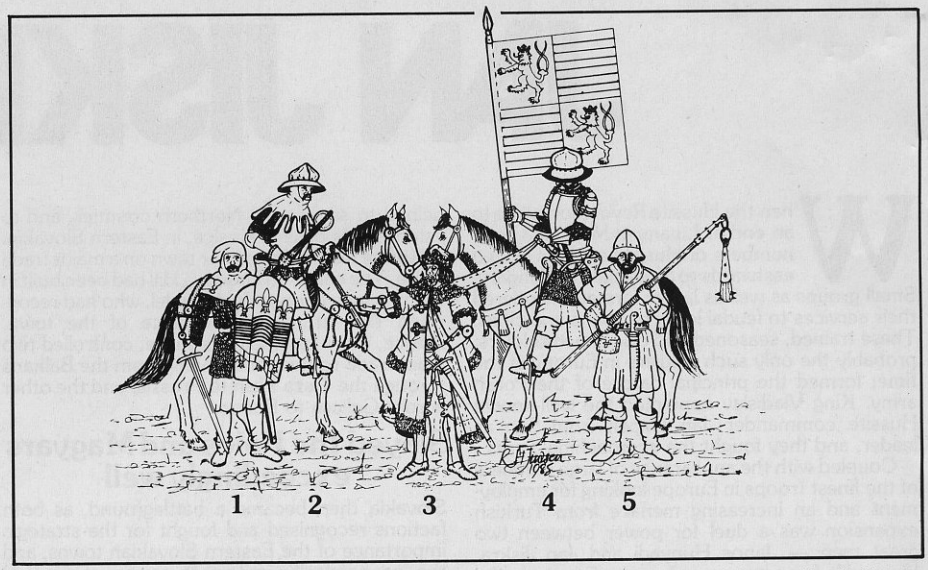
In 1452 the young King Ladislav came to Hungary to rule alongside his Governor Hunyadi. Under the court's influence he placed more power in Hunyadi's hands and stripped Jiskra of all lands, titles and property — a poor reward for the years of service that Jiskra had given. Jiskra left Slovakia, but was re-called in 1454 and reinstated to his former positions.

In 1456 Hunyadi marched against the Turks at Belgrade where he fought and won what has been called the "greatest battle of the era." Then in August the court received the news that Hunyadi was dead, a victim of the plague that swept through the decimated city of Belgrade.

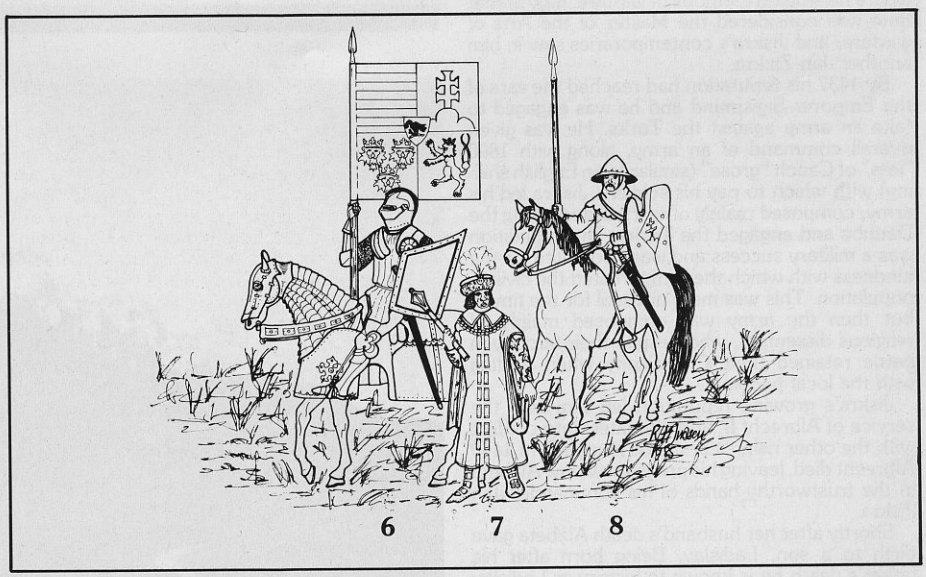
The Raven King — Matyas Hunyadi

The Hunyadi family had not finished with history yet. The following year Ladislav Posthumous died after a short but very eventful life. Hunyadi's son Matyas was crowned King of Hungary and Jiskra found himself fighting another Hunyadi.

