Communication of Ideas

This special all-history edition of Bill of Rights in Action examines issues related to the communication of ideas. The first article looks at the first Western historians—the ancient Greeks Herodotus and Thucydides. The second article explores the printing revolution and its impact on Renaissance Europe. The last article looks at the “Great Compromiser” Henry Clay and his attempts to peacefully settle the disputes that ultimately led to the Civil War.

World History: Herodotus and Thucydides: Inventing History

World History: Gutenberg and the Printing Revolution in Europe

U.S. History: Henry Clay: Compromise and Union

Herodotus wrote about the wars between Persia and Greece. Thucydides wrote about the civil war between Athens and Sparta. Together these ancient Greek writers became the first true historians in Western civilization.

Herodotus and The Histories

We know little about the personal life of Herodotus. He was born around 485 B.C. in Halicarnassus, a city settled by Greeks on the western coast of Asia Minor (today’s Turkey). His family was probably aristocratic and wealthy. When he was a youngster, Herodotus and his family fled Halicarnassus after backing an unsuccessful revolt against the tyrant who ruled the city.

As a young man, Herodotus traveled widely, perhaps as a merchant. He visited Greek colonies along the northern coast of the Black Sea. He ventured into Eastern Europe where a nomadic people called Scythians lived. He spent a lot of time exploring Egypt. He toured the lands of the eastern Mediterranean, and maybe the city of Babylon in Mesopotamia (now Iraq). Herodotus was curious and learned everything he could about the non-Greek world.

At about age 35, Herodotus settled in Athens. For many years, he had been writing an account of the wars between Greece and Persia, which had ended when he was a small child. Herodotus entertained Athenians and other Greeks by reading parts of his work for a fee.

He did not finish his life’s work until he moved to Thurii, a Greek colony in southern Italy. The book is today known as The Histories. It was first “published” on papyrus scrolls in Athens, probably in a series, starting around 430 B.C. Herodotus died in Thurii about 425 B.C.

He wrote The Histories in prose. Centuries earlier, Homer had used poetry to write The Iliad, which is about the Trojan Wars. No Greek had ever written a long narration of past events in prose.

Herodotus probably started writing intending just to cover the two Persian Wars. When he finished, however, he had added huge amounts of background material that filled the first half of The Histories.

Herodotus traced the conquests of Cyrus, Cambyses, and Darius, who made the Persian Empire the dominant power in the “inhabited world.” He also wrote about the cultures, stories, and legends of the numerous peoples who made up the

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Herodotus decided not to leave out anything he had learned about these foreign lands and peoples. Herodotus pioneered many methods and sources that historians use today. He depended heavily on his own observations from his extensive travels. He also interviewed individual Greeks, Persians, and others.

Herodotus’ writing was not always reliable. He did not rigorously separate fact from fiction as modern historians try to do. He also composed long speeches, most of which had never been actually spoken. But Herodotus presented a balanced picture of the Greeks and Persians at war. Remarkably, much of his account was from the Persian point of view. Although he wrote about oracles and dreams influencing men, he did not put the gods in the middle of the action as Homer had done.

**Herodotus and the First Persian War**

In the first sentence of The Histories, Herodotus explained why he wrote his monumental work:

> Herodotus of Halicarnassus here presents his research so that human events do not fade with time. May the great and wonderful deeds—some brought forth by the Hellenes [Greeks], others by the barbarians [Persians]—not go unsung; as well as the causes that led them to make war on each other.

Early in The Histories, Herodotus told the story of King Croessus of Lydia in the western part of Asia Minor. Known for his vast riches, Croessus learned of an oracle who predicted he would destroy a great empire. This emboldened him to attack the Persians to the east. The Persian King Cyrus crushed his army and conquered Lydia. Only then did Croessus realize that the empire he would destroy was his own. Herodotus thus set the stage for the fall of great men who came too close to thinking of themselves as all-powerful gods.

Herodotus described a remarkable scene in Persian history following the sudden death of King Cambyses. Persian nobles debated whether they should continue the monarchy (rule by a king), adopt a democracy (rule by the many), or install an oligarchy (rule by the few). The noble Darius reminded his countrymen that King Cyrus had alone made the decisions that created the Persian Empire. This argument convinced the nobles to stay with a monarchy. They also agreed to make Darius the new king.

Herodotus told how Darius reorganized and expanded the Persian Empire so that it reached from western India in Asia to Thrace, north of Greece, in Europe. The Greeks, he wrote, spoke of Darius as the “Great King.”

Herodotus described many city-states. The most important were Athens, a democracy, and Sparta, an oligarchy. These city-states were not unified and thus were in danger if King Darius ever decided to conquer Greece.

In 499 B.C., with the help of Athens, Greek colonies along the west coast of Asia Minor revolted against Persian rule. Darius easily crushed the revolt. He then retaliated against Athens by mounting a massive seaborne invasion of Greece in 490 B.C. The Athenians with a few allies defeated Darius at the battle of Marathon. Herodotus described how the Athenians finally won:

> In their victory there, they allowed the barbarian troops that they had routed to flee and then . . . as the Persians fled, the Athenians pursued them and cut them down until they reached the sea, where they called for fire and started to seize the [Persian] ships.

“Great King” Darius returned to Persia, vowing to come back to Greece, but he died before he could lead another invasion. His son, Xerxes, succeeded him in 486 B.C.

