What the Middle Ages knew

- Political revolution (feudalism)
- Religious revolution (monasticism)
- Commercial revolution (communes)
- Agricultural revolution (manors)
- Educational revolution (monasteries, universities)
- Engineering/artistic revolution (cathedrals)
- Technological revolution (machines)
- Military revolution (gunpowder)
What the Middle Ages knew

- Christian conversion (300-1000)
- Arab invasion (711-1492)
- Monasticism (318-1347)
- Feudalism (980-1453)
- Cathedrals (900-1280)
- Chivalry (8th c)
- Holy Roman Empire (800)
- Manors
- Architectural boom (1000)
What the Middle Ages knew

• Christian conversion of the Pagans
  – During the Roman empire Christianity was an urban phenomenon
  – In the early Middle Ages, rural churches and monasteries spread it to the rural population ("pagus" = countryside)
What the Middle Ages knew

• Christian conversion of the Pagans
  – 340: Christianization and literalization of the Goths (Ulfila and the "Gothic bible")
  – 360: the Vandals convert to Christianity
  – 371: Martin of Tours converts pagans
  – 376: Visigoths convert to Arian Christianity
  – 432: missionary Patrick is taken prisoner to Ireland
  – 450: the first British monasteries are established in Wales
  – 496: Clovis converts Franks to catholicism
  – 587: the Visigothic king Recared converts to Catholicism
  – 588: the Visigoths abandon Aryanism and convert to Catholicism
  – 597: Pope Gregory I dispatches monks to England
What the Middle Ages knew

• Christian conversion of the Pagans
  – 603: the Lombards convert to Christianity and move their capital to Pavia
  – 650: Arianism disappears after the Lombards convert to catholicism
  – 670: Whitby monk Caedmon translates the gothic Bible into Germanic vernacular (ancient English)
  – 678: Wilfrid evangelizes in Frisia (Holland)
  – 690: English missionary Willibrord evangelizes in Holland and Denmark
  – 722: the Anglosaxon Benedictine monk Boniface (Wynfrid) evangelizes in Saxony
  – 800: Pope Leo III crowns Charles emperor of the Holy Roman Empire
What the Middle Ages knew

- Christian conversion of the Pagans
  - 862: Boris of Bulgaria converts to Christianity
  - 862: Ratislav of Moravia converts to Christianity
  - 870: The Serbs convert to Christianity
  - 912: the Normans become Christian
  - 965: Denmark converts to Christianity
  - 966: the ruler of Poland converts to Christianity
  - 988: Vladimir of Kiev converts to Christianity
  - 995: Olav I conquers Norway and proclaims it Christian
  - 1008 AD: Sweden converts to Christianity
  - 1385: Lithuania unites with Poland and converts to
  - 1396: the English translation of the Bible, begun by John Wycliffe, is completed (the "Wycliffe" Bible)
What the Middle Ages knew

- Cosmas Indicopleustes: "Christian Topography" (547)
  - Voyages in the Mediterranean Sea, the Red Sea, and Persian Gulf
  - Description of Ethiopia (Axum), Persia, Ceylon
  - Destination: India
  - The universe is a tabernacle
What the Middle Ages knew

• The Christian world under seige
  – Vikings from the north
  – Saracens (Muslims) from the south
  – Magyars (Hungarians) from the east
What the Middle Ages knew

• Arab invasion
  – Breakdown of the economic and political unity of the Mediterranean Sea
  – International trade shrinks
    • Papyrus disappears from Gaul/France (replaced by parchment)
    • Spices disappear from France
    • Silk disappears from France
    • Gold is replaced by silver (silver "denarii") in France (Charlemagne, 781)
    • Professional merchants disappear
What the Middle Ages knew

• Arab invasion
  – Jews keep alive commerce - only economic link between Islam and Christianity (slaves, gold, spices)
  – Venezia/Venice only economic link between Holy and Eastern Roman Empires (slaves, gold, spices)
  – Netherlands only economic link with Scandinavia
What the Middle Ages knew

- Arab invasion
  - Jews become the main intermediaries
  - Arabs sell spices to the Europeans via Jewish merchants
  - Europeans sell furs, slaves, timber, metals to the Arabs via Jewish merchants
What the Middle Ages knew

• Breakdown of the unity of the Roman world
  – Arabs (southern empire)
  – Germans (northern empire)
  – Slavs (severe ties between Latin and Greek world)
  – Three large ethnic groups install themselves among the traditional peoples of the Mediterranean (Egyptians, Phoenicians, Jews, Greeks, Latins)
What the Middle Ages knew