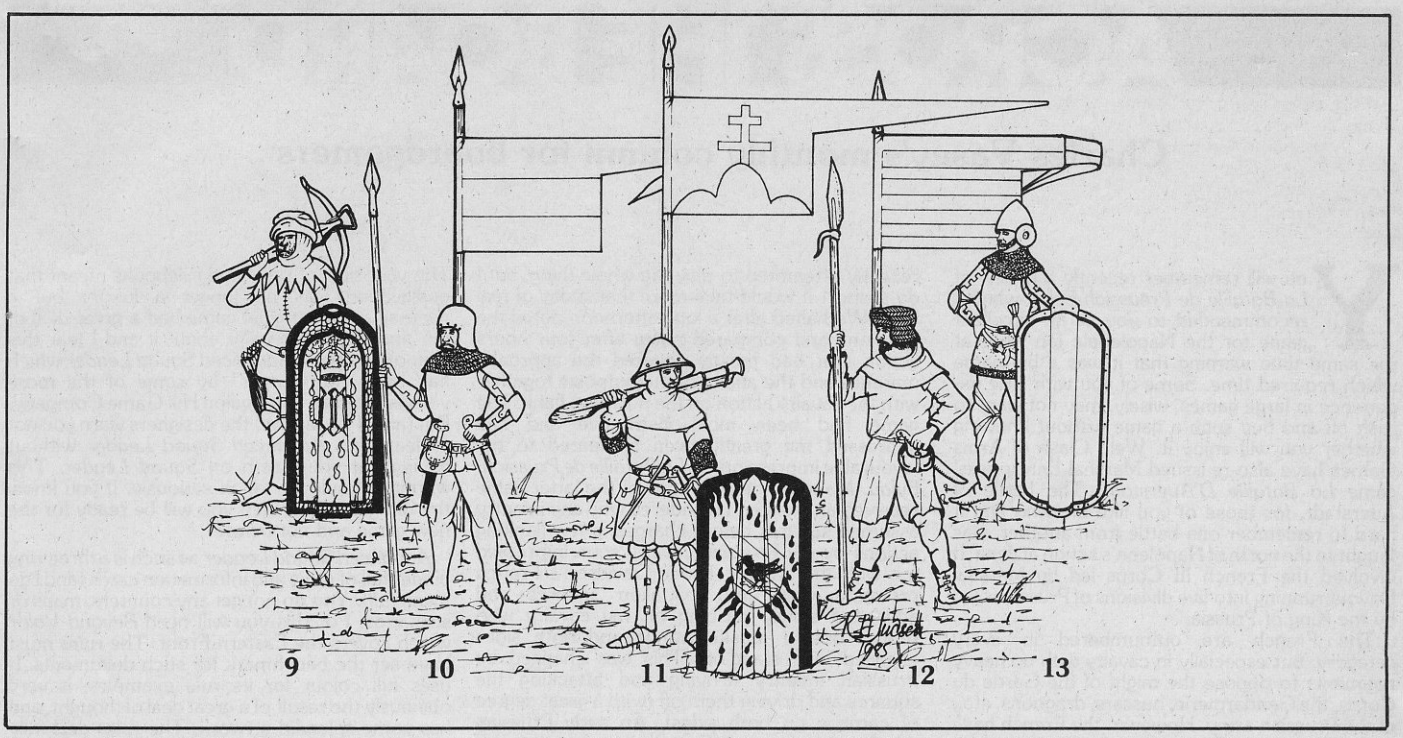
Matyas Hunyadi, better known here in the



All drawings by Richard Judson. **1. Ex-Hussite Mercenary Foot Soldier.** Hood — much favoured by the Hussites, dull vermillion or madder. (He wears the Chalice on his hood — the field sign of the Hussites). Long tunic — dull blue/grey, green or brown. Long-sleeved mail coat is based on a surviving example in the Hussite Museum, Tabor, Czechoslovakia. Hose — various shades of grey. Shield is a smaller version of the pavise, and bears the Arms of the town of Kosice — Jiskra's headquarters in Slovakia. Blue field with gold or yellow lilies — central fess red/white stripes of Hungary — band on lower third of shield gold/red. **2. Ex-Hussite Mercenary Cavalryman.** Helm-deep brimmed, fluted crowned German kettle type. Hood — dagged edged leather. Short-sleeved, hip length mail shirt worn over long leather tunic, but under steel breast and back plate. Plate protects arms and hands. Trousers — leather or heavy fabric tucked into rawhide boots. Armament — lance, spear, sword axe, war hammer and mace. The all-steel globular mace is based on existing Polish types. The figure is based on Czech reconstructions. **3. Mercenary Captain.** The fur cap and fur collared and edged frogged coat, with double sleeves, is based on statues representing Jan Zizka in the Hussite Museum, Tabor. Armour — full German plate harness, although leather shoes preferred to segmented foot armour. Armament — "fist and dagger" all steel war hammer, which was popular with Hussite soldiery. **4. Hungarian Armoured Cavalryman.** Helm — deep brimmed bell-crowned German kettle type. Armour — deep skirted long sleeved mail coat over which plate defences protect the shoulder and upper arms — these plates were possibly riveted to the mail beneath. Chest back and hips were protected by breast plate, back plate and larmes. Wrists and hands covered by fluted steel gauntlets. The whole harness of plate and mail is worn over a suitably padded long coat, with leather boots giving some defence to the legs. The Banner is that of the Hungarian King — Albrecht II of Austria, and shows quartered the Arms of Bohemia — red background with the white twin tailed lion wearing a gold crown; and Hungary Ancient, red and white vertical stripes. A variation of this banner has a small shield centrally placed displaying the arms of Austria — red with a white central band. **5. Ex-Hussite Mercenary Foot Soldier.** Helm — deep brimmed kettle with nasal. This figure is based on those shown in the Bohemian King Vaclav (Wenceslas) Bible 1390-1410. The tunic and shirt are typical Bohemian costume of the first third of the 15th century. Shirt would be blue/grey or off-white, tunic a dull green, hose dull red or grey and boots buff or brown. Arms — long shafted iron bound spiked flail (their original commander Jan Zizka adapted the farm implements his soldiers had brought with them, turning them into deadly weapons), and a heavy single-edged sharp knife.



