Research Article

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The success of the pike over the bow discussed through the battle of Guinegate, during which the Swiss type infantry clashed with the armies of Louis XI . Twilight of the English military system

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The success of the pike over the bow, which has had a far-reaching impact on the French art of war and the creation of landsknechts infantry, de facto resulted in the collapse of the English military system on continental Europe. The battle that had finally brought upon those changes, was a clash near a village named Guinegate (Enguinegate today), that took place in 1479.

The growth of the economy related to the strong monetary position of western Europe that began at the end of the 13th century led to a significant enrichment of cities and their inhabitants. The town militias had more competent and better-equipped recruits, who could afford expensive arms and armour. European leaders, thanks to the power of multiplier money, began to invest in professional military forces like mercenaries in ever larger quantities.¹ We could say that the incentive behind serving in an army changed to a financial one, which is contrary to the traditional understanding of duty. The power of the armed forces became based on their training level and discipline, which resulted in a significant portion of the knighthood elite and their traditions stepping on ever thinner ice. In the time of the well-armed, trained and tactically used infantry, the place for romantic courage was starting to shrink dramatically. While the English knights had experienced relatively gently the power of the dense troops of the Scottish highlanders that were heroically resisting attacks of heavy cavalry, like for example during the Battle of Falkirk (1298), the French chivalry had, in turn, suffered the most severe consequences of their own reckless and chaotic decisions. It became obvious very quickly that a reckless use of heavy cavalry masses, who due to their elitism would overcome every obstacle to defeat their enemy, was an approach doomed to failure. Even the best warhorses and armaments could not ensure the knighthood a victory over appropriately equipped, well-arrayed and well-commanded plebeians.

The main purpose of this article is to present a synthetic outline of the battle of Guinegate, and to prove the value of this battle in the further progress of western European art of war, underestimated in current publications. In the author's opinion, the fields of Guinegate verified the medieval, western European art of war and became the basis for the later changes. They were also a decisive clash in the history of warfare between the two conceptions of infantry armament, during which the Swiss pike emerged as a more effective weapon than the English longbow.

The Swiss infantry, who fought lightly armed while holding powerful polearms appeared in the 14th century as an unstoppable force. They were usually poor peasants, working in forests or fields with very difficult lives, and war for them was a risky but lucrative way to improve their living conditions. Then they

1 Nicolle D., *Elite series, European Medieval Tactics (2), New Infantry, New Weapons 1260-1500*, Oxford 2012, p. 10.

took the halberd, and joined mercenary groups, or cantonal armies, who were attacking neighbours, or defending their lands against the enemies. The Swiss proved themselves as very good, pugnacious soldiers. While the well-coordinated yet wild attack near the woods of Morgarten (1315) can be recognized as a success caused by the shock effect and inability of enemy forces to use their strengths, then the Swiss victories in the next clashes fully proved their remarkable value on battlefields. In the battle of Laupen (1339), cantonal infantry showed that by creating an „igel”- (hedgehog) formation, they were able to refute the impacts of the enemy cavalry. Moreover, their great victory near Sempach (1386), demonstrated that no matter how opponents try to attack, on foot or mounted, they would fiercely resist and even massacre them if they came too close.² The offensive tactic of the Swiss armies, based on strikes of tightly arrayed formations of halberdiers, showed how dangerous polearms could be in the arms of a courageous and disciplined infantry. Knights who were attacked by these kinds of troops, could not defend themselves effectively as they were not able to use their lances or even reach the opponent with their swords. An innovation, visible in the battle of Sempach is the Swiss infantry use of a formation similar to the wedge shape, whose one elongated arm allowed for a flanking impact. The Swiss infantry used the echelon formation, the wedge and many other combinations in the next centuries while fighting against the Burgundians, the Swabians, and during the Italian Wars (1494- 1559). When analysing the Swiss art of war during the 14th-century, we must mention the weak elements of their armies. Based on the three battles presented above, we can identify the main weakness as an armament issue, which was both an advantage and a disadvantage. The Halberd, despite having many values, turned out to be an insufficient weapon in the fight with an enemy bearing a longer spear or a pike, which was proved by the charges of the Swiss chivalry at Laupen and a struggle with their dismounted formation near Sempach. An opponent armed with a weapon of a greater range had an advantage over the Swiss armed with shorter halberds, which in turn allowed him to inflict heavy losses upon them. In the battle of Sempach, fresh forces flank attacked Leopold's vanguard and saved the highlanders who were struggling in a fight against the dismounted knights.³ The Swiss halberdiers with their dense and round formation during the battle of Laupen were able to resist cavalry charges, but consistent enemy strikes resulted in more and more casualties. Cornered on all sides, they were at the mercy of the heavy cavalry, which by constant attacks weakened The Swiss formation. Therefore even in this case, a rescue by other troops was necessary,⁴ and relying to such extent on a uniform army of halberdiers proved to be a risky strategy. Considering the sensitivity to enemy fire and lack of strong support from archers or crossbowmen, it would have been a stroke of luck if the opponent had not considered the usefulness of such long-ranged formations. The heavy consequences of this inflexible approach to fighting would be felt by the Swiss in the 16th century when their infantry squares were being massacred by black powder guns during Marignano (1515) and La Bicocca (1522).⁵