**Herodotus and the Second Persian War**

A few years after Darius died, Xerxes decided to lead a second invasion of Greece. Herodotus quoted a long speech Xerxes made to the Persian nobles, stating his reasons and intentions. This speech, like others that Herodotus quoted in The Histories, probably never took place. He did, however, interview a number of Persians and probably captured the thinking of Xerxes, as indicated in this excerpt from Xerxes’ speech:

> Persians, I am not about to introduce a new custom to you, instead I shall follow the tradition handed down to me. . . . I was struck by the realization that we could gain glory; take possession of lands fully as extensive, productive, and fertile as those which we have now; and at the same time obtain vengeance and retribution, too. . . . [I] shall not give up until I conquer Athens and set it on fire, since it is they who began the offenses against me and my father. . . .

In 480 B.C., Xerxes led the largest army the world had ever seen across a pontoon bridge over the Hellespont, a narrow strait between Asia Minor and Europe. He also assembled a navy that consisted of war ships from subject states.

As the massive army and navy moved toward Athens, 300 Spartans held a key pass in the mountains at Thermopylae. Xerxes asked an exiled Spartan if his countrymen would fight the overwhelming Persian army. Herodotus quoted the Spartan’s reply:

> For though they are free, they are not free in all respects, for they are actually ruled by a lord and master: law is that master, and it is the law that they inwardly fear—much more so than your men fear you. They do whatever it commands, which is always the
same: It forbids them to flee from battle, and no matter how many men they are fighting, it orders them to remain in their rank or perish.

Xerxes laughed at this, wrote Herodotus, but was stunned when the 300 Spartans repelled three assaults by his army. The Spartans were defeated only after a Greek betrayed them by showing the Persians a concealed path through the mountains.

Herodotus wrote that as Xerxes then marched toward Athens, the citizens debated the meaning of an oracle, predicting “wooden walls” would save the city. The Athenian leader Themistocles persuaded the others that this meant the Athenians should fight at sea with their wooden ships.

The Athenian navy destroyed the Persian fleet as Xerxes looked on in horror. The Spartans went on to win a great land victory over the Persian army, forcing it to march back across the pontoon bridge to Persia, never to return.

Thucydides and The History of the Peloponnesian War

After the defeat of Xerxes, many Greek city-states joined a league, headed by Athens with its superior navy, to defend Greece from any further Persian invasions. Athens, however, began to demand tribute—money, soldiers, or warships—from league members. In addition, Athens forced other city-states to join the league and prevented any member from leaving it. It also pressured league cities to adopt a democratic government like its own.

The combination of tribute and expanded trade created a wealthy Athenian Empire. This, in turn, enabled Pericles, the leader of the Athenian democracy, to launch a major building program in the city. One of his projects included the famous Parthenon, a temple to the goddess Athena. Pericles admitted that the Athenian Empire was a tyranny but argued the benefits it brought to Athens outweighed its evils.

Meanwhile, the Spartans with their dominant land army withdrew to their homeland of Peloponnesus, a wide peninsula connected to the Greek mainland by a narrow strip of land.

Sparta differed greatly from Athens. It was a regimented, militaristic society. All Spartan males, ages 20–60, were soldiers. Women and slaves performed most other tasks in Sparta. Its government was an oligarchy, drawn from the professional warrior class.

As Athens gathered more Greek city-states into its empire, the Spartans began to view the Athenians as a threat. Sparta formed its own defensive league, and before long, sporadic fighting broke out with Athens and its allies. A peace treaty between Athens and Sparta did not last long, and in 431 B.C. the Peloponnesian War began. Fighting in Greece continued for most of the next 27 years.

Herodotus was still alive at the start of the Peloponnesian War, but another Greek, Thucydides, would write its history. Thucydides was born into a wealthy Athenian family about 460 B.C. Little else is known about the first 30 years of his life.

Shortly after the war began, the Athenians elected Thucydides as one of the city’s 10 generals. Assigned to command a fleet off the coast of Thrace, he failed to prevent the Spartans from capturing an Athenian colony. As was the custom, Athens punished Thucydides by exiling him from Athens for 20 years.

With lots of time on his hands, Thucydides decided to write a prose account of the war as it happened, almost like a modern news reporter. He traveled extensively into the war zones, observed battles, interviewed Athenian and Spartan military and political leaders, and read documents relating to the war. He was the first to analyze human behavior in wartime. He concluded that war was rooted in human nature and would be repeated in the future.
Unlike Herodotus, Thucydides rejected telling crowd-pleasing stories and concentrated on the facts of important events. He avoided writing about myths, oracles, and superstitions. He recognized that even eyewitnesses could not always be reliable sources. In general, he tried hard to be accurate, fair, and unbiased.

Like Herodotus, Thucydides quoted speeches, but these actually took place. Thucydides heard some of them himself. As for the rest, he wrote that he stuck “as closely as possible to the general sense of what they really said.”

**Thucydides and the Peloponnesian War**

In the first sentence of his *History of the Peloponnesian War*, Thucydides wrote that he began writing about the war because he believed “it would be a great war, and more worthy of relation than any other that had preceded it.” He went on to identify what he believed to be the “real cause” of the war. “The growth of the power of Athens, and the alarm that this inspired in Sparta,” he wrote, “made war inevitable.”

Thucydides wrote how Corinth, a Spartan ally already fighting the Athenians, pushed Sparta to go to war against “the tyrant city” and liberate Greece. Typically slow to act, Sparta finally agreed to lead the fight against Athens, demanding that it restore independence to the Greek cities under its control.

In Athens, Pericles also called for war, but only under certain conditions since he recognized Sparta’s advantage on land with its larger professional army. He counseled the Athenians to fight a defensive war by remaining behind their city walls, depending on their superior navy and avoiding “schemes of fresh conquest.”

