

CHAPTER 11

TECHNICAL, SOCIAL, CULTURAL AND MENTAL EVOLUTION FROM THE DARK AGE THROUGH THE MIDDLE AGES OF WESTERN CIVILIZATION

Banishment of the Freedom of Consciousness

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11.1. The Ethos and Mindset of Western Civilization from the Dark Age through the Middle Ages: A Preview

In the preceding chapters we have analyzed man's mental and cultural evolution in line with our neurobiological theory of the distinguishing mindset of the people and the ethos of their cultures. In Chapter 9 we have characterized the mindset and ethos of the nomadic, predatory and savage large-game hunters of the Upper Paleolithic period as affective/impulsive, and the ethos of settled, productive and docile farmers of the Neolithic period as mnemonic/compulsive. In Chapter 10 we followed that with an analysis of the mindset and ethos of the urbanized Archaic and Classical civilizations. Collectively, the latter civilizations were distinguished from earlier primitive cultures by advances in practical rationality, as manifested in the organization and maintenance of a formal government with a record keeping bureaucracy, large-scale economic enterprises, and a hierarchic social system with division of labor. But these civilizations differed from each other in other respects. We characterized the orderly, peaceful and traditional but stagnant theocratic Egyptian civilization as mnemonic/compulsive, and the disorderly, militant and dynamic Mesopotamian civilizations (Sumerian, Babylonian, Assyrian) as affective/impulsive. A major mental and cultural advance in the Classical civilizations of Greece and Rome has been in the domain of ideational rationality: the spread of literacy and education to a growing segment of the population; the development of open discourse and critical thinking by free citizens; and logical inquiries by philosophers and scientists into the nature of man and his world. These were progressive movements towards the liberation of reflective consciousness from the yoke of superstition and its empowerment by critical reasoning. However, both the Greeks and Romans retained irrational traits, which contributed to their political demise. The Greek city-states never ceased to fight each other and, as a consequence of that affective-impulsive behavior, lost their political independence. And the erstwhile industrious Romans developed a predatory economy and a hedonistic life style, relying on slaves to labor and on mercenaries to fight, and were eventually overwhelmed by the barbaric peoples with a similar affective/impulsive mindset.

The Dark Age and the Epochs of the Middle Ages. In this chapter we turn to the analysis of the mindset and ethos of a new culture, our Western civilization, which emerged in Europe after the disintegration of the Roman Empire. Traditionally, the history of Western civilization is divided into three periods: the Dark, the Middle, and the Modern Ages. These three ages have also been characterized as the Barbaric (or Heroic) Age, the Age of Faith, and the Age of Reason. Simply put, these three phases of European culture were successively dominated (i) by warlords and savage fighters; (ii) priests and kings ruling by "divine right"; and (iii) explorers, engineers and scientists. In terms of our neuropsychological interpretation, we distinguish these three ages as historic epochs brought about by the mental orientation of the ruling elites and the populace at large. The Dark Age was the epoch of social and moral conflict between the affective/impulsive barbarians—plundering and unruly warlords, combatants and brigands of the *Völkerwanderung*—and the mnemonic/compulsive Christian priests and monks who sought to convert them into productive, peaceful and honest princes, landlords and peasants. The Middle Ages may be divided into an early, high, and late period. The Early Middle Age was characterized by agricultural expansion, the ascendancy of the universal Church, and the ensuing uneasy interrelationship between the papacy, the feudal lords and the rising monarchies. The

High Middle Age was characterized by growing urbanization and commerce, the emergence of the bourgeoisie as a new class, and rise of bureaucratic national states. The Late Middle Age was characterized by challenges to the established social and cultural order by new movements: the Renaissance in Italy, the Reformation in Germany, England and the Nordic countries, and the strengthening of the autocratic *Ancien Régime* in France. The rationalist Modern Age, which will be the subject of the next chapter, began with the exploration of unknown overseas territories of the globe and their colonization, the introduction of the scientific method and empirical philosophy, the Industrial Revolution, and the Enlightenment. The epoch we live in now is characterized by a surge in the advancement of rationalism in many domains: scientific research and engineering innovation; the introduction of universal education; the democratic enfranchisement of all adult men and women; the increasing secularization and rationalization of society; and a growing tolerance for all people irrespective of their social, religious and ethnic backgrounds and personal inclinations and orientations.

THE DARK AGE. The European Dark Age endured, with regional variations, from the fifth to the tenth century, beginning with the disintegration of the Roman Empire and ending with the establishment of central governments. It was a turbulent period with migrating and marauding barbarian tribes—Celts, Goths, Huns, Slavs, Vikings, Magyars, Arabs, Berbers, and others—harassing, terrorizing or seeking to impose their rule over conquered people. That affective/impulsive epoch coincided with the determination of the founders of Christianity to bring order into the prevailing chaos by disseminating a mnemonic/compulsive creed of peace, love, humility and charity; a creed that originated in Israel but was brought by Christian missionaries to the peoples of Europe in a modified form. After a protracted conflict between barbarians and those converted to Christianity, a resolution was beginning to emerge as the savage chieftains, warriors and looters settled down in the occupied lands and learned how to transform the forests of Europe into productive lands.

EPOCHS OF THE MEDIEVAL AGES. The Early medieval epoch began between the 5th and 10th centuries when royal dynasties were beginning to form sovereign countries—what later became France, Germany, Britain, Spain, and several others. These early kings sought to establish an autocratic system of government with the assistance of Church authorities. Initially there was a difficult relationship between popes and kings, with each seeking to control the other, as well as endless territorial wars among the different royal dynasties and noble houses. Gradually erstwhile militant tribal chiefs and captains became sedentary landowners, whose property was cultivated by a subjugated population of serfs and peasants. These toiling masses became in time, through a combination of physical and spiritual coercion, more docile and pious. The High middle age was characterized by expansion of the rural economy, as more and more lands were put under cultivation; growing prosperity of the old commercial and industrial towns and the establishment of new ones; the emergence of a new class of prosperous burghers; and the founding of universities where religious education was coupled with professional training and the teaching of secular subjects. Although the Christian ideals of love, peace and charity were sustained by some of the monastic orders, the popes and bishops, as wealthy landowners and recipients of taxes, increasingly became materially oriented. The first challenge to the prevailing social and cultural order came during the Late medieval period with the revival of classical art, humanistic learning and individualism in the independent city-states of Italy,

known as the Renaissance. That was followed in Germany and England by a social and cultural movement known as the Reformation, which challenged papal supremacy and many of the Roman Catholic dogmas and advocating a return to the basic tenets of Christianity. In Spain, Italy, Austria and elsewhere, the Counter-Reformation led to the institution of greater discipline within the Catholic Church. Following the religious wars between Catholics and Protestants, Protestant Europe became for a period more puritanical and Catholic Europe more conservative. However, Europe remained an mnemonic/compulsive, faith- and tradition-based civilization with Christianity remaining the dominating intellectual and moral force.

11.2. The Dark Age of Western Civilization: Collapse of the Roman Empire, the Jewish Prophetic Tradition, and Early Christianity

11.2.1. The Collapse of the Roman Empire. The decline of the Roman Empire was a slow process but by the middle of the third century CE its disintegration was unavoidable. Among the factors that led to that were insurmountable economic problems; disarray in the succession of emperors and civil wars; defeat of the Roman armies by Goths in the north and by Persians in the east; the demoralization of the Roman people; and the replacement of Roman “pagan” ethos by the “pious” ethos of Christianity (Rostovtzeff, 1926; Toynbee, 1957; Heather, 2010).

By the 3rd century CE, instead of wealth flowing from the conquered lands to Rome, the defense of the provinces became an economic liability because the invaders had to be fought by mercenaries. To finance the government, the small farmers were heavily taxed and increasingly they lost their property to large landowners of the state and agricultural productivity declined. As the treasury became exhausted, the government began to mint worthless coins. There were periodic attempts by able emperors to halt the decline. During his brief rule, Aurelius had some success against the invading Germans and had a protective wall built around Rome; but he was murdered in 275 CE. Diocletian, who ruled from 284 to 305, introduced effective administrative measures, and Constantine, who defeated two other emperors in civil wars and ruled from 306 to 337, routed the Franks, Alemanni and Visigoths, and was successful in introducing some financial reforms. However, he opted to move his imperial residence from Rome to Byzantium in Greece, what later became known as Constantinople. Although as Pontifex maximus Constantine remained the head of ancient Roman religion, he favored Christianity and supported its unification. After his death, his nephew Julian sought to re-establish traditional Roman religion, but after his death Christian ascendancy continued. The last emperor of both the Eastern and Western empires was Theodosius. He adopted Nicene Christianity as the state religion, and ended all support for other religions. The Eastern Empire endured for over a millennium but the Western Roman Empire ceased to exist when Romulus Augustus abdicated in 476.

Folk Migrations and the Barbarian Invasions. A major factor in the fall of the Roman Empire and the ensuing Dark Ages was the extensive movement of Iron Age peoples from Northern and Eastern Europe, and from Central Asia, into Western Europe, known as the *Völkerwanderung* (Durant, 1944; Davies, 1996; Halsall, 2008).

PREHISTORIC EUROPE. Farming developed in central and northern Europe several thousand years after it had already thrived in the Near East and considerably later than in southeast Europe (Champion, 1984; Cunliffe, 2001). New strains of cereals had to be developed that would grow in a wetter and colder climate and in shorter seasons. The valleys of large central European rivers were settled about 5,500 BCE by people who, in view of their distinctive pottery, are identified as the *Bandkeramik* culture. By 4,500 BCE village settlements were beginning to appear in much of northern Europe, and by 3,500 BCE an elite class existed that used copper and gold jewelry and who buried their dead with precious items. However, most of Europe remained woodlands and grasslands, and the bulk of the population relied for their subsistence on hunting, fishing and pastoralism. Bronze implements appeared in northern Europe about 1,800 BCE and iron tools of the Halstatt culture in Austria about 800 BCE. The late Bronze Age Urnfield culture of about 1,200 to 700 BCE may have been the culture of a proto-Celtic people (Cunliffe, 1997; Koch, 2005). The later La Tène Iron Age culture, which lasted from about 450 BCE to the Roman period—identified in Anatolia, Bohemia, France, Iberia and other places in Europe—is generally considered to be the culture of Celtic tribes (Fig. 11-1). Iron Age Celts stormed Rome in 390 BCE, terrifying people by their size and red hair. Referred to as Gauls, they were described by Roman historians as “hordes of wild beasts,” frenzied fighters endlessly engaged in tribal warfare and practicing head hunting. The Romans defeated them in 101 BCE and some crossed the Pyrenees and settled in Galicia. After the Roman occupation of Gaul and their Romanization, and following the great Eurasian migrations, Celtic-speaking people became restricted to Ireland, Scotland and a few isolated regions of Western Europe.

CELTIC LANDS IN ROMAN TIMES



Fig. 11-1. Regions occupied by Celtic peoples before the Roman occupation and the *Völkerwanderung*. (From Wikipedia Commons)

THE GREAT MIGRATIONS. The extensive Eurasian migration of peoples became manifest to the Romans about 100 BCE when Germanic tribes from the north and east pushed the Celtic tribes westward and began to occupy parts of Central and Western Europe. Germanic prehistory is not well known. By about 500 BCE, Germanic tribes settled along the shores of the southern Scandinavian and Baltic seas, where they fished and hunted in the surrounding forests. Some of them subsequently migrated to the region north of the Black Sea and became divided into western and eastern federations of warring tribes, known to Roman historians as the Ostrogoths and Visigoths. The first contact between the Romans and Germanic tribes occurred late in the second century BCE, as the Roman legions extended the border of the Empire to the Rhine and the Danube. Thereafter there were endless wars and skirmishes between the Romans and different Germanic tribes as well as trading contacts.

The migration of peoples intensified when marauding Huns from the steppes of Mongolia appeared in Europe (Fig. 11-2). Breeders of cattle, the nomadic Huns were savage warriors who, riding fast horses, plundered the lands they passed through, slaughtering people and extracting tribute from them. Initially the Huns harassed China but were stopped by the Great Wall built by the Chinese about 200 BCE. Thereafter, they turned westward and by about 350 CE occupied what are now southern Russia and the Ukraine, forcing the Scythians and Sarmatians residing there to move into the Balkans, and the Ostrogoths and the Visigoths to migrate en masse toward the Roman frontiers. A century later, under the leadership of Attila, the Huns were raiding France and appeared at the gates of Rome in 452. Another eastern marauding tribe, the Alans, crossed the Dnieper about 375 and the Rhine in 406, and reached the Atlantic by 420. Concurrently, there was a steady migration by other Germanic tribes who looked for new land to settle, pillaging and looting along the way. The Visigoths led by Alaric crossed the Alps and sacked Rome in 410. They moved soon thereafter into Iberia, establishing a kingdom there that lasted two centuries. The Franks, led by Clovis, defeated the Visigoths



Fig. 11-2. Migratory routes of the Huns and various Germanic tribes during the Dark Age. (From Wikipedia Commons)

of Gaul and established the Merovingian line of French kings in 481. The Vandals under king Genseric passed through Iberia and crossed into Africa. Subsequently they invaded Corsica, Sardinia, Malta and Sicily, and sacked and looted Rome in 455. Thereafter, the Ostrogoths attacked Italy and their king, Theodoric, became the *de facto* ruler of Italy by 493; his reign lasted until 526. Other Germanic tribes, the Angles, Saxons and Jutes, occupied Roman England. The Roman legions proved unable to prevent these tribes from entering and settling in the Empire's territories, and the demographic composition of Europe began to undergo a major transformation. Little is known about the migration of Slavic-speaking peoples. Their original home may have been in the region between the Oder and the Vistula. It appears that during the period of great migrations, different Slavic tribes dispersed into territories previously held by the Sarmatians and Scythians, and settled along the rivers of the Vltava (Moldau) in the north, the Drava, Sava and the lower Danube in the southwest, and along the Dnieper, Don and Volga in the east.

Moving behind the savage raiders were the displaced people looking for arable land to settle. Erstwhile pastoralists and small-scale hoe cultivators began the labor-intensive task of clearing the vast woodlands of Europe, using iron tools—plows, shovels, scythes, axes, and saws—and establishing enduring village settlements. That change from a roaming to a sedentary lifestyle, from pillaging to toiling, from a predatory to a productive economy, was aided by and contributed to a profound ideational transformation, the conversion of the “barbarian” peoples of Europe, as well as the “pagan” peoples of Greece and Rome to medieval Christianity. This was a change in the ethos and mindset of people that we may characterize, in line with our neuropsychological theory, as one from affective/impulsive to mnemonic/compulsive. That change did not occur easily or fast. There was a long intervening period between the Classical and the Middle Ages—centuries of the Dark Age—during which the old way of life and mentality became extinguished and a new one was created. The impetus for that change came from a small country in the Near East.

11.2.2. The Prophets of Israel, Jesus, the Jewish Diaspora, and Early Christianity.

The development of European civilization was profoundly affected not only by the great cultural advances of the Greeks and the might of the Romans but also by ideas developed in ancient Israel, where Christianity originated. Under the domination of changing empires—Babylonian, Assyrian, Persian, Hellenistic, and Roman—Israel (including Judah) knew political independence only for a very short period. But the subjugated Israelites developed the delusional conviction, propagated by a succession of prophets over centuries, that one day they will be saved by a liberator, the Messiah, provided they remained devoted to the one and only god, Yahweh. Christianity was founded after the one of these Jewish prophets, Jesus of Galilee, claimed to be the Messiah and was crucified for his audacity.

Israel, the Torah, Monotheism, and the Jewish Prophets. Our knowledge of the history of Israel is derived mainly from the Torah, or Old Testament. The Torah contains a creation myth, a legendary history of mankind and the Hebrews, a historical account of the people of Israel and Judah in Palestine, moral instructions and exhortations, hymns and prayers, and secular and religious laws. Although the Israelites believed that the Torah, passed on orally from generation to generation was based on divine revelation to Moses, modern biblical analysis

indicates that it is of heterogeneous origin (Bellah, 2011). Some parts of it may have been edited and put into written form during the Persian period (538 to 333 BCE), other parts during the Hellenistic period (333 to 165 BCE).

THE HISTORY OF ISRAEL. Adam and Eve, Noah, and the founders of Israel—Abraham, Isaac and Jacob—are legends. The first semi-historical person may be the lawgiver, Moses, who lived about the middle of the 13th century BCE. Possibly an Egyptian prince, Moses led a group of Hebrews from captivity into the Sinai Desert, with the intent of occupying the Canaanites' fertile land. According to legend, Moses had a Covenant with God to enter the Promised Land, but he disappears from the scene as that occupation proceeds. Initially the various tribes settled in different regions but eventually two states formed, Israel in the north and Judah in the south. "Judges" ruled the tribes, presumably war chiefs as well as political and moral leaders. Israel elected its first king, Saul, about 1030 BCE, and subsequently David and Solomon became kings of both Israel and Judah. The independent Jewish monarchy lasted only about a century. Thereafter the monarchy became divided again and most of the kings ruled as clients of the different occupying powers. The people of Judah were deported to Babylonia beginning about 600 BCE, but were allowed to return in 538 by the Persian king, Cyrus the Great. After Alexander the Great conquered Persia in 333, Israel and Judah became Hellenistic provinces, and the Romans occupied the land in 65 BCE. Three rebellions against the Romans (in 66-73, 115-117 and 132-135 CE) led to the destruction of the ancient state of Israel and the Jewish diaspora (Fig. 11-3).

ROMAN COMMEMORATION OF THE DESTRUCTION OF ISRAEL



Fig. 11-3. Roman soldiers carrying the Menorah and other spoils from the destroyed Temple of Jerusalem. Relief on the Arch of Titus, in the Roman Forum. (From Wikipedia Commons)

THE JEWISH PROPHETS AND RADICAL MONOTHEISM. The insistence that the people of Israel should only worship one god, El (or Elohim), and no other gods, such as Baal or Asherah of their neighbors, may go back to the times when the founding Judges sought to unite the many tribes and turn Israel into a single nation. That may have been a weak form of monotheism (or henotheism) that did not deny the existence of other gods but prohibited their worship as an unpatriotic act. Then, perhaps because El was also the god of other neighboring Semites, Saul declared Yahweh to be the national god of Israel, and when Solomon built the Temple in

Jerusalem, it was dedicated to Yahweh. After the collapse of Israel's political independence, the prophets developed a new ideology, that of radical monotheism. They proclaimed that there is only one God, Yahweh, the Almighty ruler of the entire universe, and the Jews were the Chosen People selected to worship Him. Thus, the prophet Isaiah lets God declare: "I am the first and I am the last; besides me there is no god" (Isaiah 44:6). The prophets' fervent conviction that the dedication of one's life to God's worship is the obligation of the Jews may have had old roots in Israel. Thus, according to the Bible, when Gideon, the Judge, returned from a successful war and the people wanted to anoint him as their king, he refused by saying "The Lord will rule over you." And when Gideon's son, Abimelech, sought to become a king, there was a rebellion, and he was killed (Bellah, 2011, p. 291). Samuel, the last of the Judges, also had reservations about anointing Saul as a king. And while both David and Solomon were more interested in strengthening the monarchy than in religious devotion to God, after the disintegration of the short-lived nation, and particularly during the Babylonian captivity, the influence of the prophets increased.

The Jewish prophets advocated a new way of life, opposing the kings who pursued worldly objectives and the priests who supported the status quo. Many Jews accepted the heavy burden of worshiping Yahweh with all their abilities, in exchange for accepting the myth-based assurance that He will eternally protect them from their enemies. Jeremiah has God declare:

But this is the covenant which I will make with the house of Israel ... I will put my law within them and I will write it upon their hearts; and I will be their God and they shall be my people.

(Jeremiah 31:33; from Bellah, p. 318)

And Ezekiel has God saying to the people of Israel:

A new heart I will give you, and a new spirit I will put within you; and I will take out of your flesh the heart of stone and give you a heart of flesh.

(Ezekiel 36:26; from Bellah, p. 318)

Yahweh is no longer like the gods of other nations, a being with physical properties who can be portrayed as an image or as an idol and propitiated with rituals and sacrifices. He is the spiritual and moral One who expects his chosen favored children, the Jews, to follow his commands and lead a righteous life.

I hate, I despise your feasts, and take no delight in your solemn assemblies ... Take away from me the noise of your songs; to the melody of your harps I will not listen ... Let justice roll down like the waters, and righteousness like an ever flowing stream.

(Amos 5:21, 23-24; from Bellah, 2011, p. 303)

The prophets were preaching the coming of a new world order that will serve all the people of Israel, not only the rich and those wielding power.

For behold, I create new heavens and a new earth ... No more shall be heard in it the sound of weeping and the cry of distress ... They shall build houses and inhabit them; they shall plant vineyards and eat their fruit ... My chosen shall long enjoy the works of their hands ... The wolf and the lamb shall feed together; the lion shall eat straw like the ox.

(Isaiah 65: 17-19, 21-22, 25; from Bellah, 2011, p. 586)

And how will that new world order come about? God will send the Messiah (*mashiach*), the anointed descendant of King David, to establish it.

Behold, the days come, says the Lord, that I will raise unto David a righteous Branch, and a King shall execute judgment and justice in the earth. In his days Judah shall be saved, and Israel shall dwell safely.

(Jeremiah 23: 5-6)

The prophets' message was not a rational political program but an irrational conviction. From a psychological perspective, that delusion began as an *affective* daydream motivated by the prophet's despair created by the brutal rule by alien occupiers, and the wish and hope for better days to come, and that fantasy in time turned into a *mnemonically* consolidated collective conviction by the credulous populace who believed that the prophets' message came from Yahweh as a divine revelation.

Jesus, the Jewish Diaspora, and the New Testament. There is no reference to Jesus' life and missionary activities by contemporary writers. For instance, the historian Philo, a Hellenistic Jew who lived in Alexandria about 30 BCE to 50 CE, and who had family and social ties with the rulers of Judea and Galilee, makes no reference to Jesus in his books on Jewish history. This is in contrast to Josephus, a later Jewish historian, who in his *Antiquities of the Jews*, written in 93-94 CE, does refer to the execution of Jesus by Pontius Pilate and the existence of a Christian sect. Much of what we know about Jesus comes from the four books (Gospels) of the New Testament—attributed to Matthew, Mark, Luke and John—written decades after Jesus' death, and from letters (Epistles) sent by Christian missionaries (Apostles) to the different Christian congregations.

According to biblical scholars, the first Gospel, that of Matthew, was written about 65-70 CE, and the last, that of John, about 90-110 (Grant, 1977; Ehrmann, 2003). The four Gospels provide shared narratives as well as some discordant ones. There have been many attempts to separate the historical Jesus from the legendary Christ. There is consensus that Jesus (Yeshua) was born in the small village of Nazareth in Galilee some time between 6 and 4 BCE. Although legend credits him with descent from the house of King David, or alternately as the Son of God through Immaculate Conception, he probably was born to a working class Jewish family. According to the Gospels, Jesus was one of the sons of Mary and Joseph who lived in the village of Nazareth: "... isn't he the carpenter, the son of Mary? Aren't James, Joseph, Judas and Simon his brothers?" (Mark 6:3). Virtually nothing is known about Jesus' youth. There is no evidence that he had a Jewish rabbinical training or a Hellenistic secular education. His public ministry began about the age of 30 when John the Baptist baptized him in the Jordan River. John was preaching an apocalyptic message urging the Jews to repent their sins. After the Romans executed John, Jesus took over his ministry and was preaching to the Jews of Galilee for two or three years. Although he had a small following, the Jewish religious leaders and the Roman authorities disapproved of his activities. Jesus left Galilee, and after some months of travel entered Jerusalem to preach there. In Jerusalem he met the same resistance from the clerical and secular authorities, and after about a week of preaching he was arrested and sentenced to death. He was nailed to a cross as a common criminal by the order of Pontius Pilate, the Roman Prefect of Judea.

THE MISSION OF JESUS. Born a Jew and ministering to Jews, Jesus died as a Jew. However, he preached a crucially important modification of traditional Judaic religion. Instead of stressing strict observance of the religious laws, as demanded by the Pharisees and Sadducees, Jesus stressed the importance of kindness, charity, and repentance of sins as the path to salvation. Instead of preaching in synagogues, he addressed ordinary people, including women, in the

open air and used entertaining language, stories and vivid imagery, to convey his message. Instead of clear logical arguments, he used parables, such as “It is easier for a camel to pass through the eye of a needle than for a rich man to enter the Kingdom of God” (Mark 10:25). A summary of his message was the Sermon on the Mount. In contrast to the harsh Mosaic tradition of “eye for an eye,” Jesus advocated “turn the other cheek,” “love your enemies,” “judge not, that you not be judged.” Jesus rejected worldly materialism, and insisted that the road to salvation was through leading a simple life and trusting in God’s mercy. While his message was not far removed from the prophetic tradition, he also claimed that the coming of the Kingdom of God was not in the distant future but imminent, and he may have implied that he was an agent of that change: “You have heard it said that . . . but I say . . .” While Jesus may not have explicitly claimed to be the Messiah, he was enigmatic about that and did not deny it when explicitly asked.

The desperate people of Israel were awaiting the Messiah’s coming and their liberation. But after centuries of waiting for an earthly Messiah who never materialized, the Jewish imagery of the Messiah changed from an earthly king from the House of David to a heavenly one, the Son of God, who would descend from the sky and destroy the Jews’ enemies. Since Jesus evidently looked like an ordinary human being to his listeners, even if he was said to perform miracles, most Jews apparently thought that he was one of the false Messiahs that appeared from time to time. Did Jesus believe that God sent him on the mission to save the Jewish people or was he a pretender? The Biblical testimony suggests that he truly believed that he was commissioned by God to preach the ideal of peace and love but he apparently became frenzied about his mission as time passed. When he moved with his disciples to Jerusalem, he immediately clashed head-on with the Temple authorities. While earlier he preached “Blessed are the peacemakers, for they shall be called sons of God” (Matthew 5:9), upon entering the Temple with his disciples, he forcibly evicted the merchants and moneychangers, rebuking them that the Temple was “God’s house” not a “den of thieves.” And as Jesus realized that his mission failed, and must have known that he will be arrested and martyred, he apparently became desperate. He viciously attacked the authorities by telling them, “You snakes, you vipers’ brood, how can you escape being condemned to Hell?” (Matthew 23:27). And as he was nailed to the cross and suffered excruciating pain, he is said to have cried out, as any other human would have, “*Eli, Eli, lama sabachthani?*” “My God, my God, why hast thou forsaken me?” (Matthew 27:46). Since his body was missing from where it was buried, the legend arose that he was resurrected from the dead and ascended to heaven (Fig. 11-4). Jesus’ prophesy to the Jews of the imminence of the new era did not materialize in his lifetime and, while he may have felt towards the end that his personal mission was a failure, he was immensely successful because his martyrdom led to a fundamental transformation of Western civilization.