6. Hungarian Heavy Cavalryman. Many Hungarian, Polish and Bohemian nobles who fought as heavy cavalry wore imported German or Italian armours, or locally made copies. The armour illustrated is based on that attributed to Farinata Viberti and the helm is Milanese c1440. The horse armour is Italian, Milan 1450. The banner is that of Matyas Hunyadi and is taken from a manuscript in his library. First quarter — red and white stripes of Hungary Ancient. Second quarter, Hungary — red field, green hills and white cross. Third quarter, Dalmatia-blue field, gold crowned lions' heads. Fourth quarter, Bohemia, red field, white twin tailed lion with gold crown. Central shield — Arms of Jan Hunyadi and his son Matyas (or Matthias Corvinus in Latin) — blue field, black crow perched on a gold twig. The bird carries a gold ring in its beak. Arms — sword, single "hand and half" types, heavy lance, mace and war hammer. Also to a lesser extent the axe was carried. The shield is of the winged type employed in various forms by both Eastern European Christians and their Turkish enemies. **7. Hungarian Monarch.** This figure is based on Wagner's (see references) reconstruction of the Hungarian King Jan (or Janos) Hunyadi. The dress is that of an unarmoured noble. The top coat with hanging half sleeves and ornamental plaques is worn over a richly patterned tunic. Jewellery in the form of gold neck chains and a gem stone secures feathers in the fur-trimmed hat. The mace, although a weapon, was also becoming a badge of office. **8. Hungarian Bohemian/Polish Light Cavalryman.** Unarmoured except for a suitable kettlehat, probably of local manufacture. Hood with dagged edge — leather or fabric. Knee-length long sleeve tunic and hose. Colours dull greens, greys, blues or reds. Footwear — shoes or boots, either brown, black, or buff. Armament — spear, light lance and sword. Shield — based on 15th century German pattern, an existing example from Degendorf. Hungarian arms based on 14th century example painted on iron-faced shield.



9. Armoured Bohemian Crossbowman. The general appearance is based on a manuscript illustration held at Prague University. Visible armour confined to plate protecting the legs, but the sharp outline of the body indicates a back and breast plate worn underneath the tunic. The "turban" cap is based on a Hussite form from a manuscript 1437-1450. The pavise is based on an existing example painted in the monogram of Matthias Corvinus. Colours probably: white background, black borders. Scale — black outline with blue shading to white, droplets and monogram "handles" red, stylised initial and crown gold. **10. Armoured Infantry Spearman.** Based on a Bohemian manuscript dated 1432 (held at Prague University) this equipment would have been available to only the victorious mercenary and the Royal Guards. Plate armour protects the arms and from the shape of the tunic back and breast plates are worn. The barbut helm-imported from Italy; the neck and shoulders are protected by mail. The method of slinging the wallet and long double edged dagger is typically Bohemian as is the design of the sword. The banner displays the Arms of Austria — red with a white central band, and dates from the 15th century; no doubt flown during Albrecht II's rule of Hungary. **11. Hungarian/Bohemian Handgunner.** This is based on a Bohemian illustration 1437-50. Typical of the general appearance of handgunners in the Polish, Bohemian and Hungarian armies. Shallow kettle helm worn over cloth or leather hood. Body armour confined to ¾ sleeve mail coat. Plate armour protects the legs and feet. Sword is a heavy curved sabre — the *czabla*. Pavise — used by troops of Matyas Hunyadi. Background faded madder red. Borders, flames and droplets black. Shield black crow with gold ring in beak. Branch gold. Background of shield light blue/white diagonal stripes. Banner — Kingdom of Hungary 15th century. Red background green hills and white double cross. **12. Transylvania Peasant Infantry.** The hooked polearms were effective against cavalry; Hunyadi rearmed many peasants with handguns. Costume — a basic form of fabric or leather hose, tunic of coarse material. Woollen hose and short boots or shoes. The hat was woven osiers or reeds and popular amongst the Bohemians. There were many designs. The banner is that of Hungary Ancient — 15th Century — red/white stripes. **13. Shield Bearer.** The helm is based on a 15th century Bohemian example, whereas the remaining harness of back/breast plate, quilted coat and mail, is Polish — although probably of Italian origin. Many pavise were decorated with scrollwork and foliage as well as town and city arms, royal arms and monograms.

