LONG SPEARS AND TACTICS OF THE WESTERN GERMANS IN THE 1ST CENTURY A.D. (ACCORDING TO TACITUS’ DESCRIPTION)

LANZAS LARGAS Y TÁCTICAS DE LOS GERMANOS OCCIDENTALES EN EL SIGLO I D. C. (SEGÚN LA DESCRIPCIÓN DE TÁCITO)

POR

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ABSTRACT - RESUMEN

In the battle array the German warriors with long spears and large shields stood at the front since their shields were of no use within the ranks. The size of the shields provided good protection against enemy weapons and therefore armor was not very necessary for the warriors. On the other hand, the lack of armor encourages the development of good coverage by a large shield. Behind the shield-bearers stood a large body of warriors armed with missiles: the Germans were armed with spears and javelins. During close combat the shield-bearers covered their throwers from enemy attack. Extending their long spears forward, they did not allow the enemy to approach closely, striking him from a distance. Large shields protected well against missiles both the shield-bearers and the throwers standing behind them. The elementary tactics of the Germans gives us the key to understanding the interaction on the battlefield of throwers and warriors armed with long spears and shields.

En la formación de batalla los guerreros germánicos con largas lanzas y grandes escudos se colocaban en la vanguardia. El tamaño de estos escudos daba una buena protección contra las armas enemigas y por lo tanto las armaduras no eran muy necesarias para estos guerreros. Por otro lado, la ausencia de armadura potenciaba el desarrollo de una buena cobertura con el escudo de gran tamaño. Detrás de los portadores de los escudos se colocaban un gran número de guerreros armados con armas arrojadizas (lanzas y jabalinas). Durante el combate cuerpo a cuerpo los portadores de escudos protegían a éstos de los ataques enemigos. Extendían sus largas lanzas y no permitían la aproximación. Los escudos de gran tamaño los protegían bien, no solo a los que llevaban escudos también al segundo cuerpo que portaban las armas arrojadizas. Esta táctica básica de los germánicos en combate nos da la clave para entender la interacción entre los lanzadores y los guerreros armados con largas lanzas y escudos.

KEYWORDS - PALABRAS CLAVE

Germans; Tacitus; long spears; tactics; battle technique.

Germanos; Tácito; lanzas; tácticas militares y bélicas.

Long spears or pikes among foot soldiers were usually connected with a close and deep formation of more or less regularly organized infantry, such as the Macedonian phalanx, the battaglia of the Swiss, or a band of Landsknechts. However, sometimes this weapon is encountered among peoples of a traditional culture, who, it seems, did not have to fight in such...
close formation and seemingly do not in principle need long spears. In particular, this concerns western Germans, elements of a description of whose warfare, after clashes with the Romans at the beginning of the New Era, found their way into Roman sources. Modern historiography has turned attention to these weapons, but the theme itself usually has not been examined in detail (e.g., see Jahn, 1916: 216; Speidel, 2004: 87-89). Dedicated expressly to this theme is an article by the German archaeologist Wolfgang Adler, who tried to compare Tacitus’s evidence about long spears with archaeological material (Adler, 1995). In a separate article I examined the methods of combat of various ancient peoples armed with long spears as well (Nefedkin, 2002). The present article is focused on the tactics of German warriors with long spears, which have not been previously examined in detail.

There is a description of the methods of using the long spear by Germans in combat in the works of Cornelius Tacitus (c. 55 - c. 120 A.D.), famous Roman historian, the authority of whose descriptions summons no particular doubt. He describes in detail events of the German campaign of the commander the Rhine army C. Julius Caesar Germanicus in A.D. 14-16. Tacitus sets forth the events of this campaign based on unpreserved written sources, in particular, based on the work of the historian Aufidius Bassus (Syme, 1958: 271-286).

Germanicus, in a speech to the soldiers on the eve of battle on the plain of Idistaviso (A.D. 16), gives recommendations regarding how to proceed in the upcoming fight with the German Cherusci, and with this, describing in detail the armament of the enemy (Tac. Ann. II, 14, 2-3): “It is not, he said, plains only which are good for the fighting of Roman soldiers, but woods and forest passes, if science be used. For the huge shields (immensa scuta) and unwieldy spears (enormes hastas) of the barbarians cannot, amid trunks of trees and brushwood that springs from the ground, be so well managed as our javelins (pila) and swords and close-fitting armour. Shower your blows thickly; strike at the face with your swords’ points. The German has neither cuirass nor helmet; even his shield is not strengthened with leather or steel, but is of osiers woven together or of thin and painted board. If their first line is armed with spears (hastatam), the rest have only weapons (teli) hardened by fire or very short” (translated by A. J. Church and W. J. Brodribb, with corrections).

