Aufsätze

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The Reality of Cannae

I

Throughout history, certain battles have excited the imagination of military theorists. Even when such battles do not figure as the central point of a theorist's work, their names are all too often plucked out of the air to seemingly illustrate or authenticate some tactical or strategic principle. A curiosity is that all too often such theorists have only a vague conception of the battle they are referring to, and the reader accepts the point in spite of an even vaguer understanding. For example, what is the reader to make of the following quotations?

»Leuctra was the beginning of a new phase in development of the cavalry«[1].
»[Leuctra] is the first known example in history of the deep column of attack and of the holding attack and main effort of more modern times«[2].
»[Adrianople] established the superiority of cavalry over infantry for 1000 years«[3].
»[The] Tannenberg campaign forms an almost perfect example of the ›interior lines‹ form of the indirect approach«[4].

Probably the most quoted and least understood battle is Cannae, 216 BC. For example, how many readers will know whether Cannae illustrated a double envelopment resulting in a battle of annihilation or a defensive battle, illustrating the superiority of the art of defence over offence, or was it an encounter battle? What is the reader to make of the following claims:

»the worst defeat in history. The outflanking of the Roman Army by the Carthaginian cavalry led to the loss of almost 50,000 Romans out of 86,000 men«[5].
»the classic battle of Cannae, where, through the stratagem of ›double envelopment‹, [. . .] the Roman army was virtually annihilated«[6].
»at Cannae [Hannibal] hemmed in the legions by a combination of a refused centre and cavalry charges from the flanks«[7].
»The victory was a classic example of [. . .] the principle of using masses of an army against fractions of the enemy«[8].
»Few battles in history are more marked by ability on one side and crass blundering on the other than the battle of Cannae«[9].
»there is not the slightest doubt that victory was won by the tactical genius of Hannibal«[10].
»Hannibal's victory at Cannae was [. . .] due above all to the neutralisation of the military advantage of manoeuvrability possessed by the legions«[11].

Indeed, the reader might be excused for wondering whether these quotes refer to the same battle! This divergence of opinions and perceptions shows how poorly the battle of Cannae is understood and reveals the need for a proper analysis of what really happened and why events turned out as they did. Only when this has been done can lessons be drawn with any validity.

Sources

Most modern accounts of Cannae give the impression that the evidence for the course of the battle is considerable and reliable. This is not the case. There is no archaeological or

documentary evidence for the battle, and little for the period as a whole. Accounts of Cannae rely upon the works of later writers.

The earliest surviving source is the work of Polybius, a Greek, born shortly before 200 BC. He was the deputy military leader of the Achaean League in 170/69 BC and was one of a thousand political hostages taken to Rome in 167 BC. The events of the previous half century caused Polybius to write a history of the Mediterranean world covering the period from 264 BC to 146 BC. The section including Cannae appears to have been written in the 150's BC[12], some sixty years after the battle. Polybius claimed that his account was based upon eyewitness accounts, his own observations, documents and previous historians[13].

»I have made it a principle not to write down the first story that came my way [. . .] the events which I have described [. . .] I heard of [. . .] from eye-witnesses whose reports I have checked with as much thoroughness as possible. Not that even so the truth was easy to discover: different eye-witnesses give different accounts of the same events, speaking out of partiality for one side or the other or else from imperfect memories.«[14]

Polybius claimed to have spoken to men who had served on both sides[15] in the Hannibalic War. However, he was writing over half a century after the events he was describing. It is therefore unlikely that he was able to interview anyone who had been over the age of about twenty in 216 BC, and few even of these. Furthermore, it may be doubted that Polybius was able to interview many of the commoners in the army at Cannae, but rather that he spoke mainly to the nobility.

It is important to bear in mind that eye-witness accounts of Cannae from the Roman side would have been from those men who fled the battle-field, rather than those who fought and so were killed. These men are likely to have put as favourable a light on their actions as they could. Few of the Roman commanders survived, so that accounts would have been mainly those of junior officers, whose awareness of what was happening apart from their immediate vicinity may have been minimal. Moreover, many of Polybius' so-called »eye-witness accounts« may have been told to him by the sons or grandsons of participants, reducing their value.

Polybius had access to documentary sources. Most of these appear to have been diplomatic papers, such as treaties, but he did discover an inscription set up by Hannibal himself recording details of his forces when he arrived in Italy[16] and he appears to have been using a handbook for military tribunes for his description of the Roman army[17]. The information from these sources may have aided in assessing the forces involved at Cannae, but they would have added little to the account of the battle.

Much of Polybius' narrative must perforce have come from the works of previous historians. His main sources for this period appear to have been Q. Fabius Pictor and L. Cincius Alimentus on the Roman side[18]. Fabius was a senator, had fought at the battle of Telamon in 225 BC and had been one of three envoys to Delphi in 216 BC. Cincius was praetor in 210/9 BC and had been a prisoner of Hannibal. Both men would have been present at meetings of the Senate where the policy against Hannibal was decided and would have known the commanders at Cannae personally. Their accounts of Roman numbers and strategy are likely to have been accurate.

Both Fabius and Cincius wrote in Greek, with the intention of justifying Rome's actions[19]. They are therefore likely to have concentrated upon political, rather than military events, and so not have given detailed accounts of Cannae or of Roman military organisation. Moreover, it appears that Fabius deliberately distorted events in order to excuse Roman defeats, as when he claimed that the army of Sempronius only arrived the day before its defeat at the River Trebia[20], having force-marched from Sicily.

On the Carthaginian side, Polybius' main sources appear to have been Sosylos of Sparta and Silenos of Kalearkte in Spain[21], both of whom are said to have accompanied Hannibal in Italy[22]. It has been suggested[23] that Polybius' narrative of Cannae was based upon the account of either Hannibal himself or one of his senior subordinates, transmitted through Silenos or Sosylos. This seems unlikely. No source refers to such an account, which would have had considerable status. Moreover, Polybius himself criticised Sosylos for retailing »the gossip of the barber shop«[24].

The difficulties Polybius faced in producing his account of Cannae are clear. However, the quality of his work led the historian Marsden[25], in 1974, to suggest that it was fair »to assume that Polybius [. . .] is generally accurate unless it can be proved beyond all reasonable doubt that he has been misled and misguided«. This appears a fair judgement, but the poor quality of the sources available to Polybius must constantly be remembered.

Polybius' aim in writing his history was to show his Greek contemporaries »by what means and under what system of government the Romans succeeded in less than fifty-three years in bringing under their rule almost the whole of the inhabited world«[26]. To this end, he included much detail about military and political organisation which other writers either assumed their readers knew or considered irrelevant. His readers, the political and military leaders of Greece, might soon be called upon to defend themselves against further Roman expansion. For this reason, Polybius described these organisations as they were in his own day, rather than record obsolete forms[27]. Thus it may be dangerous to assume that what he recorded was accurate for the time of Cannae.

The second major source is the word of Titus Livius. Livy was born in Patavium, modern Padua, in 59 BC and become a friend of the Emperor Augustus. He wrote an epic historical work covering the history of Rome from its foundation in 753 BC down to his own day, a total of 142 books! He dealt with the Second Punic War in Books XXI to XXX, collectively known as the »Third Decade«. Although numbers of documents from the period were preserved in the Roman archives, Livy did not consult them. He suffered from a fault common among Roman historians, »an unhistorical attitude towards documentary evidence«[28]. His work therefore rested entirely upon earlier historians' accounts.

Livy's narrative of the first years of the Second Punic War, including Cannae, appears to have been based upon that of L. Coelius Antipater, whose work is now lost. Coelius wrote a seven book monograph on the war in the last quarter of the Second century BC[29], a hundred years after Cannae. Any eyewitnesses would have long since died when he wrote, forcing him also to rely on previous writers. His main sources appear to have been Fabius Pictor and Sosylos[30], the same writers used by Polybius. The failings of these authors have already been noted. Livy did supplement Coelius with other sources, including Polybius, but his technique appears to have been to follow one author for a whole section and then mention other interpretations[31]. He showed no discrimination between sources of varying qualities, which led to numerous contradictions and inconsistencies within his work[32].

The failings of Livy's sources and of his use of them were compounded by his »lack of expert knowledge and little interest in detailed accuracy [. . .] in the spheres of military life, [. . .] [and] battle reports«[33]. While he imposed careful order onto his accounts of battles, his concern for simplicity led him to minimise technical details, which often resulted in the very confusion he sought to avoid[34]. Moreover, the aim of his work was overtly patriotic[35], leading Livy to take pains »to let no shadow fall on the fighting effort of the Roman armies«[36]. This resulted in him making omissions and changes in order to emphasize Rome's victories and minimise her defeats.

