
5. Infantry Combat Tactics



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5.1 Introduction

In the XV century the Swiss infantry, with their well disciplined square, showed that they could defeat in battlefield the Heavy medieval Horsemen of the Duke of Burgundy (battles of Grandson, 24/03/1476 and Murten the 22/06/1476).

The Spanish would improve the Swiss square adding the firepower of the harquebus and developing a new tactic and administrative unit, the Tercio at the beginning of the XVI century. The novelty in the Tercio was the strict cooperation between the pikemen and the gunmen in the same tactical formation. With the pikes the Tercio could resist cavalry charges and with the guns they could diminish the capacity of resistance of an enemy block of pikemen.

Due to the war in the Flanders (1567 - 1648), a new school of art of war (with for example, Maurice of Nassau, Wilhelm Dilich, Johann Jacob Von Walhaussen) was developed in Europe to counter the terrible Spanish infantry.

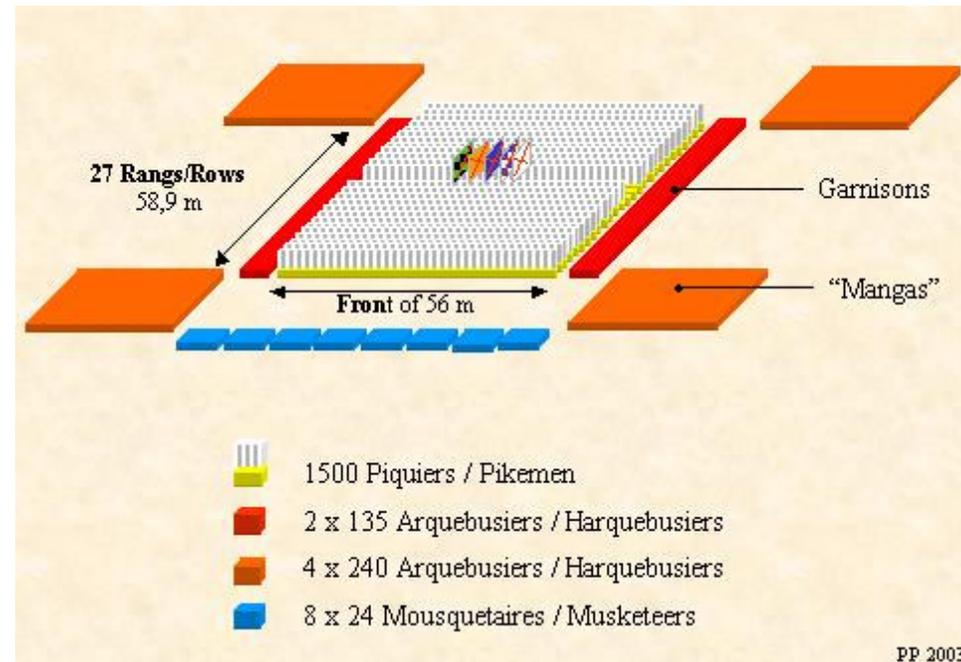
5.2 The tactic of the Tercio during the XVI century

5.2.1 The battlefield Squadron

On a battlefield the Infantry would be deployed in one or several squadrons. Each squadron would have the pikemen in the centre and the gunmen on the wings. Like that, the gunmen could harass the enemy infantry, before the assault from the block of pikemen and the pikemen could create a fortress to protect the gunmen from the cavalry. Another novelty of the Tercio was the proportion of gunmen from 24% to 49% of the total.

Diagram of the deployment of a Spanish squadron of 3 000 men (XVI century). The pikemen were on the centre (the first row was called the line of the captains) with the two garrisons of harquebusiers. The rest of harquebusiers were deployed in 4 mangas of 240 men. The musketeers were deployed in front or with the harquebusiers.

In total we have 1500 pikemen, 1230 Harquebusiers and 168 Musketeers.



The typical squadron was the "Cuadro de Terreno" (or Field square) presented in the figure above. In that square each man would occupy a square of 0.32 x 0.32 m. The pikeman would have his neighbours at 0.64 m on the side and at 1.92 m in front and behind. For the gunman, the number would be respectively 0.96 for the side and 1.92 - 2.00 behind. The Flags of the companies would be placed at the centre of the pikemen block and would occupy 2 rows.

[Quadrefages](#) show, in his book several mathematical formulas to calculated the size of a squadron.

Parenthesis: Calculation for the Cuadro de Terreno: N_p is the number of pikemen, so the number of rows (N_{rows}) and the number of files are given by the following formula: :

$$N_{rows} = \sqrt{\frac{3 \times N_p}{7}} \quad \text{and} \quad N_{files} = \frac{N_p}{N_{rows}}$$

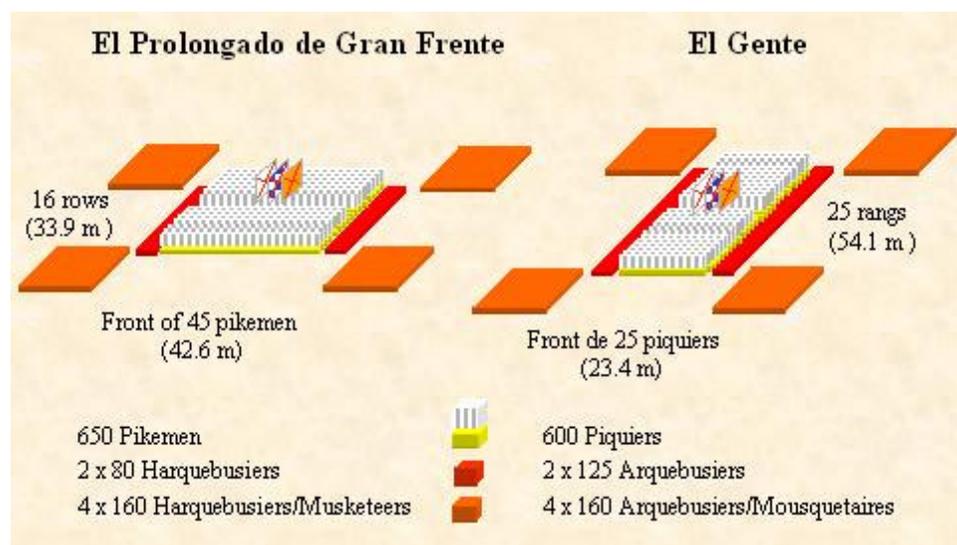
If we take $N_p = 1500$ pikemen, the number of rows is 25.35 and the number of files is 59.17. We have to add 2 extra rows for the flags. Finally $59 \times 25 = 1475$ pikemen formed the square and the last 25 pikemen protected the flags. At last we have a square of 59 files and 27 rows.

In the squadron of 3 000 men, the 59 files of 27 pikemen would occupy a square of more or less 56 m by 58.9 m. In this case, to support the pikemen, the two garrisons of harquebusiers consisted of 5 files of 27 gunmen, ie 135 harquebusiers.

