Weapons and Warfare

Greek and Hellenistic Warfare from Alexander to Rome

DATES 336-30 B.C.E.

POLITICAL CONSIDERATIONS

In the early fourth century B.C.E., Greece did not exist as a unified nation but as a number of separate, often hostile, city-states struggling among themselves for power. Although the major cities of Sparta, Thebes, and Athens had warred against each other for control of the Hellenic peninsula, none had been able to establish permanent dominance. Despite their mutual antagonism, all of these separate political entities still identified themselves as "Greek," based on their shared history, traditions, and customs. To the ancient Greeks, other cultures or nationalities were, of necessity, barbarian and inferior. This categorization extended not only to the Celts, the Gauls, other aggressive tribes to the north, and radically different cultures to the east but also to other kingdoms, such as Macedonia, that shared much of their culture with Greece. It is ironic, therefore, that the greatest Greek empire of all time arose from the marginally barbarian region of Macedonia.

Claiming Greek status through alleged descent from the legendary Greek hero Heracles, Philip II of Macedonia began his rise to dominance in 352 B.C.E. and by 348 B.C.E. ruled all of Greece north of Thermopylae. Using a combination of wealth and political savvy backed by military strength, Philip eventually defeated the combined armies of the Greeks at Chaeronea in 338 B.C.E., ending the era of the independent Greek city-state. Despite his victory and his obvious leadership qualities, Philip was never entirely accepted as an authentic Greek. In an attempt to win favor with Athenians and other Greek elites, he announced an invasion of Persia to liberate the Greek cities seized by the Persians during the previous century. Philip’s plans were cut short by his assassination in 336 B.C.E. Philip’s son, Alexander, only twenty-two years old when he assumed the Macedonian throne, inherited his father’s army, his uneasy relationship with the Greeks, and his dreams of empire.

MILITARY ACHIEVEMENT

Military empires never last forever. Like human beings, empires come into being, grow, mature, falter, and eventually perish. In little more than a decade, from 332 to 323 B.C.E., the empire of Alexander the Great of Macedonia grew to encompass most of the known world. After Alexander’s death this vast empire splintered, fracturing into smaller kingdoms that struggled for power among themselves, eventually to be defeated one after another by the legions of the expanding Roman Empire.

Inspired by the idealized heroes of Homer’s epic poems, Alexander utilized both strategy and charismatic personal leadership to effect an unbroken string of major victories. The Battle of the Granicus River in 334 B.C.E., fought near the ancient ruins of Troy, was the first of three major battles between Alexander the Great and the Persian Empire. After Alexander defeated the Persians and a large force of Greek mercenaries led by Memnon of Rhodes, city after city opened to him. In 333 B.C.E., Alexander’s army and the Persian forces of Darius met at Issus, in what is now coastal Turkey. The Persians’ left wing collapsed under an assault from Alexander’s cavalry, the Persian line was flanked, and the Persian emperor, Darius the Great, fled.

After being crowned Pharaoh in Egypt, Alexander returned to the Persian campaign. In 331 B.C.E., Darius positioned his scythed chariots on flat ground near Gaugamela. As the Macedonians seized reins and slew horses and charioteers, Darius was pushed off the edge of the plain onto uneven ground. Darius fled again, only to be assassinated by one of his own couriers. In the succeeding three years, Alexander’s army completed the conquest of the Iranian plateau. By 326 B.C.E., Alexander had reached the Hydaspes River in Punjab, India, where he defeated Porus and his war elephants in battle. Porus surrendered and pledged allegiance to Alexander.
If not the greatest military commander in the ancient world, Alexander was one of the best. He was the son of one of the great military leaders of the ancient world and the pupil of Aristotle, one of the greatest philosophers and teachers of the ancient world. He inherited a great army and made it greater. Under his leadership, his armies conquered Persia, Anatolia, Syria, Phoenicia, Judea, Gaza, Egypt, Bactria, and Mesopotamia. Toward the end of his short life, he pushed the boundaries of his empire as far as India.

As in any extended empire, however, vastness worked against him. As Alexander acquired new territories, his men remained farther from home with every march and with every victorious battle. Hence, although Alexander wanted to continue eastward to the Great Outer Sea and the very ends of the earth, he was forced to turn back. After surviving twelve years of battle, Alexander the Great died in bed at his palace in Babylon in June, 323 B.C.E., either as a result of being poisoned or from disease. When asked on his deathbed to whom his empire should be given, he has famously been quoted as saying, “To the strongest.”