Thucydides wrote that only an honest leader like Pericles could make Athenian democracy work. But Pericles, whom Thucydides called “the first citizen,” died soon after the war began, probably in a plague that ravaged Athens. According to Thucydides, those who replaced Pericles ignored his defensive strategy and committed a series of blunders that eventually led to Sparta’s victory over Athens.

Thucydides was interested in how both soldiers and civilians behaved in wartime. In 427 B.C., rebels in Corecyra, one of the city-states under the thumb of Athens, revolted against the democratic government there. Athens quickly crushed the revolt, and the people of the city slaughtered the rebel faction. This incident prompted Thucydides to comment on the evils of revolution:

> The sufferings that revolution entailed upon cities were many and terrible, such as have occurred and always will occur as long as the nature of mankind remains the same. . . . The cause of all these evils was the lust for power arising from greed and ambition. . . .

In 421 B.C., the war was at a stalemate, and the two sides agreed on a “Fifty Year Peace Treaty.” It lasted only about five years.

As the war resumed, Athenian leaders argued for a major military expedition to Sicily. They disregarded Pericles’ advice that the Athenians should stay close to home.

In 413 B.C., a large Athenian fleet carrying thousands of soldiers headed for Syracuse, a Spartan ally in Sicily. The expedition failed to attack Syracuse immediately, allowing the city to prepare strong defenses and get help from Sparta.

The Athenians failed in several assaults on the city, including an unusual night attack that Thucydides described. Then the Athenians lost most of their ships in a battle within Syracuse’s harbor. Trapped, Athenian troops panicked and tried to escape inland. The Syracusans followed them, killing and capturing many. Thucydides described how it all ended at a river crossing:

> Meanwhile the opposite [river] bank, which was steep, was lined with Syracusans, who showered missiles down upon the Athenians, most of them drinking greedily and heaped together in disorder in the hollow bed of the river. The [Spartans] also came down and butchered them, especially those in the water, which was thus immediately spoiled, but which they went on drinking the same, mud and all, bloody as it was, most even fighting to have it. . . .

As the war dragged on, atrocities on both sides increased. Probably the worst was a massacre in the defenseless city.
of Mycalessus in 413 B.C. by Thracians allied with Athens. Thucydides described the horror:

The Thracians bursting into Mycalessus sacked the houses and temples and butchered the inhabitants, sparing neither youth nor age but killing all they fell in with, one after the other, children and women. . . . Everywhere confusion reigned and death in all its shapes; and in particular they attacked a boys’ school . . . into which children had just gone, and massacred them all.

In 411 B.C., Thucydides suddenly stopped writing. The war, however, continued for seven more years until Sparta won a decisive victory over the Athenian fleet, finally forcing Athens to surrender in 404 B.C. We do not know why Thucydides never finished his History. He died, some ancient sources say violently, around 400 B.C., after the war ended.

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Herodotus and Thucydides invented history, or at least the writing of it, in the Western world. Before Herodotus, the Greeks had no word for history in the sense of writing a narration of past events in prose. Therefore, the Roman writer Cicero was correct when he called Herodotus the “Father of History.”

Herodotus may have been the first Western historian, but Thucydides was the first modern one. He explained the causes of events, analyzed political developments like revolutions, and evaluated leaders such as Pericles. In addition, like historians today, he was rigorous in searching for the truth and discarding information that he could not verify.

**For Discussion and Writing**

1. According to Herodotus, what were the causes of the Persian Wars?

2. According to Thucydides, how did the Spartans and Athenians differ in their reasons for going to war with one another?

3. Compare Herodotus and Thucydides as historians.

**For Further Reading**


[These books contain the texts of the historians and interpretive essays.]
Gutenberg and the Printing Revolution in Europe

Johann Gutenberg’s invention of movable-type printing quickened the spread of knowledge, discoveries, and literacy in Renaissance Europe. The printing revolution also contributed mightily to the Protestant Reformation that split apart the Catholic Church.

During the Middle Ages in Europe, most people lived in small, isolated villages. If people traveled at all, they typically ventured only a few miles from where they were born. For most people, the only source of both religious and worldly information was the village Catholic priest in the pulpit. News passed from one person to another, often in the form of rumor.

Written documents were rare and often doubted by the common people as forgeries. What counted in important matters was oral testimony based on oaths taken in the name of God to tell the truth.

Almost no one could read or write the language they spoke. Those few who were literate usually went on to master Latin, the universal language of scholarship, the law, and the Roman Catholic Church. Books, all hand-copied, were rare, expensive, and almost always in Latin. They were so valuable that universities chained them to reading tables. Most people passed their lifetime without ever gazing at a book, a calendar, a map, or written work of any sort.

Memory and memorization ruled daily life and learning. Poets, actors, and storytellers relied on rhyming lines to remember vast amounts of material. Craftsmen memorized the secrets of their trades to pass on orally to apprentices. Merchants kept their accounts in their heads.

Even scholars literate in Latin used memory devices to remember what they had learned. One device involved visualizing a building with various rooms and architectural features, each representing a different store of knowledge. A university scholar imagined walking through this virtual building along a certain pathway to recall the contents of entire books for his lectures.

Scribes, often monks living in monasteries, each labored for up to a year to copy a single book, usually in Latin. The scribes copied books on processed calf skin called vellum and later on paper.

Specialists or the scribes themselves “illuminated” (painted) large capital letters and the margins of many books with colorful designs and even miniature scenes. These books were beautiful works of art. But they took a long time to make and were very costly.

Movable-Type Printing

An invention changed how books were made and dramatically changed people’s lives. “Movable-type printing” is a way to reproduce written material, usually on paper, by first forming upraised letters or other figures on small blocks called types. A printer arranges the types within a frame on a press to form words and then prints a page of writing. The types can be broken apart, moved around, and set to print other pages of writing. This process was first developed in China about A.D. 1040 when Pi Sheng made Chinese language characters on ceramic types.