It is necessary to underline that polearms played a major role in the battles of the 14th century, which pushed medieval warfare towards further developments. From the battle of Stirling bridge (1297), through the Fields of Courtrai (1302), to successful clashes of the English armies with the French, at all times polearms were coming up as an important or even a fundamental element. It is hard to imagine the triumphs of the Swiss infantry if they had not efficiently used the halberds or the Flemish militias successfully repelling the attack of the French knighthood without spears and characteristic *goedendag* clubs. While factors such as good preparation, command, favourable field conditions, and weather conditions were significant, the used weapons also proved to be crucial. The damage caused by those weapons that the feudal knighthood endured impacted all traditional aspects of the medieval art of war. The downsides of relying on heavy cavalry were pointed out mercilessly, and this strategy could no longer be treated as a universal remedy for every opponent that appeared on the field. For many commanders, this was hard to understand and to implement, which resulted in a repetition of the same mistakes over the next decades. Although the Mercenaries market was offering a lot of professional infantry troops that were willing to engage in armed

² Miller D., *Men at Arms series, The Swiss at War 1300- 1500*, London 1979, p. 7- 8.

³ Ibid; p. 10.

⁴ Ibid; p. 7- 8.

⁵ Tafiłowski P., *Wojny włoskie 1494- 1559*, Zabrze 2007, p. 240, 267.

conflicts, they were treated like a less worthy force, incomparable to the power of feudal heavy cavalry. However, through the decades of the next century, this idea was rapidly revised and the belief in the preeminence of the knight cavalry weakened significantly.

The changes experienced by the medieval military in the 14th century, reached their apogee in the next century. The fifteenth century was not like any of the previous centuries of middle ages in many ways, including fields not related to military history. However, military history left a much stronger mark on the culture and the people at the end of medieval times. Cruel, often chronic wars in Western Europe and a growing interest in science, creating new works and acquaintance with the old ones, resulted in an unprecedented development of military literature. This area of knowledge even dominated all the others in terms of the number of written down works.⁶ It can be concluded from this that the art of war literature and the mere exploration of this subject became a matter of great importance at that time. Kings, princes and paid commanders of almost every rank saw the need to acquire a thorough knowledge of the art of war.⁷ At this time many old books were rediscovered, most of which were written in ancient times, like *De re militari (Concerning military matters)*, by Vegetius, which was copied without much comprehension centuries before. New works also emerged, like for example, *De Bello, de represaliis et de duello* written in the 14th century by Giovanni de Legnano, *Bellifortis* by Konrad Keyser, or a treaty written down by Jean V de Bueil - *Jouvencel*, created between 1460 and 1470.⁸ This specific military enlightenment whose roots can be found in the second half of the 14th century and the 15th, spread slowly yet effectively throughout Western Europe, transforming the sphere of military theory and practice. In addition to broadened knowledge and understanding, the development also affected the sphere of organization and technology. On the battlefields, more and more trained and equipped armies began to appear, largely of a professional character. These changes were the last nail in the coffin for the already overripe system of feudal armies, which, while still defending itself for a long time, finally gave way to more modern and effective solutions. The topic of these solutions and the military development of Western Europe in general needs further elaboration, starting from the organizational sphere and the character of the army in the late Middle Ages as fundamental issues.

