The People, Places, & Events of World History

This chapter requires a companion activity book in which students respond to questions on text content. A quiz follows every fifth lesson. Answers are found in the *Teacher's Resource Kit*



Chapter 5

WH76368

© Copyright 2011, Paradigm Accelerated Curriculum DUPLICATION BY WRITTEN PERMISSION ONLY.

PROFESSIONAL CREDITS

The People, Places, & Events of World History

Publishers
Gene Hood and Ronald E. Johnson

Managing Editor
Ronald E. Johnson C.Ph.D

Writer
John R. Bennie III

Manuscript Compiler
Ginger Bowman-Johnson

Content Editors
Ronald E. Johnson
Sarah Barbee
Nancy Johnson
Timothy Baker
Jonathan Bell

Page Composers
Celty Kearney
Sarah Barbee
Lydia Seals
Scott Coers
Timothy Baker
Jonathan Bell
Nathaniel Bessent

Graphic Artists
Celty Kearney
Lydia Seals
Scott Coers
Timothy Baker
Jonathan Bell
Nathaniel Bessent

Activities, Quizzes, and Tests
Timothy Baker

Quality Assurance Team
Carolyn Hood
Nancy Johnson
Deborah Lawson
Kelley Griffin

©2011 Paradigm Alternative Centers, Inc., Zephyr, Texas

Chapter 5
Table of Contents

Timeline iv

SECTION 1



1. **Government & Economics**.....1-4
   An English Queen

   Family
   #1 Best Selling Prisoner



2. **Religion**.....5-8
   A Methodist Preacher

   Architecture
   Desert Adobe Houses



3. **Food**.....9-12
   Puritans and Indians

   Industry
   Scientists Who Changed the World



4. **Military**.....13-16
   The Maid of Orleans

   Agriculture
   African Slaves in America and Europe



5. **Literature, Music, & Education**.....17-22
   William Shakespeare's Play and the King James Bible

   Art
   Renaissance Artists Michelangelo and Raphael

SECTION 2



6. **Transportation**.....23-26
   Leonardo De Vinci

   Communication
   The Mind of Milton



7. **Family & Home**.....27-29
   Pilgrims and the Mayflower

   Music
   George F. Handel and His Music



8. **Discoveries & Explorations**.....30-34
   A Frenchman Claims Louisiana

   Government
   Men Who Claimed Nations



9. **Dominant Personalities.**.....35-39
   The American Civil War

   Religion
   A Shoemaker, Missionary, and the Salvation Army



10. **Architecture, Art, Fashion, & Furniture**.....40-43
    Worms, Birds, and Beavers

    Food
    Little Germs That Kill

SECTION 3



11. **Industry**.....44-49
    The Industrial Revolution

    Military
    War for Independence and George Washington



12. **Agriculture**.....50-54
    Wars of Definition and a Genius Scientist

    Literature and Music
    An Austrian Musician and a German Writer



13. **Energy**.....55-58
    Benjamin Franklin and Michael Faraday

    Transportation
    Simple Beginnings Often Lead to Big Results



14. **Communication**.....59-63
    The Telephone Arrives Via an Immigrant

    Dominant Personalities
    The Red Cross



15. **Sports & Recreation**.....64-67
    Steam Powered Boats Replace Sails

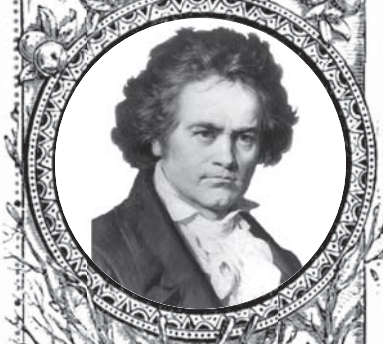
    Discoveries
    Charting the Pacific Ocean

Chapter 5

Timeline 1400 AD - 1900 AD









Circa

1400

1425 — Joan of Arc burned at the stake 1431

1450

1475 — Leonardo da Vinci painted "The Last Supper" 1482

1500 — Michelangelo painted Sistine Chapel 1512

1525 — Juan de Coronado's Expedition 1540 - 1542

1550 — Elizabeth I became Queen of England 1558

1575 — William Shakespeare born April 24, 1564

1600 — Jamestown was settled in the "New World" 1607

King James Bible (KJB) was completed 1611

1625 — Mayflower arrived in Massachusetts with Pilgrims 1620

1650 — Robert Boyle, Scientist

1675 — John Bunyan published *Pilgrims Progress* 1678 and 1684

1700 — Sieur de La Salle led expedition down Mississippi River for France 1682

Ludwig van Beethoven born December 16, 1770

1725 — The start of the "Great Awakening" 1725 - 1750

1750 — George F. Handel wrote his musical piece "Messiah" 1741

1775 — American Declaration of Independence was signed July 4, 1776

American Revolutionary War 1776-1782

1800 — English Duke of Wellington defeated Napoleon Bonaparte at the Battle of Waterloo 1815

1825

1850 — American Civil War 1861 - 1864

1875 — Alexander Graham Bell invented the telephone 1875

Salvation Army founded by William Booth 1878

1900 — Clara Barton founded American Red Cross 1887

Chapter Five

Note: Dates are estimates based on archeological evidence and literary records that are subject to debate among scholars.



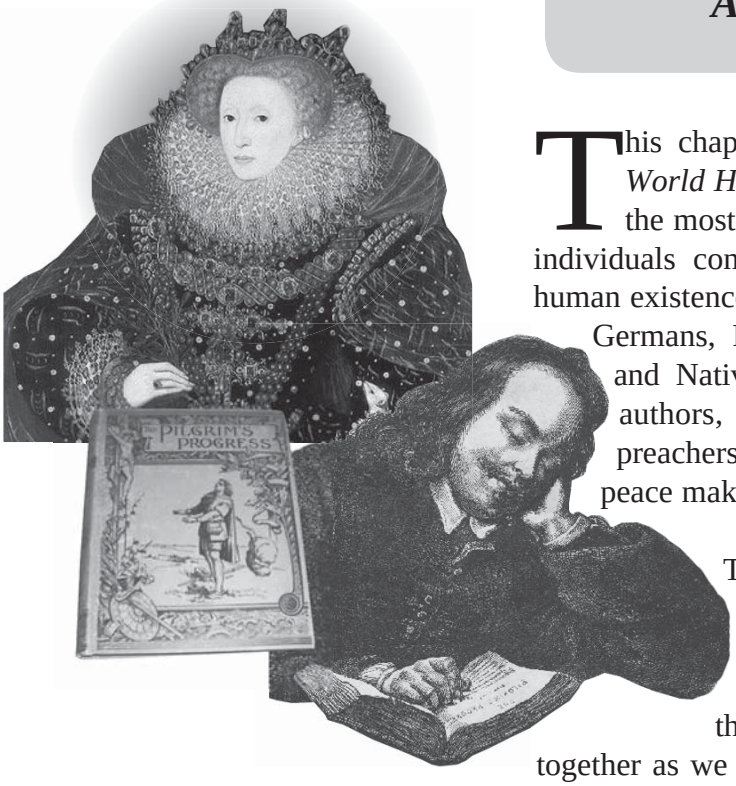
Lesson 1

Chapter 5

Section 1
Lessons 1-5

Government & Economics

AN ENGLISH QUEEN



This chapter of the *People, Places and Events of World History* covers an era dominated by some of the most fascinating people who ever lived. Those individuals concerned themselves with every aspect of human existence. Among their number were Englishmen, Germans, Frenchmen, Italians, Spaniards, Africans, and Native Americans. They included scientists, authors, musicians, artists, inventors, explorers, preachers, national rulers, slaves, men and women, peace makers, and warriors.

It has been asserted that the Old Testament Hebrew Prophet, Isaiah, in the Judeo-Christian Bible, credited God with saying, "Come now, let us reason together says the LORD." Perhaps we can borrow that concept. Come now, let us reason together as we examine the lives and activities of people who lived during the historic 16th century.

We must begin with one of the most important queens of human history. We now journey to Great Britain during the middle of the 16th century, to introduce you to Elizabeth, a 25 year old woman who had just ascended to the throne of her father. It is the dawning of the Elizabethan Age: one of the two greatest periods in England's history.

The woman who would become England's Queen Elizabeth I, was born in the year 1533. Elizabeth was the daughter of King Henry VIII and his second wife (of six), Anne Boleyn. At the age of 25, Elizabeth became the ruler of the British Isles.

The era was one of great political, religious, and social unrest in Britain. Whether she liked it or not, Elizabeth was caught up in numerous plots and ***intrigues***.

Primarily because the Roman Catholic Church considered her birth to be illegitimate, Elizabeth was raised Protestant. She was, therefore, regarded as the champion of the Protestant movement. After the death of King Henry

VOCABULARY

Intrigues: mysterious plans among people who desire power
Tempest: a violent storm of hostile actions
Postulate: propose, assume, theorize
Demise: death
Knighted: commissioned and honored by a sovereign with the title of Knighthood, designated by the title, "Sir," as in Sir Francis Drake.
Conviction: strongly held beliefs for which a person is willing to suffer torture rather than violate beliefs

VIII, numerous rivals laid claim to the English throne. Furthermore, many suitors, both foreign and domestic, attempted to marry Elizabeth. She, however, triumphed over all those who sought to replace her, use her, or take advantage of her.

Elizabeth I succeeded her older, half-sister, Mary I, or Mary Tudor (r. 1553-1558), who was fanatically devoted to the Catholic Church. Not only did she dismantle the Protestant reforms established by her father, Henry VIII (r. 1509-1547), and her half brother, Edward VI (r. 1547-1553), she also unleashed a ***tempest*** of persecution. Hundreds of English Protestants were arrested, imprisoned, tortured, and burned at the stake. Because of her cruel intolerance of Protestants, the queen acquired the name, "Bloody Mary."



Queen Elizabeth I

Then, five years into her oppressive reign, Mary Tudor died. Historians ***postulate*** that her ***demise*** was due to cancer. Queen Elizabeth I became Queen over England and Scotland, and established the Anglican ("English") Church. She returned to the pro-Protestant institutions of Henry VIII and Edward VI. The British Protestant community breathed a collective sigh of relief.

Elizabeth promoted British exploration of the New World. She also encouraged the so-called English "Sea Dogs" (such bold seafarers as John Hawkins, Walter Raleigh, and Francis Drake) to attack Spanish shipping. All three were ***knighted*** for their oceanic exploits.

The activities of the "Sea Dogs," the execution of Mary, Queen of Scots, England's continued existence as a Protestant country, and Elizabeth's rejection of his proposals of marriage, angered Catholic King Philip II of Spain (1556-1598). Therefore, he amassed the "invincible" Spanish Armada and sent it against England in 1588. Queen Elizabeth inspired the English to defeat the Armada. As a result of that victory, Great Britain began to be a major political and military power in the Western World.

The Elizabethan Era was one of outstanding scientific and literary achievement. For instance, the man who is universally accepted as the greatest writer in the English language, William Shakespeare, lived all but 13 years of his life as a contemporary of Queen Elizabeth. Furthermore, Elizabethan foreign policy enhanced the probability that North America would be established by England rather than Spain or France.

Queen Elizabeth never married. Because of that, she was refered to as the "Virgin Queen." That title gave rise to the name of Virginia (the English Colony on the east coast of North America). In regard to marriage, Elizabeth once remarked, "I am already bound unto a husband, which is the Kingdom of England."

The queen surrounded herself with extraordinary advisors. They were universally, men of great ability and integrity. She, on the other hand, was able to earn their undying devotion and respect. In fact, Elizabeth I enjoyed tremendous popularity with the English people. Under Queen Elizabeth, England developed a middle class. There was a steady growth in the number of schools available to children of the general population.

England was poor and powerless at the beginning of her reign. It was the richest and mightiest nation in Europe at the time Elizabeth died at the age of 71, on March 24, 1603. Perhaps the greatest praise she received came from her enemy, Pope Sixtus V (1585-1590). In the year of the Spanish Armada's defeat (1588), he said, "She is a great woman, and were she only Catholic she would be without match."

To a very great extent, during the Elizabethan Era, Queen Elizabeth I was a "mother figure" for all of England. Throughout their history, the British people have seen themselves as being part of the king's or queen's family. They were more than just the ruler's subjects. They were his or her "children."

Some 25 years after the death of the "Virgin Queen," an Englishman was born whose commitment to family was strongly expressed in both his personal life and the literary masterpieces he produced. Let us progress forward in time to the middle and late 16th century. We want to take notice of the mind and manner of, not a king or queen, but a humble repairer of metal pots.

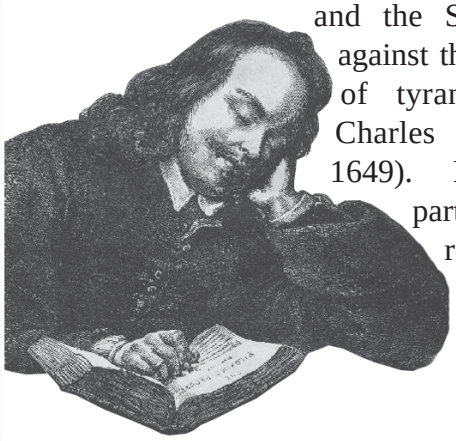


Family

Number One Best Selling Prisoner

John Bunyan (1628-1688) was the first child of his father's second marriage. The first wife had died. John was born in the little village of Alstow, Bedfordshire, England. His father was a tinker (one who repaired metal pots and pans). When he attained adulthood, the son pursued his father's trade.

John Bunyan served as a soldier during the English Civil War (1642-1648), in which members of the English Parliament, the Puritans, and the Scots fought against the supporters of tyrannical King Charles I (r. 1625-1649). Bunyan was part of the anti-royalist army (opposed to the king).



John Bunyan

After the war, Bunyan returned to Bedford. He went through a long and heart-rending spiritual struggle before he found peace with his God. That story is outlined in his *Grace Abounding to the Chief of Sinners*. In 1653, John Bunyan joined a Baptist church at Bedford. Four years later (1657), he was appointed a preacher. However, he was arrested on November 12, 1660, for preaching without a license from the Anglican Church.

Bunyan was imprisoned in Bedford Jail for the next 12 years. During those 12 years, a formal request for a government license to preach lay on the floor of his cell. All he had to do was sign it, and he could walk free and preach in his church. However, Bunyan did not believe that the civil government should have any authority over functions of local churches. Therefore, his ***conviction*** about the matter did not allow him to sign the government form.

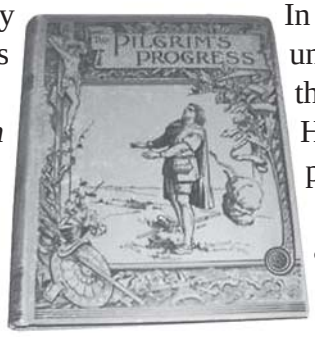
While in jail, John Bunyan wrote the first half of a truly unique masterpiece of imaginative fiction. His book, *The Pilgrim's Progress*, has been considered the finest allegory in the English language. An allegory is a story in which the people, places, and events appearing in it all have symbolic meanings. Bunyan's tale was meant to be a representation of the Christian life.

The first half of the book was published in 1678. The second part was finished six years later (1684). In addition to *The Pilgrim's Progress*, Bunyan also wrote *Grace Abounding to the Chief of Sinners* (a spiritual autobiography), *The Holy War*, and *The Life and Death of Mr. Badman* (the latter two are also religious allegories).

John Bunyan was finally released from jail in January of 1672, because King Charles II (r. 1660-1685) had repealed the law against unlicensed preaching. Bunyan spent the rest of his life as the pastor of the Baptist church in Bedford. He died August 31, 1688, at the age of fifty-nine.

The years of his imprisonment were a time of great concern for Bunyan in regard to his family. He earned a very meager wage by making shoe-laces. Even though his jail sentence produced great hardship, Bunyan was convinced that he must remain true to his beliefs for the sake of his wife and children.

Bunyan has left us, in his own words, his feelings about his family, particularly his oldest daughter, Mary, who was blind.



"I found myself a man encompassed with infirmities; the parting with my wife and poor children hath often been to me in this place as pulling the flesh from the bones, and that not only because I am somewhat too fond of these great mercies, but also because I would have often brought to my mind the many hardships, miseries, and wants that my poor family were like to meet with should I be taken from them, especially my poor blind child, who lay nearer to my heart than all besides. Oh, the thoughts of the hardship my poor blind one might undergo would break my heart to pieces. Poor child, thought I, what sorrow art thou like to have for thy portion in this world! Thou must be beaten, must beg, suffer hunger, cold, nakedness, and a thousand calamities, though I cannot now endure the wind should blow upon thee. But yet, recalling myself, thought I, I must venture you all with God, though it goeth to the quick to leave you."

In many ways, the plot of *The Pilgrim's Progress* reflects these intense, familial feelings. In Part I, the main character, Christian, undertakes a long and difficult journey through life — in search of salvation. He, at last, obtains the latter and is at peace with God forever.

In Part II, his wife (Christiana) and her children follow in pilgrim's footsteps. The mother and children also encounter many spiritual distractions along the way. Finally, however, the family is reunited at the "Celestial City" — a metaphor (allegory) for heaven. *The Pilgrim's Progress* became the second most popular book printed in English. For more than 200 years, it remained second only to the *Bible* in popularity in England and the U.S.A.

Even though he joined the Baptist church, John Bunyan was very much a part of the Puritan mind set. Puritanism was the second of three great religious movements in England. By the mid-18th century, a third had taken place. That is the object of our next investigation. Let us, therefore, move the calendar forward to the 1700's. Something was happening at Oxford University. There, three men, in particular, demand our attention.



LIFE PRINCIPLE

"Sometimes our greatest insight comes during times of greatest discomfort and trial." —Ronald Johnson, C.Ph.D



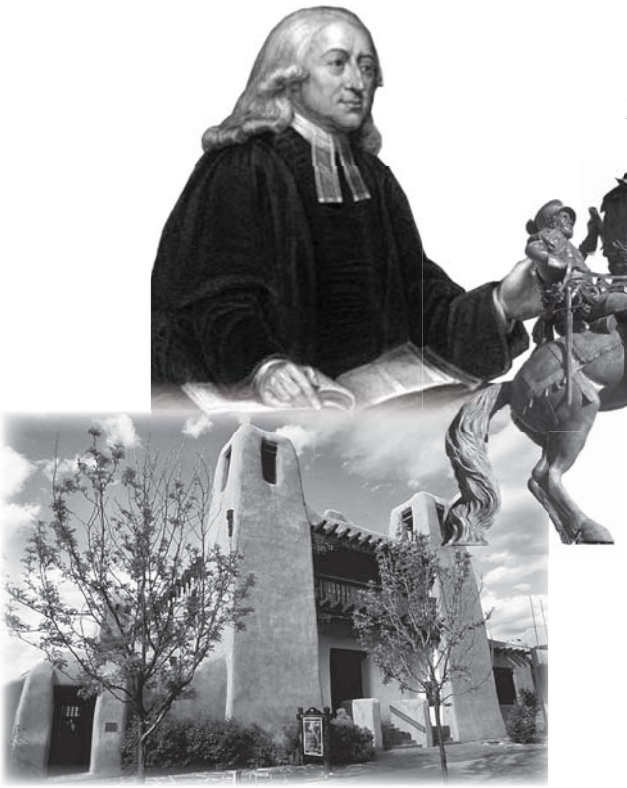
Lesson 2

Religion

Chapter 5

Section 1
Lessons 1-5

A METHODIST PREACHER

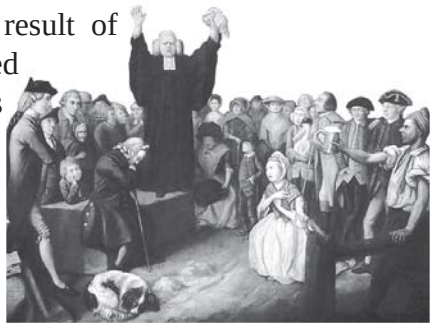


In the early 18th century, Samuel Wesley (1662-1735) was a Church of England pastor. He and his wife, Susannah had 19 children. Their fifteenth was called John, and their eighteenth was named Charles. Those two brothers would dramatically affect the world with their sermons and music (hymns).

John Wesley was born in 1703 and Charles in 1707. When the boys were six and two respectively, the Wesley home caught fire. Young John was narrowly saved from death. In later life, he referred to himself as a "brand plucked from burning." That was an allusion to a passage from the book of Zechariah in the Judeo-Christian Old Testament of the Bible

Both brothers attended Christ College, Oxford University. While there, they founded a religious organization. They brought into the group their college friend and associate, George Whitefield. The Wesleys and their companions met regularly for Bible study, prayer and ***fasting,*** and ***communion***. Because of the group's strict observance of those religious practices, the other Oxford students called Wesley's group "the Holy Club," "Bible Moths," and "Methodists" (because they were so methodical). It was the latter name that stuck. Indeed, that was the name given to the Methodist denomination which spread throughout Britain and around the world.

The modern Methodist church emerged as the result of two brothers who loved God. Some historians have maintained that the formation of Methodism was as significant as the French Revolution (1789) and the Industrial Revolution (in England,



George Whitefield

VOCABULARY

Fasting: abstaining from food for a period of time in order to contemplate spiritual matters
Communion: drinking of grape juice or wine with wafers in commemoration of the sacrificial death of Jesus Christ; "The Lord's Supper"
Subjugated: defeated and enslaved

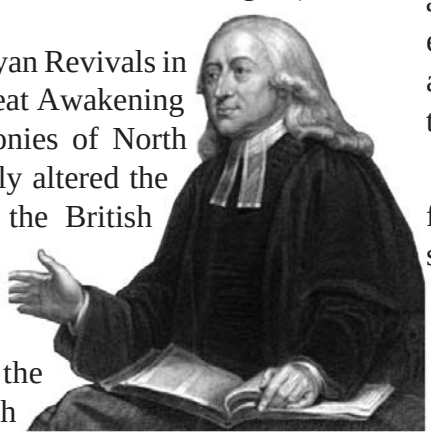
c. 1760). Furthermore, scholars have asserted that those three events were the most important historical developments of the 18th century.

Fellow Methodist, George Whitefield (1714-1770), was born when John Wesley was 11 years old, and Charles was seven. In the Spring of 1735, Whitefield suffered a severe illness, which nearly took his life. Because of that experience, he embraced Christianity. Subsequently, he felt "the call" to preach. The next year, he entered Oxford to train as a preacher. Early in his college career, George Whitefield joined "the Holy Club." By 1739, Whitefield was preaching in the open countryside to huge crowds of coal miners. He encouraged John Wesley to do the same. Whitefield's voice was so strong, it could easily be heard and understood blocks away.

Those open air services were the true beginnings of Methodism. England has experienced three major religious "awakenings" in history. The *Protestant Reformation* came to England in the 16th century. *Puritanism* swept the country in the 17th century. *Methodism* dominated the 18th century.

While John Wesley was preaching to the working class in England and Wales, producing spiritual revival in both nations, George Whitefield sailed to America. There, his preaching attracted Benjamin Franklin and turned a number of local revivals into what has been called "The Great Awakening" (1725-1750).

The Wesleyan Revivals in Britain and the Great Awakening in the British colonies of North America completely altered the local cultures. In the British Isles, Methodism prepared the way for the termination of slavery and the slave trade. On both sides of the Atlantic Ocean, the revivals produced educational reform. Also, better working conditions for the common laborers (especially Welsh and English coal miners) resulted.



John Wesley

Meanwhile, Charles Wesley also made his mark on Anglo-American history. He has been considered England's greatest hymn writer. During his lifetime, he wrote more than 5,000 hymns. Some are very well known—such as "Hark the Herald Angels Sing" and "Christ the Lord is Risen Today."

For the past three vignettes, we have stayed in the British Isles (primarily England), except for one brief trip to the east coast of colonial North America. We have been discussing how people lived and what political and religious beliefs motivated them. Now, we want to shift our focus to the American Southwest, to look at where people lived, and in what kind of houses, prior to 1500.



Architecture

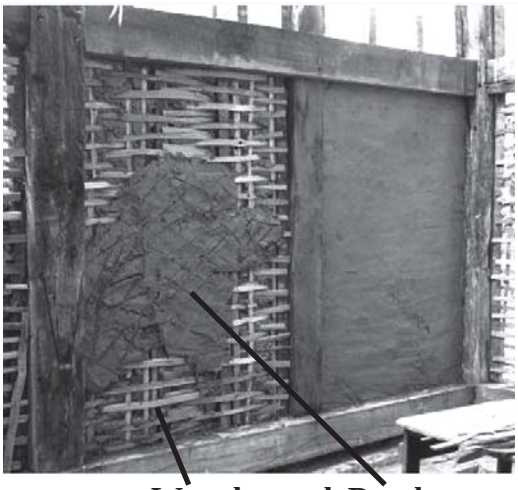
DESERT ADOBE HOUSES

For thousands of years, Native Americans lived in the southwest corner of the future United States and northern Mexico. In that largely desert region of today's California, Arizona, New Mexico, Sonora, and Chihuahua, pre-Columbian people developed a distinct way of life by adapting to the local environment. They utilized what was naturally available to construct a material culture, unique to themselves.

Humans have three basic physical needs: food, clothing, and shelter. Several of the southwest native cultures of the region solved the shelter requirement with clay. A framework of sticks or stones were bound together to construct the walls of their houses. The method is known as "wattle and daub."

Usually a layer of clay was also smeared

over the completed edifice to produce a smooth finished surface in the form of masonry. A small central fire pit (a crude fireplace) provided warmth. The clay was allowed to dry in the sun. The result was a hardened substance known as "adobe." That type of building material was perfect for the harsh climate of the American Southwest. Adobe structures were warm and snug in the colder temperatures. They also offered cool protection from the heat of the sun.

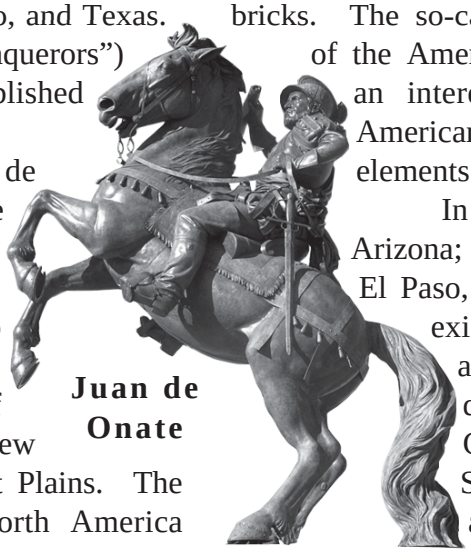


Wattle and Daub

Christopher Columbus "discovered" America under the authority of Spain. Therefore, for several years, subsequent European expeditions of conquest in the New World were Spanish. The Spaniards conquered the Aztecs of Mexico and the Incas in the Andes Mountains of South America. Spanish armies invaded the Gulf coast of the future United States from Florida to Texas.