The rest of the arquebusiers would form four blocks, the "**Mangas**", of 150 - 400 men strength. Each mangas would be situated at the corner of the square of pikemen. Finally, the musketeers would reinforce the mangas of arquebusiers, form independent mangas or skirmish in front of the squadron.

This squadron could also be structured as:

- The squadron of "**El gente**" (The gent),
- The squadron of "**El prolongado**" (The extension),
- or the squadron of "**El prolongado de gran frente**" (The wide extension)



Spanish Squadron "El Prolongado de Gran Frente" and "El gente" for respectively Tercios of 1450 men (650 pikemen and 800 gunmen) and 1 500 men (600 pikemen and 900 gunmen) at the end of the XVI century.

On the field, the squadron was organised by the *Sargento Mayor* (major Sergeant) who organised the companies taking account of the tactic situation, the number of men, the field, the enemy etc...

With time the massive squadron of 3000 men would be reduced to a smaller one of 1500 and 1000 men with no more than 500 - 600 pikemen.

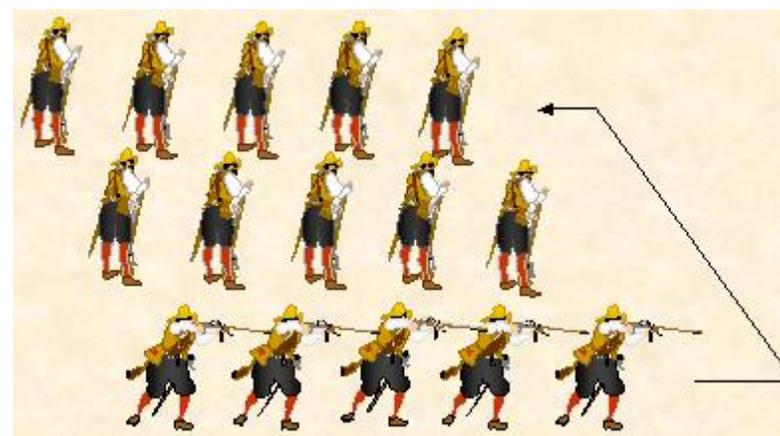
5.2.2 The Mangas

As we said before the mangas were a detachment of 100 - 400 men. These detachments were more mobile than the pikemen and the Spanish commanders would use them a lot. When the garrison of arquebusiers would stay with the block of pikemen, the mangas fought generally in vanguard or on the flanks like the light infantry of the XVIII - XIX century. They would fight skirmish to desorganise enemy formation. A lot of battles (like the [battle of Jemmingen](#)) were won by these detachments of gunmen fighting in front of the main squadrons of pikemen.

The fire tactic of the Spanish gunmen from the mangas was probably the fired by row marching on the enemy or fire by row using section of 3 rows (see below).

The fact is that by 1590, the Spanish were able to maintain a constant fire by rotating rank through another. Even if a English officer (see the book from *Robert Barret*) who served with the Spanish army of Flanders had written that the Spanish and Italian infantry fired sometime using a volley tactic. The mangas seemed to be deployed from 3 to 12 rows depending on the type of fire (constant fire, precise fire or even volley) they wanted to deliver.

Firing Tactic: If needed, a mangas of harquebusiers would be sent in vanguard. From this formation, Officers would select a section of a minimum of 15 men deployed in 5 files of 3 gunmen. The section would advance towards the enemy. When the section was at point blank range (30 m), the first row would fire quietly and then go to the rear to reload. The second and third row would do the same. It is not a continuous fire, the important was the precision of the shot. When each harquebusier had fired 4 bullets, the section would go back to the mangas. Officers could detach several sections like that to harass and disorganise the enemy.



To protect the harquebusiers from cavalry, some halberdiers would go with the mangas. If the enemy cavalry decided to charge the mangas, the halberdiers would form a circle where the harquebusiers could be safe.

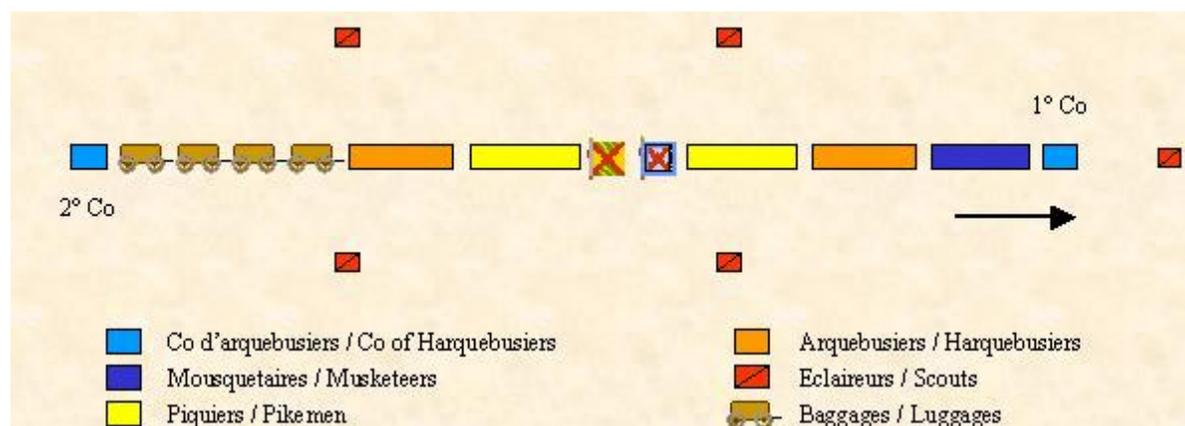
Following de La cuesta, the Spanish had another type of organisation between the company and the tercio. When new raised companies were sent as reinforcement they used to form detachments called "tropas". But these tropas could also be used, sometime, on the field to give more flexibility to the Spanish commander.

In summary, the superiority of the Spanish Tercio can be explained by its good coordination of the different weapons, but mainly by a strict discipline (at least in combat), good training, a strong "esprit de corps" and the capacity for the commander to form mobile combat groups, like the *mangas* or the *tropas*. We can add a good adaptability to different combat situations. It can be definition of a professional army.

5.2.2 The March

As we said Spanish Tercios were the elite of the Spanish army and they used to travel a lot, to serve their King. At the end of the XVI century and beginning of the XVII, the following formation was used to go from a place to another. In vanguard we find the first company of harquebusiers with Harquebusiers, pikemen and musketeers. Behind them all the musketeers of the pikemen companies, after half of the harquebusiers and just after half of the pikemen. Following we find the flags, behind them the second half of the pikemen and after the rest of the harquebusiers from the

pikemen companies. Behind the Tercio column we have the civilians (women, children, unfit soldiers and so on) and the luggage, at last in rearguard we have the second company of Harquebusiers. Normally we find Scouts on the wings and in front of the Tercio. In peacetime the civilians used to be in front of the column



Representation of a Tercios of 1500 men (52 companies of Harquebusiers and 13 companies of pikemen) on the move.

5.3 New models, the Dutch and the Swedish

By the end of the XVI century Great Captains like Maurice of Nassau and Gustavus Adolphus would propose and use different tactical models. The idea was to increase the firepower and the mobility of the units.

