Section 3: Gribeauval on Austrian Ordnance

The Gribeauval Report is reproduced in full in:

“Gribeauval: premier inspecteur général du corps de l’artillerie. Quelques pages inédites relatives a son se jour en autriche,”
Hennebert (1896)
Revue d’Artillerie, 47, pp598-623.
G_1895_Hennebert.pdf
The 18 Questions on Austrian Artillery that Gribeauval Answered in his Report Dated March 1762.

QUESTION 1: Quels sont les calibres dont les parcs autrichiens sont composés?

QUESTION 2: Quelle est la longueur des pièces de chaque calibre?

QUESTION 3: Quelle épaisseur ont les flasques de chaque calibre?

QUESTION 4: Combien met-on de pièces par mille hommes?

QUESTION 5: Comment est subdivise leur canon pour le service, c'est-à-dire est-il formé de ce que nous pas les autrefois briques?

QUESTION 6: Combien porte-t-on de coups de canon par pièce à la suite de l'armée, soit en boulets, soit en grappes de raisin[3]?

QUESTION 7: Comment sont construites les cartouches à boulets, les grappes de raisin? Préfère-t-on les grappes aux boîtes de fer-blanc remplies de mitraille ou de balles? Emploient-ils des boulets de plomb ou de fer dans les grappes?

QUESTION 8: Quelle est la composition des lances à feu?

QUESTION 9: Quelle est la forme des caissons où l'on porte les cartouches? Comment y sont-elles arrangées, et quelle quantité y en a-t-il dans chacun, à proportion du calibre?

QUESTION 10: De combien de chevaux chaque pièce est-elle attelée? Combien en met-on sur chaque caisson?

QUESTION 11: Comment se fournissent les chevaux d'artillerie? Est-ce par entreprise comme en France, ou sont-ils fournis par les sujets de la Reine, comme cela se pratique en Prusse?

QUESTION 12: Comment marche l'artillerie en campagne? Estelle distribuée à la suite des colonnes, et forme-t-elle différents parcs à la tête de l'armée?

QUESTION 13: Combien emploie-t-on d'hommes pour chaque pièce, en égard à son calibre?

QUESTION 14: Les canonniers [ont-ils le service à la guerre] pm compagnie ou pal détachement?

QUESTION 15: Quand l'armée est en présence de l'ennemi, le canon du parc est-il tiré par des hommes? Les caissons de munitions suivent-ils les pièces attelées comme ils le sont ordinairement ou bien y a-t-il des coffrets aux pièces du parc comme aux avant-trains d'infanterie?

QUESTION 16: On dit que les Autrichiens ont des pièces d'un très grand calibre destinées uniquement pour tire à cartouches à raisins; mais on prétend qu'il n'en ont pas été contents parce qu'elles sont trop faibles et qu'elles crevèrent souvent; persistent-ils à en vouloir faire usage?


QUESTION 18: Les coins de mire qui sont aux pièces du parc sont-ils à vis sans fin, comme ceux de l'infanterie française?

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3 La cartouche à grappe de raisin avait, suivant Saint-Remy, «pour base» un plateau de bois qui porte dans son milieu un noyau de bois an tour duquel s'arrange sur le goudron ou sur la poix bon nombre de balles de «plomb».
Gribeauval Report on the Austrian Artillery dated 3 March 1762
Translated by Digby Smith

Editor's Note
The translator [Digby Smith] considers that French is NOT his best foreign language. We invite anyone who thinks that there has been any misinterpretation to come forward at once with a better suggestion. The French text can be found in Hennebert (1996) that is available with Issue 2 of the Smoothbore Ordnance Journal.

QUESTION 1: Of what calibres is the Austrian park composed?
The pieces are of 3-, 6- and 12-pdr; they are called “short,” and the howitzers are 7- and 10-pdr [stone weight]. There are also some 24-pdr pieces taken from the enemy [Prussian]. They are of a special type of howitzer, without solidity, without mobility and without accuracy; they are followed by an enormous train of caissons. The artillery are always under criticism; they never produce good results and this has gone on after two campaigns, by those who admire the products of the Prussian system.