After Cortes ***subjugated*** the Valley of Mexico, the Spaniards began to probe into the Southwest of today's USA. Successive expeditions from Mexico penetrated present-day California, Arizona, New Mexico, and Texas. The Spanish Conquistadors ("conquerors") explored, conquered, and established colonies in the desert Southwest.

Francisco Vasquez de Coronado led the most extensive invasion of North America above the Rio Grande (the river which forms the border between Mexico and Texas). His explorations took him to the Hopi villages of Arizona, the Zuni towns of New Mexico, and out onto the Great Plains. The Spanish claim to much of North America was made on the basis of Coronado's travels.



Juan de Onate

In February of 1598, Juan de Onate was commissioned to establish a permanent Spanish settlement in New Mexico. His was the first recorded European colony west of the Mississippi River. Onate was a prominent citizen of Spanish Mexico. His wife was a granddaughter of Cortes and a great-granddaughter of Montezuma (the last Aztec emperor).

Onate's party consisted of 400 men. About 130 brought their families on eighty-three wagons and carts loaded with baggage and supplies. A herd of 7,000 livestock animals accompanied the colonists.

The Spaniards adopted and adapted many aspects of Native American culture. Therefore, adobe buildings with a distinctly Spanish style were the principle forms of architecture employed in the U.S. southwest.

The biggest modification was that the Spaniards fashioned sun-dried adobe bricks, with which houses were built. Private dwellings, military fortresses, governor's palaces, and Catholic churches were all constructed of adobe bricks. The so-called "Spanish architecture" of the American Southwest was and is an interesting blending of Native American and Spanish architectural elements.

In such modern cities as Tucson, Arizona; Santa Fe, New Mexico, and El Paso, Texas, many buildings still exist that were formed from adobe bricks. Some of them date back to the Spanish Colonial Period. Today, in Santa Fe, all buildings (public and private) by municipal

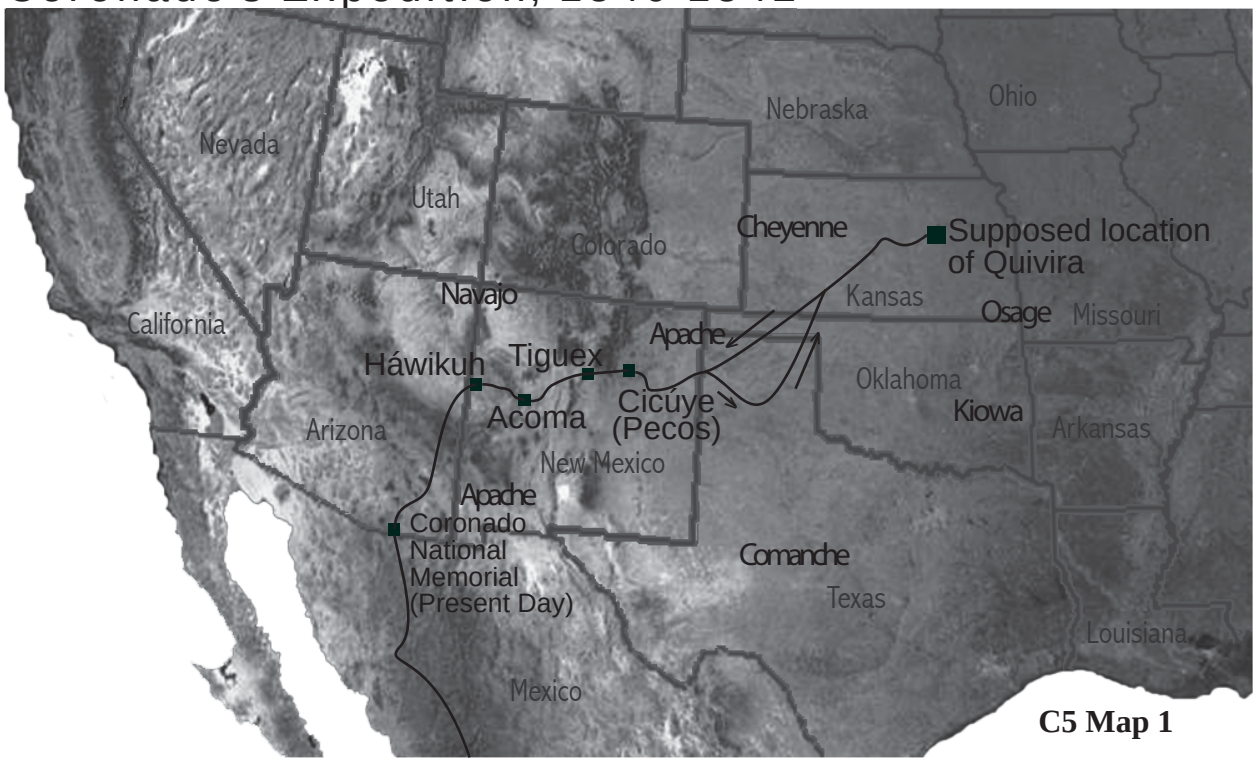
law, must be of Native American/Spanish-style architecture. Adobe bricks are still predominant.

Roughly the same time that the Spaniards were establishing colonies in southwestern North America above the Rio Grande River, the English were doing the same thing on the east coast. Virginia, Plymouth, and Massachusetts Bay were the English counterparts of Santa Fe, El Paso, and Tucson. **At this time, we want to go to the New England of the early 1600's and observe what former US President Woodrow Wilson called "the swarming of the English."**



Church in Santa Fe, New Mexico

Coronado's Expedition, 1540-1542



C5 Map 1



LIFE PRINCIPLE

Truth and love never fail.

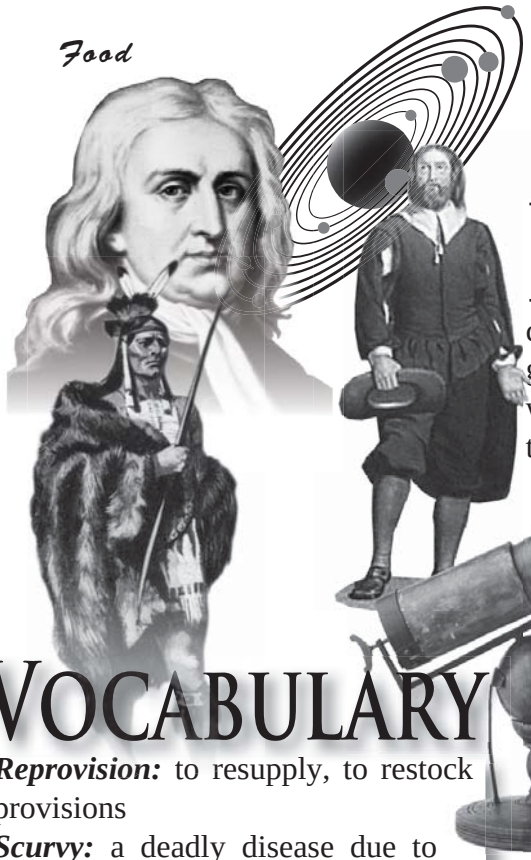
—John Wesley



Lesson 3

Chapter 5

Section 1
Lessons 1-5



PURITANS AND INDIANS

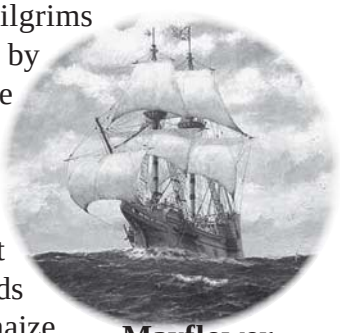
In England, the 1600's was the century of the Puritans. *Puritans* were Christians who wanted to purify the Church of England (the Anglicans) from within of corruption, bribes, immorality, and false doctrine. One group of Puritans, however, believed that such purification would never happen. Therefore, they wanted to separate themselves completely from the Anglicans and start their own Protestant church. Because of their beliefs, they were known as *Separatists*. John Bunyan was a separatist.

Eventually all English Puritans were persecuted by the national church and the government. Consequently, a group of Puritan Separatists fled to Holland. After a few years in Holland, however, they determined to relocate at a new place in America where they could worship without government interference. By that time, their constant traveling had earned them the name, "Pilgrims."

The Pilgrims suffered a great deal on the long voyage across the Atlantic Ocean on a small ship called the *Mayflower*. Finally, they arrived in Massachusetts (1620) where their problems continued. During that first New England winter, the Puritans did not have sufficient food to last until spring, and many of the settlers died.

Fortunately, the Pilgrims discovered a supply of maize which the departed, local Native Americans had abandoned. Even so, throughout the rest of that winter, nearly half of the Pilgrims died. However, the food left by the "Amerinds" sustained the survivors.

The following spring, the English Pilgrims began to plant their crops for the next year. They possessed the seeds of mainly New World plants (maize,



Mayflower

VOCABULARY

Reprovision: to resupply, to restock provisions

Scurvy: a deadly disease due to lack of vitamin C, caused by not eating fresh fruit and vegetables; produces physical and emotional distress including spongy gums, loose teeth, bleeding under the skin, and arterial damage

Misconception: to misunderstand something

Bout: an outbreak or attack of something such as a disease

Hypothesis: speculation, belief, concept, idea

Deduced: concluded, understood

Hydrology: the science of the mechanics of liquids.

Prophecy: future events foretold in the Bible

Profane: non-religious, secular

squash, pumpkins), with which Pilgrims were totally unfamiliar.



Pilgrim

One spring day, a Native American man walked into Plymouth (the Pilgrim settlement). He announced in English that his name was Samoset, and he wanted to be their friend. Later, Samoset introduced the Pilgrims to another "Indian" named Squanto. Both natives had spent time with English merchants who taught the Indians to communicate in the English language.

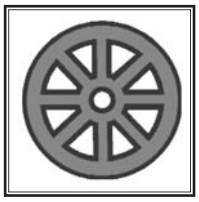
The Pilgrims learned how to plant and grow those strange vegetable crops. Squanto showed them how to make little "hills" of dirt. He placed several kernels of "Indian" maize in each hill, adding the head of a fish in each hill as fertilizer. Further, he warned colonists to guard their fields each morning against birds and other forest creatures which would eat the corn. In addition, Squanto taught the Pilgrim men how to hunt wild animals in the New England forest. The help of Squanto enabled the Pilgrims to secure enough food to survive.

A few years after the arrival of the Pilgrims, other Puritans settled in Massachusetts. They, too, had a most difficult first winter. Nearly one fifth of those Puritan colonists died. The previous July, Governor John Winthrop had contracted for a ship to ***reprovision*** Boston.

By early February, the Puritans around Charlestown and Boston were down to their last few mouthfuls of food. A special day of prayer and fasting was set aside to ask for God's help. The day before the appointed fast, Captain Pierce and the ship, *Lyon*, appeared in Boston Harbor. The *Lyon* was loaded with food, which included salted meats and fish, biscuits, dried peas and lemons to counteract the deadly disease of ***scurvy***.

Three of the first five vignettes in this chapter have involved religious aspects of culture and society. The following vignette looks at well known scientists from the past. They too, however, were devotedly religious individuals.

One scientist was German. The other was an Englishman. One lived in the 16th and 17th centuries. The other lived in the 17th and 18th centuries.



Industry

SCIENTISTS WHO CHANGED THE WORLD

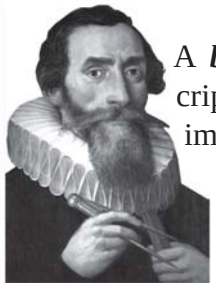
Ours is an era in which science is a common topic of conversation. Scientists have discovered DNA, invented MP3 players, plasma screens, space rockets, laser beams, refrigerators, GPS, and much more!

A scientist is a person who is a specialist in knowledge, which is derived from observation, study, or experimentation. Scientists are people who have compelling curiosity to discover why certain laws of physics and chemistry function.

A common ***misconception*** today is that true scientific research and religious faith cannot mix. The two are regarded as being worlds apart. Therefore, it is thought, a true scientist cannot be a religious person.

History reveals, however, a completely different set of circumstances. The historical record is full of individuals who were both scientists and devout Jews, Christians, or Muslims. Historically, many people do not see science and religion as incompatible. Two of them are the subjects of this vignette: Johannes Kepler and Sir Isaac Newton. Both men changed the way humans live.

Johannes Kepler (1571-1630) is considered to be the "Father of Astronomy." He was born in Wurttemberg, Germany, in the year 1571. The boy was sickly most of his childhood.

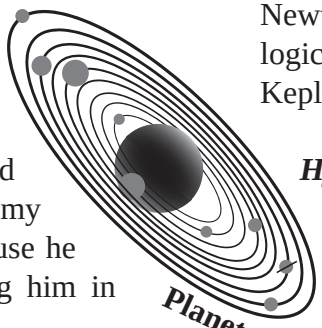


Johannes Kepler

A ***bout*** of smallpox left him with crippled hands and permanently impaired eyesight.

His father was a German army officer who was away at war more than he was at home. The Kepler family had noble roots but had fallen on financial hard times. Nevertheless, Johannes received a quality education at local Lutheran schools and the University of Tubingen.

Young Kepler was a thoroughly committed Christian. For two years, he studied for the ministry. With great reluctance, he decided to pursue a career in astronomy instead. He did so, only because he believed that God was leading him in that direction.



Planets

In regard to astronomy, Kepler demonstrated convincingly that Copernicus' theory of a *heliocentric* ("sun-centered") planetary system was more than just a workable ***hypothesis***. Furthermore, his astronomical observations and mathematical calculations caused him to formulate several laws of planetary motion. For example, he demonstrated that the planet orbits were elliptical (oval) rather than circular. He also ***deduced*** that the speed of a planet increased as it approached the sun.

He observed such mathematical harmony in planetary orbits that he likened them to notes on a musical scale. He believed that such a degree of perfection could occur only as the result of a Creator God. Kepler once stated that in his astronomical researches, he was merely "thinking God's thoughts after him." His investigations of astronomy led him into a study of Biblical chronology. He concluded that the world was created about 7,000 years before his own lifetime. He asserted,

> *"Since we astronomers are priests of the highest God in regard to the book of nature, it befits us to be thoughtful, not of the glory of our minds, but rather, above all else, of the glory of God."*

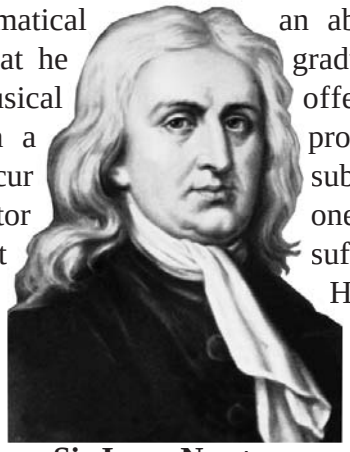
Kepler's deduction of the laws of planetary motion prepared the way for Isaac Newton's theory of gravity. In fact, Kepler served as the link between Copernicus and Newton. The three men must be seen in a logical progression from Copernicus through Kepler to Newton.

Dr. Henry M. Morris, Ph.D. in ***Hydrology***, stated:

> *"Most scholars who have studied the question have judged Sir Isaac Newton to have been the greatest scientist who ever lived. He built on the foundation laid by others, but his tremendous discoveries provided the solid framework within which the great scientific and industrial revolutions of the 18th century could develop."*

Sir Isaac Newton (1642-1727) was born in Woolsthorpe, Lincolnshire, England on Christmas Day, 12 years after the death of Johannes Kepler.

Isaac Newton obtained his higher education at Cambridge University. He was an absolutely brilliant student. When he graduated from Cambridge, Newton was offered the position of mathematics professor. The accomplishments of his subsequent career were truly amazing. Any one of his achievements would have been sufficient to put Newton in the Scientists' Hall of Fame.



Sir Isaac Newton

He discovered the law of gravity (larger bodies attract smaller bodies). He discovered the three laws of motion:

1. A body in motion tends to stay in motion, and a body at rest tends to remain at rest.
2. A change of motion is proportional to the force imposed on the body in motion.
3. For every action there is an equal and opposite reaction.



Reflecting Telescope

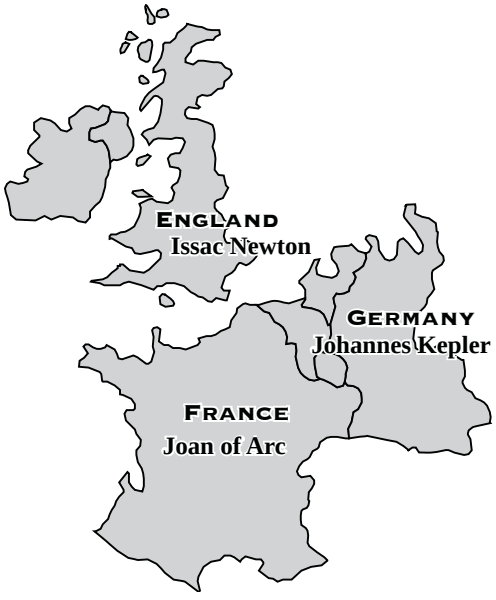
He developed the mathematics for calculus. He prepared the way for the law of energy conservation (energy cannot be destroyed). He developed the particle theory of light (a beam of light is made up of particles). Finally, he constructed the first reflecting telescope.

Sir Isaac Newton was a scientific genius. Nevertheless, he was also fully committed to the Christian faith. He believed the Bible to be totally true. In addition to his discourses on scientific topics, Newton wrote many books on religious subjects as well. For instance, he wrote a great deal about Biblical ***prophecy***. He also believed in the concept of a young earth. He actively opposed the efforts of some of his scientific peers who theorized billions of years of geological development. He considered the worldwide flood described in the Book of Genesis as an adequate explanation of virtually all geological phenomena. He accepted the record of a six-day creation as literal. He once said,

> *"We account the Scriptures of God to be the most sublime philosophy. I find more sure marks of authenticity in the Bible than any **profane** history whatsoever."*

Today, we think of the United Kingdom and French Republic as Western Allies. That was not always so. Anglo-French conflicts dominated several hundred years of world history. We now want to visit France at a time outside the scope of this chapter. The early 15th century provides us with a particularly suitable example of such hostilities.

We have seen the blending of religion and science in the lives of some prominent individuals in the human story. This time, we want to observe the impact of religion and patriotism. We want to examine the life of a seemingly insignificant French, teenage girl.



LIFE PRINCIPLE



The poor man is not he who is without a cent, but he who is without a dream.

—Harry Kemp



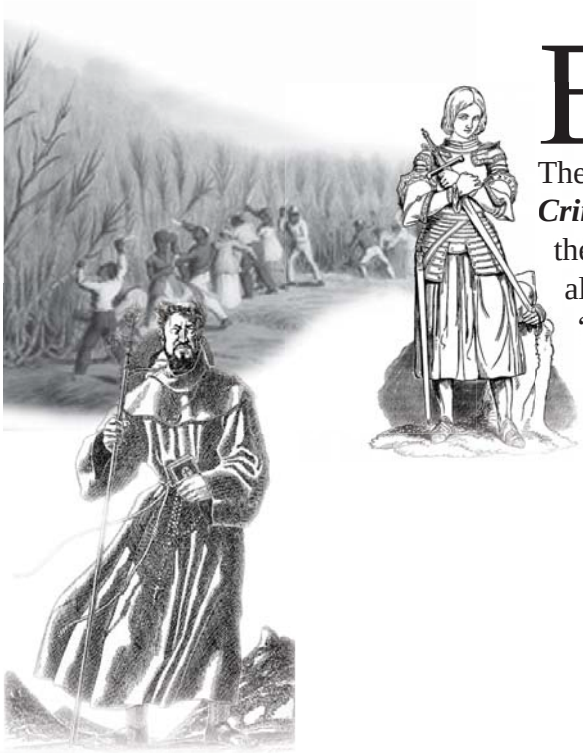
Lesson 4

Chapter 5

Section 1
Lessons 1-5

Military

THE MAID OF ORLEANS



Ever since Duke William of Normandy invaded England from France in 1066, the French and the English were sporadically at war with one another. Then, In the middle of the 19th century, during the ***Crimean War***, those two nations were on the same side for the first time in centuries. Even though they were then allies, a British field commander in that conflict (from "force of habit") constantly referred to the enemy army as "the French."

During the years covered by this chapter, the French and the English were engaged in a number of conflicts. Among them were the following:

1. The War of the League of Augsburg (1688-1697)
2. King William's War (1689-1697)
3. Queen Anne's War (1702-1713)
4. The War of the Spanish Succession (1701-1714)
5. King George's War (1744-1748)
6. The War of the Austrian Succession (1740-1748)
7. The French and Indian War (1754-1763)
8. The Seven Years War (1754-1763)

Anglo-French wars were also common between 1066 and the mid 1800s. Most disputes were about kings and queens, Protestants vs. Catholics, or rights to land in the Americas. Many classic stories and films, such as *Ivanhoe*, *A Tale of Two Cities*, *The Scarlet Pimpernel*, *The Man in the Iron Mask*, and *The Three Musketeers*, have related some of the battles and intrigues of war between the French and British.

In the early 1400's, France was involved in two major confrontations--an open combat with England and what was essentially a civil war. The latter was between the Burgundians (residents of the Province of Burgundy) and the Armagnacs (followers of the Count of Armagnac) for control of France. The Burgundians had allied themselves with the English.

VOCABULARY

Crimean War: a war in which an alliance between Great Britain, France, Sardinia, and Turkey defeated Russia, lasting from 1853-1856.
Anomaly: something very different, "peculiar," not easily classified or labled
Semites: occupants of the Muslim and Jewish nations of the Middle East; descendents of Shem, oldest son of Noah
Sub-Saharan: in Africa, south of the Sahara Desert
Slavers: slave traders
Angst: emotional pain; severe anxiousness and fear

In 1422, France's King Charles VI died. His son, the Dauphin (heir to the throne), assumed the title of Charles VII, King of France. His claim to the French throne, however, had been set aside by the Treaty of Troyes, which ended a previous conflict between the French and the English. Charles VII was supported by the Armagnacs and opposed by the Burgundians.

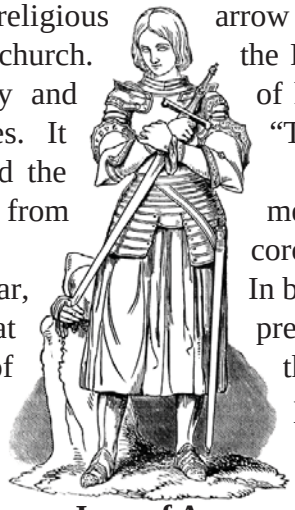


Charles VII

The Dauphin was a timid, pleasure-loving, young man who had neither the talent nor the courage to wage war. He left the struggle in the hands of his advisors and generals. Even though his army was besieged at the city of Orleans, the would-be king was in Chinon, many miles away.

Meanwhile, a girl-child was born in the village of Domremy, on the Meuse River, along the eastern border of France. Her name was Jeanne d' Arc ("Joan of Arc") (1412-1431). She was the daughter of Jacques d' Arc, a prosperous farmer in the region.

Joan was an especially religious girl, who was fond of going to church. She fasted and prayed frequently and busied herself with church charities. It is said that the domestic fowl and the wild birds, at the d' Arc farm, ate from Joan's hand.



Joan of Arc

Sometime in her 13th year, Joan of Arc became convinced that God had given her the mission of saving France and its future king. She further believed that God and His angels had instructed her to go to Chinon to meet with the Dauphin. Joan believed that she was to conduct Charles to the city of Reims. There, he would be crowned king of France.

Hearing of her coming, Charles disguised himself. He did so to see if Joan could identify the king. According to legend, Joan went right up to the Dauphin and informed him, *"God send you long life, gentle Dauphin... The King of Heaven speaks to you through me, and says that you shall be anointed and crowned at Reims, and be lieutenant of the King of Heaven, who is King of France."*

To say the least, Charles was impressed with the now 17-year-old peasant girl from Domremy.

Joan subsequently acquired a sword and a horse. She cut her hair short and put on men's clothing and armor. Then, she proceeded to Orleans. On April 29, 1429, Joan of Arc entered the city.

Joan was a complete ***anomaly***, and her arrival brought many changes. She persuaded the French soldiers to stop engaging in immoral activities and quit cursing. She accompanied them to church and led them in prayer.

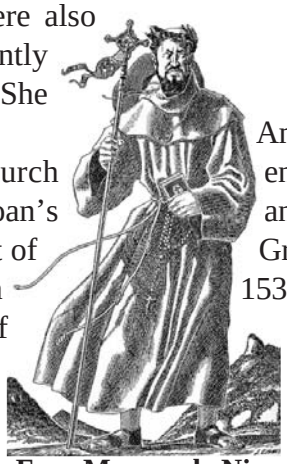
In the Battle of Orleans, the peasant girl from Domremy was wounded by an English arrow in the shoulder. Nevertheless, she led the French to a resounding victory. Because of her exploits there, she became known as "The Maid of Orleans."

The next day, Joan went forth to meet the Dauphin and escorted him to his coronation as Charles VII, King of France. In battle after battle which followed, the mere presence of the Maid of Orleans inspired the French soldiers to acts of intense patriotism. To the French, she was a saint and a messenger from God. To the English, however, she was a witch and a tool of the Devil.

Eventually, she was captured by the Burgundians who turned Joan over to English officials. At the city of Rouen, in Normandy, she was tried by a local court of the Roman Catholic Inquisition for heresy and witchcraft. Her trial was as much political in nature as religious.

She was found guilty by French churchmen who were, in all reality, agents of the English. After her conviction, Joan was turned over to the civil authorities, who were also English. Joan of Arc was subsequently burned to death at the stake in Rouen. She was just 19 years old!

In 1455, the Catholic Church ordered a new investigation into Joan's death. The following year, the verdict of witchcraft was reversed by a Church court of review, and the Maid of Orleans was declared innocent. Then, nearly 500 years later (1920), she was officially proclaimed a "Saint" of the Roman Catholic Church.



Fray Marcos de Niza

In the time of Jeanne d' Arc, the English tried to enslave the French. The reasons for such activity were purely political. On other occasions, slavery was instituted for economic purposes.

That was the situation with the black-African slave-trade to the New World. The importation of forced-labor field-hands greatly impacted the agriculture of many western nations. Let us journey westward across the Atlantic Ocean from Europe to North America in the 17th and 18th centuries.



