The Frankish War-Machine of Charles Martel

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In 715, Charles Martel had been passed over to inherit his father's position as Mayor of the Palace and Prince (leader) of the Franks in favor of his infant nephews and had also been imprisoned by his stepmother, Plectrude (Plectrudis).[1] However, some time in 716 Charles managed to escape.[2] By then Charles' Austrasian (Eastern Franks) Carolingian clan, whose homeland included what is now Northern France to the Somme and most of the Benelux countries, was facing a two front war. To the west were the rival Neustrian (New or Western) Franks, whose lands ran from the River Loire through the Seine Valley to the River Somme, under the leadership of their Mayor of the Palace, Ragamfred; to the north, allied with Ragamfred were the pagan Frisians.[3] The two allies managed a coordinated assault on the Carolingians. Charles moved to stop the Frisian invasion, but was soundly defeated by the pagans: ". . . he suffered a great loss of followers, but, taking to flight, he escaped."[4] This was the first battle Charles is said to have fought in and his only recorded defeat.

While Charles appeared to be down, he was certainly not out. The Frisians and Neustrians met at the Rhine River and marched on the city of Cologne, where they forced Plectrude to hand over the family treasure. While the Neustrians were returning west, Charles organized an ambush at Ambleve near Malmedy in present day Belgium and inflicted a serious defeat on them, recapturing at least some of the treasure.[5]

From the victory at Ambleve, Charles went on to defeat Ragamfred again the next year at Vinchy (or Vincy).[6] He also settled affairs with his father's widow, including seizing from her the remainder of his father's treasure.[7] Then in 718 Charles chased an army of Aquitainians, allied to Ragamfred, back over the River Loire.[8] Later that same year he marched east of the River Weser and defeated the West Saxons.[9]

By 717 Charles was the acknowledged leader of all the Franks and hailed as Mayor of the Palace.[10] The position of Mayor of the Palace was unique. Originally merely the administrator of the royal landed estates, the office began to accrue more and more responsibilities and thus power.[11] By the time Charles' father, Pippin, held the office, the Mayor was responsible for hearing cases in the law court and "the governance of the whole kingdom, the royal treasure, and command of all the army."[12]

Charles campaigned incessantly and widely, from 716 until his death in 741.[13] In 718, 724, 725, 728, and 738 Charles fought against

the West Saxons east of the Rhine.[14] In 725 and 728, he campaigned along the Danube against the Bavarians.[15] In 734, he fought the Frisians again; this effort included a naval invasion of the Frisian home islands in the North Sea.[16] In 731, he raided Aquitaine twice.[17] In 732, he defeated a major Al-Andalusian (Spanish) Muslim Moorish attack on Aquitaine at the Battle of Tours-Poitiers.[18] In 736-737 Charles led his army south and took control of the Rhone River Valley all the way to Marseilles on the Mediterranean Sea and again defeated the Moors, this time at the Battle of the River Berre.[19]

Based on just this brief sketch of Frankish military activity during the reign of the Duke Charles, plainly the Franks had a war-machine that was a highly effective and mobile. It fought from the North Sea in the north to the Mediterranean Sea in the south and from Aquitaine in the west to Bavaria in the east. The Franks also fought and won against enemies as diverse as the pagan seafaring Frisians to the heavy cavalry of the Muslim Moors of Al-Andalus.

Antecedents

The Frankish military of the early eighth century was at least as much a product of the late Roman Empire as it was of the so-called barbarian war-bands that crossed the Rhine and settled in what is now France.[20] Originally invited into Roman Gaul as auxiliaries for the Roman Army, a contingent of Franks had fought against the Huns at the Battle of the Catalaunian Plains or Chalons in 451.[21] Part of the continuity between the late Roman Imperial military traditions and the Frankish military of Charles Martel were the two available military handbooks. The most popular, if the number of surviving manuscripts is an indicator, was Publius Flavius Vegetius Renatus' *De Re Militari* (Concerning Military Matters).[22] Sextus Julius Frontinus' *Strategemata* (Strategies) was also available in some numbers, although fewer manuscripts of it survived.[23] Of course, how much or how little these handbooks were used by any given military leader is impossible to know. But logic dictates that a general such as Charles Martel, who was said to be "uncommonly well educated and effective in battle" and "the shrewdest of commanders," would have made use of all available military information.[24]