The Apostles and the Early Christianity. Jesus was not the founder of Christianity as a new religion. That was the accomplishment of his disciples, who left Israel to disseminate Jesus’ message throughout the Roman Empire (Durant, 1944; Green, 2010). Paul (Saul) and Peter (Simon), the Apostles, abandoned the attempt to convince the dubious Jews of Israel that Jesus was the Messiah, and took their evangelical mission to the Jews as well as non-Jews (gentiles) of Syria, Egypt, Greece, Rome, and beyond. To attract gentile converts, the Apostles

ANCIENT PLAQUE OF CHRIST'S ASCENT TO HEAVEN

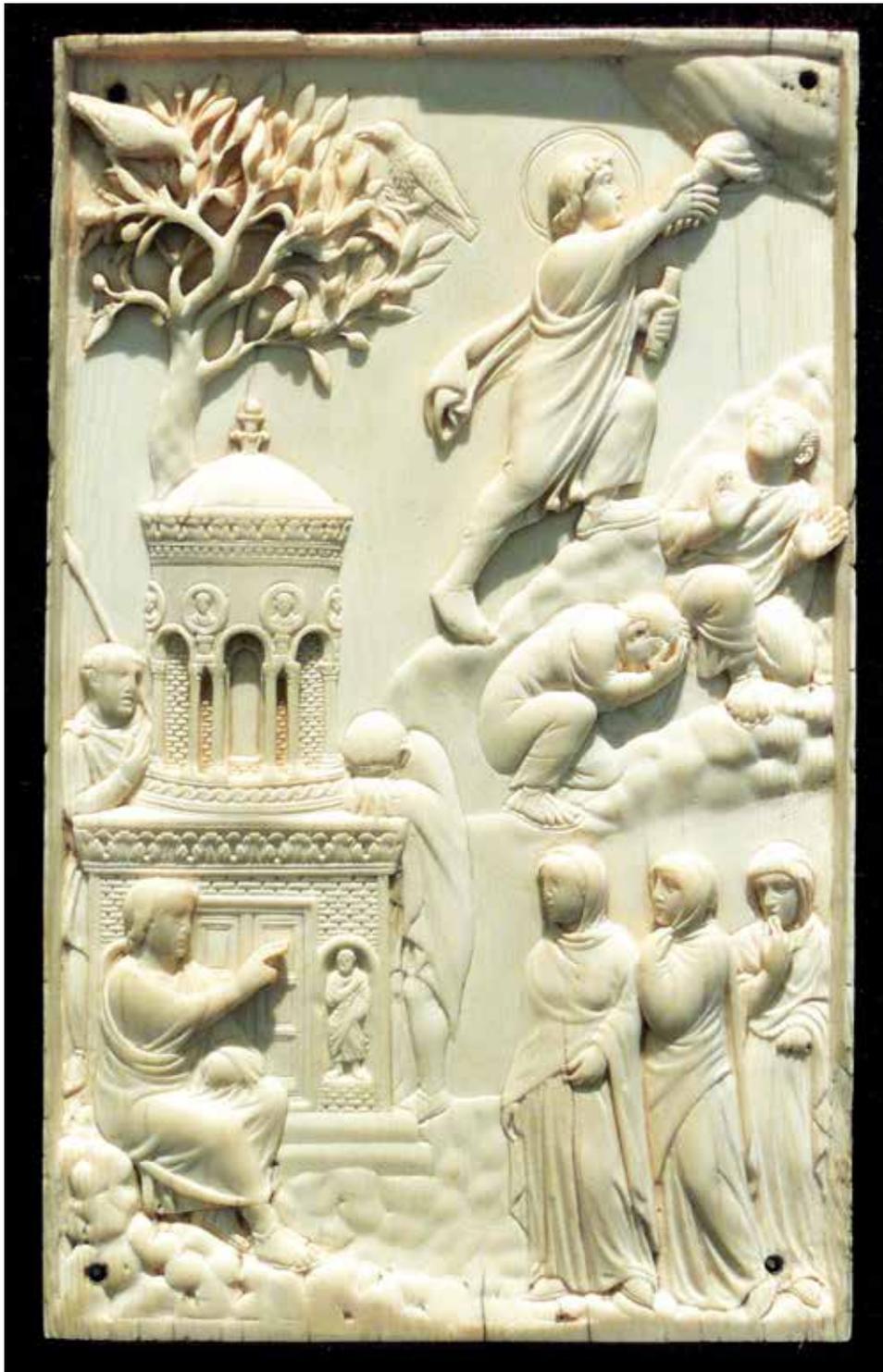


Fig. 11-4. Ivory plaque, from about 400 CE, that depicts the resurrected Jesus climbing a mountain on his ascent towards Heaven, with mourning men and women. (From Wikipedia Commons)

relaxed most of the burdensome Jewish religious laws—such as circumcision and the dietary rules—and promised salvation to anybody willing to accept Jesus as their Savior. The Apostles presented Jesus not as a Jewish prophet but as Christ, the Son of God.

The Apostles main message was a new mythology. They asserted that the crucified but resurrected Jesus—Christ, the Son of God—would soon return to establish the Kingdom of God on earth and bring peace to all mankind. Paul traveled widely and wrote letters to the dispersed congregations about the tenets of the new creed. One of them was human equality: Jew or Gentile, slave or free, man or woman are all equal members of the Christian community. That declaration had immense appeal to the poor and disenfranchised. Another tenet was the pursuit of peace and righteousness rather than of glory, wealth and luxury. This contrasted with the Romans' boisterousness, endless wars, and their indifference to the plight of the conquered people. Another appealing message was the myth of resurrection, that those deprived, humiliated, disheartened, maimed, bereaved and suffering will return to life and be recompensed in Heaven, in contrast to the rich, haughty and callous who will suffer in Hell. Following the style of the prophets Daniel and Enoch, the latter was spelled out in the apocalyptical Revelation of John the Divine. It described the forthcoming battle with Satan, when darkness will cover the earth, earthquakes will shake the ground, locusts will destroy the land, and hailstones will fall on all sinners and infidels. Only the righteous, those who dedicate their life to the worship of God and Christ, will be saved. After a millennium, Satan will return again but he will be defeated forever and the dead will be raised from their graves and judged. The faithful will attend God's great banquet and live eternally in bliss, the wicked will be thrown into a burning lake of fire and brimstone and suffer eternally.

It took several generations before Christianity assumed its distinctive identity, something different from Judaism. The earliest Christians did not have a distinctive liturgy, theology or doctrine; their only written text was the Old Testament. They used Jewish prayer books, fasted or feasted on Jewish holy days. The message and martyrdom of Jesus, the novel elements of the creed, were initially propagated orally. But after several decades, written texts began to emerge, and many of these came to constitute the New Testament.

11.2.3. The Formation of Christian Ideology and Doctrines The Romans were tolerant of people with different religions, provided they were willing to accept the divinity of the Roman emperors. Because the Jews and Christians refused to do that, they were persecuted. It is believed that when Paul and Peter took their mission to Rome, they were executed there by the order of Nero in the aftermath of the Great Fire in 64 CE. Tiberius, Domitian and Diocletian were also persecuting the Christians as enemies of the Roman imperial system. Because they faced death if caught, the Christians tended to worship in secret, in the home of a family or in underground catacombs.

THE SEPARATION OF CHRISTIANITY AND JUDAISM. Originally considered a Jewish sect, Christians and Jews began to be separated in Palestine during the First Jewish Revolt in 66-73 CE, as the gentiles sought to dissociate themselves from the Jews who now became the mortal enemies of the Roman Empire. The Gospels, beginning with Mark, began to be critical of the Jews and complimentary of the Romans. The separation became final by the second

Jewish Revolt, led by bar Cochba in 131 CE. The response of the orthodox rabbis to the failure of this uprising was the formulation of an elaborate system of religious and moral laws that in effect came to segregate the dispersed Jews from the gentiles among whom they resided. The purpose was to retain the ethnic and religious identity of Jews who were now without a homeland but who, it was believed, will be returned later to Israel by the liberating Messiah. Indeed, the rabbinical laws, as spelled out in great detail in the Talmud, succeeded in keeping Jewish families and communities socially and culturally separate from their neighbors, turning Jewry into a small subculture. In contrast, in spite of intermittent persecution, Christianity grew rapidly within and then beyond the Roman Empire.

EARLY CHRISTIAN LITURGY. Once the Roman persecution ended, the Christians took over the pagan temples, sprinkled them with holy water, and turned them into churches. Church services included Bible readings, chanting traditional prayers and singing hymns, much of it a Jewish tradition. Novel rituals, such as the Eucharist, baptism of infants, confirmation of children, blessing of marriages in a solemn ceremony, advocating confession of sins by adults, rendering extreme unction to the ill and dying, and preparing the dead for resurrection were added to the Jewish rituals. The feast of the purification of Isis, the goddess suckling her son, became the feast of Nativity, and the Saturnalia, the festival of light during the winter solstice, was changed into a Christmas celebration. Priests donned Roman vestments, burned incense and lit candles, and led processions through the streets, much as did the pagans before them. Statues of Christian martyrs and saints replaced the local idols. The idea that the bread and wine of the Eucharist represents consuming the body and blood of Christ Jesus, basically a sublimated act of cannibalism, had pagan parallels. While divination and astrology were denounced as pagan practices, signing of the cross and magic incantations were practiced to drive off Satan, and visiting sanctuaries and shrines were advocated as a remedy to cure the sick. Finally, the Jewish Sabbath, the resting day dictated by the Ten Commandments and practiced by Jesus, was changed to Sunday. Sunday was the festive day dedicated to the widespread worship of the Sun in Rome and elsewhere. Constantine issued the Sunday Law in 321, decreeing that government offices and workshops must be closed on Sunday. Christians justified that change by the belief that Jesus was resurrected on Sunday (Bacchiocchi, 1977).

UNIFICATION OF CHRISTIANITY AND ESTABLISHMENT OF CATHOLIC DOGMA. A unified Christian Church did not exist in the first and second century. There is no historic evidence for the Catholic tradition that Peter was instrumental in founding the Church of Rome as a formal institution. Originally, the bishop of Rome was the head of the local community, the equal of the bishops that headed Christian communities in other cities. And because the early Christians lacked a central organization and an established canon, there was no established doctrine. The four gospels and the thirteen epistles of Paul were accepted about 130 CE as the canonical elements of the New Testament, and as an early attempt at unification of religious doctrine. About 220 CE the Old Testament was accepted as part of the Holy Bible. The inclusion of John's Revelation was disputed much longer but was finally accepted. Many other writings were rejected as apocryphal.

Arguing for the unification of Christianity, Irenaeus, bishop of Lyons in Gaul, counted 187 varieties of Christian sects in the second century, and while many of them disappeared,

others arose in the subsequent centuries (Durant, 1944). Among the various sects were the Marcionites, a sect founded by Marcion of Sinope (a port on the Black Sea) that rejected Yahweh of the Old Testament, denied the Gospel account of Jesus' martyrdom, and asserted that Jesus was not a Jewish Messiah. The Montanists, founded by Montanus in Phrygia in Asia Minor, was a prophetic and ecstatic movement, stressing reliance on communion with the Holy Spirit as the avenue to salvation. The Docetists denied that Christ was ever corporal, asserting that his physical visage was a delusion by those who met him. The Docetists were allied with the Gnostics who looked upon the body as temporary and evil, and the spirit as eternal and good. Jesus is all goodness; hence, he could not have had a body, did not die, and was not resurrected. The Arians, founded by Arius, a priest of Alexandria, claimed that there was a time when only God has existed, and God the Father was superior to Jesus, the begotten Son. The Monophysites of Alexandria asserted that Jesus and God were one person, while the Nestorians, founded by Nestor, the bishop of Constantinople, proclaimed that Jesus was two persons in one, having both a human and a divine will.

Because emperor Constantine wanted a united Church as the Empire's common creed, he summoned the bishops to meet in Nicaea in 325. Presiding over the First Council of Nicaea, Constantine had Arius excommunicated and all his books were burned (Williams, 2001; Fig. 11-5). But the disputes did not end. The longest stumbling block was the incomprehensible relationship between God, Jesus and the Holy Spirit. According to the Trinitarian doctrine, which was defended by Ignatius of Antioch, there are three divine persons who are both distinct but who are at the same time "one substance, one essence and one nature, co-equal, co-eternal and co-substantial." It was not until the Edict of Thessalonica in 380 CE, issued by Emperor Theodosius I, that Trinitarianism was officially adopted as the dogma of the Roman Empire's state religion, and its denial (although it makes no sense at all) came to be punishable by law.

CONSTANTINE PRESIDING OVER THE BURNING OF HERETIC BOOKS



Fig. 11-5. A 9th century illustration of Constantine presiding over the burning of the books of Arius, declared a heretic. Armed Roman soldiers and clerics with the accepted (canonical) books are lined up behind the Emperor. (From Wikipedia Commons)

The Early Papacy and Formation of the Catholic Church. According to Catholic tradition the Apostle Peter founded the Church of Rome and thus would have been the first pope. But there is no evidence for that. Peter was probably martyred about 64 CE, during Nero's persecution of Christians in connection with Great Fire of Rome. There is no evidence that the bishop of Rome was for several centuries superior to the bishops of Constantinople, Alexandria, Jerusalem, Antioch, and some other cities of the Near East (Durant, 1950; Parkes, 1969; Cantor, 1993; Davies, 1996). Indeed, the dominant leaders of the Church in the first three centuries were Greeks in the Near East, who used Greek as the common liturgical language. Christianity was not yet united administratively or dogmatically. The Armenians followed Monophysitism, the Celts in Europe favored Pelagianism, and the German tribes that were converted to Christianity in Italy, Gaul, Iberia and Africa were Arians. The bishops of Antioch in Syria played a major role in the early synods that were held in Nicaea, Constantinople and Ephesus, which rejected Arianism and Nestorianism; indeed, the bishop of Rome did not attend the early councils that sought to establish church unity and establish church dogma.

The first pope who had some success in asserting the primacy of the bishop of Rome in the West was Damasus I (366-384). His opponents, who accused him rightly or wrongly of murder and adultery, engaged in pitched battles before his election (Duffy, 1997). But Damasus was successful in establishing some semblance of order in Rome through cooperation with the secular government. By the middle of the fifth century, Pope Leo I (440-461) was powerful enough politically to negotiate with Attila the Hun and induce him to refrain from sacking Rome. By the middle of the sixth century, the pope became widely recognized as the head of the Western church, and by the end of the century, Gregory I (540-604) was able to exercise considerable political authority throughout Europe. He headed the civil government of the city of Rome, improved the finances of the Church, acquired land for the papacy, and began to turn the papacy into a sovereign state. This was a new development in the history of Western Europe, in sharp contrast to developments in the Eastern Empire. In Constantinople the bishops and patriarchs were under the domination of the emperors, as exemplified by the rule of Justinian. By the eighth century, when the Muslims occupied Persia, Syria, Palestine, and Egypt, the Byzantine emperors began to lose their authority in Rome, and the bishops of Antioch, Jerusalem and Alexandria lost all their ecclesiastical influence in the West. The pope became the Pontifex Maximus (which was the religious title of the Roman emperor), Latin instead of Greek became the language of the Church, and Christians not accepting Catholic doctrine were declared heretics. To substantiate the pope's temporal power, a document was forged, known as the Donation of Constantine, according to which the emperor transferred political authority in the West to the pope. However, the power of the papacy remained in flux in parallel with changing political developments in Europe.

The Influence of Stoic and Neoplatonic Philosophy on Christian Doctrine. Most of the early Christians were uneducated, gullible people—tradesmen, laborers and slaves—who believed whatever their preacher said or taught them. The priests, in contrast, must have been true believers who, inspired by the idealistic message of Jesus but with no training or interest in philosophical analyses of the basic principles of their creed, preached what they were trained to do. As leaders of their community, the priests sought to help people cope with the vicissitudes of their daily life by assuring them recompense in the imminent coming of the Kingdom of God

or in their next life in Paradise. And while the bishops did engage in hair-splitting disputations about minutiae of their creed, they argued about the details of Christian dogma. They were not critical thinkers gathering factual evidence for what they believed, nor did they try to resolve the many contradictions recorded in the Bible, as the Hellenistic scholars and philosophers might have done. As a consequence, uneducated people clinging to their faith could accept as true, for instance, the legend that Jesus was the Son of God sired by the Holy Spirit rather than, as the Bible describes, the son of Mary and Joseph, who had several other children. Or that although Jesus was witnessed to have died on the cross in agony, much like the two other men who were crucified with him by the Romans, he was resurrected three days later, as claimed by a woman, and hence, like God, he was an immortal being. But Christianity also had to appeal to educated people and its doctrine thus became influenced by Hellenistic philosophy. While Paul, in his epistles to the Corinthians and Colossians, engaged in a diatribe against Stoicism and Epicureanism, Stoicism's insistence on self-discipline in the pursuit of a virtuous life, and its advocacy of the control of passions as the path to a good life, supported Christian ideals. Another important influence was Plato's Idealism, which supported the Christian belief that the eternal spiritual world antedates and is superior to the temporal material world. Particularly influential was Plotinus' re-interpretation of Plato's idealistic philosophy. Influenced by Persian and Indian theology, Plotinus invented a mythic cosmology where the One (analogous to Hinduism's Atman or the Judaic Yahweh) was the source of spiritual "emanations" in the form of a World Soul (the Holy Spirit) and individual human souls. Happiness, as argued by the mystic pagan Plotinus, can be achieved through contemplation and union with the One; happiness is not achieved by corporeal desires and material wants.

PATRISTIC ANTI-RATIONALISM: FROM TERTULLIAN TO AUGUSTINE. As free thinkers, most Hellenistic philosophers with a classical training opposed Christianity because they believed that critical reasoning rather than dogmatic declarations was a better guide to a satisfactory and meaningful life. Epictetus, a pagan contemporary of the early Christians, advocated rational self-control as a way to curb one's passions, rather than praying for God's mercy to achieve salvation, as advocated by the Christians. The Stoic philosopher and emperor Marcus Aurelius, had Christians executed because they opposed Rome's social order. However, there were several educated Romans with a philosophical education who did support the new ideology and rejected classical rationalism. Tertullian, Origen, Ambrose, and Augustine were the most prominent among them.

Tertullian, a pagan who converted to Christianity and became an ordained priest late in the 2nd century CE, initially endeavored to reconcile the spiritual ideals of the new creed with the practical necessities of daily life. For instance, he sought to convince the Roman authorities that the Christians were good citizens and, if well treated, would support the state (Barnes, 1985). However, later in his life, Tertullian turned to ascetic Monatism, rejected worldly life, and declared rationalist philosophy to be the work of Satan, saying: "What has Athens to do with Jerusalem?" or "Academy with the Church?" True understanding, Tertullian declared, does not come from rational discourse but from uncritical faith. "God's son died: it is believable precisely because it is absurd. He was buried and rose again: it is certain because it is impossible" (Durant, 1944, p. 613). Tertullian became a religious fanatic and called the bishop of Rome "a shepherd of adulterers." The Catholic Church never canonized him.

Origen, who was active during the early 3rd century, was so opposed to material life that he is said to have walked barefoot, slept on bare ground and castrated himself to avoid temptation. He argued that the creation story of the Bible's is an allegory of a deeper truth; that God is not like a human father but the First Principle of all created things; that Jesus was not co-equal but subordinate to God, not a human person but Logos, a spiritual entity. The bishops rejected his teachings and the Council of Constantinople declared him a heretic in 553. Ambrose in the 4th century rejected as idle any speculation about the natural world, saying: "Why argue as to the elements which make the heaven? Why trouble oneself with these physical inquiries? Sufficeth for our salvation ... not the acuteness of argument, but the mind's faith, so that rather than the creature, we may serve the Creator" (Taylor, 1914, p.73). It was Augustine in the early 5th century who established the philosophical foundation of early Christian doctrine (Copleston, 1950; Markus, 1967).

Augustine, born in Africa, had a Hellenistic training and became a professor of rhetoric in Milan. Although raised as a Christian by his pious mother, he was initially drawn to Manichaeism, a sect with Zoroastrian affinities. For over a decade, as he described it in his *Confessions*, he lived unwedded with a concubine. But in his early thirties he underwent a slow conversion to Christianity, praying: "Lord give me chastity and temperance, but not now." He abandoned his concubine and son, and returned to Africa. After a few years, he was ordained as a priest in Hippo (a small city in what is now Algeria) and thereafter served that Christian community as its bishop for over thirty years. Augustine henceforth dedicated himself to create a philosophically based Christian theology, one that was largely adopted by the Catholic Church as its central dogma and was only partially superseded by the more rationalistic scholasticism of Aquinas in the 13th century.

Augustine wrote over 100 books, and about 200 letters that have survived, on widely ranging philosophical and theological subjects as well as practical church matters (Mendelson, 2010). As a polemicist, he opposed all heretics by categorically stating that, "There is no salvation outside the Church." As a philosopher, he opposed those who denied the body's importance, characterizing man, following Plato, as a composite of body and soul, with the task of the soul being to control the body. Succumbing to the temptations of the flesh, he argued in accordance with biblical tradition, is a cause of man's depravity. Augustine distinguished in his early works between the sensible/physical and the intelligible/spiritual world, between "sight" (sensory experience) and "light" (emanation from the divine soul). He did not entirely reject naturalism and acknowledged the practical utility of sensory experience, but subordinated sensory knowledge as *ratio inferior* to contemplation and spiritual wisdom, *ratio superior*. Perception and science are instrumentalities that help us cope with mundane life, providing knowledge about the superficial aspects of things, but what lies behind what we perceive, the essence of things, can only be apprehended through "illumination." As Augustine said: "There is nothing in visible and corporeal things that does not signify something invisible and incorporeal" (Taylor, 1914, p. 552). Accordingly, many phenomena in the natural world are just symbols or allegories of something deeper, and the apprehension of the essence of things can only come from God's revelation.

Augustine had psychological insights and described the soul as a spiritual force with distinctive attributes and properties, such as perception, memory, imagination and thought, as well as irrational passions and a rational free will. But he was not a free thinker or an empirical philosopher. Augustine asserted that instead of rigid laws governing what transpired in the world, as the Greek natural philosophers argued, God periodically interfered with natural events, hence miracles can occur. He did not attribute our egotistical traits—greed, hatred, violence, lust—to our animal nature, as Aristotle might have done, but accepted the biblical myth of Adam’s Original Sin. He therefore advocated church-mediated sacraments, such as infant baptism, to overcome man’s terrible legacy and earn God’s grace. But he struggled with philosophical problems that he could not resolve. While he believed, as did the Pelagians, that it is our free will that makes us sinners or virtuous—“You can follow Adam, or follow Christ”—he also believed that God’s is omniscient. But that implied that God has foreknowledge of what choices we are going to make, hence our actions are preordained. And while he recognized the irrationality of the Trinitarian myth, he declared that faith was superior to cognition: “Believe, so that you may understand.” “The authority of the Scriptures is higher than all the efforts of the human intelligence” (Durant, 1950, p. 70). Upon hearing about the sacking and burning of Rome in 410 by the Visigoths, Augustine abandoned his initial optimistic conviction that Christianity will improve living conditions in the declining Roman Empire. He now argued in his voluminous *De Civitate Dei* that the human race—dismissingly referred to as the *massa damnata*—is currently living in the Earthly City (*Civitas terrena*), pursuing a materialistic and selfish life urged on by Satan. Mankind’s only hope for salvation is for true Christians to turn to God and, with His grace, enter the City of God after the Second Coming. Tragically, Augustine died as the Vandals sieged Hippo, and centuries later his city, with the rest of North Africa, was taken over by Islam.

11.2.4. The Mindset and Ethos of the Western Dark Age. The Dark Age was the transitional period between the affective/impulsive culture of the militant Romans and savage Germanic tribes who engaged in endless warfare, and the mnemonic/compulsive culture of docile and pious medieval Christians who sought to create a more peaceful social order. In response to deteriorating economic and social conditions of the disintegrating Roman Empire, the mindset of many miserable and despairing individuals changed from an extroverted, self-assertive and combative disposition to an introverted, self-effacing and timid disposition, and these people were attracted to various mystery cults that promised them supernatural salvation from their suffering. Most successful of these cults was Christianity, a new creed that advocated love instead of hatred, cooperation instead of competition, and equanimity instead of excitement as the guiding principles of life. Furthermore, Christianity promised that those who were baptized and dedicated to Christ would receive forgiveness of their sins and entry into the blissful Kingdom of God.

Constantine adopted Christianity as the official religion of the Roman Empire, hoping that religious unity might save it from collapse. He was partially successful because the eastern part of the realm, what became known as the Byzantine Empire, endured for over a thousand years until the Turks occupied Constantinople. However, another fate befell the

Western part of the Empire. Hun warriors, heirs to savage Paleolithic hunters, plundered Europe in the 5th century as did various Germanic tribes with a similar barbaric mindset. (As a culturally transmitted memory of their exploits, the Germans looked back upon this period as their heroic age and incorporated that into their epic poems of the medieval *Nibelungenlied*.) Moving behind the warriors, the displaced peoples were looking for land to cultivate, and they gradually settled down and repopulated southern and central Europe. The conquerors, as warlords, changed into landlords, and their victims and soldiers turned into hardworking serfs or peasants. Associated with their becoming sedentary villagers, the peasants were converted to Christianity, a religion of submission that supported the disciplined mnemonic/compulsive mindset required to cultivate the hard soil and make the brief northern European growing season yield a good harvest. As a consequence of this new lifestyle, the landscape of Europe began to change drastically. It changed in the Romanized regions from a prosperous urbanized civilization with an educated, enterprising and free citizenry into a decentralized rural world of uneducated, unimaginative and bonded peasantry. And in the barbaric regions it changed from the vast forests and steppes of hunters and pastoralists into ever-expanding landscape of cultivated plots that could support a growing population. While the adoption of Christianity did not help the recovery of the Roman Empire, the settled Celts, Germans, Baltics and others gave rise to rudiments of a new civilization, the agrarian and religious Middle Ages.

EARLY CHRISTIAN MYTHOLOGY. The early Christian creed was a composite of some ancient myths and some new ones. The belief in a Messiah, a descendant of the House of David who would liberate the Jews from bondage, was a centuries-old daydream of a despairing people. Pretenders occasionally claimed to be the Messiah but they were given no credence. The Apostles' asserted that Jesus was the Messiah, or Christ in Greek but they provided no historical evidence for that. Many of the "miracles" that Jesus was said to have performed—walking on water, turning water into wine, and so forth—sound like a magician's tricks devoid of any spiritual merit. The death of Jesus, as described in the New Testament, indicates that he was a mortal human being, and the disappearance of his body from the tomb three days after his martyrdom, as reported by a woman (or women), even if true, is no evidence that he was resurrected and ascended to heaven. The myth of resurrection of divine beings was a common Egyptian myth, as in the case of the death and rebirth of Osiris. Likewise, the myth of the Last Judgment, as we noted earlier, came from ancient Egyptian mythology. The dualism of Satan and God as adversaries, and the nightmare of the Apocalypse come from Persian Zoroastrianism. But Christianity also had many novel myths that eventually became established Church dogma. The failure of Jesus' prophecy of the imminent establishment of the Kingdom of God, and his death, gave rise to the myth of the Second Coming, the belief that he will return to earth and to his mission. So was the Trinitarian doctrine that God is *one* being and at the same time *three* beings—the Father, the Son, and the Holy Spirit (Fig. 10-6). The Trinitarian dogma violates the Ten Commandments' injunction: "I am the Lord your God ... You shall have no other gods before me."

Instead of considering Jesus a prophet and a martyr, for which there is sufficient evidence, the early Christian mythmakers turned him into a god and debated whether he was created (born of the Virgin Mary) or uncreated (existed eternally). The myth of Holy Spirit as a divinity who sired Jesus is even more perplexing; it may have entered the New Testament

ARTISTIC RENDERING OF TRINITARIANISM



Fig. 11-6. Fra Filippo Lippi's (1406-1469) rendering of the Trinitarian myth, with God as a Patriarch in the starry sky, the Holy Spirit (as a dove), and Christ born of its emanation. (From Wikipedia Commons)

from Greek idealistic philosophy that attributed the creation of the universe to a divine spirit or intelligence (*nous* or *logos*). That is reflected in the Apostle John's esoteric sentence: "In the beginning was the Word, and the Word was with God, and the Word was God" (John, 1:1). The myth of Trinity was disputed for centuries and many Germanic chieftains and kings remained Arians. But the Church stopped tolerating "heresy" and the Second Council of Constantinople declared in 533: "If anyone does not confess that the Father and the Son and the Holy Spirit are

... one deity in three hypostases or persons, let him be anathema.” In time, Church dogmas and the practices that were adopted by periodic councils, however irrational, became part of canon law that no Christian was allowed to violate.

EARLY CHRISTIAN ANTI-NATURALISM AND ANTI-RATIONALISM. Early Christianity was a faith-based social and moral movement that, from a rationalist perspective, had positive and negative features. Jesus’ preaching of love, charity, and compassion to oppose hatred, greed, and callousness were prosocial ideals. Other prosocial ideals were the early Christians’ advocacy of marital fidelity and the sanctity of family life, to oppose licentiousness; their opposition to abortion and infanticide; their prohibition of attending public games with wanton killing of animals and humans; and their commitment to aid the poor, widows, orphans, and victims of misfortune. On the negative side, the ascetic Church Fathers were opposed to the pursuit of the pleasures of daily life, because they considered them corrupting. They ruled sexual activity a mortal sin before and outside marriage; considered women seducers; and declared that sexual intercourse is only for procreation. The suppression of sexual desire, a natural human proclivity, was considered an exercise in temperance, training the mind to control bodily passions, and clerics, particularly bishops, monks and nuns, were expected to be celibate. But their gravest anti-rational ruling was their opposition to secular education and the free exchange of ideas. They opposed secular education and the natural exercise of one’s reasoning power, because they knew well that freethinking and rational discourse was bound to lead to questioning the Church’s irrational myths and dogmas.