Agriculture

African Slaves in America and Europe

For thousands of years, black Africans developed an assortment of primitive societies, high cultures, and civilizations on the continent of Africa. Furthermore, black Africans found themselves both as free persons and slaves in the Near East, Egypt, Greece, Rome, and Europe (north of the Greco-Romans). For instance, Christian tradition says that the man whom the Romans compelled to carry the cross of Jesus in Jerusalem was a black African. *"As they were going out, they met a man from Cyrene* (in North Africa), *named Simon, and they* (the Roman soldiers) *forced him to carry the cross."*

Some 1500 years later, in the American Southwest, the first man to enter the present-day US states of Arizona and New Mexico from south of the Rio Grande was a black slave. In March of 1539, a small Spanish expedition headed north from Culiacan, Mexico. The leader of that party was a priest named Fray Marcos de Niza.

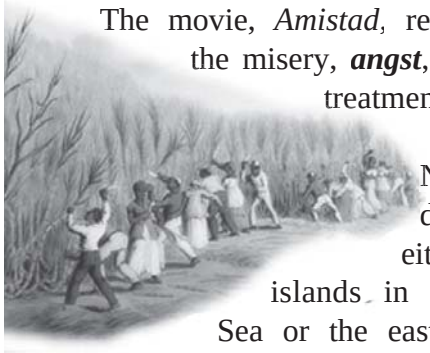
Fray Marcos took with him a black slave from North Africa, named Estevan ("Stephen"). On the trip north, Fray Marcos sent Estevan ahead of the main party. Therefore, Estevan became the initial non-Native American to visit the Zuni pueblos along the Arizona-New Mexico border.

The earliest permanent English colonists in today's United States arrived in Virginia in April of 1607. They established the settlement of Jamestown (named for King James I). Twelve years later, the original shipload of black African slaves (called *Negroids*) landed in Anglo North America. During the next 300 years, thousands of slaves were transported from west Africa to America.

The black slave trade was not practiced by only one ethnic group. Caucasian Europeans share their guilt with both ***Semites*** and African Negroids! ***Sub-Saharan*** black African tribes fought with one another for hundreds, if not thousands, of years. When one tribal group attacked another, the victors captured and sold many of the defeated enemy into slavery.

Black prisoners were herded to a central location where they were sold to Semitic-Islamic-Arab ***slavers*** who then took their human "possessions" to the African west coast. There, the men, women, and children were sold to European and/or American ship captains who

transported the captives in crowded ships to Europe or America, under horrible conditions. The movie, *Amistad,* reveals some of the misery, ***angst***, and inhumane treatment of the slaves.



In the New World, the destination was either one of the islands in the Caribbean Sea or the east coast of the future United States. In the Caribbean, slaves were usually put to work in sugar cane fields owned by the French, English, or Spanish, where harsh conditions led to the death of many slaves. The death rate among sugar cane field workers in Cuba and other islands was the highest of all the slaves in the Americas.

The harvested sugar cane was processed into sugar or molasses, then transported either to Great Britain or cities on the North American eastern seaboard. In both places, much of that sugar or molasses was made into rum. Slaves, sugar, and rum produced what were known as the great "triangle trade routes."

Slaves were taken from Africa to the West Indies. There, they were sold or traded for sugar. The same ship that brought the slaves would be loaded with sugar or molasses that was then carried to British or American destinations.

Once the ships had the sugar unloaded, they would take on cargoes of rum. Considerable amounts of that rum found its way back to Africa. The rum would be sold or traded, and a new shipment of slaves would be obtained. Thus the great "triangle trade routes" were conducted.

In Colonial America, the black African slaves were used primarily to produce two important plantation cash crops—tobacco and cotton. Both products soon developed ready markets in Europe and Africa. An inquisitive American named Eli Whitney invented the cotton gin (1794) that enabled southern plantation owners to separate cotton fibers from seeds rapidly and economically. The cotton gin accelerated production of cotton fabric and commercial enterprise. Economic growth spread among manufacturing enterprises, retail stores, and transportation businesses.

Slavery, tobacco, cotton, and rum all contributed to the world's economic cycle. They also enhanced human misery and death among African tribes. Sugar, tobacco, and cotton necessitated huge work forces. Those needed-laborers came via the African slave trade. The slave trade was finally broken by an Englishman, William Wilberforce, and an American, Abraham Lincoln. Both of these men devoted their lives to ridding the world of slavery.

In this lesson we have learned about a teenage girl who was burned to death at the stake. We also observed whole families wrenched away from their homes and sold into lifetimes of slavery. Those are sad commentaries on humanity. Many times in history, people have done horrendous things to one another, in both times of war and prosperity.

Humanity has also performed acts of love, kindness, sacrifice, courage, and greatness. There have been times when the human race has produced objects of great beauty and artistry. Such a time was Britain of the 1600's. During the reigns of Queen Elizabeth I and King James I, the two greatest achievements in English literature were produced. So, we shall travel back across the Atlantic Ocean to the British Isles in the late 16th and early 17th centuries.

LIFE PRINCIPLE



"The man who has no inner life is the slave of his surroundings."

—Henri Frederic Amiel

Chapter 5

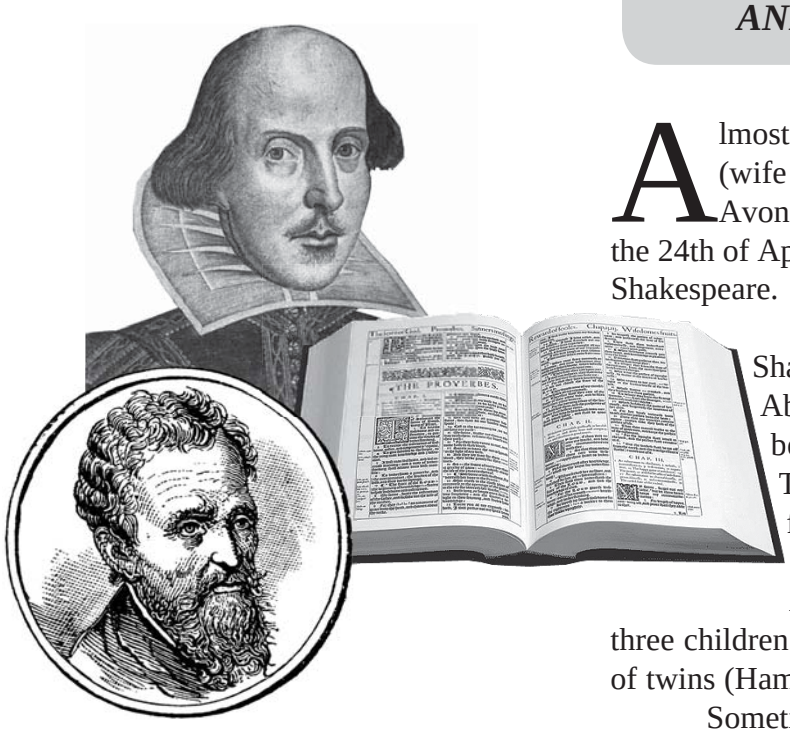
Section 1
Lessons 1-5



Lesson 5

Literature, Music, & Education

WILLIAM SHAKESPEARE'S PLAYS AND THE KING JAMES BIBLE



Almost 500 years ago, Mary Arden Shakespeare (wife of John Shakespeare of Stratford-upon-Avon, England), gave birth to her third child about the 24th of April, 1564. The baby son was named William Shakespeare.

For the first 14 years of his life, William Shakespeare attended the local grammar school. About 1578, however, the Shakespeare family began to experience financial difficulties. Therefore, the son was forced to withdraw from school.

As a young man, William married Ann Hathaway. The marriage produced three children. They were a daughter (Susanna), and a set of twins (Hamnet and Judith).

Sometime in the late 1580's, William Shakespeare moved from Stratford-upon-Avon to London. He was attempting to earn a living which would enable him to care for a wife, three children, and two elderly parents. He lived the rest of his working life in London.

Shakespeare became an actor. In time, he began reworking old plays and even writing some of his own. Eventually, Shakespeare owned his own theater company where he produced some of his plays.

He also wrote a considerable amount of poetry. In all, he wrote two, long, narrative poems, 154 sonnets, two other lengthy poems, and 37 plays. Those plays came in three distinct categories:

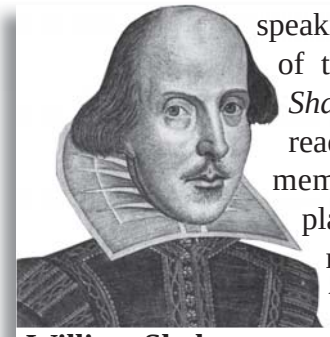
1. Comedies
2. Histories
3. Tragedies

He wrote plays in unrhymed poetry, designed not to be read, but to be acted-out. William Shakespeare's marvelous talent for storytelling made his plays of the Elizabethan Era (late 1500s) still popular, 400 years later.

Until the 20th century, virtually every English-

VOCABULARY

Reconciliation: truce, peaceful agreement between opposing groups
Sects: religious groups (root word for sectarian)
Eminent: qualified, famous, prominent
Rendering: version, edition
Old Testament: first 39 books of the Bible (Genesis through Malachi)
New Testament: Last 27 books of the Bible (Matthew through Revelation)
Renaissance: a period of artistic expression between the 14th and 17th centuries.
Arguable: open to questions, debatable


William Shakespeare

speaking home had a copy of the *Complete Works of Shakespeare*. People have read, acted, watched, and memorized Shakespeare's plays. He is one of the most quoted authors in the Anglo-American world.

Shakespeare's career as an actor, director, and playwright encompassed almost twenty years. About 1610 (some seven years after the death of Queen Elizabeth), Shakespeare retired from the stage, left London, and settled down for the rest of his life in his home town. There he died on April 23, 1616.

Many beautiful and well known passages from Shakespeare's plays could be quoted here. Any would serve as an excellent example. The following two represent Shakespeare's style.

The Merchant of Venice, Act IV, Scene I

"The quality of mercy is not strain'd,
It droppeth as the gentle rain from heaven
Upon the place beneath: it is twice bless'd;
"Tis mightiest in the mightiest; it becomes
The throned monarch better than his crown;
His sceptre shows the force of temporal power,
The attribute to awe and majesty,
Wherein doth sit the dread and fear of kings;
But mercy is above this sceptred sway,
It is enthroned in the hearts of kings,
It is an attribute to God himself,
And earthly power doth then show likest God's
When mercy seasons justice.

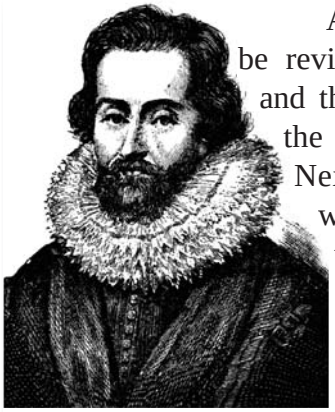
King Richard II, Act II, Scene I

This royal throne of kings, this sceptred isle,
This earth of majesty, this seat of Mars,
This other Eden, Demi-paradise,
This fortress built by Nature for herself
Against infection and the hand of war,
This happy breed of men, this little world,
This precious stone set in the silver sea,
Which serves it in the office of a wall,
Or as a moat defensive to a house,
Against the envy of less happier lands,
This blessed plot, this earth, this realm, this England."

You have probably heard of, or read, some of Shakespeare's famous plays, such as *The Tragedy of Romeo and Juliet, The Taming of The Shrew, The Life and Death of Julius Caesar,* and *The Merchant of Venice*.

During the years of Shakespeare, another famous literary project was accomplished under the influence of King James I. In January of 1604, one year after coming south from Scotland to claim the throne of England, King James I convened a conference at Hampton Court. The purpose of that assembly was to attempt a ***reconciliation*** between and among the various "warring" Protestant groups throughout Britain. At that time, those different religious ***sects*** were constantly at each other's throats concerning Bible doctrine. The effort failed to bring about the desired result. Nevertheless, a suggestion was made which literally changed the course of English and, indeed, world history.

Dr. Joshua Rainolds of Oxford University, proposed that a new translation of the Bible into the English language be made, that would be acceptable to all the factions. That idea was agreed upon and adopted. King James further recommended that the work be done by the most learned men at both Cambridge and Oxford universities.



King James I

After that, it would be reviewed by the bishops and the leading scholars of the Church of England. Next, the translation would be presented to the Privy Council (the king's appointed advisors). Finally, the work would be ratified by the King's Royal Authority. Consequently, the resultant translation would become known as the Authorized or King James Version.

Fifty-four of England's most ***eminent*** scholars and churchmen were appointed to work on the translation project. Hebrew and Greek manuscripts, as well as previous Latin and English translations, were consulted; however, the King's Bible was largely based on Tyndale's earlier work. The project was completed in seven years. It was the first English ***rendering*** of the Bible which was both authorized by the Anglican Church and largely accepted by the English people.

The King James Version (KJV) of the Bible has had a tremendous effect on the world in literature, religion, education, government, and culture in general. That Authorized Version is universally recognized as having exerted more influence on English speaking communities than any other book in the English language.

It is the Bible's language, beauty, strength, and power that sets it apart as the greatest example of English literature in all of human history. Passages from the ***Old*** and ***New Testaments*** illustrate why the KJV has remained the world's number-one best seller.

Psalm 23

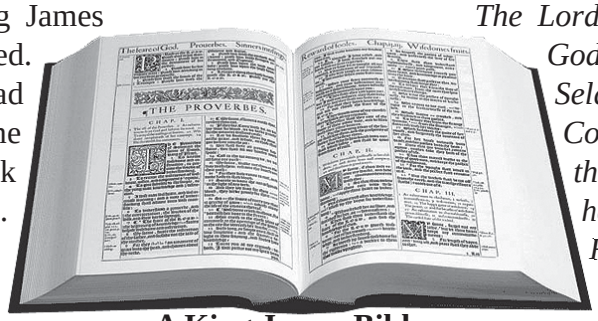
"The Lord is my shepherd; I shall not want.
He maketh me to lie down in green pastures: He leadeth me beside the still waters.
He restoreth my soul: He leadeth me in the paths of righteousness for his name's sake.
Yea, though I walk through the valley of the shadow of death, I will fear no evil: for thou art with me; thy rod and thy staff they comfort me.
Thou preparest a table before me in the presence of mine enemies: thou anointest my head with oil; my cup runneth over.
Surely goodness and mercy shall follow me all the days of my life: and I will dwell in the house of the LORD for ever."

John 1:1-14

"In the beginning was the Word, and the Word was with God, and the Word was God.
The same was in the beginning with God.
All things were made by him; and without him was not anything made that was made.
In him was life; and the life was the light of men.
And the light shineth in darkness: and the darkness comprehended it not.
There was a man sent from God, whose name was John.
The same came for a witness, to bear witness of the Light, that all men through him might believe.
He was not that Light, but was sent to bear witness of that Light.
That was the true Light, which lighteth every man that cometh into the world.
He was in the world, and the world was made by him, and the world knew him not.
He came unto his own, and his own

received him not.
But as many as received him, to them gave he power to become the sons of God, even to them that believe on his name;
Which were born, not of blood, nor of the will of the flesh, nor of the will of man, but of God.
And the Word was made flesh, and dwelt among us, (and we beheld his glory, the glory as of the only begotten of the Father,) full of grace and truth.

There is one more way in which William Shakespeare and the King James Bible are possibly connected. In 1610, the KJV had been translated from the ancient Hebrew and Greek manuscripts into English. It would be published the next year. The translation committee was putting the last-minute finishing, touches on the work. They wanted a professional writer to put their rough translation into a pleasing literary style.



A King James Bible

Likely, William Shakespeare was one of the experts who worked on the KJV in 1610. That was the year that Shakespeare "retired." He was 46 years old. The KJV team wanted some way to honor England's greatest author.

Turning to Psalm 46, some interesting facts emerge. Starting at the beginning, the 46th word is "shake." From the end and counting backward, the 46th word is "spear."

Psalm 46
"God is our refuge and strength, a very present help in trouble.
Therefore will not we fear, though the earth be removed, and though the mountains be carried into the midst of the sea;
Though the waters thereof roar and be troubled, though the mountains shake with the swelling thereof, Selah.
There is a river, the streams whereof shall make glad the city of God, the holy place of the tabernacles of the most High.
God is in the midst of her; she shall not be moved:
God shall help her, and that right early.
The heathen raged, the kingdoms were moved: he uttered his voice, the earth melted.
The Lord of hosts is with us; the God of Jacob is our refuge. Selah.
Come, behold the works of the Lord, what desolations he hath made in the earth.
He maketh wars to cease unto the end of the earth; he breaketh the bow, and cutteth the spear in sunder; he burned the chariot in the fire.
Be still, and know that I am God; I will be exalted among the heathen, I will be exalted in the earth.
The Lord of hosts is with us; the God of Jacob is our refuge. Selah."

The works of William Shakespeare and the translation and compilation of the King James Bible represent the highest literary attainments in the English language. The KJV was published in 1611. Shakespeare died five years later.

During the 15th and 16th centuries (in Italy, to the southeast of the British Isles), lived three men who have been universally acclaimed the greatest artists of the *Renaissance* Era. Two of them will be considered in this vignette. The third will be

reserved for the following one. Therefore, let your mind take you from cold and rainy Britain to warm and sunny Italy some 80 or 90 years before Shakespeare was born. We will be just in time for the births of those two artistic giants.



Art

RENAISSANCE ARTISTS MICHELANGELO AND RAPHAEL

The first of our talented genius artists is Michelangelo Buonarroti (1475-1564). Michelangelo was born in the Italian village of Catrese, on March 6, 1475. His life can be divided into three distinct intervals, based on his geographic location. Until he was ten years old, Michelangelo lived in his hometown. Therefore, that was his "Catresian Period."

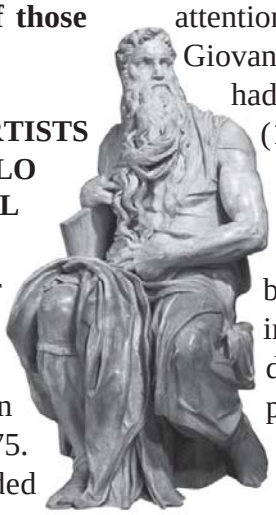


Michelangelo

In 1485, Michelangelo began his formal education in the city of Florence. He was to remain there for at least 30 years. During those decades, he started his career as a painter, sculptor, architect, and poet. Florence was then the leading Italian city in regard to the arts. Those were the years of Michelangelo's "Florentine Period."

At that time, the de Medici family was the foremost banking family in Italy. They served as virtual "dictators" of their native Florence. They prided themselves on being patrons (wealthy or influential persons or families who provided financial support for authors and artists) of the arts. Particularly was that true of Lorenzo de Medici ("the Magnificent"). After the death of Lorenzo in 1492 (the year Columbus sailed to America), however, the Italian center for the arts shifted from Florence to the capital at Rome.

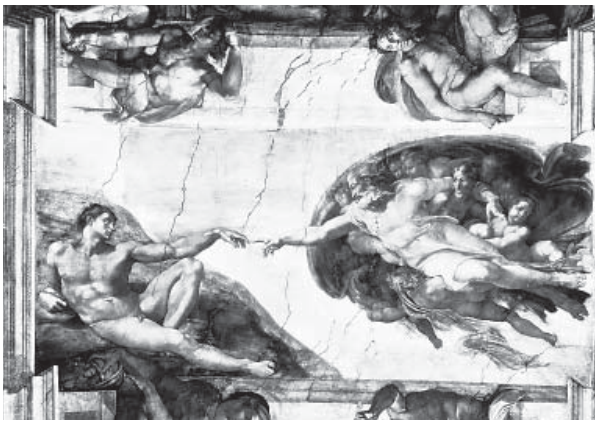
Sometime after 1513, Michelangelo also migrated to Rome. Thus, began his "Roman Period." There, he attracted the attention of Lorenzo the Magnificent's son, Giovanni de Medici. That latter individual had become Catholic Pope Leo X (1513-1521).



Moses

Later, Pope Clemont VII (1523-1534) commissioned Michelangelo to work on the building of Saint Peter's Cathedral in Rome (1547). Michelangelo dedicated the rest of his life to painting art in St. Peter's Cathedral. The structure is the largest church in European Christendom. St. Peter's can hold up to 60,000 worshippers at one time.

As a sculptor, Michelangelo was in a class by himself. Two of his most famous works of art are heroic representations of ancient Israel's King David and Hebrew prophet Moses. Both are unquestioned masterpieces of marble sculpture.



Sistine Chapel Ceiling (segment)

Perhaps Michelangelo's greatest work, however, is his painting on the ceiling of the Sistine Chapel in the Vatican (the residence of the pope). The painting consists of approximately 400 individual figures and presents an allegory of human existence

in pictures. Michelangelo depicted the creation of Adam and the ongoing struggle between good and evil.

Michelangelo is remembered best for the fact that he invested so much vital energy into his art. That was so, whether he was working as a painter, sculptor, or architect. His *David* and *Moses*, the Sistine Chapel ceiling, and St. Peter's Cathedral all testify to Michelangelo's meticulous attention to detail and realism.



Raffaello Sanzio

The second of those three greatest of the *Renaissance* artists is Raffaello Sanzio (1483-1520). Raphael was born in Urbino, Italy, eight years after Michelangelo's birth. He is considered the greatest of the so-called "modern" painters. He received his earliest artistic instruction from his father, Giovanni Sanzio. After his father's death, Raphael probably became the pupil of Timoteo Viti.

In 1504, Raphael left Urbino for Florence. He remained there for the next four years. In 1508, he was called to Rome by Pope Julius II (1503-1513). The pope commissioned Raphael to paint the chambers of the Vatican.

Raphael's work has been divided into three main categories. They represent three distinct styles as influenced by his surroundings. Those categories are the "Umbrian," the "Florentine," and the "Roman."

Unfortunately, Raphael led an extremely short life. He died on April 6, 1520, of a fever at the age of 37 years.

We have looked at the lives and careers of scientists, painters, sculptors, architects, and preachers. The subject of the next vignette was a contemporary of Michelangelo Buonarroti and Raffaello Sanzio. He also was an Italian, the third of the three Renaissance artistic geniuses, and, *arguably*, the greatest of them all!



(A portion of) the Sistine Madonna by Raphael

LIFE PRINCIPLE



"Most of us will never do great things, but we can do small things in great ways."

—Anonymous



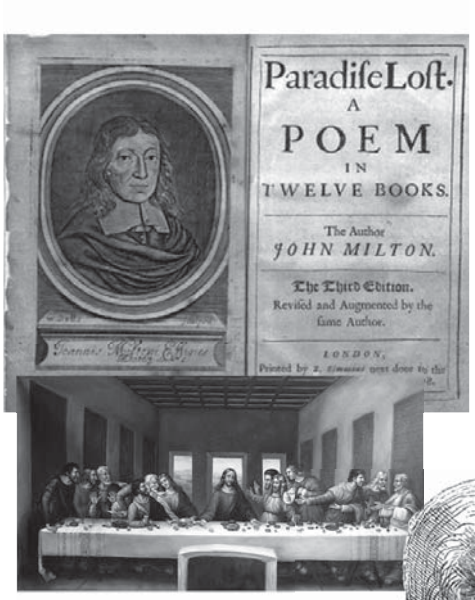
Lesson 6

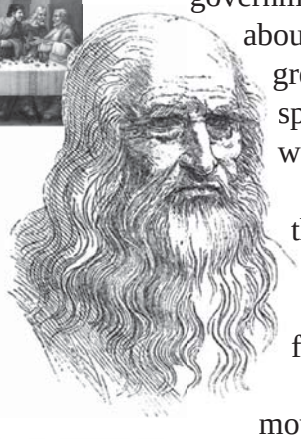
Chapter 5

Section 2
Lessons 6-10

Transportation

LEONARDO DA VINCI





The third of our three outstanding Renaissance artists is Leonardo da Vinci (1452-1519). He was undoubtedly one of the most brilliant men in history. Da Vinci became a successful painter, sculptor, engineer, architect, scientist, and philosopher. In addition, he maintained a public commitment to Jesus Christ.

Leonardo da Vinci was born in the town of Vinci, Italy. Therefore, his family name indicated that he was *da Vinci* ("of Vinci"). His father was a prosperous farmer and government official. As a boy, Leonardo was able to roam about his father's farm and, in so doing, acquired a great fondness for the outdoors. He also developed a special interest in how things (particularly in nature) worked. He was inquisitive about life.

It was his habit to purchase caged birds in the village market and set them free. He did that for two basic reasons. Leonardo strongly disliked to see anything confined against its will. He further wanted to study the mysteries of flight.

By 1469, young Leonardo and his father had moved to Florence. At that time, he was ***apprenticed*** to the painter and sculptor, Andrea del Verrochio (1435?-1488). For the next seven or more years, da Vinci learned from del Verrochio. The tutor became extremely impressed with the pupil. Eventually, the pupil surpassed the teacher.

By 1472, da Vinci had become a master of the Painter's Guild. His reputation grew. Consequently, he received numerous ***commissions*** for paintings.

After 1482, da Vinci left Florence. He entered the employ of Lodovico Sforza, Duke of Milan. While in Milan, Leonardo began painting portraits of members of the duke's court. He also built a war machine for his employer. He even installed central heating systems in local palaces. Furthermore, it was during his Milan period, that da Vinci started working on his painting masterpiece, ***The Last Supper***.

VOCABULARY

Apprenticed: assigned (often by parents) to assist a skilled craftsman in exchange for training in that skill or craft

Commissions: payment for completing paintings for wealthy persons

The Last Supper: the most famous painting by da Vinci, depicting Christ and His disciples at supper prior to betrayal by Judas.

Dissected: cut apart



The Last Supper

Over the years, he became increasingly interested in a study of the human body. At first, that inquiry was limited to outward appearance. Later he started examining the inner structure. He even ***dissected*** human corpses in an attempt to discover how the body was put together.

Da Vinci kept a detailed set of note books of scientific observations. He illustrated items with beautiful drawings. By carefully studying those drawings, 20th century engineers have been able to construct models of da Vinci's inventions. In most cases, those models work perfectly.



da Vinci's Flying Machine

One of da Vinci's sketches was of a "flying machine." Although vastly different from today's reality, that device was essentially a helicopter. Apparently, Leonardo da Vinci learned a great deal about flying from those birds he released as a child. Unfortunately, da Vinci seems never to have actually constructed a "flying machine." If he had done so, the history of transportation might have changed a great deal; people might have been traveling in helicopters much earlier than the 1940s.