Branches

The Frankish land military may be seen as having three broad, yet distinct, combat "branches" or "arms". These included: first, the infantry that moved and fought on foot,[25] and second, the cavalry who moved on and at least sometimes fought from horseback.[26] Lastly, the "combat engineers" defined as soldiers that designed and supervised the building of defensive positions and the construction and operation of siege equipment, such as catapults and battering rams.[27] However, there seems to have been a great deal of crossover among

these three "branches". For example, horsemen frequently dismounted and fought on foot and regular infantry helped build and then operated the siege equipment under the supervision of the skilled engineers.[28]

Infantry

For the Franks the decisive combat arm was the infantry. Infantry could fight on the tactical offense or defense and were used as assault troops when taking fortifications.[29] Of course, as stated previously, infantry could also have been dismounted horsemen. The percentage of fighting men that moved and fought exclusively on foot was about eighty percent of the total forces available.[30]

The average Frankish infantryman was minimally equipped with a shield and spear.[31] Perhaps he had an iron helmet, maybe body armor and perhaps a sword, if he could afford them, or had taken them as loot.[32] The round shield, or *scutum rotundum*, favored by the Franks after 700 was slightly conical in shape and approximately 80 to 90 centimeters, or 31 to 35 inches, wide; about a centimeter thick made of wood joined to an onion-shaped central metal boss.[33] The spear was the primary infantry weapon.[34] It was between six and eight feet long with an iron head, held in one hand and used as a thrusting weapon.[35] The swords used were likely some variation of the *semispatha*, about 40 centimeters (15 inches) long, designed for stabbing, not cutting, or the longer *sax* or *scaramsax* swords, that were up to 85 centimeters (33 inches) long.[36] Selection of sword length, balance and weight were highly individual choices based on weapon availability, an individual's strength and dexterity, and personal preferences. A spear and shield cost the same as two cows, or two *solidi*.[37] A sword without a scabbard was three *solidi* and one with a scabbard was seven *solidi*.[38]

The helmets were conical in shape and most likely some variation of the spangenhelm; six bands of iron were joined to a headband and at the apex of the helmet with the intervening spaces filled with iron plates or horn.[39] A good helmet cost six *solidi*, enough for two good mares.[40] The average infantryman was unlikely to have much purchased body armor. A good piece of armor cost twelve *solidi*, or as much as twelve good cows, twice as much as a good helmet.[41] The body armor that was available was likely similar to the Roman cuirass, or perhaps just a simple chainmail shirt.[42]

As recommended by Vegetius, some infantry were selected to act as archers.[43] However, there seems to have been a chronic shortage of bowmen.[44] The Frankish-European self-bow had a range of about 175 meters (190 yards).[45] The bow's impact could be significant, through the technique of mass shooting. The "hail of arrows" would kill and injure a few enemies, but more importantly it could break up the enemy's formations and affect his morale.[46] Although no mention of archers is made in the accounts of the battles during the eighth

century it is impossible to merely dismiss their presence.

The most important aspects of Frankish infantry were their high levels of courage and discipline. Maurice's *The Strategikon*, written about 600, clearly states: The Franks "are bold and undaunted in battle. They consider any timidity . . . a disgrace. They calmly despise death as they fight violently in hand-to-hand combat. . ."[47] Even the Muslims remarked on their bravery; Musa, the conqueror of Spain, is reported to have said: "These Franks . . . are full of might: brave and impetuous. . ."[48] Further *The Chronicle of 754* in an account of the Battle of Tours describes the Franks as ". . . immobile like a wall, holding together like a glacier . . ."[49] The high level of discipline needed to maintain a tight infantry formation in the face of repeated attacks by the Moors was remarkable. This obedience is even more noteworthy given that just a little more than a century before the 732 Battle of Tours, the Franks were described as "disobedient to their leaders" and thought to despise "good order."[50]