The Chinese language, however, consists of tens of thousands of characters that alone or together represent things or concepts. Movable type did not catch on in China because it took too long to reproduce multiple copies of the many thousands of characters needed for printing. The old method of artistic handwriting, called calligraphy, was often faster and more economical.

In the Middle Ages, Europeans knew nothing about Chinese movable-type printing. But by 1450, European technology had all the components in place for a movable-type printing revolution. This included paper, oil-based ink, metal alloys, casting methods, and presses used for centuries to make wine and olive oil.

The Europeans had one key advantage over the Chinese in making movable-type printing preferable to hand copying. Latin, Greek, and all the other European languages were alphabet-based. They did not have tens of thousands of characters like Chinese. The Europeans only had to produce types for a limited number of letters (26 in the case of English).
To print an entire book, printers would have to make hundreds of precisely identical types for each letter. Someone had to invent a way to do this quickly.

**Gutenberg’s Secret**

Johann Gutenberg was born around 1400 into one of the leading families of Mainz, Germany. Mainz was a busy commercial port on the Rhine River. Johann’s father worked as an official in the town’s mint, which produced coins for the Holy Roman Empire.

Nothing is known about Johann’s education, but he probably attended a university because he knew Latin well. Some historians think that he learned how to make gold coins at the Mainz mint. This involved a punch, a chisel-like tool used to engrave small letters and designs on a metal mold for casting coins.

In his mid-30s, Gutenberg decided to look for better prospects upriver in the German town of Strasburg (today Strasbourg, France). In Strasburg, he borrowed money from three men who became his partners in manufacturing and selling metal mirrors to religious pilgrims. The pilgrims traveled to religious sites and used mirrors supposedly to capture the healing powers of holy objects.

Outbreaks of the plague, however, were still occurring. Known as the Black Death, it had killed about a third of Europe’s population in the 14th century. A new outbreak interrupted the pilgrimages, and the mirror business failed.

Gutenberg’s partners then discovered that he was working on “another secret art.” They sued him to uncover his secret, but Gutenberg won the suit and kept his secret secure.

Apparently, Gutenberg had spent most of his years in Strasbourg experimenting with a method of using movable type to print books. With no knowledge of printing from China and no one else in Europe to help him, Gutenberg worked alone to invent a unique movable-type printing process.

Gutenberg used trial and error to adapt a coin-maker’s punch to make a mold for casting types, using just the right alloy of metals. This mold enabled him to mass-produce identical types for each letter of the Latin alphabet plus punctuation marks and symbols. He could reuse the types numerous times for different jobs.

Gutenberg also experimented with ink and paper. He needed ink that dried quickly and did not smear. After trying numerous ingredients, he found the perfect ink by combining linseed oil and lampblack. He also discovered that paper had to be a certain thickness and slightly dampened for the ink to stick properly. Finally, he built a press that applied the exact pressure needed to print words clearly from the types onto paper.

By 1448, Gutenberg was back in Mainz. He borrowed money again to set up a printing workshop. In 1450, he printed his first book, a brief Latin grammar for students. He may have printed a few other things such as church “indulgences.” These standard forms often called for Christians to donate money to the Catholic Church. In exchange, the church forgave their sins, assuring admission into Heaven.

Gutenberg, however, had a much bigger project in mind. He knew that the Catholic Church wanted uniform Latin Bibles to standardize worship in Europe. Gutenberg could supply many identical copies of these Bibles by printing them. But he needed more money to set up a second print shop.

Already in debt to a Mainz businessman, Johann Fust, Gutenberg turned to him again for another loan. This time, however, Fust demanded that Gutenberg make him a partner and promise to repay all he owed in five years.

Gutenberg hired craftsmen to make the Latin letter types, construct six presses, and manufacture the ink. He also purchased paper for printing most of the Bibles and vellum for a small, more expensive edition.

In addition, he trained a team of men who, along with him, became Europe’s first movable-type printers. He passed on the secrets of his invention to his master printer, Peter Schoffer. He had been a scribe and was Fust’s adopted son.

Gutenberg took at least five years to manufacture the types and equipment and print nearly 200 Bibles. He used a type font called “black letter gothic,” which attempted to duplicate the look of the hand-copied Bibles. He grew obsessed with printing Bibles that would equal or exceed in accuracy and beauty those copied by scribes. The Gutenberg Bible consists of two columns of print on more than 1,000 pages. Unlike copies made by scribes, both columns are justified, aligned in a straight edge at the left and right margins, like the column of print you are reading right now.

Gutenberg printed one page of the Bible before going on to the next. After page 10, he shifted from 40 to 42 lines of print per page. He was experimenting for ease of reading.

Gutenberg printed most of the letters in black ink but some in red, which required pressing a page two times. After the pages were printed, artists decorated large-sized letters and added colorful designs on the borders of certain pages. Skilled workers then sewed the pages of each Bible together into two volumes with covers.

The Gutenberg Bible was a work of art and a wonder of technology. Up to 75 complete and partial copies still exist today, mainly in libraries and museums.

When Gutenberg was completing the Bibles in 1455, Fust, his partner and creditor, demanded full payment of his loans. Gutenberg had all his money tied up in printing the Bibles and could not repay Fust right away. Fust sued.
Winning the lawsuit, Fust took possession of the second print shop and finished printing the Bibles, which he sold.

Fust and master printer Schoffer continued operating Gutenberg’s second print shop. In a book that Fust and Schoffer later printed, they wrote a notice, taking credit for the “ingenious discovery of imprinting.”