Life in Milan was suddenly interrupted in 1499, by an invading French army. Da Vinci's patron (Lodovico) was taken prisoner. Leonardo fled to Venice.

For the next few years, he lived and worked in Florence, Milan, and Rome. Then in 1516, da Vinci left Italy altogether. He became the chief painter and engineer to the King of France, Francis I. Da Vinci was given a chateau near the French city of Amboise. There, he continued his experiments until he became paralyzed, possibly due to lead poison from paint. Leonardo da Vinci died in France on May 2, 1519.

Leonardo da Vinci has been considered the true founder of modern science. He was also a great artist, engineer, and architect. Most of da Vinci's life was lived in the 15th century.

Another person of scientific significance in history, about 100 years after da Vinci, was Robert Boyle. He was born in Ireland in 1627 but became well known for his scientific experiments in England. He is appreciated among scientists because of experiments with vacuum tubes and his observations about matter and theology. He was a strong proponent of Creation and laws of physics put in motion by Divine authority. He never went to college, but his scientific experiments and writings in support of Christianity, and laws for gases, set Robert Boyle among England's great thinkers whose works improved life and caused people to think seriously about life in the present and future.

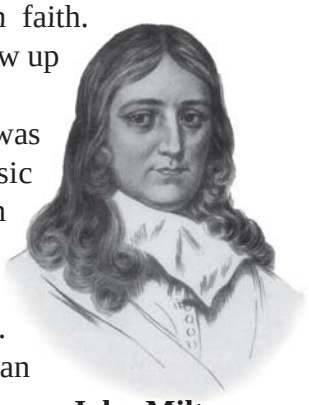
The man who was the greatest of England's Puritan poets lived 200 years later. If the plays of William Shakespeare and the King James Bible are the two greatest expressions of English literature, the poems of John Milton rank a very close third. Let's go back (in our minds) to the British Isles of the 1600's and take note of the life and works of that remarkable individual.



THE MIND OF MILTON

Communication

After poet and author, William Shakespeare, John Milton has been considered the greatest of English poets. Milton was born in London, England, on December 9, 1608. His father was a prosperous lawyer who had converted to the Christian faith. Therefore, John Milton grew up a Puritan.



John Milton

The Milton home was well provided with music and literature. John Milton was no stranger to either. Young Milton decided early in life to be a poet. At the age of 16, he began preparation for a literary career by entering Christ's College, Cambridge University, England.

After graduation from college in 1632, he went to live on his father's estate in the small village of Horton. He lived and wrote at Horton for the next six years. At the end of that time, Milton traveled in France, Switzerland, and Italy. He visited several of the leading men of that day, including Galileo.

He cut his trip short because of impending political crisis back home. The English Civil War was coming. So, by 1639, Milton had returned to London. For the next few years, he identified himself with the Oliver Cromwell and Puritan cause in England.

During the English Revolution (1642-1648) John Milton wrote numerous pamphlets defending the overthrow of King Charles I from the British throne. In the period after the Civil War, England was ruled for a few years by Puritan leader, Oliver Cromwell. Because of his support of the Puritan side during the war, Milton was appointed to a position in Cromwell's government. Then, in 1652, John Milton became totally blind.

When the son of Charles I was restored to the throne, Milton was briefly imprisoned. Upon his release from prison, he withdrew from public life. The strain of politics had begun to be felt.

During those years when he was involved with English political affairs, he had written very little. After his retirement, however, he took up poetry in earnest. Those were his most productive years.

True to his Puritan convictions, most of Milton's poetry was religious in nature. He wrote poems about Christ's birth, the life of Old Testament Hebrew judge Samson, the rebellion of Satan in Heaven, and the Fall of humanity into sin on earth. In addition, he also wrote other poems of a more personal nature. For example, the short poem, "On His Blindness" refers to his own sightless condition:

"When I consider how my light is spent,
Ere half my days in this dark world and wide,
And that one talent which is death to hide
Lodg'd with me useless, though my soul more bent
To serve therewith my Maker, and present
My true account, lest he returning chide,
"Doth God exact day labor, light denied?"
I fondly ask. But Patience to prevent
That murmer soon replies, "God doth not need
Either man's work or his own gifts; who best
Bear his mild yoke, they serve him best. His state
Is kingly: thousands at his bidding speed,
And post o'er land and ocean without rest;

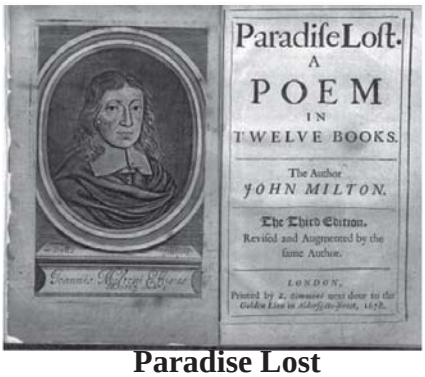
They also serve who only stand and wait."

Another example of Milton's mind is reflected in the following excerpt from "The Rose Out of Chaos":

"Of man's first disobedience, and the fruit
Of that forbidden tree, whose mortal taste
Brought death into the world, and all our woe,
With loss of Eden, 'til one greater Man (Christ)
Restore us, and regain the blissful seat,
Sing, Heavenly Muse, that on the secret top
Of Oreb, or of Sinai, didst inspire
That shepherd, who first taught the chosen seed
In the beginning how the Heavens and Earth
Rose out of chaos."

Milton's literary masterpiece is the two part epic poem, *Paradise Lost* and *Paradise Regained*. Together, they tell the story of Satan's rebellion against God and Adam's and Eve's disobedience of God in the Garden of Eden. They climax with Christ's redemption of sinful humanity. Both works are regarded as the height of English poetic attainment during the Puritan Era. Both were required reading in most colleges until the 21st century.

Milton was a champion of literacy and freedom of the press. His literary works encouraged men, especially those in government and the church, to study biblical authors such as Moses, Paul, and Peter to grasp knowledge and wisdom on how humanity should relate to



Paradise Lost

humanity and God. Milton was also a student of Chaucer, Spenser, Shakespeare, Homer, Dante, and Virgil. Milton learned from those authors that government should not be based on the traditional concept of the "Divine rights of kings." Rather, he advocated that government should be accountable to God and the people. In 1847, he warned Parliament that "revolutions of ages do not recover the loss of a rejected truth, for the want of which whole nations fare the worst."

Language is the principle tool of human communication. The author is therefore the foremost communicator in any culture. With his poetry, even the blind John Milton was able to communicate his thoughts, beliefs, and values to his world and to ours.

In this vignette, we have looked at the greatest Puritan poet in English history and an influential Irish scientist. In the next one, we will consider the experiences of a great Puritan leader who led his people to the New World. His story also begins in England in the same general period as John Milton. His adventure will take us across the Atlantic Ocean to the wilds of North America, where political thought and religious freedom reached their highest expression in government.



LIFE PRINCIPLE

"To educate a man in mind and not in morals
is to educate a menace to society."

—President Theodore Roosevelt



Lesson 7

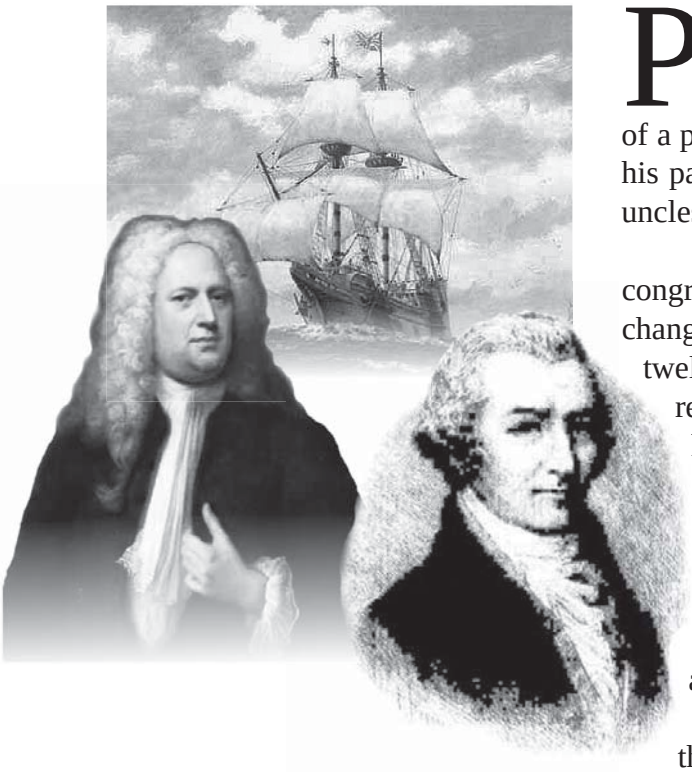
Family and Home

Chapter 5

Section 2

Lessons 6-10

PILGRIMS AND THE MAYFLOWER



People can live happy and successful lives even if they experienced unhappy childhoods. William Bradford did. Bradford was born in England in 1590 of a poor family. By the time he was eight years old, both his parents had died. William was sent to live with some uncles who expressed little affection or love.

A friend introduced William to a nearby congregation of Puritans. That introduction completely changed William Bradford's young life. By the age of twelve, he had gotten deeply into the Bible and was very religious. His family, however, did not approve, and he suffered ridicule and punishment.

In an attempt to escape the persecution they were receiving from the English church and government, the Puritan ***congregation*** Bradford attended decided to flee to Holland. Several attempts were made to escape. Many Puritans were arrested and imprisoned before they could leave England.

In Holland, their difficulties continued. Thus, they decided to start over in a new place and sailed to America on the ship *Mayflower* in 1620. By that time (because of their frequent travels) the group had become known as the "Pilgrims."

They suffered physical and emotional stress during the journey across the Atlantic Ocean, and when they arrived in Massachusetts, they experienced severe weather. During the first two years, the Pilgrims nearly starved to death, and sickness took the lives of almost half of them.

When the governor of the colony died, the people selected William Bradford, then a young man, as their new governor. For the next 37 years, Bradford led the Massachusetts Pilgrims. Without his military, religious, and civic leadership, the colony would not have survived. The unhappy little boy had become one of America's founders. His wisdom set the pattern for what was to

VOCABULARY

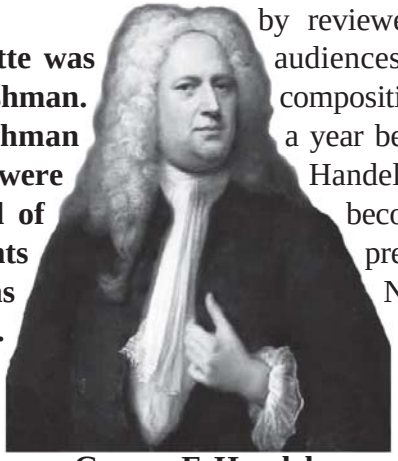
Congregation: local group of people who gather regularly to worship
Composers: men or women who write music for songs or orchestra performance
Houses: audiences in theatres or opera houses
Followed suit: did likewise

become the world's first nation deliberately based on Judeo-Christian principles.

Before he died, William Bradford stated that one of the reasons the Pilgrims went to North America was to lay the foundation for the spread of the Gospel of Jesus Christ in the remote parts of the world.

Today, you can visit William Bradford's grave site on Burial Hill in Plymouth, Massachusetts. A few feet from Bradford's grave is the final resting place of Adoniram Judson, who was America's first missionary to the foreign field. Judson was part of that great missionary movement which literally changed the history of the world. Bradford's hope had come true. The Pilgrims had laid the foundation for the spread of their faith and were used as "stepping stones" for others who came after them.

The subject of the past vignette was an American who was really an Englishman. The next one is about an Englishman who was actually a German. They were both pioneers (each in his own field of endeavor). They both used their talents to the best of their abilities. One was a colonist. The other was a composer. The German lived almost a hundred years after the American. Our story begins in Germany in the late 1600's.



George F. Handel



Music

GEORGE F. HANDEL AND HIS MUSIC

One of the greatest ***composers*** of all time was George Friedrich Handel. He was born in Halle, Upper Saxony, Germany, on February 23, 1685. His father was a surgeon at the court of Duke Johann Adolf of Saxe-Weissenfels; his mother was the daughter of a Lutheran minister; both parents were bitterly opposed to his obsession with music.

At the age of six, Handel was composing sonatas (instrumental compositions, usually for pianos). He was so skilled at playing the organ, that even his reluctant parents decided to send him to Berlin to perform before the princess of Prussia. Before George returned to Halle, his father had died.

In 1702, Handel was sent to the University of Halle to study law. A month later, however, he joined the musical community in the city of Hamburg. He was advised to go to Italy, which he did in 1706. Then, two years later, he settled in Rome where he wrote several Italian operas.

He went back to Germany, where he was appointed choir master in Hanover. During that stage of his life, Handel began to visit England. Handel's music became very popular there, but his English operas were attacked by reviewers. However, the London audiences loved Handel's musical compositions. He stayed in London for a year before going back to Hanover. Handel the German was slowly becoming "English." In fact he preferred London to Germany. Nevertheless, eventually he did return to his homeland, but his stay at home was shorter than his "visit" to England.

He asked his employer for permission to make another "short" visit to England. He arrived in London again in November of 1712. He remained there for 46 years!

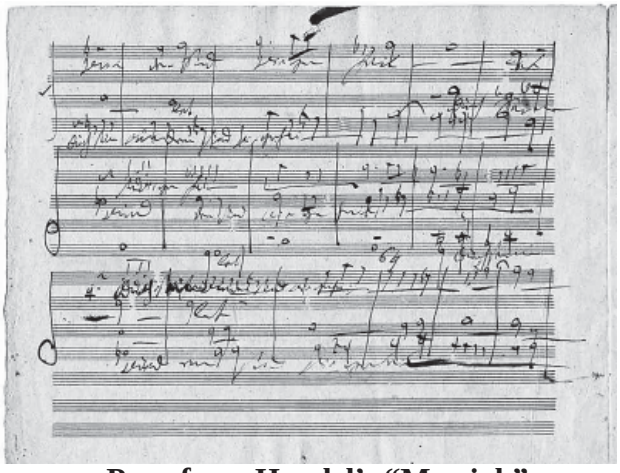
His new operas in London were also tremendous successes. He met many of the English literary giants of the day. England's Queen Anne (1701-1714) even provided Handel with an annual income. The great German composer had become almost entirely "English." In 1723, he bought a house in London. Four years later, Handel became a British subject (citizen).

George Friedrich Handel was a dedicated Christian. Thus, the subjects of his compositions were often drawn from the Bible. Such Biblically oriented pieces include, "Joseph and His Brethren," "Saul," "Israel in Egypt," and "Samson." Handel particularly liked to combine the very words from the Bible and original music.

On August 22, 1741, George Friedrich Handel began to compose what turned out to be his masterpiece--the "Messiah." For that work, he used the texts of such books of the Bible as Job, Psalms, Isaiah, Lamentations, Haggai, Zechariah, and Malachi in the Old Testament. From the New Testament, Handel used the Gospels of Matthew, Luke, and John, the Epistles of Paul, and the Book of Revelations. He composed the music in just 23 days. He later told a friend, "I did think I did see all Heaven before me, and the great God himself." The "Messiah" told the story of the birth, life, death, and resurrection of Jesus Christ.

The "Messiah" was first performed on April 13, 1742. British newspapers raved about it, and every performance played to sold-out ***houses***. One famous performance was attended by George II, the King of England. When the triumphal "Hallelujah Chorus," announcing Christ's resurrection was sung, the king was so moved that he stood throughout the singing of the entire chorus, and the rest of the audience immediately ***followed suit***! That tradition has been maintained for every public performance of the "Messiah" since that time.

To this day, the Western World, particularly at Christmas and Easter, flocks to performances of Handel's "Messiah." What Milton did with poetry, and Bunyan did with prose, Handel did with music. The "Messiah" has almost become a Christian "national anthem" and is one of the most popular music arrangements in history.



Page from Handel's "Messiah"

The Christian books, plays, art, and music of the 1600s and 1700s marked a turning point in world history. Those expressions reflected the souls of men who were weary of pagan culture and yearned to discover and live by principles based on grace, love, generosity, and virtue. Practitioners of several religious faiths have produced great works of literature, music, and art. That of European Western Civilization has been predominately Christian in nature. The same has been at least somewhat true for many settlers and explorers of the New World. Many of the expeditions into areas of the New World went there for "God, Gold, and Glory."

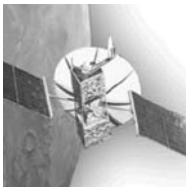
The Eastern Seaboard of North America was English. South America, Central America, Mexico, and the Southwest of the future United States were Spanish. The mid-continent of North America was French and was known as "New France." It is there, during the 17th century, that we shall to go next.

LIFE PRINCIPLE



"If you do not stand for something, you will fall for anything."

—Anonymous



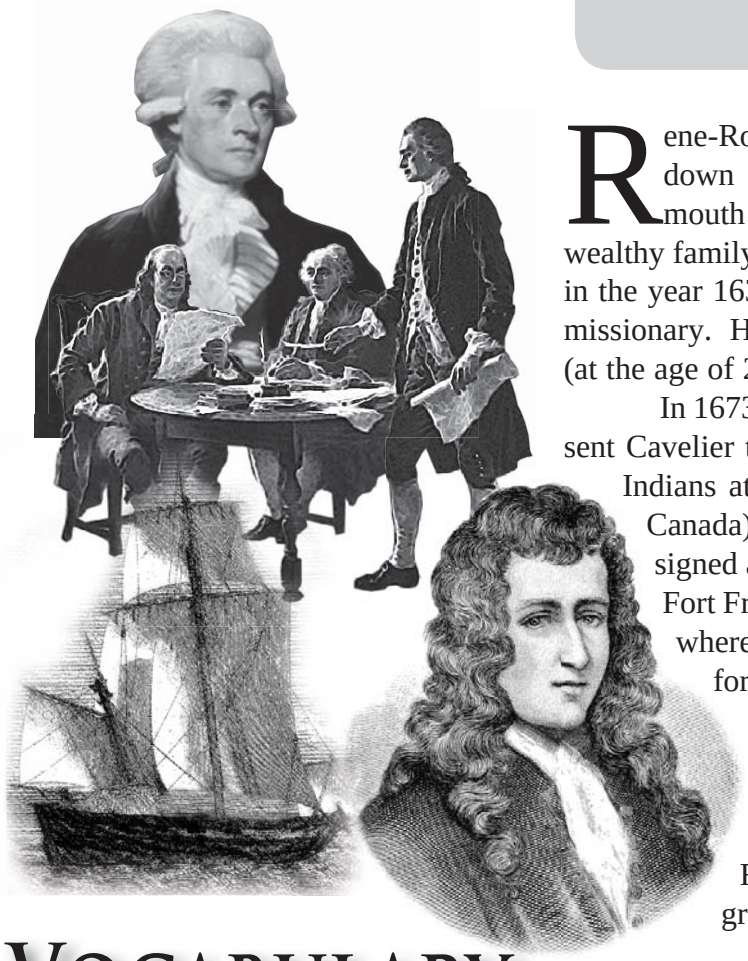
Lesson 8

Chapter 5

Section 2
Lessons 6-10

Discoveries & Explorations

A FRENCHMAN CLAIMS LOUISIANA



Rene-Robert Cavelier was the first European to sail down the length of the Mississippi River to its mouth in the Gulf of Mexico. He was born to a wealthy family in Rouen, France (where Joan of Arc died), in the year 1635. Cavelier was educated to be a religious missionary. However, he left the religious life about 1666 (at the age of 23). At that time, he went to Canada.

In 1673, Count Frontenac, governor of New France, sent Cavelier to meet with representatives of the Iroquois Indians at Cataraqui (present day Kingston, Ontario, Canada). The French and the Native Americans signed a treaty of peace at Cataraqui. Cavelier built Fort Frontenac (at the eastern end of Lake Ontario), where the St. Lawrence River begins. When the fort was finished, Cavelier was put in charge.

The following year (1674), Cavelier returned to France. There, he was commissioned as a noble and given the title, "Sieur de La Salle." Furthermore, Fort Frontenac and the surrounding lands were granted to him as an estate.

Meanwhile, Count Frontenac and La Salle were eager to carve out a French empire in the North American wilderness. Previously, King Louis XIV had given La Salle permission to settle the Mississippi River Valley. At that point in time, France and Spain were in competition to see which nation would control the vast center section of the North American continent. Whoever was able to control the mouth of the Mississippi River would hold the key to domination.

Therefore, a few years later, La Salle led an expedition down the Mississippi River. He named the huge ***tract*** of land near the mouth of the great river, "Louisiana," after King Louis. After having reached the Gulf of Mexico, La Salle formally claimed the Mississippi valley for France:

VOCABULARY

Tract: section, area
Barque Longue: a small type of ship having two masts and square sails
Diplomat: professional government employee who represents his country in a foreign nation
Tenets: basic beliefs or doctrines
Reds: nickname for communists, derived from their red flag
Delineated: written or set forth in accurate detail

"In the name of the most high, mighty, invincible, and victorious Prince, Louis the Great, by the grace of God, King of France... I, this ninth day of April, one thousand six hundred and eighty-two... do now take... possession of this country of Louisiana, the seas, harbors, ports, bays, adjacent straits, and all the nations, people, provinces, cities, towns, villages, mines, minerals, fisheries, streams, and rivers within the extent of said Louisiana."

Muskets were fired. The men shouted, Vive le Roi ("long live the king"). A cross was planted, The Royal Standard was set up. An inscribed lead plate was buried in the ground. They all joined in singing, "*The banners of Heaven's King advance, The mystery of the cross shines high.*"

La Salle again briefly returned to France. There, he organized another expedition to sail to the Mississippi's delta. In 1684, his fleet set sail for the New World.



A Barque Longue Ship

La Salle overshot his objective by more than 300 miles. He missed the mouth of the Mississippi River and landed on the Gulf coast of the future state of Texas. La Salle's ships became hopelessly scattered. Some sailed for home. Some were lost at sea. The flagship, a "***barque longue***" craft named *La Belle*, sank in Matagorda Bay, along the Texas coast.

Archaeologists have recently found La Salle's ship at the bottom of Matagorda Bay. They built a dam around the sunken vessel and pumped out the water. Great care has been taken to preserve the historic relic.

La Salle and the other survivors marched overland in an attempt to reach the Mississippi. Along the way, however, some of his men mutinied. On August 19, 1687, Rene Robert Cavelier (Sieur de La Salle) was murdered by his own men.



Government

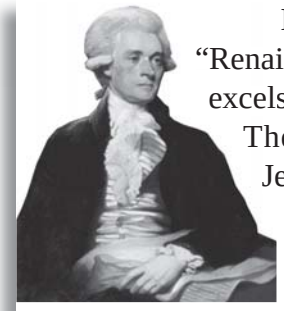
Men Who Changed Nations

Every period of history is a time of dramatic change. The 18th and 19th centuries of our "modern" era were especially so. They were particularly a time of exploration, invention, and social innovation. They served as a bridge from the ancient and Medieval past to the 21st century. Religious doctrines and scientific theories, perhaps needlessly, competed for the hearts and minds of human beings.

It was an age dominated by devastating wars, which were becoming more and more global in scope. The histories of the several continents were becoming the common history of an interconnected world. Various and sundry political concepts were being introduced. It is legitimate to say that humanity was on the verge of freeing itself or enslaving itself!

Let us, therefore, go back to the second half of the 1700's. We are primarily concerned with events which took place in Europe, North America, Africa, and Asia.

Thomas Paine, English- born American revolutionary writer and thinker (1737-1809), once said, "*Government, even in its best state, is but a necessary evil; in its worst state, an intolerable one.*" That is, perhaps, an overstated and needlessly pessimistic analysis, but, unfortunately, it bears some truth. Within less than a decade after Paine died, three men expressed new ideas about government that would alter the course of history. In the year of Paine's death, one man was 66 years old, another was 40, and the third would be born nine years later.



Thomas Jefferson

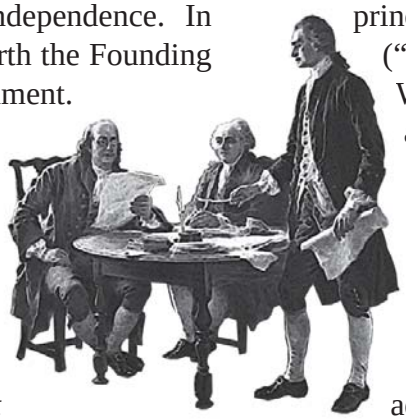
In Western Civilization, a "Renaissance Man" is one who excels in a variety of activities. The American Thomas Jefferson (1743-1826) was an outstanding "Renaissance Man." During his lifetime, Jefferson was a lawyer, a writer, a political thinker, a ***diplomat***, a statesman, an architect, an inventor, a scholar, and a farmer.

He was born in Virginia (of the future USA) in 1743. He attended William and Mary College, where he studied law. After graduation, Jefferson became a practicing attorney in 1767.

He held office in the Virginia House of Burgesses two years later (1769). He was elected to the Continental Congress in 1775. He was governor of Virginia from 1779 to 1781. He served as his country's ambassador to France. He was the United States' first Secretary of State, its second Vice President, and its third President. As president he expanded the United States to the Pacific Ocean by sending Lewis and Clark to explore the Rocky Mountains.

Probably his greatest accomplishment, however, occurred in 1776. It was then he wrote the American Declaration of Independence. In that document, Jefferson set forth the Founding Fathers' philosophy of government. Many of Jefferson's views were based on the writings of John Locke (1632-1704) who advocated the removal of a ruler who fails to be guided by the principles of law.

"We hold these truths to be self-evident, that all men are created equal; that they are endowed by their Creator with certain inalienable rights; that among these are life, liberty and the pursuit of happiness."



Writing Declaration of Independence

Such stirring words laid the groundwork for the American War for Independence. Two hundred years later, that passage still expresses the hopes of downtrodden people around the world.

Tragically, the leader of the French revolution rejected the principles expressed by Jefferson and led the French people into a blood bath that swept across Europe. Napoleon Bonaparte (1769-1821) was born on the Italian island of Corsica, in the Mediterranean Sea on August 15, 1769. Fifteen months before Napoleon's birth, Corsica had been taken over by France. Napoleon was the son of Carlo Bonaparte and Letizia Ramolino Bonaparte. Even though he was politically a Frenchman, for all intents and purposes, Napoleon remained a Corsican. In characteristics, he was fully Italian.

Napoleon was the fourth of 13 children born to the Bonapartes. In 1779, Napoleon entered a military academy at Brienne, France (90 miles southeast of Paris). Five years later (1784), at the age of 15, he transferred to the Ecole Militaire in Paris. In October 1785, he became a second lieutenant in the French army.