BANISHMENT OF THE CLASSICAL INTELLECTUAL AND ARTISTIC INHERITANCE. Secular schools still existed in a few towns and cities of the Western Roman world during the early 5th century where students were taught Latin literature and philosophy. But the secular schools disappeared in the wake of the barbarian invasions. In the Eastern Empire, Justinian closed Athens’ Platonic Academy early in the 6th century and knowledge of Greek was by that time virtually lost in the West. Monks did copy the works of Latin masters, such as Virgil and Cicero, but they were only interested in the letter (grammar and rhetoric) not the spirit of their writings. Monks copied a few select texts because the Church was committed to turn Latin into the universal language of Christianity. Most of the barbaric people who converted to Christianity, including their leaders, were illiterate. The bulk of the population received no schooling at all. The few schools attached to churches, were attended mostly by the privileged few, who learned to read and write and spent most of their time memorizing the Bible and the writings of theologians. The rich heritage of Greek literature and philosophy was virtually lost by the 6th century. There was one exception. Boethius, a high official in the court of the Ostrogoth king, Theodoric, established a monastery after his retirement where he set his monks to copy ancient philosophical manuscripts. Boethius himself wrote a survey of logic and mathematics, and planned to translate the works of Plato and Aristotle into Latin. But he was sentenced to death in 525 on charges of conspiracy, and while in prison awaiting execution, wrote his *Consolation of Philosophy*. But Boethius’ effort had no enduring consequence. The ancient Greek ideals of *paideia* (secular education) and the Roman ideal of *humanitas* had been outlawed by the ecclesiastical authorities. Moreover, not only were the great works of literature and philosophy lost in the Dark Ages but also the achievements of classical art. Instead of producing paintings and sculptures in a naturalistic style, and promoting artistic skill to render what the senses

revealed, art was made subservient to religion by turning it into a propaganda medium to support Christian mythology. Individuals were rendered not as they really are but as idealized people with demeanor and expressions reflecting their vocation or occupation (Fig. 11-7).

JUSTINIAN AND HIS COURT



Fig. 11-7. Sixth century mosaic from Ravenna of the Emperor Justinian surrounded by an idealized representation of members of his court, clerics, administrators and soldiers. (From Wikipedia Commons)

SUMMARY: THE MINDSET AND ETHOS OF THE WESTERN DARK AGE. The Western Dark Age was a transitional period characterized by the transformation of people's mindset from what we have described as affective/impulsive "pagans" to mnemonic/compulsive "peasants." The pagans of the Western world with an affective/impulsive mindset were the tribal warriors and migrants who devastated the lands they invaded. The militant Romans used their legions to subdue and exploit the people in the lands they occupied, and their soldiers fought endless wars to repel the invaders. The peasants with an mnemonic/compulsive mindset were people displaced by wars from their homeland and impoverished people from the devastated Roman cities. The peasants were settling down and began to adapt to the sedentary, docile and labor-intensive lifestyle of farmers. These people were led by a ruling class with two contrasting mindsets: militant chieftains and kings who fought each other in an effort to establish sovereign states that they could rule and defend; and peaceful missionaries and priests who brought to the settlers the gospel of love and humility, and the virtue of abstemious living and submission to authority. A momentous social and political development at the end of the Dark Ages was the recognition by the secular rulers and the ecclesiastical leaders that they could cooperate to mutual advantage. That recognition led to the development of a new civilization in the Western world, the feudal Middle Ages, characterized by uneasy relationship between three major social classes: the royals and nobles who ruled by force; the prelates and priests who controlled people's minds; and the masses of subordinate peasants who performed all the necessary manual labor.

11.3. The Early, High, and Late Middle Ages: From the Establishment of Nation States and the Papacy to the Renaissance and Reformation.

11.3.1. The Early Medieval Period: Conversion of the Barbarians, Rise of Papal Power, and the Formation of Nation States. Early Christians used the term Middle Age (*medium aevum*) as the imagined millennium between Christ's First and Second Coming (Davies, 1966). In the Renaissance, historians adopted the term as the period between the decline of humanism and individualism after the fall of the Roman Empire and their renewal during their own time. During the Enlightenment the term came to mean the entire period between the irrationalism of the Dark Age and the Age of Faith, and the rationalism of the scientific Modern Age. Modern historians have variously subdivided the Middle Age into different periods. From the perspective of distinctive mindsets and cultural ethos, our subdivision will be into Early, High and Late Medieval periods.

The Early medieval period was the epoch of the gradual conversion of the affective/impulsive savage barbarians of Europe into mnemonic/compulsive docile members of organized Christian communities. That was achieved through the dynamic interaction of monarchs, princes and nobles, and of missionaries, priests and monks. The High medieval period was characterized economically by the transformation of Europe's forests into productive agricultural fields; politically, by the gradual change of decentralized feudal territories into centralized nation states and the rise of prosperous commercial cities; and spiritually by Christian morality and piety becoming the unifying guiding force of personal and community life. The Late medieval period was the epoch of emerging individualism. It was manifested in Italy as the Renaissance, led by independent princes of city-states, artists and humanists; and in most Northern states as the Reformation, which challenged papal authoritarianism. Western ethos was beginning to change from the dogmatism of the Church to the piety of individuals obeying their personal conscience. However, Christianity remained a powerful force throughout this period. The Age of Faith came to an end when the power of autocratic kings ruling by divine right, and supported by a conservative clergy and a privileged class of nobles, was challenged by wealthy burghers and when, in association with the Scientific and Industrial Revolutions, religious indoctrination was gradually replaced by secular education. The beneficial outcome of that change was the growing rationalism of the Enlightenment, marking the beginning of the Age of Reason. This new age is characterized by an ongoing effort to create a rationally guided just social order, supported by universal education, the enfranchisement of all citizens, advances in health care, the attempt to improve living conditions for all in this world rather than in an imaginary supernatural world.

The Conversion of Europeans to Christianity. The conversion of the civilized people of the Roman Empire was largely a bottom-up process, poor working-class people and slaves embracing Christianity before the Emperors and the ruling class saw the advantage of adopting that creed as a state religion. In contrast, the conversion of the barbaric tribal peoples of northern Europe who were not previously under Roman rule began as a top-down process. As the marauding warriors and migrants of the Dark Age began to settle down in the devastated lands and small principalities and kingdoms were being established, their rulers enforced the conversion of their subjects to Christianity for at least two reasons: first, to claim legitimacy

and papal support for their rule, and, second, to have their subjects, often of heterogeneous background, acquire a common cultural ethos. An early such kingdom was the one established by the Franks in Gaul (Durant, 1950; Cantor, 1993; Davies, 1996).

THE CONVERSION OF THE FRANKS AND THE FIRST CHRISTIAN EMPIRE. While Gaul has acquired the character of a Roman culture for centuries, it was overrun and devastated by the Vandals and then the Visigoths. The Franks, another Germanic people, defeated the Visigoths, who were Arians, and their leader, Clovis, the first king of the Frankish tribes, established in 481 what came to be known as the Merovingian dynasty (Fig. 11-8). Starting his career as a savage pagan warrior, Clovis converted to Catholicism with his whole army, a move that gained him papal support. With its capital in Paris, the Merovingian dynasty endured for two centuries. However, the boundary of the Frankish kingdom and the integrity of the state were in constant flux because, ignorant of the art of government, Clovis' incompetent successors sought only to enrich themselves and their families, alienating the bishops, the nobility and the bulk of the population. The next effective king was Charles Martel who ruled from 718 to 741, the founder of what became known as the Carolingian dynasty. He and his son Pepin who ruled from 752 to 768, fought the rebellious Aquitanians, Bavarians, Saxons, and other Germanic tribes. A grateful pope anointed and crowned Pepin king of the Franks in a religious ceremony.

EXPANSION OF THE FRANKISH EMPIRE

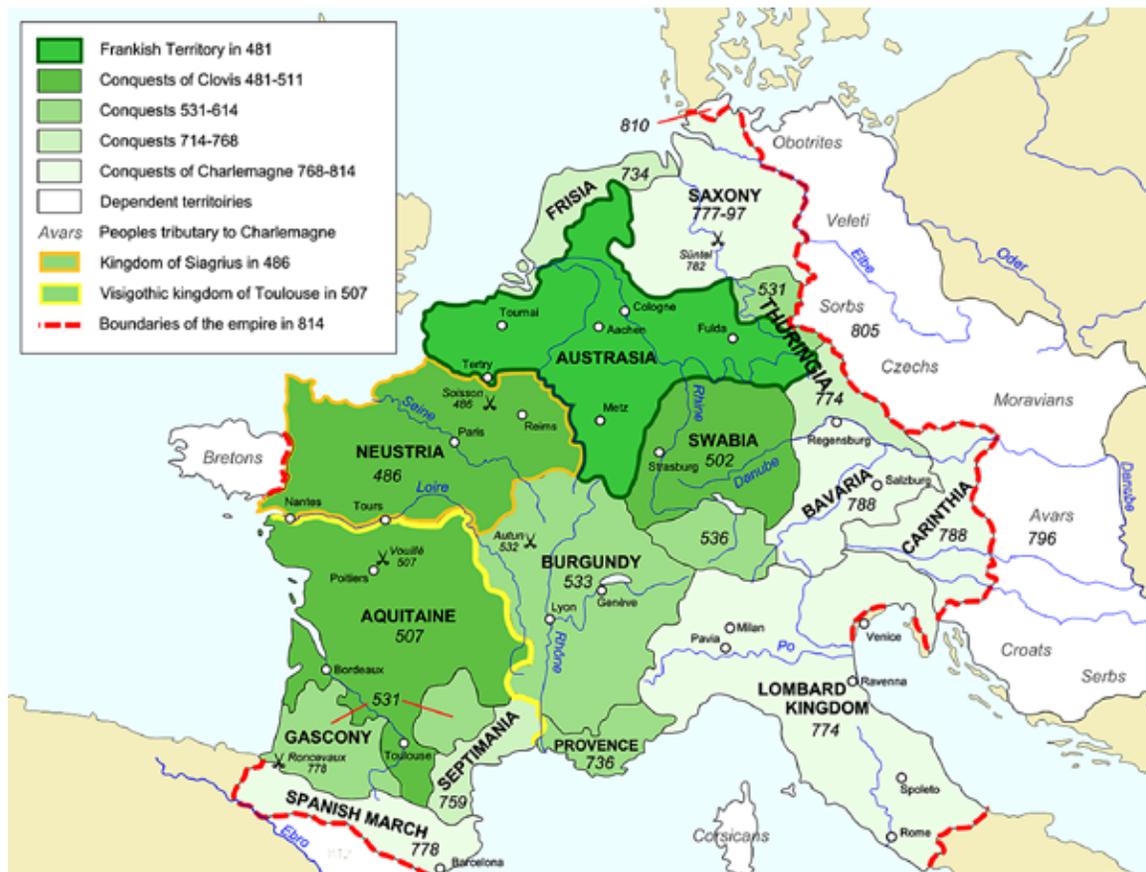


Fig. 11-8. The growth of the Frankish Empire from 481 to 814 under the Merovingian and Carolingian dynasties. (From Wikipedia Commons)

Pepin's son, Charlemagne, who ruled from 768 to 814, was successful in establishing the first Christian empire in Europe. Charlemagne started his reign as a mighty warrior, spending most of his time in the saddle. He conquered Saxony and Bavaria, Lombardy south of the Alps, and Spain across the Pyrenees, thus expanding the boundaries of the Frankish empire and uniting its heterogeneous population. Charlemagne accomplished this by combining savagery with political acumen. For instance, it took a series of vicious battles between 772 and 785 before the Saxons were subdued, and Charlemagne had reportedly beheaded 4,500 Saxon rebels on a single day. But even though Charlemagne was a warrior, and possibly illiterate, he surrounded himself with educated people, commissioned the building of monasteries, and established an amicable relationship with the bishops. A grateful pope (Leo III) crowned him the Holy Roman Emperor on Christmas day in Rome in 800.

Charlemagne's empire did not endure because it lacked a central governmental organization. Charlemagne ruled by assigning family members or local nobles to administer the provinces and moved with his court from one province to the next. Immediately after his death the empire started to disintegrate and it was partitioned in 842, at the Treaty of Verdun, roughly along national (linguistic) lines, to be ruled by three of his grandsons. Charles the Bald received much of the land that later became France; Louis the German received much of what later became Germany; and Lothar got the land in-between the two in the north and Italy to the south. At this age, these lands were sparsely populated with scattered rural communities, cities that were in disrepair, and without proper roads for communication and commercial traffic. Adding to these decentralizing forces, the rural nobles began to build strongholds and castles to defend their domains from marauders: Viking (Scandinavian) pirates from the north, Magyar (Hungarian) horsemen from the east, and Muslim (Arab and Berber) warriors from the Mediterranean. That development strengthened the ability of feudal nobles to resist the power of kings residing in distant capitals. It took centuries before the European nations became firmly established as sovereign entities ruled by autocratic kings aided by a centralized bureaucratic government.

THE STRUGGLE WITH INVADERS. Scandinavian tribes of northern Europe (Danes, Swedes, Norwegians) were little affected by Roman civilization and early Christianity. As tribal people, they cultivated the land, hunted in the forests and fished along the coast, with the bravest of them venturing into the open seas. Beginning about 700, adventurers among them, known as Norsemen or Vikings, began to raid isolated settlements in the British Isles, and by about 800, using their long boats, began to plunder towns along the great rivers of Europe, stretching from the Rhine to the Volga (Hall, 2007). Initially the raids were seasonal affairs but soon the Vikings established year-round camps and used them to expand their forays as far as southern Spain and France, and Italy. The Vikings ravaged Europe for about two centuries but some settled in the lands they occupied. By early 900, they had converted to Christianity and became rulers of Normandy in France and established small kingdoms in England.

Pagan Magyar tribes, pastoralist horsemen of the eastern steppes, began to terrorize Byzantine colonies in the neighborhood of the Sea of Azov early in the 9th century (Bloch, 1961; Molnár, 2001). By the end of the century they crossed the Carpathians and occupied the Hungarian plains. Then, from the end of the 9th century to the middle of the 10th century,

annual raiding parties on horseback stormed cities in Moravia, Bavaria and Saxony, getting as far as Apulia in Italy, Aragon in Spain, and Aquitaine in France. Avoiding fortified cities, the Magyar raiders attacked villages and monasteries, looting and extracting tributes from them. In 955, Otto of Saxony defeated the returning raiders near Augsburg. Thereafter, the Magyar raiders settled down; their chieftain converted to Christianity and assumed the name Stephen. He was anointed and crowned the first king of Hungary around the year 1000. Stephen treated his pagan adversaries with cruelty, quartering one of them, but a grateful Church canonized him.

Muslims residing in Africa—Arabs and Berbers who became known as Moors—landed in Gibraltar in 711. They defeated the Visigoths and swiftly conquered much of Spain, with the exception of small regions in the north. The Moors then crossed the Pyrenees in an attempt to invade France but the Franks defeated them in 732. The Iberian Peninsula, known as al-Andalusia, became an Emirate and later the Caliphate of Córdoba. In the 9th and the 10th century under the Umayyad Caliphate, al-Andalusia prospered economically and culturally as a land where Muslims, Christians and Jews co-existed under a tolerant government. But after the Caliphate's disintegration, the land broke into small Muslim kingdoms. As Muslim power weakened, Christian princes gradually re-conquered Spain and, expelling those Moors and Jews who did not convert, turned the country into a bulwark of fervent Catholicism. In the East, Seljuq Turks converted to Islam and defeated the Byzantines in Anatolia in the 11th century. Ottoman Turks occupied Constantinople (renamed Istanbul) in 1453. In the succeeding centuries, the Turks extended their Empire in all directions, and occupied large portions of Eastern Europe. Their westward expansion came to an end when they were defeated at the gates of Vienna in 1683.

Return to Sedentary Life and the Mass Conversion of Europeans to Christianity. The initial failure of European states to repel the barbarian raiders was due to their lacking a powerful central government with adequate military force. The defenders that local towns and villages could muster to fight were no matches to the onslaught of savage warriors on horseback led by experienced commanders. But gradually, in response to the challenge of defending their settlements, local warlords emerged who built fortresses and castles to provide a place of refuge, and trained armored knights to effectively engage the raiders. That development had social, political and ideological consequences. First, the local warlords and knights turned into an elite class of nobles that made the protected commoners subservient to them, demanding such services as compulsory labor and the payment of taxes. Second, the lords ensconced in castles could defy king or prince and act autonomously long after the raiders were gone. Third, in order to defend the state when attacked by a larger force, or when a king wished to organize an offensive expedition, he had to enter into a contractual relationship with the nobles, and that led to the development of vassalage and the medieval institution of feudalism. Fourth, to foster the communal solidarity of village and town residents, now sharply divided into nobles and commoners, the kings and princes found it advantageous to grant privileges to missionaries, monasteries and the Church. Most rulers, including those who kept behaving as barbarians, welcomed the missionaries, priests and monks, whose preaching and counseling helped the population to become more docile and subservient to them. Fifth, while most missionaries remained poor and dedicated to their calling, the churches and monasteries that were granted

large tracts of land and lavish gifts by the kings and nobles gradually became a branch of the ruling class, themselves amassing wealth and seeking material gain.

MASS CONVERSIONS TO CHRISTIANITY. To convert haughty and savage warriors and frustrated and resentful villagers to a creed advocating the brotherhood of mankind was not an easy undertaking. The ideal of meekness and compassion was not likely to appeal to a fighter who was proud of his valor and delighted in slaughtering the enemy, nor could the ideal of poverty appeal to a serf or slave who was already poor and dreamed of a better life. Using rational arguments to disseminate the ideals of Christianity would not have worked. What did work was the dissemination of an elaborate mythology. First, people were taught that savagery and the pursuit of material gain are sins not tolerated by an all-powerful God and sinners were bound to burn in Hell. In contrast, kindness and charity pleases God, and assures eternal bliss in Heaven. Second, the Christian god is not only all-powerful but also merciful, forgiving those who repent, pray to Him, and exalt Him. However, third, access to God is possible only through the aid of ordained ministers of the Church. Hence the path to salvation is through acceptance of clerical guidance, regular church attendance, memorizing and reciting traditional prayers, and meticulously partaking in all the prescribed rituals and ceremonies.

Christian conversion proceeded, broadly speaking, from southern Europe toward the north, and from cities along sea and river harbors into villages and hamlets in the hinterland. Some Germanic tribes converted to Arian Christianity as early as the late 4th century; other Germanic tribes, Lombards and Franks, were converted to Catholicism during the 5th and 6th centuries; and the Anglo-Saxons of Britain in the 7th century. Germanic tribes to the east of the Rhine rejected conversion much longer. Missionaries, such as the martyred Boniface (675-755), are credited in working hard to convert the Germans (Fig. 11-9). The Scandinavians rejected Christianity much longer, and civil wars raged between pagan and Christian factions; kings promoted conversion and nobles resisted it. After a long struggle, the Danes converted to Christianity toward the late 10th century, the Norwegians in the late 11th century. In Sweden paganism was still prevalent in the 12th century, and the last Europeans to be converted to Christianity, accomplished by the coercive force of Teutonic Knights, were the Lithuanians in the 14th century.

BONIFACE BAPTIZING AND HIS MARTYRDOM

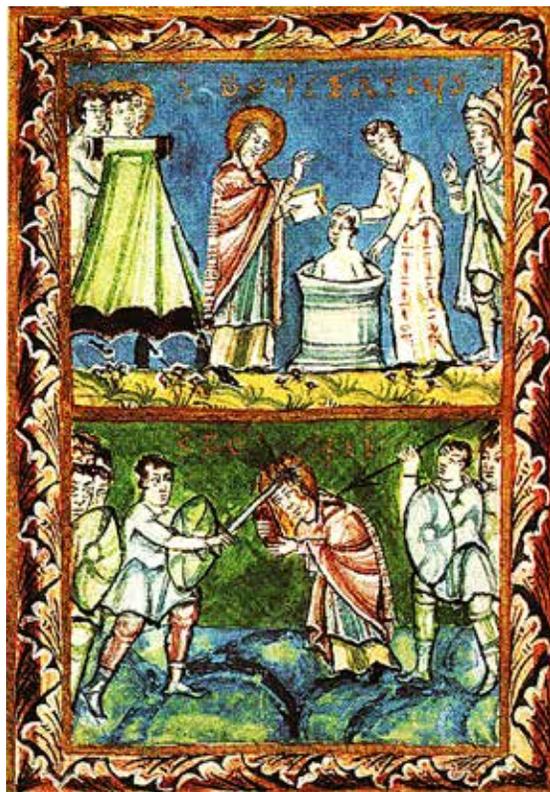


Fig. 11-9. Boniface baptizing a convert (top); killed by the Frisians (bottom). (Fulda Sacramentary, 11th century; From Wikipedia Commons)

11.3.2. The High Medieval Period: Feudalism, the Rise of Nation States, the Black Death, and the Papacy. The end of barbaric invasions allowed monarchs to begin to consolidate their power and turn to strengthening their devastated economies (Bloch, 1961; Cantor, 1993; Davies, 1996). The transformation of more and more forested areas into cultivated fields led the production of surplus agricultural products to feed busy artisans and merchants in the expanding towns and cities. That changed the barter-based economy into a brisk financial-based economy. Literacy began to spread from the clergy to the nobility and in time to the bourgeoisie. Through taxation, the kings' treasury began to grow and that financed a bureaucracy that kept records of government transactions and established courts of justice with trained legal professionals. The consolidation of central power, however, was not an easy or smooth one because the kings were opposed by rich and powerful nobles who lived in impregnable castles with knights at their disposal and vast landholdings. The papacy and prelates also resisted the kings' meddling in Church affairs.

Vassalage and Feudalism. The early kings of devastated Europe, typically barbarian warriors, lacked a central bureaucracy to keep records of state transactions, functionaries throughout their land to enforce royal commands and regulations, and engineers and laborers to build and maintain roads and bridges to facilitate travel and communication across the country. Hence they had to rule by means of a hierarchical system of personal relationship whereby members of the higher nobility, dukes and counts, became the king's vassals, and the latter, in turn, had the lower nobility as their vassals, and so on down the line.

The early kings had no treasury, but claimed the territories they conquered by force as personal property. To cultivate the land, a king transferred large plots, sometimes a whole district or province, to their favored warriors as a reward for their military service and, in exchange, claimed from them homage, fealty, and the obligation to perform specified services for him (Bloch, 1961). The kings' vassals became high nobles—dukes, counts and earls; and the latter's vassals became petty nobles—barons, knights and squires. An important obligation of the nobles as vassals to the king was to join his army during a war, either by providing direct military service and armored knights, or by making payments as a substitute. The leaders of army units were trained horsemen equipped with a helmet, a shield, a garment made partly or wholly of metal plates or rings, and wielding a lance and a sword (Fig. 10-10). Only men of means, the lords, or vassals of the lords could afford this equipment. Another obligation of the high nobles was to open their castles to feed and entertain the king and his court as he passed through their domain during periodic inspections.



Fig. 11-10. The plate armor of a well-equipped medieval warrior. (From Wikipedia Commons)

In an age when most people were illiterate, instead of composing and signing a legal contract as an enduring record, vassals committed themselves to their superiors in a solemn religious ceremony (Bloch, 1961). The king and lord kissed, the vassal knelt down, the king placed his sword on his vassal's shoulder as a symbol of his subjugation, and the vassal, in turn, placed his sword on the altar and swore an oath of fealty (faithfulness). The relationship was personal rather than contractual. Functionaries of every rank took an oath of fealty on assuming their duties and that obligated them to a lifetime of service to their superior. The fealty of the vassal was typically a unilateral relationship; the lord was rarely put under any obligation. Fiefdoms were not deeds; in principle, the vassal had to return the land to his lord if he failed to deliver his obligations and, upon the vassal's death, the right to the land had to be renewed by his heirs. But in the absence of written contracts, the weakness of many monarchs, and the succession of dynasties, the dukes of provinces and the lords of manors increasingly tended to treat their fiefdom as personal property and in order to weaken their bond of vassalage it was in their interest to weaken the power of the king.

As managers of their domain and masters of their subordinates, the lords typically looked for ways to pass on their property as a patrimony to their heirs. This arrangement led to the growing power of the nobility, undermining the kings' central authority, and that led to the development of a distinctive political organization that came to be known as feudalism. Feudalism was not based on a clearly spelled out political theory and its features differed in different countries and changed over time. Charles Martel may have been among the first Frank rulers who turned his warriors into nobles. Feudalism was strengthened during the Carolingian period and as the Treaty of Verdun in 843 specified, "every man should have a lord" (Davies, 1996, p. 313). In time, the king's vassals became hereditary nobles and increasingly autonomous. By the 10th and 11th century the king of France had only nominal power over the dukes and counts in his domain. A similar development took place in Germany in the 12th century, and to a lesser extent in England. Feudalism led to a hierarchical system of social organization throughout Europe, with the nobles claiming to be fundamentally a different breed of human beings not only from their serfs, peasants and foot soldiers but also from wealthy merchants as commoners. Nobles were not supposed to intermarry with commoners and had a legal status of their own with many privileges.

Consolidation of Nation States. The numerous nation states of Europe alternately fought each other to defend or expand their territories or sought reconciliation through marriages arranged between members of the different royal dynasties and noble houses. And although shared cultural and linguistic tradition played a role in determining land boundaries, military might and political maneuverings were a more important factor and therefore none of the nations that formed were ethnically homogeneous. As a consequence, the establishment of monarchies took a different course in the different regions, as exemplified by the history of three of them, that of France, Germany, and England (Cantor, 1993).

THE KINGDOM OF FRANCE. Following the demise of the Carolingians, the Capetians formed a new dynasty, ruling from 987 until 1328. The land effectively ruled by these early kings was quite small, the Île de France surrounding Paris. Paris itself was still a small town with wooden buildings and dirt roads. There were seven provinces outside the king's domain:

Anjou, Aquitaine, Burgundy, Champagne, Flanders, Normandy and Toulouse. Dukes and counts ruling these principalities collected taxes, waged wars and passed laws, and often refused to serve their king. The first powerful Capetian king was Philip Augustus (reigned 1179 to 1223) who defeated the Anjou and re-conquered Brittany from the English. Both pious and unscrupulous, he participated in the Third Crusade, expelled the Jews from his domain, and burned and razed the towns of Flanders. Philip the Fair (r. 1285 to 1314) further extended the boundaries of France through conquest, marriage contracts and purchase. He undertook to undermine the power of the nobles and the clergy by appointing laymen to high offices, by replacing feudal laws with royal law, and by defying the pope. Wealthy merchants aided him in centralizing and secularizing his government. When the direct line of the Capetians died out, the first Valois king, Philip VI, inherited a strong France. But the English contested his succession, which led to the Hundred Years' War. The English occupied Normandy and chaos ensued in the rest of France. It was not until the reign of Louis XI (1461-1483) that order was restored and France became the most powerful nation of continental Europe. Louis XI fought battles with the seigneurs of the provinces who conspired against him; resisted interference in state matters by the clergy; rebuilt the economy by aiding commerce through standardization of currency, weights and measures; and promoted mining, weaving and other industries, and built harbors and roads.

THE KINGDOM OF GERMANY. By the beginning of the 10th century, the Carolingian kings lost their power in Germany. Bavaria, Lotharingia, Saxony, Swabia, Thuringia, and various other regions came to be ruled by dukes and counts. The first king able to reunite Germany was Otto I (r. 936 to 973), a Saxon who defeated the Magyars at Lechfeld and thus became Europe's great hero. The high nobility accepted Otto as their sovereign and in 962 the pope crowned him as the Holy Roman Emperor. Otto's successors continued to strengthen German unification and, as anointed kings they assumed the right to invest the bishops of the Church and the abbots of monasteries. When the disorder in Rome led to the election of three competing popes, Henry III (reigned 1056-1106) deposed all of them and appointed a German cleric to that position. But when the reformer Hildebrand was elected pope, as Gregory VII (1073-1085), he informed the reigning Henry IV to abstain from the practice of lay investiture. As Henry IV was defiant, the pope instructed the bishops and abbots that they should no longer recognize him as their king. This weakened the king's position and gave the high nobility the opportunity to resume their feudal powers. Civil war ensued, the isolated Henry IV capitulated, and as a penitent met the pope at Canossa in 1076 and begged him for forgiveness. But by 1085, Henry IV regained much of his power and succeeded in appointing an anti-pope, sending Gregory VII into exile from Rome. However, the ensuing German determination to control the papacy by ruling Italy, instead of strengthening German unity at home, led to the kingdom's disintegration as a unified nation. In the Concordat of Worms of 1122, Henry V abandoned the institution of lay investiture but was allowed to exercise veto power over the appointment of bishops in Germany. And the Electors (a group of dukes, counts and prelates) saw to it that no prince from a prominent house (Hohenstaufen, Hohenzollern, Wittelsbach, Habsburg, etc.) could establish an enduring and powerful Imperial dynasty again.