5.3.1 The Dutch model

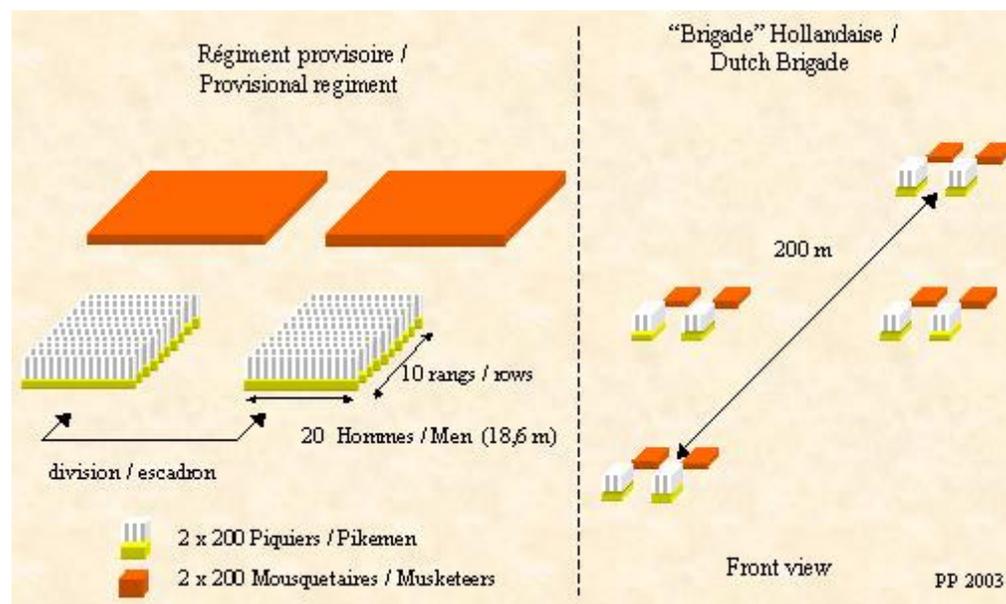
At the beginning of the uprising in Flanders, the protestant leaders had suffered several heavy defeats (Groningen, Jemmingen, Mook...) against the Spanish. Maurice of Nassau, military commander of the Protestant rebellion from 1590 to 1609 would create a new model and reorganise the dutch army.

In the Dutch model, the company would have only 150 or 113 men with 50 - 65% of gunmen. Also the proportion of officers would increase. Tactically, the companies were organised in **provisional regiments** of 800 -1000 men, subdivided in "**hopen**" of pikemen and "**hopen**" of gunmen deployed in 10 rows (later 8 rows in the 1630 decade). Generally, in the provisional regiment, the hopen of pikemen were at the front and the hopen of gunmen behind them to form a **division or squadron**. If necessary the hopen of gunmen would advance, in sections of 50 - 80 men, to either side of the hopen of pikemen.

In Dutch service the infantry would be deployed in three "brigades" of 4 provisional regiments. The "brigades" were called *Rearguard, Bataille*

and *Vanguard*. With the Brigade system, the Dutch commander had a flexible model where the provisional regiments and division were able to support themselves if necessary. There were a first, second and reserve line.

Tactical deployment of a Dutch provisional regiment of 850 men (with officers) divided in two division or squadron. Deployment of a Dutch "Brigade" of 4 provisional regiments: 1 in the first line, 2 in the second and 1 in the reserve line. With this type of deployment, Maurice tried to imitate the Roman line of battle.



During the [first battle of the Dune](#) in 1600, Maurice of Nassau would put in practice his model in a pitch battle. The 9 750 Dutch infantrymen were subdivided in 18 squadrons (9 provisional regiments) deployed in 10 rows. In front the Spanish were organised in 7 squadrons (note: in this battle the Spanish were deployed on 12 rows). Also, from a print of Dilich ([cf. B. Colson, 2000](#)), an order of march of the Dutch army showed 28 hopen of gunmen, 10 hopen of pikemen and 20 cavalry squadron.

In 1610 for the Expedition of Julich the brigade bataille was made of 4 provisional regiments coming from the Dutch Guards, the Frisian Regiment of Count William of Nassau, the 2 regiments (German and Walloon) of the Count Johann Ernest of Nassau in total 3910 men (977 men per provisional regiments).

The Dutch were the first to set up a drill to train soldiers (see the famous Walhausen book) creating a small army of veterans, regularly paid (Maurice had a field army of only 8 000 - 15 000 men), that was the keys of the efficiency of the Dutch army.

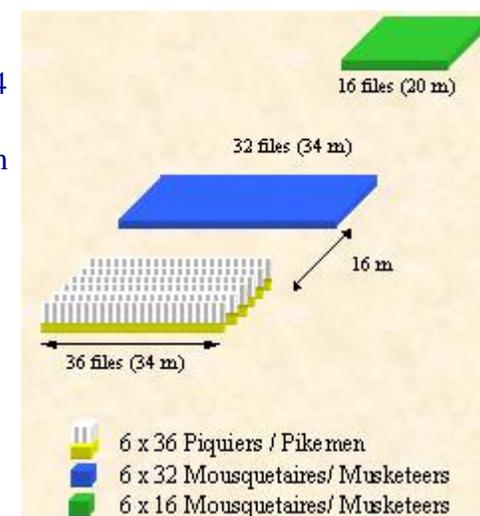
5.3.2 The Swedish model

In 1617 when King of Sweden accessed to the throne, he had to face wars with Poland, Denmark and Russia. To face all these enemies the King had to organise a new army using a German version of the Dutch model (the "*Landesdefension*") developed at the beginning of the Thirty Years War. The *landesdefension* was cheap and based on locally [raised troops](#).

Tactically, the $\frac{1}{2}$ régiments of 600 men would replace the provisional Dutch regiment. The deployment of a $\frac{1}{2}$ regiment is shown below. The first line had a block of 216 pikemen, the second line had a block of 192 musketeers and the third line or reserve had a block of 96 musketeers in 16 files. The musketeers formation could advance to either side of the pikemen or subdivide into two to protect both sides of the pikemen block.

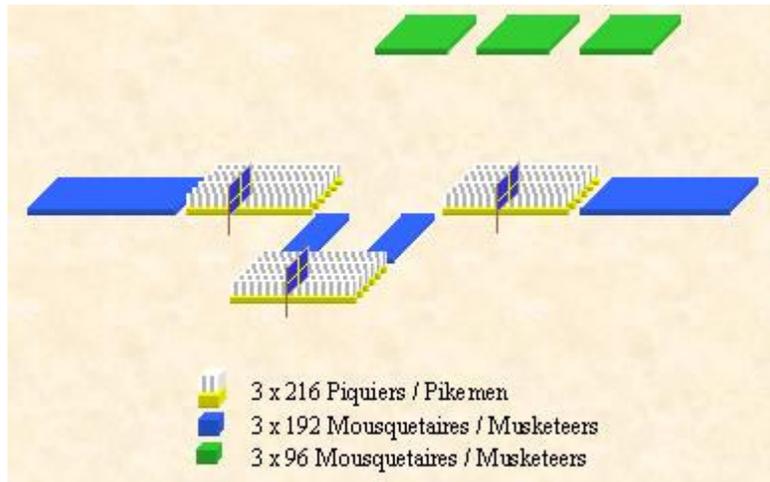
Diagram of a $\frac{1}{2}$ régiment from the Swedish infantry. The $\frac{1}{2}$ régiment had 96 Officers and 504 soldiers.