Cavalry

The cavalry, or more properly, horsemen, were approximately twenty percent of the total of Frankish soldiers and were not heavily armored knights organized and equipped for mounted shock combat.[51] Rather they acted in other military and paramilitary roles. First they fought against other horsemen; also they operated as scouts, and in an anti-scouting role, they conducted anti-bandit operations, acted as raiders, defended against raids and were also messengers.[52] Traditional, Frankish horsemen were trained to dismount quickly and fight on foot when required.[53]

Frankish horsemen were usually the armed followers of a great landed magnate or part of the royal bodyguard. For example Dodo, who was a *domesticus*, or court official, for Pippin, Charles' father, armed and equipped his followers with chain-mail coats, helmets, shields, lances, swords, bows and arrows.[54] This list of equipment indicates that the *satellites* were expected to fight from both horseback and on foot. Of course, equipping any number of fighting men was a very expensive proposition, with the basic equipment listed above and a horse costing about forty *solidi*, or enough to buy about forty cows or twenty oxen.[55] The *antrustiones*, equipped like the *satellites*, were the technically sworn armed followers of the kings, but actually loyal to the Mayors of the Palace, and were armed and supported directly from the royal *fisc*, or royal lands, controlled by the Mayors.[56] These two groups represented the primary sources of mounted warriors for the Franks during the war.

Combat Engineers

The Franks were able to effectively conducted sieges directed against fortified cities. Charles unsuccessfully besieged Angers in

718.[57] He successfully besieged Avignon twice, once in 737 and again in 738, he also unsuccessfully besieged Narbonne in 737.[58] During the course of the sieges, the Franks either brought with them or built on the spot various types of throwing machines of different sizes and battering rams.[59] They also built earthworks that surrounded the cities which featured emplacements and camps at regular "intervals."[60] All of this kind of work, the building of siege equipment and artillery as well as the construction of breastworks and the sighting of artillery were highly specialized skills with no civilian equivalent.[61] While the actual labor was done by ordinary soldiers, a small number of expert artisans, or "combat engineers," had to plan and supervise the various building projects.[62]

Navy

The Franks were capable of organizing and deploying large naval forces on northern rivers and on the North Sea.[63] However, despite controlling Marseilles from at least 736 onward, they never seemed to develop the same capacity on the Mediterranean, or at least could not deploy enough ships to close off Narbonne from seaborne resupply as they besieged it.[64] The Frankish naval forces were probably commandeered merchant or transport vessels, and possibly a special obligation rested on men that worked on the water, or on shipowners, to provide naval forces when called to service.[65] While the Franks did not totally ignore naval operations, and in fact paid close attention to riverine operations, the development of sea-going naval power was not a high priority.[66]

Mobilizing and Resourcing

Regardless of the type of service rendered, the obligation to either campaign in person or provide resources to supply others on campaign was a function of landholding or annual income. Local defense was the responsibility of all able-bodied men, but going on offensive military operations, or *expeditiones*, was related to wealth.[67] A freeman with sufficient income measured by *mansi* (income producing land areas worked by peasants) would have technically been required to serve in the selected levy and go on offensive operations.[68] Often a group men who were too poor to go on campaign themselves would come together to support one man going.[69] The wealthier the man was, the greater his obligation to equip himself and to go on campaign. For example in Charlemagne's time, a landowner with twelve *mansi* would have campaigned on horseback and worn body-armor.[70] In some cases a son would go on *expeditio* in place of his father, but supported by his father's holdings.[71]

Of course, the great landholding magnates, regardless if they were clerics or laymen, would arm and lead some number of fighting men based on their landholdings.[72] The great magnates' personal

military followings variously called *pueri*, *socii*, *sodales* and *satellites*, all words meaning armed retainers, followers, or supporters were one of the main sources for mounted Frankish military manpower.[73]