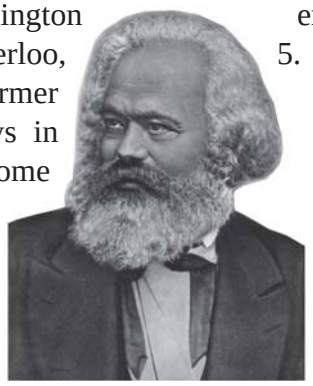
When the French Revolution came (1789), Napoleon Bonaparte embraced it and its principles of *Libert, egalite, fraternite*, ("liberty, equality, brotherhood"). When he rose to the head of the army, and, subsequently, Emperor of France, Napoleon determined to export the ideas of the Revolution—with himself as dictator! In order to bring that to pass, he set out to conquer all of Europe.

As the French army was advancing down the Italian Peninsula (1796), Napoleon explained to his troops the essence of his political philosophy:

"Let not the people be disturbed by our advance; we are the friends of all peoples... You will have the immortal

glory of changing the face of the most beautiful part of Europe. The free French nation... will give to Europe a glorious peace."

The Emperor Napoleon was eventually defeated by the English Duke of Wellington in 1815 at the famous Battle of Waterloo, south of Brussels, Belgium. The former French dictator spent his final days in exile on the island of St. Helena (some 1200 miles west of Africa). There, he died on May 5, 1821.



Karl Marx

The third political theorist we will study here was born eight years before Jefferson died and three years prior to Napoleon's death. The year was 1818. His name was Karl Marx (1818-1883). Marx was born in Trier, in the German Rhineland.

He received his education at the universities of Bonn and Berlin. During his college years, Marx became a radical progressive socialist (one who advocates or supports the theory or system in which property and the means of production and distribution are owned or controlled by government at large, rather than by individuals). Because of his revolutionary activities, Marx was forced to flee Germany. Therefore, he lived the remainder of his life in Paris (France), Brussels (Belgium), and London (England). For the final three decades of his life, Marx resided in Britain.

There, he and fellow socialist Friedrich Engels, described and plotted civil revolution. They wrote The *Communist Manifesto* (1848), that defined their views of government.

"The Communists disdain to conceal their views and aims. They openly declare that their ends can be attained only by the forcible overthrow of all existing social conditions...."

Eight of the ten basic ***tenets*** of Marxism from the *Communist Manifesto* are summarized here:

1. Abolition of private property
2. A heavy progressive or graduated income tax.
3. Abolition of all rights of inheritance.
4. Confiscation of the property of all emigrants and rebels.
5. Centralization of credit in the banks of the state, by means of a national bank with state capital and an exclusive monopoly
6. Centralization of the means of communication and transportation in the hands of the state.
7. Extension of factories and instrument of production owned by the state
8. Equal obligation of all to work for public purposes. Establishment of industrial armies (labor unions).

Karl Marx and his communist followers were atheistic materialists who rejected Judeo-Christian values regarding families, private property, and responsible government. Marx introduced the terms, *bourgeoise* (capitalists) and *proletariat* (workers). He proposed violent revolution to unionize all workers who would take over all industrial production. Marx justified murder of preachers, lawyers, physicians, teachers, and capitalists in order to establish progressive socialism. Marx's violent views destroyed his own family and led to the slaughter of millions of people under the banner of Communism, as nearly a third of the world fell to the "***Reds***" from 1917 to 1989.

Thomas Jefferson, Napoleon Bonaparte, and Karl Marx tremendously influenced the world. Each believed he could form a society in which people attained the greatest degree of "good." The only man of the three who achieved that goal was Jefferson. The greatest human "good" is personal freedom, as *delineated*

More Famous Men Who Affected History		
Name	**Achievement**	**Philosophy/Religion**
Alexander the Great	Early conquerer of Mediterranean and Middle-East areas	Pagan
Albert Einstein	Nuclear Physicist	Jewish
Christopher Columbus	Discovered America	Christian
Charles Darwin	Proclaimed evolution and atheism	Unitarian
Galileo	Astronomer	Catholic
Augustus Caesar	Roman Ruler	Pagan
Karl Marx	Revolutionary	Atheist
Adolph Hitler	Nazi Fascist	Atheist
Thomas Edison	Inventor of Light Bulb	Christian
Napoleon	French Dictator	Catholic (Nominal)
John Calvin	Reformer	Christian
Joseph Stalin	Russian Dictator	Marxist
Jean Rousseau	Philosopher	Atheist
Francis Bacon	Philosopher / Scientist (Scientific Method)	Christian
Henry Ford	Mechanization	Christian
Mikhail Gorbachev	Soviet Leader	Communist
Voltaire (Francais Arouet)	French Philosopher opposed Judeo-Christian morals	Deist
Adam Smith	Father of Free Enterprise	Christian
Thomas Hobbes	English Philosopher who opposed monarchy	Christian
George Washington	Leader of American Constitutional government	Christian
Louis Pasteur	Scientist	Christian

by Jefferson in America's Declaration of Independence. The other persons put entire nations in bondage under oppressive governments.

During the lifetime of Karl Marx, an event took place in the United States of America which brought about freedom for a people. That event also produced terrible suffering for the American people. Extraordinary men found themselves on both sides of a devastating civil war. Today, people in the USA are still feeling its effects for good and evil. Let us travel to the United States in the middle of the 19th century.



LIFE PRINCIPLE

"We hold these truths to be self evident that all men are created equal."

—Thomas Jefferson



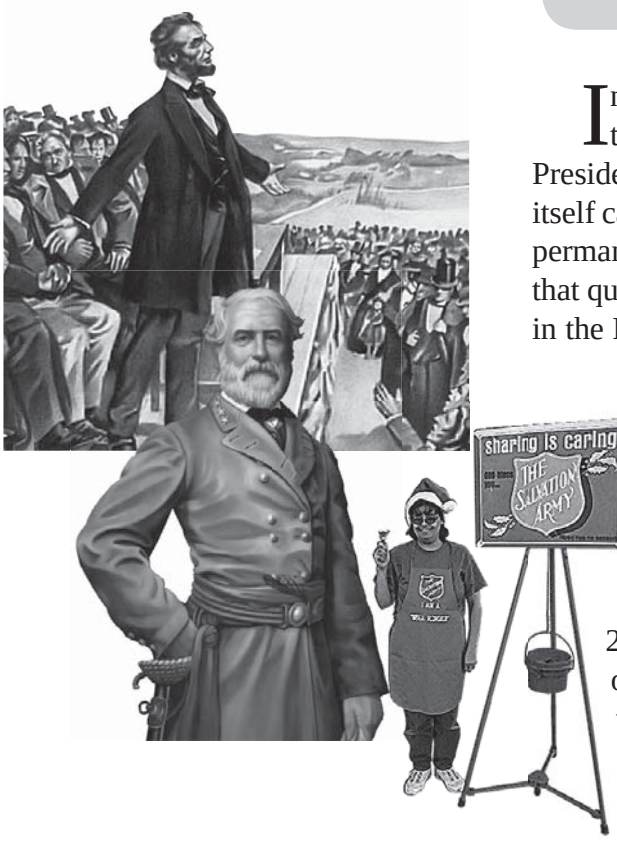
Lesson 9

Chapter 5

Section 2
Lessons 6-10

Dominant Personalities

THE AMERICAN CIVIL WAR



In a speech given on June 16, 1858 (three years before the outbreak of the American Civil War), future US President Abraham Lincoln said, "'A house divided against itself cannot stand.' I believe this government cannot endure permanently half slave and half free." The first sentence in that quotation ***alludes*** to a passage from the Gospel of Luke in the New Testament of the Christian Bible.

"But he (Jesus Christ) *knowing their thoughts, said unto them, Every kingdom divided against itself is brought to destruction; and a house divided against a house falleth"* (Luke 11:17).

Black slaves first arrived in today's United States of America in August of 1619. A Dutch ship landed at Jamestown (Virginia) and off-loaded 20 Africans. For the next 242 years, the institution of slavery was a burning and unresolved issue world wide. America's Founding Fathers, although they accommodated slavery, neither approved of it nor expected it to endure.

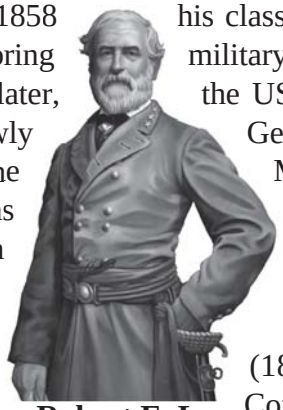
Nevertheless, in 1861, an American civil war was fought over the practice of slavery. Early in that year, eleven southern states (South Carolina, North Carolina, Tennessee, Arkansas, Virginia, Georgia, Alabama, Mississippi, Louisiana, Texas, and Florida) withdrew from the federal Union and formed their own country, the Confederate States of America. A few months before, Abraham Lincoln had been elected President of the United States. He was the 16th man to occupy that office.

Lincoln was born in Larue County, Kentucky, on February 12, 1809. As a young man, Abe Lincoln and his family moved to Illinois. He had little formal schooling and was largely self taught. His education was sufficient, however, to enable him to become a lawyer. After practicing law for several years, Abraham Lincoln entered politics. He served numerous terms in the Illinois state legislature and one in the US House of Representatives.

VOCABULARY

Alludes: suggests, relates to
Campaign: official organized effort to be elected to a political office
First lady: the official title of the wife of the president
Inaugurated: officially installed as winner of an election to office
Domain: area, possession

His ***campaign*** for the Senate in 1858 was unsuccessful. It did, however, bring him to national attention. Two years later, he became the first candidate of the newly established Republican Party to win the presidency. By that time, Lincoln was known to be strongly for the preservation of the Union and against slavery.

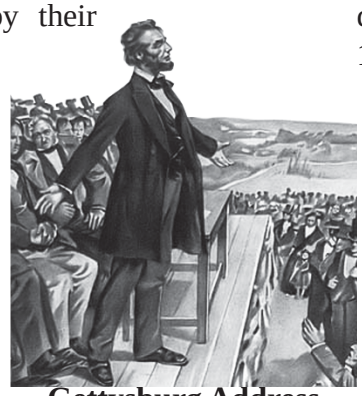


Robert E. Lee

The American Civil War, like all civil wars at any time and place, was essentially a family affair. Every man killed in that conflict was an American. The hostilities pitted members of the same family against one another.

For example, ***First Lady*** Mary Todd Lincoln, had several relatives who died in battles. While her husband was Commander-in-Chief of the Union forces, all of her deceased kinfolk had been Confederates! Many stories are also told about cousins and brothers who met in battles of that war. In each case, one wore blue (the uniform of the North), and the other wore gray (the uniform of the South). In addition, to those in favor of the Union cause, especially northern whites and southern blacks, President Lincoln was a father-figure. He was affectionately known as "Father Abraham."

It has been said that what Abraham Lincoln was to northerners, Robert Edward Lee was to the people of the South. In his own section of the divided country, each was considered virtually a folk hero. Few men were held in greater esteem by their supporters, or more unjustly hated by their enemies.



Gettysburg Address

Robert E. Lee was the son of Richard Henry Lee (a hero of the American War for Independence). He was born in the state of Virginia on January 19, 1807. He had graduated, second in his class, from West Point (the United States military academy) in 1829. As a captain in the US Army, Robert E. Lee served under General Winfield Scott in the War with Mexico (1846-1847). General Scott considered Lee to be the best army officer ever seen in an American uniform.

When the Civil War began (1861), both the Union and the Confederacy wanted Lee to take the command of their troops. That decision was the most difficult in Lee's life. He did not want to fight against the United States. Like many people of his day, however, Robert E. Lee considered himself first and foremost a citizen of his state. Therefore, when Virginia joined the Confederacy, Lee felt he had no other choice but to do likewise. To Lee, the issue of state's rights took priority over national politics.

In actual fact, Lee opposed the war, the southern states leaving the Union, and slavery. Before he left home to fight in the War Between the States, he set his family's slaves free. Robert E. Lee was, in every sense of the word, a gentleman. He was also a dedicated Christian, a sincere patriot, and an excellent soldier.

After the war, he became the head of Washington (later, Washington and Lee) College. He remained in that position for the rest of his life. He died, at the age of 63, in 1870.

After the Battle of Gettysburg (Pennsylvania), a portion of that battlefield was dedicated as a National Cemetery on November 19, 1863. President Abraham Lincoln was one of the speakers. Lincoln's "Gettysburg Address" has been recognized as an American literary masterpiece:

"Fourscore and seven years ago our fathers brought forth upon this continent a new nation, conceived in liberty, and dedicated to the proposition that all men are created equal. Now

we are engaged in a great civil war, testing whether that nation, or any nation so conceived and so dedicated, can long endure. We are met on a great battlefield of that war. We have come to dedicate a portion of that field as a final resting place of those who here gave their lives that the nation might live. It is altogether fitting and proper that we should do this. But in a larger sense we cannot dedicate, we cannot consecrate, we cannot hallow this ground. The brave men, living and dead, who struggled here, have consecrated it far above our power to add or detract. The world will little note, nor long remember, what we say here, but it can never forget what they did here. It is for us, the living, rather to be dedicated here to the unfinished work they have thus far so nobly advanced. It is rather for us to be here dedicated to the great task remaining before us, that from these honoured dead we take increased devotion to that cause for which they here gave the last full measure of devotion; that we here highly resolve that the dead shall not have died in vain, that this nation, under God, shall have a new birth of freedom; and that government of the people, by the people, and for the people, shall not perish from the earth."

The North won the War under the leadership of Abraham Lincoln, albeit more than 600,000 men and boys lost their lives. The Union was preserved, and slavery was stopped, but the nation remained divided for the next 100 years. Robert E. Lee fought to keep individual southern US states free from what he believed was undue federal domination. On the other hand, Abraham Lincoln struggled to free African-Americans from the oppression of slavery and to keep the USA as one nation.

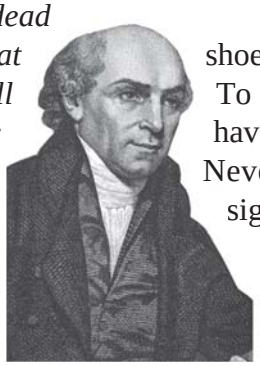
During the same general period, several Englishmen began works to release people from what they perceived as the ravages of spiritual bondage and destructive poverty. In each case, those individuals were attempting to maintain or initiate the "good life" for families. Let us, therefore, cross the Atlantic Ocean to Great Britain of the 19th century (plus) and observe the start of several highly significant British social and religious reform movements.



Religion

A Shoemaker Missionary and The Salvation Army

A principle stemming from the early years of the AD era, asserts that each of us is responsible to love and care for his or her brother. The next logical question asks, "Who is my brother?" Three quite remarkable Englishmen, who lived primarily in the 19th century, seemed to be of the opinion that all human beings were brothers.



William Carey

William Carey was a humble English shoemaker. He was entirely self-educated. To the rest of society, Carey didn't seem to have much consequence or future potential. Nevertheless, he would change India significantly.

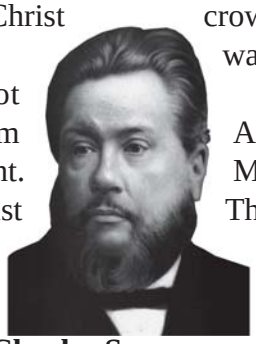
In 1789 (the same year the French Revolution began and George Washington was ***inaugurated*** the first President of the United States), William Carey became a Baptist minister. Three years later (1792), he preached a sermon which had two main themes:

1. "Attempt great things for God."
2. "Expect great things from God."

He also used that occasion to call for the sending of Christian missionaries to take the

message of God's love through Jesus Christ to primitive people around the world.

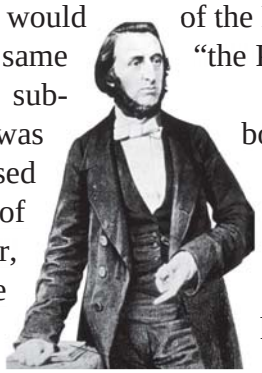
Carey's concept was not received with any particular enthusiasm by the British religious establishment. Eventually, however, the English Baptist Missionary Society was formed, and Carey himself was sent to India. However, the East India Company, which controlled the area, refused to allow missionaries into their ***domain***. William Carey and his party were forced to take refuge in the Danish territory of Serampore (near the present-day city of Calcutta).



Charles Spurgeon

For approximately the next 40 years, the largely self-educated William Carey became one of this world's leading experts on the languages of India. He produced numerous translations of the Bible, grammar books, and dictionaries. When he died in 1854, Carey was respected as the "Father of the Modern Missionary Movement."

In the year that William Carey died, another Englishman was born, who would affect his native land in much the same way that Carey influenced the Indian sub-continent. Charles Haddon Spurgeon was born on June 19, 1834. He was raised a Congregationalist (the descendant of the Puritan Church). As a teenager, however, he became a Baptist. He began preaching when he was only sixteen (1850). Three years later, he was appointed as pastor of a very old church in the heart of London.



William Booth

On January 8, 1856, C. H. Spurgeon married Susanna Thompson. Mrs. Spurgeon would give birth to twin boys. The couple named their sons Charles and Thomas.

Charles Haddon Spurgeon regularly conducted services in a number of churches. He often preached as many as 12 sermons in a single week. Over the years, Spurgeon's eloquent preaching drew increasingly larger crowds. Consequently, a special building was needed to house huge London crowds.

Therefore, in 1861, (the year the American Civil War began), the London Metropolitan Tabernacle was constructed. That edifice could seat 5,500 persons at each service. There was standing room for 1,000 more. Thus a total audience of 6,500 could be accommodated. The Tabernacle was usually full when Spurgeon preached. His sermons literally impacted the entire social spectrum of Britain.

He also founded numerous orphanages. He started a school for training ministers (the Pastor's College). He edited a monthly magazine (*The Sword and the Trowel*) and authored many books.

C. H. Spurgeon became friends with British Prime Minister, William Gladstone (1809-1898), the political leader of Great Britain at various times: from 1868 to 1874, then from 1880 to 1885, in 1886, and from 1892 to 1894. The Prime Minister called Spurgeon, "the last of the Puritans." Spurgeon was also known as "the Prince of Preachers."

William Booth (1829-1912) was born in Nottingham, England. He became a Christian and began preaching when he was 15 years old (1844). For the next nine years, Booth was associated with the Methodists. In 1855, however, he became an independent evangelist.

In 1865, William Booth founded what he called, "The Christian Mission" in the Whitechapel district of London. That was one of the roughest sections of the city. It was, for instance, where the infamous "Jack the Ripper" committed several gruesome murders.

Booth's purpose was two-fold. He sought to win converts to Christianity by preaching the message of Jesus Christ. In addition, he attempted to minister physically as well as spiritually. The Christian Mission provided food, clothing, and shelter to the most

needy of London's downtrodden population.

In 1878, the work was renamed "The Salvation Army." You have seen their trucks and bell-ringing volunteers during Christmas season. The Salvation Army was organized along military lines. The workers wore uniforms and were given military titles. Booth became known as "General."



Salvation Army Bell Ringer

The Salvation Army's methods were considered unusual. They conducted open-air meetings on the streets. They used drums and other instruments to attract attention and to accompany their singing. At first the Army workers experienced ridicule and strong opposition. They were even arrested for "disturbing the peace."

Chapters were formed around the world. The Army also published a number of magazines. Among them were "The War Cry" and "The Young Soldier." William Booth's fame was such that early 20th century American poet Vachel Lindsay (1879-1931) published in 1913 his poem, "General William Booth Enters into Heaven":

"(Are you washed in the blood of the Lamb?)
The Saints smiled gravely and they said: 'He's come.'
(Are you washed in the blood of the Lamb?)
Walking lepers followed; rank on rank,
Lurching bravos from the ditches dank,
Drabs from the alleyways and drug fiends pale-
Minds still passion-ridden, soul-powers frail;-
Vermin-eaten saints with moldy breath,
Unwashed legions with the ways of Death-
(Are you washed in the blood of the Lamb?)...
And when Booth halted by the curb for prayer
He saw his Master thro' the flag-filled air.
Christ came gently with a robe and crown
For Booth the soldier, while the throng knelt down.
He saw King Jesus. They were face to face,
And he knelt a-weeping in that holy place.
(Are you washed in the blood of the Lamb?)"

The Salvation Army remains highly respected for its benevolence toward people affected by abuse, abandonment, and poverty.

The previous vignette focused on the attempts of three men to care for the very poor and give them spiritual comfort. In the next vignette, we will look at other efforts to adorn the very rich and give them social prestige. It is truly amazing that two small animals, a worm, and a large flightless bird, were allowed to determine the social status of human beings in America and western Europe throughout much of the period covered by this chapter. Let us now journey to the North American continent even before the era presently under discussion begins and observe the development of this phenomenon associated with worms, birds, and pelts.

LIFE PRINCIPLE



"It is for us, the living... to be dedicated here to the unfinished work they (forefathers) have thus far so nobly advanced."

—Abraham Lincoln



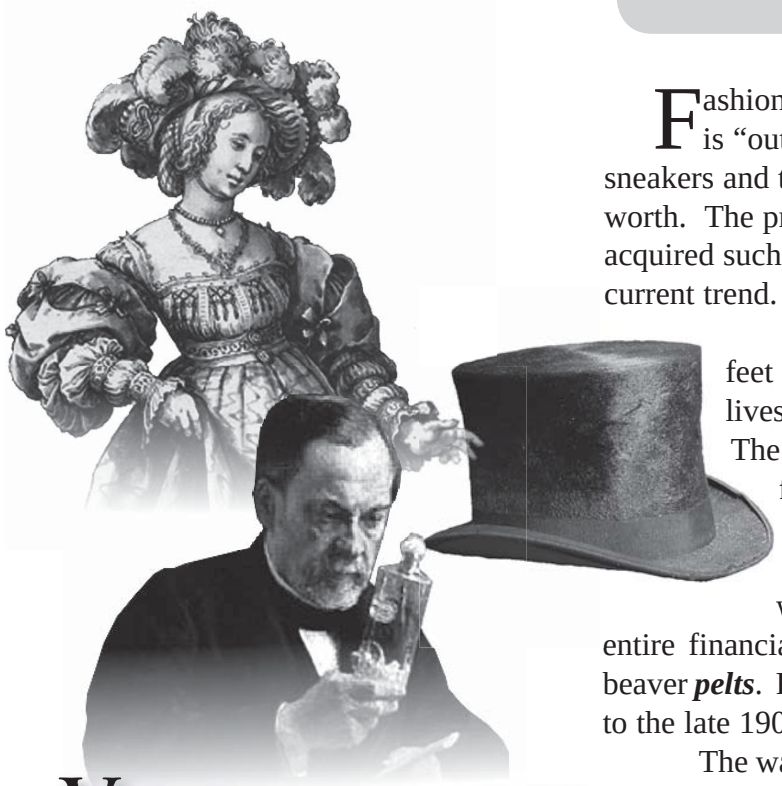
Lesson 10

Chapter 5

Section 2
Lessons 6-10

Architecture, Art, Fashion, & Furniture

WORMS, BIRDS, AND BEAVERS



Fashion is a fleeting thing. What is "in" today is "out" tomorrow. In our day and age, certain sneakers and tee shirts command prices far beyond their worth. The problem is, however, by the time we've acquired such treasured items, they may no longer be the current trend. That situation is really nothing new.

Consider the beaver — a rodent about two feet long that gnaws wood and builds dams. It lives in North America, central Europe, and Asia. The beaver has short ears, a blunt nose, small front feet, large webbed rear feet, big teeth, a flat tail, and its body is covered with fur. That fur, during certain periods of history, was highly prized by human beings, and entire financial empires were built on the ***acquisition*** of beaver ***pelts***. From the time Europeans discovered America to the late 1900's, people of society sought beaver furs.

The wars fought between the French and the British for control of mid-North America were really struggles to dominate the beaver fur trade. In the early years of US history, great numbers of American "mountain men" went west to trap beaver or trade with the "Indians" for furs. The early westward expansion of the United States was largely sustained by the beaver fur trade.

When the French were forced to withdraw (as a political entity) from the area, their presence was replaced by the British. As Americans pushed westward, especially from St. Louis, British fur trappers and traders penetrated eastward from Fort Vancouver (in the Pacific Northwest).

For the Spaniards, in the North American Southwest, the predominant search was for gold and silver. In the mountains and river valleys of mid and northwest North America, the quest was for fur. The first, large-scale American business enterprise was the fur trade.

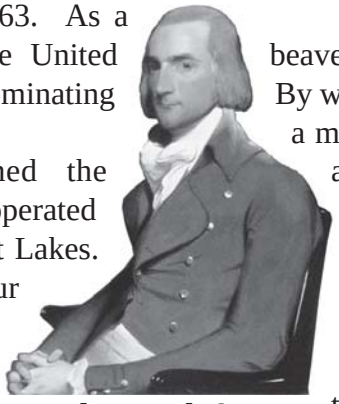
One of the most important individuals in the development of the fur industry was John Jacob Astor.

VOCABULARY

Pelts: furry animal skins, hides
Acquisition: to obtain, get, acquire
Monopolized: controlled, dominated, ruled
Prestige: social status, popularity
Tanner: a person who treats animal hides with certain chemicals in order to produce leather for making gloves, belts, shoes, and coats
Adherence: acceptance, practice, defence of
Cold War: an "undeclared," limited war over ideological differences, carried on in Korea under the authority of the United Nations

Astor was born in Germany in 1763. As a young man, he immigrated to the United States. In a few years, Astor was dominating the North American fur trade.

By 1808, he had formed the American Fur Company which operated chiefly in the area around the Great Lakes. Two years later, the Pacific Fur Company was founded. With those two companies, John Jacob Astor ***monopolized*** the North American fur trade and provided financial earnings for hundreds of men.



John Jacob Astor

The majority of customers for the American fur trade were Europeans. Most of the furs were actually traded from local Native Americans. The greatest number of the trappers and traders were of French extraction. The North American fur trade, therefore, was truly an international operation.



Beaver Hat

The principle use of beaver fur was in the manufacture of men's hats. Beaver hats became fashionable in Europe (and America) by the first century after the European "discovery" of the New World. For the next 300 years, the popularity of beaver hats enabled US and Canadian businessmen to amass huge fortunes. Then, in the 1840's, beaver hats went out of fashion and the North American fur trade collapsed.

In the fickle world of fashion, men's beaver hats were replaced by "top hats," which were covered with silk. The silk worm and its arrival in Western Civilization has been discussed in a previous chapter. The silk worm is a small caterpillar which feeds on mulberry leaves. It produces a thin, soft thread of silk which can be woven into fine cloth. That cloth (silk) was dyed black and used to cover the tall, round hats known as "top hats."