West by his Latin name of Mattias Corvinus — the Raven — made peace with Jiskra in 1461, after years of bitter fighting. This time the peace was to last. There is little mention of Jiskra until in 1467 he joined with Matyas Hunyadi in the disastrous attack on Stepan Veliky (Stephen the Great) of Wallachia. Jiskra laid waste to a great part of Wallachia, but was defeated when Stepan made a surprise attack at Baia on 15th December, 1467.

Matyas undoubtedly trusted his ally Jiskra, for in 1468 he sent him to Istanbul to negotiate on his behalf with the Turks. In the same year we hear of Jiskra being with Matyas at the siege of Trebic, and this is the last historical reference to him. One source states he died in 1469/70.

Jan Jiskra, the Man himself

Some Slovak sources have tended to idealise Jiskra, mainly because of his involvement with the "Brotherhood Movement." The Brothers were a revolutionary movement against the Feudal Overlords, drawing much of their strength and some of their convictions from the Hussite revolutionaries who had drifted Eastward. (The full story of the Brotherhood has yet to be told in English — it certainly deserves more than the brief mention it is getting here).

Jiskra was neither a Hussite or a Brother. He was Catholic and a professional soldier; a "condotierre" who fought for money. Yet unlike many mercanaries he remained true to his employers, first Albretch and then Alzbeta, even after their deaths. That he was an excellent soldier there can be no doubt.

Eneas Silvius wrote of him "Jiskra is a man of medium build, bearded, merry with generous spirit on the whole not interested in money. He is nearer to being a spendthrift than a miser. In his own home he lives splendidly, without being extravagant . . "

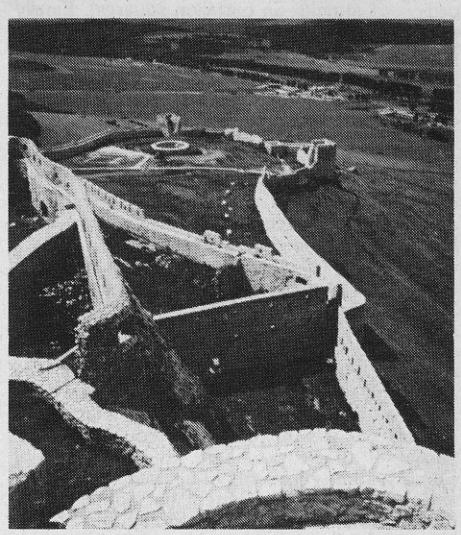
On his military skills Silvius continues ". . . in fights against the Hungarians Heaven was on his side. Often with 500-600 men he defeated and scattered 6000-8000 Hungarian soldiers. They plotted very many intrigues against him, but he always overcame them with skill or strength."

Jiskra's real strength lay with his captains and soldiers. These Hussites brought with them the skills and military traditions they had learnt under their great commander Jan Zizka, as well as the ideals that they spread to the Slovak people. With this army Jiskra was able to defend his towns, and once protection was assured he personally helped in the economic development of the towns and regions. This protection and economic development was the reason the Slovak towns remained loyal to him, despite threats and promises from the Hungarians.

Jiskra has been largely forgotten or overshadowed by his two contemporaries — Janos and Matyas Hunyadi. Yet he was a skilled soldier and a clever diplomat — and a trustworthy friend to a boy-king. Although Silvius may have embellished his story and exaggerated his attributes, Jan Jiskra's story certainly deserves to be told.

Sources

No English language sources were found, although certain English texts were used for background information. Most of the information was derived from friends abroad, and I would like to thank the following:
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Battlements of Spis Castle from inside.



The author with Jan Matas investigating Hussite occupation in Eastern Slovakia, in Cmelov, 20km East of Presov.