Several minor authors describe Cannae. Of these, the most important are Plutarch, Appian and Cassius Dio. Plutarch and Appian were both Greeks living in the Second century AD. Plutarch wrote a series of biographies paralleling the lives of famous Greeks and Romans, which includes a »Live of Fabius Maximus«. Plutarch's main interest was the development of the character of his subject, rather than his deeds. This led to a certain disregard for chronology and a penchant for moralising tales. Appian's account is most noteworthy for his realistic numbers, but his »account of the battle of Cannae [. . .] bears little or no resemblance to those of Polybius and Livy, and hardly makes sense in itself«[37]. Cassius Dio was a Third century AD Roman from Bithynia, in modern Turkey who wrote a monumental history of Rome in Greek. His work survives only in fragments.
This investigation into the sources for our knowledge of Cannae shows how poor the evidence is, and thus how fragile any analysis of the battle which is based purely on these sources must be. However, valid analysis of Cannae is possible, if the appropriate methodology is employed.

Methodology
Traditional analysis of Cannae has been of limited value, due to the absence of detailed evidence. Almost every aspect of the battle, from the number of Roman legions to the equipment of Hannibal's Africans, is a matter of scholarly dispute. There are even grounds for doubting whether Varro, traditionally blamed for the disaster, was actually in command of the Roman army! The cause of this confusion is that previous methodologies have relied upon the study of external characteristics, such as numbers and weaponry. While comparison with other similar armies may allow gaps in the evidence for equipment and organisation to be filled, such methodologies can neither lead to an understanding of military systems nor of their performance. It is only through such an understanding that an adequate analysis of Cannae is possible.
The methodology employed in this analysis is the study of internal characteristics. This centres around the purposes of the institution, the functions necessary to achieve them and the internal structures and procedures which are directed towards this aim. Parallel to this, the study of the evolution of the institutions concerned allows those factors which have the greatest impact on the operations of each army to be examined.
When the study of internal characteristics has been completed, and not before, it is possible to turn to the battle itself. For it is only in the context of these characteristics that the course of a battle makes sense. Indeed, it often becomes possible to predict the actual pattern of events. This is particularly true of operations following the initial clashes, for the pattern of events tends to repeat itself, because this pattern is the product of the interplay between the internal characteristics of the forces engaged.
The format of this study is to analyse such characteristics of the Roman and Carthaginian Armies in order to allow a valid reconstruction and analysis of Cannae. The result is a striking contradiction of the traditional account. Having made this analysis, it is possible to examine what real lessons Cannae provides for the successful conduct of war.

II

The Roman Army is the subject of many of the myths regarding ancient warfare. Caesar's campaigns in Gaul and the Roman conquest of Britain colour our view of the effectiveness

of the famed legions. It is hard to avoid the image of grizzled veterans overcoming barbarian hordes through superior skill and discipline. It is this picture which makes it so difficult to understand the catastrophe at Cannae. To explain how the vaunted legionaries failed against a barbarian foe half their number, it became traditional to blame the incompetence of the Roman commander, or the brilliance of Hannibal. This interpretation has the advantage of emphasizing the romantic aspects of Hannibal's life.
The time has come for the myths to be swept aside and the reality to be revealed. If Cannae is to be understood, the strengths and weaknesses of the Roman and Carthaginian Armies must be fully examined, without preconceptions, using the tools of military analysis detailed above.

The Roman Army
Historians have traditionally assumed that the organisation of the Roman Army at Cannae, 216 BC, was that recorded by Polybius in the 150's BC, sixty years after the battle. This organisation was a flexible one, based upon loose formations of skilled swordsmen and large numbers of light armed skirmishers. However, the evidence suggests that this organisation was introduced only in c. 211 BC. The Roman Army appears to have undergone extensive reform in this year, in an attempt to reverse the repeated defeats of 218—12 BC of which the greatest was Cannae. This accords with the military fact that major reform occurs only in response to a series of disasters. The sources suggest that, before the reforms, the Roman legion was a rigid structure of spear-armed heavy infantry, with few skirmishers and ineffective cavalry.

The Heavy Infantry:
In the 150's BC, the Roman legion included three thousand heavy infantry, divided into three lines: »Hastati,« »Principes« and »Triarii«[38]. This basic organisation appears to date from 362 BC[39], at which time all legionaries were armed with thrusting spears[40]. By the 150's BC, only the Triarii retained this weapon, the Hastati and Principes having adopted the »Pilum« (a type of heavy javelin) and a short sword. Most scholars have assumed that both the Hastati and the Principes were re-equipped at the same time, c. 250 BC. However, a reference in Polybius suggest that this was not the case.
In his account of operations against the Gauls in 223 BC, Polybius states that the spears of the Triarii were given to the front ranks[41]. The story is so unusual that there may be some truth in it. Polybius may have come across a reference to the Principes using spears in this battle. Since, in the 150's BC, only the Triarii still used the spear, Polybius assumed that the spears referred to were theirs, for writers at this time tended to assume that the current system was that operating since earliest times[42]. In fact, the reference seems to indicate that the Principes were still spear-armed in 223 BC, only seven years before Cannae.
The heavy infantry were divided into sixty »Centuries«, each probably fifty strong in 362 BC[43]. By the 150's BC, those of Principes and Hastati were sixty men strong, and those of Triarii thirty[44]. The most likely date for the change appears to be the reforms of 211 BC, that is five years after Cannae. Since men were assigned to the lines on the basis of age[45], the oldest being assigned to the Triarii, the reduction in the size of the Centuries of Triarii suggests a fall in the number of older men. The heavy casualties suffered at the start of the Second Punic War, 218—12 BC, seem the most likely cause. Before 211 BC, each line would therefore have been one thousand strong.
The post-211 BC legion was based upon 2400 young soldiers, armed with the Pilum and short sword, weapons which demanded a flexible formation and a high level of technical

skill. Only 600 spearmen were retained. By contrast, the pre-211 BC legion relied upon 2000 older men, armed with thrusting spears. The formation required for this weapon was a rigid and close-packed mass, designed to overcome the enemy through sheer weight, rather than individual skill. The reform of 211 BC changed the proportion of spearmen to swordsmen from 2:1 to 1:4, a sign that the old system was completely inadequate.
Details of weapons and organisation are external aspects. More difficult to assess are internal factors, such as fighting spirit and technical skill, yet these greatly affect military effectiveness. The Roman Army was a militia force, with citizens liable for service between the ages of seventeen and forty-six. It has been calculated[46] that the average citizen served for a total of six or seven years. These years would not normally have been consecutive, for each soldier was also a farmer and so could not be away for long periods. Even in years of service, soldiers rarely fought in more than one battle. Since there is little evidence for training except by experience, it is likely that the efficiency of the troops in conducting the manoeuvres of the legion may have been limited.

The Light Infantry:
After the reforms of 211 BC, each legion included 1200 light infantry, called »Velites«. Most historians have assumed that the change was merely one of name and that the legions had a large force of skirmishers before this date. However, it appears that, while such troops were available, they were hastily armed servants, »Accensi«, rather than soldiers proper. Their spirit and skill are likely to have been considerably less than those of the later Velites.
The minimum property qualification for service in the legions was originally 12500 Asses[47] (the Roman unit of coinage). In the 150's BC, it was only 4000[48]. The lower figure appears to have been introduced in 214 BC[49]. The effect of the reduction would have been to increase the number of men liable for service, necessary at a time when a shortage of manpower forced the Romans to draft even criminals and slaves into their armies. These men would have been poorer than those previously conscripted and so less able to afford armour. Under the year 211 BC, Livy reports that »the custom was established of including light infantry in the heavy-armed legions«[50]. This suggests a major reform, not merely a change of name.
The situation before 211 BC may have been similar to that in Greek armies, where each hoplite was accompanied by a personal servant[51], for Livy[52] refers to military servants, »Accensi«. Roman soldiers were poorer than their Greek counterparts and so a smaller proportion would have been able to afford servants. In the later organisation, the Triarii had four hundred Velites assigned to them[53]. The soldiers in this line tended to be the richest and it seems unlikely that a reorganisation that increased the number of servants/light infantry would have reduced those allocated to these men. The figure of four hundred may therefore date from before the reforms. In addition to the servants of the infantry, each cavalryman had a servant[54].
Greek military servants fought as light infantry in battle, so it is probable that Roman Accensi did so. Of the references to Roman light infantry before 211 BC, numbers are given only for the battle of the River Trebia, 218 BC, where there were six thousand[55]. Whereas this figure does not fit with the later organisation, it is precisely the number of servants that would be expected.
The Accensi were recruited from the youngest and poorest members of society. They had no hope of promotion or booty and their pay was not dependant upon their military performance. Their main concern would, therefore, have been self-preservation. They were armed with a spear and javelins only[56], which put them at a considerable disadvantage in

skirmishes. They carried too few javelins and so were forced to come into close contact with the enemy, where their lack of a sword became critical. At longer distances, they were vulnerable to missiles, as they had no shield. This explains the post-211 BC emphasis on the swords, shields[57] and personal bravery of the Velites.