The wars mentioned above led to a significant expansion of a kind of market for mercenary formation in the 15th century and later on put in to question the sense of using their services, because of the appearance of the first professional troops. Conflicts like the Hundred Years War have created many groups of soldiers without an official leader, that wandered as dangerous gangs all over Europe while looking for a job as mercenaries.⁹ The rulers who often needed soldiers immediately to solve local conflicts used their services willingly. Because the feudal system was characterized by inefficiencies and often long delays in the formation of an army, the nobles of various ranks preferred to efficiently take on the necessary number of soldiers of appropriate qualities rather than to wait for a feudal army of dubious quality to gather. The mercenaries of various origins tried to use both the fame of their nation and their training to get hired. Fields of Crecy (1346), Poitiers (1356), or Laupen and Sempach, created the figures of deadly English archers and brave infantry of the Swiss confederation.¹⁰ Notably, Florence in 1424 became the first nation in history to officially turn to Swiss cantons with an offer of employment for 10 thousand soldiers. Additionally, English archers often served in the armies of the Duchy of Burgundy, which maintained a friendly relationship with England. Due to their ability to cover the enemy with thousands of arrows, they were the model for the creation of the Burgundian infantry, which consisted mainly of archers and crossbowmen, protected from the front by a small number of pikemen. The monarchs, aware of their black legend, wanted to have such famous formations on their side to use them against their opponent.

The mercenaries included both companies of soldiers and professional commanders, whose professionalism overshadowed the nobles, who were the leaders of the army mainly due to their high

⁶ Contamine P., *Wojna w średniowieczu*, trans. Czajka M., Warszawa 1999, p. 129-133.

⁷ Embleton G., J. Howe, *The Medieval soldier*, Ramsbury 1995, p. 27

⁸ Contamine P., *Wojna...*, p. 130.

⁹ Koch H. W., *Medieval Warfare*, Greenwich 1978, p. 180.

¹⁰ Contamine P., *Wojna...*, p. 146-147; Michael N., *Men At Arms series, Armies of Medieval Burgundy 1364- 1477*, London 1983, p. 10

birth. Like the companies, the mercenary commanders entered into a contract with their employer, under which the size of the army, types of troops, training, length of service, salary, and many other factors were determined. The contracted commanders were responsible for fulfilling such conditions and gathering the army according to all guidelines.¹¹ The Italian metropolises, whose wealth and population placed them among the most powerful European cities, were a model example of the use of mercenary forces. Gradually moving from the services of militia, in XIV and XV centuries they started to use in large quantities the services of mercenaries, the so-called *condottiere* named from the contract that was concluded with them - *condotta*. As in other parts of Europe, they were to create and command troops according to the *condotta*-document.¹² The Italian mercenaries quickly became famous and Italy became an attractive place for their service. Moreover, many of the mercenary commanders had risen in the ranks of their political careers, as exemplified by Muzio Attendolo Sforza (1369- 1424), the founder of the powerful Sforza family.

The French learned from their defeats in clashes with the English troops and during the 15th century implemented the use of formations armed with ranged weapons such as the longbow. Charles the VII, when forming his first professional army- the Ordonnance companies, paid special attention to the need for appropriate facilities for shooting formations. Two years after the establishment of permanent armies, the king decided to appoint the so-called companions of free archers. It was a unique idea in the French lands, especially because of the French people's attachment to the tradition of heavy cavalry. According to its guidelines, each parish in the areas under this provision was obliged to maintain, train and ensure the training of one archer. In this way, it was possible to form an 8 thousand strong reserve of shooters, armed not only with bows but also crossbows and firearms, which if necessary, could serve as a feudal mobilization.¹³ The successor of Charles the VII, Louis the XI, developed and reformed the work of his predecessor. During his reign, he first widened the range of parishes committed to providing free archers, increasing their number to 14 thousand. A move away from enlarging the reserves of shooting formations had only occurred as a result of the defeat of his family member the Duke of Burgundy- Charles the Bold, by the Swiss troops during the three-year war which broke out in 1474, and the defeat of the royal troops at Guinegate in 1479. The conclusions learned from those defeats led Louis to replace the company of free archers with the Swiss and French infantry, armed and trained like a canton infantry. Unlike the archers, the permanent foot forces had 4,000 French halberdiers and 6- 8,000 Swiss mercenaries on permanent service. It is estimated that as a result of these operations in the last 25 years of the fifteenth century, the permanent royal army owned between 20 and 25 thousand soldiers.¹⁴