Once again, the top hat, like the beaver hat before it, was a status symbol. By wearing a top hat, on formal occasions, a man (in Europe and/or America) made a statement about his social standing. Because of changing fashion, a tiny oriental worm replaced the beaver and destroyed the North American fur industry.

Other animal products, over the years, served the same purpose. Women also wore status symbols produced by nature. The fur from the little animal, the mink, conveyed great ***prestige***. It was not until well into the 20th century, however, that mink fur achieved its popularity.

The long feathers of the African ostrich were used as ornaments since ancient times. In the 1890's ostrich feathers decorated women's hats (in Euro-American society). They likewise were seen as a sign of high fashion and social status.



Ostrich feather Hat

Unfortunately, what one wears has been used to determine one's place in society. However, what one eats can sustain life or end it. For thousands of years, people sometimes died from eating spoiled food, and no one really knew why. Then, in the 19th century, a French scientist discovered the cause and provided the solution. We need to visit France in the 1800's and become acquainted with a particularly brilliant man, whose life and work saved countless lives.



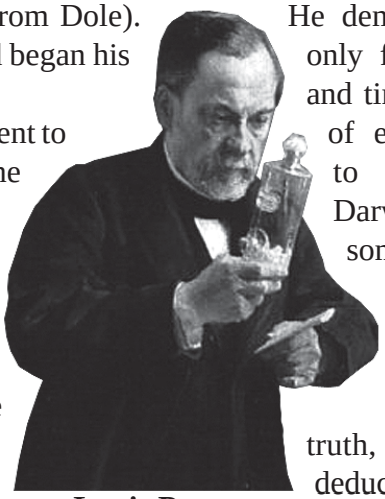
Food

LITTLE GERMS THAT KILL

Louis Pasteur (1822-1895) was a significant French chemist and biologist. He was

born on December 27, 1822, at Dike (a town in eastern France). His father was the local ***tanner***. While Louis was still a child, the Pasteur family moved to Arbois (about 15 miles from Dole). Louis Pasteur grew up in Arbois and began his formal education there.

At the age of 16 (1838), he went to Paris and continued his schooling. The following year, he attended college at Besancon (approximately 25 miles from Arbois). When Pasteur graduated in 1840, he was given a teaching position at Besancon. Three years later, he entered the Ecole Normale School in Paris. There, he studied chemistry. He received his doctorate in 1847. Pasteur then went to the east central French city of Dijon and began teaching school. By 1848, however, Pasteur was transferred to the University of Strasbourg, where he became a professor.



Louis Pasteur

The next year, Louis Pasteur married Marie Laurent. She was the daughter of the headmaster of the university. The couple would have five children (four boys and one girl).

Pasteur began studying biochemistry (the chemistry of living things). He especially devoted himself to investigating the growth of molds and the spoiling of milk. His experiments revealed that microorganisms (tiny, invisible animal life, such as bacteria and viruses) in the air caused milk to spoil.

Pasteur heated the milk to between 142 and 145 degrees Fahrenheit and thus killed the harmful bacteria. That process became known as "pasteurization." All milk bought in stores today is pasteurized. Pasteur further proved that if the pasteurized milk was again exposed to the air, it would still spoil. If it was sealed, however, it wouldn't spoil so quickly.

In the mid-1800's, scientists who had accepted Darwin's theory of evolution as fact thought that living things could arise from non-living things. That concept was known as the theory of *"spontaneous generation."* Pasteur's experiments disproved that theory. He demonstrated that life could come only from life. He further, strongly and tirelessly, refuted Darwin's theory of evolution. Pasteur's opposition to spontaneous generation and Darwinism resulted in hostility from some of the scientific establishment of his day. However, Pasteur's careful ***adherence*** to the "scientific method" (a defined sequence of steps for discovering truth, involving both inductive and deductive reasoning and the testing of a hypothesis) caused even the most skeptical scientist to admit that Pasteur was a brilliant scientist and that his work was scientifically valid.

In 1868, the French government asked Pasteur to investigate certain diseases of silkworms. Based on his earlier studies, Pasteur had come to the conclusion that diseases were caused by harmful germs. Pasteur was one of the first scientists to arrive at the "germ theory of disease." Louis Pasteur discovered two different silkworm diseases, and he found a way to prevent their spread to healthy silkworms.

In 1877, Pasteur began to study the disease of *anthrax*, an illness that was found mainly in cattle and sheep. He discovered that healthy animals could be injected with weakened anthrax germs, and the injected animals would not contract the disease. In other words, Pasteur made them immune to anthrax.

He also researched rabies. He developed a vaccine to prevent healthy animals from getting rabies from bites by rabid animals. His development of a smallpox vaccine also prevented the spread of smallpox in Europe and America. Louis Pasteur probably did more to save human lives than any other person in history.

In his personal life, Pasteur was strongly committed to the Christian faith which was the basis of his work ethic and professional integrity.

Pasteur's work, in many ways, represented a revolution in the preparation and preservation of certain foods. That "revolution" was scientific. All revolutions are not brought about by force of arms. During the 1980's, the United States experienced what has been called "the Reagan Revolution." It was a social, economic, and political movement under President Ronald Reagan that resulted in the end of the ***Cold War*** and renewed interest in capitalism.

In Western Civilization, during the 18th and 19th centuries, many revolutions took place. Several were of the violent type, but one (perhaps the most significant) had to do with the industrial/mechanical aspects of human endeavor. It began in England and gradually spread to other countries. Therefore, let us return to the British Isles of that period and watch events of the Industrial Revolution unfold.



LIFE PRINCIPLE

"Don't judge people who try and fail.
Judge only those who fail to try."

—anonymous

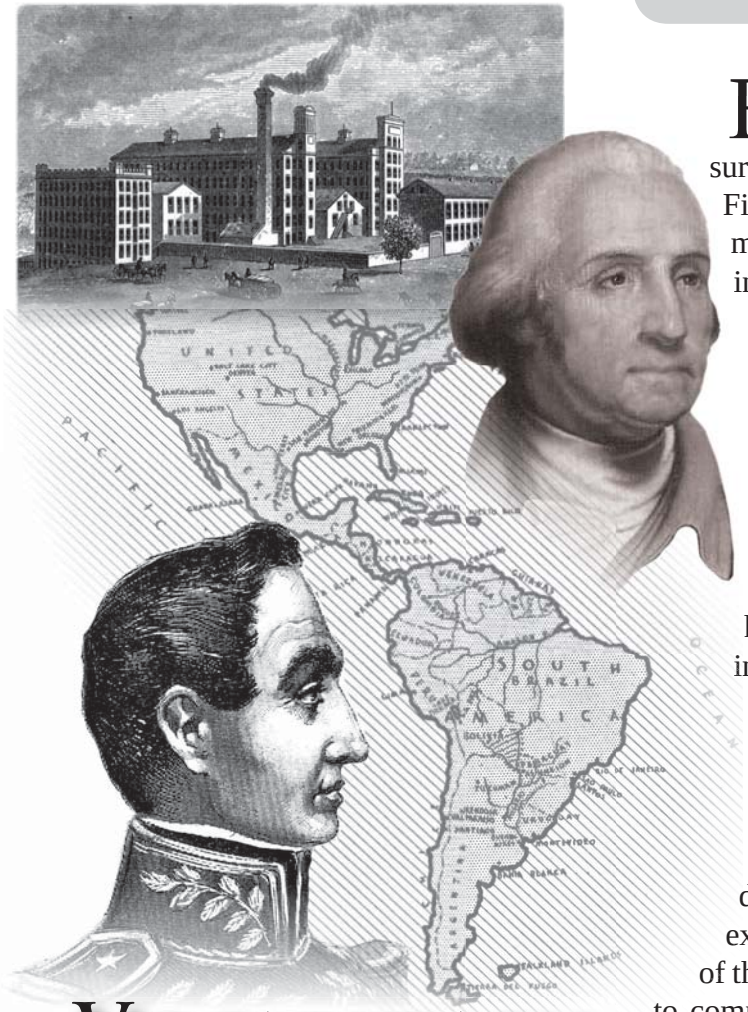
Lesson 11

Chapter 5

Section 3
Lessons 11-15

Industry

THE INDUSTRIAL REVOLUTION



Homo Sapiens ("people") are this planet's tool makers. Humankind would not have survived without the ability to make and use tools. Five elemental machines have existed throughout much of human history. They include the following, which you studied in science courses:

1. The lever
2. The wedge
3. The wheel and axle
4. The pulley
5. The screw

Human beings and animals are quite different creatures. Animals, do not modify those five basic utensils to improve their use, nor have any monkeys, dolphins, or ants produced an industrial revolution.

For thousands of years, men operated those mechanisms with minimal sophistication. Most of those devices were awkward to control and required extensive human energy. People knew how to use simple tools but really didn't develop or improve them for centuries (perhaps except when the pyramids were built). On the eve of the "Industrial Revolution," humanity again began to comprehend the physics of why tools functioned to move objects.

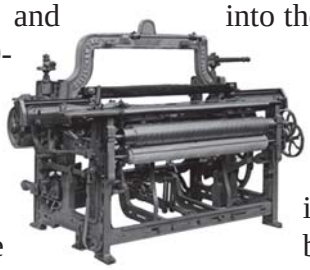
The ancient Mesopotamians, Egyptians, and Palestinians all contributed to the foundations of Western Civilization. The Jews, Christians, Greeks, Romans, Celts, and Germans built on that foundation. The Greco-Roman kingdoms, Medieval feudalism, the Renaissance, and subsequent philosophical, scientific, and political developments all paved the way for the Industrial Revolution.

Water power and James Watt's steam engine (1763) were added to simple tools to begin the Industrial Revolution. The Industrial Revolution began in England

VOCABULARY

Coincided: happened during the same period of time
Elaborate: extensive, coordinated, complex
Free enterprise: freedom to operate a business for profit without undue government interference
Conscientious: governed by conscience, trustworthy, having great integrity

during the middle of the 18th century. Its commencement roughly ***coincided*** with the death of King George II (1683-1760) and the ascension of King George III (1760-1820) to the British throne. By the time of the American War for Independence (1776), industrial development was fully up and running.



Power Loom

For all intents and purposes, the Industrial Revolution was the transition from dependence on agriculture and commerce (the buying and selling of goods) as the main economic activities to mechanized industry. Six necessary elements were present in England and America to jump-start the industrial revolution:

1. **Capital** (money)
2. **Labor** (workers)
3. **Techniques** (creativity)
4. **Resources** (mines, timber)
5. **Transportation** (boats, roads)
6. **Free Markets** (capitalism)

Capital: Large amounts of money are necessary to develop a nation's industrial base. Factories have to be built. Machines have to be designed and constructed. Workers have to be hired. Raw materials have to be purchased.

Since the defeat of the Spanish Armada (1588), Britain's economy had been growing steadily. Furthermore, British agriculture had been highly successful and produced a sizable financial profit. The nation's healthy commerce, likewise, generated considerably more income. Great Britain, at the beginning of the Industrial Revolution era, was not a poor country.

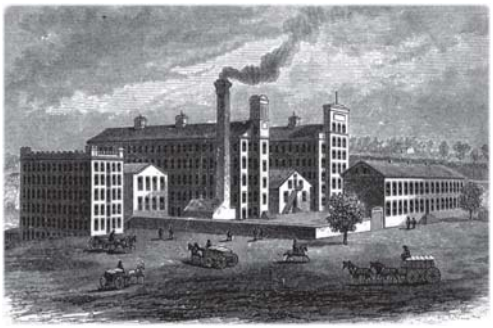
Labor: Workers were available from two primary sources. The British population had been growing rapidly. Some immigration from the European continent and Ireland added to that number. The largest contribution, however, was the fact that thousands of former farmers were crowding into the cities, looking for jobs.

Techniques: In the years prior to the Industrial Revolution, many techniques, processes, and machines had been developed or invented in Britain. The nation had been greatly blessed with inventors and inquiring minds. Such devices as spinning machines, power looms, and steam engines had been invented to save labor expense and increase productivity and were available for industrial use.

Resources: Great Britain had an abundance of those natural resources necessary for industrial development. The British climate was conducive to mechanical industrialization. Industry had access to native water power. Most importantly, however, was availability of sufficient deposits of both iron and coal.

Transportation: Being an island nation, England had many seaports. Since the defeat of the Spanish Armada, Great Britain had become a world sea power and had developed an extensive shipping industry. In addition, an ***elaborate*** network of roads and canals was being constructed. No part of England was much more than 60 or 70 miles from salt water. Therefore, those roads and canals were able to connect virtually every part of the country with the ocean.

Free Markets: Great Britain was made up of four separate countries (England, Scotland, Ireland, and Wales). Therefore, Scotland, Wales, and Ireland were "built in" foreign markets. Furthermore, British ships transported goods to all parts of Europe, the Americas, Africa, and the Far East (especially India). Interestingly, even after the American War for



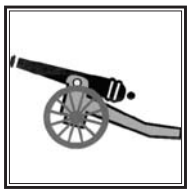
Factory

Independence, the United States continued buying British goods.

The Industrial Revolution produced or developed steam power, electric batteries, metal screw fasteners, standardized interchangeable parts, metal alloys, textile looms, bath tubs, mechanized factories, medicines, ships, microscopes, smelters, printing equipment, cannons, seed separators, and much more. It truly was a giant step from herding and planting to manufacturing and commercial capitalism.

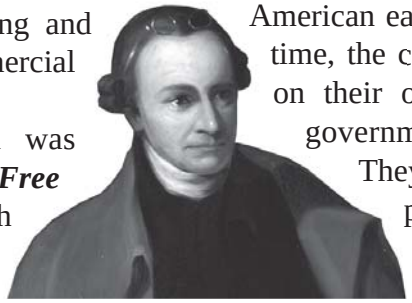
The Industrial Revolution was built on the economic concept of ***Free Enterprise*** developed by Scottish philosopher, Adam Smith (1723-1790). His ideas were published in his popular book, *The Wealth of Nations*, which explained the concept of economic freedom (Laissez-faire). He proposed that economics based on moral principles would build national wealth.

The Industrial Revolution dramatically altered Western Civilization forever. During the same general era, an event took place in North America which also changed history dramatically. The American War for Independence (erroneously called the "American Revolution") was the initiation of a new political concept. The words, "We hold these truths to be self evident that all men are created equal, endowed by their Creator with certain unalienable rights," were truly "revolutionary" in concept. Nothing like it had ever occurred on Planet Earth before. The twin impacts of the Industrial Revolution in England and the War for Independence in America are still felt around the world today. Let us journey to the future United States in 1776 and learn what happened.



Military

WARS FOR INDEPENDENCE: GEORGE WASHINGTON AND SIMON BOLIVAR



Patrick Henry

For almost two hundred years, the various British colonies existed along the North American east coast. During much of that time, the colonists were left pretty much on their own. They established local governments to govern themselves. They formed colonial militias to protect themselves. In the second half of the 18th century, however, the British king and Parliament began to impose more and more restrictions on the activities of their American subjects. Consequently, American dissatisfaction with England mounted.

Unjust taxes were levied against colonists. Yet, they had no representation in the English Parliament. Their rights as Englishmen were being ignored. The final intolerable indignities were two in number: 1. British authorities planned to confiscate American guns and ammunition, and 2. the mother country attempted to arrest several colonial leaders and ship them to England for trial.

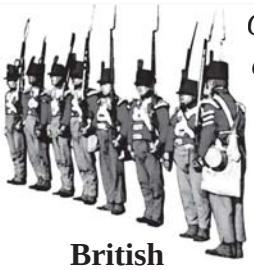
A troop of British soldiers had fired bullets into a Boston crowd. Feelings on both sides were running high. It would not take much to start a war. In March of 1775, American patriot Patrick Henry addressed a gathering of his fellow Virginians (summarized here):

> *"Gentlemen may cry peace-- but there is no peace. The war is actually begun! The next gale that sweeps from the North will bring to our ears the clash of resounding arms! Our brethren are already in the field! Why stand we here idle? What is it that*

War for Independence



Americans



British

Gentlemen wish? What would they have? Is life so dear and peace so sweet as to be purchased at the price of chains and slavery? Forbid it, Almighty God—I know not what course others may take; but as for me, give me liberty or give me death!"

In April of the same year, word came that British troops were marching on Lexington and Concord, Massachusetts, to disarm the local colonial militia and confiscate their ammunition supplies. Armed Patriots gathered on Lexington Green. The British commander yelled, "Disperse, ye rebels!" When they did not disperse, someone yelled "Fire!"

Shots were fired, and 18 Patriots lay dead or wounded A short time later, the British and Patriots met at Concord Bridge, and the first pitched battle of the war was fought. That was the "shot heard around the world." This time the British suffered heavy losses and retreated.

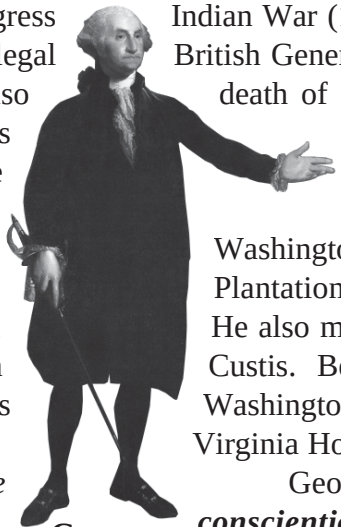
Soon, representatives of all 13 colonies met together as the Continental Congress. Again and again, the Continental Congress petitioned the British government for legal representation in Parliament. They also repeatedly petitioned that the wrongs be corrected and further conflict be prevented but to no avail. King George and Parliament arrogantly dismissed every colonial request.

So, the Americans issued a "Declaration of Independence," in which the American Founding Fathers stated the following.

"We, therefore, the Representatives of the United States of America, in General Congress, Assembled, appealing to the Supreme Judge of the world for the rectitude of our intentions, do, in the Name, and by the Authority of the good people of these Colonies, solemnly publish and declare, That these United Colonies are, and of Right ought to be Free and Independent States."

The American "Declaration of Independence," in essence, stated that because of Britain's mistreatment of her New World colonies, the colonists were actually already separated from the mother country. Unfortunately, a bloody eight year war was fought to maintain that position. From the American point of view, that conflict would be purely defensive. The Americans were repelling the unjustified British invasion of American Colonies. In so doing, the Continental Congress appointed George Washington as the Commander-in-Chief of the American army.

George Washington was born in Virginia on February 22, 1732. Young George was trained as a surveyor. He also gained experience as an army officer in the French and Indian War (1754-1763), while serving under British General Edward Braddock. After the death of Braddock in battle, Washington assumed command and proved he was an able military leader.



George Washington

After that war, Washington inherited the Mount Vernon Plantation from his brother, Lawrence. He also married a wealthy widow, Martha Custis. Before the War for Independence, Washington served several terms in the Virginia House of Burgesses.

George Washington was a deeply ***conscientious*** and religious man. He was a lifelong member of the Episcopal

church. He served as a lay leader in the local congregation and was often seen in earnest prayer for the colonies.

During the War for Independence, Washington was an inspired military commander. He miraculously held together the outnumbered, ill-equipped American army throughout the eight years of hardship and discouragement. He led that army to victory over the greatest military power in the world at that time and refused to accept payment for his services.

After the war, George Washington was twice elected President of the United States and never accepted a salary for that service. Toward the end of his presidency, however, Washington conceded that such action had cost him, for he was in serious financial difficulty. (Recall that America's founders pledged their lives, their fortunes, and their sacred honor to birth the nation.) All of George Washington's many sacrifices and sense of duty earned him the title, "The Father of His Country."

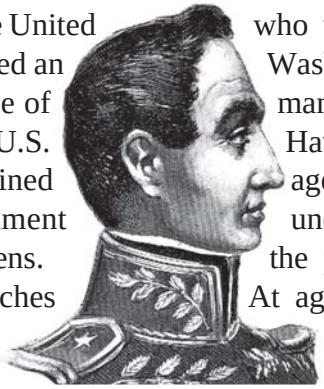
A final note about the American War of 1776: Militarily, it was NOT a revolution! No government was overthrown. No king was dethroned. No parliament was disbanded. When the conflict was over, 13 former colonies went their own way, but the British government continued as before. The War of 1776-1783 not only established the United States of America, but also it birthed an entirely new concept about the role of governments. The subsequent U.S. Constitution and Bill of Rights defined the concept of limited government authority with representative citizens.

That model of three branches of government (executive, legislative, and judicial) has inspired the spread of government with limited powers with checks and balances among three branches worldwide. The new American concept of balance among government powers encouraged the spread of free market capitalism and personal freedom to pursue life and happiness.

Several years prior to the Colonial war for independence, a Frenchman named Charles Montesquieu wrote a book entitled, *The Spirit of Laws*, published in 1748. It proposed the ways government should function by laws in a republic rather than by human exercise of authority vested in monarchs or despots (dictators). Montesquieu believed that the best form of government was one in which authority was balanced among three separate powers, or branches of government, which limited the authority of each branch to threaten freedom. The American colonists drew heavily from the ideas of Montesquieu to establish the three branches of U.S. government: Executive, Legislative, and Judicial.

Progress in history consists of one generation building on the discoveries and concepts of previous generations. George Washington and other American patriots achieved independence from Great Britain and a republican form of government by employing the philosophy of Montesquieu and others.

The same year the peace treaty between America and Great Britain was signed, a child was born in Venezuela, South America, who would be nicknamed "The George Washington of South America." That man was Simon (see·moan) Bolivar. Having lost both of his parents by age nine, Simon was reared by an uncle, and a tutor who exposed him to the philosophies of the Enlightenment. At age 16, Simon was sent to Spain to complete his education. At a port along the way, he was heard loudly praising America's independence from England; and upon his return from Europe several years later, he set out to liberate his own country from Spanish rule.



Simon Bolivar

In Simon's first speech to a group of Venezuelan officials in 1811, he challenged, *"Let us lay the cornerstone of* (South) *American freedom without fear! To hesitate is to perish!"* Four months later, Venezuela was the first Spanish colony to attempt to gain independence. In spite of no formal military training or battlefield experience, Simon Bolivar became the military leader in a long quest to break free from Spanish rule. In many ways, his struggles paralleled those of George Washington and (North) American patriots: meager armaments and other provisions; unpaid, half-naked "soldiers," hopelessly outnumbered and out-gunned; calls for help from other nations unanswered. Also, like Washington, Bolivar led his troops by example and with great optimism and persuasion: *"Fight and you shall win. For God grants victory to perseverance."* When battles were lost, he exhorted his men that misfortune was the "school for heroes."

Venezuelan independence, as well as that of Columbia, Ecuador, Peru (upper and lower), and Panama (then a department of Columbia), finally came at the cost of some 696 battles over a course of 14 long years and much bloodshed. Upper Peru formed a separate nation named "Bolivia" in honor of Bolivar, who then wrote its constitution and became its president.

Bolivar received acclaim from others who had persevered in matters of independence: to wit, a letter from the aging Marquis de Lafayette, the famous Frenchman who had proven so valuable to George Washington during the war years of American independence. The letter was on behalf of Washington's family, who celebrated Bolivar as "the second Washington of the New World," and was accompanied by a gold medallion, coined to commemorate Washington's victory at Yorktown. Bolivar was deeply moved by such a comparison. To South Americans, Simon Bolivar is revered as their liberator and one of the greatest military leaders of all time.

Both Washington and Bolivar initially owned slaves; but, in time, both realized the injustice and released their holdings.

The American "Declaration of Independence" states "that all men are created equal." Unfortunately, slavery continued to exist in the United States for another 100 years. It would take a devastating civil war to free African slaves.

The next vignette is the story of a man who was born a slave. For most of his life, however, he enjoyed the blessing of freedom. Nevertheless, he also experienced the twin horrors of intense poverty and racial prejudice. By virtue of his personal moral courage and faith, he was able to rise above financial poverty and social rejection. The work he did truly helped ensure that the words "all men are created equal" had meaning. Let us journey forward in time from the American War for Independence to the era of the American Civil War. We will meet one of the most brilliant men of that or any period.

LIFE PRINCIPLE



"Labor to keep alive in your breast that little spark of celestial fire called conscience."

—George Washington

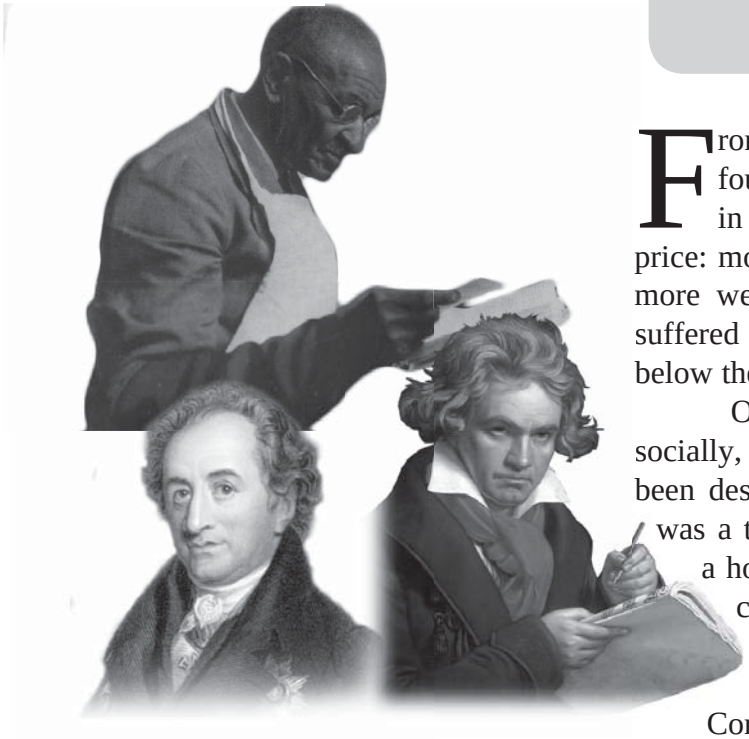


Lesson 12

Chapter 5

Section 3
Lessons 11-15

Agriculture



WARS OF DEFINITION AND A GENIUS SCIENTIST

From 1861 to 1865, the United States of America fought four long years of civil war. Every casualty in that war was an American. The US paid a terrible price: more than 600,000 men were killed, and thousands more were wounded. The southern half of the nation suffered terribly because most of the battles were fought below the ***Mason-Dixon Line***.

Once that conflict was over, American life changed: socially, economically, and politically. The Old South had been destroyed. Plantation agriculture based on slavery was a thing of the past. The nation's finances were in a horrible state of affairs. The war debt had left the country on the very brink of bankruptcy.