The Cavalry:

The cavalry too seem to have undergone a major reorganisation in about 211 BC. Before this date, it was ineffective against the Carthaginian cavalry. Afterwards, its performance was greatly improved[58]. This is reflected in Polybius' description of the Roman cavalry[59]. He reports that they had formerly worn no armour, »which allowed great ease and agility in mounting and dismounting, but exposed them to great danger in hand-to-hand fighting«. Their lances had been too slender and pliant to be effective and their shields had been too small and had a tendency to rot away! It has been doubted whether such well-off men would have gone into battle without armour[60], but a parallel from later Roman history suggests that Polybius was correct. The Third century AD writer Vegetius states that the Roman soldiers of his day abandoned the use of armour because »it began to seem heavy since [they] rarely ever wore it. [. . .] Although there were many disasters, [. . .] no one tried to restore breastplates and helmets to the infantry.«[61] The number of cavalrymen per legion also appears to have been increased from two hundred to three hundred in 211 BC[62].

The cavalry were recruited from the upper classes, who alone could afford the expense of providing themselves with a horse. It was from this class that the leaders of the Roman State came, and it was the custom for a man to complete ten years' service before standing for office[63]. Most cavalrymen would therefore have been in their twenties. With such personnel, it is possible that the spirit would have been like that of an English public school outing, rather than of a military unit. The outhority of NCO's was probably limited and the efficiency of the force low. In battle, the Roman cavalry are likely to have been brave but with poor discipline.

The fighting power of the cavalry would have been small. They carried no javelins and so could not skirmish effectively. They wore no armour and their lances were too light for them to act as shock troops. Their role was therefore limited to protecting the flanks of the legions against enemy skirmishers, for which swords and light spears were sufficient. Greek cavalry dismounted to fight[64] and the Roman cavalry too seem to have been »as much mounted infantry as cavalry in the strict sense«[65].

Command:

The most important feature of the Roman command system was that it was an integral part of the political life of Rome. The separation of soldiers and politicians was alien to the Romans. Since war was the most important means by which policy was carried out, it was logical that military positions should be filled by popular election. Both the Consuls, who commanded the armies, and the military Tribunes, who commanded the legions, were therefore elected. This had important consequences for the quality of the men selected and for their actions while in office.

The Roman legion had no overall commander. Instead, it was commanded by six Tribunes. Rather than each taking responsibility for part of the legion, the whole unit was commanded by the Tribunes in pairs, for a month at a time[66]. The remainder served on the staff of the Consul. Their duties »were not purely, or even principally, military; they had a remit, as elected magistrates, to protect the interest, health and welfare of the soldiers«[67]. While they had considerable administrative responsibilities[68], they had little involvement in tactics or command, for which they had received no training.

The Tribunate was the start of a political career. Of the eight men known to have been Tribunes at Cannae, five reached the Consulship[69]. For these men, the main purpose of the post was to gain popular favour, and thus electoral support. While this could be done through efficient administration, it was best won by military glory. The only way in which a Tribune could achieve this was by plunging into the fray and displaying great bravery. It is in this context that the casualty rate among Tribunes (two or three per battle[70]) should be seen. The nobility, which all but monopolised high office, was well aware of the value of a reputation for bravery in a state as orientated towards warfare as was Rome. Three of the Tribunes at Cannae came from the highest ranks of the nobility[71], and, for example, Scipio Africanus was credited with having saved the life of his father, the Consul, at the River Ticinus[72].

The Tribunes were more concerned with showing their personal bravery than in commanding troops. They had received no training in this area and would rarely have had any previous experience of command. Their influence upon the battle would therefore have been limited. The first occasion upon which a Tribune is recorded to have acted upon his own initiative appears to have been at the battle of Cynoscephalae in 197 BC[73]. This man would have served for many years during the Second Punic War and so have gained that experience of command so lacking at the start of the war.

The commander of a Roman army was usually a Consul. The two Consuls, annually elected, were the highest officials of the Roman State. Their previous military experience would usually have been confined to their having served as military Tribunes fifteen or twenty years before, though they might have served on the staffs of friends when these held commands. They too received no training in command. Their role in battle was primarily that of choosing when and where to fight. Once battle was begun, their inexperience meant that they lost control of the situation and had to rely upon the standard drills of the legion to achieve victory.

Tactical command was left to the Centurions, »experienced soldiers of the social class of the private«[74]. Livy[75] records the career of Spurius Ligustinus, a peasant farmer who served for many years in the legions. Spurius was a junior Centurion in his third year of service, the senior of Principes in his ninth and chief Centurion later. He served for a total of twenty-two years. The Centurions of a legion could have considerable experience. However, it is noteworthy that Spurius served in the constant warfare of the early Second century BC, when the legions became highly professionalised. Moreover, it may be doubted whether many modern armies would appoint a man with only three years' experience to command a company.

»In choosing their Centurions the Romans look not so much for the daring [. . .] type, but rather for men who [. . .] possess a stable and imperturbable temperament, not men who will [. . .] launch attacks, but those who will stand their ground even when worsted [. . .] and will die in defence of their posts.«[76]

Such characteristics were of great value in a phalanx, which relied for its success upon the rigid maintenance of its formation. However, in a crisis, when the phalanx was in disorder or the threat came from a new and unexpected direction, these men would not have had the initiative to break from the plan and react to the changed circumstances.

The Allies:

At the start of the Second Punic War, Roman rule extended over the whole of peninsula Italy. The cities and regions which Rome had conquered were obliged to provide troops for

her armies. The numbers required seem to have been calculated on a sliding scale by comparison with the number of Roman legions raised each year. The forces sent by each city were organised into »Cohorts«, each containing two Centuries from each of the three lines of the legion. The Cohorts could vary in size from six hundred to four hundred men, depending on the number required from each city[77]. The total force raised appears to have been equal to the number of Roman infantry, while three times as many cavalry were required[78]. At all levels, the organisation and equipment of the allies seem to have been the same as that of the Roman troops.

The allies came from all parts of Italy. The Romans appear to have relied most heavily upon contingents from the Latins[79]. These came from the region around Rome itself and were closely linked to Rome by cultural and historical ties. Their loyalty was unquestioned, even in the darkest days of the Second Punic War. By contrast, the peoples of Central and Southern Italy had largely been conquered in the course of the century before Cannae. They were racially and linguistically different from the Romans and remained hostile to them. The enthusiasm of troops from these areas could not be relied upon.

The Romans deployed the allied infantry on the flanks of the legions, but the whole force of allied cavalry appears to have been placed on the left wing. Since the allies came from a number of different towns and their units varied in size, it is likely that the manoeuvres of the »Alae«, as the allied legion-equivalents were called, were much less smooth than those of the Romans. This meant that the greatest pressure in battle was exerted by the centre, whereas the wings would have been less capable of reacting effectively to any threat from the flank.

Conclusion:

The traditional picture of the Roman Army is inaccurate. The reality was very different; an organisation based upon a rigid infantry arm, with cavalry and light infantry incapable of effective offensive action; an army commanded at all levels by inexperienced officers, where initiative was neglected in favour of stubbornness in adversity. The result was that the army could perform only one form of battle drill. If the situation changed to make this drill inappropriate, the legions were incapable of making any effective response.

III

The Roman Army at Cannae, far from being the efficient veteran force of myth, was an unprofessional and poorly commanded organisation. Lacking trained leadership, it relied upon a rigid battle drill. Against this »clockwork army« was opposed the Carthaginian Army, commanded by Hannibal, considered one of the greatest generals in history. Neither the Roman drill nor Hannibal's army have been properly analysed before, yet these were the central factors that affected the course of the battle of Cannae.

The Roman Battle Drill:

The Roman Army was a militia. At all levels, posts were filled by men of limited experience. As a consequence, the legions were incapable of employing complicated manoeuvres or tactics. In place of this, the Romans relied upon a standard battle drill.