In parallel to professionalisation and technological advances, far-reaching changes in the philosophy of fighting on the battlefield can also be observed, such as the choice of troops and tactics. As mentioned above, the great victories, especially of the English and the Swiss, brought upon certain trends and resulted in the revision of traditional habits. Due to noticing the effectiveness of the English archers and Swiss infantry, there were attempts to either use these formations as mercenaries, "imitate" them or replace them tactically, which led to significant changes in the use and proportion of forces on the battlefield. One of those changes was the formation of armies in either the "English model" or the "Swiss model". The choice between these two options belonged to the commanders, and they could occur regardless of the geographical region. Naturally, different armies under various rulers did appear regardless of those models, partially due to the traditional domination of horse knighthood. However, the models of composing the army in English and Swiss-style were the most characteristic and regularly used and notably, were not influenced by the culture, politics or history of a region. The French exemplify this, as at first, they leaned towards the use of masses of shooting formations and then switched to using troops modelled on the Swiss infantry. The first one was characterized by the predominant use of several formations fighting with mostly ranged weapons. In this shape, the masses of crossbows and archers formed the main part of the forces,

¹¹ Murphy D., *Kondotierzy 1300- 1500, Niestawni włoscy najemnicy*, trans. Litwinienko P., Bloomsbury 2017, p. 10.

¹² Ibid; p. 10.

¹³ Contamine P., *Wojna...*, p. 144

¹⁴ Ibid; p. 145.

and the cavalry and infantry fighting in close combat performed only an auxiliary function.¹⁵ According to the Swiss model, there was an inverse proportion in the infantry ranks. Short-range infantry, armed with polearms, dominated quantitatively over the rest of the formations, which were delegated towards support actions. Within both models, there was a different degree of saturation with firearms and the amount of artillery collected. However, this was not related to the accepted doctrine but rather financial conditions and the level of trust in new weapons. It is impossible to decide which model was better. Depending on the field conditions, the opponent and the tactical skills of the commander, they both presented different characteristics, and the victory of one over another in the fight was rather due to favourable conditions and appropriate conduct than the superiority of one of them.

Another characteristic aspect of the medieval military of the 15th century was the use of horses. Although after the 14th-century one could be under the impression that the use of a horse would start to decrease, the fate turned out to be the opposite, and the 15th century can be described as a kind of “hippisation” of the medieval army. This concerned mainly armies composed according to the English model, where the bulk of soldiers armed with ranged weapons, were horse-mounted.¹⁶ Due to the size of the polearms, this process was either non-existent or very limited in the Swiss model. The mass use of horses favoured the mobility of the army and had a positive effect on lessening the road fatigue, which was undoubtedly evident in the infantry. However, the role of the horse as a “weapon” began to decline, and it was no longer an obvious source of strength during combat, but rather a form of transport that if necessary, could have been utilized traditionally by the heavy cavalry. Moreover, the defeats at the hands of the English and the Swiss transformed dismounting before the fight into a standard procedure.¹⁷

A specific example of the changes that took place in the armies of medieval Europe is the little-known battle of Guinegate, which illustrates the twilight of the English system and the triumph of the Swiss system in other European armies. To understand those changes, it is necessary to explain what led to this small yet significant battle in the context of military history, through a brief historical introduction.

The heroic death of the duke Charles the Bold at the Battle of Nancy led to the creation of a vacancy on the ducal throne of Burgundy. The duchy, although independent and rich for many years, was formally a French fief, and for this reason, Louis XI the King of France considered himself to be the rightful ruler of all the lands of the fief after the duke had died. However, he was not the only candidate to take over the legacy of the Duke of Burgundy as the husband of the rightful heiress of Charles the Bold, his daughter Mary of Burgundy, had filed claims for these lands. Her husband was the Austrian Archduke Maximilian Habsburg, only twenty years old and inexperienced at the time, but extremely talented and able to surround himself with the right people such as the Count de Romont, who was a nobleman from the Neuenburg area. Count de Remont fought against the Swiss in the past and knew their art of war very well,¹⁸ which proved extremely valuable, particularly because the king had an unquestionable military advantage over the archduke. The knowledge of the Swiss military proved particularly useful in forming the Archduke’s troops, destined to fight against the well-trained and modern army of the French king.