On February 1, 1865, the US Congress adopted the Thirteenth Amendment to the Constitution. It abolished and prohibited slavery in all the states and territories throughout the country. Thousands of former slaves were officially set free and granted full citizenship. They needed to be integrated into society at large. Many of them became small farmers in the rural South. The land, however, really could not support that sharp increase in the agricultural population. The years after the Civil War were tremendously difficult ones for both white and black residents of the American South.

The post-Civil War rural South was sunk in severe poverty. Poor African-Americans, especially, had little or no opportunity to better themselves. Cotton, the primary agricultural crop, had a tendency to deplete the soil. After a few years, farms would no longer yield productive harvests. Continuing to plant only the traditional crops, therefore, was causing the agricultural American South to plunge deeper and deeper into poverty. Especially, was that true for the black farming population. A new type of crop was needed; one that ***replenished*** the soil. Furthermore, the financial return for the small cotton farmer was often far less than profitable.

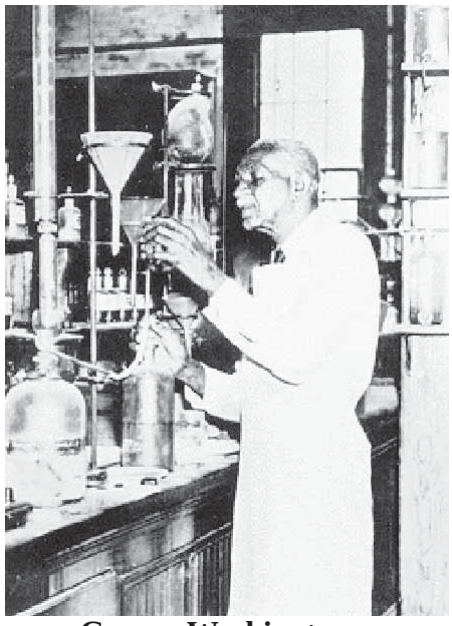
VOCABULARY

Mason-Dixon Line: boundary between the North and South
Replenished: restoration of minerals, enriched
Baroque Period of Music: generally 1600-1750, during which the essential "language" of music was defined; expresses the fundamental beauty and order of the universe; it is music for the mind and spirit, whereby IQ's have been shown to increase with sufficient exposure; classical music
Foremost: greatest, outstanding, famous

Enter George Washington Carver, gifted black agricultural chemist who was concerned about the problems the American South faced. Carver was born near Carthage, Missouri, in the year 1864. He was a slave at his birth. The American Civil War secured his freedom when he was still a child.

As a young man, Carver worked his way through Iowa State College. He received his masters degree in 1896. After graduation, Carver returned to the South to help his people. He accepted a job teaching and conducting agricultural experiments at the Tuskegee Institute in Alabama. He turned down several other offers of employment. He determined to spend his professional career improving the quality of life for southern, lower class farmers (black and white).

George Washington Carver experimented with peanuts, sweet potatoes, and soy beans. He devised more than 300 new uses for peanuts, more than 118 uses for sweet potatoes, and dozens for soybeans. He worked tirelessly on improving and diversifying agriculture in the American Southland.



George Washington Carver

George Washington Carver was a humble man and a devoted Christian. He frequently gave God credit for all that he accomplished. He made no secret of his deep faith in God, Christianity, and the Bible. He was once the recipient of an award for his efforts on behalf of others. The medal he was given was inscribed with the following words. *"To a scientist humbly seeking the guidance of God, and a liberator to men of the white race as well as the black."* Shortly before he died, he donated his life savings for the establishment of the Carver Foundation for Agricultural Research at Tuskegee Institute.

George Washington Carver accomplished great things with his life. To do so, however, he had to overcome the handicaps of extreme poverty and racial discrimination. The man who is the subject of our next vignette was a world renowned composer of classical music in the late 18th and early 19th centuries. Yet, for almost half his life, he was totally deaf. Let us cross the Atlantic Ocean to Europe in the latter part of the 1700's and visit this remarkable individual and learn how he defined music!



Literature

An Austrian Musician and a German Writer

Ludwig van Beethoven was the oldest of three brothers. The family was of Austrian and Dutch descent. Ludwig, however, was born in Bonn, Germany, on December 16, 1770. The father's income was small, making the Beethovens decidedly poor.

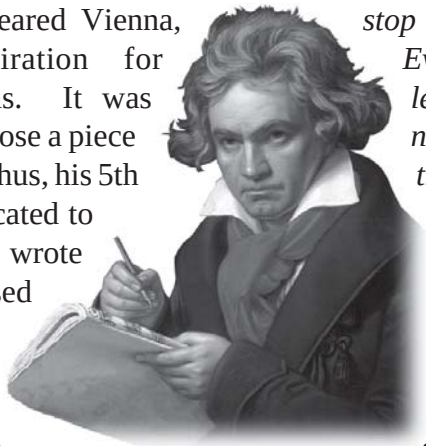
Oblivious to his family's financial plight, at the tender age of four, Ludwig van Beethoven practiced long hours each day on the *clavier* (a piano-like instrument) and the violin. By the time Beethoven was eight, he and another music student staged a public concert.

Ludwig's formal education was rather meager. He may have briefly been tutored by the famous Austrian composer, Wolfgang Amadeus Mozart (1756-1791). Mozart is supposed to have said of Beethoven, *"Keep your eyes on him, someday he will give the world something to*

talk about." However, by the time Ludwig van Beethoven was nineteen years of age, his father had become a hopeless alcoholic. Young Ludwig then became the legal head of the family, assuming the responsibility of raising his younger brothers, Caspar Karl and Nikolaus Johann.

On or about November 1, 1792, Ludwig van Beethoven left for Vienna, Austria. There, he studied music under another great Austrian composer, Franz Joseph Haydn (1732-1809). Soon afterward, the armies of Napoleon Bonaparte invaded Germany.

As the French army neared Vienna, Beethoven expressed admiration for Napoleon's "republican" ideas. It was suggested that Beethoven compose a piece of music honoring Napoleon. Thus, his 5th and 9th symphonies were dedicated to Napoleon Bonaparte. He even wrote an opera (his only one) based on Napoleonic themes. He also composed an "Emperor Concerto."



Ludwig van Beethoven

For several years, a physical affliction increasingly troubled Beethoven. His hearing was failing. He stopped attending social functions because he could not hear what people were saying, and he was too proud to admit what was wrong. Consequently, he sunk into the depths of despair. About the year 1802, Beethoven became totally deaf. However, he decided to overcome the problem and so continued to write great musical works. He composed melodies which he could not hear physically.

He once said, *"when I am playing and composing, my affliction... hampers me least."* What he put on paper, he "heard" only in his mind. Many have asserted that Beethoven's greatest works came after his deafness.

Beethoven was a very intense, focused person in all his endeavors. When asked what a musician was, he responded:

"The vibrations on the air are the breath of God speaking to man's soul. Music is the language of God. We musicians are as close to God as man can be. We hear his voice, we read his lips, we give birth to the children of God, who sing his praise. That's what musicians are!"

Ever serious about life's responsibilities, he admonished:

"Then let us all do what is right, strive with all our might toward the unattainable, develp as fully as we can the gifts God has given us, and never stop learning...

Every day is lost in which we do not learn something useful. Man has no nobler or more valuable possession than time; therefore never put off till tomorrow what you can do today."

The final period of Beethoven's career was one in which he broke with the traditional forms of music. He gave vent to musical emotionalism and individualistic pride. His music was in line with the new era in politics brought about by the French Revolution and the Napoleonic Wars.

At some point, however, he became disenchanted with Napoleon's bid for power, saying,

"*He* (Napoleon)*, too, then, is nothing better than an ordinary man! Now he will trample on all human rights only to humor his ambition; he will place himself above all others----become a tyrant"*

Beethoven returned to the religious beliefs on which he had been raised but with new interpretations. He wanted his music to express what he called the "incomprehensibleness" of God. As he neared death, Beethoven remarked, *"God above all--God has never deserted me."*

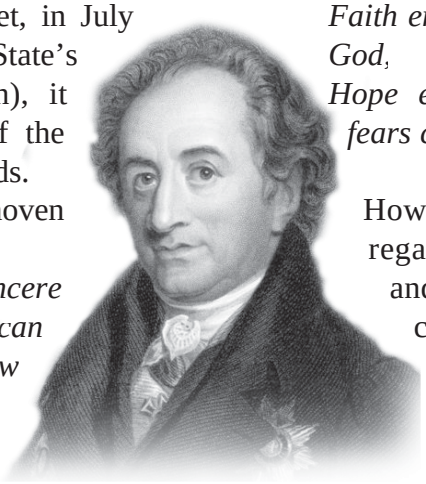
Beethoven, along with Mozart, Hayden, Tchaikovsky, and other renowned European composers contributed their works during what is know as the *Later* ***Baroque Period of Music***. The earlier, or *High Baroque Period,* was represented by such contemporary music giants as Johann Sebastian Bach and George Friederic Handel. Handel's masterpiece, the "Messiah," is still one of his most popular works.

During the final period of his life, mutual friends introduced Ludwig von Beethoven and German author, Johann Wolfgang von Goethe (1749-1832). Goethe was universally accepted as the ***foremost*** writer of his day. Therefore, when Beethoven and Goethe met, in July of 1812, (the year of the United State's second war with Great Britian), it was considered an encounter of the period's two greatest artistic minds.

Goethe's reaction to Beethoven was as follows:

> *"A more... energetic, sincere artist I never saw. I can understand right well how singular must be his attitude toward the world."*

He also reported that when the two giants spent a social evening together, Beethoven "played delightfully."



Johann Wolfgang Von Goethe

Von Goethe was a poet, novelist, playwright, statesman, and scientist but most renowned as a writer. Termed "the greatest figure of German (literary) Romanticism," Goethe was a legend in his own time, and is still considered to be a giant of world literature. His first bestseller was translated into several languages and became a worldwide success. Goethe's chief masterpiece was a two-part drama entitled *Faust,* in which the main character is condemned to remain unsatisfied in life. That theme seemed to be in direct opposition to von Goethe's personal philosophy, which brimmed with hope and enthusiasm, as in his "Nine Requisites for Contented Living":

> *"Health enough to make work a pleasure,*
> *Wealth enough to support your needs,*
> *Strength to battle with difficulties and overcome them,*
> *Grace enough to confess your sins and forsake them,*
> *Patience enough to toil until some good is accomplished,*
> *Charity enough to see some good in your neighborhood,*
> *Love enough to move you to be useful to others,*
> *Faith enough to make real the things of God,*
> *Hope enough to remove all anxious fears concerning the future."*

However, in the final analysis regarding personal contentment and our responses to whatever circumstances we enounter, he confessed:

> *" I have come to the frightening conclusion that I am the decisive element. It is my personal approach that creates the climate. It is my daily mood that makes the weather. I possess tremendous power to make life miserable or joyous. I can be a tool of torture or an instrument of inspiration, I can humiliate or humor, hurt or heal. In all situations, it is my response that decides whether a crisis is escalated or de-escalated, and a person is humanized or de-humanized. If we treat people as they are, we make them worse. If we treat people as they ought to be, we help them become what they are capable of becoming."*

Von Goethe was a man who encouraged others to:

"Dream no small dreams, for they have no power to move the hearts of men"----"Whatever you can do or dream you can, begin it. Boldness has genius, power and magic in it!"

At the same time, he had little sympathy for falsehoods or willful ignorance:

"None are more hopelessly enslaved than those who falsely believe they are free."----"There is nothing more frightening than ignorance in action."----"There is nothing worse than aggressive stupidity."

Music and drama during most of the world's history could only be enjoyed by means of books and live performances. Today, we listen to music and learn history on TV, radios, MP3 players, audio tapes, CDs, boomboxes, and more—all of which run on electricity.

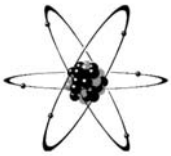
Two men in history are especially associated with electricity and its uses. One lived in North America during the 18th century. The other lived in England, primarily during the 19th century. Let's visit each of them and observe how their experiments helped shape world history.

LIFE PRINCIPLE



"You can alter your life by changing your attitude about circumstances."

—Nancy Johnson



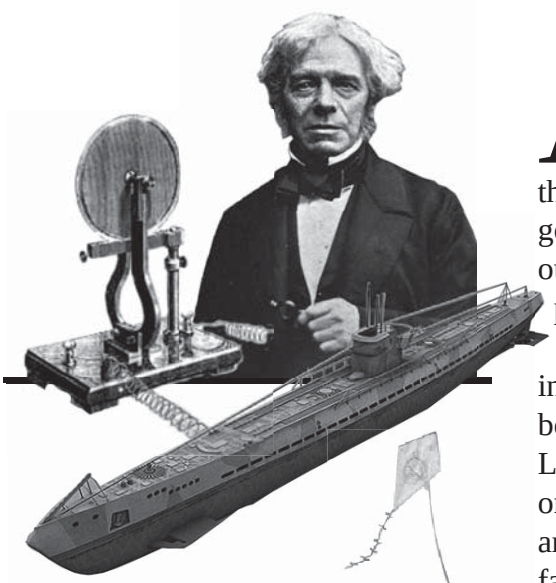
Lesson 13

Energy

Chapter 5

Section 3
Lessons 11-15

BENJAMIN FRANKLIN AND MICHAEL FARADAY



VOCABULARY

Prometheus: A titan in Greek mythology, tortured by Zeus for stealing fire from heaven and giving it to man

Blacksmith: a person who makes horseshoes, wagon wheels, weapons, and metal objects on a forge and anvil

Harmonious: synchronized, flawless operation

Armored: covered with metal plates

Arsenal: supply, collection of weapons

Age of Sail: period in which international trade and naval warfare was carried on by sailing ships; lasted primarily from the 1500's to the mid 1800's

Isthmus: a narrow strip of land that connects two larger land masses

Ancient Greek mythology tells the story of the Titan ***Prometheus***. Zeus, the king of the Greek gods, withheld fire from human beings. Prometheus, so the story goes, stole fire from the forge of the ***blacksmith*** god, Hephaestus, and gave it to humanity. Zeus was outraged by the theft and condemned Prometheus to eternal punishment.

American statesman, diplomat, writer, printer, inventor and scientist, Benjamin Franklin, has been called both "The Modern Prometheus" and "the Man who stole the Lightning." Franklin was born in Boston, Massachusetts, on January 17, 1706. His father was a maker of soap and candles. Young Benjamin attempted to follow in his father's trade but found it unappealing. Therefore, at the age of 12, he was apprenticed to his brother to learn the printing business.

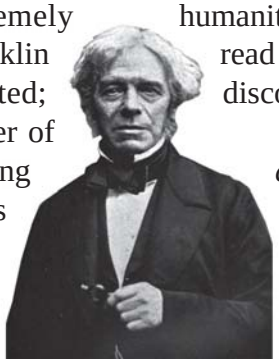


In 1723, seventeen year old Benjamin Franklin went to Philadelphia, Pennsylvania. There, he worked as a printer. He edited and published "Poor Richard's Almanac," founded the first circulating library in America, established Philadelphia's first fire department, originated the American Philosophical Society, started an academy, served in the Pennsylvania Assembly, was Postmaster General for the American Colonies, served in the Second Continental Congress, helped negotiate the peace treaty ending the War for Independence, and was a member of the Constitutional Convention (1887).

Franklin was also a scientist. He was interested in the nature of lightning. Therefore, one night during a thunder storm, Franklin flew a kite. Attached to the kite was a metal wire with a key on the end of the wire. When lightning struck the kite, Franklin was able to observe electricity travel down the wire to the key. He had proved

that lightning was electricity. It was not a great feat, but it was a pioneer effort in the development of knowledge about electricity.

It was actually an extremely dangerous thing to have done. Franklin could easily have been electrocuted; however, his observation of the power of lightning led him to design the lightning rod to protect churches and homes during thunderstorms.

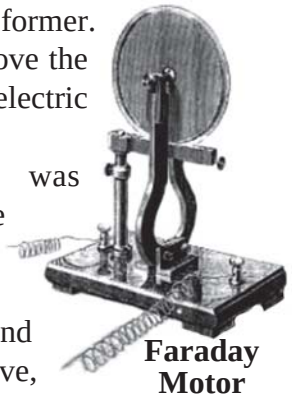


Michael Faraday

Other inquiring minds had begun to explore the nature of electricity. One such individual was Michael Faraday who read about Franklin's experiments approximately 100 years later. He built on Franklin's foundation.

Michael Faraday was, without doubt, one of the greatest scientific minds the world has ever seen. He was born in Newington, England, on September 22, 1791. He was the third son of a blacksmith. When Michael was 5 years old, his family moved to London. At the age of 12, Faraday began to work as an errand boy in a book shop. There, he became inquisitive about books and was a diligent employee. Eventually, he was hired as an assistant to the famous British scientist, Sir Humphry Davy.

Faraday became particularly interested in electricity and magnetism. He experimented and recorded notes of his findings. In 1831, he proved that magnets can be used to produce an electric current. That discovery was foundational to the development of the dynamo, the electric motor, and the transformer. His pioneer work helped move the world from candle light to electric lights.



Faraday Motor Replica

Michael Faraday was an especially humble man, in spite of his great scientific achievements with magnetism, batteries, and electricity. He was an active, faithful member of a small, Christian congregation, which placed great emphasis on the concept that God's Creation was purposeful, ***harmonious***, and designed for humanity's well being. When asked why he read the Bible during his years of scientific discoveries, he replied:

"The Bible, and it alone, with nothing added to it nor taken away from it by man, is the sole and sufficient guide for each individual, at all times and in all circumstances."

Faraday's response reflects the scope of his inquisitive mind to learn as much as possible about the unseen forces that operate on Earth. Michael Faraday accepted as fact that great electrical and physical laws were operating by design and were simply waiting to be discovered and harnessed by mankind.

Today, we have laptops, flat screen TVs, palm-size data management devices, space crafts, air conditioning equipment, refrigerators, and global positioning systems. During the days of Faraday and Franklin, mankind was limited to wax candles, black gun powder, horse-drawn wagons, and grain mills powered by water flowing over wooden wheels. We cannot imagine life without high speed communication and transportation. We are virtually always on the move. We are accustomed to communicating and traveling in the air, on the water, over the land, and even under the water. Let's look next at transitional discoveries that led from water wheels to submarines.



Transportation

Simple Beginnings often Lead to Big Results

The undersea boat, or "submarine," was the subject of human speculation long before it became a reality. In our modern age, the best known "science fiction" account of

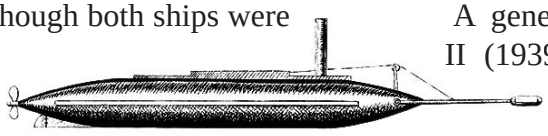
a submarine was the story, *20,000 Leagues Under the Sea*, by the 19th century French novelist, Jules Verne. That book, published in 1867, is the chronicle of a fictional submarine, the *Nautilus*. The vessel was commanded by social misfit Captain Nemo. Nemo and his submarine terrorized the seas of the world until the *Nautilus* was destroyed in a maelstrom (a large and violent whirlpool).

Ironically, at least two incidents of submarine existence actually occurred before Verne's novel. During the American War for Independence, the USA developed a one-man submarine. It had a rather short and unproductive career, however. It certainly did not, in any way, affect the outcome of the war.



H.L. Huntley

During the American Civil War, approximately 100 years later, the Confederacy developed a couple of examples of the submarine. The *H. L. Huntley* was a Confederate, true submarine with an eight-man crew that sank the Union sloop, *Housatonic*, on February 17, 1864. Although both ships were destroyed in that battle, the *Huntley* served as a base from which to improve the concept of submarine warfare.



"David"

The Confederate States of America also developed a torpedo boat, known as "David." On October 5, 1863, the ***armored*** Union ship, *New Ironsides*, was attacked by the Confederate torpedo boat. The Yankee vessel was heavily damaged before both boats sank.

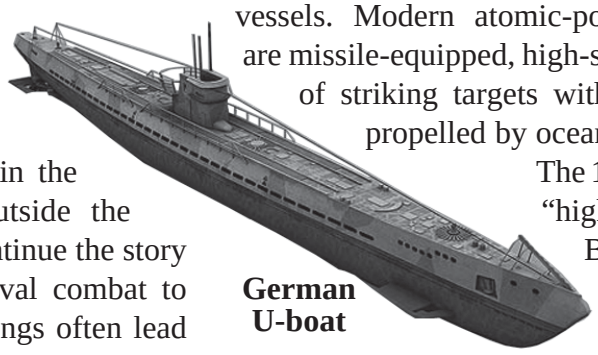
During World War I and II, the submarine was developed further. Although both of these conflicts mentioned took place in the 20th century, and are thus outside the scope of this chapter, we will continue the story of the use of submarines in naval combat to demonstrate how simple beginnings often lead to major applications. World War I saw the introduction of many new types of vehicles used in military operations: the motorcycle, tanks, airplanes, and submarines.

The Germans first developed the *Unterseebooten* ("under sea boat") or *U-boat*, as a major new weapon in their ***arsenal*** against the Western Allies. German U-boats sank approximately 6,000 Allied ships. That was a total of 12 million tons of cargo and boats.

The German declaration of "unrestricted submarine warfare" (in other words, they would sink whatever they saw), in the North Atlantic Ocean became one of the most important aspects of the conflict between Germany and Allied Forces (USA, England, France, Canada, Australia).

The sinking of the British passenger ship, *Lusitania*, off the coast of Ireland, on May 7, 1915, had far reaching effects. A total of 1,198 passengers on board the *Lusitania* lost their lives, of which 124 were Americans. That act eventually brought the United States into World War I.

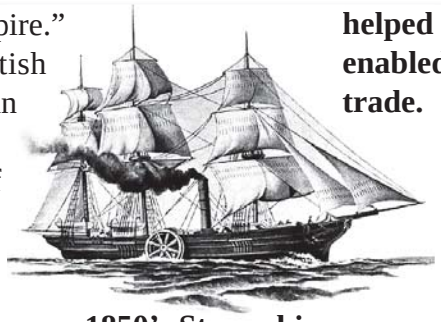
A generation later, during World War II (1939-1945), German and Japanese submarines preyed on Allied shipping in their respective oceans (the Atlantic and the Pacific). The Western Allies responded with submarine counter offenses. Japanese and American activities in the Pacific were a major part of that war. Submarine designs progressed from steam powered, sluggish crafts to sleek 200 foot, diesel powered, torpedo-equipped vessels. Modern atomic-powered submarines are missile-equipped, high-speed, ships capable of striking targets with atomic warheads propelled by ocean-to-land missiles.



German U-boat

The 19th century was the "high water mark" of British imperialism. It was said that, "the sun never

set on the British Empire." In other words, British holdings were located in every part of the globe. No matter the time of day or night, the sun was shining on British holdings somewhere in the world.



1850's Steamship

In order to control that vast territory, Great Britain needed to be mistress of the seas. The introduction of steamships, as the replacement of sailing vessels, greatly facilitated that end. The number of British steamships increased from 298 in 1830 to 3,178 in 1870, gradually phasing out the ***Age of Sail***

One of the most important portions of Britain's empire was India. There was, however, no direct sea route from the British Isles to the Indian sub-continent. All such British naval traffic had to travel around the continent of Africa.

By the middle of the 19th century, Egypt, largely with French financial backing, began cutting a 100 mile long canal through the ***Isthmus*** of Suez.

Ultimately, however, Egypt put more than £ 16,000,000 (British Pounds Sterling) into the Suez Canal project. A great deal of that money was borrowed from foreign investors. By 1875, Egypt could not raise enough cash to pay the interest on those loans. The leader of Egypt (the Khedive, Ismail), therefore, sold the Egyptian Canal Project to Great Britain for approximately $20,000,000. Under British control, the Suez Canal was completed and became known as the "Lifeline to India."

A submarine is one tool which can be used to carve out an empire. Canals and steamships, on the other hand, helped hold that empire together. They enabled nations to engage in international trade.

Today, we are in the midst of a "global economy." International businesses are merging. For instance, the US car company, Chrysler, and the German Daimler Benz, became one company (Daimler Chrysler). The problems of national economies in Southeast Asia are of great concern to Europeans and Americans. Whether we like it or not, we are all interconnected. A businessman or woman in New York (USA), Quebec (Canada), or London (England) communicates with one in Bonn (Germany), Hong Kong (China), or Tokyo (Japan). To consider how that developed, let us go back in time to the United States of 1876.

Suez Canal Map





LIFE PRINCIPLE

"Where you spend your time is where you get your results."

—Justin Wizard

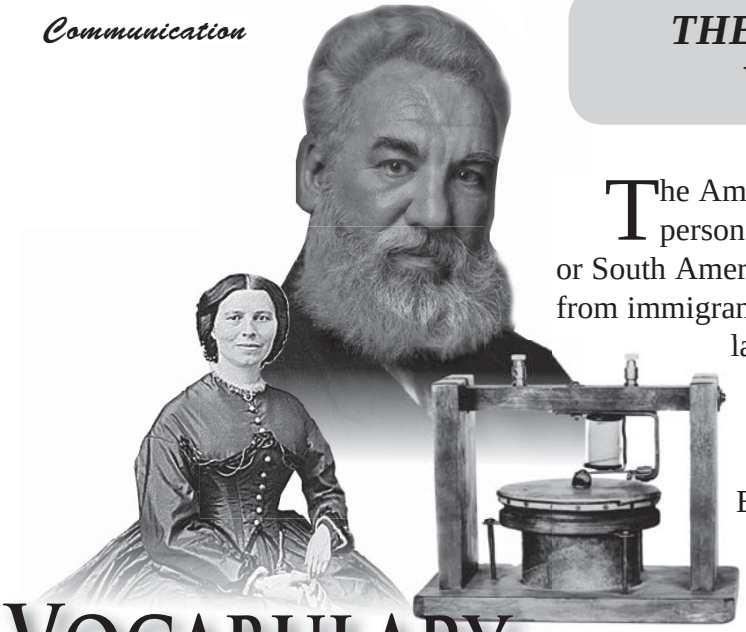


Lesson 14

Chapter 5

Section 3
Lessons 11-15

Communication



THE TELEPHONE ARRIVES VIA AN IMMIGRANT

The Americas are nations of immigrants. Every person who now lives, or has ever lived, in North or South America is either an immigrant or descended from immigrants. All people who are born in a particular country are natives. Therefore "Native Americans" have been natives of the New World for thousands of years.