The Roman legion had originally employed the tactics of the phalanx, a rigid mass of closely-packed and heavily-armoured soldiers in a line several hundred yards long. The

sheer weight of the phalanx was sufficient to overwhelm an opponent in a looser formation. The main disadvantage of the Phalanx was that it was extremely difficult to manoeuvre. Any obstacle which forced men to move from their assigned positions would open up gaps in the line which an enemy could exploit. The Romans had to find a solution to this problem, for in their attempts to conquer hill-tribes, they were often forced to fight battles on rough terrain. Their answer to the problem was to give the phalanx »joints«[80].

From c. 400 BC, the Roman legion was organised in sixty Centuries, divided equally between the Hastati, Principes and Triarii. As argued in part II, each Century appears to have been fifty men strong until the reforms of c. 211 BC. By analogy with later practice[81], each Century was normally deployed with a frontage of ten men and a depth of five. In the early phalanx, the twenty Centuries of each battle-line of Hastati, of Principes and of Triarii were deployed adjacently, forming three solid lines two hundred men long and five deep, one behind the other. This formation was difficult to manoeuvre and was prone to disorder.

Livy records a new system under the year 340 BC[82]. The Centuries in each line were linked into pairs, called »Maniples« (Handfuls). When the legion deployed (Figure 1, Section A), the two Centuries of a Maniple were placed one behind the other. Between each Maniple, a space was left, equal in width to the frontage of one Century. The Maniples of each line were deployed such as to cover the gaps in the line in front, resulting in a »chess-board pattern«[83]. The advantage of this formation was that obstacles could be avoided and disorder contained within one Maniple, a small unit able to regain its order quickly. This allowed the legion to move rapidly over broken ground yet still retain its formation.

While Livy gives the »parade-ground« formation of the Manipular legion, he does not explain how it operated under the stress of battle. The main focus of debate has been whether the legion fought with gaps in its line or whether these were filled by the rear Centuries of each Maniple just before contact with the enemy. Those who believe that the gaps were left, argue that an enemy phalanx would not have penetrated, due to the need to retain its own formation, while a foe with a loose deployment could have been held by the second line[84]. This is untenable. If the gaps in the Roman line were left, the enemy would have been easily able to attack the shieldless flanks of each Maniple. If the legionaries turned to face this assault, the order of the formation would have been lost at once and with it any forward momentum. Rather than being an advantage, the Manipular system would have been a major disadvantage.

Logic demands that the Roman legion closed the gaps in its line before coming into contact with the enemy, thereby forming a phalanx. The main armament of the legionary at this time was still the thrusting spear, a weapon at its most effective in phalanx. The Manipular system had two main advantages. Firstly, it allowed the legion to move more rapidly than a conventional phalanx. Secondly, it made possible the replacement of an exhausted battle-line by a fresh one. Thus, the Hastati, having worn down the enemy, could withdraw through the gaps in the line of Principes without either force becoming disordered, leaving the exhausted enemy to face the fresh soldiers of the Principes (Figure 1, section C). Despite this flexibility, »it is questionable to what extent the Romans ever really liberated themselves from [the] basic concept [of the phalanx]«[85]. The Roman approach to war remained that of the phalanx: slow and methodical, reliant upon mass rather than skill.

The drill had a number of weaknesses. The system of lines meant that attention was focussed upon retaining lateral formation within each line. There were no links between the different lines of the legion. Thus, once battle had begun, the Roman formation ceased to be a number of legions adjacent to each other and became a series of lines, one behind the

other. It was impossible to turn one legion to face the flank, because this would require that these lines be broken, lines towards whose maintenance all training was directed. The Roman drill was not a simple one:

»It demanded the exhibition of peculiarly Roman and Italian qualities, steadiness, self-confidence, strict obedience to command [. . .] Roman reverses were usually due [. . .] to the failure of ill trained troops to carry through this scheme, [and] when armies had to be improvised [. . .] discipline and training might fall short of the needs of these tactics.«[86]

It is likely that, even at the best of times, the manoeuvres of the Roman legions were slow and lacking in flexibility. Against a poorly organised foe, the drill would usually suffice. It might be less effective against a highly trained enemy.

The Carthaginian Army:

Little is known about the Carthaginian Army. The city of Carthage was completely razed by the Romans in 146 BC, destroying any documentary records which might have existed. No native historian is known. While accounts of Hannibal's march were written, their authors were not Carthaginians and seem to have given little attention to military details. Moreover, none of these works survives. The Greek writer, Polybius, who composed his account half a century after Cannae, used several of them in his own research, but he was more interested in the Roman Army, which his countrymen might have to face on the field of battle. This limited body of evidence has attracted few scholars, with the result that much of the modern work has been done by enthusiastic wargamers, who have little academic standing. However, sufficient evidence does survive for a basic understanding of Hannibal's army, if the tools of military analysis are employed. Examination of the Carthaginian Army must proceed in two stages. Firstly, a study of the limited evidence available. This provides a foundation for the second stage: logical argument on probabilities to fill in some of the remaining gaps.

The Carthaginian Army represented an almost complete contrast from the Roman Army. Whereas the latter was primarily a citizen militia, the citizens of Carthage played a very minor role in their army[87]. Unlike Rome, which freely awarded citizenship to conquered peoples, the citizen body of Carthage was limited to the population of Carthage town. The city therefore had no class of yeomen farmers to form the basis of an army. The Carthaginians relied instead upon troops raised from subject peoples, allied kingdoms and mercenaries. The dangers of using the latter were brought home to Carthage, when she had to fight a desperate war against her own disgruntled soldiers at the end of the First Punic War[88].

In the twenty-five year period prior to Cannae, the Carthaginians conquered much of Spain, under the able leadership of Hamilcar Barca, father of Hannibal. The new lands provided an »inexhaustible source manpower«[89], in the form of levies from the subject tribes of the country, allowing Carthage to end the use of mercenary troops[90]. It appears likely that the Carthaginians, lacking a reservoir of trained citizen soldiers, maintained standing armies in both Africa and Spain. While it is improbable that these were recruited by voluntary enlistment, they were essentially professional forces.

In most armies, the main division is between infantry and cavalry. This was not the case with Hannibal's army. The force which he commanded at Cannae may most conveniently be divided by nationality: African, Spanish and Celtic, each providing both cavalry and infantry.

The Africans:

The most important section of the Carthaginian Army was the African infantry[91]. Polybius refers to two bodies of Africans, one of light infantry, the other of heavy infantry. He refers to the former as »Logchephoroi«, which the dictionary translates as »Pikemen«. This has led some writers to believe that there was only one unit, with two roles. However, the »Logche« was a light javelin, not a pike, and so the »Logchephoroi« were clearly light skirmishers, distinct from the heavy infantry. Their equipment, javelins, sword and shield[92], was imitated by the Velites[93], introduced by the Romans in 211 BC as a result of the poor performance of their skirmishers against the Carthaginians previously.

The African heavy infantry fought as a phalanx[94]. By the time of Cannae, they »were equipped with Roman armour and weapons, for Hannibal had fitted them out with the finest of the arms he had captured in previous battles«[95]. Lazenby[96] takes this to mean that they were now swordsmen. However, at this time the Roman Army was still mainly armed with long thrusting spears, the standard weapon of the phalanx, and so these would have been the weapons taken by the Africans. Both units of Africans appear to have been elite forces. Hannibal repeatedly used the light infantry as »commandoes«, and the heavy infantry always displayed »perfect discipline«[97].

The second African component of Hannibal's army was the Numidian cavalry, provided by native kings allied to Carthage. The Numidians were famed for their excellence as light cavalry[98]. They wore no armour, but relied for their protection upon a light shield[99] and the speed of their ponies. Their role was that traditional of such troops — they would harass the enemy with their javelins, and avoid attacks by dispersing and withdrawing, only to wheel round and charge again[100]. In the face of such tactics, the ill-trained Roman cavalry would have been helpless[101].

The Spaniards:

Carthage had long employed large numbers of Spaniards as mercenaries in her armies[102]. After the conquest of the country, the Carthaginians replaced these by subject levies. These levies consisted of infantry, both light and heavy, as well as cavalry.

The heavy infantry were named »Scutarii«, after the large oval shield (»Scutum«) which they carried[103], their only protection. Their weapons, a heavy javelin and short sword, had been adopted by the Roman Hastati during the First Punic War, 264-41 BC[104]. It is likely that their tactics were also adopted by the Romans, who, it may be suggested, were perhaps less adept at using these weapons and tactics than the Spaniards, who had created them. The light infantry, called »Caetrati« after their round shield (»Caetra«), appear to have had similar equipment to that later adopted by the Roman Velites[105].

The Spanish cavalry carried the Caetra, but wore no armour. Their weapons were two light spears and a sword[106]. Polybius calls them »bridled and steady«[107], and contrasts them with the loosely formed Numidians. They probably fought en masse[108], which accords with their use as »shock troops«[109] by Hannibal.