THE KINGDOM OF ENGLAND. Anglo-Saxon England in the 9th century was a conglomerate of several kingdoms; Celtic Wales was divided into several principalities and chieftains ruled

Scotland. The occupation of England in 1066 by the Norman duke, who became known as William the Conqueror, changed that situation. William banished the local nobles and replaced them with French ones who became his vassals. This allowed William to control the nobility of his realm and create a unified nation. The new nobles had to supply knights to serve the king, were not allowed to build castles without his permission, and had to periodically attend court functions. Through lay investiture, William also turned the bishops into his vassals, enabling him to control the English Church. The daily affairs of the central government were assigned to officials and sheriffs, and his provincial agents supervised the affairs of the towns and villages of the different shires. As a novelty, William had a survey made of Britain's property owners and their holdings for administrative and legal purposes, which was summarized in the Domesday Book. While not a complete record, it covered 13,000 sites in England and Wales. Everybody, including nobles and bishops had to pay taxes, which made the royal treasury solvent and enabled the king to commission the building of stone churches, endow monasteries, and establish libraries. However, after William I died, anarchy ensued, with many of the rebellious lords becoming autonomous. The nobles succeeded in curtailing the legal power of the king by signing the Magna Charta in 1215. Successive dynasties, beginning with the Anjou, embroiled England in the Hundred Years' War with France and the War of Roses within the country. The recovery of order began in 1485 with Tudor rule and England turned into a powerful maritime nation.

The Black Death. The devastating pandemic that visited Europe during the middle of the 14th century, known as the Black Death, had the effect of weakening the power of feudal lords by greatly reducing the labor force and strengthening the peasants' and working people's demand for better treatment and remuneration. It may also have contributed to a strengthening of people's religiosity as well as feeding their intolerance. The bubonic and pulmonary plague, carried by fleas hosted by rats (the causative agent is believed to have been a bacterium known as *Yersinia pestis*) started in Central Asia and first reached the ports of the Eastern Mediterranean and the Black Sea, such as Alexandria and Constantinople (Byrne, 2004). From there, merchant vessels of Venice, Genoa, and others carried the plague to the harbors and ports of Italy and France. The pandemic reached Messina in Sicily in 1347, Genoa and Florence in 1348, France and England by 1349, and Scotland and Scandinavia by 1350. It has been estimated, for instance, that three out five people died in Florence between April and September of 1348. In other cities half or more of the population were reportedly killed by the plague and perhaps as many as one third of Europe's population perished within a few years. There were no known medical remedies. Some people believed that they were witnessing the end of the world and attributed the calamity to God's punishment for their sins; they prayed and turned to priests for blessings (Fig. 11-11). Others looked for scapegoats and accused the Jews of having poisoned the drinking water. Thousands of Jews were massacred or burned alive in Dresden, Mainz, Speyer, Strasburg, Stuttgart and Ulm, and those that survived were expelled from Germany and moved to Poland (Davies, 1996).

Relations Between the Early Papacy and the Nation States. The Church that started out as a religious sect ministering to the poor, succeeded in becoming a rich institution with considerable political power by adopting the Roman Empire's hierarchical system of autocratic rule (Barraclough, 1979). Church organization was initially quite simple. A priest as an ordained

PLAGUE VICTIMS BLESSED BY PRIEST



Fig. 11-11. English monks disfigured by the plague blessed by a priest. A 14th century illustration in the British Library.
(From Wikipedia Commons)

minister performed the sacraments in a small church, aided by a few elders, and a deacon or presbyter to run the affairs of the congregation. But as congregations grew in size and number, bishops came to head the many churches of a city or a diocese. Bishops supervised the training of the priests, assigned them to a particular congregation, and managed the church's finances and its relations with local authorities. As the number of bishops increased, higher ecclesiastical authorities were elected or appointed, such as archbishops, metropolitans and primates to head the Christian communities of provinces or nations. In the West, the bishop of Rome, identified as the Pontifex Maximus, became eventually recognized as the religious head of much of the European Church.

The political disorder prevailing in the early Middle Ages gave the well-administered church hierarchy the opportunity to bring some order into the organization of communities by having their priests preach the new morality—the virtues of abstemious living, dedication to one's divinely assigned duties in life, and obedience and subservience to the authorities. However, in time, the bishops who received large tracts of land as royal endowments became very prosperous and increasingly changed from ministering to the poor to supporting the interests of the ruling elite (Bloch, 1961). Through the power exercised by the bishops, in turn, capable popes became not only the religious heads of unified Western Christendom but also began to exert considerable influence on the political affairs of the developing nation states.

However, in time it became increasingly apparent that the theocratic supremacy that the papacy was seeking in the Western world was not realizable. One of the papacy's problems was that because the popes were unmarried, they could not establish dynasties, as kings did to ensure continuity of their political ambitions. The election of popes remained a messy affair for several centuries. Initially, the Roman nobility and populace, sometimes warring mobs, determined who among the competitors was elected pope. Then, in succession, Byzantine emperors, Frankish kings, German emperors, and the monarchs of France sought to play a decisive role in who was elected the pope. Thus, Justinian's conquest of Rome in the 6th century had the effect that for some time Byzantine emperors elected the popes. By the 8th and 9th centuries, the Frankish kings began to exert their influence on papal election and administration. Subsequently the Carolingians, and by the 11th century the German kings

as “Holy Roman Emperors,” dominated the papacy. Then the Investiture conflict weakened the kings’ influence, and for a while the Crusades organized by the popes greatly added to the political prestige of the papacy.

THE CRUSADES AGAINST MUSLIMS. The idea of organizing Crusades (Wars of the Cross) to liberate Jerusalem from Muslim rule began concurrently with the liberation of Muslim Spain by Christian princes in the 11th century. Imitating Jihad, the Islamic holy war, the Christian warriors succeeded over the centuries in expelling the Muslim rulers from their principalities. That struggle, as well as resistance to Muslim advance in the Near East, lent western Christendom a degree of religious fanaticism and intolerance that was less evident earlier. Towards the end of the 11th century, the Byzantine emperor sent a message to Urban II seeking his aid against the advancing Seljuk Turks (Godfrey, 1980). Because Urban saw this as an opportunity to reclaim supremacy over the Orthodox Church, he ordered the French bishops and abbots to induce princes and knights to take up arms against the Turks, promising them indulgences for remission of their sins and the right to establish a Latin kingdom in the Holy Land. Before the first crusade was organized, an unruly mob led by preachers took up the call. Moving through Germany and the Balkans, they devastated the lands they passed through. Upon reaching Constantinople, the emperor ferried the mob across the Dardanelles where the Turks exterminated them. The First Crusade, led by the dukes of Normandy and Lorraine and the count of Toulouse, set out in 1096. As the crusaders moved through Germany and the Balkans toward Byzantium, they massacred thousands of Jews in the Rhenish cities and robbed the Balkan peoples along their route. After crossing the straits and a series of heavy battles in Syria, the crusaders reached Jerusalem, massacred all the Muslim and Jewish inhabitants there, and established the Latin kingdom of the Holy Land. But from the outset, the new kingdom was threatened by Muslim re-conquest. To prevent that the papacy urged the rulers of Western Europe to organize a series of Crusades. However, none of them were successful and some were disastrous. The Second Crusade led by the kings of France and Germany, and the Third Crusade led by the kings of France and England, never reached Palestine, and Jerusalem was lost to the Muslims in 1187. The Fourth Crusade, which was joined by the Venetians, was intended to approach Palestine from land and sea. Diverted to Constantinople, the crusaders besieged the city in 1203, ransacked it, stole whatever they could, burnt its large library, and massacred many Orthodox Christian clerics (Nicolle, 2011). The Crusades, originally supported by religious fervor, degenerated into wanton savagery.

CRUSADES AGAINST HERETICS. By the 12th century, and in the centuries thereafter, the same fanaticism and intolerance that motivated the Crusades against Muslims also led to the persecution and execution of homeland heretics and the mistreatment and expulsion of the Jews. Among the Crusades against heretics were the protracted wars against the Cathars in the south of France and the Teutonic Knights’ wars in the Baltics. A later development was the war against the Hussites of Bohemia (Davies, 1996).

The Cathars were a pious Christian sect that rejected Trinitarianism, the sacrament of the Eucharist, and the sacrament of penance (Lambert, 1998). Perhaps of Gnostic origin, the Cathars believed in a conflict between the forces of good and evil in the world, in reincarnation, and the equality of men and women. By the 12th century they became the dominant religious

force in the Languedoc, with a church organization, bishops and the support of the nobility. Pope Innocent III declared the Cathars' heresy as "treason against God" and ordered a war against them, which became known as the Albigensian Crusade. The pope declared the same terms for this Crusade as that against Muslims: conversion or death (Fig. 11-12). The reign of terror lasted for several generations. Reportedly, thousands of people were massacred during the siege of Béziers, others were blinded or used for target practice. In Montségur, over two hundred Cathar clerics were burnt at the stake (Oldenbourg, 1961). It is estimated that 500,000 men and women were killed in this genocide. By the beginning of the 14th century the sect was virtually annihilated.

THE ALBIGENSIAN CRUSADE



Fig. 11-12. The Albigensians excommunicated by the pope (left), and the Crusaders massacring them (right). Illustration, from the *Chroniques de Saint-Denis*, 14th century. (From Wikipedia Commons)

The Teutonic Knights was a German military order initially formed to aid pilgrims travelling to Jerusalem. After their withdrawal from the Near East, the Order was reorganized as a military force with the aim of spreading Christianity in Europe (Seward, 1995). In a brutal war, the Teutonic Knights defeated the pagan Slavic and Baltic tribes of Prussia and turned that country into a Germanic land (according to the Order's own chronicles, the native warriors of Prussia were roasted as chestnuts in front of shrines of their local gods). Once established in Prussia, the Teutonic Knights turned northward with the aim of converting the pagan Lithuanians and Estonians to Christianity. The warfare was brutal and the rule of the Knights endured over a century. There were heretics elsewhere. In Prague, a Czech priest, Jan Hus, advocated the right of laymen to preach and celebrate Mass and opposed the clergy's right to meddle in the secular affairs of the state (Kaminsky, 1967). With a letter of indemnity, he was lured by the pope (Martin V) to the Council of Constance and was burnt at the stake in 1415. In the ensuing uprising and war, the Hussites destroyed churches and monasteries and seized church property, but Catholic forces eventually defeated them.

THE EXPULSION OF THE JEWS AND THE INQUISITION. While in Roman times the Jews were citizens of the state, in the Christian world they were considered aliens who were granted royal privileges in exchange for their financial and commercial services and the payment of extra taxes (Marcus, 1938; Cantor, 1993; Steinberg, 2007). As the Church forbade Christians to charge interest to borrowers, the Jews were used by kings and princes to carry on the necessary monetary transactions. Without much competition and the risks involvement in getting repayment of loans, the moneylenders charged excessive interests and many of them

became prosperous. The kings considered the Jews as crown property and were granted royal privileges. For instance, the privileges granted to the Jews by Charlemagne included permission to build synagogues, practice their religious and communal traditions, and have their own judicial courts. That arrangement persisted during Carolingian rule and a rich Jewish religious and literary culture flourished both in France and Germany. However, The Church, beginning with the Gregorian Reform during the late 11th century, began to formally promote anti-Semitism and the persecution of the Jews became virulent during the Crusades. Philip Augustus of the House of Capet confiscated the property of Jews in his domain and expelled them in 1182. Later he readmitted the Jews, after extracting new taxes from them. Expulsion and readmission alternated thereafter for two centuries and, then, all the Jews were expelled from France in 1394 (Fig. 11-13). In England, Jewish communities existed in many towns during the reign of William the Conqueror. But the conditions of the Jews deteriorated due to resentment by the population and the spread of the libel that the Jews engaged in the ritual murder of Christian children, mixing their blood in the unleavened bread of Passover. There were periodic massacres and all the Jews were expelled from England in 1290. In Muslim Spain, the Jews were well treated by the rulers of the Cordoban Caliphate and many of them were employed in government service. This period was the golden age of Jewish culture after the diaspora. With the collapse of the Caliphate, the life of Jews became more precarious and deteriorated further when the Christians re-conquered Spain. The Great Conversion in 1391 led to the forced adoption of Catholicism by tens of thousands of Jews, and during the rule of Isabelle and Ferdinand, they were given the choice of conversion or expulsion. Those who refused to embrace Christianity were expelled in 1492.

EXPULSION OF JEWS FROM FRANCE



Fig. 11-13. French king pointing to a Jew to be expelled. Miniature from *Grandes Chroniques de France*. (From Wikipedia Commons)

The Inquisition as an ecclesiastical tribunal began to operate in France in the early 13th century, when Pope Lucius III ordered the clerics of Languedoc to ferret out the Albigensian heresy. Pope Gregory IX assigned the inquisition to the Dominican order and each tribunal came to be headed by a Grand Inquisitor. The Inquisition became a powerful institution in 15th and 16th century Spain where it was charged to identify the *conversos*, Jews who converted to Christianity but secretly continued to practice their Jewish faith (Rawlings, 2006; Perez, 2008). Spies were used to find the Jews (called *marranos*, or pigs). The accused were then tortured to confess. The Inquisition worked with the secular authorities and those found guilty were burned at the stake (Fig. 11-14). The burning of heretics was often carried out in a ceremony known as *auto-da-fé*. This was an elaborately orchestrated public event used for the penance and humiliation of the accused. The Inquisition was also charged to persecute

witches (men and particularly women) who were accused of having produced bad weather and other calamities. Irrational medieval religious fanaticism and brutality reached its peak.

The Ascendancy and Disarray of the Papacy and Monasteries During the High Middle Ages. Church discipline was quite lax before the accession of Gregory VII to the papacy (1073). Parish priests had little education, were generally married and had a household to support. Bishops and cardinals, often members of the nobility and owning large tracts of land, had mistresses and children born by them, and were often preoccupied with taking care of the economic interests of their extended family rather than spiritual matters.

AUTO-DA-FÉ BY INQUISITION



Fig. 11-14. Saint Dominic presiding over the burning of two heretics. Painting by Pedro Berruguete (1475) in the Museo Nacional del Prado. (From Wikipedia Commons)

THE ASCENDANCY OF THE PAPACY. Gregory VII undertook to reform the Church by decreeing that priests must receive an ecclesiastical education and be celibate, and he opposed lay investiture of prelates (Cantor, 1993; Davies, 1996). He ended the role of kings and nobles in the election of popes, handing that responsibility over to the College of Cardinals; he decreed that no rulings and writings should be considered canonical without papal approval; and insisted that all Christians, including kings, must accept papal judgments and rulings. Indeed, by the 11th century, many secular rulers became devout Christians. Henry III of Germany, for instance, lived like a monk, and Edward the Confessor of England was canonized by the Church for his saintliness. All over Europe kings and nobles spent their resources to build churches and endow monasteries, and many nobles became monks in their old age. This cultural development was paralleled by the growing piety of peasants in the villages and artisans and merchants in towns.

As papal power and influence rose throughout Europe, the Roman church hierarchy began to enforce unity and discipline by formulating categorical dogmas and unalterable rituals that all Catholics were obligated to accept and practice. For instance, the Lateran Council of 1215 made confession and penance compulsory and ruled that only ordained priests can celebrate Mass. The doctrine of seven sacraments, from baptism to extreme unction, was spelled out. Among the dogmas formulated in a series of church councils was a long list of *ex cathedra* declarations that were based on reference to the Bible, scriptural interpretations and tradition, with no effort to offer logical justification for them. Examples of these categorical dogmas were the following.

- God is absolutely perfect.
- God is infinitely just.
- God is infinitely merciful.
- The world was created for the glorification of God.
- The original sin of Adam and Eve provoked the indignation of God.
- Mary conceived Jesus by the Holy Ghost and not by man.
- Christ is god and man at the same time.
- All the dead will rise again on the last day with their bodies.
- Christ, on his Second Coming, will judge all men.
- Christ gave the church a hierarchical constitution.
- The Pope is infallible when he speaks *ex cathedra*.
- Church membership is necessary for all men for salvation.
- Baptism effects the remission of all punishments of sin.
- Penance is necessary for salvation to those who, after baptism, fall into grievous sin.
- The church's power to forgive sins extends to all sins without exception.
- The priest can ordain penitential work.
- The church possesses the power to grant Indulgences.

By the 12th century the papacy could enforce acceptance of these claims as the absolute truth because it was a powerful ecclesiastical institution that controlled what was taught in schools and universities, and because it was also powerful enough politically to make many kings, princes and nobles listen to what the popes decreed.

THE PAPACY IN DISARRAY. However, papal supremacy did not endure for long. The failure of the Crusades weakened the moral power of the papacy and its political influence waned as the monarchs of several countries became more powerful. In particular, the kings of France became influential enough by the 14th century to have a succession of French popes rule the

Church from Avignon rather than Rome. Then a schism developed between rival popes in the two cities. Petrarch characterized the Avignon papacy of the 14th century as “the hell on earth, the sink of vice, the sewer of the world. There is in it neither faith nor charity nor religion nor the fear of God ... Fornication, incest, rape, adultery are the lascivious delight of the pontifical games” (Durant, 1953, p. 55). We do not know whether this was a fair description or a ranting by an Italian against the French popes. But the Church authorities were, in fact, more concerned with promoting their power and life in luxury than preaching the Gospel, even after the papacy returned to Rome. By the 15th century, many bishoprics were owners of large estates, and the bishops acted and lived like princes. Cardinals were rarely chosen for their learning or piety but more often for their political connections and wealth, and some of them paid enormous sums to Rome to assure their election.

By the 15th century the papacy returned to Rome. However, the popes, who now came from the Spanish or Italian nobility, became preoccupied with enriching the Church and themselves instead of promoting Christian ideals. To increase the coffers of the papal state, the Church introduced the sale of Indulgences, a piece of paper that was alleged to guarantee remission of the purchasers’ sins and divine punishment. Many of the popes also became preoccupied with promoting the careers of family members. Rodrigo Borgia, who came from a very rich Spanish family, became a cardinal at the age of 25 and the head of the Curia at 26, and was later elected Pope Alexander VI (1492-1503). He had illegitimate children by several women, and devoted his papacy to the aggrandizement of his family. He appointed one of his children, Cesare, a cardinal at the age of 18. Cesare became the head of papal forces and used every means available to expand the territory of the papal states. Pope Alexander married his daughter, Lucrezia, to a succession of nobles, and rumor had it that he himself had an incestuous relationship with her. As Machiavelli wrote of Alexander, he “did nothing but deceive, and thought of nothing else during his whole life ...” (Durant, 1953, p. 434). With regard to the Curia, the gentle Erasmus wrote that “A deep-rooted corruption had taken possession of nearly all the officials of the Curia ...” and he added that “many convents of men and women differ little from public brothels” (Durant, 1953, p. 18).

Alexander’s successor, Julius II (1503-1513), was a rude man with a violent temper, who likewise had several illegitimate children. He distinguished himself as a Pontiff by a preference to ride on horseback in military garb, leading his army to besiege a city rather than perform his sacerdotal duties in pontifical robe. Alternately, he fought his enemies either by terrorizing them with a show of brute force or by excommunicating them. But he has also been credited with moving Renaissance culture from Florence to Rome. Julius had the old St. Peter’s Basilica demolished in Rome and commissioned the architect Bramante to design and build a new one, employing the greatest artists of his day—among them Michelangelo and Raphael—to make it the most beautiful edifice in Christendom. To finance this monumental enterprise, he continued with the practice of selling Indulgences throughout Europe. Rich nobles and cardinals followed Julius’ lead by building opulent palaces in Rome, and having their interior decorated with sculptures and paintings that often had ancient pagan themes rather than conveying Christian messages. The Medici popes continued with this effort of turning Rome into a capital of the Renaissance. As bankers to the papacy, the Medici family maintained good relations with the popes, and Lorenzo’s son, Giovanni, was elected a cardinal

at the age of 14 and succeeded Julius as pope Leo X (1513-1521). Another Medici, Giulio, later became pope Clement VII (1523-1534), and ruled Florence from the papal chair. By this time, the character of the papacy changed drastically, and Clement continued with the effort to advance Rome's political power and, above all, the promotion of the arts as a means of aggrandizing the papal office rather than spreading the gospel of Jesus. Clement's successor, Paul III (1534-1549), who came from another rich family, fathered many children by several mistresses, anointed one of his grandsons a cardinal at the age of 14. Beneficiaries of papal nepotism came to be known as Cardinal-nephews (Fig. 11-15).

PAPAL NEPOTISM

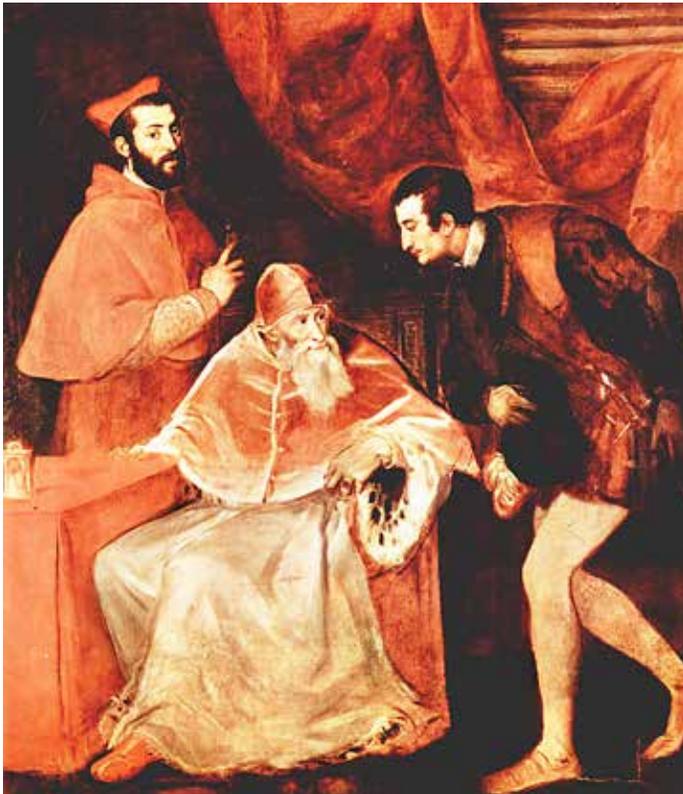


Fig. 11-15. Pope Paul III with his grandsons. Alessandro Farnese (left) was made a cardinal; Ottavio Farnese (right) a duke. Painting by Titian (1546). (From Wikipedia Commons)

communities as missionaries, preachers or health providers. Initially there was discord between the monastic communities and the Church, as many monks dismissed the priesthood as worldly and corrupt. Jerome in the 4th century, for instance, who founded a monastery in Jerusalem against the wishes of church authorities, called the Patriarch of Jerusalem a Satan. However, Pope Damasus approved of Jerome and commissioned him to make an improved translation of the New Testament from Greek into Latin. In time, the Church came to accept most monastic orders because they performed functions that supplemented the priests' work. Monks became teachers; copied and illustrated bibles; wrote religious manuals for the clergy; and copied ancient literary texts that priests used to learn to speak and write Latin. Nuns were helping the poor and took care of the sick.

VICISSITUDES OF THE MONASTIC ORDERS. The religious transformation of the West was greatly promoted by monastic orders, which operated to varying degrees within or outside the Church (Durant, 1950; Lawrence, 2000). From the beginning there were Christian monks who followed strictly the Gospel's message, committing themselves to poverty and chastity, abstaining from worldly affairs in pursuit of a spiritual life. Some of these saintly individuals were reclusive hermits who moved to the desert or a mountain cave to meditate and worship God (eremitic monasticism); others joined ascetic communities (cenobitic monasticism). The latter, monks and nuns, either stayed all the time within the walls of their cloister or, although maintaining a celibate life, moved periodically into the outside world to serve

Monasteries served as important educational institutions, training missionaries and priests throughout much of the Middle Ages. There were thriving monasteries in Ireland during the 5th century, but they did not endure. Benedict of Nursia on Mount Cassino in Italy established one of the most enduring monastic orders in the early 6th century. Benedict set up strict entrance requirements for membership in his order and enforced strict rules of conduct. All Benedictine monks had to wear a simple garment of the same style; live abstemiously by partaking in communal meals and dine in silence; pray and chant at regular intervals several times a day; devote hours to the reading of religious texts; diligently perform assigned manual tasks; and be absolutely obedient to their superior, the abbot. The Benedictine monastery was to become a self-governing and self-supporting community dedicated to assure salvation of its members' souls through prayer, chastity, poverty and obedience. The monks were not expected to be part of the outside world but an earthly haven where the devout entered the City of God.

Many other monastic orders were established subsequently with modified agendas. Among them were the Dominicans, the Franciscans, the Carmelites, the Cistercians, and the Knight Templars. Dominic, a Spanish priest preaching against the Albigensian heresy, founded the Dominican order in the early 13th century. He gathered followers with intellectual qualifications, who vowed to lead a simple life, diligently study the gospel, and dedicate themselves to serve outside communities as missionaries, preachers and teachers. By the middle of the century Dominican professors came to dominate the University of Paris as philosophical apologists of Christian doctrine. (As we describe later, one of the Dominican professors, Thomas Aquinas, developed a new scholastic doctrine based on Aristotelian rationalism.) The Carmelites, in contrast, were a mendicant order founded in Palestine in the late 12th century, with monks and nuns dedicating themselves to prayer and meditation, with special emphasis on the worship of the Virgin Mary. Francis of Assisi founded the Franciscan order in the early 13th century. Francis was a mendicant preacher with little learning who abandoned worldly life and dedicated himself to ministering to the poor, sick and lepers as he walked barefoot across the villages and towns of Italy. As an enthusiastic lover of all living creatures, Francis preached compassion, charity and forgiveness as the Christian ideals rather than preoccupation with rituals and dogmas. He had many followers who established monasteries, dedicating themselves to living an ascetic life and serving the poor. Because as a lover of everybody, Francis never criticized the popes and bishops, the Church supported the Franciscan monasteries.

Monasteries attracted many people from all walks of life, as they constituted an oasis of order, peace and gentility in a chaotic world of savage warriors, aggressive nobles, and boorish peasants. However, most monasteries changed their character over time because they received land grants from kings and lavish donations from nobles and pilgrims; they became prosperous. Some of the monasteries came to own the best farmlands of Western Europe and the abbots became members of the feudal ruling class. The typical abbot was a prince or a nobleman, or acted as such, and many of the monks and nuns were highborn lords and ladies. Having become rich, the monasteries embarked on erecting monumental edifices that were decorated with precious sculptures and paintings, and many monks came to live in luxury, notwithstanding their vows of simplicity and poverty. As a reaction to that, pious monks periodically formed new monasteries. Notable among them were the Cistercians, who advocated a return to the simple disciplined life and hard work. During the 12th century, the

Cistercians acquired marshlands and moved into virgin territories to cultivate the land and raise domestic animals. By the end of the 13th century there were 700 Cistercian monasteries over Europe. But then, again, the Cistercians became rich landholders, amassed considerable capital, and some of the abbots turned into moneylenders. Much the same happened to the Knight Templars, the “Poor Brothers of the Temple of Jerusalem.” This order originated in the early 12th century as an organization of knights dedicated to protect and help pilgrims on their way to the Holy Land. Beginning with fundraising activities, the Templars became the great bankers of Europe by the middle of the 13th century, managing the finances of the papacy and French kings with headquarters in Paris. Notably, however, most monasteries, poor or rich, continued to make contributions to the advancement of the social order in the Western World as they had schools, libraries and scriptoria, and, as educated people some of them served as effective government officials and advisors to kings.

11.3.3. Medieval Instrumental Advances: Economy, Technology, and Social Organization. The early medieval economy was agrarian and rural. As the urban population in the devastated cities of the Roman Empire became impoverished, many of them sought to make a living by returning to cultivate the land and raise livestock in the old villages that they came from. And then, as land became scarce, they began to create new rural settlements in virgin lands by cutting down the trees, digging drainage ditches, and plowing the soil in the vast forests of the European hinterland.

Growth of the Medieval Rural Economy. Much of northern Europe was a wilderness until the beginning of the Middle Ages. During the Upper Paleolithic period, hardy humans hunted large herds of grazers and browsers on the vast grasslands of northern Europe, and trapped carnivores in its extensive forests for their furs to keep themselves and their huts warm. But following the extermination of big game, people of the Neolithic period settled down in the river valleys and seashores and began to cultivate the land to produce cereals, herd domesticated animals, fish in lakes and rivers, and collect shellfish on the seashores. Land cultivation during the Neolithic was not extensive because the European soil was hard to work and the growing season was too short. Population density beyond the Rhine and the Danube, and farther to the north where the Scandinavians, Baltics and Slavs lived, was relatively low, and large agricultural enterprises failed to develop. But, then, as the collapse of the Roman Empire allowed the tribal people to settle down in the occupied territories, a new production method developed throughout Europe that transformed the small-scale subsistence economy to the larger-scale agricultural one. The conquering warlords, princes and kings awarded large tracts of lands to their warriors. These warriors followed the Roman model of managing agricultural estates and began the large-scale production of agricultural goods by turning the local people into slaves, serfs or tenants. The establishment of these manorial estates was the economic foundation of the European feudal system.