• Closing of the Medieval mind
  – Illiteracy widespread even among rulers
  – Christians, obsessed with heretics and battling pagans, close libraries and burn books
  – The only roads are still the old Roman roads
  – Very little traffic of people or goods because the roads and seas are not secure
  – People live and die where they are born (dialects develop)
What the Middle Ages knew

• Closing of the Medieval mind
  – Pirates, bandits, warfare
  – And the closure of Arab-conquered ports
  – cause (8th c):
  – Decline of trade
  – which causes:
  – Decline of urban life (except Venezia/Venice)
    • People abandon commerce and return to the fields
    • An agricultural world under constant threat
does not need a town: it needs a castle/fort
What the Middle Ages knew

• Commercial revolution
  – Urban life replaced (8th c) by
    • Episcopal cities
    • Bourgs around castles
  – Big cities are vulnerable, small towns are easier to defend
    • Arles’ amphitheater
    • Split’s Diocletian palace
What the Middle Ages knew

• Commercial revolution
  – Trade fairs of 7th-9th c
    • Decline of permanent trade fosters periodic trade
    • The decline of sea trade fosters land trade
    • Champagne, Flanders, northern Germany
    • Largest: the yearly Fair of the Lendit at Saint Denis, near Paris (7th c)
    • Peaked in 13th c
What the Middle Ages knew

• Commercial revolution
  – Jewish merchants (Spain, France, Italy, England, Germany, etc)
  – Italian communes (10th c)
    • Spices make the fortune of Venezia
    • Venetian ban of Jews from their ships (competitors?)
  – Birth of a real bourgeois class
  – Capitalism is born in the competing city-states of anarchic Italy, not in the cooperating environment of stable Constantinople/Byzantium
World Trade in the 8th century

(Janet Abu-Lughod)
What the Middle Ages knew

- Commercial revolution
  - Year 1000: the Hungarian king converts to Christianity and the overland route to Constantinople/Byzantium reopens
What the Middle Ages knew

• Capitals of Christianity
  – Constantinople/Byzantium (wealthiest city until 1000)
  – Anthioch
  – Alexandria
  – (Jerusalem)
  – (Rome)
What the Middle Ages knew

• Byzantium
  – Justin I (518-527) first Justinian
  – Justinian I (527-565)
    • Restores empire’s grandeur (Italy, Balkans, southern Spain, North Africa, Asia Minor, Syria, Palestine)
    • Revival of international trade
    • Cosmas Indicopleustes of Alexandria sails to Ethiopia and India
    • Hagia Sophia, Byzantium (537)
    • San Vitale, Ravenna (547)
    • No longer Constantinople influenced by Italian culture but viceversa
What the Middle Ages knew

- Byzantium
  - Wealthiest Christian city until 1000
  - Official language: Greek
  - Views the Western Europeans as barbarians
  - Gold currency that remains the standard for almost 1000 centuries
  - Enemies: Persians (till 7th c), Arabs (from 7th c), Bulgars (from 7th c), Holy Roman Empire (after Frederick Barbarossa 1190), Venezia, Serbia (12th c)
  - Allies: Khazars (Justinian II and Constantine V marry Khazar princesses)
  - Second city: Thessaloniki/Salonika
What the Middle Ages knew

• Byzantium
  – Automata

Theophilus placed in the Magnaura, one of the halls of audience in the Sacred Palace, a golden plane-tree on which perched golden birds near to the golden throne itself supported or flanked by lions and griffins in gold. In the same hall were two organs gleaming with enamels and precious stones, and the Pentapyrgion, which housed part of the imperial regalia. Many of these were automata. When the Emperor gave audience in the Magnaura, during the acts of proskynesis, the birds sang and fluttered their wings, the lions roared and thrashed their tails on the ground, the griffins reared up and pawed the air, and the throne itself soared into space with the Emperor seated upon it like a great golden idol.
What the Middle Ages knew

Chinese ambassadors from the Tang court have left a description of the city: ‘There is a gate two hundred foot high, entirely covered with bronze [the Golden Gate]. In the imperial palace there is a human figure of gold which marks the hours by striking bells. The buildings are decorated with glass and crystal, gold, ivory, and rare woods. The roofs are made of cement and are flat. In the heat of the summer machines worked by water power carry up water to the roof, which is used to refresh the air by falling in showers in front of the windows.’
What the Middle Ages knew

• Byzantium
  – Heraclean dynasty (610-717)
    • Arabs conquer Syria, Palestine, Egypt
  – Isaurian dynasty (717-802)
    • Iconoclastic Age (726-843): only abstract religious art
    • Rise of the Carolingian empire as a competitor in northern Italy
What the Middle Ages knew