- the first line (**Yellow**) had a block of 216 pikemen in 36 files (a file had 6 men: 1 coporal, 4 common soldiers and a file-closer),
 - the second line (**Blue**) had a block of 192 musketeers in 32 files,
 - the third line (**Green**) or reserve had a block of 96 musketeers in 16 files or two blocks of 8 files.
- The second line of musketeers could advance to support the pikemen.



The Swedish Brigade was one of the innovations of Gustavus. Normally, the Brigade was made up of 3 $\frac{1}{2}$ regiments and numbered 1800 - 2000 men. Generally the Swedish deployed the brigades in two parallel lines. At the battle of Lutzen (1632) the first line and the second line had 4 Brigades.

One of the main influence of Gustavus on the art of war, was the importance and the use of firepower. His infantry was trained to fire by "salvo" (the discharge of an entire unit's of musketeers in one or two volleys to produce a wall of bullets) waiting to the last moment (30 - 65 m) and then attack the ennemy with the pikes and the swords. The introduction of the regimental artillery (2 guns of 3 pounds for each regiment) in closed support to the infantry increased the firepower of the Swedish infantry.



Tactical deployment of a Swedish Brigade with 3 ½ regiments and numbered 328 Officers and 1512 privates (648 pikemen and 864 musketeers).

Also to support his cavalry, Gustavus introduced detachments of 50 to 200 musketeers, the "commanded" musketeers, to work in close cooperation with the cavalry squadrons. These musketeers would fire a salvo at point blank range, in an attempt to break up the enemy charge. They were taken from the regiment reserve or from the main musketeers reserve (a regiment without pikemen).

At the battle of Breitenfeld in 1631, the Swedish infantry was organised in 7 brigades (21 ½ regiments and 12 700 men) and around 17 musketeers detachment (some 2 400 men) and the cavalry was organised in 28 squadrons (some 8 000 men). At contrary the imperial infantry was organised in 14 squadrons of 1500 men. The impact of the battle was very important and very quickly all the major European armies began to copy the Swedish model.

The Swedish tactic had a lot of advantages but also some disadvantages:

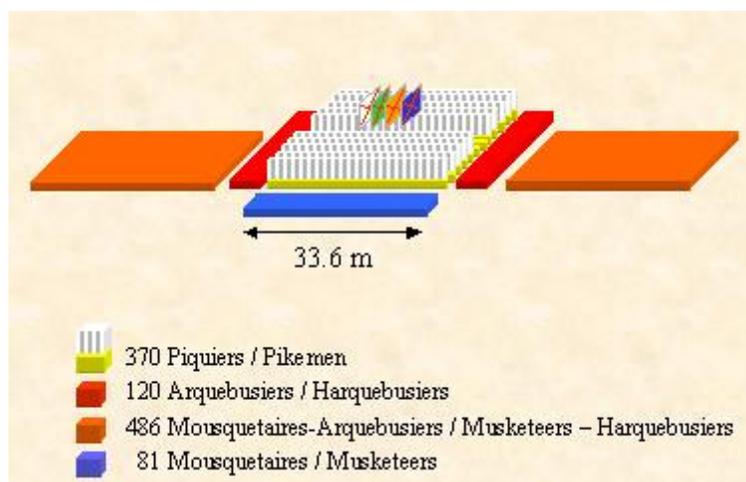
- Firstly, only well trained infantry could fire a salvo and resist the enemy counter-fire.
- Secondly, the Swedish system was very good for the defensive, but would be limited for an offensive attack when the line could break up. At Breitenfeld, Gustavus organised some ½ regiments in columns (a column had probably a front line of 8 files of 27 pikemen followed by a second line of musketeers) to attack the imperial centre.

Finally, the Swedish Brigade disappeared 2 years after Gustavus death at Lutzen in 1632, it demanded too many well trained NCO and was not very efficient foran offensive action. The ½ regiment or battalion of 500 - 600 men being the tactical formation with less pikemen and more musketeers in a ratio of 2 : 1. From 1640 the brigade was only a groupment of battalions.

The Spanish Tercio did not fight at Breiteinfeld and Lutzen but at the battle Nordlingen, they were able to resist the Swedish attacks using the solidity of their formation and the skills of theirs gunmen. The Swedish never used really their better mobility during this last combat.

5.4 Evolution of the Tactic of the Tercios in XVII century

Little information exist actually concerning the infantry tactic of the Tercios during the XVII century. It is most probable that most of the innovation of the Dutch and the Swede were in used in the Tercio at the beginning of the XVII, but no Great Spanish commander had ever wrote on the subject (if they did the text never arrived to us). Even the Tercios had adapted themselves to the new tactical situation. For example in the formation of the "Prolongado de gran frente" the number of rows was reduced to 10. Concerning the gunmen by the beginning of the XVII century most of the time the mangas of the rear disappeared leaving a central block of pikemen with 2 mangas on the wing and a mangas in front or behind.



Possible deployment of a Tercio of some 153 officers (15 companies) and 1057 men by 1630 - 1635. The pikemen are deployed in 10 ranks excluding the flags and the gunmen in 9 or 3.

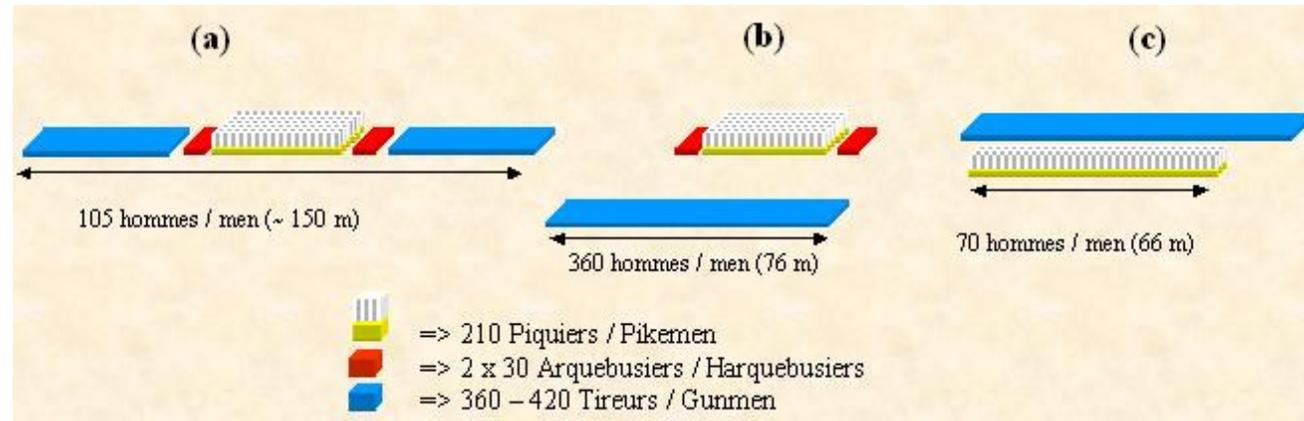
At Nordlingen, the Spanish also used a special tactic to reduce the effect of the Swedish salvo: when the Spanish officer would see the Swedish prepared to fire, he ordered his men to kneel and let the bullets pass over their heads, and then counter-fire a volley (of course only a well trained troops could do this).

