

Lesson 3

Student Handout 3—Bombs, Bullets, and Bureaucracies: the Growth of Centralized States

During Big Era Six, from 1450 to 1800, “gunpowder empires” developed in some parts of the world. Historians have used this name to describe states that used firearms to expand their territories and control their own populations. In those 350 years, the largest land-based empires were:

- The Ottoman in the eastern Mediterranean region
- The Safavid in Persia
- The Mughal in India
- The Chinese under the Ming and Qing dynasties
- The Russian
- The Kanem-Bornu in West Africa
- The Austrian Hapsburg in Central Europe

Other, smaller states in Asia and Africa that used firearms technology were Japan, Siam (Thailand), Ethiopia, and Morocco.

In Western Europe, even with gunpowder weapons, no single, land-based empire was strong enough to take control of all Europe. Instead, intense rivalry in firearms technology and use led to the creation of numerous strong, centralized monarchies. These were closely-matched military competitors. Some of them turned their military power to building sea-based, that is, maritime, empires. Portugal, Spain, the Netherlands, France, and Britain built the largest overseas empires.

A strong, central government was necessary to bring together all the elements of modern warfare. Control over standing armies (rather than seasonal or temporary ones), artillery experts, access to supplies of metal, financial resources from taxation and lenders together reinforced the power of the state. Monarchs who gained power over local lords or seized new territory extracted taxes from farmers and from trade. These resources made them wealthier and therefore able to continue their military expansion. Supporting the rulers of these states were increasingly bureaucratic governments, that is, with officials who counted the population, gathered taxes, managed the state ministries (departments), and supplied the standing army. Power and riches, then, were the rewards of gunpowder warfare. The portraits of kings, queens, and emperors of these powerful states give an idea of their wealth and confidence.

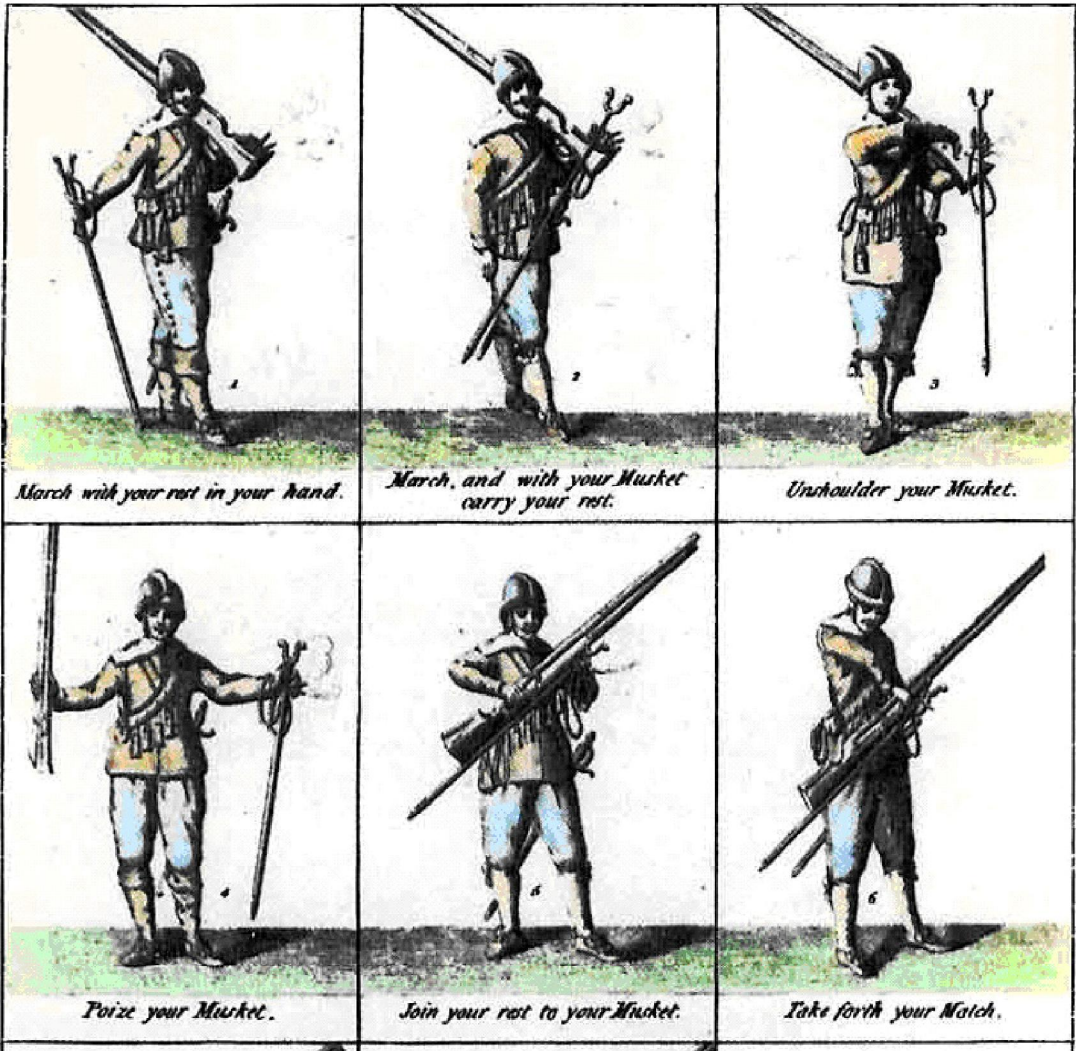
Social changes in the military were an important part of the transformation. Before the coming of firearms, the fighting in most states was done by male members of the elite class, that is, nobles or aristocrats, for example, knights in medieval Europe. These noble warriors often fought on horseback. Soldiers of the lower classes, including peasant farmers, frequently provided support or went to war with simple weapons like pikes. Among **pastoral nomadic** peoples, warriors on