The other source of mounted Frankish military power at this time was the royal or mayoral military household, the *trustis*.[74] Individual members of the *trustis* were called *antrustione*.[75] Originally recruited and organized with the job of protecting the kings, the bodyguard's responsibility was shifted to performing the same functions for the Mayors of the Palace as they became the *defacto* rulers of *Francia*.[76] Although it is impossible to determine the exact size of this force, it is clear that the late Merovingian kings and the Mayors imposed significant taxes; between forty and fifty percent on Church lands.[77] These taxes were specifically to support a group of professional soldiers, whose primary loyalty was to the realm's leader.[78]

Further, Charles also used *precaria*, a sort of lease of Church land, to reward and support his military followers.[79] This appears to be a regular way of supporting soldiers by giving them tenancy of Church land that the Church still owned.[80] On the death of the tenant, the land would revert to the Church for disposition.[81] But if the realm still needed the land to support a soldier, another *precaria* would be issued and recorded.[82]

Men not reporting for duty remained a serious and long lasting issue. Merovingian kings fined men for not complying with summons to military service.[83] A heavy fine, the *heribannus*, would be levied on a freeman for not reporting or for not sending a substitute to fight.[84] The fine was assessed on the offending freeman's personal assets and could be as high as 60 *solidi* and was paid in either coin or various goods.[85] Arming a man with sword and scabbard, spear and helmet cost only 21 *solidi*.[86] Economically, it made much more sense to buy the weapons and report, or support a substitute, than to pay the *heribannus*.

Also of note were the resources obtained by capturing enemy equipment, looting and raiding. A poorly armed or armored Frankish soldier could easily equip himself with captured enemy gear by taking it from a dead enemy, or from prisoners of war, or by obtaining a helmet or some piece of body armor through a formal division of loot.[87] Raiding and looting of an enemy provided two benefits. It weakened the enemy by depriving them of resources and also provided resources to the attacker to support his army. Seemingly, the Franks engaged in these kinds of "smash and grab" raids as part of regular military operations. For example, Charles Martel raided Aquitaine twice in 732 with no apparent attempt to seize territory but seemingly with the goal of taking "rich booty" to punish the Duke of Aquitaine.[88] A defeated enemy's camp was also an important source of riches and captured equipment.[89] However, while the spoils of war could and did provide valuable resources to the Franks, it was not a primary motivation for fighting.[90]

Tactics

Around 600 Maurice described how the Franks fought in a dense formation with an even front.[91] The entry for the year 612 from the *Chronicle of Fredegar* describes an infantry formation so closely packed that the dead could not fall.[92] This statement is no doubt hyperbole, but does point out that the Franks traditionally fought in a tight infantry formation. In battle the Franks would deploy in a formation very like the one described in Vegetius, with the warriors standing nearly shoulder to shoulder, leaving just enough room to hold a shield and a spear and to stab without interfering with the next soldier in the line.[93] This formation would have been several ranks deep, depending on its total length and the total number of Frankish soldiers fighting.

This traditional infantry line was tactically flexible, used both defensively, such as the Battle of Tours and offensively, as at the Battle of the River Berre. As mentioned above, at Tours the Franks stood: ". . . immobile like a wall, holding together like a glacier . . ." fighting almost completely on the defensive.[94] At the River Berre, the Franks stopped another Moorish army then drove the survivors into the sea.[95] In this battle, it is likely the Frankish infantry line moved forward slowly, step by step, just as they would do at later battle, again maintaining "unit cohesion" and good order.[96]