QUESTION 2: What is the length [of the barrels] of each calibre?
The 3-, 6- and 12-pdr field guns are 16 calibres long.

QUESTION 3: How thick are the trails of each calibre?
The trails are not as thick as the calibre of the barrels; but they are reinforced by very solid and very well made [iron] bands that do not affect the lightness of the pieces. The carriages are robust, but it is true that the charges are small, as you will see later.

QUESTION 4: How many guns are there to 1,000 men?
After two years tracking, there are five guns to 1,000 men, including the regimental guns, which comprise two 3-pdr pieces per battalion.

QUESTION 5: How are the guns sub-divided in service, that is to say, are they grouped, like ours in the old days, into brigades?
The regimental guns do not leave their battalions. The other pieces are divided into four divisions, called “reserves.” One marches and camps on the right wing, another on the left wing, a third in the centre of the army. A fourth, called the “grand reserve,” forms the grand park. Each of these reserves has pieces of the three calibres [3-, 6- and 12-pdr] and the howitzers, but the majority of 12-pdr and howitzers are with the grand park. The reserves are commanded by senior officers, who distribute them to the captains, who are under his orders.
QUESTION 6: What proportion of rounds carried with the army are ball, grape or canister? [*]

They carry 200 rounds for the 3-pdr, about 150 are ball with the rest as canister. The scale of projectiles carried for the other calibres of guns are covered in the answers to the question on caissons. [See Question 10.]

QUESTION 7: Do they prefer canister; tin containers filled with balls? Do they use lead or iron balls?

Their grape cartridges are much like ours. In the past two or three years, I have reported the use of a cloth sack, painted with a mixture that keeps the powder in and does not contaminate the piece. In the same time, I reported the use of tin cans for canister; they are of tin, with a beaten outer skin as thick as a finger. They contain iron balls, well smoothed, which have a greater range than lead balls, ricochet well and do not flatten. They are in three sizes: 1 Loth, 1½ Loth and 2 Loth, which equate to ½ ounce, ¾ ounce and 1 ounce. They also use balls of 1½ ounce in the 12-pdr and the howitzers. The ranges of the calibres are 300 paces, 450 and 600 paces [respectively] for the grape shot.

QUESTION 8: What is the design of the fuse?

They are made as ours are made. But the quick fuse, or primer, is very large, as are the touch holes. They [the quick fuse] are of copper or tin, well finished inside and outside. In the place where they pierce the charge, is a very sharp small brass cone to pierce the cartridge when the piece is fired.

QUESTION 9 What is the design of the ammunition caissons? How are the cartridges arranged? How many of each type of projectile are carried for each calibre?

The artillery caissons are much as our own, but lighter. They do not turn as ours and have one pole. They are covered with painted cloth. There are caissons for the 3- and 6-pdr. The coffret is not placed as ours. They are not made like stretchers. They are mounted where the driver carries his forage. The cartridges are arranged practically, in 6 or 8 patterns. They are well packed in flax to prevent damage. They are well cared for by the gunners and stand up well to the rigours of a campaign.

QUESTION 10: How many horses are allocated to each calibre of gun? How many to each caisson?

The 3-pdr weighs about 400 Livres, [and] is pulled by two horses. Each gun has a caisson, also pulled by two horses. The caisson contains 170-180 cartridges, each with 14-16 ounces of powder; the whole weighs about 700 to 800 Livres. The coffret of the gun carriage, which is between the gun trails, carries 20-30 cartridges.

The 6-pdr weighs between 600 and 700 Livres. It is pulled by four horses, as is its caisson. There are usually two, sometimes three [caissons] for [each] pair [of guns]. Each caisson carries 90-100 shot. The cartridge has a charge of 1½ Livres of powder, and a little more for ball. That is 2¼ Livres for ball.

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*Grappe de raisin (according to Saint-Remy [1745]) have a wooden base, a wooden core and contain a number of lead balls encased in tar*
The 12-pdr weighs about 1,400 Livre [and] is pulled by six horses. Their caissons are pulled by four horses. Each [12-pdr] have two. Each carries 70 cartridges with 3 Livres of powder for ball and 3½ livres for grape.