Although not under Carthaginian rule, the Balearic Islands provided numbers of soldiers for her armies. The traditional Balearic weapon was the sling, which could fire fist-sized stones to considerable distances. Their accuracy and skill were renowned[110].

Little else is known about the Carthaginian Army. The only evidence for unit sizes is a reference by Polybius to Spaniards organised into »Maniples«[111], presumably one hundred men strong. The soldiers are likely to have come from the poorer classes, for whom military service offered security and the chance of booty. The Spanish troops appear to have had native commanders[112], whereas the Africans' officers were probably Carthaginians. The sol-

diers may therefore have felt a certain amount of national feeling, certainly those Hannibal took to Italy remained loyal throughout the war. The Spaniards, in particular, had a reputation for being fierce and dogged fighters[113].

The Celts:

The final element of Hannibal's army was Celtic. When it arrived in Italy after the famous crossing of the Alps, the Carthaginian Army was only 26,000 strong[114], clearly insufficient to overcome the Romans. Hannibal immediately set about adding to his forces from the Celtic population of Northern Italy. The Celts had long been enemies of Rome, having sacked the city in 387 BC. As recently as 225 BC, a large Celtic army had invaded Central Italy, only to be destroyed at Telamon. Hannibal was able to recruit many thousands of men, eager to avenge this defeat.

Celtic society was ruled by a warrior caste[115], whose members, tall and muscular, loved to display their physical prowess[116]. Most Celts fought as infantry, equipped with a sword, one or two spears and a shield[117]. Shields, a warrior's main defence, were made of oaken planks[118], much stronger than Roman shields. While most Celtic infantry was »heavy«, skirmishers were also used. Their equipment appears to have included the sling, a common Celtic weapon, which was highly effective even against armour[119].

Celtic swords were longer than those used by the Romans, and were used to slash, rather than thrust. Polybius states that they bent easily, but the high quality of the many hundreds that survive suggests that this is incorrect[120]. The main disadvantage of the Celtic sword was that it required a considerable amount of space in which to swing it. This meant that Celtic formations had to be looser than Roman ones, such that each Celt faced two Romans. In addition, any pressure from the flank might compress the Celtic deployment, making it impossible to use the sword effectively.

The Celtic nobility, accompanied by their retainers, fought as cavalry[121]. Many wore shirts of chain-mail and metal helmets. Their main weapon was a heavy spear[122], which, combined with accounts of battles, shows that they were a »shock force,« rather than skirmishers or flank protectors.

The Celts are usually portrayed as having fought in an undifferentiated mass. However, it is likely that each tribe fought as one body, sub-divided into a number of clan groups. No evid ence survives for the size of these clans, but the widespread use of decimal systems in antiquity suggests that they were probably about one hundred men in size, the same as the Roman Maniple.

Celtic warriors had a reputation for fickleness and short-lived enthusiasm[123]. They were considered to lack order and stamina. However, this appears to be an exaggeration. At the battle of Telamon, 225 BC, the Roman soldiers were terrified by the order and steadiness with which the Celts deployed and fought, despite being attacked from two sides[124]. This was not the only time that the Celts confounded their detractors. It is probable that many of those who joined Hannibal were veterans of Telamon and of the many other actions of the recent Roman attempts to conquer Northern Italy. Their weapons skills and bravery are likely to have been of a high order.

The description of the Carthaginian Army given above exhausts the meagre ancient evidence. Of itself, it is insufficient for an adequate analysis. However, it is possible to use it as a foundation for attempts to fill the gaps through logical argument on probabilities.

It appears likely that most of the man in Hannibal's army were professional soldiers of some years standing and had considerable experience of war. They had fought over all types of terrain, against a variety of different enemies, each with their own unique approach to war-

fare. This appears to have produced an army of great flexibility and technical ability. The result was that the Carthaginian Army became an interlocking force composed of five parts: a highly efficient skirmish arm, able to protect friendly forces and harass the enemy; a solid force of heavy Spanish and Celtic infantry, able to engage and pin the main enemy attack; an elite unit of African infantry, which Hannibal drilled to perfection in order to attack the exposed flanks of the engaged enemy line; Numidian light cavalry, capable of pinning enemy cavalry and of exploiting pursuit to the full; and Spanish and Celtic cavalry, trained to sweep away any opposition and fall upon the exposed rear of the engaged enemy infantry line.

The greatest weakness of the Roman Army was the absence of a trained officer corps, the consequence of posts being held by annually elected magistrates with limited experience. The Carthaginian Army seems to present a complete contrast. Hannibal had been with the army in Spain for twenty years[125]. Most of his unit commanders are likely to have come from the small group of noble Carthaginian families which had chosen war, rather than commerce, for their profession. It may not be too fanciful to imagine Hannibal and his young companions spending many hours sitting around a camp fire, discussing tactics and stratagems until far into the night. The result would have been that the Carthaginian commanders always knew exactly what Hannibal would want of them in a particular situation and so could act quickly and efficiently, without having to wait for orders. This was to have important consequences at Cannae.

Conclusion:

The contrast between the Roman and Carthaginian Armies could hardly have been greater. The Roman Army was a militia force, led by inexperienced commanders, relying upon a standard drill to defeat the enemy, incapable of responding to changing circumstances. The Carthaginian Army was a professional body, led by professional commanders. The technical skills of the organic parts listed above were high and, through various combinations of these parts, it was capable of great flexibility. Through applying the techniques of internal analysis, it has been possible to develop a true understanding of these armies, obscure in previous analyses. With this more accurate understanding, it is time to look at the battle itself, to discover the reality of Cannae.

What would be the result when Hannibal's skilled skirmishers met the Romans' hastily-armed servants? What the result when the young socialites in the Roman cavalry were faced with the shock troops of the Spanish and Celtic cavalry? How would the Roman militia fare against the Africans, honed by years of experience?

IV

The characteristics of the Roman and Carthaginian Armies have been analysed in the previous sections. However, theory without practice has little value. Understanding of the armies may be completed by a investigation of the battles which preceded Cannae. Battles cannot be understood in isolation, for the course of a battle is the product of the interplay of the characteristics of the armies involved. If the characteristics remain constant, the pattern resulting from their interaction will usually also remain constant. This often allows the course of a battle to be predicted. Cannae, 216 BC, was the second »set-piece« battle of the Second Punic War. It is therefore necessary to examine the first battle.

Battle of the River Trebia, 218 BC:

The River Trebia is a minor river in Northern Italy. The Roman and Carthaginian Armies

met here late in 218 BC, following Hannibal's crossing of the Alps. The best account of the battle is that of Polybius[126], which I follow here. The Romans fielded two Consular armies, each of two legions plus an equal number of allies, a total of 30,000 heavy infantry, 6000 skirmishers, and 4000 cavalry. Hannibal deployed 20,000 heavy infantry, 9000 skirmishers, and 11,000 cavalry. Of the infantry, 12,000 were African and 8000 Spanish, while there were 6000 Spanish and Numidian cavalry[127]. The remaining 9000 infantry and 5000 cavalry were Celts, recruited after Hannibal's arrival in Italy.

The Romans deployed their cavalry on the flanks of the infantry. Following standard practice, it is likely that the Citizen cavalry were all on the right flank, the Allied all on the left. Rather than split the Consular armies, by placing all the legions in the centre and the allies on the wings, the Romans probably deployed the armies adjacently, as pairs of legions flanked by their attached allies. Hannibal appears to have placed the Celts in the centre, flanked by the Africans. No mention is made of the Spanish infantry, they were probably mixed with the Celts as »stiffening«. The Carthaginian cavalry were divided equally between the wings.

The battle began with skirmishing as the armies deployed. The difference in quality between the Roman and Carthaginian light infantry has been noted. This estimate is confirmed by Polybius, who remarks that »the Carthaginians proved themselves far more effective«. The Carthaginian cavalry then charged on both flanks. These soldiers have been identified as »shock« troops, whereas the Roman cavalry was primarily a social organisation, with the limited role of protecting the flanks of the infantry. Although Polybius tactfully states that it »fell back«, it appears that the Roman cavalry fled at once, leaving the flanks of the legions exposed.

The flanks of the Roman infantry were immediately attacked by the African infantry and Numidian cavalry, while two thousand Numidians fell upon the rear of the Roman line from an ambush position. The Roman soldiers were probably average in quality, such that they would not rout easily, but would fight a solid defence. It would therefore have taken time for the disorder caused by the flank and rear attacks to spread along the Roman lines. Opposed to the centre of the Roman line were the Celtic and Spanish infantry. Since most of the Carthaginian infantry had been deployed against the Romans' flanks, the 10,000 men of the centre would have been faced by all 30,000 Roman legionaries. The superior quality of the Spaniards, and the ferocity and occasional stamina of the Celts have been noted. Although 10,000 Romans broke through the centre of the line, Polybius makes it clear that this required a great effort. The rest of the Roman army was destroyed.