In siege operations the Franks used multiple points of attack when directly assaulting an enemy fortification. For example, at Avignon in 737 they used a combination of "battering rams and rope ladders" to assault the city.[97] The battering rams were heavy logs with iron heads attached that were hung from a frame so it could be swung back and forth to smash the gates or walls.[98] This arrangement was mounted on wheels and over the whole device was a protective cover of "woven branches, and planks" or layers of leather, wool and sand to ward off stones and incendiary devices.[99] The rope ladders were likely just knotted ropes with grappling hooks of some kind. The nature of rope ladders makes their use in the attack on Avignon most likely a commando-type or sneak attack.[100] Further, the use of rope ladders indicates that the defending force was relatively small. The attack scenario was probably something like this: The battering rams were wheeled into position against the city's gates under the covering fire of archers, while the defenders rushed to fend off this attack, other Franks using rope ladders climbed over the now undefended parts of the wall.

Summary

The small landowners as infantry, the mounted *satellites* and the *antrustiones* and the very small number of highly skilled craftsmen that acted as "combat engineers" were the primary sources of Frankish military power throughout the eighth century. Charles' army was

highly mobile, campaigning throughout what is now France, Germany and the Low Countries. The army was also highly effective, winning all but one major set piece battle and failing to capture Angers in 718 and Narbonne in 737. Despite all of this efficiency, there should be no confusion between the army of Charles Martel and the Roman legions, or between Charles' army and the army of his grandson, Charlemagne. Besides the *antrustiones* and *satellites*, Charles' soldiers were decidedly part-time, being called out for campaigns and then demobilized to return to civilian life.[101] However, it is likely that the same men served year after year on *expeditio*, making them if not professional, then highly experienced.[102] The Frankish armies of Charles Martel played an important role in the development of Europe in the early middle ages. The reverberations of their iron discipline and raw courage carry through to even today's military forces.

Notes

[1] *Liber Historiae Francorum* (The Book of the History of the Franks: The Last Eleven Chapters) in *Late Merovingian France: History and Hagiography, 640-720*, trans and ed. Paul Fouracre and Richard A. Gerberding (Manchester: Manchester University Press, 1996), chap. 51, 94.

[2] Ibid.

[3] Ibid.

[4] Ibid., chap. 52, 95.

[5] Ibid.

[6] *Continuations of the Fourth Book of the Chronicle of Fredegar*, ed. and trans. J. M. Wallace-Hardill (London: Thomas Nelson and Sons, LTD., 1960), chap. 10, 88.

[7] *Liber Historiae Francorum*, chap. 53, 95.

[8] *Continuations of Fredegar*, chap. 10, 89.

[9] *Annales Mettenses Priores*, ed. B. De Simson (Hannoverae et Lipsiae: Impensis Bibliopolii Hahniani, 1905), s. a. 718, 26.

[10] Ibid., s.a. 717, 26.

[11] Charles William Previté-Orton, *The Shorter Cambridge Medieval History* (Cambridge: Cambridge University Press, 1971), 161.

[12] *Annales Mettenses Priores*, s.a. 686, 7.

[13] *Continuations of Fredegar*, chap. 24, 97.

[14] Paul Fouracre, *The Age of Charles Martel* (Harlow, UK: Pearson Education, Limited, 2000), 199.

[15] Ibid.

[16] *Continuations of Fredegar*, chap. 17, 92.

[17] Ibid., chap. 13, 90.

[18] Ibid.

[19] Ibid., chap. 20, 93 -95.

[20] *Bernard S. Bachrach, Merovingian Military Organization, 481-751* (Minneapolis, MN: University of Minnesota Press, 1972), 128.

[21] Jordanes, *The Gothic History of Jordanes*, trans. Charles Mierow (Princeton: Princeton University Press, 1915), chap. 191, 105.

[22] Christopher Allmand, "De Re Militari of Vegetius in the Middle Ages and the Renaissance" in *Writing War: Medieval Literary Responses to Warfare*, ed. Corinne J. Saunders, Francoise Hazel Marie Le Saux, Neil Thomas (Woodbridge, UK: D. S. Brewer, 2004), 16.

[23] Ibid.

[24] *Liber Historiae Francorum*, chap. 49, 93 and *Continuations of Fredegar*, chap. 18, 93.