It should be said about Tacitus’s unofficial speeches that they are basically fictitious and depend upon the situation in which they are spoken. However, in accordance with ancient literary tradition, the author places these speeches close to actual circumstances, the more so that, in the author’s opinion, it was possible for some historical person to say (Wuilleumier, 1990: XLVI-XLVII). Even with a fictional speech the ethnographic details of the armament of the Germans must have been transmitted correctly (Thompson, 1958: 3, 23, n. 13; Perret, 1983: 16-33; cf. Knabe, 1981: 136). Indeed, Tacitus was well acquainted with the daily life and customs of the Germans, being the son of the procurator of Belgica and himself evidently being governor of one of the German provinces (Syme, 1958: 58-74, 614; Knabe, 1981: 78-79; Perret, 1983: 10).

Thus, present in this speech is Tacitus’s characteristic of contrasting the Roman soldier and the barbarian warrior, with the advantages of the first being praised (cf. Tac. Hist. I, 79, 1-4). The opposition of Roman virtues and Barbarian rage was typical for the Roman ideology. Tacitus focuses attention on the good defensive weapons of the Romans, whereas the Germans have only a large shield without a metal border and umbo. Incidentally, we note that the umbo

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1 About Tacitus’s accuracy in the writing of his work, see Syme, 1958: 378-396. For appreciation of Tacitus as a historian describing battle scenes, see Wellesley, 1969: 63-97.
2 About the battle, for example, see Knoke, 1887: 418-436; Pastenaci, 1942: 230-242; Koestermann, 1957: 452-459.
3 S. MacDowall supposes that in his description of the weapons of the Germans Tacitus is based on the traditional Roman idea of barbarians and their weapons (MacDowall, 1996: 15-16). In fact, the Germans had round, oval, or rectangular shields with umbos (bosses) of wood painted red or blue (Raddatz, 1985: 304, 315, 329).
and rib (spina) of a shield could be of wood. Tacitus calls the shields of the Cherusci “immensa scuta” (very large). Of course, he compares them with the armament of the Romans, which are well known to readers. In the 1st century A.D. legionnaires had large semi-cylindrical shields that protected the soldier from shoulder to knee, and the oval shields among the auxiliaries were not much smaller (see Connolly, 2000: 231, 233, 307). Consequently, the shield of the Germans was still larger, and possibly broader. Since Tacitus calls shields scuta, they most probably were of an elongated non-circular shape. In accordance with illustrations and archaeological data, shields among the Germans were oval as well as four- and six-sided, while among the cavalry they were round with and without umbos (Jahn, 1916: 217; Hamberg, 1936: 25-32; Raddatz, 1985: 290, 303 and 304; Todd, 1992: 38). In fact, the sizes of shields from swamp in Hjortspring (Denmark) were 88×50 cm up to 66×29 cm (4th century B.C.) (Rosenberg 1937: 106).

It is not clear whether the large shield was part of the armament of the warrior who fought with a long spear. Of course, the shield was in first order necessary for the warriors who stood in front. The ancient sources neither directly nor indirectly inform us whether these large shields were placed on the ground for battle, as was done, for example, in Latvia in the beginning of the 13th century by the Curonians (Henric. Chronic. Livon. III, 14, 5), and in the mid-20th century by the Papuans Maring of New Guinea (Vayda, 1976: 15). In such case these warriors could fight with the spear with two hands while hiding behind these shields. However, on the contrary, as we will see later, the Germans were not stationary in battle, but were mobile (Tac. Ann. II, 21, 1). It is unlikely that the ancient Germans had any special shield-bearers who went in front and covered the spear-bearers—information about this is also lacking. Most probably, the same warrior fought with a spear and defended himself with a shield. Indeed, a shield of thin slats or wicker was rather light and consequently mobile. In addition, a shield and a light spear framea, which every man was supposed to have, were considered by the Germans a symbol of full membership to the tribe (Tac. Germ. 13; cf. Plut. Mar. 27, 1). They were also frequently the only armament of the warrior (Raddatz, 1967: 5). In the viewed passage Tacitus notes only the difference in the offensive and not the defensive armament of the Cherusci, as if to say that there was no difference between them. Thus, the same warrior was most probably armed with both a spear and a large shield. And it is possible that the spear-bearers had no other offensive weapon. Indeed, swords were not widespread among the common Germans (Tac. Germ. 6, 1), which is supported by Roman illustrations (Hamberg, 1936: 25). We recall, for example, that somewhat earlier even the horsemen of the chief Ariovistus, having used their spears, threw stones for lack of other weapons (Caes. B. G. I, 46).