• Byzantium
  – Macedonian dynasty (867-1056)
    • Russia converts to Christianity (988)
    • The Bulgar empire is annexed (1018)
    • The Seljuq defeats the Byzantines at the battle of Mikert (1071)
    • The Great Schism (1054) between Roman ("Catholic") church and Byzantine ("Orthodox") church
What the Middle Ages knew

• Byzantium
  – Commene dynasty (1081-1185)
    • Rise of Venezia as a competing power in the Eastern Mediterranean
    • Rise of the Normans as a competing power in southern Italy
    • Rise of the German emperor as a competing power in northern Italy
    • Weakening of the Byzantine Empire by the Crusades (hostility by the crusaders)
What the Middle Ages knew

• Byzantium
  – 1204: Sack of Constantinople by the crusaders (led by Venezia/Venice)
    • Latin dynasty on the Byzantine “empire”
    • Greek kingdoms in Greece (Nicaea)
    • Venezia becomes an empire by taking “one quarter and one half of one quarter” of the Byzantine empire
  – 1261: Nicaea reunites the Byzantine “empire”
    • Gradual advance of the Turks from the east
    • Gradual advancement of the Serbs from the north
    • 1453: The Ottomans take Constantinople
What the Middle Ages knew

- Monasticism and religious movements
  529: Benedetto of Nursia founds the monastery of Monte Cassino and codifies western monasticism (absolute power of the abbot)
  530: the Benedictine monk Cassiodorus encourages monks to copy manuscripts of the classics
What the Middle Ages knew

• Monasticism and education
  – Martianus Capella of Carthage: "De nuptiis philologiæ et Mercurii" (420): allegory of the seven maids that symbolize Grammar, Rhetoric, Dialectic, Arithmetic, Geometry, Astronomy, Music
What the Middle Ages knew

• Monasticism and education
  – Magnus Aurelius Cassiodorus (Theodoric's ksecretary):
    • "De artibus et disciplinis liberalium artium" (6th c)
    • Seven liberal arts ("liber" = "book") :
      – Trivium (Grammar, Rhetoric, Dialectic)
      – Quadrivium (Arithmetic, Geometry, Astronomy, Music)
    • No science, no history, no mathematics, no literature
  • Curriculum for education for his monastery in Apulia
    – Irish scribes introduce punctuation in their books (9th c)
What the Middle Ages knew

- Benedectine monastery:
  - The organization of Time
  - "Regula Magistri" (510): discipline built around a "horologium"
  - Monastic chores and liturgical chores organized on hourly basis
  - Origin of scheduling and of... punctuality
  - Public signaling of the hour
  - Seven canonical hours to mark the religious duties of the monks
  - Bells (5th C)
  - Bede: "De Temporibus" (704)
  - Development of the mechanical clock (via Islam via China)
What the Middle Ages knew

• Benedectine monastery:
  – Each monastery is a completely autonomous community (all crafts are included, from metalwork to farming)
  – A miniature town in the age of urban decline (a safe alternative to towns ransacked by warfare)
  – The center of culture also moves from the town to the monastery
What the Middle Ages knew

• Monasticism:
  – After 800, monasteries become state institutions
  – An urban alternative: economic, political and cultural unit
  – Benedictine monasteries become corrupted (10th c)
What the Middle Ages knew

• Monasticism and religious movements
  – Cluny (910) & Odilo (1000):
    • Rebellion against Benedictine corruption
    • Rebellion against feudal interference
    • End of Ottonian (German) domination of the papacy
    • Purify the whole Church from worldliness
    • Victory of Cluny: Pope Gregory VII (1073)
    • First international network of monasteries
    • Cluniac movement becomes corrupt (11th c)
What the Middle Ages knew

• Monasticism and religious movements
  – Monasticism recreates the unity of Christianity through a Europe-wide network of interconnected monasteries
  – A network of small units can mobilize resources on a large scale
What the Middle Ages knew

- Monasticism and religious movements
  - Cluny’s religious revolution
    - Independence of the Church from the princes
    - The liturgy is the process by which the monastery acts as intermediary between humans and God
    - Monks don't need to work anymore to support themselves
    - Economic power: monasteries become the venture capitalists of agricultural Europe
What the Middle Ages knew

• Monasticism and religious movements
  – Abbot Hugh (1049-1109)
    • Cluny becomes a monastic empire
    • Populism + devotion + diplomacy: respected by the people, the church and the princes
    • Builds Cluny III
What the Middle Ages knew

