#### Question 2

Analyze various ways in which technological developments contributed to the expansion of state power in the period 1450 to 1600.

## 9-8 points

- Thesis explicitly explains various ways in which technological developments contributed to the expansion of state power. Thesis may appear in conclusion.
- Organization is clear, consistently followed, and effective in providing one or more well-developed causal linkages to increased state power.
- Essay is well balanced, discussing both technological developments and expansion of state power, though it may offer less discussion of one or the other.
- Provides evidence of two or more technological innovations in detail.
- May contain errors in fact or chronology that do not detract from the argument.

## 7-6 points

- Thesis explains various ways in which technological developments contributed to the expansion of state power. Causal linkage is present but may be less evident.
- Organization is clear and effective but may be less consistent by providing one or more developed linkages to increased state power.
- Essay is relatively balanced, discussing both technological developments and expansion of state power, though discussion of one or the other may be clearly less developed.
- Provides evidence of two or more technological innovations.
- May contain an error in fact or chronology that detracts from the argument.

### 5-4 points

- Thesis attempts to explain various ways in which technological developments contributed to the expansion of state power, but the explanation may be vague or confused.
- Organization is clear but may only partly provide causal linkage to increased state power.
- Essay may be imbalanced, focusing on technological developments and making only general reference to growing state power or vice versa.
- Provides evidence of at least one technological innovation.
- May contain a few errors in fact or chronology that detract from the argument.

### 3-2 points

- Thesis may restate the prompt or offer little or no explanation of various ways in which technological developments contributed to the expansion of state power.
- Organization may be apparent but offers no causal linkage to increased state power.
- Essay may show serious imbalance, with parts of the prompt neglected or misconstrued.
- May offer some evidence of technological innovation.
- May contain several errors in fact or chronology that detract from the argument.

## 1-0 points

- Thesis may be absent or repeat the prompt.
- Organization may be coincidental, with no causal linkage to increased state power.
- Essay may show gross imbalance, ignoring parts of the prompt.
- May offer little, ineffectual, or irrelevant evidence of technological innovation.
- May contain numerous errors in fact or chronology that detract from the argument.

## Question 2 (continued)

### The Question

- Requires students to explain how technological developments helped increase state power.
- These developments and increase of powers must generally take place between 1450 and 1600.
- Plurality of first part of the prompt requires students to discuss two or more examples of innovation.
- Expansion of state power is singular and nonspecific; may be discussed by state or by phenomenon.

#### Clarification

- Technological developments can mean invention (e.g., movable-type print) and innovation (e.g., cartography). Compass and gunpowder are acceptable. Nontechnological developments (banking, double bookkeeping, etc.) should not be credited. Innovation must relate to rise in state power.
- Examples of innovation may come from the same field (e.g., caravel and lateen sail as part of discussion on ships) or different fields.
- Time frame may include bordering innovations (e.g., cannons 1380, telescope 1608). However, references to (early) Middle Ages and the Enlightenment are clearly out-of-bounds.

## The Essay

- **Thesis** must link technical innovation to expanding state power (i.e., how).
- **Organization** must show causal linkage between innovation and state power, either through one well-developed connection or through multiple connections.
- **Balance** must be shown through discussion of both innovation and state power. Some essays may be more focused on innovation than on state power. Such imbalance is acceptable as long as it is not too severe.
- **Evidence** must support at least two innovations.

#### Clarification

- Strong essays have explicit theses. Medium essays may imply linkage to state power or deem such a connection obvious. Weak essays state but seldom link innovation to state power.
- Strong essays explicitly state how/why the discussed innovation contributed to the rise of state power. Medium essays may describe this in less evident or partial terms. Weak essays often fail to address state power beyond paraphrasing the prompt.
- Strong essays display sophistication in balancing the prompt, through either an extended discussion or greater variety of examples. Medium essays often discuss two to three examples in less sophisticated terms. Weak essays often lack balance, ignoring or misconstruing state power.
- Strong essays often distinguish themselves through well-chosen evidence. Medium essays may also display mastery of fact, though of limited time or nature. Weak essays may offer generalizations in lieu of evidence.

### Scoring

• Students have a limited time to complete the essay at the end of a long exam. Essays do not need to be exhaustive to earn high scores. On the other hand, they must show evidentiary intent: a lucky fact or evidence out of period/context does not raise an essay. Key is how well the essay engages the entire prompt.

## Question 2 (continued)

- Essays must respond to the prompt in the thesis (how). This may be explicit (strong essays) or implied/less evident (medium essays). Theses that repeat the prompt or have no linkage despite rich narratives in the body paragraphs earn low scores
- Explicit (i.e., furthering the argument) discussion of incorrect or out-of-period information constitutes a serious error. Extraneous information not contributing to the argument may be ignored. Misstatements in context due to speed or fatigue (typewriter instead of movable type) should not detract. Persistent misstatements throughout the essay do constitute an error.