It is important to remember that at that time the Spanish companies had an average of 80 to 150 men with an important proportion of gunmen (60 to 70%). We have a company close to the Swedish and Dutch one. Also, the Spanish used to send detachment of gunmen, the mangas, to fight skirmish against the enemy, so the Spanish squadron had never more than 1 000 men.

During the battle of [Rocroi](#) in 1643 the 4500 Spaniards were deployed in 5 squadrons of 900 men, following [de la Cuesta](#) the strong Tercio of *Garcies* fielded 2 battalions which means that the Spanish did not want big units.

At the same time, at the battle of [Montijo](#) (campaign of Portugal in 1644), the Tercios had an average number of 600 men and were deployed on 6 rows. From the middle of the XVII century, the Spanish infantry would used three types of tactical deployments or a combination of them.

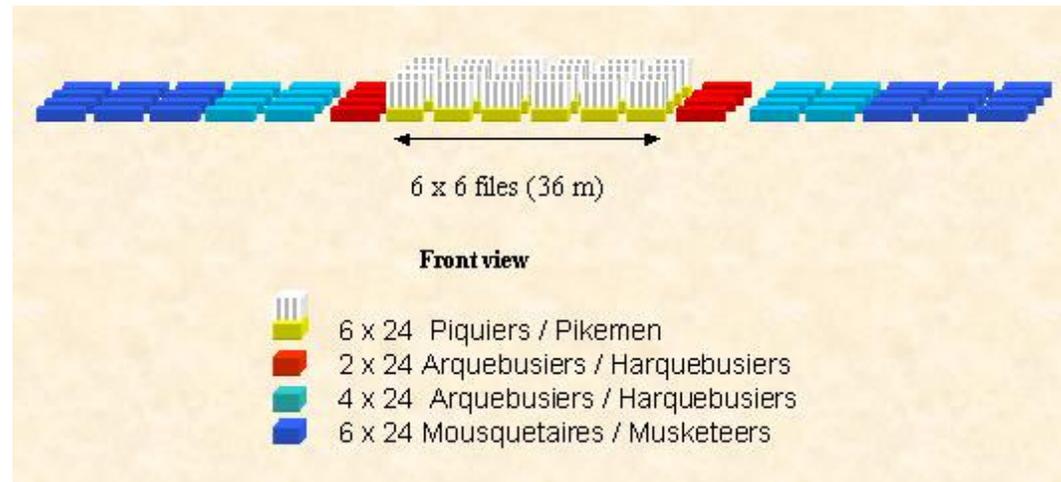
Possible deployments of a Tercio of 80 officers and 630 soldiers (1/3 pikemen and 2/3 gunmen) by the middle of the XVII century



- (a) The pikemen were in the centre and the gunmen on the wings
- (b) The gunmen were in first line and the pikemen in second line in support
- (c) The third deployment had the pikemen in front kneeling (3 rows) and the gunmen behind them.

The ordinance of 1685 had also described the tactical formation of an infantry squadron of 432 men (privates and *cabos*), and 40 -70 officers and musicians. The soldiers were deployed on 72 files of 4 men subdivided in 18 sections. Like before the garrisons of harquebusiers were a characteristic of the Spanish infantry. The tactic of firing was described like this: Soldiers of the first row would fire and then kneel to reload, soldiers of the second row would fire and also kneel. When the last row had fired, the men of the first row would be ready to fire.

Tactical deployment of a Squadron of 432 soldiers, following the ordinance of 1685, excluding some 40 - 50 officers. The Soldiers were subdivided in 18 sections: 4 x Mangas of Harquebusiers, 6 x Mangas of Musketeers, 6 x Block of pikemen and 2 x Garrisons of Harquebusiers.



Although, it is possible to talk of delay in the Spanish tactic, the explanation was to be found in the late use of the harquebus (light musket) by the infantry. The reason seems to be the lack of funds to buy the flintlock musket.

5.5 The Tactical formation of the French Infantry under Louis XIV

In the second half of the XVII century the French army became the most powerful in Europe. The French were able to raise and maintain an army of 342 000 men (with the local and coast militia and the Navy the number would be 600 000 men in total) in 1690. Much of the French successes were due to the efficiency of the French War Office, who organised and trained the army of Louis XIV.

Tactical deployment of a French infantry battalion:

(i) 1674, the battalion had some 90 Officers and NCO (not present on the figure) and 688 soldiers. Note the presence of Grenadiers (they were replace in some regiment by Fusilliers). The battalion had a front of 62 muskets/fusils.

(ii) 1702, the battalion was deployed on 4 rows and had 78 Officers and NCO (not present on the figure) and 608 soldiers. The battalion had a front of 152 muskets, 2.45 time more than before.



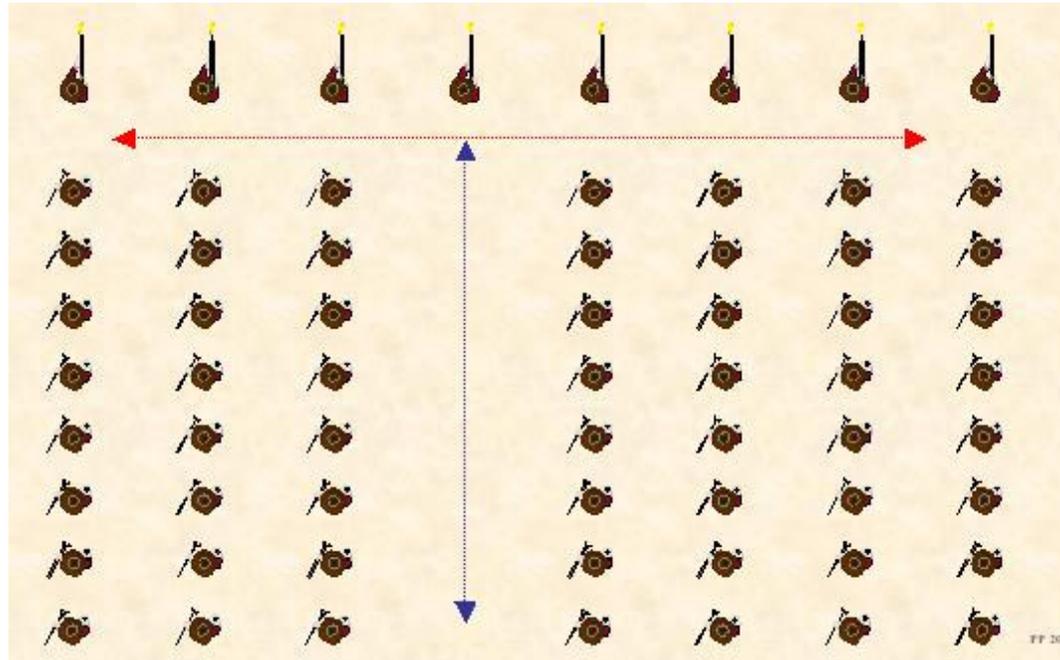
Louis XIV army's had permanent battalions of 650 - 900 men (in theory) but 400 - 600 men in reality. By 1690, each battalion would have 96 or 162 files of 4 men (depending of the losses) with the grenadiers on the flanks. Tactically the infantry was organised on Brigade of 2 - 5 battalions deployed on two lines separated by 80 meter. At the [battle of Marsaglia](#) in 1693 the French infantry was organised in 11 brigades (43 infantry battalions) with 2 battaliions in reserve. From 1670 Grenadiers were guarding the Flanks of the formation.