This brief examination of the battle of the Trebia has served to confirm the strengths and weakness identified in the previous analysis of the Roman and Carthaginian Armies. The particular points that are emphasized by the battle are the ineffectiveness of the Roman cavalry, the vulnerability of the flanks of the legions and the inability of the Romans to change their plan in response to an unexpected threat. On the Carthaginian side, the need to concentrate forces against the flanks of the enemy led to a dangerous weakening of the centre.

Preparation for 216 BC:

There was little either the Romans or the Carthaginians could do with regard to the battle on the flanks. The number of Romans liable for service as cavalrymen was comparatively small. The heavy casualties of 217 BC and the need to field legions in other theatres meant that the Romans could not increase the proportion of cavalry in their armies. Hannibal too was unable to raise more cavalrymen from his Celtic allies. The only change either army could make was in the centre.

For the campaign of 216 BC, the Romans put an unparalleled eight extra-large legions into the field against Hannibal[128], twice the number at the Trebia. Despite the unanimous testimony of the ancient sources, some modern scholars prefer to believe that there were only four legions. Their main argument is that »Hannibal's tactics at [Cannae] hardly seem practicable if the Roman forces [. . .] were almost twice as numerous as his own«[129]. This is unacceptable for two reasons. Firstly, it assumes that Rome had learnt nothing from the Trebia and made no attempt to employ her superior manpower. Secondly, it assumes that a larger army cannot be annihilated by a smaller, despite the frequency of such occurences. It is assumptions such as these that have undermined the credibility of military history.

The eight legions plus attendant allies at Cannae would have had a total of some 57,000 heavy infantry, 14,000 skirmishers and 6400 cavalry: the figures given by Polybius[130] are clearly rounded. Four of the legions were newly raised. The Romans were straining their resources of manpower to the utmost. With another nine legions deployed in other theatres[131], almost ninety percent of Roman citizens of military age were either serving or had already been killed[132]. The best men would have been conscripted already. Those recruited in 216 BC were therefore probably less experienced and enthusiastic than was normal. In addition, it is likely that few of the loyal Latins were left, forcing the Consuls to levy troops from the states of Southern Italy[133]. As has been noted, the peoples of this region had been conquered only a few decades before and were barely loyal. The quality of the forces raised was probably considerably lower than average.

Hannibal received no reinforcements from Carthage. At Cannae, his army of 40,000 infantry and 10,000 cavalry[134] was little larger than it had been on the Trebia. All of the extra men, as well as the replacements for the casualties of 217 BC were Celts, who now made up over half the army[135]. While Hannibal could deploy more men in his centre, this was off-set by the increase in the size of the Roman infantry force. It is probable therefore that Hannibal attempted to improve the quality of the Celts in order to redress the balance. The Carthaginian Army was largely composed of professionals. After two years in such an environment, it is likely that the Celts would have absorbed some of the technical skill and stamina of their fellow soldiers.

On the eve of Cannae, therefore, the Roman Army was largely composed of new recruits, men with considerably lower skill and spirit than those at the Trebia, two years before. The only improvement was in the mass of troops available. While the Carthaginian Army too was larger, the improvement in the quality of the Celts and the repeated successes of the previous two years are likely to have brought the skill and spirit of Hannibal's soldiers to an even higher level than that of 218 BC. A Carthaginian victory in the ensuing battle could have been predicted.

Battle of Cannae, 216 BC:

Command:

The ancient sources, written fifty and more years after the event, depict the Roman commander, Varro, as a demagogue, ignoring the cautious advice of his more experienced colleague, Paullus, and bringing defeat upon himself through his impetuosity. This has been accepted by many modern scholars. However, a number of pieces of evidence suggest that this picture is a fabrication.

Varro was the first member of his family to hold the Consulship. It was virtually impossible to reach this office without considerable support from one of the noble factions in the Senate[136]. It seems likely that Varro was a protege of the faction of the Aemilii and Cornelii, whose members included Aemilius Paullus, his colleague in 216 BC[137]. Since his political

carrer depended completely upon his following the »party line«, it is extremely improbable that Varro would act other than on the advice of his political benefactors.
Moreover, analysis of the campaign suggests that the battle may have been fought on the day Paullus, not Varro, was in command. Firstly, Paullus commanded the right wing at Cannae. By Roman tradition, this was the position of honour, always reserved for the overall commander. Had Varro been in command, he, not Paullus, would have commanded the right wing. Secondly, it might be expected that the man responsible for the catastrophic defeat at Cannae would have faced great hostility from the Senate, all the more in view of the savage criticism levelled at the generals defeated earlier in the war. Yet, upon his return to Rome, Varro was publicly thanked for not having »despaired of the commonwealth«[138], and was retained in important military commands for nine more years[139]. Such a contrast would seem inexplicable, unless Varro had not actually been in command on the day of Cannae.
The transfer of blame from Paullus to Varro appears to have been made for political reasons. The Aemilii Paulli were part of the political factions which claimed the credit for the eventual defeat of Hannibal, and so responsibility for Rome's greatest military disaster would have tarnished this image. Paullus' grandson, Scipio Aemilianus, was the benefactor and close friend of Polybius. It is unlikely to have been difficult for Scipio to influence the historian to make Varro the scapegoat in his account of the battle, and so clear the reputation of the Aemilii.

Deployment: (Figure 2, Phase 1)
As argued in part I, Polybius' account of Cannae[140] is probably accurate for the deployment of the two armies and for the general course of the battle. The following is therefore broadly based upon his narrative.
The Romans deployed their cavalry on the wings of the infantry, 1600 Citizen cavalry on the right, 4800 Allied cavalry on the left[141]. The cavalry, personally commanded by the Consuls, appears to have been dismounted[142]. This may have been an attempt to prevent a repeat of their flight at the Trebia. Alternatively, the Romans may have believed that this improved their ability to withstand the charge of Carthaginian cavalry. Hannibal is reported to have commented that the Romans »might as well have delivered them up to him in chains«[143].
The Roman Army at Cannae consisted of four Consular armies, those of Paullus and Varro, and those of the Consuls of 217 BC, Servilius and Regulus. Each army consisted of two legions and an equal number of allies. Rather than split these armies, the Romans probably deployed them adjacently, forming a solid line of infantry. This allowed each commander to command his own army. In addition to the legions of their own armies, Paullus and Varro also commanded the cavalry on the right and left flanks respectively. This implies that their armies, raised only a few months before, were those on the ends of the infantry line, while the more experienced armies of 217 BC were in the centre.
The Roman infantry were deployed more deeply than usual[144], probably a little over thirty men deep, giving a frontage for the whole infantry line of about one mile. This may have been due to limitations of space on the battle-field, but it is more likely that the intention was to give added weight to the attack against the Carthaginian centre. Such depths were not unknown in Greek warfare. While greater depth was of little value for a line of swordsmen, such as the Hastati, a phalanx of spearmen gained greatly from the »gigantic physical and moral pressure exercised by the rearmost ranks«[145]. The Roman commander may therefore have decided to dispense with the preliminary wearing-out phase of the Hastati. This

had the further advantage of simplifying the Roman battledrill. The poor quality of the legions would probably have resulted in severe disorder had the standard drill been used. Instead he placed his phalanx in the front-line, hoping that its enormous mass would speedily overwhelm the enemy.

Hannibal deployed his Celtic and Spanish infantry in the centre, flanked by the African infantry. On the wings he placed his cavalry, all 6500 heavy cavalry on the left, opposite the 1600 Citizen cavalry, and all 3500 Numidian cavalry on the right, facing the 4800 Allied cavalry[146]. By this means, Hannibal achieved a decisive superiority on the left, while the Numidians pinned the right through their skill as skirmishers.

The line of the Celtic and Spanish infantry curved out towards the Romans, thereby forming a crescent[147]. This was probably the bait in the trap, for it would have focussed the Romans' attention on the centre and distracted them from the strength of the Carthaginian wings. The crescent formation was also designed to absorb the impact of the Roman attack, for only the centre of the Roman phalanx would come into contact at first. The Roman wings would not swing forward, for this would disorder their fragile formation. The wings would only come into contact as the centre pushed back the Celts and Spaniards in front of them, resulting in a slow and exhausting advance. Hannibal deliberately made the centre of the crescent deeper than the rest[148], in order to make the Roman advance as difficult as possible. He also deployed the Celts and Spaniards in alternate units[149], so that the steadier and more experienced Spaniards could anchor the line.