**Historical Background** (based on Eugene Rice, *The Foundation of Early Modern Europe, 1460–1559.* New York: Norton 1970)

During the feudal monarchies of the Late Middle Ages, the king was weak and his vassals powerful. This landed military aristocracy held private hereditary rights to wage war, to tax, and to administer and enforce the law — rights normally attributed to the sovereign state. However, the period 1450–1600 marked a significant stage of transition in which the royals of Europe consolidated their power and their holdings with various degrees of success. By the end of the 16th century, the king's officers had mostly displaced vassals as local governors, while a professional mercenary force lessened the latter's role in war. Exploration in turn expanded empire and contributed to the treasury. By 1559 states were more sovereign than feudal.

Technological innovations contributed significantly to this expansion of state power. The application of gunpowder as the propellant for cannon balls quickly breached the stone walls of cities and castles, while arquebusiers and musketeers in concert with pikemen decimated the mailed knight chevaliers on the battle field. The invention of movable-type printing and paper allowed for quick dissemination of royal decrees and odes of royal greatness, as well as extending the royal reach for censorship of adversarial or protestant writings. The printed book allowed the scholars of Europe to cooperatively question the longheld conventions of the Church, and for Lutheranism to spread like wildfire. Innovations in ship design, ship armament, and navigation turned Portugal and Spain into seafaring empires, in which bounty financed further state usurpation of power.

### **Examples of People**

## Warfare

- o Mehmed II (ruled 1451–1481) breached the walls of Constantinople.
- o Charles VII completed 60 castle sieges in one year.
- o General Fernando de Avalos (1489–1525) perfected the modern infantry.
- o Philip II (ruled 1554–1598) sent the Armada to sail against Elizabeth I (ruled 1558–1603) in 1588.
- **Printing**: Printing with movable type was perfected by Johan Gutenberg (1395–1468), Johann Fust (1400–1465), and Peter Schöffer (1425–1502), among others.

## • Science

- o Nicolaus Copernicus (1473–1543) published On the Revolutions of Celestial Spheres in 1543.
- o Leonardo da Vinci (1452–1519) was the greatest of Italian artist-engineers.
- o Agricola, also known as Georg Bauer (1490–1555), wrote the textbook on mining and metallurgy *De re Metallica* (1556).

## Exploration

- o Prince Henry the Navigator (1394–1460) sponsored exploration for sea routes to India and to combat Muslim infidels.
- o King John II (ruled 1481–1495) was an avid expansionist.

## Question 2 (continued)

- o Bartholomeu Dias (1450–1500) voyaged around the Cape.
- o Vasco da Gama (1469–1524) sailed to India, where Alfonso de Albuquerque (1453–1515) established the Portuguese empire in the Indian Ocean.
- o Pedro Cabral (1468–1520) discovered Brazil.
- o Isabella of Castile (1451–1504) and Ferdinand of Aragon (1452–1515) commissioned Christopher Columbus (1451–1506) to sail for the New World ("India") to conquer riches and smite heathens.
- o Amerigo Vespucci (1451–1512) explored Rio de la Plata for Spain, while Ferdinand Magellan (1480–1521) rounded the southern strait to the Pacific Ocean.
- o Conquistadores Hernan Cortes (1485–1547) and Francisco Pizarro (1470–1541) subjugated and looted the Aztec and Inca empires.
- o Vasco Nunez de Balboa (1475–1519) traversed the Panama isthmus.
- o John Cabot (Giovanni Caboto, 1450–1499), on commission of Henry VIII (1491–1547), sought out Brazil but found Newfoundland.

### **Innovations Described in Textbooks**

- **Print:** movable-type printing, paper making
- Gunpowder: cannon, arquebus, musket
- Ships: caravel, fluyt (fluit), lateen sail (with square rig), sternpost or axial rudder, mounted cannon
- **Navigation:** cartography, *portolani* (detailed navigational regional charts), magnetic compass, astrolabe, tide calendar

### **Examples of Expansion of State Power**

- Lessening the lord-vassal dependency; weakening of the Church through science and Lutheranism
- Expanding armed power through professional armies and cannoned navies
- Expanding empire through exploration and conquest
- Enriching state wealth through trade and import of raw materials, gold, and silver