Gutenberg borrowed more money and continued printing. Around 1460, he printed a Bible with 36 lines per page. But he never got out of debt, never married, and was never acclaimed for his astounding invention during his lifetime. He died a poor and forgotten man in Mainz in 1468.

**The Printing Revolution**

Fust and Schoffer tried to hide the secret of movable-type printing. But the workers Gutenberg had trained spread knowledge of his invention throughout Europe. Schoffer married Fust’s daughter and inherited the printing business in Mainz when her father died of the Black Plague in 1466. Schoffer died rich and famous 37 years later.

Less than 50 years after Gutenberg printed the Bible, over 1,000 print shops had sprung up in more than 200 European cities and towns. They turned out more than 10 million copies of books in Latin and other European languages. Books became cheaper in price and available to anyone who could read them.

The spread of knowledge, both factual and not, exploded throughout Europe. Books began to appear for the first time with the author’s name on a title page. This made writers responsible for the content of their books, thus improving their accuracy. It also gave rise to the first copyright laws, protecting authors from having others publish their works without permission.

By the 1400s, the Renaissance had already begun in Italy, and this cultural revival was spreading to other parts of Europe. Scholars wanted more copies of the recently rediscovered writings of Aristotle, St. Augustine, Cicero, and other ancient authors. The scribes, however, could not work fast enough to meet the demand.

Printing presses were soon producing great numbers of books translated into Latin from Greek, Hebrew, Arabic, and other classic languages. These books dealt with many subjects such as literature, the law, philosophy, architecture, and geography. By 1500, Renaissance Venice was Europe’s printing capital with 150 presses at work.

Printing was a highly competitive business. Printers were always trying to outdo each other with new ways to make their books more readable, attractive, and profitable. They produced books with title pages, tables of contents, numbered pages, indexes, and engravings of pictures, maps, and diagrams. They also began to use standard punctuation marks and broke down text into paragraphs.

Printers soon expanded their lists of books from those in Latin to those in Europe’s vernacular languages. These were the everyday spoken languages such as German, Italian, and English. The books covered all kinds of subjects such as astrology, folklore, history, and fashions. “How to” books, such as mastering the skills of a craft, were common. The first novels appeared. “Polyglot Bibles” written in multiple languages side-by-side were popular.

The increasing supply of publications in vernacular languages spurred more people to learn how to read. Printers began to publish newspapers to meet the demand of readers for more information about national and world affairs.

William Caxton, an English trade diplomat in Belgium, learned about the new printing method while visiting Germany. He printed the first book in English, a collection of legends about the ancient city of Troy. The printing probably took place in Bruges, Belgium, about 1471.

In 1476, Caxton returned to England with his types and set up the country’s first printing press in London. Eventually, he printed 100 different books in English, including the *Canterbury Tales*.

Caxton also recognized the need to standardize the inconsistent vocabulary and spelling of English. Caxton wrote about his concern in the prologue to one of the books he printed:

> And certaynyl our language now used varyeth ferre [far] from that whyche was used & spoken when I was borne. . . . And that comyn Englysshe that is spoken in one shyre [shire] varyeth from another.

The printing revolution also helped develop modern science in Europe. For example, in 1543, the Polish scholar, Copernicus, took advantage of printed works on astronomy and tables of data on planet movements to print his own book, arguing that the earth revolved around the sun. Later, the Danish astronomer, Tycho Brahe, installed a printing press and paper mill near his observatory in order to print books on his discoveries.

Printing enabled scientists to use the discoveries of others to speed their own investigations. Printed tables, charts, diagrams, and formulas eliminated the need for scientists to duplicate tiresome calculations.

Along with the many gains in European learning and culture stimulated by the printing revolution, there were some losses as well. Scribes tried to continue their craft, sometimes even copying printed books, but most surrendered to the printing press by the late 1400s. This may have been an early indicator of the industrial revolution, which replaced many occupations with machines hundreds of years later.

Another loss was a decline in the use of Latin, the universal language of religion and scholarship in the Middle Ages. With greater demand for books in the vernacular, more and
more books were printed in vernacular languages. Fewer were printed in Latin. After Gutenberg, scholars had to seek out translations of works printed in numerous vernacular languages in order to learn about the work of others.

Memorization also began to fade as a way to remember large quantities of information. Almost 2,000 years earlier, the Greek philosopher Socrates had worried that replacing memory with writing “will create forgetfulness in the learners’ souls.”

**Printing and the Reformation**

The end of Christian unity in Europe was one of the most significant changes that the printing revolution helped to bring about. At first, the Roman Catholic Church welcomed printing as the “divine art.” Church leaders assumed that the widespread printing of uniform Bibles and manuals for priests would strengthen and standardize Christian worship in Europe. They did not expect Martin Luther to become the world’s first best-selling author.

A Catholic priest from Wittenberg, Germany, Luther despised the Catholic Church’s practice of selling indulgences to assure a sinner’s place in Heaven. In 1517, he wrote an argument for scholarly debate against indulgences, known as the Ninety-Five Theses. Copies of this document quickly fell into the hands of printers, who distributed copies all over Europe.

Before long, Luther’s sermons, pamphlets, and books, calling for Christians to reform the church, were streaming off the printing presses. Between 1517 and 1520, printers published hundreds of thousands of copies of his writings. The church put Luther on trial and excommunicated him in 1521. He went into hiding for a number of years, and translated the Bible from Latin into German.

Luther’s printed vernacular Bible enabled anyone who could read German to study the scriptures at home. Printed vernacular Bibles in other languages soon swept the rest of Europe. In 1526, the son of Peter Schoffer printed the New Testament in English, which was smuggled from Germany to England.

