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French Artillery in the First World War

Earth Thought Notebooks

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Histoire & stratégie

"In 1914, artillery accompanied the infantry,

From 1915, artillery prepares and infantry conquers,

Around 1917, the artillery conquers and the infantry occupies,

In 1918, the artillery decides the fate of the battle; it prepares the assault and accompanies it with the rolling barrage and the tank".

Gilles Aubagnac "At the sound of the cannon»

In this study, General de Percin retraces the evolution of French artillery capabilities during the Great War. He underlines the initial differences between the French and German doctrines of employment, and shows us how military thought, industrial tool, but also a certain spirit of inventiveness, were able to make our artillery a significant actor of the victory.

Lhe doctrine in 1914 and its consequences

After the mediocre results of the artillery during the Russo-Japanese war, the influence of the writings of Ardant du Picq, who insists on the importance of moral forces - "victory belongs to he who has the will to win" -, like those of General Foch, then director of the School of War - "Victory is the price of blood" -, is concretized in the teaching of Colonel de Grandmaison, professor at the War School in 1911; it is confirmed in the teaching of General Foch, then director of the War School by the 1913 directives of General Joffre, Chief of the General Staff, who insisted on "the will to put the enemy out of action by the

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bayonet".

From then on, the artillery, with for the most part its 75 mm guns, was effectively only intended to accompany the infantry.

Admittedly, it is to oppose this outrageous fetishism for the offensive, as General Lanrezac said "let's attack, let's attack... like the moon"; they are not listened to and it will take the disasters of August 1914 and the 27.000 dead on 22 August 1914 (including the son of General Foch and a son of General de Castelnau) so that, from the end of August, Joffre, in a directive to the armieses, expressed the beginning of an evolution in his thinking by insisting on the necessary preparation of attacks by artillery; but this directive is far from being translated into reality: the strategy developed by Joffre and his principal deputy Foch will lead to new hecatombes (10.10,000 dead at Les Éparges in 1915) for attempted breakthroughs accompanied by small nibbling battles without sufficient artillery preparation.

On November 29, 1914, after the Ternoise conference, General Fayolle, then brigadier, wrote: "I have never heard so much nonsense [...] I wonder if these great leaders [...] are concerned about the human lives entrusted to them" [1].

1] The doctrine adopted on the eve of the war emphasized the army's offensive vocation without the use of heavy artillery, with operations centred on field artillery, where the very remarkable 75 mm gun always made an impression. Thus, the regulations of 1914 affirmed "that a very light and very mobile field artillery helped in certain circumstances by short guns answers any need; neither the range, nor the large calibre offer utility". This is a far cry from the German army's 1905 regulations, which gave "priority to heavy artillery to prevent long-range enemy preparations and to attack entrenched positions".

Admittedly, our 75-gun guns had tried to make up for these shortcomings with some effectiveness. Rommel, then lieutenant, during the Battle of the Great Crown, noted that "(his) regiment had lost a quarter of its officers and one in seven soldiers because of theenemy artillery", and General Lanrezac had been able to maneuver skillfully thanks to effective halting blows from his field artillery.

French artillery in 1914

These deaths by the hundreds of thousands were madness, but what could be done?

What artillery did we have at our disposal?

The system of border forts had 155 and 240 guns, but next to the 3.840 guns of 75, the army has as mobile heavy artillery only 308 guns, of various types (240, 155, 105), distributed in five regiments, whereas at the outbreak of the war, the German army has a heavy artillery strong of 2.000 guns and a light artillery of 5,000 77-guns, not counting the huge 420-guns and the two "big Bertha" more specifically intended to destroy the Belgian forts, Namur and Liège in particular.

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Then we will parry in a hurry from the equipment of the forts and the guns of the Navy, of various calibres, which we will modify to give them a certain mobility. Thus, for the record, it is the gunners of the navy who, with 143 guns, will participate in the defense of Belgrade at the end of 1914, as part of the battle of Kolubara [2].

The industry was ready to build, in numbers, modern 155 long and 155 short guns, but it was not until 1917 that the French artillery had means equivalent to those of the German army.