At the stort of 1450, states in Europe were exceedingly weak, the
Byzantine Empire was all but gone, France and England were borely
contralized and the rest of Europe was divided in one now or another
By 1600, at least fixe strong, centralized governments existed in
Europe, This radical shift was caused in no small part by the
growth of technological prowners on the continent. New technology
allowed information to be spread faster sparking centralization and
intellectual advances. The advent of increasingly powerful weapons
allowed kings to finally force fendal wars into submission, All
of this could be paid for by colonization, which was only possible
with new maratime technology. Thus, the printing press,
in creasingly powerful weaponry and new technology for explainthin
facilitated the rise of centralized governments in Europe between
1450 and 1600.
If knowledge is power, the most important advent in
information distribution must be examined. They of course is the
movable-type printing press. The brinting press allowed for a
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2A 20+3	Write in the box the number of the question you are answering on this page as it is designated in the exam.
	re press anguer distance and the masses
hit it also chartes	ed another source of power in the feudal erro-
Ju mass cherr	Martin Luthon until up hear
THE CHEIGHT AND	n earlier age, Mortin Luther would been
	after the Bret of Wirms, But,
The printing pre	s allowed writing to be spread faster than
The authors co	ald be killed leading to a major threat to
į.	his made Rome much more willing to rede
bowers to Kings	and centralized governments, in exchange for
the enforcement	of Catholicism. The printing press checker distance
the masses, and	Rome - three of the four limits to state
paver before 1450	
	h check was cut down to size by "new"
	e announder had seen use before 1450,
it was not a sk	indard weapon until it was proven to be effective
during the How	sbury-Vallès wars. It is not difficult to see
	weapons marked a paradigm shift on the
road to centraliza	hon, Nability had dominated militaries betwee 14501
as they were t	the only ones who could afterd plate-mail armon
	- didn't stand a change against a line of peasants
	ms. The king no longer depended upon the
nobles to fill his	armies and could afford took without their
consent the G	inponder shot down the last check to kings
	states betwee 1450.
Even with	Its checks removed nations still needed money
to exert their	piner. This was obtained through gold

Technological advancements have been strenthening strengthening countries for centuries. The technological advancements were very benificial to many European Countries between 1450 and 1600. The advances ments led to expansion of state power by making exploration easier as well as leading to stronger militaries.

In 1492 Columbus sailed the Ocean blue, monthly finding America, Controvesily Most consiguential events in history. However, Columbus would have never been able to his trek without the wooden vehicle that took him over there. Advancements in Ship building allowed explorerers to Jail part of the globe they pleased with hardly any issues. Now that Countries powerful Vessels, they felt the need to explore, Concur, and expand their territory. Advancements in ship building as well as other aspects of European life led to heavy colinization of wells as other the Americas as turopeans also made military advancements that made them want expand back home. Such as guns and cannons that

mederal style of combat

made the

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Obsoletc. (annous also lead to marine
Combat after European figured out how to
holster them onto ships. Although technology
didn't always win battles for Europeans.
A lesson that Emperor Napoleon had to learn
the hard way after his failed invasion of
unmodernized Russia. Technological advancement
led to many territory changes throughout
1450-1660.
Exploration and Millitary advancements
both had a large impact on the expansion
of state powers.

Write in the box the number of the question you are answering on this page as it is designated in the exam. Part B 220 10

technological developments

# AP® EUROPEAN HISTORY 2012 SCORING COMMENTARY

#### Question 2

#### Overview

This question required students to analyze the causal relationship between various technological developments in the period 1450–1600 and increased state power. These developments included advances in printing, shipbuilding, navigation, firearms, mining, and astronomy. These in turn led to increased naval and military power, lessened the influence of the nobility and church to the benefit of the state, enhanced state communication and propaganda, and expanded terrority and income. The way the question was phrased required students to present at least two examples of technical innovation with causal linkage to at least one form of expansion of state power.

Sample: 2A Score: 9

This strong essay's thesis draws explicit connections between technological developments (printing press, new weaponry, technology for exploration) and the expansion of state power (centralized government, diminished power of church and nobles, control over populations, revenue for the state). The essay is well organized, discusses the entire prompt, and offers multiple specific causal linkages between innovation and state power. The printing press is linked to propaganda/nationalism/loyalty and weakening of church influence. Gunpowder weaponry is linked to weakening of the feudal order and the growth of state armies. The compass, the astrolabe, and developments in ship design are linked to states' acquisition of overseas colonies and wealth. The essay offers multiple well-developed examples of innovations and increases in state power. It contains no errors that detract from the argument. The essay earned more than 8 points because it displays sophisticated linkage of innovation on multiple levels and provides contextual evidence appropriate to the chronological and geographic scope of the prompt.

Sample: 2B Score: 5

The thesis of this essay is vague as to how the technological developments it discusses actually contributed to the expansion of state power. The essay is clearly organized around two main areas of technological innovation and makes some attempt to establish causal linkages between innovation and state power, but in general its treatment of state power is vague. The discussion of Napoleon is offered as an incidental example and was not considered to be an error that detracted from the argument. The essay makes implied rather than explicit references to state power. The thesis is not precise enough to have warranted a score of 6. However, the presence of some specificity and the lack of major errors earned a score higher than 4.

Sample: 2C Score: 1

The thesis of this essay offers no explanation as to how the technological developments brought up actually contributed to the expansion of state power. The organization is poor, and the discussion of causal linkages between innovation and state power contains several examples that are clearly outside the period specified by the prompt (newspapers, roads, canals). These were considered multiple errors that detracted from argument. The essay's attempt to address linkages earned a score higher than 0, but the lack of evidence relevant to the period and the lack of an even minimally analytic thesis prevented the essay from receiving a score of 2.