After his death, his empire was ripped apart by various factions attempting to be the strongest. In creating his own great empire, Alexander had destroyed the older, more stable empire of the Achaemenids, creating a vacuum of power ultimately to be filled by new rival kingdoms, all founded by members of Alexander’s inner circle of commanders, the Diadochi. These successors murdered Alexander’s son, broke pacts, and allowed a weakened Macedonia to be attacked by tribes of Gauls from the north. Antigonus I Monophthalmos and his descendants dominated the old kingdom of Macedon, and most of the old Greek city-states, until they were defeated at the Battle of Pydna in 168 B.C.E. The Attalid kingdom that ruled Pergamon ceded it to the Roman Republic in 133 to avoid a war of succession. The last remnants of the Seleucid Empire, formerly encompassing Babylonia and the eastern part of Alexander’s empire, were absorbed by Rome in 63 B.C.E. After Ptolemy and his descendants were accepted as successors to the ancient Pharaohs, their empire was finally conquered by Octavian (later Augustus) in 30 B.C.E. The reign of the last of the Hellenistic empires ended, and with it died Alexander’s dreams of a pan-Hellenistic world.

Like the lingering aftershocks after a major earthquake, the empires of Alexander’s successors could never rival the original. Yet the fact that they persisted for nearly three centuries, from 336 to 30 B.C.E., is a testament to the legacy of this great military commander and to the Hellenistic way of war.

WEAPONS, UNIFORMS, AND ARMOR

Although the ascendance of the Macedonian forces, especially under Alexander, was based on decisive generalship and intelligent use of cavalry, the emblematic weapon of the Macedonian infantry was the sarissa, a weighted and double-pointed, iron-tipped pike more than eighteen feet in length. Jutting forward from the Macedonian phalanx, the weapons of the first five rows of men all projected beyond the leading edge of the formation. With five spear points bristling in front of each phalangite, the massed sarissa could be a formidable offensive weapon, particularly if the entire phalanx advanced down an incline, lending momentum to the push, or charge. Defensively, the saurotēr, the counterweighted spike at the rear, could be planted in the ground to fend off an attack. Since phalangist troops used both hands to wield the heavy sarissa, they bore shields on their left arms on straps or harnesses. In close formation, each shield protected the man to the left, an arrangement covering most of the phalanx in a “shield wall” but leaving the extreme right open to a flanking attack. If the phalanx became scattered, the secondary weapon was a short sword.

The gastraphetes, or belly bow, developed by the Greeks around 400 B.C.E., was a significant advance in catapult technology. The operator would lean forward with his abdomen, pinning the weapon against the ground.
to force a slide backward.

![Crossbow](image)

Later Hellenistic infantry of the period used the *doru*, a shorter spear; curved short swords distinguished as the *kopis* and the *machaira*, depending on the direction of curve; and the *xiphos*, a double-edged sword. Defensive equipment included metallic or nonmetallic breastplates, leather shields covered in thin metal sheathing, and greaves to protect the lower legs. Helmets ranged from simple metal Boeotian hatlike helmets to complex Thracian models with cheek and nose protectors.

During this era, innovation in military technology was expressed in the development of siege engines. Building from the concept of the *oxybelēs*, a simple fixed bow, Greek and Hellenistic engineers developed advanced catapults using twisted sinews to increase power and range. Some of these machines were capable of launching 250-pound projectiles. Other innovations included the use of naphtha, or “flaming mud,” and a solar-powered heat ray reportedly invented by Archimedes on behalf of the Syracusans in 212 B.C.E. What was not invented could be borrowed. After capturing eighty battle elephants from King Porus at the Battle of the Hydaspes River, Alexander acquired one hundred more before returning to the west. Alexander’s Hellenistic successors made elephants the fad weapon of the era. Able to frighten horses and terrify men, trample infantry and cavalry alike, and even demolish wooden fortifications, elephants could charge at fifteen miles per hour. At that speed, however, they were hard to stop, and they often tended to run amok, trampling friend and foe alike.

A more successful borrowing was the cataphract, a rider and steed covered completely in chain mail or scale armor. Human cataphract armor could contain as many as fifteen hundred scales and might weigh nearly ninety pounds, while the horse armor usually consisted of large aprons of scales tied around the animal’s body. Originating in ancient Iran, the cataphract was widely adopted by the Hellenistic Seleucid Empire in Persia and by the Parthians, who used it victoriously against Roman forces in 53 B.C.E., with the defeat of Marcus Licinius Crassus at the Battle of Carrhae.