However, an Anglo-American of European ancestry, who was born in any of the American nations, is also a "Native American." The so-called "American Indians" (which term is inaccurate) had ancestors who ultimately came from somewhere else. Today's Native Americans are descended from those Asian individuals who were part of that "Trans-Siberian-migration-of-Paleo-Indians."

They were, indeed, the first Americans. They are, however, like everyone else in North and South America, descended from immigrants. "Foreigners," in general, have contributed much to the American political and ***social institutions***, from Canada to Argentina. Therefore, that is true also for the United States of America. Immigrants learned about free enterprise, the English language, and how to participate as citizens under the US Constitution.

Immigrants brought to America something of their past, something of their homeland, something of themselves. Thus, the USA became a "***melting pot*** of nationalities." People from all over the world immigrated to the United States to participate in American capitalism with the dream of economic, political, and religious freedom.

One such individual was Alexander Graham Bell. He was born in Edinburgh, Scotland, in the year 1847. He was a fairly typical European immigrant to North America.

He became interested in persons with hearing problems. He believed it would be possible to use electricity to transmit sound by wire and amplify it for

VOCABULARY

Social institutions: families, charities, churches, civil organizations

Melting pot: blend of numerous ethnic groups who assimilated into the American culture

Entrepreneurs: persons who invest money, resources, and time to set up businesses to make a financial profit and to create jobs

Regiments: a unit of military forces

Triage hospitals: temporary field facilities in tents to care for battle or disaster victims

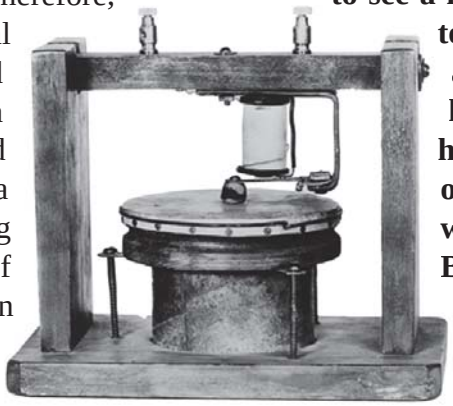
Hostilities: combat between military forces

Humanitarian: One who works to promote human well-being and social reforms

Army of the James: a unit of the Union army stationed along the James River in Virginia

Maligned: vilified, slandered, lied about.

hearing-impaired people. Therefore, Bell experimented for several years before he constructed an instrument on which sound could be transmitted to distant locations over a wire. He set up a working model in the two rooms of his laboratory. One day in 1875, his assistant heard Bell's voice coming over that instrument, "Come here, Watson, I need you." Bell was in the next room behind a closed door!



First Telephone

In 1876, the United States was 100 years old. A Centennial Exposition in Philadelphia, Pennsylvania, attracted inventors and ***entrepreneurs*** to exhibit their inventions.

The Emperor of Brazil, Dom Pedro de Alcantara III, visited the exposition. He picked up a cone-shaped instrument and placed the device to his ear. Twenty-nine year old Alexander Graham Bell spoke to the king through the transmitter. Dom Pedro exclaimed in astonishment, "My God, it talks!" For the rest of the exposition, Bell's "telephone" was the central exhibit. Everyone wanted to hear the voice that talked over the wire.

The Bell Telephone Company was founded the following year. Alexander Graham Bell invented a number of other devices which combined electricity and sound. He later became interested in aviation. He also (like Benjamin Franklin) conducted experiments involving kites. Some of those kites were big enough to carry a person in flight.

Bell was the recipient of many honors for his scientific accomplishments. He also became a regent of the Smithsonian Institution. He was further elected president of the National Geographic Society. He died in 1922, at the age of 75.

America's free enterprise system encouraged men like Alexander Graham Bell to see a need and fill it. Bell invented the telephone because of his concern about the need of people with hearing loss and their inability to hear normal sounds. The subject of the next vignette was a woman who also saw a need and filled it. Because of that, she was one of the dominant persons of her era. Her role could well be called that of an "angel of mercy." She functioned in the United States (and in other parts of the world) primarily in the second half of the 19th century.



Dominant Personalities

THE RED CROSS

During the American Civil War, (1861-1865), the boundary between the US states of Pennsylvania and Maryland, surveyed by Charles Mason and Jeremiah Dixon from 1763-1767, was set as the official line of division between the North and the South. Women of both regions bore much of the brunt of that national American tragedy, on the battle field and at home. When President Abraham Lincoln issued the first call, in April of 1861, for men to take up military arms for the defense of the Federal Union, women in many places north of the Mason-Dixon Line held meetings to discuss how they might best help the soldiers of the Republic. One such organization thus founded stated its goals as follows:

"To supply nurses for the sick; to bring them home when practicable; to purchase clothing, provisions, and matters of comfort not supplied by Government regulations; to send books and newspapers to the camps; and to hold constant communication with the officers of the ***regiments****, in order that the people may be kept informed of the condition of their friends."*

Many noble women served the Union government as volunteer nurses. One was Dorothea Dix, who offered her services eight days after that call for troops in April, 1861. Her offer was accepted immediately by the US Surgeon General. Furthermore, he requested that all such women wishing to act as nurses report to Miss Dix. Dorothea Dix coordinated volunteer nurses throughout the Civil War.

Amy Bradley was another noble woman who volunteered for national service. She was placed in charge of a large camp of wounded men near Alexandria, Virginia. Miss Bradley also assisted 2,200 soldiers to collect more than $200,000 in back pay, which was owed to the men.

Arabella Griffith Barlow was the wife of Union General, Francis C. Barlow. Arabella served three years as a volunteer in hospitals at the front. Mrs. Barlow died while serving her country and her country's soldiers.

Numerous other courageous women who were less well known also performed heroic and difficult service; and many of those women lost their lives to diseases that stalked the military ***triage hospitals***.

One volunteer "angel of mercy" was Clara Barton (1821-1912). Born in Oxford, Massachusetts, she entered national service at the very beginning of American Civil War ***hostilities***. Further, her ***humanitarian*** activities did not cease when the war ended.

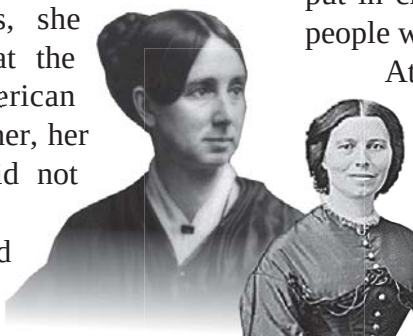
Clara Barton started working in military hospitals at the beginning of the war. She was placed in charge of the hospitals of the ***Army of the James*** during the last year of fighting. After the war, Miss Barton undertook the search for the missing men of the Union Army.



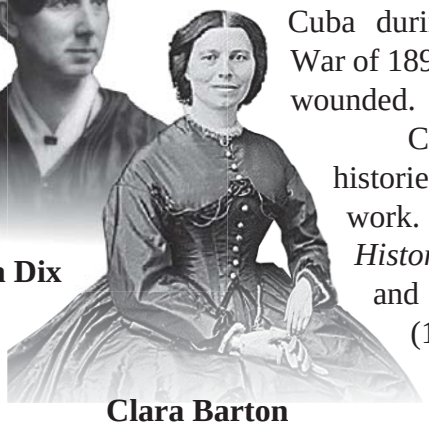
Civil War Triage Hospital

When the Franco-Prussian War (1870-1871) began in Europe, Miss Barton volunteered to assist the Grand Duchess of Baden to organize field hospitals for the care of wounded men. Barton was also in charge of finding work for the unemployed in Strasbourg, France, in 1871. Additionally, she helped distribute supplies to impoverished families in Paris in 1872.

Clara Barton returned to America after her work in France was done. She founded the American Red Cross Society in 1881 and remained that organization's president for 22 years. As such, she superintended the Red Cross' distribution of relief and supplies to disaster victims in numerous events of floods, famines, and earthquakes. In 1893, she was put in charge of similar activities in behalf of people who had survived a cyclone on the south Atlantic coast. She once again served in Cuba during the Spanish-American War of 1898 - 1901, ministering to the wounded.



Dorothea Dix



Clara Barton

Clara Barton also wrote two histories of the early Red Cross work. She authored *An Official History of the Red Cross* (1882) and *A Story of the Red Cross* (1904). Through her work, Clara Barton was truly one of the dominant persons of her era.

Another woman who affected the world mightily was Florence Nightingale, born May

12, 1820, in Florence, Italy, and named for her birth city. Her British family was wealthy and well-known in English high society. The Nightingale family had a magnificent home in England, where Florence lived until she reached adulthood. Her beauty, Christian faith, and intelligence set Florence apart from other ladies of English society. However, Florence grew weary of her meaningless social life and felt "called of God" to be a nurse and "make a difference." Florence broke off her engagement to a wealthy gentleman in order to study nursing. That brought opposition from her family because nurses in the 1840's were considered to be only a little above prostitutes.



Florence Nightingale

Medical conditions for invalids and soldiers were deplorable. Sanitation, food, and medical practices were so horrible that more patients died than survived while in the hospital. Florence began to study the practices of hospital nurses, doctors, and orderlies. When the Crimean War erupted in Turkey among the British, French, and Russians in 1854, Florence lead a team of 38 female nurses to serve in the British-French military hospital in Scutari. The heroic work by Florence and her volunteer nurses changed the way hospitals cared for soldiers. She became known worldwide as "The Lady With the Lamp" due to keeping nightime vigils with her lantern in wards for sick and wounded soldiers.

After the war, and aided by England's Queen Victoria, Florence opened the Nightingale School of Nursing at St. Thomas' Hospital in London. Disease diminished and recoveries increased wherever hospitals implemented practices and policies recommended by Miss Nightingale. Florence died in 1910 at the age of 90, but her legacy endures even today. She followed her dream and changed the world. (The 1985 TV movie *Florence Nightingale* is a fact-based depiction of "The Lady with the Lamp.")

Next, let us consider a small man, less than five feet tall, yet his influence on modern culture is unparalleled. William Wilberforce (1759-1833) was physically frail at birth and nearly blind. His father died when the boy was only nine. His mother, unable to care for the lad, turned him over to relatives to raise----all unlikely circumstances for becoming a world-changer. However, in spite of handicaps, and through a series of fascinating events, Wilberforce became passionate about abolishing slave trade in his native England, and then worldwide.



With the counsel and encouragement of William Pitt (Prime Minister of England), John Wesley (famous Methodist preacher), and John Newton (former slave trader and author of the popular hymn, "Amazing Grace"), Wilberforce used his elected position in Parliament, fighting tirelessly for the next 46 years for something greater than himself. His diary entry for October 28, 1787, read: *"God almighty has set before me two great objects, the suppression of the slave trade and the reformation of society."*

Wilberforce lived in a time when slavery was highly profitable and not considered morally wrong. For this reason, he was ***maligned***, socially condemned, and even physically assaulted for his stance on abolishing slavery. However, his relentless perseverance in the face of continued character assassinations and smear campaigns, was world-changing. Although Wilberforce "led the charge," he did have the support of a band of dedicated abolitionists and reformers (who also reaped public scorn).

The first victory came in 1807, when England outlawed slave trade. Twenty-six years later, and the night Wilberforce died, Parliament passed an Emancipation Act to free enslaved British blacks. The years between these two milestones were filled with many other extraordinary reform endeavors. Wilberforce's crusade did not die with him, but spread to other nations, including the United States, and became a major stimulus for President Lincoln's Emancipation Proclamation and the freeing of American slaves. (The movie, *Amazing Grace,* yields an accurate glimpse of Wilberforce's battle to abolish black slavery.)

In the latter part of the 18th century, an industrious American man with a great deal of mechanical ability devised innovative vehicle improvements. Therfore, let us flash back to the United States during the late 1700's to learn more about boats, ships, and industrial expansion.



LIFE PRINCIPLE

"Excellence is the result of caring more than others think is wise, risking more than others think is safe, dreaming more than others think is practical, and expecting more than others think is possible."

—anonymous

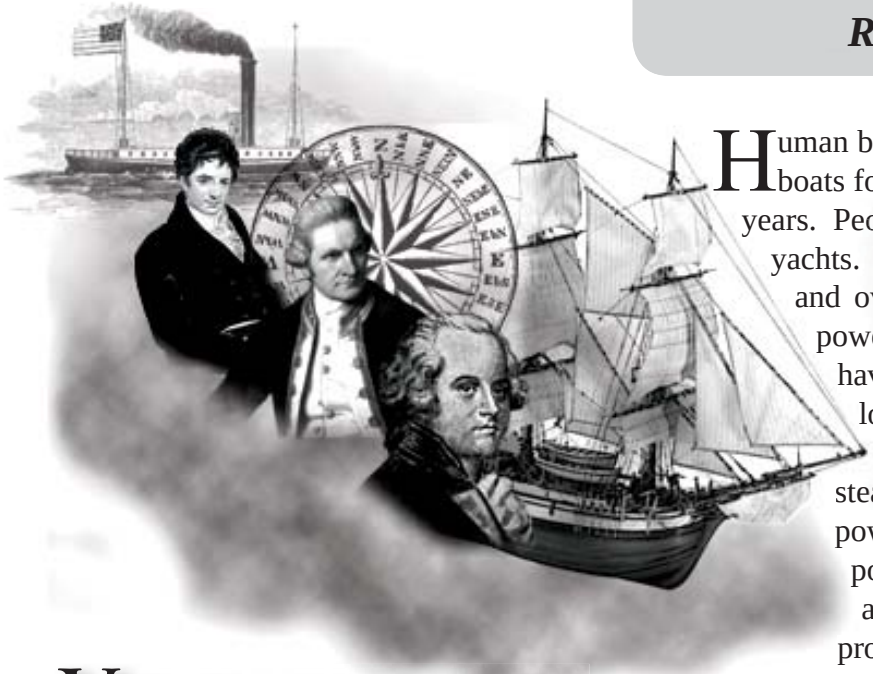
Lesson 15

Chapter 5

Section 3
Lessons 11-15

Industry & Medicine

STEAM POWERED BOATS REPLACE SAILS



Human beings have been using various kinds of boats for water transportation for thousands of years. People paddle canoes, row boats, and sail yachts. Boats travel up rivers, across lakes, and over oceans. Whether those crafts are powered by hand, sail, or motors, mariners have relied on boating to travel short or long distances.

The transition from sail, to steam, to gasoline/diesel, to atomic/nuclear power was a slow process. Early steam-powered vessels were not dependable at first. The wind was free. Fuels to produce steam cost money. Sparks from burning wood or coal sometimes caught ships on fire, and many steamboats exploded.

On the other hand, powered craft are faster. They go further. They can be bigger and carry more creature comforts. Change happens; especially in a free society do inventions that improve human commerce flourish.

Robert Fulton (1765-1815) was the first man to build steamboats commercially. He was born on a farm near Lancaster, Pennsylvania, on November 14, 1765.

As a boy, Fulton became interested in mechanical things. He devised a rocket and a hand-propelled paddle-wheel boat. At the age of seventeen, he went to Philadelphia and supported himself by painting and making mechanical drawings.

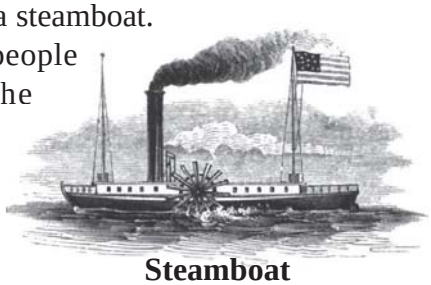
In 1786, Robert Fulton visited England. There, he began improving existing mechanical inventions. He became interested in canals, invented a digging machine, and wrote a book on improving canal navigation.

In 1797, he went to France, where he began building a "diving boat" (a submarine). He also built an underwater bomb: a *torpedo*. He returned to the US and became the business partner of a rich, powerful merchant, Robert R.

VOCABULARY

Age of Discovery: (1400-1800) a historic period in which Europeans engaged in intensive exploration of the world; also called *Age of Exploration*
Bread fruit: a tropical fruit having potato-breadlike qualities; grows abundantly on trees that can reach 80 ft in height; is medium cantelope size with green textured exterior and white flesh
Fraternize: socialize
Longboat: largest rowboat carried by merchant sailing ships, about 10 ft wide by 23 ft long
Maritime: pertaining to navigation and commerce of the sea
Exemplified: demonstrated, reflected, become an example of
Sextant: an instrument enabling one to navigate by the stars.
Cutlass: a machete-type knife.

Livingston in New York in 1806. The two men began building a steamboat.



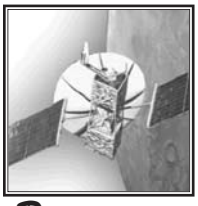
Steamboat

Many people ridiculed the idea, calling it "Fulton's Folly;" but on the morning of August 17, 1807, a group of passengers gathered on the deck of Fulton's steamboat, intent on traveling up the Hudson River from New York City to the capital at Albany. The boat heaved forward and stopped. It was not a great beginning. Fulton tinkered with the engine, and, to everyone's amazement, it started again and chugged up the Hudson River at 15 miles per hour (8 kilometers). Fulton's first steamboat, the *Clermont*, was a success!

Having proved that steamboats were practical, the partners began building other steamboats, and the company became a huge business empire. Livingston and Fulton became quite wealthy as a result of their commercial venture. They took a financial risk, worked hard, and earned a fortune.

In 1808, Robert Fulton married Harriet Livingston, a relative of Fulton's partner. Tragically, their marriage was short; in the winter of 1815, Fulton became ill with influenza. He died on February 24, 1815, at only 50 years of age, but he had introduced the new *Age of Steam Power*, which would gradually phase out the Age of Sail.

Whether human beings were exploring ideas or geography, there was so much to learn. The scientists and inventors we have looked at were truly explorers, as were the men we will study next. The African Continent and the Pacific Ocean were vast unknown regions of this earth, and explorers longed to discover their secrets.

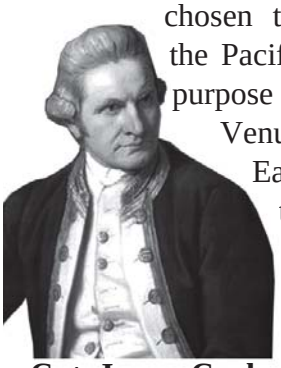


Discoveries

CHARTING THE PACIFIC OCEAN

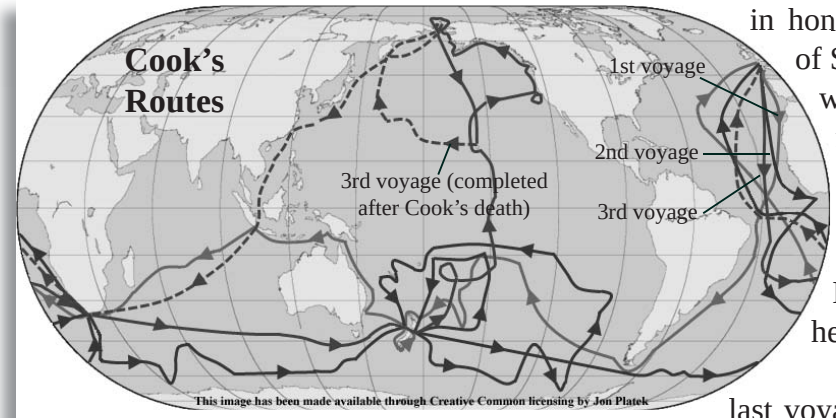
Many men from England, Spain, France, Portugal, and elsewhere left their mark on history through their explorations during the ***Age of Discovery***. James Cook (1728-1779) was born in Yorkshire, England, on October 27, 1728. His family was very poor, and he received a limited formal education. Circumstances forced Cook to go to work at the age of twelve. Later, he joined the British navy as an ordinary seaman. He was, however, promoted quickly and often. By 1759, he was a ship's captain. Meanwhile, he studied math, astronomy, and geography in his spare time.

Years passed; then, James Cook was chosen to lead an expedition to the Pacific Ocean for the primary purpose of scientifically observing Venus as it passed between Earth and the Sun, in order to determine the distance from Earth to the Sun. Cook was also to chart all of his findings along the way. Hence, he was given command of the ship, *H.M.S. Endeavour*, which set sail from England in mid summer of 1768. With only one ship, Cook would map more than 5,000 miles of previously unknown coastlines.



Cpt. James Cook

First, Cook crossed the Atlantic and sailed around Cape Horn (the tip of South America). The party reached Tahiti a year later, becoming the first white men to see that island. Next, Cook preceded on to explore the coasts of New Zealand. Then, early in 1770, he reached and explored the uncharted east coast of Australia, which he claimed for Britain and named it, "New South Wales."



In addition to discovering new lands, James Cook worked to improve the circumstances of British sailors. He required his men to bathe regularly and keep the ship clean. He was the first navigator to provide his crew with vegetables and fruit sufficient to prevent scurvy, a Vitamin C deficiency disease, in accordance with studies by navy surgeon's mate James Lind in 1747. As a result, none of Cook's men died of "the plague of the sea." Scurvy was a dreaded disease that claimed thousands of lives on long voyages. Vasco da Gama, a Portuguese navigator who discovered a shorter route to India in 1497, lost two-thirds of his crew to the disease. Portuguese explorer Magellan lost eighty percent of his crew in like manner. Cook's procedures finally won out 40 years later, when the British navy mandated limes on all its ships. British sailors were then nicknamed "Limies."

On Cook's second voyage of exploration, he discovered Tonga and Easter Island, New Caledonia and Norfolk Island, south of the New Hebrides. His ship was the first to cross the Antarctic Circle. Cook's voyages added much knowledge about the vast Pacific Ocean and expanded the British empire.

On his third and final voyage, Cook employed two ships: *Resolution* and *H.M.S. Discovery*. On this trip, Cook discovered Hawaii which he named the *Sandwich Islands* in honor of a British nobleman, the Earl of Sandwich. Next, Cook sailed up the western coast of North America as far as the Bering Sea and the Arctic Circle, in search of a northwest passage linking the Pacific and Atlantic Oceans. He returned to Hawaii, where on February 14, 1779, he was killed by native Polynesians.

Accompanying Cook on his last voyage was a brilliant young navigator and cartographer name William Bligh. He was appointed ship master of one ship, the *Resolution*, and tasked with the navigation of both ships on the expedition. However, upon Cook's death, Capt. Charles Clerke of the ship *Discovery*, took command, and both ships returned to England.

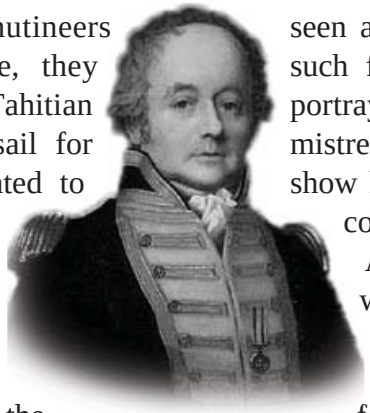
In 1787, at the age of 33, Bligh was selected to command the armed ship, *Bounty*, comissioned to sail to the island of Tahiti in the South Pacific Ocean and procure a load of ***bread fruit*** saplings (young trees). These were to be transplanted in the Caribbean Islands as a nutritious, economical food source for slaves of the British Empire.

In Tahiti, the mission experienced a five-month delay. Bligh mistakingly allowed his men to ***fraternize*** too freely with the natives. Consequently, military discipline evaporated as the men took native wives and lived loosely, and warrant officers became negligent concerning their duties. Also, three of the crew attempted to desert. Punishment was administered, albeit less than naval recommendations for the offense.

On April 4, 1789, the *Bounty* was ready to sail, but the crew was not, due to the relationships they had formed. Bligh had to assert his authority to restore order, which necessitated more floggings than normal, which in turn, sparked four aggressive crewmen to mutiny. On the night of April 28, Bligh was dragged from his cabin by the First Mate, Fletcher Christian, who led the

mutineers. Bligh and those 18 individuals loyal to him were placed in a ***longboat*** and set adrift. Four other loyalists were held against their will. The tremendous courage, determination, and navigational skill of Captain Bligh allowed him and his crew to return to his homeland. There, he reported the mutiny and filed legal charges against First Mate Fletcher Christian.

Meanwhile, the mutineers returned to Tahiti. There, they picked up a number of Tahitian women and men and set sail for parts unknown. They wanted to find a remote place where British officials would not likely visit. On January 15, 1790, they sighted Pitcairn Island. That lonely spot was hundreds of miles off the ***maritime*** routes usually visited by ships. The mutineers unloaded the *Bounty's* cargo, burned the ship, and began life on Pitcairn. The settlement was made up of nine British sailors and 18 Polynesians.



Cpt. William Bligh

The fugitives learned to distill alcohol and make whiskey. Soon, life on Pitcairn was filled with violence. Intoxication and fighting occurred repeatedly, and murder was not uncommon. The entire community became increasingly corrupt. Of the original 15 men who had arrived at Pitcairn, all but two died violent deaths. Within ten years, only one of the *Bounty* mutineers, Alexander Smith, remained alive.

Among the items taken from the *Bounty*, Smith found a Bible and he began to read it. He continued to study it carefully. What he read, he started teaching to the surviving women and the children who had been born to them. As a result, life on the island underwent a total reformation.

In 1808, a ship anchored off the shore of Pitcairn. The captain discovered that Pitcairn's society was prosperous and happy. There was no alcoholism, no violence, no murder, no jail, and no crime. Because Alexander Smith had read and applied Biblical principles, the survivors had become responsible residents, free from violence. Ironically, the survivors on Pitcairn ***exemplified*** the last name of First Mate, Fletcher Christian, who had instigated the mutiny!

You may have read the novel, or seen a film called, *Mutiny on the Bounty*. In such fictionalized accounts, Captain Bligh is portrayed as a cruel man who consistantly mistreated his crew. Naval records, however, show him to have been a more compassionate commander who often spared the lash. Also, the crewmen of the *Bounty* who were loyal to Bligh and were set adrift with him outnumbered the mutineers. The ousted captain and men were given food, water, a ***sextant***, four ***cutlasses,*** and the ship's log book with which to navigate nearly 3700 miles of ocean. In a staggering feat of navigation, Bligh accomplished just that, and with no consequent loss of life in transit!

Landing on the Island of Timor in the Dutch East Indies after 47 grueling days at sea, Bligh and his men were able to arrange passage back to England. Bligh was exhonorated in the loss of the *Bounty*, and went on to other posts of leadership, including the governorship of "New South Wales."

Chapter six will be the final chapter of this edition *The People, Places, and Events of World History*. All significant events cannot be covered. You will, however, obtain a perspective into human nature.

LIFE PRINCIPLE



"You may not be able to decide the circumstances that enter your life, or when they come, but you can decide how you are going to respond and live now."

—anonymous