[25] Ibid.

[26] Bernard S. Bachrach, *Early Carolingian Warfare: Prelude to Empire* (Philadelphia: University of Pennsylvania Press, 2001), 131.

27 Ibid., 119.

28 Maurice, *Strategikon: Handbook of Byzantine Military Strategy*, trans. George T. Dennis (Philadelphia: University of Pennsylvania, 1984), Book XI, Part 3, 119 and Bachrach, *Early Carlingian Warfare*, 119.

29 Bernard S. Bachrach, "Charles Martel, Mounted Shock Combat, the Stirrup, and Feudalism," *Studies in Medieval and Renaissance History*, Vol. 7 (1970), 75.

30 Ibid., 63.

31 Simon Coupland "Carolingian Arms and Armor in the Ninth Century," *Viator: Medieval and Renaissance Studies* 21 (1990), 50.

32 Ibid.

33 Philippe Contamine, *War in the Middle Ages*, trans. Michael Jones (Malden, MA: Blackwell Publishing, 1986), 178 and Coupland, "Carolingian Arms," 36.

34 Ibid., 44.

35 Ibid., 45.

36 Contamine, *War in the Middle Ages*, 77-78.

37 *Lex Ribuaria et Lex Francorum Chamavorum: ex Monumentis Germaniae Historicis recusae*, ed. Rudolf Sohm (Hannoverae: Impensis Bibliopolii, 1883), Indices XXXVIII, art. 11, 67.

38 Ibid.

39 Coupland, "Carolingian Arms," 33.

40 *Lex Ribuaria*, Indices XXXVIII, art. 11, 67.

41 Ibid.

42 Coupland, "Carolingian Arms," 39-41.

43 Flavius Vegetius Renatus, *De Re Militari*, trans. John Clarke, Book I, chap. 15. http://www.pvv.ntnu.no/~madsb/home/war/vegetius/dere03.php (accessed April 11, 2013) and Bachrach, *Early Carolingian Warfare*, 100.

44 Ibid., 45.

45 Bachrach, Early Carolingian Warfare, 173.

46 Ibid.

47 Maurice, *Strategikon*, Book XI, Part 3, 119.

48 "Arabian Chronicler," in *Readings in Ancient History: Illustrative Extracts from the Sources, Rome and the West*, Vol 2., ed. William Stearns Davis and Willis Mason West (Boston: Allyn and Bacon, 1913), 362.

49 *The Chronicle of 754*, in *Conquerors and Chroniclers of Early Medieval Spain*, trans. and ed. Kenneth Baxter Wolf (Liverpool: Liverpool University Press, 1990), chap. 80, 144.

50 Maurice, *Strategikon*, Book XI, Part 3, 119.

51 Bachrach, "Charles Martel," 63 and 75.

52 Bernard S. Bachrach, "Animals and Warfare in Early Medieval Europe," in *Settimane di Studio del Centro Italiano di sull'alto medioevo* 31 (1985), 713-714.

53 Maurice, *Strategikon*, Book XI, Part 3, 119.

54 *Vita Landiberti Episcopi Traiectensis Vetustissima* in *Monumentis Germaniae Historicis: Scriptores rerum Merovingicarum,* Vol. 6, ed. Bruno Krusch (Hannoverae: Impensis Bibliopolii,1913), chap. 11, 365 and chap.13, 367

55 *Lex Ribuaria,* Indices XXXVIII, art. 11, 67-68.

56 *Formulae Merowingici et Karolini Aevi: Legum sectio 5: Formulae*, ed. Karl Zeumer, (Hannoverae: Impensis Bibliopolii, 1886), *Marculfi Formularum Liber I*, no. 18: *De Regis Antrustione,* 55.

57 *Continuations of Fredegar*, chap. 11, 89.

58 Ibid*.,* chaps. 20-21, 94-95 and *Annales Mettenses Priores*, s.a. 752.

59 Bachrach, *Early Carolingian Warfare*, 108.

60 *Continuations of Fredegar*, chap. 20, 94.