The Spanish army of Philip V would use the same deployment in 1702 for the Succession War (1702 - 1715).

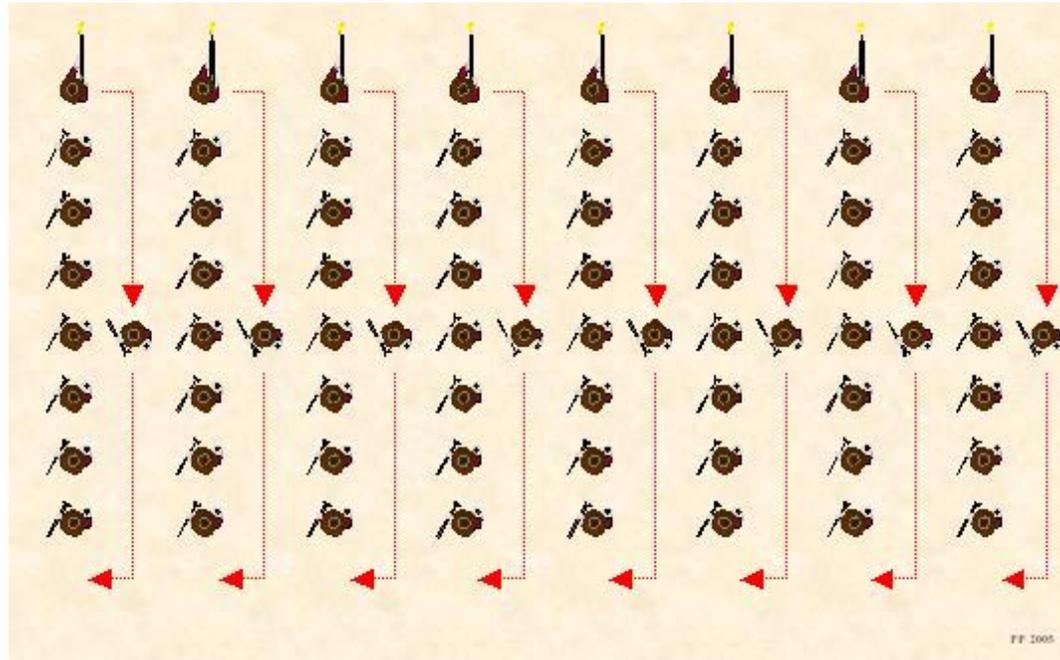
5.6 Fire tactics:

The fire by rows or by file:

The next figure shows an innovation of Maurice of Nassau (the Spanish probably used it but we have no writing on it), the fire by file and the fire by row. The figure presents a company of musketeers of 10 files of 8 men.



(i) In the **fire by file**, the selected file advanced and deployed in front of the formation facing the enemy. After firing the file return to his position. At the same time another file begin to move.

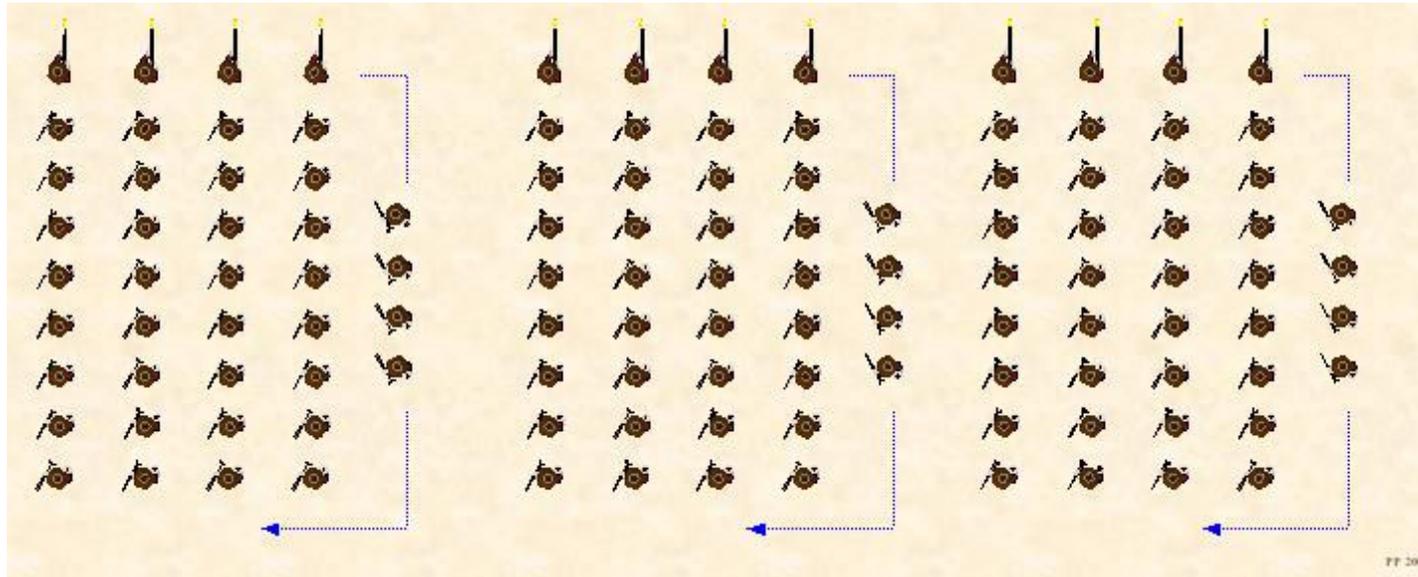


(ii) In the **fire by row**, the first row would fire and then go back to the rear to reload, passing by the wings between the files. The second row would advance to take position, fire and go back to the rear. With 8 - 12 rows it was possible to maintain a "continuous fire". In reality the continuous fire was a shot every 10 - 15 seconds at best.

[Return](#)

The fire by ranks of two divisions (Dutch Infantry)

Another system heavily used by the Dutch infantry was the fire by sub-unit of 3 to 8 files of 10 men (a division). Each sub-unit was at 2 meters between them and fired rank by rank.