The Catholic Church tried to stem the reform of religion in Western Europe by declaring that only the Latin Bible and Latin mass were appropriate for Christian worship. The church also attempted to ban books by those who contradicted its religious teachings. Many printers, however, used the church’s banned book lists as guides for publishing works that sold well.

By the middle of the 1500s, the Christian church in Western Europe had split apart. Called the Reformation, this religious division set Catholics, Lutherans, and other Protestants against one another because of their different Christian beliefs and worship practices.

The printing revolution did not cause the Reformation. But the movable-type printing press produced many more copies of religious writings critical of the Catholic Church than would have been possible before Gutenberg’s invention.

In addition, printed copies of vernacular Bibles aided Luther’s insistence that Christians must read the scriptures silently on their own rather than depend on church officials for their salvation. Thus, the Protestant Reformation and the printing revolution combined to encourage reading literacy among the common people in Europe and later in America.

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For centuries, Europe had lagged far behind the Muslim world in the arts, sciences, and literature. The Muslims also possessed all the components for a printing revolution, including an alphabetic language. Religious authorities, however, considered Arabic sacred since it was the language of God in the Koran. Muslims believed that only handwritten copies of books were appropriate. As a result, most Muslim countries prohibited printing until the 1800s.

Muslim learning stalled, due in part to the resistance to printing. Meanwhile, Europe made rapid advances in all fields of knowledge. Movable-type printing facilitated the spread of Renaissance ideas, modern science, and the Reformation with its emphasis on literacy and propelled Europe into a much different future.

**For Discussion and Writing**

1. Why do you think the Gutenberg Bible has been called a work of art and a wonder of technology?

2. Why do you think the printing revolution in Europe was a unifying force in science but a dividing one in religion?

3. What gains and losses did the printing revolution help bring about in European society between 1450 and 1550?

**ACTIVITY**

**The Internet Revolution**

More than 500 years after Gutenberg started the printing revolution, we are in the midst of an Internet revolution. What gains and losses for our own society is the Internet causing today?

1. Meet in small groups to make a list of gains and losses caused by the Internet.

2. The groups should then contribute their ideas to create a class master list of gains and losses caused by the Internet.

3. Discuss why each item is a gain or loss. Should any items be switched from gain to loss or vice versa?

4. Discuss whether books, newspapers, magazines, and other print materials will eventually fade away like the books hand-copied by scribes in the Middle Ages.
Henry Clay: Compromise and Union

Kentuckian Henry Clay held political office for almost 50 years. He struggled to bring North and South together with compromises.

Henry Clay had a long political career. He served as a state legislator, member of the U.S. House of Representatives, U.S. senator, and secretary of state. Under the banners of different political parties, he ran for president three times and lost each time. His passion was to preserve the Union. His method was compromise.

Henry Clay was born into a modest Virginia family in 1777. His father, a Baptist minister, died when Henry was only 4. He had little schooling but studied law in the office of the Virginia attorney general.

After Clay earned his attorney’s license in 1797, he moved to Lexington, Kentucky, where he established a successful law practice. He married Lucretia Hart, the daughter of a wealthy Lexington businessman. Clay gained a reputation as a skilled courtroom orator.

In 1798, during the debate over a new constitution for Kentucky, Clay argued for gradually abolishing slavery in the state by freeing children of slaves born after a certain date. His proposed constitutional provision failed, and he temporarily lost popularity. He never, however, changed his view that slavery was a curse on both slave and master.

In 1803, Clay won election to the Kentucky state legislature on a platform of building roads and canals, establishing banks, and developing industry. He was re-elected six times to the state legislature. On two occasions, he filled out the unexpired terms of U.S. senators from Kentucky. In 1810, he launched his national political career by winning a seat in the U.S. House of Representatives as a Jeffersonian Republican.

From ‘War Hawk’ to ‘Great Compromiser’

In 1811, the 34-year-old Clay arrived in Washington to start his freshman term in the House of Representatives. He joined the “War Hawks,” members of Congress who called for war against Great Britain in retaliation for its seizing American merchant ships and kidnapping American seamen. Clay impressed the War Hawks with his dedication to their cause and his skills as an orator. They then won enough votes to make him speaker of the House.

Up to this time, the speaker was mostly a symbolic figure who presided over legislative sessions. Clay, however, quickly made this position a powerful one in Congress. For example, he assigned his War Hawk friends to important House committees.

Clay led the War Hawks to pressure President James Madison to ask Congress for a declaration of war against Britain. This occurred in June 1812, with most of the support for the war coming from the South and West.

The War of 1812 proved to be more difficult than the War Hawks had predicted. The New England states even threatened to secede from the Union because the war severely disrupted their trade with Britain. In 1814, Clay went to Europe and participated in peace negotiations with Britain.

Clay served on and off as speaker of the House for a total of 10 years, longer than any other in the 19th century. His friends marveled at his ability to gather the votes of House members for laws he wanted passed. His enemies called him arrogant and a dictator.

In 1819, Missouri, part of the Louisiana Purchase, applied for admission to the Union as a slave state. This would have upset the equal balance of free and slave states in the Union. During the debate over statehood for Missouri, however, Maine applied for admission to the Union as a free state.
In February 1820, the Senate voted for a bill to approve the admission of both Missouri and Maine to the Union. The senators also passed an amendment to the bill that prohibited slavery in the Louisiana Purchase territory north of 36 degrees and 30 minutes latitude with the exception of Missouri.