The African infantry was divided between the wings of the crescent[150]. Rather than being deployed in line, facing the Romans, they were in column[151]. The Celts and Spaniards are likely to have received orders to conduct a fighting withdrawal, thus bringing the Romans between the units of Africans. All that it then required was for each African to turn to his left/right for the columns to become phalanxes facing the Romans' exposed flanks[152].

The Battle:

The battle was begun by the skirmishes of the light infantry. As predicted, the Romans, despite a fifty percent superiority in numbers, were unable to gain an ascendancy[153]. It is revealing that exponents of mass, such as von Schlieffen[154], dismiss this phase of the battle as of no importance. Rather, it is likely to have reminded the Romans of the disparity between the quality of the enemy and their own. This may have begun to undermine their confidence in victory.

The next phase of the battle (Figure 2, Phase 1) was marked by the charge of the 6500 Spanish and Celtic cavalry, under Hannibal's able lieutenant Hasdrubal, against the 1600 dismounted Citizen cavalry[155]. The poor quality of this latter force has been noted, particularly the expectation that it would only fight minor skirmishes. Polybius reports that the Romans expected »the usual formal advance and withdrawal«[156]. By contrast, the Carthaginian cavalry were shock troops. The Romans were rapidly defeated, suffering eighty percent casualties[157]. This suggests they routed at the first contact, as predicted. The shock of being unexpectedly and ferociously charged was too much for them.

The Carthaginian heavy cavalry are unlikely to have become disordered in their brief contact with the Citizen cavalry. Rather than charge the rear of the Roman infantry line, Hasdrubal took his force across the battle-field and attacked the Allied cavalry[158] from behind. This seems to have been a vital part of Hannibal's design as the critical factor in his battle-plan was a decisive flank attack by the African infantry; and, for this to succeed, it was vital that there be no danger of these being themselves attacked from the rear by the Roman cavalry. The Numidians were sufficient to pin the Allied cavalry, but would not have been able

to withstand a concerted charge. The destruction of this force was therefore of greater importance than an attack against the rear of the Roman line. The Allied cavalry fled even before Hasdrubal came into contact[159]. The shock of this unexpected attack from the rear was too great.

Meanwhile, the masses of infantry in the centre moved forward[160]. The manoeuvres of the inexperienced legions were probably quite slow. The 57,000 legionaries were opposed by about 25,000 Celts and Spaniards. The sheer weight of the Roman line pushed the Carthaginian centre back[161]. The crescent become straight, then concave (Figure 2, Phase 3). As the Roman centre pushed forward, sensing victory, the flanks hung back. As has been argued, the men on the wings of the Roman line were the least experienced in the army and included many allied contingents hostile to Rome. The confidence of the soldiers here had already been shaken by the rapid defeat of the cavalry protecting them, and now they were probably becoming increasingly perplexed by the heavily-armed Africans on their flanks, who were equipped as Roman soldiers. It is possible that these parts of the line began to waiver and disintegrate, with men drifting back from their posts. Against this already dispirited and disordered body of men, the Africans launched their flank attacks[162]. At this instant, the Carthaginian heavy cavalry charged the rear of the Roman line[163].

The traditional account states that the Romans, now surrounded, defended themselves with desperate courage, until the pressure from all sides compressed them into a helpless mass, where they were slaughtered[164], 45,500 infantrymen being killed[165]. This account does not ring true. Only 8000 Carthaginians were killed[166], far to few for such a desperate struggle. Secondly, Hannibal was hoping to encourage Rome's allies to revolt, and on several occasions had made a point of releasing prisoners from these states. The slaughter of thousands of potential allies at Cannae would have been in sharp conflict with this policy. Finally, the Carthaginian cavalry would have been too few in number to seal the rear of the Roman line and so prevent men fleeing.

It appears probable that the wings of the Roman line broke at the shock of the Africans' attack. The line would then have crumbled. Armies tend to rout from the rear. It has been suggested above that the troops at the rear of the Roman line were the Hastati and the defeated skirmishers, the youngest and least experienced of the legionaries. When they realised the disaster that was happening on the wings and were charged by the Carthaginian cavalry, against whom their Pila were ineffective, it is likely that they too fled. The men at the centre of the Roman line, however, were too deep into the trap to escape, and it is probable that most of them were killed.

The Lessons of Cannae:

Many theorists have attempted to draw lessons from the battle of Cannae, but their conclusions were based upon inadequate analyses. None understood the true nature of the Roman and Carthaginian Armies and so they were unable to perceive the reality on Cannae. I have attempted to make such an analysis and so gain a proper understanding of the factors which shaped the course of the battle. This understanding allows valid conclusions to be drawn.

Hannibal's victory at Cannae appears to have been due to three basic factors. The first of these was the technical superiority of the Carthaginian Army. The weapons skills and battlefield manoeuvres of Hannibal's troops were considerably better than those of the Romans. However, this was not sufficient in itself to secure victory. Had Hannibal adopted a conventional deployment at Cannae and attempted to fight a traditional battle of attrition, his forces would have been overwhelmed by the great numerical superiority of the Roman Army.

The second factor was the superiority of the Carthaginian generalship. Hannibal deployed his army with his strongest units opposing the weakest parts of the Roman Army. Thus he directed his heavy cavalry against the Citizen cavalry and the African infantry against the weak flanks of the legions. In addition, the Carthaginian subordinate commanders were able to exercise a control on their units beyond the capacity of their Roman counterparts. However, had the Roman Army been of its eventual quality, their cavalry would have held out longer and the wings of the Roman infantry line would not have disintegrated as quickly. Since the Celts and Spaniards were at the limit of their resistance when the Africans attacked, any delay would have led to the collapse of the Carthaginian centre, as at Ibera[167]. On this occasion, the Roman legions, having defeated the enemy centre, were able to turn and repulse the attacks from the flanks[168]. Thus the tactics of double envelopment alone were not enough to ensure victory; it is a question of timing and rhythm, the ingredients of Tempo.

The third factor in Hannibal's victory was the »moral« factor. According to Napoleon, »The moral is to the physical as three is to one.« The moral state of the Roman Army was poor: much of the army was made up of raw recruits and disgruntled Allies, while the cavalry had no expectation of serious combat. The Carthaginians directed their greatest energies against the morally weakest parts of the Roman Army. The entire body of heavy cavalry was launched against the Citizen cavalry and then against the rear of the Allied cavalry. The African infantry attacked the most newly raised and least loyal of the Allied infantry. The Carthaginian cavalry attacked the rear of the Roman line, where the Hastati, the youngest and least experienced legionaries were stationed. On each occasion, the Roman soldiers fled at or even before the first shock of contact, revealing that their collapse was due to moral, rather than physical, factors.

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[168] The fact that Hasdrubal, in Spain, was using the same tactics as his brother Hannibal, in Italy, suggests that these tactics hat been developed by their father, Hasdrubal Barca, rather than by Hannibal himself.