**MILITARY ORGANIZATION**

Although Greece is revered as the cradle of democracy, Alexander the Great was the undisputed ruler of the Macedonian Empire and its army. Parmenio and a few other well-regarded generals were Alexander’s close advisers. Under this level were commanders, the selection of whom was based on personal relations, familial ties, and political status. Because conveying orders during battle could be difficult, instructions were given to subordinates during frequent prebattle general staff meetings, so these commanders met personally with Alexander on a regular basis.

To reinforce emotional cohesion within fighting units, men were grouped according to geographic origin. Even officers were usually selected from the same districts as the common soldiers. In addition, a hierarchy of relative positions of honor encouraged bravery and prowess in battle. The most prestigious unit was the *hetairoi*—the
companions. Organized into regional squadrons made up of two hundred to three hundred soldiers and led by Alexander himself, the companion cavalry had originated in the horsemen of the Macedonian nobility, but membership later became based on skill, or techne, and character, aretē. This premier cavalry unit was always placed to the right of the line of battle, the place of highest honor in the Macedonian array. The Thessalian heavy cavalry, serving Alexander because he was tagos, or military leader, of Thessalia as well, deployed on the left flank.

Immediately to the left of the hetairoi were the noble-born royal guard. They were followed by the elite hypaspistai, or shield bearers, three subunits of one thousand foot soldiers each, made up of the best fighters selected from all the regiments. Then came six or seven battalions of foot soldiers, or pezhetairoi, each with perhaps fifteen hundred men. The order of the battalions was based on their past fighting performance. Place in line and even within cavalry, or hipparchy, lines reflected ranks of honor, spurring each man and each unit to outperform their fellow warriors.

The army of Alexander also included native Macedonian light infantrymen, ranking generally above mercenaries and consisting of javeliners, archers, and slingers. Macedonian control over the gold and silver mines of northern Greece provided the pay for thousands of additional mercenaries from various nations, so Thracians were hired as peltastai, or shield-bearing skirmishers, archers were recruited from Crete, and spearmen were hired from Phrygia. These mixed troops provided added strength and flexibility throughout Alexander’s conquests. Greek mercenaries were also used in the Macedonian expeditionary army, although these forces were mostly employed for garrison duty in the conquered provinces.

Later Hellenistic warlords often named individual units according to the colors of their shields to encourage unit pride and solidarity. For example, until after the Battle of Pydna in 168 B.C.E., when the Antigonid kingdom was crushed by Rome, units within the phalanx of the Antigonid armies had been designated as Chalkaspides, or bronze shields, and Leukaspides, or white shields.

DOCTRINE, STRATEGY, AND TACTICS

Iphicrates, a Greek general in the early fourth century B.C.E., likened the army to a human body, with light armored troops as its hands, the cavalry as its feet, the phalanx as its chest, and the general as its head. This organic integration is evident in the later armies of the Alexandrian and Hellenistic empires. Preferring professional troops over the part-time warriors of antiquity, Alexander the Great polished the skills of his men and units to perfection. He then developed an early form of combined-arms warfare in which each specialized unit could function as part of a synchronized whole. Alexander continued to use the modified Macedonian phalanx but combined its use with decisive cavalry attacks, subterfuge, intimidation of the enemy, swift retaliation against traitors, and the adoption of the new military technology of siegecraft.

Alexander’s battle tactics were planned to force the enemy into hurried and perhaps rash countermoves. His attacks generally consisted of a bold advanced right flank and a refused center made up of battalions of phalangites, with their long, staggered arrays of spear points pinning down the enemy infantry. Meanwhile, a fierce assault by the heavy horse companions, usually led by Alexander in person, would engage an extreme flank of the opposing forces, folding them back against the center in an action likened to a hammer hitting an anvil. The intensity of this initial charge was intended to break the spirit of the enemy. Victory often depended in large part on undermining the morale of an opponent, and toward this end, Alexander often employed unexpected maneuvers to surprise opposing forces. Generally ignoring the idea that favorable terrain was necessary to ensure victory, Alexander often chose apparently unsuitable ground from which to attack, a deceptive tactic intended to keep the enemy off balance. Another common tactic he used was to engage the enemy when his troops were fatigued by long marches or lack of reinforcements.
Alexander's Campaign Against Persia, 334-331 B.C.E.