The subject of the Battle of Guinegate deserves attention because of its crucial importance for the French military, which under its influence has been thoroughly revised. Moreover, it proved pivotal for Maximilian Habsburg, who used the knowledge gained in the battle to create one of the most famous formations in military history. Unfortunately, this clash remains in the shadow of the second Battle of Guinegate of 1513, during which the forces of Henry VIII and Emperor Maximilian defeated French troops. An excellent description of this battle was executed by the British historian Charles Oman, among others.¹⁹ The significance of the first clash is often underestimated due to a weak source base and therefore serious information gaps. The most important source is the memories of a witness to these events, Philippe de Commines, who was a writer, politician and diplomat serving with King Louis XI among others. This source

¹⁵ Contamine P., *Wojna...*, p. 145.

¹⁶ Ibid; p. 136- 143.

¹⁷ Michael N., *Men At Arms series, Armies of Medieval Burgundy...*, p. 4

¹⁸ Delbruck H., *History of the art of war, The dawn of modern warfare*, volume 4, trans. Renfroe W. J., London 1990, p. 4.

¹⁹ Oman C., *Sztuka wojenna w XVI wieku*, volume I, trans. M. Młynarz, Oświęcim 2015, p. 215.

is unknown in the Polish scientific literature on military history and therefore, it needed to be translated by the author of this article. Historiography left mostly only encyclopedic descriptions of this battle except for the analysis undertaken by H. Delbruck in one of the volumes of his monumental series of the art of war history.²⁰ The Battle of Guinegate had not played a major political role in the context of the War of the Burgundian Succession, therefore, the need for its analysis is often unnecessary for scholars. In the author's opinion, a broader and fresher view of this event is needed, especially due to the aforementioned subsequent consequences in the changes of warcraft. The Battle of Guinegate caused extensive changes in the armament and character of the foot soldiers in both France and the Holy Roman Empire. This, in turn, affected the military forces of countries of almost the entire Western Europe, whose armies soon began to clash during the Italian wars (1494- 1559). There are many variants of analysis and attempts at a reconstruction of this battle.²¹ One of the most interesting is the one published in *The Oxford Encyclopedia of medieval warfare and military technology* which mentions, among other things, the use of war wagons in the Hussite manner. According to the author, this is hardly true,²² but based on the comparison of various analyses, it was possible to create the next most probable version of the events.

To begin, we must explain the concept around which the Archduke's army was formed. It assumed the recruitment of large Flemish infantry forces and training them according to the Swiss design. We cannot be explicitly sure who was behind this idea, but it is possible that such a proposal was made by de Romont, because Maximilian was still a young and inexperienced commander. The Flemish were the perfect material for creating an imitation of the Swiss infantry, partly because the cities of Flanders were rich, and their militia could afford high-quality weapons, sometimes equal to those used by knights.²³ However, the greatest value was the soldier himself because, for centuries, the Flemish people have been considered warlike and steadfast. The most famous of the battles in which they won took place near the city of Courtrai (1302). At that time the Flemish militia commanded by Guy de Namur humiliated the cream of the French knighthood, which disregarded a bludgeon and spear-armed infantry. The first of these weapons *Goedendag*, a wooden baton ended with an iron spike, was particularly infamous. After the knight fell to the ground, the *Goedendag* was ideal for stabbing the most sensitive armour points. At the beginning of the 14th century, the primary form of protection was the mail coat, often in the form of a long tunic and the spike that ended the *Goedendag* could easily pierce that armour. The Flemish militia not only proved their strength but also the power of a deep, armed with polearms infantry formation, that they began to use universally.

Unfortunately, relatively easy victories also had negative consequences for the Flemish forces, as it was in the case of the battle of Courtrai, which both opened up a trail of new successes and negatively impacted the Flemish army. They felt too confident and disregarded the threat from the enemy, who for a long time, could not react effectively to their tactics. This became clear when the French took revenge for this defeat 80 years later, at the battle of Roosebeke. However, the French success can be attributed to a weak Flemish command and not to the ineffectiveness of their formation.²⁴ H. Delbruck in his book argues that the terrain was at fault because it was flat and not mountainous, which in some way gave the Swiss an advantage against this type of attack. This is not true, because for example at the Battle of Laupen, part of the circle-formed Swiss infantry was attacked by an opponent's cavalry, which could not break it down, and significantly the Swiss did not yet have pikes but much shorter halberds. Philip van Artevelde, the leader of the Flemish militia forces in the battle of Roosebeke, underprepared his troops for the possibility of a french heavy cavalry attack from the flanks, and therefore they had fled in panic. However, this loss of the Flemish army was not a bad prognosis for them regarding the Battle of Guinegate. In fact, the French

²⁰ Delbruck H., *History of the art of war, The dawn of modern warfare*, volume 4, trans. Renfroe W. J., London 1990

²¹ Rogers C. J., *The Oxford Encyclopedia of medieval warfare and military technology*, volume 1, New York 2010, Rogers J. C., De Vries K., *The Journal of medieval military history*, Woodbridge 2002, Delbruck H., *History of the art of war, The dawn of modern warfare*, volume 4, trans. Renfroe W. J., London 1990, Philippe de Commines, *The memoir of Philip de Commines*, volume 2, London 1823.