The famous German military historian Hans Delbrück vacillated in determining how the spear-bearers and rest of the warriors interacted within an unit. On the one hand, he supposed that armored spear-bearers went in front of a wedge behind the cover of shield-bearers, and behind them were arranged the soldiers with frameae; on the other hand, it seemed to him that the spear-bearers themselves had shields (Delbrück, 1994: 36-37; pro: Jahn, 1916: 216). In another place he advances the hypothesis that warriors with various kinds of weapons were intermixed within the deep formation of the Germans (Delbrück, 1994: 37). According to the above-cited report of Tacitus, in the first line, that is, most probably, in front of the unit, were the spear-bearers. Behind them stood warriors armed with javelins (Speidel, 2004: 99-100). Indeed, Tacitus mentions javelins as a typical weapon of the Germans in Germania as well (Germ. 6; cf. Caes. B. G. V, 42; Tac. Germ. 45; Amm. XXXI, 7, 12). For comparison we recall, for example, that in the Swiss battaglia in the 15th century only the soldiers standing along the edges were armed with pikes, and among Japanese infantrymen of the 15th–16th centuries only the first rank had pikes, to 6.5 m long (Nosov, 2001: 127-128). Considering the report of Tacitus, it is impossible to agree with another German historian Max Jähn, who supposes that
the first five to seven ranks in the German wedge extended pikes forward—indeed, this was not a well-trained Macedonian phalanx (Jähns, 1880: 441).

How long such spears were is hard to say since we have no illustrations of this weapon of the Germans (Hamberg, 1936: 30). M. Jähns supposed that these were not inferior in length to the 18-foot-long (5.4 m) Landsknechts’ pikes (Jähns, 1880: 414). H. Delbrück also believed that these spears corresponded in length to the Macedonian sarissa or pike of the Landsknechts. At the same time, he noted that with a spear, the length of which did not exceed 12 to 14 feet (3.65 to 4.25 m), it was possible to fight with one hand (Delbrück, 1994: 36). Tacitus compares the length of the Cherusci spear with typical Roman infantry pilum to be 1.85 m and the javelin verutum to be 1.16 m. In general, the Germans’ spears were much more than two meters (probably about 3 meters), and probably with small points, peculiar to the pike. Indeed, judging by the archaeology, small spear points were common (Jahn, 1916: 216; Hamberg, 1936: 25; Rosenberg 1937: 105; Adler, 1995: 100-101; contra: Speidel, 2004: 89). In fact, the length of a spear from swamp in Hjortspring reached three meters (Raddatz, 1985: 289; cf. Rosenberg 1937: 45).

It is difficult to say who of the German warriors were armed with long spears. Based on the heroic ethos of the Germans, the chief and his guardsmen were supposed to fight in front (Tac. Germ. 7). Judging by Tacitus’s description (Ann. II, 21), the chief moved across the battlefield inspiring the warriors in the struggle and did not stand in one place with his guardsmen. And Arminius was on horseback (Tac. Ann. II, 17). The Cherusci cavalry could have consisted of the same guardsmen (Tac. Ann. I, 65, 4; II, 45; cf. Tac. Ann. II, 19, 21). The tribal aristocracy was mounted (Tac. Ann. II, 11) (Mangoldt-Gaudlitz, 1922: 3; Frauenholz, 1935: 9; Thompson, 1958: 5). Indeed, the Cherusci considered horses to be of special value (Flor. II, 30= IV, 12, 25). It would have been possible to think that these horsemen dismounted for battle, but the Cherusci cavalry actually participated in the fight, carrying out its tactical tasks (Tac. Ann. II, 19, 21). It can be assumed that in front of the infantry fought warriors who were undergoing the ceremony of initiation or had already passed it (Tac. Germ. 31; cf. Plut. Mar. 27, 1). It is also possible to suppose that warriors with long spears were fighters of the same clan who by virtue of the specialization that is encountered among other “primitive” peoples were someone accustomed to this weapon or, for example, that the most experienced fighters fought in the front and so on.