horseback armed with bow and arrow or other weapons had great mobility and often overran defensive armies of foot soldiers.

Gunpowder weaponry, however, tipped the balance in favor of centralized states that had enough financial resources to afford to equip large numbers of troops with cannons and handguns. These states conquered smaller ones that did not have these weapons, or not enough of them. Rulers of centralized states used guns to break the power of local aristocrats and nobles, ending their careers as professional fighters. The long era of the power of pastoral nomadic states, such as the Mongol empire, came to an end. Cavalry warriors armed with bows and arrows could not stand up against the fire of rows of artillery. And as the costs of firearms went down, rulers recruited larger numbers of peasants to serve in standing armies.

In gunpowder states, foot soldiers were drawn from the common social classes, but modern methods of military drill made them into loyal armies able to march and maneuver in a unified body in response to commands of officers. Military leaders in Japan may have been the earliest to use these methods. In the Netherlands, Prince Maurice is recognized for his role in modern military organization and professional soldiering. He developed highly-organized drills carried out by groups of soldiers divided into battalions, companies, platoons, and squads. In these drills, troops with muskets practiced over and over again the many steps of preparing and firing their guns. These drills were designed to make soldiers into cohesive fighting forces that would obey their officers automatically. The image above shows just six out of the forty-eight steps in carrying, presenting, loading, and firing a musket. Soldiers were trained to carry out these steps with their weapons in sync with other soldiers in a massed group. Much like workers on an assembly line, soldiers memorized the exact position for marching, holding their feet and hands, and carrying out each muscle movement with precision. Soldiering was transformed.¹⁶ The new troops, called infantry, became the backbone of European armies. The drills made them professional soldiers who served growing states at home and abroad.

¹⁶ “The Musket Drill,” created by J. E. Quest using frames from H. Hexham’s *The Principles of the Art Militaire*. Source: <http://www.geocities.com/Yosemite/Campground/8551/drill.html> (no longer available).



Change brought by gunpowder weapons	Reason for the change	Effect on the state/government