NEW AGRICULTURAL TECHNIQUES. Slavic peasants in the East replaced the simple scratch plow (ard) in the 6th century with a more elaborate iron plow suitable for cultivating the heavy and wet soils of north Europe (White, 1967; Stock, 1978; Astill and Langdon, 1997). This new plow had wheels, a vertical iron blade (coultter) to cut the line of the furrow, and a horizontal plowshare and an oblique moldboard to break up and turn over the soil. A team of oxen pulled

this heavy plow (Fig. 11-16). This new method of land cultivation spread to Western Europe and was widely used by Germanic peasants early in the 8th century. Then, at about this time, a new invention was introduced, a horse harness that turned horses into beasts of burden. To enable horses to pull the heavy iron plow, they were furnished with a padded breast harness and a collar to distribute the weight across the animal's chest and its powerful neck. The horses were also shod with nailed iron horseshoes to provide better traction and protect their hooves. These inventions made it possible to replace slow oxen with faster horses. Between the 9th and 11th centuries, the use of horses to draw plows became widespread throughout Europe.

MEDIEVAL IRON PLOW



Fig. 11-16. A team of oxen pulling a medieval plow with coulter and plowshare. (From Google.com)

RURAL ECONOMIC AND TECHNICAL ADVANCES. During the Middle Ages landowners and farmers learned how to raise crops in a climate with a short growing season to produce enough food to support a leisure class. An important development was a new method of land utilization. In contrast to the traditional two-field system of land cultivation, one field sown and the other lying fallow, a three-field system was developed with one field sown in the spring, the other in the autumn, and the third left fallow. Practicing crop rotation, the summer crop may have been barley, beans and lentils, the winter crop wheat, rye and oats. The cereals and legumes served as an all year round nutritious staple, barley was used to make beer, and oats to feed horses and cattle. Stall-feeding became widespread during the winter months and manure was used to fertilize the land.

This early European “green revolution” had important consequences. The cultivation of large tracts of land with the aid of beasts of burden required hard manual labor but it resulted in the production of enough surpluses to sustain a leisure class, which became prosperous by delivering grain, milk, meat and other products to nearby market towns or ports for sale. This was made easier by the invention of the whippetree (swiveltree) to harness horses to wagons in the 11th century (Fig. 11-17). With the old method of traces directly fastened to a wagon, a sharp turn to the right or the left put all weight on one shaft, easily breaking the harness or overturning the load. The whippetree equalizes the weight and prevents overturning. By the beginning of the 12th century, long wagons equipped with springs made the ride more comfortable.

To supplement human and animal muscle power, wind and water energy were increasingly utilized in the Middle Ages. Vertical-axle windmills to turn millstones were in use in Persia since the 7th century (Shepherd, 1986). The more versatile horizontal-axis windmills that

MEDIEVAL WAGON AND WHIPPLETREE

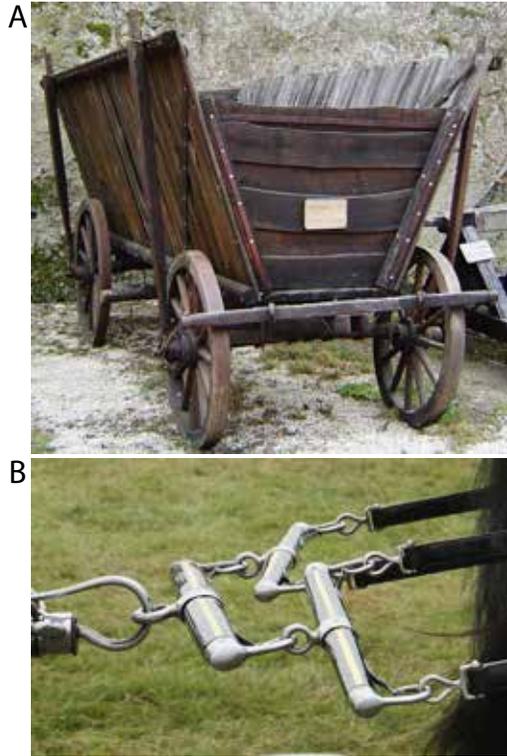


Fig. 11-17. A medieval wagon (A), and a whippletree (B). (A. Medieval Hungarian picture gallery. B. Google.com)

MEDIEVAL WINDMILL AND WATER WHEEL



Fig. 11-18. A medieval windmill (A), and a waterwheel (B). (A. Windmill in Consuegro, Spain. B. mamre8history-wikispace)

used gears were invented in Europe toward the end of the 12th century (Fig. 11-18A). The early windmills were fixed structures; later windmills were constructed that could be turned to set the sails in the eye of the wind (Forbes and Dijksterhuis, 1963). Before the 11th century, watermills were rare in Europe (Fig. 11-18B). But by 1086, Doomesday Book recorded the existence of 5624 mills in 3000 English communities (Stock, 1978). Initially windmills or watermills were used to grind cereal and press oil but soon they were used as a power source to cut lumber, drain marshes, raise ores from mine shafts, crush the ores with trip hammers, and operate bellows to melt and extract the metal from the ores. As a consequence of these technical advances, food productivity increased greatly by the high Middle Ages and that led to considerable population growth. There were also improvements in living conditions, such as heating of dwellings. The indoor fireplace with a chimney to draw the smoke out of the house but heat the room, as well as to use it for cooking and baking became common in castles by the 11th century and in the dwellings of peasants by the 12th century.

Growth of the Medieval Urban Economy. The growth of agricultural productivity and population stimulated urban commercial development. The towns that became depopulated during the Dark Age began to recover during the early Middle Ages as villagers moved into them where they became laborers, artisans or traders (Nicholas, 1997; Hunt and Murray, 1999; Epstein, 2009). Earlier, the villagers themselves produced such things as pots and pans, garments and shoes, but increasingly a demand developed for higher quality goods produced by artisans in cities and sold by merchants. Cities also attracted members of the landed nobility with their educational facilities, social life and opportunities for professional occupations. By the high Middle Age, due to increased demand for quality goods, such as woolen and silk garments, and spices and sugar produced in foreign lands, major sea-borne trade routes developed (Fig. 11-19). In the south, merchants of Venice and Genoa, trading with Arabs in eastern Mediterranean ports, began to import fine textiles produced in Baghdad and Damascus, silk that originated in China, and spices that were moved by camels overland in Arabia, and carried by boats to various Italian and French sea and river ports. In the north, German, Flemish and Dutch merchants traded wool, fine cloth, furs, timber, tin and other goods through ports extending from the Baltic Sea to the English Channel (Hutchinson, 1997). From these ports flat-bottomed boats ferried goods to cities along the many navigable European rivers, which were then carted by wagons inland to market towns and country fairs. Old cities like Pisa, Siena, Genoa and Florence in Italy, and Paris, London, Bruges and Ghent farther north expanded and became

COMMERCIAL TRADE ROUTES DURING THE MIDDLE AGES

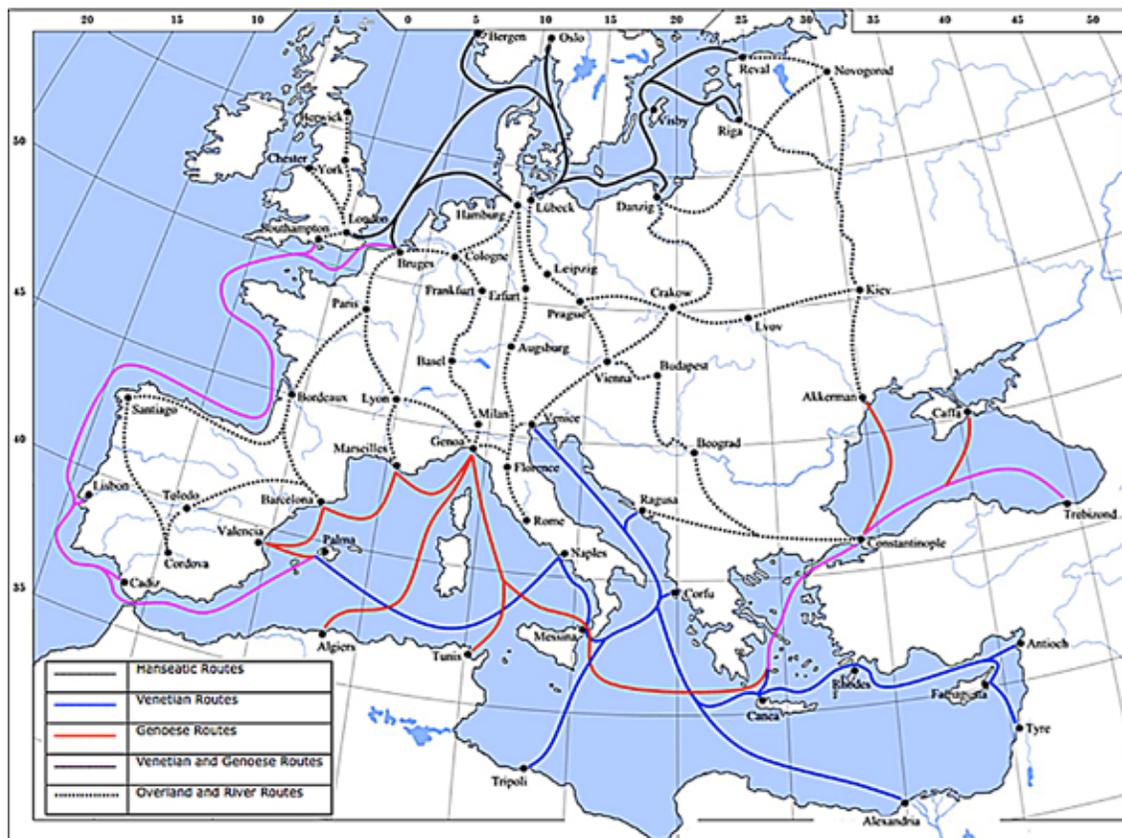


Fig. 11-19. Major medieval trade routes distributed goods within Europe, and brought goods from afar into Europe. (From wikimedia.org)

prosperous. Early in the 13th century, silver coins larger than the denarius were minted in Italy, and by the middle of the century the gold coin of Florentine merchants, the florin, came into circulation throughout much of Europe. The early medieval barter economy was gradually replaced by a money economy and increasingly some goods were produced in large quantities. For instance, by the early 14th century there were 300 textile factories in Florence, employing 30,000 workers (Durant, 1950).

The city burghers—merchants, moneychangers and bankers, officials, lawyers and physicians—succeeded in strengthening their political and legal status by obtaining patents of independence from kings in exchange of paying taxes to the royal treasury. By the early 13th century, Lombard towns in northern Italy, and many German, Flemish and Baltic towns of the Hanseatic League became self-governing. They elected officials to manage the affairs of the city with minimal intervention by feudal lords. They built defensive walls and had a local militia. And in places where the monarchy was weak, as in Italy, some of the cities, like Venice, became independent republics. To strengthen their social and political status, wealthy burghers spent large sums of money to build impressive town halls and monumental churches, and merchants and artisans strengthened their social position by forming organizations known as guilds. Craft guilds ensured the quality of their products and regulated the training of apprentices, journeymen and masters. Merchant guilds sought to control trade by fixing the price of products and settling disputes. However, the relationship of wealthy burghers with kings and nobles remained an ambivalent one. The kings sought to tax as heavily as practicable whatever the traders imported, and the lords turned into greedy toll-collectors as the traders' boats or wagons passed through the rivers or roads of their domain. The conflict of interest of king, nobles, burghers and the rising proletariat was ever present and many cities, particularly in Italy, fell into the hands of dictators.

ADVANCES IN MEDIEVAL TECHNOLOGY. The application of water and wind power to diverse mechanical uses required the introduction of complex gear mechanisms which, in turn, required improvements in wood and metal manufacturing techniques. Of great importance in the development of mechanical devices was the wide adoption by the 14th century of the cam and compound crank, a late Roman invention, which allows the translation of the cam's continuous circular motion (whether created by muscle, air or water power) into a back-and-forth, and up-and-down motion of the camshaft and the moving of such devices attached to it as a bucket or a saw. Increasingly, iron components replaced wood, as its production became cheaper and faster due to the invention of the blast furnace. The blast furnace required a manual or machine operated bellows to increase air draft and create high temperatures to smelt the iron and produce wrought iron or cast iron items. Blacksmiths produced manually a variety of implements by using tools to hammer, bend and cut the wrought iron. The 14th century saw the introduction of wire drawing mills and slitting mills, as well as the trip-hammer, to speed up iron production.

The introduction of interlocking gear mechanisms in industry was associated with the effort to design and produce weight-driven clocks. Sundials (shadow clocks) were widely used in the ancient world to gauge time during daylight, as was the hourglass and clocks based on the speed of water-dripping and candle-burning devices through day and night. The first

mechanical clock was invented in the 11th century by ibn Khalaf al-Muradi in Muslim Spain (Al-Hassan and Hill, 1992). Muslim engineers about the same time may also have invented a weight-driven mechanical clock employing a mercury escapement mechanism and a clock face. From Muslim Spain mechanical clock making spread to Christian Europe, where spring-driven clocks appeared by the 13th century. The early mechanical clocks, limited to churches, monasteries and courthouses were crude instruments, the workmanship of blacksmiths. But as the technique of metalworking improved, the newly developed escape wheel was added to the clock mechanism, and later watches, became the pride of specialist craftsmen and the valued possession of nobles and burghers.

Medieval Architectural Advances. The Dark Age people living in lands occupied by the Romans were heirs to an ancient architectural tradition, the mansions and temples that now lay in ruins. Having withdrawn to villages with a subsistence economy, construction in the cities came to an end; indeed, there was further devastation as people turned the old edifices into stone quarries for building churches and dwellings. But by the early Middle Age, the construction of stone edifices resumed again, most notably that of churches and castles. Construction technology was for a long time not beyond that practiced by the Romans centuries earlier. Most of the work was done manually with little mechanical aid, carving stone by hand, carting them by climbing ladders or hoisting them using a treadmill-operated crane (Fig. 11-20).

MEDIEVAL CONSTRUCTION METHODS



Fig. 11-20. A 13th century illustration of building a castle. (Treadmillcrane.jpg. From Wikipedia Commons)

Historians of medieval church architecture distinguish two styles, the Romanesque and the Gothic. While the two in their ideal form are clearly distinguishable, the Romanesque was not an imitation of the Roman style and the Gothic had nothing to with Germanic tradition. Both were new developments, relatable to the culture of the Early and the High Middle Ages, respectively. Most Roman temples were copies of Greek temples (Fig. 10-44). They were composed of tall columns that formed a colonnade for a timber roof over an *open* public space that surrounded an interior sacred edifice that contained the statue of a deity and an altar attended by sacrificial priests. In sharp contrast, Romanesque churches were *closed* structures of heavy stone that had a small entrance and a few small windows, enclosing a small dark interior where the worshippers gathered. The Romanesque church was not only a spiritual retreat from the world but also a fortress where villagers could seek protection from hit-and-run marauders (Fig. 11-21A). The same applied to many of the monasteries (Fig. 11-21B).

EARLY MEDIEVAL CHURCH AND MONASTERY

A



B



Fig. 11-21. A Romanesque church in Sardinia (**A**), and a fortified monastery in Genga, Italy (**B**). (A. PortoTorresSanGarino.jpg. B. AbaziaSanvittoreFrassasi.jpg.)

Some Romanesque churches were covered with timber roofs; others used either semi-circular barrel vaults or groin vaults of stone (bays of barrel vaults crossing at right angles). The heavy walls or tiers with their small openings adequately countered the lateral thrust of the heavy roofs. However, as the danger of marauders diminished, architects began to build taller and more luminous churches (Fig. 11-22A). Early in the 11th century, they began to adopt the pointed arch, which has lesser lateral thrust than the semi-circular arch, and allowed the erection of churches with greater height, and experimented with a skeleton of exterior and interior stone ribs—piers and columns—to better distribute the weight of the roofs. By the end of the century architects began to build still taller churches. This led in the 12th century to the development in France of Gothic architecture as exemplified by the cathedrals of St. Denis and Notre Dame in Paris (Fig. 11-22B). Using a skeletal system of tall and slender interior columns with crossed ribbed vaults, and supporting the walls with external flying buttresses or adjacent arched structures allowed the creation of high internal spaces filled with light suffusing through large stained glass windows. The purpose was to create a narrow and tall nave that drew the worshipper's gaze upward toward "heaven" (Fig. 11-23).

Church buildings became during the High Middle Ages a display of wealth and pride, with countries and cities, bishops and abbots competing with one another in building taller, larger and more elaborate cathedrals and abbeys. Occasionally, the structures they built collapsed, and quite often it took several generations before they were completed, and some of them remain to this day unfinished.

The Hierarchic Organization of Medieval Society. Medieval society was a hierarchical one, divided into three caste-like classes—nobles, clerics, and commoners—those who ruled, those who prayed, and those who worked. Within each of these classes there were further hierarchical subdivisions. Those who ruled consisted of princes and dukes of the great

MEDIEVAL ARCHITECTURAL ADVANCES

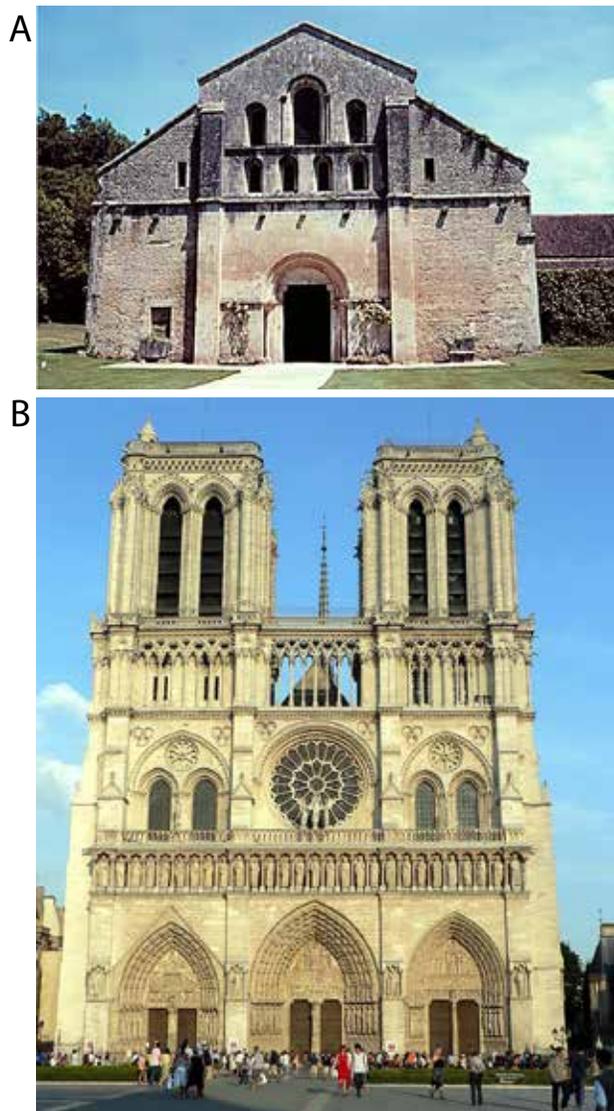


Fig. 11-22. A. Abbey church, Fontenay (1139-1147). B. Western façade of Notre Dame Cathedral in Paris (1163-1345). (A. Jeffery Howe, Boston College. B. Wikipedia)

NAVE OF A GOTHIC CHURCH



Fig. 11-23. The nave of Notre Dame cathedral. (Globeimages.net)

royal houses who headed kingdoms or empires; earls and counts who ruled large territories; barons and lesser nobles who exercised lordship over large estates; and knights who fought in wars. The clergy was also hierarchical. Bishops and abbots, who often were of royal or noble background, were not only religious leaders but also heads of large estates, and lived in mansions, often in great luxury. The subordinate parish priests and many of the monks lived more like commoners. Burghers were wealthy but were considered commoners by the nobility, and the artisans, at a lower rung, were divided into a hierarchic order of masters, journeymen and apprentices. And at the bottom of the social pyramid were the masses of toilers, tenants and serfs in the villages and a proletariat in the cities.

THE PEASANTRY. The life of village peasants was extremely arduous and monotonous, with never ending chores that had to be carried out from dawn to dusk every day for a lifetime.

The villagers' life was made particularly onerous because typically the land they cultivated belonged to someone who collected a portion of what they produced as rent or taxation. While there were regions in northern Europe where free farmers cultivated their own land, in most regions an elite class of royals, nobles and prelates claimed ownership to the land and relied on peasants as serfs or tenants to cultivate it. The landlord had his estate tilled by serfs who were treated as chattel, bound to the land without any legal rights, or by tenants renting a small plot. As seasons changed, the peasants plowed the land, sowed seeds, and harvested the crop, and as circumstances demanded carried water, dug ditches, or did whatever hard or dirty work the lord demanded from them. A reeve or bailiff typically supervised the serfs and saw to it that they worked hard (Fig. 11-24). Tenants were obligated to pay rent for the land they cultivated, and for the ground on which their house stood, typically by delivering annually a specified amount of cereals, pigs and poultry, and by regularly performing compulsory labor, such as grinding corn, pressing grapes, cutting and delivering firewood, and providing assistance in building or repairing the castle or defense walls.

SERFS ENGAGED IN FORCED LABOR



Fig. 11-24. Reeve with cane supervising serfs harvesting with sickles. (From Wikipedia Commons)

Peasants lived in small huts with walls made of logs plastered with mud or of local stone, with a floor of compacted earth, and straw or reed used for a thatched roof (Fig. 11-25). The hut may have had a small window for ventilation and a stone hearth for cooking and heating. Indoor furnishings were sparse and coarse, and often several members of the family shared a single bed. Frequently cows, goats and chickens were sheltered in the same building during the winter months. The peasants owned few domestic valuables. Most of them wore the same old rough clothing day in and day out but may have had a change of clothing for Sunday when the family went to church. In good years the family had enough to eat by consuming seasonally available nutrients grown in their garden, but they did not regularly have an adequate diet. They kept their cows and goats as long as they could to get milk and their chickens to lay eggs. Peasants were not allowed to hunt to supplement their diet with meat, and lacking money or goods to barter, many of them could not purchase salt or spices in the market to make their food more palatable. Sanitation was poor, with fleas, lice and other vermin abounding. Except for some folk herbals, medicine and medical help were nonexistent, and disease and

PEASANT HOUSE

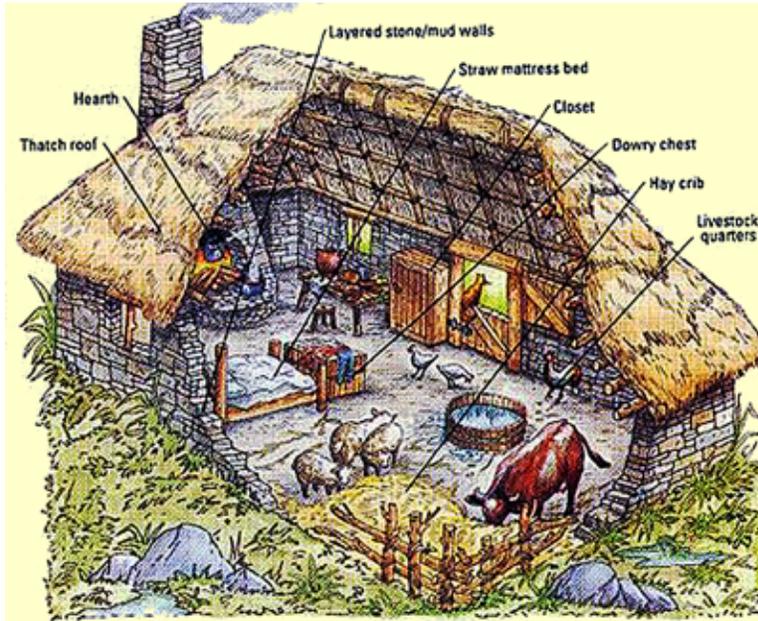


Fig. 11-25. Reconstruction of a medieval peasant's house.
(From Glogser.com)

PEASANT WEDDING



Fig. 11-26. Peasants celebrating a wedding; painting by Pieter Bruegel the Elder (1569). Note the simple food served and the presence of an armed soldier.

epidemics were rampant. Infant mortality was very high, life expectancy was short, and those who survived became disabled very early.

The social life of peasants was confined to their small local community with limited cultural life. Serfs were not allowed to leave the land, marry, or buy or sell anything without the lord's permission. They were humiliated socially and were punished harshly if they failed to behave as expected or committed some felony. Peasant children were set to work at an early age, received no formal education, and most of them remained illiterate. And while the tenants were legally free agents, they were burdened with many obligations to the landlord and were tithed by the church. The peasants' only recreation was that they were allowed to rest on Sundays and holydays, and their only pleasure in life was the periodic festivities on such occasions as weddings (Fig. 11-26). Except for those very pious, the young entertained themselves with singing and dancing. Many older men drank alcoholic beverages in excess in an attempt to forget their misery.

THE NOBILITY. In contrast to the villagers who lived in small huts, the medieval nobles resided in large castles that served both as forts and living quarters (Fig. 11-27). The castle had thick walls of stone to withstand enemy assaults, it typically had watchtowers and ramparts, and it may have been surrounded by a moat with a single gate accessible through a drawbridge. Inside the castle was a building, called the keep, where the lord lived with his family, together with his retinue and servants. The keep contained a great hall that served as a dining room, a meeting place and as an entertainment or dance floor. The great hall was furnished with tables and benches, and its coarse wall was decorated with flags, standards and tapestry. Additional

MEDIEVAL FRENCH CASTLE



Fig. 11-27. Medieval castle in France (Roquetaillade, Aquitaine; early 14th century). (Eupedia.com)

areas included a kitchen, a storage area, a chapel, quarters for guests, servants and soldiers, and a stable for the horses. The household was large, with cooks and maids, stewards and butlers, a scribe and a priest, nurses and tutors for the children, and some entertainers. There was little privacy in the castle and it was not a comfortable place. The stone floor was bare or had few carpets, and although the great hall may have had a furnace or some other source of heat, the rooms were cold and drafty and a chute through the castle wall served as a toilet, emptying the waste to the moat below. Nobles wore fine garments that distinguished them from the peasants and they lived lavishly (Fig. 11-28).

Because the central government was generally weak and communication slow and intermittent, the lord, in addition to managing the affairs of his estate, had to be able to defend his domain against aggressors from without and maintain social order within. And he also

A NOBLEMAN ENTERTAINING



Fig. 11-28. A nobleman entertaining his peers. (Wikispaces.com)

had to ensure the continuity of the family's wealth and power. If the lord had several sons, he might have one of them trained to be an estate manager, another to become a warrior, and still another to become a bishop or an abbot. The daughters were taught to become refined ladies with good manners because often they were married off to sons of other noble families to further their family's economic and political interests. Because the marriage of nobles was typically not based on love, many the ladies welcomed young men of "courtly" manners and troubadours to entertain them. Courtly love developed into a romantic code of conduct between unmarried noblemen and married ladies who were not intimately attached to their husbands. The troubadours were professional poets and minstrels who pleased the ladies by reciting lyric poetry accompanied by musical instruments. And in a world of provincial life, adventure was a remedy for the boredom of noblemen, who were ever ready to go to war. When not fighting, nobles watched the tournaments of knights in nail or plate armor jousting, or arranged hunting expeditions on land preserved for that purpose.

THE BURGHERS. As medieval economy improved and towns began to prosper again, a new class of people emerged—artisans, merchants and bankers—many of whom became wealthy. Enterprising artisans bought raw materials and employed workers to produce quality goods in large quantities and sell them with a markup as a profit. The wealth of successful merchants came from their ingenuity of buying merchandise cheap and selling it dear. The banker's profit came from money changing and the interest they charged for loans. The profit gained by these means could be used by a burgher either as capital for further investments and/or live a luxurious life by building spacious residences, dressing well and gaining the town people's respect by contributing funds to the erection of churches, shrines, fountains, and the like. Thus a new social class was forming, the bourgeoisie, that undermined the power of the feudal lords.

THE CLERGY. Priests played a pivotal role in sustaining social order in the Middle Ages both as preachers of a shared religious doctrine and as guardians of a strict moral code. They preached, in accordance with Christian dogma, that human beings are born sinners. Indeed, since most people could not live by the lofty ideals expected of them, most medieval men and women must have believed that they were sinners. Priests also preached that temporal life on earth was but a stepping stone to eternal life in the next world, either in Heaven or in Hell. Reinforcing the powerful mental control that clerics exerted over their parishioners was the dogma that, due to God's mercy and the sacrifice Christ has made to atone for people's sins, salvation is possible through repentance. The priests harangued the people to confess their sins, pray for mercy, attend church services regularly, support the church financially, in order to avoid Hell and enter Heaven.