Tacitus indicates that the Germans fought in cunei (wedges)- in their traditional battle formation (Tac. Hist. V, 16; Germ. 6). As H. Delbrück argued, the wedge-shaped formation among the Germans arose by virtue of the fact that the chief with the guardsmen fought in front, whereas the bulk of the warriors were in the back. On the whole, under wedges should be understood the deep tribal formation of the Germans (cf. Tac. Germ. 6). H. G. Gundel suggested that with defense the wedges were rallied into a phalanx (Gundel, 1937: 39). When the Germans advanced they went in such columns (Tac. Ann. III, 63) that were supposed to break through the enemy line. In an attack the Germans, in particular the Cherusci, threw their whole weight, having in this way not just a physical but also a strong psychological effect on the enemy (Tac. Ann. II, 17, 1).

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6 About spears, see also Jahn 1916: 216.
6 J. Warry even gives the Chauci (sic!) pikes 3-6 m long (Warry 1981:164).
7 O. von Frauenholz (1935: 28, 50, Anm. 3) spoke against comparing the length of German spears with the sarissa.
8 In the opinion of O. von Frauenholz, the better armed members of the tribe stood in the front line (Frauenholz 1935: 10, 29, 40).
9 Regarding tactical units of the Cherusci, see Pastenaci 1936: 74.
What was the technique of the spear-bearers’ fighting, formed up in such wedges? If a warrior fought with a long spear in one hand, this weapon must have been rather thick in order not to vibrate since in that case it would be difficult to thrust at the enemy. At the same time, it should have a small point, as, for example, on a *sarissa* (Grat. *Cyneg.* 117-120), so that the weight of the spear was not increased too much and quickly tired the warrior. As said above, in mixed units warriors with long pikes were formed up in front. Possibly Tacitus’s descriptions of the battles at the Old Camp and at the Angriwarii Wall attest to such formation, where because of the crush it was impossible to effectively use long spears, that is, it was contrary to the usual situation for a battle where the space for the actions of the spear-bearer was sufficient. This could have been either in a loose battle formation of the Germans — and this was hardly typical — or among the first ranks (which is more probable).

This technique of battle for the Germans, armed with long spears, explains Tacitus’ passage that tells about Germanicus’ battle with Arminius at the Angriwarii Wall in A.D. 16. Having driven the Chercusci from the wall, the Romans attacked them in the woods.Tacitus tells of this episode (Tac. *Ann.* II, 21, 1): “The Germans were equally brave, but they were beaten by the nature of the fighting and of the weapons, for their vast host in so confined a space could neither thrust out nor recover their immense spears (*praelongas hastas*), or avail themselves of their nimble movements and lithe frames, forced as they were to a close engagement. Our soldiers, on the other hand, with their shields pressed to their breasts, and their hands grasping their sword-hilts, struck at the huge limbs and exposed faces of the barbarians, cutting a passage through the slaughtered enemy” (translated by A. J. Church and W. J. Brodribb, with corrections) (see Knoke, 1887: 475-551; Pastenaci, 1942: 242-249; Koestermann, 1957: 461-464).

Thus, in this battle the Germans prepared for a defensive battle, for which they deployed their columns in a battle line (Tac. *Ann.* II, 19-21; cf. Caes. *B. G.* I, 52; Flor. I, 45, 13; Oros. *Hist.* VI, 7, 8) (Delbrück, 1994: 31-32; pro: Gundel, 1937: 17-18; Kästers, 1939: 164). The militia of the Chercusci fought with no less courage than the soldiers of Germanicus: the Germans’ retreat from the wall did not lead them into confusion. The crush ruined the Chercusci-in such a state they were not able to thrust with their long spears. Indeed, if they held a spear in one hand, then approximately a third of the length went into counterbalance (Fedorov 1905: 38), and therefore they were unable to swing for piercing. Apparently they did not create into a very close formation like a phalanx-there was room for action with a pike since the German warrior was an individual fighter and no warrior in a close-formed phalanx. Even with a long pike it is possible to fight and fence (Sokolov, 1853: *passim*). Tacitus apparently had such inconveniences in mind when speaking of action with a spear. Mobility in battle-this was most probably the tactic of skirmishers who stood behind the spear-bearers: it was particularly necessary for them to have room to swing and sometimes to run in order to throw their javelins, as well as to pick up enemy spears and throw them. In addition, free space was also necessary for traditional German tactics: in a skirmish warriors could leave the battle for a rest and then go back again on the attack (Tac. *Germ.* 6; cf. Caes. *B. G.* V, 16). It was unusual for the Germans to fight for a long time standing in one place—they became weary: the Germans were famous for their violent first impetus, after which they quickly tired (Seneca. *De ira* I, 11; Tac. *Germ.* 30; Plut. *Mar.* 11, 13; Flor. I, 38, 5; Dio Cass. XXXVIII, 45, 4-5; cf. Hirt. *B. G.* VIII, 36). During the attack both throwing and hand-to-hand combat were carried out (Tac. *Ann.* II, 11). The Romans, transitioning to the melee being described, engaged at close range with their swords the Cherusci, among whom swords were not widespread (Tac. *Germ.* 6).