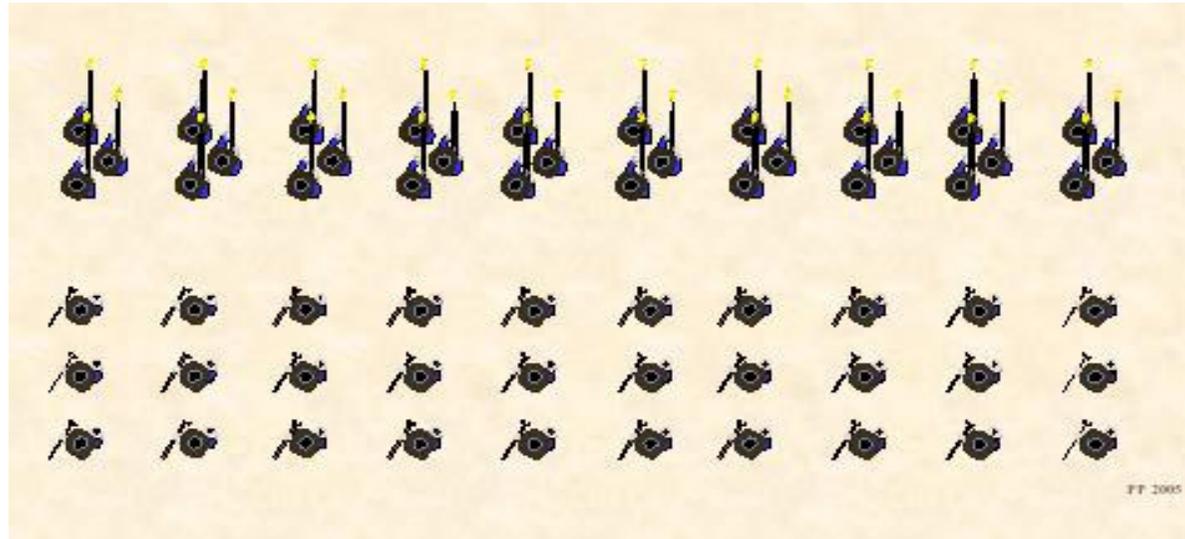


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The figure above present 3 sub-unit of 40 musketeers. On this figure the second rank (**in red**) of musketeers is firing when the first one (**in green**) is retiring to the rear to reload. Following K. Roberts, such sub-unit of 50 men could fire 5 bullets every 15 s (20 bullets a minute).

The Triple Rank Volley Fire:

This fire tactic was used by Swedish veteran troops with great efficiency and by 1640 most of the good troops used this fire tactic.



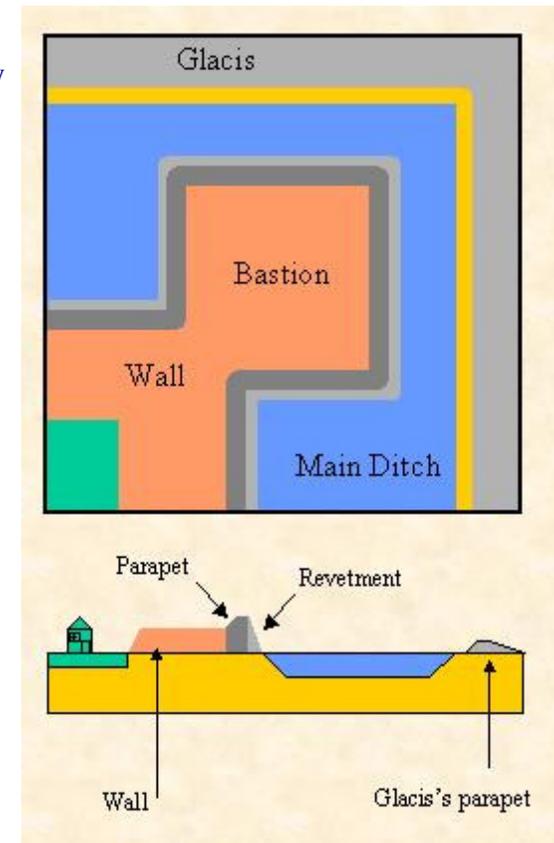
The Triple Rank Volley Fire: was achieved by advancing the rear ranks upon the front ranks, while echeloning to the right. Triple rank volley fire was performed with the first rank kneeling, second rank stooping, and third rank standing. For a company of 60 musketeers. In 50 -60 seconds 2 volleys of 30 bullets could be fired. When the last three ranks were deployed on the right a massive volley of 60 bullets could be fired ([Return](#)).

All these movements were made at the orders of the officers and only well trained and disciplined troops could maintain an effective continuous fire or fire an effective salvo. It is said that in the Dutch army, young recruits were trained to the drill like beast. With the new muskets and the new paper cartridges, the number of rows began to decrease, the Swede had 6 rows in 1631 and the manual of Jan Boxel in 1673 show a formation with only 4 rows.

5.7 Siege tactics

The use of artillery in the second half of the XV century and the beginning of the XVI century to attack a fortress had changed for ever the art of siege, especially in the Italian's wars. At the beginning of the XVI century a movement started in Italy to revolution the art of fortification. In effect, the old medieval wall was a perfect blank for artillery. The new wall was larger, smaller and with a slope to resist artillery fire. Also it had pentagonal or triangular shape to be able to fire all everywhere, it was the beginning of the bastion fortress.

Diagram and Profile of a XVII century fortress using the bastion fortification. Generally the revetment was covered by bricks or grass to absorb artillery fire.



After Italy the new bastion was introduced in Flanders and in France and after in the rest of Europe. With the war in Flanders, all the cities of this part of Europe had bastion type fortification. The art of fortification resulted in the development of science where mathematics and geometry were very important. Great captain like Maurice of Nassau in Holland and especially Vauban in France were very good engineers. Vauban had designed a complete defensive scheme of new fortifications to protect the north and south of France. At the same time the art of siege changed and Vauban was as good to build as to take fortress. In the second half of the XVI century a siege became an important part of warfare and a lot of men and materials were needed to succeed a siege.