• Monasticism and religious movements
  – The papacy completes Cluny’s revolution in 1050-1099
  – The Church becomes Europe’s superpower
  – Slow decline of the German (Holy Roman) empire
What the Middle Ages knew

• Monasticism and religious movements
  – Saint Bruno - Carthusians (1084):
    • Rebellion against Cluny’s worldliness
    • Radical desert-style monasticism
What the Middle Ages knew

• Monasticism and religious movements
  – Cistercians (1098)
    • Remote locations
    • Churches mostly dedicated to the Virgin Mary (after 1134)
    • Vegetarian diet
    • No religious art (sculptures forbidden in 1124, stone towers in 1157, stained windows in 1182)
  • Bernard (1115): fanatical orthodoxy (unio mystica), isolated from secular society, crusades
  • Decline of Cluny
  • 1200: There are 694 Cistercian monasteries
What the Middle Ages knew

• Monasticism and religious movements
  – Peter Waldo (rich merchant) - Waldensian (1177): poverty
  – Albigensians/ Catharists (12th c): god of good vs god of evil
What the Middle Ages knew

- Monasticism and religious movements
  - Friars
    - Lay people not priests
    - Social welfare more than praying
    - Largely indifferent to theology and doctrine
    - Living in the real world
- San Francesco/Francis d’Assisi (1206): poverty, humility, beauty of the world (pantheism), argument based on example (rural view)
- Domingo/Dominic de Guzman (1215): poverty but also philosophy, argument based on logic (urban view), and preaching against heresy
What the Middle Ages knew

• Monasticism and religious movements
  – New Christian beliefs
    • The Virgin Mary
      – Bernard de Clairvaux: Mary as the symbol for divine love
    • The Anti-Christ
      – Adso: the Anti-Christ explains why Christ has not come yet
What the Middle Ages knew

• Monasticism and religious movements
  – Pilgrimages
    • Campostela (from France to Santiago)
      – Organized by Cluny, that becomes also the main financial beneficiary
      – Monasteries serve as inns
      – Each faithful has to do it at least once
      – More important than the pilgrimage to Roma
    • Roma
    • Jerusalem
What the Middle Ages knew

• Monasticism and religious movements
  – Inquisition (1233) to deal with the Cathars
  – Black Death (1347)
What the Middle Ages knew

- Monasticism
  - The Barbarian wars in Italy drove both rich and educated men into the cloisters
  - Kings, aristocrats and bishops founded abbeys
  - Evangelization of the pagans: Saint Fructuosus (Spain), Gregory the Great, Augustine (Anglo-Saxons)
  - Anglo-saxon evangelization of the pagans: Wynfrith/Boniface (Frisia, Saxony), Willibrord (Holland, Denmark)
What the Middle Ages knew

• Monasticism
  – The industry of monasteries (agriculture, masonry, handicraft) lays the foundations for the economic boom of the 12th c
  – The monastery becomes a financial, industrial, educational and even political entity
What the Middle Ages knew

• Monasticism
  – Trivium: Grammar, Rhetoric, Dialectics
  – Quadrivium: Music, Arithmetic, Geometry, Astronomy
  – Grammar as an exegetical tool for understanding the Scriptures
  – Liturgy = Music
  – Emergence of polyphonic music (980-1130)
  – Art as a discourse on God
  – Not the nature of things but their mystical meaning
  – Late 12th c: the trivium not as the pinnacle, but only as preparation to the exegesis of the Bible
What the Middle Ages knew

• Monasticism
  – The visible world is narrow, precarious, dangerous, decaying: the Church freed people from this world and offered a stable, safe, eternal alternative
  – …or burn in hell
What the Middle Ages knew

• Monasticism
  – Through this door “Mens hebes ad verum per materialia surgit, Et demersa prius hac visa luce resurgit” (inscription of Suger on Saint-Denis’ bronze doors)
  • (Through this door the dull mind, through that which is material, rises to truth/ And, in seeing this light, is resurrected from its former submersion).
What the Middle Ages knew

• Monasticism
  – The monastic ideal of withdrawal reflects a static peasant-and-warrior society
  – The urban society prompts the Church to reorganize into a totalitarian system modeled after the monarchy
  – Pope Innocent III (elected 1198) calls himself the king of all kings
  – The Church declares war on the heretics (eg, Albigensians) and on the schismatics (Constantinople, 1204)
What the Middle Ages knew

• Monasticism
  – Monasteries value regulated daily behavior
  – The monastery is the first example of mechanical discipline
  – The monastery is a machine
What the Middle Ages knew