If there was a problem with guns, there was also a problem with ammunition. The French, like the Germans for that matter, were counting on a short war; ammunition supplies were limited, even if, after the Moroccan crisis, a definite effort had been made. At the outbreak of the war, the field artillery was equipped with 1,300 rounds per piece, or a total of 5,700,000 75 mm shells. However, on the evening of the Battle of the Marne, 5.000,000 shells had been fired since the beginning of August, and the production of 75 mm ammunition had fallen to 4,000 shells per day. The situation was no better for the German field artillery.

The mobilization of industry was to produce fairly rapid results: in June 1915, 70,000 75 mm shells were produced in spite of quality problems which were to cause a fairly large number of accidents (500 tubes burst in March 1915 alone).

But whatever the industrial effort, consumption continued to grow. Thus, during the offensives of the autumn of 1915, for the week of 22 to 27 September alone, 1,400,000 shells of 75, 265,000 shells of 155 and 30,300 shells of 220 and 270 were fired [3]. In fact, it was not until the summer of 1917 that the problem of artillery ammunition no longer arose.

Throughout the war, the number of shells fired by both sides was enormous: 19 million shells were fired during the Battle of the Somme and 30 million shells at Verdun [4]. 4] This increase in the number of shells fired can also be explained for the French by the evolution of the doctrine of artillery use.

The evolution of the doctrine of use of artillery

"Powerful artillery, perfectly directed by the planes, served by a huge accumulation of ammunition had beaten and shattered our own artillery; the offensive power of our infantry was so exhausted that the enemy's mass attack was successful.

This statement by Ludendorff in his "The French Legion of Honour" is a testimony to his commitment to the cause of remembrance. Memories of WarThis statement by Ludendorff in his "..." reflects the evolution of our doctrine on the use of artillery...

In fact, from the end of August 1914, Joffre became aware of our inadequacies in terms of powerful fires, but without drawing all the consequences, it seems. Thus, during the Battle of the Marne, the 6th Division, on 6 September, subjected to enemy heavy artillery

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fire, without the possibility of counter-battery means, nearly lost its position. The 6th Division almost collapsed in the conquest of the Saint-Bon ridge (south of Esternay) to the point that its leader, General Pétain, had to move to the front line to relaunch his infantry.

After this battle, he wrote to General Joffre: "The offensive is the fire which advances, the defensive is the fire which stops, the cannon conquers, the infantry occupies; a minimum of infantry, a maximum of artillery".

It will not be heard, and it will be necessary the failure of the Champagne offensive, a failure due to the impossibility of applying our fire on the second enemy line, for the commander-in-chief to clarify his thinking in his directives to the commanders of armies.

It is a very brilliant artillery officer, General Estienne (who was not only the father of the tanks), who will improve the effectiveness of artillery fire by coupling the observation of the air force with theartillery that he commanded during the battle of Charleroi in August 1914; commanding the artillery of the 6th division, he will again implement this coordination of artillery and aviation during the battle of the Marne.

Finally, from 1915 onwards, trench warfare led to the old bronze mortars of Louis-Philippe being taken out of the arsenals, and the infantrymen imagined, by analogy with the German Minenwerfer, curved fire weapons. It was first the Célérier, invented by an artillery captain of the same name, a rudimentary weapon designed to fire unexploded 77 mm shells.s (there was a large number of them), then the 58T1 mortar of Captain Duchêne which, improved in a 58T2 version, will be the subject of industrial production.

At the same time, specialized artillery units were created; the "crapouillots" were born; they were to serve until the spring of 1918.

Thus, having a complete and complementary range of equipment, a rational organization set up by the committee of artillery, the doctrine of use of the weapon will make it a major actor of the victory.

Significant quantitative data:

- 1914: 2/3 of the combatants were infantrymen.
- 1918:1/3 of the men of war were footmen.
- September 1915: losses amount to 175,000 men and there are 10 batteries per km.
- September 1918: losses amount to 126,000 men and there are 26 batteries per km.
- 1] Quoted by J.J.Becker
- 2] The equivalent of the Battle of the Marne for the Serbs.

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[3] Quoted by Philippe Liardet, "[3] Quoted by Philippe Liardet, "...French artillery during the Great War»

[4] Ernst Junger, "Steel storm»

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