Southerners in the House firmly opposed the Senate bill because it closed much of the West to slavery. Many Northerners rejected the bill because it added a slave state and seemingly opened the door for slavery to expand someday south of the 36–30 line.

As speaker of the House, Clay formed a committee with him as chairman. He made sure that a majority of the committee favored reaching a compromise. The committee recommended accepting the Senate action but dividing it into three separate bills:

1. Admitting Missouri with no restriction on slavery.
2. Admitting Maine as a free state.

This was a brilliant move by Clay. If the House members had voted on one unified bill, the opponents of each part probably would have banded together to defeat it. By the House members voting for each part separately, Clay divided their votes.

On March 3, 1820, the House passed the three bills that made up the compromise. Three days later, President James Monroe signed the bills into law, now known as the Missouri Compromise.

The crisis, however, did not end there. In writing their state constitution, a condition for admission to the Union, resentful Missourians authorized their legislature to bar any free blacks from entering their state. The anti-slave Northerners were enraged and threatened to repeal the Missouri Compromise, while some Southerners talked of seceding from the Union if this happened.

Members of the House again turned to Clay, who was not then serving as speaker of the House. They wanted him to break the deadlock between Northerners who opposed Missouri’s constitution and Southerners who supported it. Clay formed and headed another committee, and he worked two weeks arguing and pleading with both sides to compromise.

Finally, Clay put together a bill that required Missouri never to pass a law that would stop “any description of persons,” who were or may become citizens of other states, from entering the state. Clay’s bill passed the House by six votes. Following approval by the Senate, Missouri accepted this condition for its admission to the Union. On August 10, 1821, President Monroe declared Missouri the 24th state.

For the second time, Clay had kept the Union together with a compromise. His admirers began to call him the “Great Compromiser.”

Clay and the Nullification Crisis

In 1824, when the Jeffersonian Republican Party dominated national politics, Clay ran against three other Republicans for the White House. None of the candidates won a majority of electoral votes. Under the 12th Amendment, the House of Representatives had to decide who would be president among the top three vote getters. This eliminated Clay since he had received the fewest electoral votes of the four candidates.

The contest came down to John Quincy Adams versus Andrew Jackson. Clay ignored instructions from the Kentucky state legislature to vote for Jackson and supported Adams, who won a majority of House votes and became president.

Jackson’s backers charged that Clay had made a “corrupt bargain” to swing his support to Adams in exchange for a cabinet appointment. In fact, Adams did appoint Clay secretary of state, but he strongly denied this was part of any secret deal.

Following Clay’s largely uneventful service as secretary of state, the Kentucky state legislature elected him to the U.S. Senate in 1830. In the Senate, Clay led the opposition against Jackson, who had finally won the presidency in 1828.

Both Jackson and Clay had been members of the Jeffersonian Republican Party. After Jackson’s election, the party split into two opposing political parties: Jackson Democrats and National Republicans. Clay joined the National Republican Party and ran as its candidate for president against Jackson in 1832. Jackson crushed him at the polls.

Clay remained in the Senate and fought against Jackson’s policies. Clay promoted what he called the American System that encouraged policies to strengthen the Union as a whole. He argued for a national bank (opposed by Jackson) to coordinate the financing of internal improvements such as new roads, canals, and harbors.

Clay put protective tariffs at the center of his American System. These tariffs protected American industries from foreign competition. They generally had the effect of keeping prices of goods manufactured in other countries higher than they would have been if no tariffs were in place. Clay argued that these tariffs were necessary to build up American manufacturing and make the United States a strong economic power in the world.

The North, where most industry was developing, favored protective tariffs. The South and the frontier West
opposed them because these regions were mostly made up of farmers who complained that the tariffs caused manufactured goods to cost too much.

In 1832, Congress passed and President Jackson signed into law the Tariff of 1832. This law reduced tariffs somewhat but not enough for South Carolina. Many in the state blamed tariffs for their economic troubles.

South Carolina passed a law declaring that protective tariffs passed by Congress were “not binding” on the state. In effect, the South Carolina state legislature nullified (vetoed) a law passed by Congress. This set off a crisis over whether the states had the authority under the Constitution to nullify acts of Congress.

South Carolina threatened secession from the Union if the federal government attempted to enforce the protective tariffs in states that rejected them. The possibility of civil war loomed.

Henry Clay, a strong protectionist himself, viewed the threat of disunion and war as the greater danger facing the nation. He began to negotiate a compromise between Northern protectionists, led by Senator Daniel Webster of Massachusetts, and the Southern nullifiers, led by Senator John C. Calhoun of South Carolina.

After a month, Clay reached agreement between Webster and Calhoun on a new compromise tariff law. The law would allow the existing protective tariffs to continue for almost 10 more years. In 1842, tariff rates would drop sharply to provide just enough revenue to pay for federal government operations.

Thus the North would have a decade to expand and strengthen its protected industries. Afterward, the South would benefit when the United States abandoned protective tariffs altogether.

**The Compromise of 1850**

When the National Republicans merged with the new Whig Party, Clay joined and became its presidential candidate against Democrat James K. Polk in 1844. A key election issue was the annexation of Texas as a state, which Clay opposed because he feared it would lead to war with Mexico.

During his campaign for president, Polk championed admitting Texas to the Union. He won the election, handing Clay his third defeat for president. Texas became a state a few days before Polk took office in 1845. Clay opposed going to war with Mexico over a disputed border. Once the war began, Clay supported it but questioned what to do after invading and conquering Mexico. He suffered a terrible personal loss in the war. One of his sons died in battle.