• Monasticism
  – Monasteries pioneer mill technology
  – Monasteries sponsor music and painting
What the Middle Ages knew

• Monasticism
  – Monasteries are generally organized better than manors
  – They become rich and the appeal of monkhood as a career is strong
What the Middle Ages knew

- Magic
  - Magic is a substitute for science (that still fails society)
  - Most people are chronically ill and die before the age of 35.
  - Magic can easily compete with science (e.g. a healer with a physician) because scientific knowledge is still rudimentary (most medical knowledge is nonsense)
  - The Catholic church tries to get its share of large demand for magic with saints, pilgrimages, shrines, exorcists, etc
  - The Church calls "superstition" any magic practiced outside itself
What the Middle Ages knew

• Monasticism
  – In the 13th c, monasteries lose the monopoly on spiritual perfection: secularization of the mystical experience (lay people can also achieve unity with God while remaining in the world)
What the Middle Ages knew

• Encyclopedias
  – Isidore of Seville (Spain): "Etymologiae" (600?)
What the Middle Ages knew

• Feudalism
  – An evolution of a tribal Germanic tradition
    • Comitatus (warriors united by a vow of loyalty)
  – An evolution of Roman institutions
    • Colonate (coloni under the control of landowners)
    • Precarium (lease of land to a tenant)
  – France: circa 980
  – Germany: circa 1130
What the Middle Ages knew

- Feudalism
  - Causes
    - Break-down of the Carolingian empire
    - Endemic warfare
    - Disintegration of royal authority
      - Defense from Vikings, Saracens and Magyars can be provided more effectively by local “lords” than by the central army, which is slow to assemble and to move (conceived for planned large-scale aggression, not for prevention of unpredictable raids)
What the Middle Ages knew

• Feudalism
  – Western Europe is a land of large estates run by lords who have absolute power (economic, judicial, military) and who obtain their lands in return for the military service that they can provide thanks to their land’s revenues (horse, armor, weapons are too expensive for the peasants)
  – Each estate becomes a self-sufficient business unit (artisans, coins, soldiers)
What the Middle Ages knew

- **Feudalism**

  - Landowner can afford to buy horse, armor and weapons
  - Military service brings in land and loot for the landowner
  - The lord defends the peasants and rents them land
  - The peasants provide the wealth of the lord
  - The manor is a self-sufficient unit
What the Middle Ages knew

• Feudalism
  – The landlord allows the serf use of the land in exchange for labor and taxes
  – The relationship is hereditary (the lord inherits the serfs, the serfs inherit the lord)
What the Middle Ages knew

• Feudalism
  – Military aristocracy
  – The lord of the manor is a member of the military aristocracy
  – The king is simply the lord of all lords, but has limited power on the other lords
  – There is no state: no national army, no national law, no national money, no national tax…
  – The king has no jurisdiction over the majority of his citizens
  – Private wars (among vassals of the king) are frequent
  – A fluid and uncertain world in which lords struggle to retain land, peasants and castles
What the Middle Ages knew

• Feudalism
  • Mounted “vassals” (warhorse)
    – The huge army of peasants is replaced by a small army of professional fighters
    – Service in wartime becomes an exclusive privilege (knights, chivalry)
    – Service in the army is a privilege not a duty (brings rewards in land and loot)
    – Service in the army requires financial means
What the Middle Ages knew

• Feudalism
  – Early feudalism (from “fidelity”): cavalry soldiers rewarded with farms expropriated from the Church (Charles Martel)
  – Late feudalism: mutual obligation between a lord and a vassal (social peers, both from aristocracy), usually granting of fiefs (land and labor) in return for political and military services (hereditary from 11th century)
What the Middle Ages knew

- Feudalism
  - Feudal pyramid (prince, barons, knights)
  - Decline caused by increasing mercenary relations between lords and knights
  - Signoria: obligation of the peasants towards the lord
What the Middle Ages knew

• Feudalism
  – A non-profit organization
    • Peasants give to the Lord
    • The Lord protects the peasants
    • The surplus is stored, used for festivals or given back to the people
    • No concept of trade
    • A closed system meant to provide stability, not wealth
What the Middle Ages knew

• Feudalism
  – Three parallel hierarchies:
    • Landownership
    • Military power
    • Political power
  – The landlord/employer, the political ruler and the military commander are the same person, the lord/seigneur
What the Middle Ages knew

