Final Presentations

Pythagoras

* Greek philosopher, mathematician.
* Traveled to Egypt, etc., seeking knowledge.
* Like Socrates, did not record all his ideas – instead, others wrote about them.
* Believed in reincarnation.
* Set up a school (organized like a brotherhood or monastery), very secretive.
* Students had a sort of probationary period before they could really participate in the school.
* The brotherhood is comparable to the Free Masons.
* Left behind a way of life.
* Influence on politics.
* Influence on Plato – both considered the soul and its place in the world.
* Bertrand Russell said that Pythagoras is the “most influential of all the philosophers due to his influence on Plato.”

Immanuel Kant

* German philosopher, later 18th century.
* The Critique of Pure Reason
* A priori – knowledge independent of experience – used a lot in math education.
* Conditions of possibility – things depend on the conditions they exist in.
* Theory of opportunity – not concerned with who was to be educated, more concerned with how we educate.
* Influenced Marxism, etc.

Machiavelli

* Italian Renaissance, political philosopher.
* Diplomat, head of Florentine militia.
* No record of his schooling but evidence that he had a humanist education, possibly attended the University of Florence in 1480s.
* The Prince – how to rule a state.
* The ends justify the means.
* Emphasized self-preservation and cunning.
* Philosophy of political realism.
* Influenced Bacon, Descartes, Rousseau, Adam Smith.
* Studied how people lived – like current sociologists.
* Denied that living virtuously always leads to happiness.
* Often referred to as the first political scientist.
* A predecessor of modern science.

Hobbes

* 1558-1679, England.
* One of the founders of modern political philosophy.
* Contributed to math, physics, and history.
* Wrote Leviathan – while in exile in France during English civil war.
* Argued that subjects don’t serve the monarch because he is ordained by God but because they get social order and protection from the monarch.
* Replaced divine right of kings with the social contract.
* Government’s real power comes from consent of citizens.
* Necessity of strong central authority to avoid civil war.
* Different from Locke (good human nature) – if left without centralized power, man in natural state would find itself in war.
* Anarchy does not work.
* Critique today – creates not civil war but international war.

Carl Linnaeus

* 1707-1778, Sweden
* Father of modern taxonomy.
* Studied botany, part of medical school curriculum, but plants were used for medicine.
* Created classification system.
* Species planetarium.
* Created biological classification: kingdom, phylum, class, order, family, genus, species.
* Uppsala University in Sweden – studied and taught.

Dentistry

* Sumerians, looking at mouth physiology and what caused cavities.
* Greek scholars had jaw surgeries, wrote about the topic (tooth decay, more studying, dental treatments).
* Middle Ages – more contemplation on tooth decay and infections, pulling out a lot more teeth. Didn’t really figure out a lot but created instruments.
* Pierre Fauchard: father of modern dentistry, figured out cavities.
* Baltimore College of Dental Surgery was first dental college, founded in 1840 and followed by Philadelphia Dental College.

Humboldt University

* 1778 – Germany.
* Research university.
* Started teaching science, law, philosophy.
* Johns Hopkins copied Humboldt’s structure.
* Split into two universities after World War II.
* Free University of Berlin is one of top schools in Germany.

Weekly Questions

1. What were the influences of England and Europe on early American universities?

* Adopted a European style curriculum based on classical learning, Renaissance arts and literature, logic, philosophy, metaphysics, math.
* Tried to emulate campus life like in Europe – didn’t have as much funding but promoted residential living.
* Small colleges designed to focus on liberal arts and educating clergy.
* Influenced by Renaissance idea of creating gentlemen/scholars.
* Rigid, year-by-year curriculum.
* 9 Colonial Colleges:
  + 1636 - New College (Harvard): leaders were from Cambridge University in England.
  + 1693 - The College of William and Mary: run by the Church of England.
  + 1696 - Collegiate University (Yale): run by the General Court of CT, but the founders who established the first library were graduates of Harvard.
  + 1701 - Academy of Philadelphia (UPenn): Church of England.
  + 1746 - College of NJ (Princeton): New Light Presbyterians, Nassau Hall named for royal house of William III of England.
  + 1754 - King’s College (Colombia): Church of England members, funds raised by colonists.
  + 1755 - College of Rhode Island (Brown): Baptists, Royal Founders under King, Charter executed under King George III.
  + 1755 - Queen’s College (Rutgers): Ministers of the Dutch Reformed Church, named in honor of Queen Charlotte (England).
  + 1769 - Dartmouth: founded by Eleazar Wheelock, with money raised in England, charter under King George III, originally for Native Americans, Congregational denomination (Puritans changed their name to Congregationalists).