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10 Regarding the topography of the locality, see Bersu et alii, 1926: 100-106.
One would assume that the Cherusci used long spears only in a defensive fight. However, judging by another report of Tacitus, they also used them in offensive battles. In A.D. 15 Aulus Severus Cæcina, Germanicus’ commander, suffered considerable damage from an attack of the Cherusci of Arminius in the swampy forest on the left bank of the Amisia River. Tacitus describes the battle in this way (Tac. Ann. I, 64, 2): “Everything alike was unfavourable to the Romans, the place with its deep swamps, insecure to the foot and slippery as one advanced, limbs burdened with armour, and the impossibility of aiming their javelins (pila) amid the water. The Cherusci, on the other hand, were familiar with fighting in fens; they had huge frames, and spears long (hastae ingentes) enough to inflict wounds even at a distance” (translated by A. J. Church and W. J. Brodribb, with corrections).

Thus, the author explains here the reason for the advantage of the Germans: they were accustomed to fighting in a swamp (cf. Tac. Ann. I, 63-64; Hist. V, 14-15, 18). In hand-to-hand fighting their long spears struck the Romans at a distance, who were not even able in the swampy marsh to confidently throw their pilæ—a common weapon of the legionnaire. Based on this passage another conclusion can be drawn: long spears were more favorable for battle at a distance against an enemy armed with shorter weapons. It should be noted for comparison that in the second half of the 19th-beginning of the 20th century the length of the cavalry lance was determined based precisely on it being farther from the chest of the cavalryman than the enemy infantryman’s bayonet directed at him, so that the horseman struck the infantryman first (Sokolov, 1853: passim; Fedorov, 1905: 39).

The last time we encountered the use of long spears by the Germans in a description by Tacitus was at the battle of Old Camp on the eastern border of Germania Inferior between the Roman army of Quintus Petilius Cerialis and the German army of Gaius Julius Civilis in A.D. 70 (Tac. Hist. V, 14-18). The latter placed his army in a favorable defensive position, protected on the flanks, the approaches to which were flooded with water. The warriors formed a line of wedges: on the right flank the Batavi and Cugerni and on the left the militias of the tribes from Trans-Rhine region. Auxiliary cohorts under the protection of the cavalry stood in front of the Romans, then the legions and reserves together with the general. Tacitus thus describes the beginning of the battle (Hist. V, 17, 3-18, 1): “… and then the battle was commenced by a discharge of stones, leaden balls, and other missiles, our soldiers not entering the morass, while the Germans sought to provoke, and so draw them on. When their store of missiles was spent, and the battle grew hotter, a fiercer onslaught was made by the enemy. Their tall stature and very long spears (praelongis hastis) enabled them, without closing, to wound our men, who were wavering and unsteady” (translated by A. J. Church and W. J. Brodribb). The battle ended when the Roman cavalry went behind the enemy’s lines. When the Roman horsemen attacked from the rear and the legions attacked from the front, the Germans fled.

In this battle the tactics of the Germans clearly bore a defensive character and they intended to lure the whole Roman army into the marshland. However, since the Romans did not go on the offensive, but carried out a missile battle, the Germans had to go on the offensive—which was the general outline of events. In the beginning the Germans bombarded the enemy with missiles, trying to cause maximal damage to them. When the missiles were exhausted and the enemy had not fled or retreated, a general attack followed in which the German spear-bearers stationed in front played the main role, destroying the enemy at a distance. These warriors with spears in Civilis’ army were probably Germans from east of the Rhine, close to the Cherusci-Frisians (Tac. Hist. IV, 15, 2), Bructeri, and Tencteri (Tac. Hist. IV, 21, 2) (see Tacite, 1992: 125, n. ad Tac. Hist. IV, 23, 2; Adler, 1995: 97).