Religious people believed that praying and performing rituals sustained order in the world they lived in. Priests preached to their parishioners the importance of certain virtues that fostered communal living: love of neighbor, charity toward the poor, aid to the sick, and the necessity to avoid such mortal sins as hatred, envy, avarice, and lust. Kings, lords, burghers, and poor people alike accepted Christian mythology and dogma as the absolute Truth, and that turned the Church not only into a powerful moral agency but also into a very prosperous social institution. Royals and nobles granted lands and endowments to the clergy to build churches and monasteries, burghers donated funds and valuables, and the poor peasants

paid their tithes. Cardinals, bishops and abbots became as wealthy and influential as many of the dukes and counts. As a consequence, many of the monasteries became showpieces of medieval architectural achievements. Many prelates lived in palatial mansions, and clad themselves in garbs of precious materials that marked differences in their ecclesiastical rank. The liturgical vestments of bishops, cardinals and popes—a series of garments that were supposed to symbolize purity, chastity, devotion, and the like—were often as elaborate as the ceremonial apparel of monarchs (Fig. 11-29). Living in luxury, many prelates lost any interest in promoting world peace or improving the living condition of the poor. Although there was a movement called the Peace and Truce of God during the high Middle Ages, it had neither been pursued vigorously or had any enduring effect. Cardinals and bishops blessed the flags of the king or prince they served as they went to war fighting one another.

LITURGICAL VESTMENTS



Fig. 11-29. The liturgical vestments of a bishop. (Fisheaters.com)

The Rising Power of Secular Monarchies. The growth of cities and towns by the 12th century, and the increasing importance of commerce and a money-based economy strengthened the power of competent monarchs and weakened the influence of feudal lords. The kings began to enrich their treasury by taxing the burghers and the commercial goods that entered or left the country's harbors. They began to strengthen their government by employing paid bureaucrats with a lay education, instead of clerics, to exercise effective administrative control of their countries. Building a standing army, the king's generals could subdue recalcitrant magnates, and his sheriffs could enforce royal edicts and demands, such a compulsory military service and payment of taxes. The kings also benefitted from the decline of papal power brought about by the fiasco of the Crusades and the papal schism, and the widening popular disrespect for the corrupt clergy. Kings like Henry II of England, Philip Augustus of France, and Frederick Barbarossa of Germany were rulers who, although formally devout Christians, used their powers to resist ecclesiastical interference in governing the state.

11.3.4. Medieval Ideational Regression: Ecclesiastical Education and Scholastic Philosophy. The Apostles and Church Fathers rejected the secular educational ideals (*paideia*, *humanitas*) of the Hellenistic world in which they lived. The early Christians did not train the young to become physically strong, proud and enterprising individuals but taught them to become gentle, docile, and dedicated members of their religious community. Secular schools and academies were closed, and the study of the literary, philosophical and scientific works of the Greeks and Romans were discouraged as corrupting influences; indeed, some religious fanatics went so far as to burn their books in libraries. There were probably few schools of secular education in the West for half a millennium, and the select young who did go to school to learn to read and write, were taught by clerics attached to churches who were dedicated to turn the young into devout Christians. They memorized the Bible, read the works of saints and martyrs, and learned the art of rhetoric if they were prepared to do missionary work.

The fact that part of the rich Greek, Roman and Hellenistic intellectual heritage has been preserved in the Middle Ages was due mainly to the effort of people who worked outside the Church's reach in the Near East. Schools of higher learning came into existence in Syria and Persia where local scholars from Greece and Egypt, some of them Christian "heretics," and migrants from India and China, could freely pursue their philosophical and scientific interests and interact with one another. The most famous of these schools was in Gundishapur of the Sassanid Empire, founded in 5th century by the Persian king, Shapur I. By the 7th century this school may have been the most important astronomical and medical center in the world (Nasr, 1973).

Salvaging the Hellenistic Heritage: Muslim Scholarship. When the thriving Hellenistic Near East came under Muslim domination in the 8th century, the Abbasid caliph al-Mansur, moving his capital to Baghdad in 762, commissioned Nestorian Christians to translate Greek philosophical and scientific works into Syriac and Arabic (Hill, 1993). This effort continued under Harun al-Rashid (786-809) and reached its zenith during the reign of al-Ma'mun (813-83). Caliph al-Ma'mun founded a research center in Baghdad, the House of Wisdom (*Bayt al-Hikma*), where a professional staff collected, edited and translated important classical works, such as Euclid and Archimedes' books in mathematics, Heron's in physics,

Ptolemy's in astronomy, and Aristotle's in philosophy. They also translated mathematical and astronomical works from Hindi and Pahlavi. One of the most productive of these translators was the 9th century Nestorian physician Hunain ibn Ishaq, who translated 95 of Galen's works into Syriac and 39 into Arabic (Lindberg, 1978). Hunain ibn Ishaq also wrote a systematic treatise on ophthalmology, a subject to which Islamic physicians had subsequently made major contributions. Ibn al-Haitham's (Alhazen) work on ophthalmology was an important and original contribution to our knowledge of the structure and function of the eye and the retina, and some principles of optics. An important treatise on smallpox and measles was written in the 10th century by al-Razi (Rhazes), and on surgical subjects by Abu-al-Qasim (Albucasis).

The Arabic numerals that replaced the unwieldy Roman numerals were adopted by Muslims from the Hindus, including the important symbol for zero (*sifr* or cipher in Arabic). In the 8th century, the mathematician al-Khwarizmi coined the term "algebra" (*al-jabr*) in the title of his books dealing with analytical and geometrical solutions of quadratic equations. And in the early 10th century, ibn Sina (Avicenna) compiled encyclopedic works on mathematics, physiology, medicine and philosophy. Arabic scholarship spread from Syria and Persia to the rest of the Muslim world. The court of the Umayyad Emirate at Cordoba in Spain was particularly famous for its patronage of secular learning, and by the 10th and 11th century most of the Greek and Hellenistic works in science and philosophy that are available to us today had been available to readers of Arabic. But then, this great flowering of Muslim scholarship came to an abrupt end in the 12th century. Undoubtedly, one of the contributing factors was the economic and political ascendancy of Europe. As wealth shifted from East to West, from the Muslim to the Christian world, the patronage of scholarship by Arab rulers came to an end both in the East and the West. Another factor is that Islam changed from a tolerant faith into an intolerant dogmatic one, much like the Christianity of the early Middle Ages.

The Establishment of Western Universities. The early schools in Western Europe, such as those initiated by Charlemagne, were run by clerics for boys and young men to prepare them for ecclesiastical work (Cosman and Jones, 2008). The Gregorian Reform in the 11th century mandated that all cathedrals and monasteries have attached schools for training the clergy. The subjects were grammar, rhetoric and logic (the trivium), and arithmetic, astronomy, geometry and music (quadrivium). The first degree granting secular school in Western Europe was the University of Bologna, founded late in the 11th century. A specialized subject of the curriculum was jurisprudence. By the middle of the 12th century, medical schools were established in Bologna, Salerno and Padua. The establishment of these medical schools was a response to the acute need to care for the sick and combat the prevalent endemic and epidemic diseases. The situation was particularly serious in the walled cities where people lived in cramped quarters in unsanitary conditions. In the typical medieval town, rain was relied on to carry away the refuse thrown into open ditches, and the water used for consumption was either drawn from streams that received sewage or from polluted wells. Typhoid outbreaks were common and epidemics of bubonic plague, small pox, tuberculosis, trachoma and other infectious diseases periodically ravaged large areas. Medical knowledge during this period was based on some of the Hippocratic texts and Galen's works that survived in monasteries and those that were available in Latin translations of Arabic works. But medical help during

this period was typically coupled with religious practices, such as incantations and prayer, and such superstitious practices as the exorcism of demons.

The University of Paris was founded in 1170 outside the wall of Notre Dame cathedral (Kibre and Sirasai, 1978). It received the “Great Charter of Privileges” from King Philip Augustus in 1200. This provided royal protection for the professors and started the tradition of academic autonomy. Most of the professors had clerical affiliations, but by becoming licensed members of the university corporation they acquired some independence from ecclesiastical control. There were four faculties—a preparatory college of arts, and the professional colleges of theology, law, and medicine. Students came from all over Europe and were divided into “nations” (French, English, German, and others) but the language of instruction was Latin. To support the curriculum, the professors wrote encyclopedic treatises, known as *summae*. Particularly popular were public lectures and disputations by the professors. The universities that formed in Western Europe afterwards, such as Oxford and Cambridge, were structured as self-governing corporations on the model of trade guilds. Paralleling the guild stages of apprenticeship, journeymen and masters, students received degrees as bachelors, masters and doctors.

MEDIEVAL SCHOLARSHIP AND EDUCATION. The rise of the semi-autonomous universities coincided economically with the growing wealth of Western nations and the recovery of the lost heritage in philosophy and science, primarily through the translation of Arabic works into Latin (Lindberg, 1978). Many of the translations from the Arabic into Latin were made in Toledo in Spain, which was re-conquered by Christians in 1085. Among the great 12th century translators were Adelard of Bath, who translated Euclid’s *Elements* and al-Khwarizmi’s trigonometry and astronomical tables; Gerard of Cremona, who translated Aristotle’s *Physics*, Ptolemy’s *Almagest*, and Avicenna’s *Canon [al-Qanun] of Medicine*; and Robert of Chester, who translated al-Khwarizmi’s *Algebra*. An important role was also played in these translations by several generations of the Jewish ibn Tibbon family in France, who translated from Arabic into Hebrew many of the philosophical works of Aristotle, ibn Ishaq, Rhazes and Avicenna, and collaborated with other scholars to translate these works into Latin. Direct translations from the Greek into Latin were carried out in the 12th and 13th centuries; notable among them was William of Moerbeke who translated all of Aristotle’s extant works. There was also an increase in the production of books, such as historical annals, legends, and treatises of Roman and Canon law.

Medieval education was a conservative enterprise, directed toward preservation what was already known through rote learning rather than advancing knowledge by developing new ideas and discovering unknown facts. The core curriculum of the theological faculty consisted of memorizing the Bible and other sacred texts, and the professional faculties used the same authoritative textbooks of law, medicine, mathematics and cosmology for centuries with little or no change. The professors were compulsive collectors of ancient manuscripts and their teaching method consisted mainly of serving as readers and commentators of old texts (Fig. 11-30). There were some divergent schools of thought as well as disputations, but these were concerned mostly by siding with one or another authority and the correct or false interpretation of their writings. Rejecting the authorities and coming up with altogether new ideas was

anathema. In order to receive their degrees, students had to memorize whatever they were assigned to read and were tested in oral examinations about their knowledge and understanding of the texts and, most importantly, in their eloquence in presenting them. There were a few exceptions. Late in the 12th century Peter Abélard came to the University of Paris and received a degree that qualified him as a teacher. He was a critical thinker and became very popular with some students. In his book, *Sic et Non* (Yes and No), he compiled a set of contradictory statements by church authorities on important topics. However, the school authorities did not tolerate his arrogance; he was declared a heretic and had to recant and was severely punished for immoral conduct. Abélard was ahead of his time in using rigorous logical reasoning to question authoritative doctrines.

MEDIEVAL LITERATURE. During the early Middle Ages, few people were literate and most of the writing was done not in the vernacular but in Latin. Kings and nobles used scribes for diplomatic correspondence and to document political transactions, and monks copied ancient texts for liturgical purposes or as exercises in Latin grammar, oratory and composition. The little literature that existed as an art form was the illuminated texts produced in monasteries, dealing with the lives of saints and moral exhortations. Latin remained the language of church, state and education for centuries but beginning about the 12th century, some literary works were composed in French, Spanish, Italian, English, and German vernacular. French poetry took the form of *chansons de geste*, romantic epics, and troubadour lyrics (Cantor, 1993). The *chansons de geste*—*Songs of Roland*, *Raoul de Cambrai*—portrayed the life and activities of the nobility. Epics like the Spanish *The Cid*, was a description of the deeds of a great warrior. The admixture of heroism and violence with piety and courtliness reflect the ethos of the nobility of the high Middle Ages

MEDIEVAL SCHOLASTIC MEETING



Fig. 11-30. A professor and scholars in a lecture hall at the University of Paris. (From Bibliothèque National, Paris)

Medieval Philosophy and Science. In contrast to the Greek philosophers, who used critical reasoning to examine the validity of ancient beliefs and come up with new concepts, the Christian philosophers of the high Middle Ages were apologists who used reasoning only to justify their faith.

AUGUSTINE'S PLATONIC IDEALISM. The philosophical foundation of early Christianity was Platonic Idealism. Plato maintained that Ideas are the originals (archetypes) of material phenomena both ontologically (in terms of how things come into existence) and epistemologically (how we get to know them through perception and reasoning). Modifying that Platonic view, Augustine of Hippo argued that we cannot learn about the *essence* of phenomena by reasoning based on sensory perception (*ratio inferior*) but only through divine enlightenment by the grace of God (*ratio superior*). Augustine argued that reasoning based on sensory perception is useful only to deal with mundane matters. To get to know what lies behind *appearances* requires divine revelation, and that has been granted only to a few. Therefore, to know the Truth, we have to turn to God's revelations to the prophets, as preserved in the Bible, and the testimonials of saints, mystics and the elect who have been able to communicate with the Holy Spirit or God.

ANTECEDENTS OF SCHOLASTICISM. The Platonic underpinnings of Christian theology, as formulated by Augustine, endured virtually uncontested throughout much of the early Middle Ages. The opposing Aristotelian view that ideas and all knowledge are derived from sensory experience through abstraction and logical reasoning was rarely referred to or discussed by medieval scholars. There were a few exceptions. One of them was Ibn Rushd (Averroes), a 12th century Muslim philosopher in Spain, who wrote extensive commentaries on Aristotle's works that had earlier been translated into Arabic. Averroes rejected the biblical creation story and accepted Aristotle's theory of the mechanistic nature of the universe, which once set in motion, runs irrevocably by the laws of physics. Like Aristotle, he also advocated the organic origin of the soul and denied immortality. But because Averroes professed to be a devout Muslim, he argued for a "double truth," the inability of human reason to reconcile what we know through the evidence of our senses and about God's will and design as revealed to the prophet Mohammed. Averroes' philosophy was rejected as false by the increasingly dogmatic Islamic world. However, it had considerable influence on a philosophical movement that was developing at the newly established Christian universities. One scholar in particular, Siger of Brabant of the arts faculty at the University of Paris, openly embraced Averroism and argued that science has to be pursued without any reference to the Bible or dogmatic claims made by theologians. Siger was condemned as a heretic, fled from Paris and was later killed.

THE REALISTS AND NOMINALISTS. By the 12th century, most of Aristotle's works have been translated into Latin, and scholars at the University of Paris were challenged to integrate Aristotle's philosophy with prevailing theological doctrine. An example of that was the controversy that arose between the "realists" and the "nominalists." In modern philosophy, the Aristotelian view that knowledge is derived from sensory experience is called realism, while the Platonic view of the primacy of ideas in the acquisition of knowledge is called idealism. In medieval philosophy, Plato's philosophy was called "realism" because he maintained that ideas were not abstractions but had a real existence in the cosmos. Aristotle's philosophy, in

contrast, was called “nominalism” because he maintained that ideas have no real existence, they are merely names (symbols) applied to concepts formed by human reasoning. A great proponent of “realism” was John Scotus in the 9th century, while Peter Abélard tentatively put forward the “nominalist” position in the early 11th century. The nominalist position was more clearly articulated by Roger Bacon in the 13th century and by William of Ockham early in the 14th century. Following Aristotle, Ockham argued that ideas (universals) do not exist outside the mind of thinking individuals, they are nothing else but names (symbols) assigned to abstract concepts based on sensory experience. Hence, the problem of universals is a subject matter that belongs to epistemology but not to ontology. And following Averroes, Ockham argued for “two truths”: the truth of the empirical world to be learned through sensory experience and logic, and the truth about God known from revelation and contemplation. According to Ockham’s Platonic view, belief in God and the doctrines of Christian theology cannot be subjects of human reasoning.

SCHOLASTIC PHILOSOPHY. Thomas Aquinas opposed the view, subscribed to by Augustine, Ockham and others, that human reason is unable to deal with theological issues. As a Dominican monk teaching at the University of Paris, Aquinas argued that because God is perfect, he must be rational; hence there is merit to use dialectal discourse and logical reasoning to try to understand God’s nature and His design in creating the material world and man. In his magnum opus, *Summa Theologica*, Aquinas set out to reconcile Christian faith with Aristotelian rationalism and science. He argued that logical reason and religious faith complement rather than contradict each other in the pursuit of knowledge and understanding. Reason is the medium of natural revelation, faith of divine revelation. Aquinas, like so many other scholastic philosophers, sought to use logical arguments to prove God’s existence and to deduce his nature and attributes. Considered from an empirical perspective he failed to do that. Empirical logic requires that the premise of a logical argument be based on a fact rather than a belief; but Aquinas took it as self-evident that God exists and assumed that He has certain attributes, such as being rational and good, rather than prove it. However, Aquinas did make contributions to a better understanding of human nature. He argued that man has a lower (material, animal) and a higher (spiritual) nature; that there are two mental faculties, the emotional and the intellectual; and that emotions—awe, love and devotion—are superior to reason in guiding daily human conduct. With regard to morality, he argued for two kinds of virtues: natural virtues like temperance, prudence, fortitude and justice; and religious virtues: faith, piety, hope and charity. Aquinas asserted that the state’s laws must conform to natural laws, which he conceived of as first principles of a divine design. And to assure that conformity, the Church must maintain its supremacy in society. Sacraments, acceptance of dogmas and the performance of rituals, are the mainstay of the social order.

Although a great scholar, Aquinas was not a philosopher in the classical or modern sense of the term, someone who starts out by not having an answer to a question (or have doubts) and use experience and reasoning to find one. He was a theologian who knew all the answers, as spelled out in the Bible, in the writings of the saints, and codified in the dogmas of the Church. He used reason for only one purpose, to bolster what he believed in from the outset. Initially, Aquinas was attacked by the clergy and many academics, who clung to Augustinian philosophy, and the bishop of Paris decreed that Aristotle’s philosophy ought not be taught at

the university. However, in a world becoming more literate and secular, rationalism could not be ignored. Since Aquinas fully supported Church doctrine he was later canonized.

MEDIEVAL SCIENCE. Science was not a discipline taught at medieval universities and, in terms of devices that promoted scientific research, Europe was for a long time far behind China and the Muslim world. Among the great Chinese inventions introduced during the first millennium CE, were the abacus, papermaking, block printing, the magnetic compass, and gunpowder (Needham, 1986). The golden age of Muslim science was between the 8th and the 13th centuries (Glick et al., 2005). Its foundation, as noted earlier, was Hellenistic science that was transmitted to the Arabs by Syrian and Persian scholars with borrowings from Indian mathematics. But Muslim science was mostly of the applied kind, such as studying physiology to heal the sick and engaging in chemical experiments to turn base metals into gold (*al-kimia*) or find the elixir of life (*al-ikser*). There were some rare scholars in medieval Europe who were interested in science but their orientation was theoretical rather than experimental. Robert Grosseteste, a theologian and clergyman in England in the early 13th century, wrote treatises on astronomy, the properties of light, color and sound, the rainbow, and tidal movements. While he praised observation and experimentation as a path to knowledge; there is no evidence that he did any experiments. Roger Bacon, his student, did perform some experiments using glass mirrors and spheres to study the reflection and refraction of light, and inquired into the physiology of vision, much of it based on the works of al-Kindi and ibn al-Haytham (Alhazen). Roger Bacon may also have experimented with using correcting lenses for spectacles. However, there is no evidence that he made any scientific discoveries. But Roger Bacon deserves credit for his explicit advocacy of the scientific method and the importance of mathematical quantification in observations. As he stated: “The strongest arguments prove nothing so long as the conclusions are not verified by experience”; and “Mathematics is the door and key to the sciences.” He was ahead of his time. He had to leave England and was put into prison by his fellow Franciscans in Italy, but was released and died soon thereafter. Pierre de Maricourt, a 13th century French scholar, experimented with magnets and wrote a small treatise, *Epistole de magnete*, on their properties. He demonstrated that like poles of a lodestone repel each other, and unlike poles attract each other. He described the turning towards the north of freely moving compass needles. Since the magnetic property of lodestone was known to the Han dynasty Chinese a millennium earlier, and was used for navigation by the 11th century by the Chinese and Arabs, it is unclear whether Maricourt’s demonstrations were original or not.

11.3.5. The Late Medieval Period: The Renaissance, the Reformation, and the Counter Reformation. The political history of Italy followed a different course than that of Germany and France. While the peninsula was politically united during the Roman period, it became fragmented during the Middle Ages into several kingdoms and city states (Durant, 1953). Much of that is attributable to the rivalry between the German emperors and the popes both of whom sought but failed to gain supremacy over all of Italy. The Germans (Lombards) dominated the north for a long time; much of the central region, with its center in Rome, became a papal dominion; and the Normans ruled much of the south, as they did Sicily after a brief Muslim rule. And as trade developed in cities along the Mediterranean and the Adriatic coasts with good harbors and some of the navigable rivers, several city-states emerged in the north that fought off royal rule and feudal domination (Fig. 11-31).

ITALY DURING THE RENAISSANCE



Fig. 11-31. The kingdoms, papal-states, and city-states of Italy during the Renaissance. (From Wikipedia Commons)

The Italian Renaissance. The Renaissance was born in the Italian city-states that became independent republics. Initially, noble families competed with one another for power, occasionally engaging in pitched battles. As the wealth and influence of entrepreneurs, bankers and the heads of guilds grew, public officials were elected to run the affairs of the states and periodically despots became the states' rulers. Prominent among the Renaissance republics

were Venice and Florence. As we shall argue later, while the ethos of the Italian Renaissance was a new development, it did not put an end to the spirit of the Middle Ages. It was basically a temporary return to the older Classical tradition rather than the beginning of the Modern Age. It was followed by the resurgence of two profoundly religious movements, the Reformation and the Counter Reformation.

THE REPUBLIC OF VENICE. People who sought to escape Lombard rule, settled on islands of the Venetian lagoons by the 7th century. By the 9th century, the Lombard rulers recognized Venice as an independent state, and by the 10th century the city turned into a prosperous industrial and commercial center, with trading posts along the Adriatic and the Mediterranean, the Byzantine Empire, and the Muslim Near East. Venice had numerous industries—shipbuilding, ironworks, glassblowing, leather and textile factories—that were organized into guilds. It also had a large mercantile fleet that carried what was produced to distant ports in Europe and the Near East, and returned with spices, rugs, silks and other luxury goods that they traded, as well as with food, raw materials and other essentials that they needed themselves. The government and treasury of Venice, which taxed all incoming and outgoing goods, was run by an oligarchy of rich bankers and merchants headed by a doge. A civil service took care of essential social services, such as water supply and sanitation, and guilds established work rules and fixed prices. Venice also had a police force that enforced the laws by harsh means, publicly flogging or mutilating those whom the judges found to be guilty of minor offenses or beheading or quartering those who committed major crimes. To guard the city and its hinterland, the government had established a powerful militia, and to manage its mercantile transactions its leading citizens developed a complex banking and insurance system. The poor, including slaves, worked very hard, while the rich built ostentatious palaces and mansions along the canals, adorning them with marble floors, precious furniture, ornate chandeliers, murals painted on the walls, and sculptures adorning their gardens. However, because practical people engaged in business and warfare ran the affairs of Venice, the art works that the rich displayed came from other parts of Italy, particularly from Florence, the birthplace of the Renaissance.

THE REPUBLIC OF FLORENCE. Florence was a prosperous inland city along the Arno, not far behind in wealth relative to Venice but far less militant and far more democratic in its social and political organization (Durant, 1953; Davies, 1996). By the middle of the 14th century, Florence had a population over 90,000 people, a third of whom were employed in about 200 textile factories. By the end of the century, garments produced in Florence went through 30 steps, each performed by different specialists. The Florentines conquered Pisa early in the 15th century to serve as a shipping port. The *fiorin d'oro*, the florin, was the first gold coin minted in Europe and the most widespread Western currency during the 15th century. The government issued gold-redeemable bonds bearing a low interest rate, and Florentine bankers cashed checks, issued letters of credit, developed modern accounting techniques, such as double-entry bookkeeping, and insured cargoes that shipped goods. The Florentine government was based on a semi-democratic system, with 3,200 of its prosperous citizens having voting rights and a few of them selected by lot sat for a fixed period on the municipal council, the *Signoria*. But political and social life was turbulent. Members of two political parties, the Ghibellines allied with the emperors and the Guelfs allied with the papacy fought

each other for supremacy. Added to this political conflict was the feud between some of the wealthiest families fighting each other, and the ever-present class conflict between rich and poor. Florence in this respect differed little from most other Italian cities, where political wars and family feuds were rampant, with everybody carrying a dagger and assassins hired to kill enemies or competitors.

Among the bankers of Florence was the Medici family, whose founders engaged in business as early as the beginning of the 13th century. By the 15th century, Cosimo de Medici's firm had trade representatives in cities all across Europe and in several cities of the Muslim world, distributing precious goods such as spices and sugar, and engaging in financial transactions. Taking the side of the lower classes, Cosimo was elected to head the Florentine government and he spent much of the family's fortune on promoting the arts, collecting and copying ancient texts, and supporting scholars who studied and edited these texts, as well as artists and philosophers. That humanistic tradition was followed by Cosimo's son Piero, and by his grandson, Lorenzo, who founded the Platonic Academy. As scholars flocked to the Medici's court, Florence turned into the capital of art and humanistic scholarship. Rulers in other prosperous cities of Italy, many of them without noble pedigree, began to compete with each other to attract sculptors and painter to adorn their capitals and mansions, thus lend legitimacy to their position. And not to be outdone, nobles, like the Visconti and Sforza, and the popes, like Julius II, also became promoters of Renaissance culture. From Italy, this exuberant movement then spread to other countries where royals and nobles adopted Roman architecture and attracted artists to embellish their palaces and mansions.

RENAISSANCE ART AND LITERATURE. The function of medieval art was a didactic and moralistic one, to acquaint and inspire those entering a church or a chapel with the majesty of God, the suffering of Jesus, the sorrow of Mary, and the selfless dedication of the Apostles, martyrs and saints to Christianity. During the early and high Middle Ages, the rendering of these themes was idealized and stereotypical, with their subjects pasted onto a surface much like letters in a written text, looking alike with similar somber or pious expressions (Figs. 11-7, 11-9, 11-11, 11-13). Giotto, and some other Italian artists of the 14th century, returned to the ancient style of painting more naturalistically as distinctive individuals. The new art form then spread to the rest of Europe, as seen in Lochner's painting of the Last Judgment by the early 15th century (Fig. 11-32).

During the 15th century, artists learned the optical principles of perspective drawing, and mastered the technique of rendering people and objects on a flat two-dimensional surface as solid figures embedded in various three-dimensional spatial surroundings. God came to be depicted as a wise old patriarch sitting on a throne in the sky; Jesus bleeding on the cross in agony; Mary heartbroken and grieving; and the Apostles and saints, with a golden halo floating above their heads, looking reverent and devout. The final development was the acquisition of enough anatomical knowledge to portray humans realistically as unique individuals engaged in different activities and expressing different feelings and emotions. When Renaissance artists were commissioned to decorate churches and chapels, the subjects they depicted came from the Scriptures as did those of the early medieval painters but their rendering was now naturalistic. And when the painters' commission came from princes, nobles and rich

LOCHNER'S LAST JUDGMENT



Fig. 11-32. Stefan Lochner's religious rendering of *The Last Judgment* (1435). The virtuous ascending to Heaven; the sinners tortured in Hell. (Walraff-Richartz Museum, Köln)

merchants, they returned to Greek and Roman classical themes, such as Botticelli's *The Birth of Venus* (Fig. 11-33) and Raphael's *The School of Athens* (Fig. 11-34). And when they painted their patrons' portraits, they did so realistically, as exemplified by Ghirlandio's *An Old Man and his Grandson* (Fig. 11-35). In that sense, the Renaissance painters rebelled against supernaturalism and collectivism and contributed to the development of an ethos of naturalism and individualism.