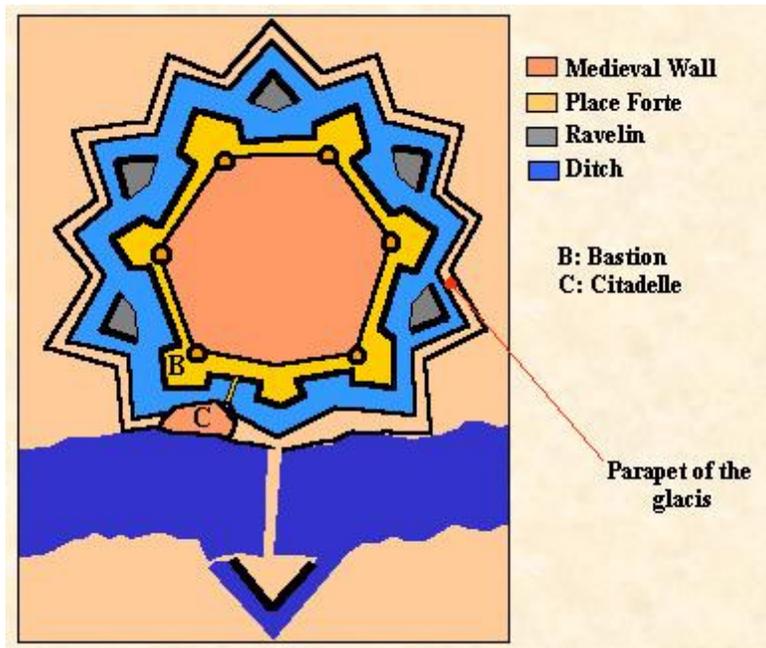


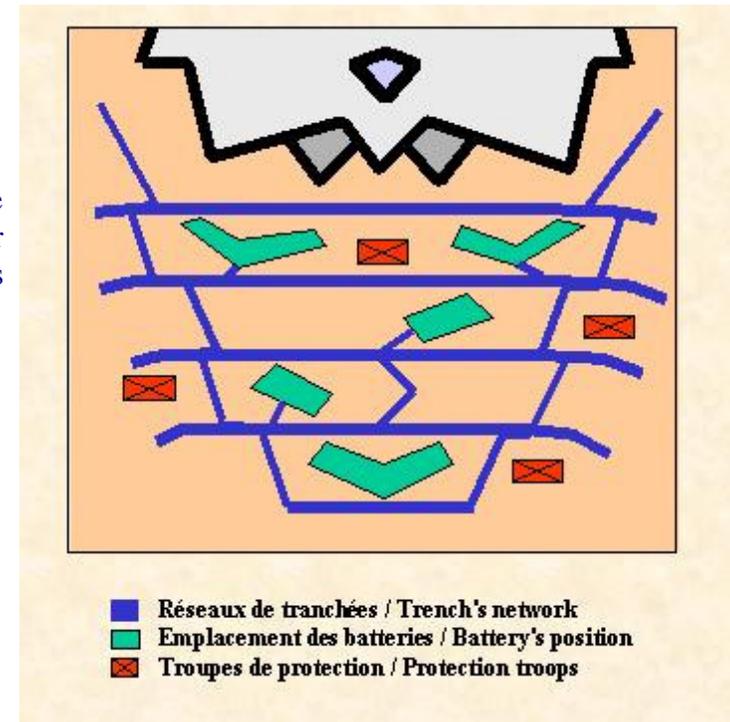
Diagram showing the new bastion's fortification of the city of **Stenvensweert** in Flanders in the second half of the XVI century. The city was situated near the river Meuse and had kept the medieval wall. With the important number of canals and water, the Dutch used it to fill the main ditch with water if necessary.

The Tercios had participated in a great number of sieges (especially in Flanders), such as the siege of Haarlem in 1572-1573, the siege of Alkmaar in 1573, the siege of Leyden in 1574 and the famous siege of Breda in 1625 painted by Velasquez. In fact the siege operations were the main activities of the Tercio especially in Flanders.

The siege technique was as follow: First the attacking force had to construct a fortify camp and to secure his line of communications. Secondly they had to block the communication of the fortress, the "investment". A war meeting will decide where the fortress should be attacked to open a practicable "breach". The best method to open a breach was to bombard a part of the wall with a battery of guns. In Spanish service, in 1575, a good battery contained around 24 guns (6 heavy cannons, 6 Culverins and 12 falconets). The guns were brought near the enemy wall by a complex system of perpendicular trenches in zigzag and parallel trench. To accelerate the open of the breach the attackers used mines and other stuff. Once the breach was open it was usual to offer term of capitulation for the defenders. If the terms were rejected the attacker would launch an assault and in general no quarter were given.

Schematic diagram of the attack of a fortress by *Fernandez de Medrano* who was a Spanish officer of the Army of Flanders in the XVII century.

The trench network permitted to circulate from the rear to the front line. Depending on the guns available, the heavy guns were put in the rear to destroy the wall and the smaller ones, like the falconets, were used in front to reduce enemy artillery fire. Protection troops had to be organised to protect the batteries and the miners from the enemy.



In general a siege was a bloody affair and the Tercios would lose more men in a siege than in a pitch battle. At Harlem the two assaults cost 350 dead to the Spanish. In the siege of Alkmaar, the two failed assaults cost around 600 men (dead and wounded) to the Spaniards only for 50 men to the defenders. In both sieges the Spaniards were between 3 000 and 4 000 men.

5.8 Comments

For different reasons, the Spanish Tercios were not as popular as the Swedish of Gustavo Adolph or the English of Cromwell and it is more difficult to find information concerning their combat tactics.

Many authors have focused too much on the fact that the Tercio had a big square of pikemen with gunmen on the wings. In fact the massive Tercio of 3 000 was used in few battles (first half of the XVI century). The Spanish infantry preferred skirmishes actions using a detachment(s) of harquebusiers and Musketeers in the Mangas and supported by the block of pikemen. In most of the battles of the Flanders war, the Tercio squadron had 1 000 - 1 200 men or less with at least 60% of musketeers and harquebusiers.

During many years the tactical advantage of the Spanish infantry was to be able to create mobile combat group where each soldiers knew what to do. These mobile groups, the mangas, had a strong discipline and could face different situation, they were able to disrupt enemy formation. In

general term the Spanish infantry had a strong "esprit de corps" and for most of the time they knew that they were the best infantry in Europe. That was possible because the Tercio were few in numbers; the situation changed a lot when their enemies were able to maintain large armies like the french army of Louis XIV in the second half of the XVII century.

It has to be considered that the Spanish infantry had to adapt itself to different situations and foes (see [Chapter 6](#)), it was not the same to fight on a galley against the Turkish janissary or to fight in the mud of Flanders against the Dutch army.

The Spanish infantry maintained a high standard of fighting during more than 150 years in the Army of Flanders and the Army of Italy. The problems during the second half of the XVII century were more related to the economic and financial crisis of the Spanish monarchy, and to the lack of manpower, than to a tactical problem.

The Dutch managed to create an army and an organisation able to fight with the Tercio with some successes. Their tactic was innovative but was used by the Spanish as well. In fact, the Dutch army was very efficient in the north of Flanders, an area crossed by rivers and march. The Dutch victory can also be explained by other factors, the geography of the Nederland (Amsterdam - Madrid is 1500 km), theirs fortresses and the resistance of the militias inside, their navy, their financial system as well as the presence of the Kingdom of France in the South border of the Spanish Flanders.

For most of the XVI and XVII centuries, the French army was not a big problem for the Spanish infantry, the French were slow to create an able infantry based on permanent regiments. For the Spanish, the problems started when the French general learned to coordinate the action of their cavalry, infantry and artillery (see the battle of [Rocroi](#)).

Concerning the Swedish, the Spanish Tercio fought one great battle against them at [Nordlingen](#) in 1634 and it ended with Spanish victory. In that battle the Spanish Tercio were able to resist the Swedish attack and to counter-attack victoriously, it is true that Gustavo-Adolph was not here any more and that the protestant army was outnumbered, but the Spanish Tercio numbered only 3 200 men (less than 10% of the Catholic army).