• Feudalism and Church
  – 590-604 Gregory I expands Catholicism to England and converts the Lombards (Italy)
  – 726 Iconoclasm (Rome severe ties with Byzantium)
  – 756 The Papacy becomes a state ("Pepin's donation")
  – 800 Holy Roman Empire
  – 817 Monastic constitution of Benedectine monasteries
  – 904 The Roman aristocracy appoints the pope
  – 9th-10th century: Eastern Europe and Northern Europe convert to Catholicism
What the Middle Ages knew

• Feudalism and Church
  – The Church is one of the many landowners of feudalism and run just like a manor
  – The only difference is that the titles are not hereditary but elected or appointed
  – The higher ranks of the Church hierarchy are mostly for nobles
  – The Church is not necessarily more religious than a manor
What the Middle Ages knew

• Feudalism and Church
  – Church’s propaganda instills fear of God (and fear of death, esp after 1040)
  – Feudal lords seek to win God’s favors and avoid damnation
  – Feudal lords donate wealth to the Church, which uses that wealth to finance its propaganda
  – E.g.: Henrik II bequeathed to Cluny his gold scepter, gold robe, gold crown, gold crucifix, etc.
  – Church even allows the living relatives to help the deceased achieve salvation
What the Middle Ages knew

- Feudalism and Church
  - Church displays wealth to match power of the feudal lords
  - Most monks come from noble families
  - Monks are the Church’s knights, fighting for the Lord
  - The universe as a large-scale feudal system, in which warfare is endemic and monks fight for God’s empire
  - Apostles and Archangels are the court of God
What the Middle Ages knew

- Feudalism and Church
  - Church the largest land owner
  - Church the richest banker
  - Church the only school (most state bureaucrats of the 9-11th c were members of the Church)
  - The Church punishes profit (eg, trade and usury) as sin, thus justifying and preserving the feudal world: poverty is a divine gift
What the Middle Ages knew

• Feudalism and women
  – No place for women
  – Feudalism and knighthood a society of males
  – 11th century art ignores women
What the Middle Ages knew

• Decline of Feudalism
  – Rise of national monarchies in France and England
What the Middle Ages knew

- Cathedrals
  - Total art
    - architecture
    - sculpture
    - painting
    - carpentry
    - glasswork
    - ...
  - Birth of a new profession: the architect (not just master builder)
What the Middle Ages knew

• Cathedrals
  – Building cathedrals: a large enterprise
    • Master mason
    • hundreds of masons
    • thousands of laborers
    • hundreds of quarrymen
    • smiths and carpenters
    • carts, wagons, boats
What the Middle Ages knew

• Cathedrals
  – Rebirth of the city
  – Most manor lords decide to move to the cities
  – Paris is the first real capital in western Europe since Rome
  – Reign of Louis IX (1226-70), wealthiest Latin king
  – 1130: the most royal church is a monastery (St Denis), not a cathedral
What the Middle Ages knew

• Age of cavalry
  – Massagets (Central Asia), VI BC: heavy cavalry with massive armour
  – India, II BC: the toe-stirrup
  – Barbarians, I AD: Saddle
  – Barbarians, I AD: Heavy horse - destrier
  – Eastern Roman Empire, 378 AD: Battle of Adrianople
  – China, V AD: the foot-stirrup
  – Eastern Roman Empire, 568: the Avars, riding horses with stirrups, invade Pannonia (Hungary)
  – Western Europe, VIII AD: the barbaric kingdoms adopt the stirrup
What the Middle Ages knew

- Age of cavalry
  - Francia, 732: Charles Martel expropriates Church lands to support conversion of the Frankish army to cavalry
  - Roman church: need for cavalry to repel the Arab armies
  - Francia, IX AD: Charlemagne improves armors with iron
  - Subsequent centuries: armor, shield, lance, etc
  - Landowners run the horse-based economy (feudalism)
  - Development of an elite of mounted warriors
  - Constantinople/Byzantium, 10th c AD: four regiments of cavalry and one of infantry
What the Middle Ages knew

• Age of cavalry
  – New type of warfare based on the horse
  – New type of society based on land ownership
What the Middle Ages knew

- Age of cavalry
  - Note the imitation of the equestrian statue of the Marcus Aurelius in Campidoglio
  - Note armor but no stirrup

"Charlemagne." Bronze. 9th c. Louvre, Paris
What the Middle Ages knew

- Age of castles
  - Originally a command post for the “castelan” (Carolingian official)
  - Disintegration of Charlemagne empire causes chaos
  - Viking raids
  - Masonry too costly for rural population
  - Timber + earth (“motte and bailey”)
  - Quick and cheap to build
  - Easy to defend

http://www.jfk.herts.sch.uk/class/history/motte_and_bailey_castle.htm
What the Middle Ages knew