²² Rogers C. J., *The Oxford Encyclopedia of medieval warfare and military technology*, volume 1, New York 2010, p. 226.

²³ Verbruggen J. F., *The Battle of Golden Spurs, (Courtrai, 11 July 1302), A contribution to the history of Flanders' war of liberation 1297- 1305*, trans. Ferguson D. R., Woodbridge 2002 p. 209.

²⁴ Delbruck H., *History of the art of war...*, p. 4; H. W. Koch, *Medieval...*, p. 191.

victory at Roosebeke could have harmed the French army, just as the Flemish success at Courtrai had derivative consequences for them. This is because the overly confident French were more likely to make serious mistakes in the next battle.

For two years, the Flemish were training to fight with Swiss pikes in the same way as the cantonal infantry did.²⁵ It was a very important step, especially since the Flemish were not very familiar with these weapons and until that time, they probably had been using mostly long, cavalier spears reaching 4.5 m. It is known that in 1477, the city of Bruges equipped its troops with 4- 6 m. pikes. However, this is an isolated case, and although the people of Flanders knew what this weapon was, they had no practical experience with it. Nevertheless, the 5.5 m long Swiss pika, which took a bloody harvest during the war with the Duchy of Burgundy, was destined to become famous in the hands of Flemish militiamen.

The French army that arrived at Guinegate, did not resemble the one that was defeated in 1302. The Hundred Years War had left its mark on the military forces of the kingdom, which under its influence began to recruit large numbers of archers. A series of ordinances released after 1446, became the basis for the formation of professional troops, consisting of heavy cavalry and horseback riding archers. An important part of the French war system was the so-called *franc archers* or “free archers”. In the times of Louis XI, it changed from the initial 8 to 14 thousand missile units mostly armed with longbows. The army’s main force of impact was heavy-armed cavalry, consisting of both vassals and professional soldiers. The French knights equipped in plate armour had an unquestionable reputation throughout medieval Europe, and they knew from experience that when masses of crowded knights get covered with a hail of arrows, they fall into complete chaos that leads to defeat. Therefore, they used the *en haye* formation, which means that they went into battle formed in narrow lines.²⁶ When discussing the royal army, it is also important to mention the artillery, which at that time was present in almost every western European army. The popularization of cannons, mortars and others, had primarily influenced the art of siege. Although this type of artillery began to also appear in the field, the practices of that time were still lacking in experience, and artillery technology itself had great limitations. Even though a successful hitting of the enemy’s dense troops formation caused severe casualties and weakened morale, slow loading and poor accuracy caused the artillery to play no significant role at that time.

An open conflict with the king was initiated by the Archduke who began the siege of Therouanne fortress in the late summer of 1479. Louis XI executed his right to take direct control of the lands of the Duchy of Burgundy by force, which meant sending troops and occupying the lands belonging to the Duchy, and this allowed the king to react very quickly to an emerging threat from a rival. The rescue of the besieged Therouanne was carried out by the future Marshal of France, Philippe de Crevecoeur, with about 7200 cavalry, of which 3600 were heavy-armed and 3600 mounted archers.²⁷ In 1479, there still existed a lance squad approved back in 1445 and composed of 1 knight, 1 coutilier, 2 mounted archers, and 3 more servants with horses who were not soldiers. It is worth noting that the horse archers fought on foot and the French infantry had 8,000 *franc archers*. The Marshal also had artillery at his disposal, but there is no information on the specific quantities of this kind of equipment. Maximilian Habsburg arrived with 1,000 Flemish infantry, 3,300 Burgundy infantry armed with pikes and halberds, 4,125 archers and gunners with firearms, an unknown number of artillery, and 1650 cavalry, of which only 825 were knights. These calculations are correct assuming that Maximilian brought in 825 full Burgundy lances.²⁸ If those 825 full Burgundian lances were assembled, the Archduke’s infantry met the infantry squad regulations, and he had an additional 11,000 Flemings uncovered by this military administration system. Philippe de Comynnes estimates Maximilian’s strength at over 20,000, and he also mentions the English and German mercenaries. However, there is no information about their number. Estimating the most reliable quantities, these forces had over 20,000 soldiers, which made them larger than the French army, who on the other hand, had the advantage

²⁵ Gravett C., *Men at Arms, German medieval armies 1300- 1500*, London 1985, p. 22; Rogers J. C., DeVries K., *The Journal of medieval military history*, volume 1, Woodbridge 2002, p. 161.