Naturalism and individualism were also the ideals of the Renaissance scholars, writers and teachers who became known as the humanists (Kraye, 1996). The Renaissance humanists were not scholars of human nature (or psychologists) and Renaissance humanistic education was not directed to make the young become more humane (or moralists). Rather, they were an elitist group of thinkers and educators who advocated a return to the Roman cultural ideal of *humanitas*. In contrast to the prevailing scholastic educational system, which was designed to train students to be faithful Christians and dependable leaders of the established social order, the humanist teachers encouraged students to acquire a broader worldview by reading the poems and dramas, and the philosophical and scientific writings of the ancient Greeks and Romans. The Renaissance scholars collected ancient Greek and Latin texts, edited them and wrote commentaries on them. The Renaissance writers, instead of moralizing, sought to entertain their readers and liberate them from the authority of the Church. Petrarch, in contrast

BOTTICELLI'S BIRTH OF VENUS



Fig. 11-33. Sandro Botticelli's classical rendering of *The Birth of Venus* (1486). (Google Art Project.jpg)

RAPHAEL'S THE SCHOOL OF ATHENS



Fig. 11-34. Raphael's homage to the Greek philosophers, in his *The School of Athens* (1509-1510). (From Wikipedia Commons).

GHIRLANDAIO'S AN OLD MAN AND HIS GRANDSON



Fig. 11-35. Domenico Ghirlandaio's sensitive rendering of an old man with a deformity and his admiring grandson (ca. 1490). (Musée du Louvre)

to Dante who a generation earlier was still concerned with religious metaphysics in his *Divina Comedia*, dealt with the grandeur of nature, the beauty of women, and the complexity of human sentiments. He also condemned the hypocrisy and simony of the Church but that work was not published while he was alive. Boccaccio was more outspoken and rejected scholasticism as a meaningless exercise of pedants rather than wise men. In a series of tales of *The Decameron*, Boccaccio makes fun of the hypocrisy of clerics, monks and nuns, the canonization of saints, the collecting of relics, and of "simpletons" who go to confessionals. While the plague was devastating Italy and the rest of Europe, Boccaccio advocated the pleasures of a good life. Others wrote historical works, such as Vasari's history of Italian artists (Fig. 11-36).

Some humanists, like Pico de la Mirandola, believed in the dignity of man while those less idealistic merely advocated the merits of individual freedom, the right to develop one's own natural abilities and choosing one's own way of life. Much like their rulers, *The Prince* of Machiavelli, the Renaissance man believed in using any means to become rich and famous: as a warrior he was a Condottieri, a mercenary who fought for anyone or any cause if paid

VASARI'S LIFE OF ARTISTS

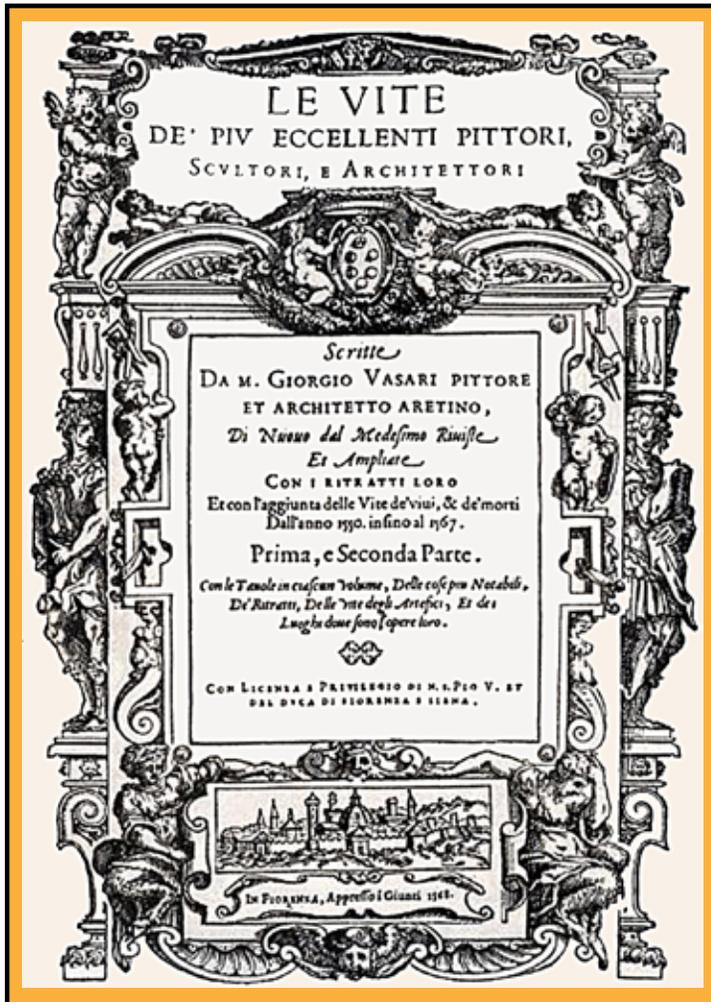


Fig. 11-36. Giorgio Vasari's historic work of the lives of Renaissance painters, sculptors and architects (1567). (From Wikipedia Commons)

adequately; as an artist he moved from one court to the next, willing to serve any patron as long as he was allowed to paint in his own style; and as prelate he was less interested in preaching the gospel and more to commission architects and artists to turn his church or monastery into a showcase and lead a luxurious life. In general, the Renaissance represented little advance in ideational rationalism. It was an epoch aimed at the revival of the naturalism of Greek and Roman painting and sculpture, and the freedom of expression practiced by the classical writers and philosophers. But the Renaissance was not yet an epoch of the Age of Reason. With the exception of the creative but unsystematic work of Leonardo da Vinci and the systematic work of the anatomist, Vesalius, the Renaissance had no research scientists; Galileo, the great scientific pioneer, belonged to a new age.

THE PASSING OF THE RENAISSANCE. The Renaissance was born in Italy in association with the economic prosperity of the city-states that dominated international commerce in the Mediterranean. However, Italian prosperity rapidly declined after the Portuguese explorer Bartolomeu Dias found a southward route to the Far East around the horn of Africa in 1488. During a Spanish-financed exploration to find a westward route to India, Christopher Columbus discovered the New World in 1492. By this time the papacy began to lose revenues coming from much of Europe because the rulers began to resist the demand for financial support of the Roman Church. The papacy also lost its religious leadership in those parts of Europe that became Protestant.

Although Renaissance humanism and art spread to England, France, Germany, Holland, Spain and some other European countries, that influence was neither profound nor enduring. Some of the northern painters, such as Albrecht Dürer, studied in Italy but Renaissance painting

had no imitators in England, and the Chateaux architecture of France was little influenced by Italian models. There was a spurt in the pursuit of secular learning and the cultivation of literature but these were largely indigenous developments. Chaucer visited Italy and was undoubtedly acquainted with the works of Petrarch and Boccaccio. However, the subject matter of his *Canterbury Tales* is based on his own observations of ordinary English people that he met—pilgrims, innkeepers, merchants, lawyers, students—characters who are not individualistic Renaissance people. There were few Renaissance humanists at the universities of Paris, Cambridge and Oxford, and the “humanism” of Rabelais and Montaigne in France, and of Thomas More and Francis Bacon in England was quite different from the classical Italian humanists, being much more rationalistic and forward looking in spirit. The cultivation of the performing arts was a local English development and while Shakespeare wrote plays with Roman themes, he had little classical education and most of his historic plays dealt with the life and times of England’s kings. The human rank and file were little affected by the Italian Renaissance and much more by a religious revival, the Reformation in the northern countries and the Catholic Counter-Reformation in the south, particularly Spain. In contrast to the Italian Renaissance, which was a sensuous and exuberant cultural movement, the Northern Reformation was a puritanical and somber movement.

The Reformation and the Counter Reformation. The Reformation, a widespread European religious movement in northern and central Europe, was driven by many factors (Durant, 1957; Cameron, 2012). The political factors included: the weakening of the Roman papacy’s power brought about by the Avignon exile and the subsequent papal Schism, the increasing independence of European states administered by secular professionals rather than clerics, and the growth of nationalism. The religious factors included: the revulsion of pious people by the worldliness of the popes and the venality of the Roman Curia, the luxurious lifestyle of cardinals, bishops and abbots throughout much of Europe; and the dishonest sale of Indulgences. No less important was the spread of literacy among a growing population, which was coupled with the invention of the printing press. Relatively cheap printed books enabled more and more people to own and read themselves the Bible translated into the vernacular, rather than listen to the selective recitations and interpretations offered by the clerics. In contrast to Italy, where the leaders of the Renaissance did not challenge the Catholic Church but co-opted it in reviving and celebrating Rome’s ancient heritage, many people in Germany, England, France, and other countries followed the leaders of the Reformation who rejected Catholicism and advocated a return to the simpler Christianity of earlier times.

LUTHER AND LUTHERANISM. It was a single individual, Martin Luther, a monk and professor of theology at the small University of Wittenberg, who set the Reformation in motion in Germany. Luther was sent on a mission to Rome, and arriving there was shocked by the luxury and moral degeneracy of the Church. Several years later (in 1517), he posted his ninety-five Theses, written in Latin, on the door of the Wittenberg Castle Church, much of it directed against the Church’s practice of selling Indulgences. The Theses were translated into German and became widely circulated. Luther was excommunicated a few years later by the pope and declared an outlaw by the emperor. While in hiding in Wartburg Castle, Luther translated the New Testament into German. He was welcomed in Wittenberg after his return there. By then Luther became aware of the considerable political support that his movement

was gaining throughout Germany and in his *Letter to the Christian Nobility* he formulated the basic tenets of his reformed Christianity. These included: (i) baptism makes every Christian a priest; (ii) every Christian can interpret the Bible in his own light; (iii) the pope has no right to excommunicate anyone who rejects the Catholic dogma; (iv) the German people ought not pay tribute to a foreign power; and (v) canon law should be discarded. Abandoning his vow of celibacy, Luther married a nun and had children. But as years went by, Luther became increasingly more anti-rational, intolerant and offensive in his public pronouncements. “Reason is the greatest enemy that faith has ... She is the Devil’s greatest whore ... Throw dung in her face ... drown her in baptism” (Durant, 1957, p. 370). “All people who seek and labor to come to God through any other means than only through Christ (as Jews, Turks, Papists, false saints, heretics, etc.) ... must die and be lost in their sins” (Durant, 1957, p. 376). He called the pope the antichrist and a harlot; bishops, ignorant apes; monks, fleas and murderers; princes, fools and knaves. A sensuous man, Luther felt himself to be a sinner, saying “I know Satan very well,” and Heaven and Hell were absolute realities for him. While he initially sided with the exploited poor who fought in the German Peasants’ War—he called himself “a peasant and a son of peasants”—he later encouraged the princes to kill the rebels, calling them “mad dogs, rotten murderous hordes.” Late in his life he wrote a book, *On the Jews and their Lies*, in which he called this minority “the Devil’s people” and “poisonous venomous worms,” and agitated that their synagogues should be set on fire and their houses smashed.

Lutheranism appealed in particular to the rulers of the semi-independent German states because it weakened the power of the emperor, it allowed them to confiscate church property, and relieved them of the obligation to pay tribute to Rome. Lutheranism was quickly adopted in the north—Friesland, Silesia, Schleswig, Holstein, Saxony, Neumark, Pomerania and Hesse, and also in most northern German cities from Bremen to Riga. By the 1530s the Lutheran “heresy” became in many of these provinces the established state religion. But because the southern German states like Bavaria and Austria, and some other regions remained mostly Catholic, there were endless conflicts and wars between the Protestant and Catholic states. The Peace of Augsburg (1555) established the principle, *cuius regio, eius religio*—whose realm, his religion. Personal conscience was rejected; princes acquired the right to legislate the creed of their subjects. The continuing conflict that the Reformation produced led to the Thirty Years’ War (1618-1648) that devastated Germany.

CALVIN AND CALVINISM. Lutheranism became the state religion of Denmark, Norway and Sweden but elsewhere there were other Protestant movements. Beginning in 1518, Zwingli in Switzerland dismissed the Catholic Church as a corrupt institution and rejected many of her doctrines. In 1521, the Anabaptists of Saxony challenged the authority of the Church to baptize children, and Jean Calvin, the most radical of the reformists, published his *The Institutes of Christian Religion* in 1536 and sent it to the king of France, urging him to adopt Protestantism. Calvin formulated a theology and ethical code that differed fundamentally from Luther’s. He maintained that, by divine design, humanity consists of two classes, the Elect and the Damned, the former being predestined to enter Heaven, the latter to burn in Hell. In order to maintain social and moral order, Calvin argued, Christian nations must be turned into theocracies in which the elect few govern the damned masses through strict discipline and supervision. The *Parlement* of Paris publicly burned Calvin’s book. After Calvin moved

to Geneva, he eventually succeeded in establishing a theocracy there, governing the city in accordance with the puritanical principles he advocated through a hereditary aristocracy. Calvin made it obligatory that everybody must attend church services on Sunday; those who came late were fined. An ascetic himself, Calvin forbade cursing and unchaste behavior; such frivolities as singing, dancing, gambling, attending theatrical performances; and such public displays as wearing fancy dresses and jewelry. The daily conduct of all citizens was supervised by a presbytery of pastors and lay elders who regularly visited people's homes to check on what transpired within their households. Frugality, sobriety, diligence, and hard work were praised; hoarding and profiteering were frowned upon. Torture was often used to obtain confession or evidence for heretical or immoral behavior. Those who violated the strict religious and ethical code were publicly castigated, and repeated violators were excommunicated, banished from the city or put to death. The latter included those who were accused of blasphemy and adultery, and the "witches" who were accused of bringing the plague to Geneva.

Calvinism was adopted in parts of Netherlands, and in cities like Amsterdam, Rotterdam and Leyden. In Scotland, under the influence of John Knox, Calvinism became the land's official religion; and its adherents came to be known as Presbyterians. But John Knox shared Luther's irrationalism and fanaticism: "For what impudence is it to prefer corrupt nature and blind reason to God's Scriptures?" (Durant, 1957, p. 614). Knox called the Roman Church a "harlot," Catholics "bloody wolves," and he recommended that "Every heretic was to be put to death, and cities predominantly heretical were to be the smitten with the sword and destroyed and their houses burned down." The Scottish Reformation Parliament, pursuant to Knox's teachings, made the Presbyterian creed compulsory, the celebration of Catholic Mass a crime, and heresy punishable by death.

THE FATE OF REFORMATION IN FRANCE. The kings of France and the Sorbonne professors were opposed to Calvinism. The reformists, known as Huguenots, were burnt alive in the 1530s in Paris and slaughtered in the villages (Durant, 1957), and the king made the printing and possession of Protestant literature a major crime by the Edict of Chateaubriand (1551). Nonetheless, in several towns of Provence, and in Caens, Poitiers, and La Rochelle, most people became Huguenots, and there were 2,000 Reformed churches in France by 1561. The Edict of Orléans, issued in the same year, purported to end the Huguenots' persecution but that had little effect. During the French Wars of Religion (1562-1570) thousands of them were killed and their persecution continued for several decades thereafter. Several thousand Huguenots were massacred on St. Bartholomew's Day in Paris in 1572, and it is estimated that by the end of the year 25,000 of Huguenots were killed in that city and thousands more in other cities (Fig. 11-37). The Edict of Nantes of 1598 granted religious freedom to the Protestants but the hostilities did not end. In time most Huguenots accepted Catholicism but those that refused to convert either left or were expelled from France and migrated to Switzerland, Holland, Prussia, Britain, South Africa and the Americas.

THE ENGLISH REFORMATION. Demand for reforming the Church was voiced in the mid-14th century by Wycliff, a professor of theology at Oxford University. He denounced the clerics of preaching poverty and abstinence but living luxurious and lecherous lives, and advocated a return to simple Christianity. His preaching had little effect and the abuses of the clergy

THE ST. BARTHOLOMEW'S DAY MASSACRE



Fig. 11-37. Painting by François Dubois (1790) of an eyewitness account of the St. Bartholomew's Day Massacre in Paris. (From Wikipedia Commons)

remained rampant. The break in England with the Roman Church was not brought about by theologians but by the pope's refusal to annul the marriage of Henry VIII to Catherine of Aragon, who failed to provide him with a male heir and thus assure the continuance of the Tudor dynasty. Henry felt powerful enough to separate the Church of England from the papacy, and became its head. As an absolute autocrat, he confiscated the lands of monasteries and of the nobles who opposed him, sent many people to the Tower of London to be beheaded, amongst them his high officials, Thomas Cromwell and Thomas More. However, Henry's theology remained essentially Catholic, as he had little sympathy for the religious reformers. His chancellor, Thomas More wrote books against Protestant theology because he feared the disintegration of the country into so many warring sects but when Thomas More stopped supporting Henry's tyrannical behavior he was charged with treason and was beheaded. The Anglicans, beginning with Thomas Cranmer, the Archbishop of Canterbury, sought to find a "middle way" between Catholicism and Protestantism. While clerical celibacy was abolished, the Church hierarchy (archbishops, bishops, archdeacons, etc.) was retained and the Anglicans continued to celebrate the traditional sacraments, including the Mass. Instituting the Act of Religious Settlement in 1559, Elizabeth I sought to establish religious tolerance, but that did not remove the continuing conflict between the fundamentalist Puritans and Catholics. The conflict rarely led to outright violence as it did in the religious wars of Germany and France.

The Counter Reformation. The need to reform the Catholic Church became evident to the papacy by the middle of the 16th century. Paul III, the last Renaissance pope and a flagrant nepotist, established a commission to draw up plans to mitigate the clergy's abuses. After

endless negotiations and many delays, the Council of Trent met in 1545 and an agreement was reached in 1563 how to curb the abuses of popes and prelates and establish ecclesiastical discipline. The Counter Reformation was born. The popes ended their nepotism, the Curia curbed its venality, and priests and monks began to take seriously their religious obligations. Ignatius Loyola, a man with military training, played a major role in this new movement.

THE JESUITS. Beginning his career as a soldier and being wounded, Loyola committed himself to become a warrior of Christ and Mary while he was convalescing. Loyola believed that he was a sinner and developed a system of physical and spiritual exercises to remedy that—fasting, scourging himself, conjuring up a picture of suffering in Hell and a vision of ascending with Christ to Heaven. Loyola summarized these in his book, *Spiritual Exercises*, published in 1523. Loyola had visions and claimed to have communicated directly with God, Mary and the saints. As the Spanish Inquisition harassed him, he moved to Paris where many students inspired by his ascetic life and spiritual message joined him. He considered himself as a general and his followers as soldiers. Although not a learned man himself, the order's strength became its emphasis on education as an effective way to propagate Loyola's strict Catholicism across the world. The Society of Jesus was formally established in 1540 by a papal bull, with its headquarters in Rome and its members became known as Jesuits. To qualify, new members had to pass through a probation period (the novitiate) to prove their ability to follow rigorous discipline and the ability to obey their superiors' commands. Those who passed this test would become lay brothers and began a course of study to become teachers, and some of them advanced to become professors. By 1565, the Society had over 3,500 members in 18 provinces or nations, among them missionaries who went to India, Japan, and the Americas. Wherever they settled, the Jesuits established colleges in which, as strict doctrinarians and disciplinarians, students followed a rigid daily regimen of prayers, attendance of theological instructions, and rote memorization of the subjects taught. Loyola believed that every word in the Bible was the absolute truth and the Church is infallible. "We ought always to be ready to believe that what seems to us white is black if the hierarchical Church so defines it" (Durant, 1957, p. 909). The purpose of Jesuit education was indoctrination, original thinking and the free exchange of ideas was discouraged. As Loyola argued: "Give me a boy at the age of seven, and he will be mine forever" (Davies, 1996, p. 496). The Jesuits had an explicitly anti-rationalistic worldview and few of them made any contribution to the emerging sciences. Since the Jesuits believed that the end justified the means, they also engaged in political maneuverings, and succeeded in turning the Protestant tide around by recapturing for Catholicism much of Germany, Bohemia and Hungary, and all of Poland. The Society was suppressed in the 18th century in France, Spain and Portugal by the secular authorities but was restored in the next century. Supported by the Jesuits, the Roman Catholic Church became in time transformed into a militant missionary organization in the service of Western imperialism. The papacy encouraged priests and missionaries to join the Spanish and Portuguese conquerors and colonizers of the Americas, Africa and the Far East so that they could subjugate native populations by converting them to Catholicism. That movement has been described as "cultural imperialism."

11.4. The Medieval Mnemonic Mindset and Ethos: The Promotion of Mental Conformity and Anti-Rationalism

11.4.1. The Mnemonic Foundation of Religious Belief. In the neuropsychological analysis that follows we inquire into the mental and social dynamics that led to the transformation of two affective/impulsive cultures—the militant classical Greek and Roman civilizations, and the less advanced but correspondingly militant Germanic and other tribal societies—into the mnemonic/compulsive civilization of medieval Europe. We characterize the ethos of Western medieval civilization, broadly conceived, as *mnemonic* because it was committed to the faithful preservation of a traditional creed and moral code, and *compulsive* because it was authoritarian and dogmatic and did not tolerate any deviation from or criticism of its mythology and doctrines. However, despite its fundamentally mnemonic/compulsive ethos, which tends to keep a society stable and stagnant, medieval Europe was unstable and changing. We shall inquire why it was that while Christian creed advocated peace on earth, love of neighbor, and human equality, the nations of medieval Europe were perennially fighting one another. Europeans were intolerant and hostile toward anybody unlike themselves, and their social order firmly institutionalized an unjust hierarchical system of human inequality.

We shall argue that many factors contributed to the failure of all the teaching, preaching and indoctrination—the use of mnemonic mechanisms—to realize the ideals of Christianity. First, it was an error by the founders and defenders of Christianity to assume that indoctrinating people how they *ought* to behave will guarantee how they *will* behave. Systematic use of mnemonic mechanisms, such as religious training, can modify *human conduct* but cannot obliterate the innate foundations of *human nature*. Due to inborn affective mechanisms, people will not voluntarily turn the other cheek when slapped or love their enemy because they are exhorted to do so. Second, due to inborn and acquired (genetic and epigenetic) individual differences, people will not become alike through imposition of a universal code of morality. In a society with division of labor and differences in social status, there will necessarily be differences in the mindset of people belonging to different classes with different backgrounds and interests, such as royals, nobles, priests, burghers and peasants. Third, it is a historical fact that even though the Church succeeded in unifying Europe by imposing its creed on most of its inhabitants, it failed to unify Europe culturally and linguistically. Ethnic and linguistic division persisted, contributing to the distrust and hostility among the different nations. Finally, due to their egotism and contrariness, there were always rebellious individuals around who sought to liberate themselves from the yoke of the prevailing authoritarianism and dogmatism.

The Mnemonic Basis of the Religious Mindset and Ethos. We have identified previously the mnemonic mindset as one of the three neuropsychological dispositions that determine how people think, interpret what they perceive, and behave. The limbic-cortical, affective/impulsive mindset induces the individual to be self-centered, adventurous, extroverted, flighty and combative. The frontal-cortical, rational/calculating mindset encourages the individual to be independent, reserved, critical and innovative. The temporal-cortical, mnemonic/compulsive mindset, in contrast, prompts the individual to be dependent, docile, introverted, perseverative and traditional. Mnemonic mechanisms are responsible for the differing personality traits

of people raised in different religions, in different countries, in rich or poor homes, and the education they receive.

THE THEORY OF MNEMONNS. The underlying mechanism of the mnemonic/compulsive mindset is the brain's memory system that stores what the individual learns by personal experiences and is taught by others. The mnemonic system of the newborn is an empty storage site that becomes filled with memory traces (engrams) as the developing individual interacts with his or her physical and social environment. Some of these memories are consolidated without the individual's explicit awareness and are retrieved unconsciously. Examples are the countless routines, habits, customs, manners, and mannerisms that we acquire by imitation or training and display unwittingly, and the implicit beliefs, assumptions, opinions, and prejudices that guide how we think and reason. Other memories are products of our implicit or explicit effort to become knowledgeable about the world we live in by listening to what people tell us, watching how they behave, asking questions, and memorizing what we are taught. Some of these memories become bits of data that we retrieve when specifically needed; others are memory complexes that influence the way we interpret what we see and hear, what we believe or disbelieve, what we consider important or trivial, moral or immoral, sacred or profane. For instance, people who believe that God watches and cares for what happens to them, pray to him when facing a difficult task or when they are in trouble, while those who do not believe in such a God do not pray. And those who believe in a caring God, pray differently depending on the religious belief they assimilated or created. And when a believer violates a taboo of his faith, he will feel guilty and will seek forgiveness of his sin through repentance or some sacrifice. In contrast, when a non-believer violates a moral principle he will feel regret and may become determined to exercise more self-control in the future. One's firm idea of God and relation to God is an example of a memory complex that we call mnemonns.

We have defined mnemonns as memory- and learning-based mental complexes that individuals assimilate as their personal beliefs and convictions by virtue of their rearing in a particular family, social class and culture. Mnemonns are not simple stimulus-response associations but mental complexes with a powerful affective base and an elaborate cognitive superstructure. As a consequence, unlike raw affects, which tend to be short-lived and fickle, the affects bonded to mnemonns become enduring and tenacious; and unlike rational ideas, which tend to be fluid and alterable, concepts bonded to mnemonns tend to be rigid, resisting modification or change. From a social perspective mnemonns, much like affects and reasons, may be positive or negative, prosocial or antisocial. It is due to the operation of mnemonns that well socialized individuals assimilate the distinctive mores and morals of their culture, and become reliable and good citizens. But due to the mnemonns that they assimilate, they also become prejudiced, intolerant and chauvinistic. Poorly socialized individuals, in contrast, fail to acquire the mnemonns of their culture and may become misfits, delinquents or criminals. The conscience and moral character of individuals, unlike their temperament and intelligence, is a product of their mnemonns.

THE MNEMONIC FOUNDATION OF RELIGIOUS FAITH. Much of what children learn about the nature of their world, and much of what adults learn later in life, do not come from personal experience or logical reasoning but from what is transmitted to them by parents, teachers,

and other authority figures. The majority of people who are Catholic, Lutheran or Calvinist Christians; Suni or Shiite Muslims; Teravada or Mahayana Buddhists; and Orthodox or Liberal Jews, are not born with their particular religious beliefs and convictions but acquire them because they have been inculcated to follow that tradition by their parents, peers, and teachers. That is, the acquisition of one's religious creed is mainly based on mnemonic mechanisms. And because religious beliefs are based on simplistic ideas, they appeal greatly to gullible children and uncritical adults. The naïve child inquiring what is lightning, is liable to believe whatever he is told; for instance, that it is a warning by God that he should not tell lies or he might be struck dead, or that it is a discharge between an electrically charged thundercloud and the ground. The latter explanation, the scientific one, is far more difficult to comprehend than the fictitious former one. Uneducated adults, too, have greater difficulty in accepting the scientific account that the earth is round, revolves on its axis, and rotates around the sun than the naive account that the earth is flat and stationary and the sun rotates around it. Cognizant of the credulity and malleability of children, clerics of all religions start the indoctrination of the young as early as possible, and thus the legends, myths and dogmas of their faith become the mnemonics of their flock, the axioms and premises of how they think and reason. And cognizant of the danger of inquisitive adolescents and adults doubting the veracity of traditional beliefs and doctrines, the guardians of the faith have outlawed any criticism of the tenets of their faith as blasphemy and heresy. Like all other religions, the Christian Church has held throughout its history that any criticism of its dogmas is a sinful enterprise, and that it will lead to punishment by God and to eternal suffering in Hell. And to reinforce its mind control, the Church also saw to it that its critics are punished right here on earth by the authorities, ranging from excommunication to being burnt at the stake. By institutional dictate, thinking and reasoning during the Middle Ages were subjected to mnemonic control and most people believed what they were taught.

FROM IMAGINATION TO MYTHOLOGY. The causes of events that transpire in the world around us and within us—the subject matter of modern scientific research—are extremely complex. *Homo sapiens* has puzzled over these existential questions for a long time. Why does the sun rise every morning, move across the sky during the day, and set every evening? Why does the moon have different shapes as it appears on succeeding evenings? How did man come about and how is man related to all the other living creatures? What forces create illness, rain or drought, good fortune or bad? What is the nature of our soul and what happens to it after death? Without scientific knowledge there was no way that primitive man could have come up with realistic answers to these enigmas. Hence inquisitive people who lived in a prescientific age had to confabulate, and they came up with answers based on their vivid imagination.

Imagination is an imagery-based thought process that goes beyond reproducing what one has actually seen or heard in the past by creating fancied narratives that satisfies some need, desire or want. We are familiar with it in daydreaming. Much of the time imagination is an idle activity that provides us with pleasurable entertainment and vicarious wish fulfillment. However, imagination may become a serious mental activity when it is used for some existential end, such as interpreting or explaining a puzzling or bewildering phenomenon. Some individuals are far more imaginative than others, and as entertainers or prophets they create and pass on narratives to their listeners that range from fairytales, legends and sagas to

explanations of what causes rain and storm, pestilence and drought, health or illness, birth and death. When these fictitious narratives are passed on from generation to generation around the campfire and under the awe-inspiring starry sky, they turn into the mythology of a culture. In primitive cultures these myths turned the sun, the moon, and the stars into great gods. The fancied ghosts and spirits of their ancestors became benevolent deities and malevolent demons. And in order to propitiate and gain some control over these supernatural beings, the myths lead to the adoption of such individual or collective practices as magic acts, sacrifices, and rituals. Thus, religion was born with all its beneficial and harmful consequences.