1. What was the role of church denominations?

* Religious denominations established most early colleges to train ministers.
* Focused on literacy so people could read Bible.
* Denominations typically founded their own schools.
* Increase in colleges because all sorts of denominations were starting their own schools.

1. What were the 10 (ish) most important characteristics of these colleges?

* Small.
* Founded for religious purposes.
* Very rigid – memorization, recitation, limited liberal arts curriculum.
* Educating civic leaders and preparing a learned clergy.
* Religiously tolerant in order to be successful – increase enrollment.
* Prototype for future liberal arts colleges.
* Centralized government was common – boards made of secular, ecclesiastic, and state figures.
* Privilege was suspect in America so there were opportunities for poor but ambitious youth.
* Residential.
* White, exclusively male, often teenagers.
* Collegiate studies focused on ancient languages, ancient history, theology, and mathematics, medieval learning, Greek and Latin.
* Courses were meant to bring higher learning from English universities to the “American Wilderness.” (translatio studii)
* Fostered social, intellectual, and moral life.

1. What were the critical events from 1636-1776?

* Harvard founded in 1636.
* Massachusetts Act of 1642 – parents/masters are responsible for making sure their children know the principles of religion and capital laws of the commonwealth.
* Massachusetts Act of 1647 – towns greater than 50 families need schoolmaster to teach reading and writing, and towns greater than 100 families need grammar school and schoolmaster to prepare children for college.
* New England Primer printed in 1690 – first textbook.
* 1708 – First non-clergy president at Harvard.
* Yale College founded in 1701.
* Dartmouth College founded in 1754.
* King’s College (Columbia) established one of first medical department in 1767 and awarded first medical degree in 1770.

1. What changed after the Revolution? What was the impact of the American Revolution on American higher education?

* Many colleges closed down during the revolution, troops occupied buildings.
* Names changed – King’s College, Queen’s College not longer acceptable.
* Uncertainty about role that colleges played in society.
* Form of education needed to adapt to new form of government.
* 1782-1802 – 19 new colleges founded.
* Legislation to distinguish between private and public schools.
* College became more expensive because funds from England were cut off.
* Developed our own dictionary, American literature (example Hawthorne) – no longer dependent on British novels, began to develop an actual American culture.
* Governance of colonial colleges became almost exclusively the jurisdiction of local and state governments.
* Less rigidity in curriculum.
* 1800-1850 – "college building boom" – over 200 degree-granting institutions were created.
* New fields of study became popular, such as engineering and science.
* Professional education for law and medicine took place in separate institutions.
* Women eventually were able to attend schools and therefore gain financial independence (often employed as teachers) and respectability in the social structure.

1. What was the impact of the Industrial Revolution? (1820-1870)

* Various groups founded institutions for agriculture, medicine, law, engineering, and science.
* Private philanthropy due to growing American interest in schools concentrated on advanced scientific, technical, and engineering education (including generous support for colleges like Rensselaer, Drexel, Cooper Union, and the Massachusetts Institute of Technology).
* Morrill Act of 1862 – states received profits from the sale of lands if used to establish agricultural, mechanical, and military science programs.
* 1870-1910 – almost all institutions experienced a surge in appeal to students and benefactors – "Age of the University."
* 1900 – presidents of 14 institutions created the Association of American Universities.

1. Was there a social revolution as well (reform)?

* Women’s struggles to gain to access to higher education.
* Quality of life changed as well, because of goods and services produced by Industrial Revolution.
* Extracurricular experiences of intercollegiate sports, campus newspapers, collegiate drama, literary societies, alumni groups, and fraternities (enthusiasm for activities grew as media glamorized social activities).

1. Which colleges taught the classics or “useful knowledge”?

* Colonial colleges mainly taught classics, but UPenn taught practical knowledge.
* Princeton experimented with eliminating Greek and Latin.
* Ben Franklin argued for teaching practical knowledge.
* His school was to focus not merely on education for the clergy, but also on teaching both knowledge of the arts and practical skills useful for making a living and doing public service.

1. Was higher education a private, national, or state function?

* Colleges were chartered by states and meant to be a state function.
* Dartmouth decision in 1819 – new federal government would protect colleges from state intervention.
* Private schools continued to get financial support from government, but government couldn’t intervene.
* State had no say in what was taught unless the institution was explicitly designated as a public university.