²⁶ Potter D., *Reinassance France at war, armies, culture and society, c.1480- 1560*, Suffolk 2008, p. 78.

²⁷ Rogers C. J., *The Oxford Encyclopedia of medieval warfare and military technology*, volume 1, New York 2010, s. 230.

²⁸ Philippe de Comynnes, *The memoire of Philip de Comines*, volume 2, London 1823, s. 40.

in heavily armed cavalry. The Archduke immediately demonstrated his determination and set out to meet the approaching Frenchmen.

The troops of both Archduke Maximilian and Philippe de Crevecoeuere met at Guinegate on August 7th. We have no detailed information about the battlefield conditions, but judging from the terrain of this part of Europe, the armies were most probably struggling on a flat, grassy plain. Maximilian divided his infantry into two massive quadrangles with pikes and halberds and then placed it in the centre of the formation. The formation's flanks were made of cavalry, of which the right flank was weaker than the left, probably due to the separation of about 200 knights into the front line of infantry.²⁹ The front of the army was made of troops fighting with ranged weapons, and artillery.³⁰ Interestingly, the Archduke himself stood in the front line of the quadrilateral formation with the knights, thus adding moral support to the infantry.³¹ The French divided their army into three large groups. The centre was made up of archers and other missile formations behind whom there was a heavy cavalry reserve, and the rest of the knights and light cavalry occupied the flanks.³² As with the Archduke's troops, the artillery had most likely been set up frontally. It is not likely that the artillery would have been on the flanks as the Burgundians had set it up during many battles before because, in this clash, the French wanted to be the active side, and a frontal location of the cannon would have blocked their cavalry.

The French began the battle. Their cavalry charged at the wings of the Archduke's troops, and after chasing away the less numerous left-wing, engaged in a fierce fight with the right side. There, the French horses failed to succeed and were stopped by the knighthood supported by nearby infantry. On the left-wing, the French cavalry stopped in front of the pikemen formation flank and started preparing to strike them. However, the French cavalry did not have enough strength, and this quickly turned out to be a significant disadvantage. The horse archers accompanying the knights chased the defeated enemy to plunder his camp, instead of taking a position on the enemy's flank. In the meantime, Crevecoeuere's military centre moved into the attack. The ranks of 8,000 French archers easily gained an advantage over nearly a half smaller army of Burgundians, who focused on keeping the enemy away from their artillery. A hail of arrows followed most likely by the charge of the chivalry's reserve, led to the breakdown of Burgundian troops and the capture of valuable equipment, which was quickly turned against the quads of the infantry. For the time being, Crevecoeuere's troops had managed to gain an advantage over Archduke Maximilian's army, whose troops were seized from almost all sides and exposed to a decisive blow from the enemy. The pivotal phase of the clash came soon as the archduke's dense quadrangles were fired at by the artillery captured a moment earlier and thousands of arrows launched by archers. A flanking attack on his troops followed, executed by the heavy cavalry that controlled the artillery along with the archers. Despite a fierce battle, the Knights' attack was disastrous for the Archduke's army, however, one of the quadrangles armed with polearms finally discarded the French and forced them to flee. The projectiles released from bows and crossbows and fired at the Flemish army, either collided with their pikes set forward and upwards or were unable to penetrate the solid armour worn by the Flemish. **During the second half of 15th century, the most popular armour of infantry was a padded jacket, because of its low cost. The best-equipped soldiers had to stand in the first ranks of the formation and during the late Middle Ages they could wear plate cuirasses, or "plates"- armour that consisted of metal plates riveted to leather. Remembering that many Flemish militiamen could afford expensive armour, quadrangles were quite resistant to projectiles shot by archers and crossbowmen.** Only the artillery could cause them any damage, but there is no information about the effect of its firing, so either it wasn't fired at all or it caused very few casualties. The fight on the second flank of the Archduke's troops and their frontline, where a cavalry most probably tried to break through the wall of halberd and pikes, failed because the knight's lance was too short to reach an enemy equipped like that. The tide of the battle began to shift dramatically in favour off the Archduke's

²⁹ Delbruck H., *History of the art of war...*, s. 5.