Many Northerners questioned why Southerners promoted the Mexican War. They believed the South wanted to get more land open to slavery. During the war, Congress debated but failed to pass a measure called the Wilmot Proviso. This would have prohibited slavery in any lands acquired from Mexico. In 1848, the war ended with a treaty that transferred to the United States a vast territory. Called the Mexican Cession, the new land stretched from Texas to the Pacific Ocean.

When Clay returned to the Senate after being re-elected in 1849, he found Congress in turmoil. California, in the middle of the Gold Rush, sought immediate admission as a free state. New Mexico and Utah wanted to become U.S. territories, but their status as future free or slave states was in doubt. In addition, Texas disputed its state boundary with New Mexico.

Northerners in Congress kept pushing the Wilmot Proviso to ban slavery in all of the Mexican Cession. Southerners demanded a stronger law to enforce the return of fugitive (runaway) slaves and again raised the threat of seceding from the Union.

Clay decided to resolve all the differences between the North and South over slavery in one grand compromise. Clay’s proposal would admit California to the Union as a free state and organize New Mexico and Utah as territo-
ries without any restrictions on slavery. Other provisions in Clay’s compromise included a more effective fugitive slave law and the abolition of the slave trade in Washington, D.C.

In February 1850, the 72-year-old Clay, weakened by tuberculosis, made an electrifying speech before the Senate in support of his compromise. His overriding purpose was to preserve the Union. As he discussed each part of his compromise, he argued that the South would be much better able to resolve its differences with the North by remaining a part of the United States than by seceding from it.

Clay also declared that under the Constitution “there is no right on the part of any one or more of the States to secede from the Union.” He warned that dissolving the Union would result in a bloody civil war. Clay ended his speech by pleading with both sides “to pause, solemnly to pause at the edge of the precipice [cliff], before the fearful and dangerous leap be taken into the yawning abyss [bottomless pit].”

In the Senate debate over the compromise, Clay proclaimed, “I know no South, no North, no East, no West, to which I owe my allegiance. . . . My allegiance is to this Union.” He tried to address the issue of slavery in the West by arguing that the climate and prohibition of slavery under Mexican rule made it unlikely to take root there.

Northern radicals, however, still demanded that Congress ban slavery in all the lands won from Mexico. Southern radicals called for extending the Missouri Compromise 36–30 line all the way to the Pacific, thus permitting slavery south of that latitude in the Mexican Cession territories.

Clay did not give up. He formed a special committee to try to work out the differences. He thought he had achieved a grand compromise bill with five key provisions. But Northern and Southern radicals objected to one part or another and threatened to join forces and kill the bill.

Clay decided to resort to a strategy he had used before and separated the provisions of the compromise bill into five different bills. In doing this, Northern and Southern opponents could vote against any of the five bills they disliked. But they would not be likely to combine their opposition votes as they could when all five parts were in one bill.

In August and September, the Senate and House voted to approve all five bills that together made up the Compromise of 1850:

1. The United States admitted California as a free state.
2. New Mexico was organized as a territory, and when later applying for statehood, it would be admitted “with or without slavery.” The United States compensated Texas for giving up disputed territory to New Mexico.
3. Utah was organized as a territory and would also be later admitted to the Union “with or without slavery.”
4. A strong fugitive slave law required federal officials in the North to arrest and “remove such fugitive person back to the State or Territory where he or she may have escaped.”
5. A law abolished slave auctions and trading (but not slavery itself) in Washington, D.C.

The Compromise of 1850 was Henry Clay’s greatest achievement. It kept the Union together for another decade. Clay died in 1852. “If any man wants the key to my heart,” he once said, “let him take the key of the Union and that is the key to my heart.”

For Discussion and Writing

1. Henry Clay believed that American democracy depended on “that great principle of compromise.” What did he mean? Do you agree? Why?
2. How would you have voted on the five separate bills that made up the Compromise of 1850? If the five bills had been combined into a single bill, would you have voted for or against it? Why?
3. Do you think Henry Clay could have prevented the Civil War had he been in Congress in 1861? Why?

For Further Reading


ACTIVITY

Should Some Issues Not Be Open to Compromise?

Meet in small groups to discuss and decide which of the following current issues should be open to compromise and which should not:

1. abortion
2. gay marriage
3. ending the Iraq War
4. illegal immigration
5. gun control

Each group should report its conclusions along with the reasons for them.
Herodotus

Thucydides

Printing Revolution

Clay

California History-Social Science Standard 6.4: Students analyze the geographic, political, economic, religious, and social structures of the early civilizations of Ancient Greece. (6) Compare and contrast life in Athens and Sparta, with emphasis on their roles in the Persian and Peloponnesian Wars. (8) Describe the enduring contributions of important Greek figures in the arts and sciences (e.g., . . . Thucydides).

Clay
National High School U.S. History Standard 9: Understands the United States territorial expansion between 1801 and 1861, and how it affected relations with external powers and Native Americans. (5) Understands the initiating factors and outcomes of the Mexican-American War . . . . (7) Understands political interests and views regarding the War of 1812 . . . .

California History-Social Science Standard 8.5: Students analyze the foreign policy in the early Republican era. (1) Understand the political and economic consequences of the War of 1812 and know the major battles, leaders, and events that led to a final peace.

Clay
California History-Social Science Standard 8.9: Students analyze the early and steady attempts to abolish slavery and to realize the ideals of the Declaration of Independence. (5) Analyze the significance of the States’ Rights Doctrine, the Missouri Compromise (1820), the Wilmot Proviso (1846), the Compromise of 1850, Henry Clay’s role in the Missouri Compromise and the Compromise of 1850, the Kansas-Nebraska Act (1854), the Dred Scott v. Sandford decision (1857), and the Lincoln-Douglas debates (1858).

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