• Age of castles
  – 10th c: large fortified area as a refuge for the inhabitants of a region
  – 11th c: motte and bailey castle with wooden palisade and moat
  – 12th c: tower castles with stone towers (Tower of London)
  – 12th c: masonry walls (Rochester, Chateau Gaillard)
  – 12th c: cylindrical towers
  – 13th c: concentric castle (Carcassonne, Wales, Krak-des-Chevaliers)
  – 14th c: gunpowder makes castles pointless and castles become aristocratic residences
What the Middle Ages knew

• Age of castles
  – The cost of conquering a castle is often too high
  – The medieval castle helps distribute power
Carcassonne

San Gimignano

Chateau Gaillard
What the Middle Ages knew

• Decline of the castle/ Age of siege warfare
  – Foundries cast bronze bells for churches (8th c)
  – The technology is applied to cannons (15th c)
  – Armament industry (mainly in Italy)
  – Siege artillery
  – The towns need to protect their wealth and their trade
  – Professional armies instead of part-time soldiers recruited among the serfs
  – Decline of the castle and of the armored cavalry; rise of the mercenary army
What the Middle Ages knew

• Decline of the castle/ Age of siege warfare
  – During the 100-year war the central states also shift from feudal militias to professional soldiers, and from armored cavalry to artillery
  – To build an artillery-proof castle is beyond the means of most lords
What the Middle Ages knew

- Decline of the castle/ Age of siege warfare
  - Main technological advance of European warfare: fortified communities
  - Warfare turns into siege warfare
  - Mobility is no longer a key factor to win a war
  - The skills of chivalry move to aristocratic tournaments
  - The objective of the crusades was the capture and defense of cities (i.e. besieging or fortifying)
What the Middle Ages knew

• Agricultural revolution
  – Heavy plow (7th c in northern Europe) more efficient but requires a pair of oxen, which are expensive and therefore prompt cooperative organizations
  – Manor
  – Three-field system of crop rotation (8th c), possible only in the richer soils of northern Europe (greater agricultural prosperity in northern Europe)
  – Horseshoe (9th c): horses begin to replace oxen
  – By the 11th century all the innovations come together and cause agricultural boom
What the Middle Ages knew

- Agricultural revolution
  - Three-field rotation
What the Middle Ages knew

• Age of the manor (peaks in 1000)
  – Main economic unit of the feudal system
  – Arable land divided into three sections (spring, autumn and fallow)
  – A self-contained economic unit
  – Lord provides security and justice, besides a mill and an oven
  – Peasants are tenants that pay in produce and labor (and a fee to use the mill and the oven)
  – Both positions of landlord and tenant are hereditary
  – Surplus created premises for revival of trade
  – Surplus created premises for population boom and revival of cities
What the Middle Ages knew

• Agricultural revolution of Northern Europe
  – Low population and unhealthy lives during Roman times
  – The heavy wheeled moldboard plow makes the soil of northern Europe fertile
  – Population boom
  – The wheeled moldboard plow is costly enough that it fosters collective management of the land
  – It enables the three-field triennial crop rotation
What the Middle Ages knew

• Age of the manor
  – The wheeled plow: first application of non-human power to agriculture
    • Increased productivity but requires eight oxen
    • Cooperative agricultural community (the manor)
  – Three-field rotation (8th c): wheat/rye + oats/legumes + fallow
    • 50% productivity increase
    • Elimination of famine by diversification of crops
    • Surplus of oats for horses
  – Horseshoes (9th c)
    • 50% increased productivity of horses over oxen (speed)
    • Horses replace oxen (11th c)
    • Four-wheel wagon (12th c)
What the Middle Ages knew

• Age of the manor
  – The manorial world begins to disintegrate in 1200, first in Italy
  – By the 14th century it is replaced by local forms of agricultural economies
What the Middle Ages knew

- Transport revolution
  - Horseshoe, stirrup and collar make the horse an increasingly important element for both agriculture and transportation
  - Increased speed and range of horse-driven wagons
What the Middle Ages knew

• Northern Europe vs Mediterranean
  – The Roman world was a Mediterranean world
  – The Carolingian world was a landlocked Northern European world
  – The Arab invasion of Africa, Spain, southern Italy cut off the West from sea trade
  – The new agriculture spread in northern Europe and fostered rapid urbanization and higher standards of living

• Holy Roman Empire
  – An empire with no fleet (Eastern Roman Empire and Arabs were great naval powers)
What the Middle Ages knew