³⁰ Rogers C. J., *The Oxford Encyclopedia of medieval warfare...*, 226; Bachrach B. S., Rogers J. C., DeVries K., *The Journal of medieval military history*, Woodbridge 2002, s. 159.

³¹ Delbruck H., *History of the art of war...*, s. 5; Ibid; p. 226.

³² Rogers C. J., *The Oxford Encyclopedia of medieval warfare...*, p. 226

troops. After defeating the surrounding French cavalry, Maximilian began a counter-attack and dispersed the archers, who after seeing the cavalry flee, most likely did not resist at all. The same fate was met by those who ignored the orders and rushed to plunder the enemy's camp instead of participating in the battle. Maximilian Habsburg's victory was full, 1300 Frenchmen died in the battle with many more taken into slavery, and the losses among the Archduke's troops are estimated at 5,000 dead. This seems exaggerated, but it shows that he lost more men probably due to the defeat of the Burgundian archers, and the knights who could not stand the blow of a French cavalry³³.

The Battle of Guinegate, although insignificant in the context of the rest of the conflict, which ultimately ended in a bloodless diplomatic victory for Louis XI, remains significant in the military context. Maximilian Habsburg and the Earl of Romont contributed to making a de facto Swiss infantry out of the Flemish army and won over the professional modern army of Louis XI, based on heavy cavalry and masses of archers. The experiment was a success and proved that you can arm your infantry in the Swiss manner and defeat your opponent's troops with the same striking effect as the Swiss did. This impacted both the Archduke Maximilian, who later invested in the formation of the Landsknechts' troops and Louis XI, who abandoned Franc Archers in favour of Swiss and French pikemen. The battle proved to be yet another defeat in the military history of archers by pikemen, as Charles the Bold also unsuccessfully attempted to stop the Swiss infantry with archers. When analysing this battle and the French strategy, it seems that Crevecoeur expected to win this battle based on Roosebek's success. This time, however, the opponent had a guarding flank cavalry that had not been successfully driven away from the battlefield. The French also failed to provoke the quadrangles standing in the centre into throwing themselves to defend the artillery or chasing away the archers. The Flemish infantry trained to fight in the Swiss style was very well commanded and its discipline was excellent. Armed with pikes, it showed how deadly this weapon is, and how effective it is in stopping cavalry attacks regardless of their direction. The success of pike over the bow, which influenced far-reaching changes in the French military and the foundation of the Landsknechts, led to a de facto collapse in the popularity of the English art of war on the continent. The battle that finally led to this was the Battle of Guinegate in 1479.

Summary

Sometimes seemingly minor events have strongly impacted historical processes or the development of various branches of human activity. One such event was the Battle of Guinegate in 1479, during which the French army clashed with the one commanded by the young Archduke Maximilian Habsburg. It bears little significance in the context of the war for succession to Burgundy's throne, resolved through bloodless diplomacy. It made an important contribution to the military transformation of both France and the Holy Roman Empire, which in turn had a major impact on the military of other Western European countries. During this clash the Flemish, using the Swiss model of fighting with pikes and under Maximilian's command, defeated the mostly bow-armed Crevecoeur's army. A modern army, built on the experience of the Hundred Years War, lost to the archduke's fairly experimental army. This defeat turned France away from enlisting the great archers' troops and convinced them to re-arm the infantry with polearms. Moreover, the success of Maximilian's troops became the basis for the establishment of the Swiss-style Landsknecht formation, which became popular in the 16th-century wars, **as did imperial soldiers, and infamous mercenaries.**

Keywords: 15th-century warfare, Louis XI, infantry, pike, Swiss warfare,

³³ Rogers C. J., *The Oxford Encyclopedia of medieval warfare and military technology*, volume 1, New York 2010, p. 226; Rogers J. C., DeVries K., *The Journal of medieval military history*, Woodbridge 2002, p. 161; H. Delbruck H., *History of the art of war, The dawn of modern warfare*, volume 4, trans. Renfroe W. J., London 1990, p. 4- 7; Philippe de Commines, *The memoirs of Philip de Commines*, volume 2, London 1823, p. 40.

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