61 Bachrach, *Early Carolingian Warfare*, 118.

62 Ibid.,119.

63 *Continuations of Fredegar*, chap. 17, 92 and chap. 32, 102.

64 Ibid., chap. 18, 93 and Bachrach, "Charles Martel," 55, note 21.

65 Bachrach, *Early Carolingian Warfare*, 253.

66 Ibid., 257.

67 Ibid., 53-55.

[68] Walter Goffart, "Frankish Military Duty and the Fate of Roman Taxation," in *Early Medieval Europe,* Vol. 16, No. 2 (2008), 171.

[69] *Formulae Merowingici et Karolini Aevi: Legum sectio 5: Formulae*, Formulae Turonenses, no. 1, 135-136.

[70] *Capitularia Regum Francorum*, ed. Alfred Boret (Hannoverae: Impensis Bibliopolii, 1883), Ch. 44, No. 6, 123.

[71] *Formulae Merowingici et Karolini Aevi*, Formulae Andecavenses, no. 37, 16.

[72] Bachrach, *Early Carolingian Warfare*, 56.

[73] Bachrach, *Merovingian Military Organization,* 99 and Bachrach, *Early Carolingian Warfare,* 64.

[74] Ibid.

[75] Ibid.

[76] Ibid., 68.

[77] Ibid., 61.

[78] Ibid.

[79] Fouracre, *Charles Martel*, 139.

[80] "Capitulary of Lestinnes: Appropriation of Church Property for Military Purposes, 743," http://www.fordham.edu/Halsall/source/743Lestines.asp (accessed 12 April, 2013).

[81] Ibid.

[82] Ibid.

[83] Gregory of Tours, *A History of the Franks*, trans. Earnest Brehaut, (New York: Columbia University Press, 1916) Book II, chap. 26 and. 37 and Book VII, chap. 42 http://www.fordham.edu/halsall/ basis/gregory-hist.asp (accessed April 12, 2013).

[84] *Capitularia Regum Francorum*, ed. Alfred Boret (Hannoverae: Impensis Bibliopolii, 1883), chap. 44, No. 19, 125.

[85] Ibid.

[86] *Lex Ribuaria,* Indices XXXVIII, art. 11, 67-68.

[87] Bachrach, *Early Carolingian Warfare*, 55.

[88] *Continuations of Fredegar,* chap. 13, 90.

[89] Ibid., chap. 13, 91 and chap. 30, 95.

[90] Guy Halsall, *Warfare and Society in the Barbarian West, 450-900* (New York: Routledge, 2003), 74.

[91] Maurice, *Strategikon*, Book XI, Part 3, 119.

[92] *Chronicle of Fredegar,* chap. 38, 31.

[93] Vegetius, *De Re Militari*, Book III, chap. 12.

[94] *Chronicle of 754*, chap. 80, 144.

[95] *Continuations of Fredegar,* chap. 20, 95.

[96] *Annalium Fuldensium Continuatio Ratisbonensis* in *Annales Fuldenses sive Annales regni Francorum Orientalis*, ed. G.H. Pertz (Hannoverae: Impensis Bibliopolii Hahniani, 1891), s. a. 891, 120.

[97] *Continuations of Fredegar,* chap. 20, 94.

[98] *Mappae Clavicula*, quoted in Bernard S. Bachrach's "On Roman Ramparts 300-1300," in *The Cambridge Illustrated History of Warfare: the Triumph of the West*, ed. Geoffrey Parker (Cambridge, UK: Cambridge University Press, 2005), 73.

[99] Gregory, *History of the Franks*, Book II, chap. 37.

[100] Bachrach, *Early Carolingian Warfare*, 106.

[101] Halsall, *Warfare and Society*, 74.

[102] David Nicolle, *Poitiers AD 732: Charles Martel Turns the Islamic Tide* (New York: Osprey Publishing, 2008), 25.

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