They have reduced the powder charge slightly, which is very good, as it has reduced the recoil.

**QUESTION 11: How do they organize the resupply of artillery horses?**

Artillery horses are provided at the expense of the Empress. They are maintained economically by the Artillery Directorate. They are excessively expensive, but this is scarcely computed.

**QUESTION 12: How does the artillery march when on campaign? Is it distributed behind the columns or does it form different parks at the head of the army?**

The regimental guns follow the battalions; the others, according to circumstance, march at the sides of the columns, in the columns, ahead or behind. The park always forms a column of its own. When in camp, the regimental guns form in the intervals, those of the minor reserve are in front. The gunners camp near to the camp guards, or according to the terrain. The grand park camps are covered by the lines.

**QUESTION 13: How many gunners are deployed with each piece, is it according to the calibre?**

There are normally 8 men to a piece. At the moment, there are two gunners to each regimental piece. The battalions provide the rest, and, in battle, send more men to ferry the ammunition up to the guns. The artillery fusiliers carry out these duties in all the parks, but it turns out, that they also now provide men to the infantry guns. They are not well served.

**QUESTION 14: When on campaign, are the gunners in companies or in detachments?**

The gunners and their officers are deployed in complete units and stay with their guns throughout the campaign. They do not abandon the guns which have been given into their care. They take great care of the ammunition and of the tools and equipment in their care.

**QUESTION 15: When the army is in the presence of the enemy, are the guns of the park pulled by the crew? Do the ammunition caissons follow the guns that they are normally attached to, or do they use the gun coffrets, like those of the infantry guns?**

In the face of the enemy, whether in attack or defence, the guns are moved by manpower. Only if large movements are to be made, or if the terrain is very rough, are horses used. The advanced trains and the caissons follow the guns at a short distance. The coffrets of the carriages are kept quite close.

**QUESTION 16: It is said that the Austrians have large-calibre pieces, designed only for firing grape, but they pretend that they do not. Is there any evidence that they want to use these pieces?**

They do not have heavy guns like the Prussian 24-pdrs. However, they were sent some guns by the Empress of Russia, which have not been successful and are not used. We [Gribeauval] do not like the Russian guns either.
QUESTION 17: Do they have a lot of howitzers with their army? What are the calibres? What scale of ammunition is provided? Do they use shells? Do they use grape or canister in their howitzers?

There are 20 to 30 howitzers with the army; they use canister, as for the cannon, but their range is very short. The shell is a good weapon for attacking posts [defensive positions], but not as effective used in open ground as the canister. The howitzers have a calibre of 7½ stone [pounds]. This equates to a calibre of 24-pdr here, and to 25 to 26 in France. The most common calibre is the 10-pdr stone [howitzer]. They also have 16-pdr stone pieces [howitzers], but these are siege pieces and fortress guns. Each 10-pdr stone piece [howitzer] is pulled by 4 horses, which rose to 6 at the end of the campaign. They are followed by two caissons, each pulled by 4 horses. The shells are transported charged and fused.

QUESTION 18: What gun sights do they have?

All pieces, whether siege or field, have wooden sights, bound on top and below with iron; the seating is of iron. The sights are plain and robust. They do not have brass sights. The rubbing strips are of bronze.

Also, M de Montrosat has sent details of a 12-pdr carriage with two sets of trunnion positions, for use when the piece is transported on the march on the limber. [DS (2010): There follow several lines of text about the carriage, which I have not translated].

All pieces of the three calibres are well designed and functional. They have ammunition storage chests in the trails within the centre of gravity, and limbers like those of a peasant’s cart, that have a flat disc on the end of the axle. [DS (2010): There follows a passage in which Gribeauval seems to be admiring Austrian guns and artillery vehicles as being good for war in mountainous country.]

The Duke de Choiseul, well satisfied with Gribeauval, obtained for him, promotion to the rank of maréchal de camp, just at the moment when our compatriot was rendering great service to the Austrian government.