- Communes (1000)
- Papacy (1059-1303)
- Universities (1088-1400)
- Crusades (1099-1270)
- Guns (1200)
- Magna Carta (1225)
- Travelogues (13th c)
- Humanism (1300)
- Black Death (1348)
- Fall of Byzantium (1453)
- Inquisition (1480)
What the Middle Ages knew

• Age of the communes (after 1000)
  – No urban society survived the Barbarian and Viking invasions, the collapse of the Carolingian order and the decline of trade after the Arab conquests
  – Saracens, Normans and Hungarians tamed by the 10th c
  – The renaissance of urban life began with the renaissance of trade
    • Feudalism was a closed non-profit organization meant to provide stability
    • Merchants were aiming for wealth, and their cities attracted more and more people from the countryside
What the Middle Ages knew

• Age of the communes (after 1000)
  – Population movement
    • Arab conquest: from the cities to the fields
    • Commercial revolution: from the bourgs of the Lords to the towns of the merchants
    • Urban revolution: industry (artisans) also move from the countryside to the cities, near the merchants
    • A gold rush
What the Middle Ages knew

• Age of the communes (after 1000)
  – Northern Europe: new towns, markets
  – Southern Europe: old towns, seatrade
  – Italian seatrading cities (Venezia, Genova, Milano…)
  – Hanseatic League (Luebeck, Amsterdam, Hamburg, Bruges…)
  – Northern France (Paris…)
  – Southern England (London…)
  – Rhinelands (Basel, Mainz, Aachn, Koeln…)
What the Middle Ages knew

- Age of the communes (after 1000)
  - Domestic politics: struggle among guilds
  - Foreign politics: struggle against the lord
  - Weak imperial power
The Commune

Classic Town

- Landowners
- Artisans, Peasants
- Merchants

Medieval Town

- Merchants
- Artisans, Peasants
- Landowners
What the Middle Ages knew

• Non-commercial towns
  – Dioceses
  – Former castles
  – Expansions of monasteries
What the Middle Ages knew

• Consequence of rapid urbanization
  – Because walls were difficult to expand:
    • Overcrowding inside the walls
    • Skyrocketing land values inside the walls
    • Narrow streets
    • Molti-story houses
    • Low standards of sanitation
What the Middle Ages knew

- Western cities over 100,000 inhabitants in
  - 526: Alexandria, Antioch, Byzantium, Rome
  - 737: Byzantium
  - 1000: Baghdad, Byzantium, Cordoba
  - 1212: Baghdad, Cairo, Byzantium, Cordoba, Palermo, Paris, Venezia, Firenze, Milano
  - 1346: Cairo, Byzantium, Cordoba, Venezia/Venice, Firenze/Florence, Genova, Milano, Ghent, Paris, Tabriz

Source: Colin McEvedy
What the Middle Ages knew

• Medieval economy
  – A static world of lords, serfs and guilds
  – Status determined at birth: one inherits his father's skills, obligations, wealth, etc
  – Status determines customs, prices and salaries
What the Middle Ages knew

• The Roman Church
  – The holy sacraments (baptism, confirmation, marriage, penance, eucharist) can be administered only by priests
  – Priests can only be ordained by bishops
  – A bishop administers a diocese which is basically a city-state with headquarters in a cathedral
What the Middle Ages knew

• The Roman Church
  – Augustinianism: the state is the servant of the church
  – Gregory (pope in 590)
    • establishes the supremacy of Roma over all other dioceses
    • extends the rule of the Roman Church over Africa, Spain (converts the Visigoths), northern Italy (converts the Lombards) and Britain (converts the English)
    • gives the Papacy an economic foundation (administration of the lands donated by pious Christians)
    • supports Benedictine monasticism
    • transforms the bishop of Roma into a monarch with his own kingdom (Central Italy)
    • claims that the Church is above the state
  – The papacy becomes a world power
What the Middle Ages knew

• The Roman Church
  – Social movement can happen only within the church
    • Nobility: hereditary
    • Serfdom: hereditary
    • Guilds: hereditary
    • Church: not hereditary
What the Middle Ages knew

• Year 1000
  – Protracted period of fear (no consensus existed on calendars, or on whether the final judgement was to occur on the 1000th birthday of Jesus or on the 1000th anniversary of his death)
What the Middle Ages knew

• Architectural boom (11th and 12th c)
  – Political stability after repelling the invasions of Vikings, Magyars and Saracens
  – Year 1000 (the end of the world does not come)
  – Revival of trade and markets
  – Pilgrimage routes
  – Economic success of Cluny
  – Religious excitement for the first crusade
What the Middle Ages knew
Piero Scaruffi
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• Continues on Part II