Figure 1: Diagrammatic Representation of a Roman Legion

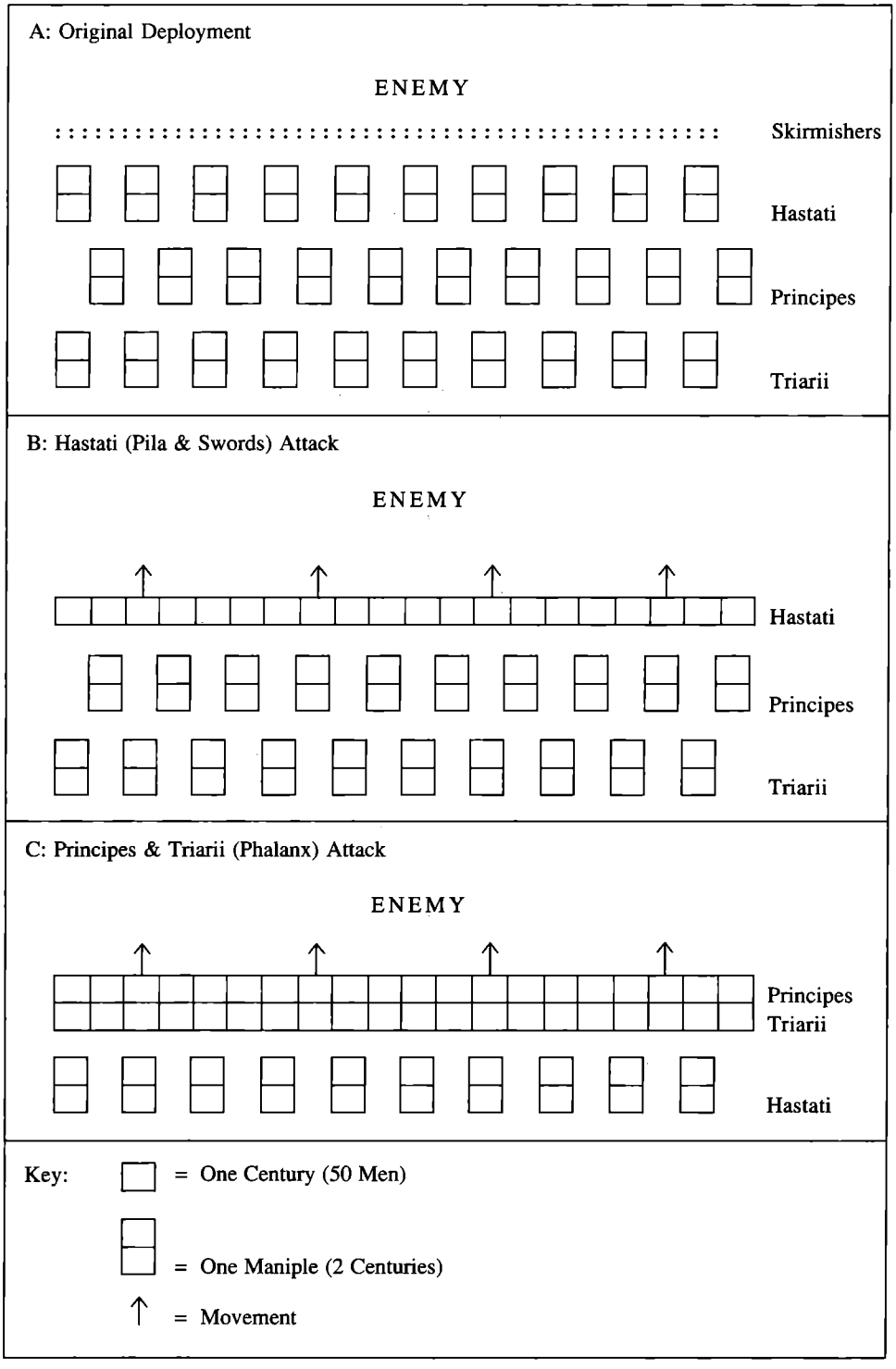
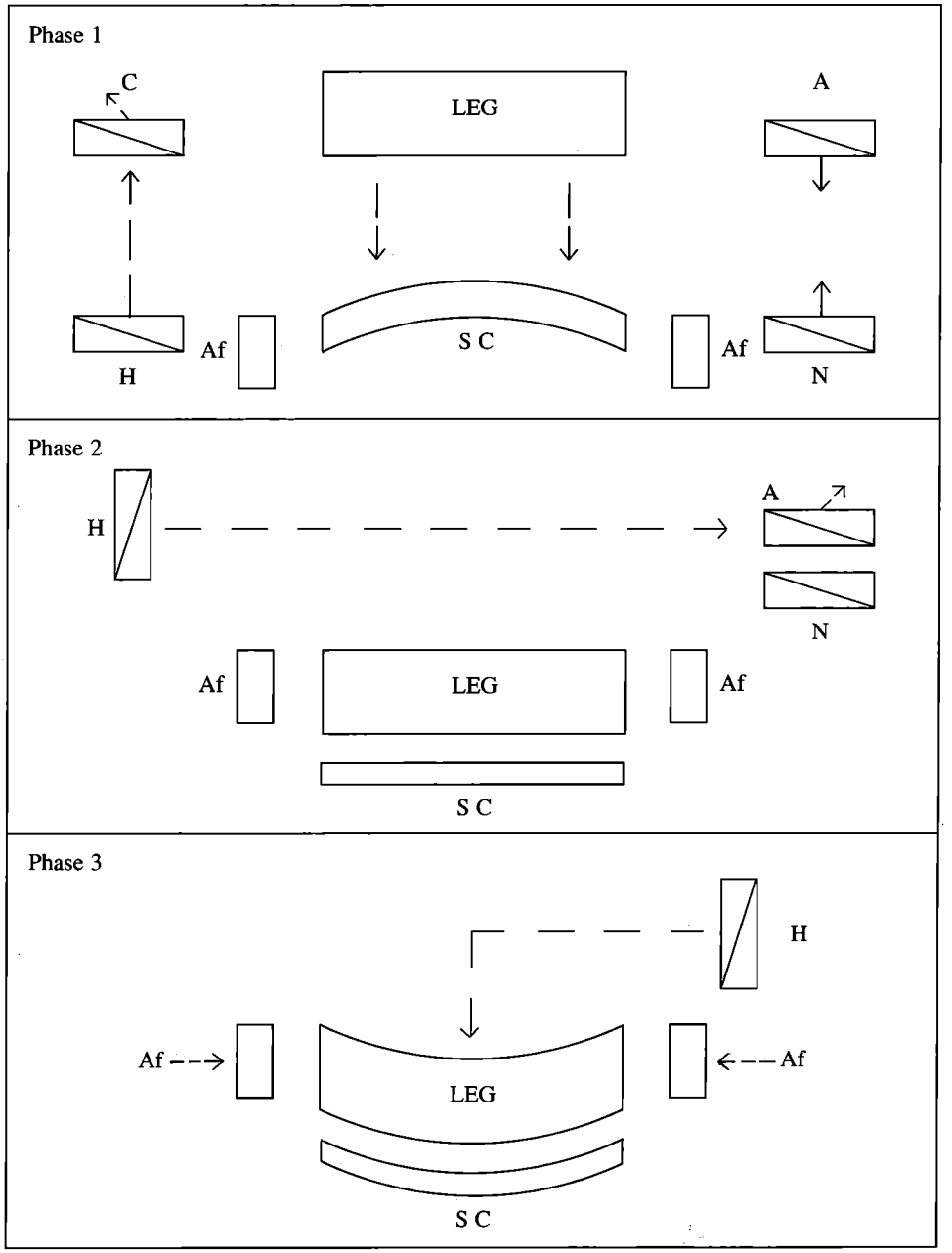


Figure 2: Diagrammatic Plan of the Battle of Cannae



Key:

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LEG	Legions	S C	Spanish & Celtic Infantry
C	Citizen Cavalry	N	Numidian Cavalry
A	Allied Cavalry	H	Hasdrubal's Cavalry

Nachkriegs-Semester

Studierende und Studienbedingungen nach Kriegsende

Mit einer Rede von **Herbert Schöffler** vom 28. 10. 1945, einem statistischen und dokumentarischen Anhang sowie einer Bibliographie

Von **Waldemar Krönig** und **Klaus Dieter Müller**

1990. IV, 372 Seiten. Geb. DM 58,—

Auswertung einer Umfrage bei rund 1.650 Personen, die zwischen 1945 und 1954 an einer Westdeutschen oder Westberliner wissenschaftlichen Hochschule eingeschrieben waren und von denen etwa die Hälfte antworteten. Viele von ihnen gewährten wesentliche Zusatzinformationen in Form ergänzender Briefe, wertvoller Dokumente, Studienbüchern, Ausweisen, Bescheinigungen aller Art, Privat- und Sonderdrucken sowie raren Veröffentlichungen. Es entsteht ein Bild fruchtbarer Spannungen und Interessen, die auf dem Nebeneinander so vieler Jahrgänge neben ganz jungen Abiturienten beruhten.

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Römische Herrschaft und einheimischer Widerstand in Nordafrika

Militärische Auseinandersetzungen Roms mit den Nomaden

Von **Andreas Gutsfeld**

1990. IV, 215 Seiten mit 1 Abbildung (Heidelberger Althistorische Beiträge und Epigraphische Studien, Band 8). Kart. DM 48,—

Bis heute hat die gängige Meinung, Nordafrika sei in der römischen Kaiserzeit ständig von rebellierenden Stämmen erschüttert worden, wenig von ihrem Einfluß eingebüßt. Die Untersuchung der einschlägigen Quellen zwingt indes zu einer entscheidenden Korrektur dieser Position. Sie zeigt, daß die Gewalt in Wirklichkeit durchweg von römischen Truppen ausging, die bis zum Ende des 2. Jh. n. Chr. eine offensive, ja expansive Grenzpolitik auf Kosten freier Stämme betrieben. Die in der Regel als Nomaden im Römischen Reich lebenden nordafrikanischen Stämme waren dagegen kaum in der Lage, einen permanenten Unruheherd zu bilden.

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