11 About this battle, see Knoke, 1887: 221-282.
How widespread were such long spears among other German tribes? Gottfried Achenwall proposed to view as this weapon the lances of horsemen of the Cimbri and Germans of Ariovistus (Achenwall, 1755: 15). However, the cavalry of the Cimbri in the Battle of Vercellae (101 B.C.) had double-ended javelins, ἄκοντισμα διβολία (Plut. Mar. 25, 11). Incidentally, these were spears not of infantrymen but of horsemen. At the same time, according to Florus (I, 38, 16= III, 3, 16), at the end of the battle of Vercellae the wives of the Cimbri defended themselves from the Wagenburg, standing on the wagons using lanceae and conti. It is possible that long spears are in fact meant in this passage. However, it must not be forgotten that in imperial times not only long spears/ pikes but also heavy pilae were called conti (Arrian, 2010: 227-229, n. 54). Dio Cassius (XXXVIII, 49, 2), describing a battle not far from the Rhine between the Germans of Ariovistus and Caesar’s army (58 B.C.), mentions conti and long swords among the barbarians. In the army of Ariovistus were German tribes from along the Rhine: Harudes, Triboci, Vangiones, Nemetes, and Sedusii, as well as Marcomani and Suebi (Caes. B. G. I, 51). In general, there is nothing strange in the fact that they had long spears. Tacitus (Hist. I, 88) mentions that the soldiers of Emperor Vitellius (A.D. 69) dressed in animal skins, evidently Germans, carried “huge spears” (ingentes tela). In Germania, where he tells primarily about contemporary Germans of the end of the 1st century A.D., the author notes that the Germans “rarely used swords or longer spears” (maioribus lanceis), but they fight with frameae (Tac. Germ. 6, 1). This speaks of the fact that other German tribes in the 1st century A.D. usually did not use long spears, and the Cherusci, whose belligerence began to decline at the end of this century (Tac. Germ. 36, 2) (Tacite, 1983: 92, n. 1 ad h. l.), did not become a role model for most of the other tribes.

The interaction of the shield-bearers and throwers within one unit was not inherent exclusively to the Cherusci and the western Germans neighboring with them; it was simply typical for warfare. Such interaction was used effectively both with siege and in distant and close combat. For example, we observe in Assyrian reliefs the combined actions of archers and shield-bearers armed with spears not only with sieges but also in the course of battle. Thus, the elementary tactics of the Cherusci give us a key to understanding the interaction on the battlefield between throwers and spear-bearers armed with shields. Warriors with large shields were primarily supposed to be in front since their shields were useless in the depths of the unit. Thus, a more or less compact wall of shields was formed. The size of a shield provided good defense against enemy weapons, and therefore, warriors did not need armor. On the other hand, the lack of armor encouraged the appearance of good coverage by a large shield. Behind the shield-bearers stood the bulk of the warriors armed with missiles: since the bow was not widespread among the Germans they had spears and javelins. And the throwers had shields. But a deep formation of warriors with spears in front would have interfered with the efficiency and range of spear-throwing from within the unit. It is another reason for the spear-bearers to be only in front of the unit. The warriors with javelins were supposed to be a few tens of meters from the enemy in order to use their weapons. With this rather close position to the enemy the shield-bearers covered their throwers from possible attack by the enemy. By extending their long spears to the front they did not allow the opponent to approach closely, crushing him from afar, and thereby being in a tactically more favorable position than the enemy warriors armed with shorter weapons. This, strictly speaking, explains the presence and use of long spears among the Germans. Large shields protected well against missiles.

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12 About the fidelity of Tacitius’s description of German warfare in this treatment, see Perret, 1983: 26; cf. Hamberg, 1936: 26; Adler, 1995: 99.
13 For more detail on historical analogies, see Nefedkin, 2002: 79-92.
both the shield-bearers themselves and the throwers standing behind them. If the enemy was at a distance, the throwers in the skirmish could also run out from the battle formation to the front. Thus, it is possible to imagine the interactions on the battlefield by the throwers and spear-bearers armed with long spears and shields.


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