The Greek concept of *metis*, cunning intelligence or deception, was traditionally controversial in warfare, as it seemed to conflict with the ideal of forthright, noble battle. However, the ancient Greeks of Homer’s epics had utilized it, and Alexander had no scruples in using deception, feints, and intelligence-gathering activities whenever possible. The Alexandrian and Hellenic armies often moved troops by night or behind lines of battle. Feints were used to divert the enemy’s attention, and false information could be provided to known spies. Alexander rarely used his elite cavalry directly against infantry, sometimes skirmishing along the flanks of the enemy to buy time while his infantry moved into position, as he did at the battle against the Malli. The Macedonian phalanx itself, usually sixteen men deep, could be transformed into a hammerhead formation of fifty or more ranks or unfolded into a wider and shallower line of battle.

The Hellenistic World, 185 B.C.E.

When facing elephants in battle for the first time at the Battle of the Hydaspes River, Alexander divided his force into two units. The first boxed in the enemy’s cavalry, forcing them into close quarters with their own elephants. When the Macedonian archers focused their fire on the elephants, the enormous creatures ran amok, trampling the Indian cavalry. After the elephants were finally exhausted, Alexander ordered his phalanx to advance in tight formation. Any enemy troops fleeing this advance ran into the remainder of Alexander’s army, commanded by General Craterus. This maneuver destroyed two-thirds of the Indian army.

Alexander also besieged fortified cities, as he did in 332 B.C.E., at the coastal city of Tyre. Having constructed a mole, an armored dock allowing siege engines to attack from a sea or river, the Macedonians poured into the city over bridges from siege towers based on the mole. They were met by tridents, nets, superheated sand, flaming missiles, and crows—giant fishing poles with hooks large enough to catch soldiers trying to scale walls. Eventually a two-pronged attack succeeded: Alexander led an assault to the seaward base of the city wall, while another contingent of Macedonians breached the wall and charged into the city. At the end of the seven-month siege, approximately seven thousand Tyrian men had been killed in battle. Another two thousand were hanged after the battle, and all of the city’s women and children were sold into slavery. In the later Hellenistic period larger, more complicated siege engines were invented, and yet most sieges were broken in traditional ways, through reliance on human attacks, surprise, and the use of traitors rather than sustained mechanical assaults.

Use of the Macedonian-style phalanx persisted into the Hellenistic wars against Rome, but failure to defend exposed flanks (as at the Battle of Cynoscephalae) and rash decisions leading to breaks in formation (as at Pydna) allowed the Roman troops to prevail at critical points in history. While the phalanx remained on battlefields throughout the Hellenistic period, wars had evolved into more complex operations, involving naval combat and siegecraft, cataphracts and elephant corps. Eventually, the limited availability of Greek conscripts in the east led to dependence on untrustworthy mercenary forces, while western Hellenistic armies were continuously weakened by internecine or barbarian wars. Local manpower and generalship decreased, paving the way for Roman supremacy.

That being said, the Romans were excellent absorbers of the best of other cultures. They adopted many elements of the Greek and Hellenistic world, ensuring that the techniques and tactics of the Alexandrian and Hellenistic armies would survive, at least in part, within the legions of the Roman Empire.

ANCIENT SOURCES

Because no one can go back in time to witness historic events, scholars of history in the present must rely on accounts recorded by eyewitnesses of the original events. Lacking such accounts, any sources originating close to the time of the events in question become the next best thing. Most contemporary accounts from the time of Alexander the Great have been lost. Only a handful of original fragments and the works of later, but still ancient, writers who based their histories on primary sources still exist.

http://history.salempress.com/doi/full/10.3331/WW_1024?prevSearch=greek%2Bphilosophy&searchHistoryKey=&queryHash=56aa34cf2a71cc4321f0...
Among the best ancient sources on Alexander are Plutarch’s *Life of Alexander* from his series *Bioi paralleloi* (c. 105-115; *Parallel Lives*, 1579) and works by Arrian (c. 89-155 C.E.), including the *Anabasis Alexandri* (early second century C.E.; *The Campaigns of Alexander*, 1893). Although he wrote nearly four centuries after Alexander’s death, Arrian is an important historian because he based his work on the writings of several of Alexander’s contemporaries, including Ptolemy, Callisthenes, and Aristobulus—works now all lost to time. Arrian’s writings also contain the most complete account of military rather than biographical aspects of Alexander, in contrast to Roman historian Quintus Curtius Rufus, who wrote his ten-volume biography of Alexander the Great in the mid-first century C.E. Of those original ten books, eight still exist in at least partial form, but Curtius Rufus focused his work on Alexander’s character rather than on solid factual detail.

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