RELIGIOUS AUTHORITY. The fancies, delusions and beliefs of imaginative individuals, as aspects of their mindset, turn into the collective property of a culture if they are accepted by a sufficiently large number of people and are transmitted by them across generations. Charismatic authority figures, those who are judged to be knowledgeable and powerful, play a particular role in this cultural transmission. In primitive societies these were typically tribal elders or medicine men. In more advanced hierarchical civilizations there are a host of authorities, and religious authorities are distinguished by a particular feature. In the military, for instance, the authority of a commander is based on his soldiers' expectation that he will reward them with the benefits of victory. The commander who fails in that soon loses his authority and is liable to be deserted by his soldiers. Similarly, in the political realm, supporters follow a leader because of his promise of improving their living conditions. If he fails in that, his followers are liable to abandon him. Religious authority is different because priests do not offer earthly benefits to their parishioners but otherworldly rewards; hence their promises are not subject to a reality test. For instance, Christian priests preach that an invisible but omnipresent God watches or records what everybody is doing all the time, and the Judgment Day is coming when, depending whether they were pious or impious, they will either ascend to Heaven or burn in Hell. Since no devout person who was promised heavenly bliss by his priest has ever come back from Heaven to testify that he received the reward, and no sinner has been given leave from Hell to testify that he has been severely punished, there is no way to confirm or disprove the promise. Religious authority is based on a mnemonic process, the inculcated faith of the believer.

11.4.2. The Ubiquity of Religious Faith and the Appeal of Christianity. Since a high proportion of the world's population accepts the tenets of the particular religion in which they are reared, it is evident that religion constitutes an important role in people's lives. Why are so many people faithful believers? Among the factors that contribute to the ubiquity of religious belief we may consider the following: (i) our inborn affective dependency, the need for outside support to face life's vicissitudes; (ii) our cognitive need to have answers to existential questions such as the origin, nature and meaning of life; (iii) the profound influence that early indoctrination exerts on the ideas and ideals we acquire; (iv) the promotion of religion by parents and other authorities because it induces docility and conformity, and thus contributes to the maintenance of social order; and (v) the sense of security and comfort that the individual derives from being a member of a close-knit supportive community.

AFFECTIVE ELEMENTS OF RELIGIOUS FAITH. Humans are born as dependent (altricial) beings who cannot survive without parental care. Infants cling to their mother who feeds and protects

them, and growing children, who become more independent, turn to their caretakers for reassurance and assistance when anxious or in trouble. As they become still more independent as adolescents and adults, anxiety recurs when confronted with difficulties, when unsure about a desired outcome, when struck by illness or some other misfortune, alternating between despair and hope. The hope that things will soon improve ameliorates anxiety and despair, and religions have played a major role in augmenting hope. The person who believes that he can get assistance from a guardian angel, a saint, or God can face difficulties with less trepidation than the person without such faith.

As we have described earlier (Section 5.1.5), the behavior of all higher animals is modified by affective reinforcement mechanisms of memory and learning—rewards and punishments, gratification and frustration. What the founders of religions and functionaries have discovered is that the promise of fictitious transcendental rewards and punishments—bliss in Heaven and torture in Hell—are effective ways to exercise control over the minds of anxious and despairing people. The priests of Egypt used this method (see Fig. 10-30) and so did the Apostles. Consider the description of the Last Judgment by the Apostle John:

And I saw a great white throne, and Him that sat on it ... And I saw the dead, small and great, stand before God; and the books were opened: and another book was opened, which is the book of life: and the dead were judged out of those things which were written in the books, according to their works.

(Revelation, 20:11-12)

A person making such a claim today would be considered by those with a scientific education to be hallucinating but in primitive societies credulous people accepted such a visions by a saint as divine revelation.

The promoters of Christianity have used every available means to make people believe in the existence of Heaven and Hell, ranging from vivid sermons to colorful paintings (Fig. 11-32). Religious faith is the product of a complex mental process, the basic emotions of dependency play a major role in that complex. The love and devotion to God, and the fear and awe of God have close developmental relationship with the love and fear directed toward one's parents, particularly the stern and punishing father. It is the fear of eternal punishment and the desire of a blissful after life that sustains the piety of most uneducated people, those who are unable or uninterested in following the minutiae of religious doctrines and dogmas of theologians.

COGNITIVE ELEMENTS OF RELIGIOUS FAITH. Religion also has cognitive elements. Even the most intelligent of social animals, like chimpanzees, lack a religion (chapter 8). We infer that chimpanzees do not have religious thoughts because they do not engage in magic or ritual practices to ensure a healthy and happy life and survival after death. They cannot form abstract ideas and words representing them to reflect upon why they suffer pain, why they get sick, why calamities occur, why their loved ones die, or worry about death and what will happen thereafter. The paleontological evidence suggests that religion emerged in primate evolution during the late Paleolithic when members of the genus *Homo sapiens* engaged in magic acts related to the animals they hunted and buried their dead (chapter 9). And the anthropological evidence indicates that the religious leaders of the Neolithic—shamans and prophets—propagate fear-inducing ideas about hovering spirits, deities and demons. And all religions of the civilized

world assure their followers divine grace provided they become devoted members of their religious community and perform the prescribed rituals and sacrifices.

The medieval Christian Church was able to maintain a powerful hold on their adherents for a number of reasons. First, based on the Bible, Church laws codified in detail how a Christian must behave to become a respected member of his community and remain in the good graces of an omniscient, omnipotent and merciful God. The good Christian must lead a virtuous life, attend church regularly, pray and praise God, repent his sins, and make the prescribed sacrifices, including helping the Church financially. It was relatively easy to be a good Christian because Church doctrine spelled out clearly how to become and remain one. Second, even if prayer and sacrifices failed to deliver immediate rewards, Christian doctrine assured the faithful that they ought not despair because their reward will materialize in the next world, by gaining admission to Heaven. Third, to further assure compliance with Church rules and dogmas, Church doctrine also exploited people's fears about the afterlife by threatening the wayward and sinful to end up burning in Hell. It was reasonable and prudent to be virtuous and pious. Finally, the Church undertook the building of awe-inspiring cathedrals and tranquil retreats and sanctuaries where, accompanied by colorful ceremonies, the community of the faithful was given the flavor of the grandeur and beauty of the City of God. Religion, in that way, offered tangible rewards to the faithful.

THE MNEMONIC CORE OF RELIGIOUS FAITH. Most people lack the education and intellectual vigor and ability to come up with their own answers to the existential puzzle of the meaning and purpose of life. Rather than engage in independent reasoning and reflection, they assimilate the readymade answers that their religion teaches them, conveyed by authority figures, such as parents and priests. Through mnemonic mechanisms, children interiorize the myths, doctrine and dogmas they are taught and those become their personal convictions. Myths conveyed orally and through written texts become as real to the young as facts based on their own observations and logical reasoning, and to add substantive form to their acquired belief, they are surrounded with a plethora of religious symbols and artifacts, such as effigies, shrines, and temples. And once people assimilate these teachings and exhortations, they become the guiding principles of their thought processes and way of life. When presented with criticism of their beliefs, most religious people are unable to banish these consolidated mnemonics and make every effort to defend them through rationalization.

Denied a secular education, what most children learned in the Middle Ages was the religious myths and doctrines that the clerics preached and were passed on from generation to generation within the family and community as the absolute truth. And even the few that did go school did not receive a liberal education but were indoctrinated to accept a set of religious myths, doctrines and dogmas, and were discouraged to think critically for themselves. Most medieval Christians came to believe as the absolute truth, for instance, that Jesus was not a man but the Son of God and an *immortal* God himself, but because of his sacrifice of *dying* on the cross he atoned for the sins of those who were baptized. From a psychological perspective this irrational myth is not different from the irrational myths that people raised in other religions accept as true. For instance, people of Far-Eastern Buddhist communities believe that the man Siddhartha Gautama, after a prolonged period of contemplation, became the enlightened

Buddha, a new being no longer burdened by suffering, and that those who follow his teachings may themselves bring to an end the endless cycle of their soul's rebirths and attain the sublime state of spiritual annihilation, or Nirvana.

In view of the scientific knowledge that educated people now have, one might expect that only ignorant people would accept the biblical creation myth as a factual narrative. People with a secular education are familiar with the geological evidence that the world has existed for billions of years, rather than about six thousand years. They are familiar with the astronomical evidence that the earth is not the center of the universe, as it appears to the naïve observer, but a small planet that rotates around the sun, which itself is part of a galaxy, one of millions of other galaxies. The paleontological evidence is clear that instead of being created in the image of God, we are descended from a long line of vertebrates, and that within the primate order, extant chimpanzees are our close animal relatives. There is developmental-psychological evidence that instead of being born sinners, infants lack the awareness to be considered moral agents. We are neither "damned" nor "blessed" at birth but, as descendants of reptiles, apes and hominids are born with a series of hormonally triggered and neurally controlled prosocial and antisocial proclivities. That we gradually develop into moral beings is the outcome of several factors: first, the dynamic interaction of our inborn prosocial and antisocial inclinations with the education we receive and the training and indoctrination we undergo; second, the effects of our different life experiences and idiosyncratic responses to them; and, third, our individual judgment and willpower to choose one path or another when choices are available. However, in spite of this evidence, many people with a scientific education believe in the myths of their creed. If educated people can assent to the religious beliefs they assimilated as children, the profoundly religious mindset of the people of medieval times without a scientific education should not come as a surprise.

The Mnemonic Foundation of the Christian Mindset and Ethos. Why did the "pagans" of Europe abandon their ancient religions and become Christians? Why was Christianity so appealing that it endured for so long as the shared creed of the great majority of Europeans? And why did so many Christians become so fanatical that, instead of practicing love and seeking peace, they persecuted and killed others, and were willing to die themselves, to defend and propagate their creed? Christianity, of course, has not been unique in this respect. Hinduism in India, Buddhism in the Far East, and Islam in the Near East have been just as enduring and powerful in shaping the minds of their adherents, and turned many of them into fanatics intolerant of those of other faiths. The answer to these questions requires a neuropsychological analysis of the relationship between the mindset of people and the ethos of their culture with the realities of the world and the society in which they are raised and live.

ADOPTION OF THE CHRISTIAN MINDSET. In primitive animistic societies (chapter 9), as in ancient theocratic civilizations (chapter 10), people attributed unusual events to the action of spiritual powers such as gods, demons, and spirits. Rain or drought, storm or flood, solar or lunar eclipse, bountiful or poor harvest, health or disease, success or failure in an enterprise, and the like, were attributed to the meddling by supernatural beings in the normal course of events and the affairs of men. Since prior to our scientific age people were not knowledgeable enough to formulate causal explanations of unusual phenomena, let alone predict them, it made

good sense to perform magical acts, traditional rituals and pray to maintain good relations with the traditional spiritual agents that ruled the world. This mindset was first challenged in the West in ancient Greece where a naturalistic and rationalistic movement arose that advocated the view that much of what transpires in the external world is not due to the whim or will of supernatural powers but the consequence of natural causes, causes that man might come to identify and deal with by using systematic observation, experimentation and logical reasoning. This optimistic rationalistic movement fell in disfavor when the Hellenistic world disintegrated, and despairing people lost faith in man's ability to maintain social order by rational means. When Europe's barbaric chieftains and kings sought to reestablish social order by turning mobile and savage people into settled and hard working peasants, they turned to Christian missionaries for ideological support. Clerics preached docility and submission as part of the moral code. The world, they proclaimed, is ruled by an omnipotent, demanding but merciful God, who rewards those who lead a virtuous life, defined as one marked by humility, the faithful performance of one's duties, and respect for authority. The missionaries and clerics assured the toiling masses that in exchange for their hard work, and their willingness to hand over part what they produce to their secular and religious superiors, they were guaranteed due rewards in the next world. Although many "pagans" resisted the new gospel, the majority of Europeans finally accepted it and Christianity became the accepted creed of the great majority of Europeans.

THE POWER OF THE MNEMONIC MINDSET. The great majority of medieval people accepted the Church's myths and dogmas because that is what their parents and the authorities taught them, and they were rarely exposed to any contradictory views. Once that happened, the tenets of Christian ideology became the core beliefs of the average person, the mnemons that guided their thinking and reasoning. As an example, consider the dogma that God is almighty and merciful. In light of the adversities and catastrophes, anguish and suffering, trials and tribulations that most people endure during their lifetime that dogma is not supported by daily experience. However, once a person has assimilated that assertion as the absolute truth, once it has come become a mnemnon, that belief will not be dislodged by anything he or she experiences that appears to disprove it. Let us consider the incident that occurred on All Saint's Day in 1755 in Lisbon. An earthquake followed by a tsunami destroyed the center of Lisbon, killing tens of thousands of people, including thousands of the worshippers who gathered in the Cathedral to celebrate the holy day (Kendrick, 1957). Some outlying areas, including the infamous red district, were spared. What was the almighty and merciful God doing on this holy day, asked Voltaire, by killing or allowing the killing of the devout that gathered to worship Him? Voltaire concluded that the belief in a God that cares for what people are doing was evidently a delusion. Kant, the more rigorous rational philosopher of the Enlightenment, suggested that what transpired must have been a natural geological phenomenon that occurred by chance on that particular day; God had nothing to do with it. However, the Catholic clergy could accept neither of these conclusions. Unable to abandon their ingrained faith, they argued irrationally that what happened was an Act of God, that the caring and merciful God punished the worshippers because they were deep in their hearts sinners. When rational arguments fail to explain something that is contrary to the mnemons, the ingrained mnemons prevail and the phenomenon is rationalized or declared a "mystery," something beyond human comprehension.

11.4.3. Instrumental Rational Advances and Ideational Regression. We have distinguished earlier in mankind's mental evolution between instrumental mental processes, those concerned with accomplishing practical ends, and ideational mental processes, those concerned with acquiring knowledge of what transpires in the external world (chapters 9 and 10). We argued that, as attested to by the production of improved tools and implements, there has been a steady advance in practical rationalism through the Paleolithic to the Neolithic periods in preliterate cultures, and from the Archaic to the Classical periods in the subsequent literate civilizations. We also argued that instead of a steady advance in ideational rationalism, people adopted three distinctive mindsets in response to prevailing regional conditions and circumstances, and that their culture acquired cognate ethos patterns—the affective/impulsive, the mnemonic/compulsive, and the rational/calculating (see Fig. 9-2). We have characterized the nomadic Paleolithic cultures of savage hunters as affective/impulsive, and the cultures of sedentary Neolithic docile farmers as mnemonic/compulsive. In using the same distinction, we have characterized the ethos of archaic civilizations (societies with a central government, a command economy, and a hierarchic social organization) as a combination of the rational/calculating either with a militant affective/impulsive mentality (such as the Mesopotamian) or with a peaceful mnemonic/compulsive mentality (such as the Egyptian). Similarly, we have characterized the rationally more advanced, adventurous, militant and enterprising civilizations of Greece and Rome as affective/impulsive. Here we argue that while from the perspective of instrumental mentality, the Middle Ages displayed a slow but steady advance in practical rationality, from the perspective of the evolution of ideational mentality it represented a long period of mnemonic/compulsive stagnation and even retrogression. We support this argument with evidence for a slow but steady advance in technology during the Middle Ages. However, there was a suppression of the free exchange of ideas, critical philosophical reasoning, and the advancement of scientific research.

Instrumental Rational Advances During the Middle Ages. The Middle Ages began as semi-nomadic and migrating tribal peoples—Goths, Celts, Baltics, Slavs—settled down and changed into sedentary and productive villagers, transforming the vast forests and grasslands of central and northern Europe into productive lands. In time, as agricultural methods improved, they produced enough food and raw materials for a growing population of artisans, merchants, entrepreneurs, and functionaries in the expanding towns and cities along river ports and sea harbors. As a consequence, methods of industrial production, commercial transactions and management improved. This advance may be considered a rational instrumental one. However, when compared with the high culture of Greece and Rome, there was no advance for nearly a millennium in the intellectual domain, i.e., in ideational rationalism. That failure can be attributed to several factors. First, after the Roman Empire's collapse, Europe came to be dominated by savage and illiterate barbarians who had neither the interest nor the educational background to appreciate the classical intellectual heritage. Second, the promotion of scholarship and rational advancement requires a leisure class of intellectuals, but the impoverished medieval economy could not support that. Third, the people who were literate, the priests and monks, were ideologically opposed to Hellenistic rationalism, the free exchange of ideas and the quest for new knowledge. The religious leaders, as preachers and educators, considered themselves recipients of divine revelation, knowing all the answers to what people needed to know about the world and man's place in it. Secular schools and

academies were closed and replaced with religious schools where students, using rote learning rather than critical thinking, had to memorize the Bible and other sacred texts. Criticizing and expressing doubts about established dogmas were declared anathema. This institutionally supported ideological orientation turned the Middle Ages into an age of anti-rationalism and affected every facet of social and political life with an attitude of profound conservatism.

ECONOMIC ADVANCES. As we have described earlier, there was a slow but steady advance in practical rationalism during the Middle Ages. That started with improvements in farming practices by using better tools and methods, such as heavy iron ploughs drawn by fast horses rather than ards pulled by slow oxen, effective crop rotation, and the stall-feeding of livestock during the cold winter months. To supplement raw human and animal energy, windmills and watermills came to be used not only to grind cereals but also to cut lumber, crush ores, and hammer wrought iron. Gradually, the small-scale subsistence economy was replaced by a larger-scale monetary economy, and the production of food and goods came to be governed by commercial considerations. Artisans forming guilds began to produce higher quality goods for domestic needs and export. As the burghers began to prosper, the towns and cities became gradually transformed into places where people could pursue a life that was more varied, comfortable, and stimulating than living in isolated huts, cottages and castles in the countryside. Towns with timber buildings became transformed into cities with solid stone and brick edifices; dirt roads and sidewalks were gradually paved; small and dark churches were replaced with more spacious and luminous cathedrals; schools and universities were established; and town squares were fitted with fountains and adorned with statues.

From an economic perspective, the primitive culture of barbaric Europe became transformed during the Middle Ages into a productive civilization. From a political perspective, the fighting tribal societies were united into larger nation states with central governments. The economic transformation consisted, first, by transforming the wild European hinterland into a rich agricultural domain through the combined effort of estate owners and hardworking peasants. Second, that agricultural development stimulated, by producing surplus food and raw materials, the growth of cities with skilled artisans, busy merchants and enterprising bankers. Third, there was also a steady advance during this period in education, scholarship and the arts. These developments were slow and uneven in different countries, but the gloomy living conditions of nobles in castles of the early Middle Ages greatly improved in some prosperous cities (Fig. 11-38). However, the Middle Ages represent a failure in the social domain and in many respects a regression in the ideological domain. Notwithstanding all the sermonizing by priests about love, peace and justice, the noble landlords and wealthy burghers exploited the poor. The population at

HANSEATIC ARCHITECTURE



Fig. 11-38. Hanseatic architecture in Gdansk, Poland. (From Wikipedia Commons)

large was hostile toward religious and ethnic minorities. The different nations engaged in incessant wars with each other. From the beginning to the end of the Middle Ages, roughly about one thousand years, kings and princes spent much of their nations' revenue on self-aggrandizement and fighting one another rather than cooperating; popes and prelates lived in luxury and fomented hatred towards individuals and groups that disagreed with their dogmas; lords and barons enslaved, exploited and humiliated those who worked the land; and courts of justice brutally punished all those considered to be heretics or criminals.

The practical reason for the subjugation and exploitation of masses of people was that, in the absence of agricultural machinery available today, clearing the vast forests in the European hinterland, and cultivating the land required the raw muscle power of many laborers. The nobles could not subjugate and exploit masses of people by using physical coercion alone; that was accomplished by an alliance formed between the ruling class and the ecclesiastical authorities who legitimized the social order and helped to change the mindset of the subjected population. Popes and prelates gave legitimacy to the new social order by anointing kings as autocrats ruling by divine right, and the local clergy harangued about the religious obligation of the peons to dedicate their lives to their Christian community, assuring them that, in exchange for their hard work and suffering, God will amply reward them in the next world. The Christian message that the poor and the meek are God's favorites—as Jesus is reported to have said, “Blessed are the poor in spirit, for theirs is the kingdom of heaven” ... “Blessed are the meek, for they will inherit the earth” (Matthew 5:7)—played a major role in turning nomadic and savage warriors with an affective/impulsive mindset into sedentary and docile toilers with an mnemonic/compulsive mindset.

The early Middle Age was far behind the Near East and Far East industrially and commercially; by the high Middle Age some European states were developing into economic powerhouses. Windmills and waterwheels became a new energy source to grind cereals, crush ores, and drain mines. Devices with compound pulleys and gears were invented for more efficient energy transmission. Large boats with elaborate sails were built to move goods and people more effectively through river and sea, and protect the seas from pirates (Fig. 11-39). Well-built and more comfortable residences, mansions and palaces replaced coarsely constructed country houses and castles, and dusty and muddy streets were paved. The prosperous industrial and mercantile cities along the Adriatic and the Mediterranean began to produce goods that could be shipped along several navigable rivers into cities in the heart of Europe. For quality control, the production and distribution of goods were regulated by guilds and there were also improvements in government control of commerce as trained professionals and lawyers began to head the different departments that regulated trade. This was followed by similar trade routes along the North Seas. In summary, Europe became far more productive and prosperous by the high Middle Ages than it was earlier, and that may be considered a momentous practical-rational advance in the cultural history of Europe.

MILITARY ADVANCES. During the early Middle Age, mobile Hun, Magyar, Arab and Berber horsemen, and Viking sailors with swift boats, easily defeated the defenders of rural settlements. In response to that challenge, warlords with knights developed more effective fighting units and were able to rout the marauders. By the 10th century, Norman horsemen adopted the use

HANSEATIC FLAGSHIP



Fig. 11-39. The Hanseatic League flagship, *Adler von Lübeck* (1567-1588). (From Wikipedia Commons)

of arched saddles with cantle, pommel and stirrup (developed by the Mongolians and Chinese centuries earlier), which prevented the knight to be unseated in battle while using a lance. Spurs enabled the horseman to control his horse with his feet, replacing the whip and leaving his arm free. The Franks developed the powerful crossbow by the 11th century, and the longbow appeared in England by the 13th century. By that time, knights went into battle protected by chain or plate armor, and the simpler stone thrower used in siege warfare was replaced by the far more effective trebuchets with a counterweight (Singer, 1954; Gimpel, 1992). By the 14th century, warfare was changed as gunpowder (again invented much earlier by the Chinese) was beginning to be used to load muskets and cannons. The corning of gunpowder, allowed its safer transport and faster loading and ignition. This military development had a profound political consequence. Western nations were able to better defend their borders, and those with a large shipping fleet, like Venice and Genoa in south and the Hanseatic cities of the north,

became very prosperous. Although initially Europe trailed behind the Near East and the Far East in economic development, by the High Middle Ages there was a spurt in practical-rational technical innovation and entrepreneurship, and combined with her growing military prowess, Europe became a rich civilization by the Late Middle Age.

BOOK PRINTING AND THE SPREAD OF LITERACY. Another important late-medieval technical development began with the production of cheap paper, replacing expensive parchment. Paper became available to the Arabs after the capture of Samarqand in the early 8th century where the Chinese set up a factory (Stock, 1978). Paper reached Baghdad by the end of that century, and by the 9th century the city had over a hundred booksellers and several public libraries (Durant, 1950). By the 12th century, paper making spread from Muslim Spain to France (Mason, 1962). Paper mills were established in Italy by 13th century and the first record of block printing comes from Ravenna in 1289. The changeover to movable metal type is first recorded in Limoges in 1381. Following further development in Holland, Gutenberg developed the printing press in Mainz by the 1440s (Fig. 11-40). Gutenberg's contribution was the amalgamation of all available techniques and the addition of some important improvements of his own, particularly the adjustable mold to assemble and hold together the type, and the replacement of water-based ink with one having an oil base (Hall, 1967). By the end of the 15th century, printing presses appeared all over Western Europe (Fig. 11-41) with about 8 million books printed (Davis, 1967). That introduced a new epoch in the cultural development of Western civilization as literacy spread from a small elite class to an ever-growing segment of the population.

REPLICA OF GUTTENBERG'S PRINTING PRESS



Fig. 11-40. A reproduction of Guttenberg's wooden printing press. (Featherbed Alley Printship Bermuda.jpg.)

SPREAD OF PRINTING TOWNS IN THE 15th CENTURY

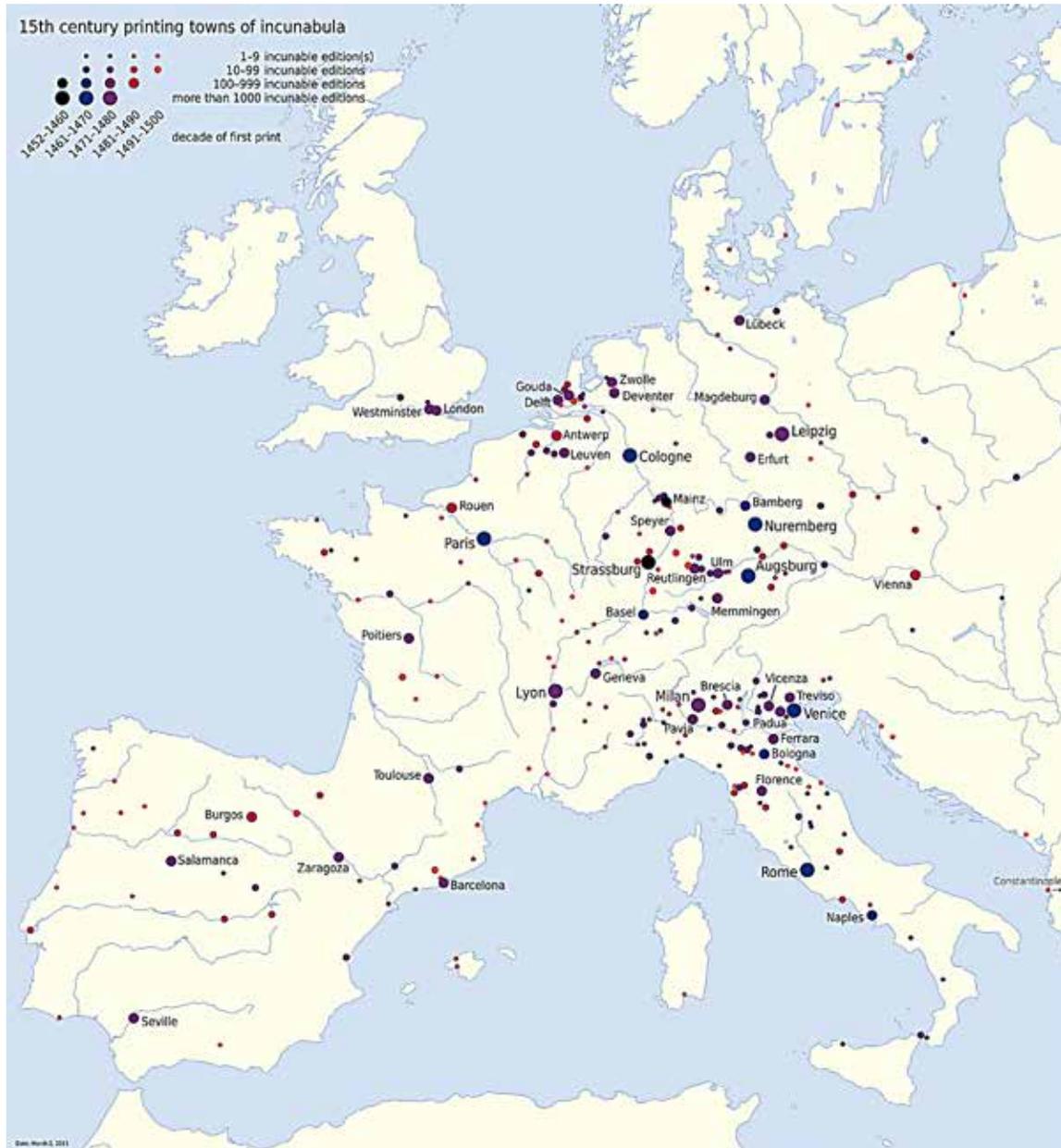


Fig. 11-41. The spread of printing presses throughout Europe during the second half of the 15th century, with the number of early editions (known as incunabula) printed in the different cities. (From Wikipedia Commons)

Ideational Rational Regression During the Middle Ages. A profound transformation took place in the mentality and culture of the Western world at the beginning of the Middle Ages. That change from a brave, adventurous and disorderly Heroic Age toward a tamer, sedentary and more orderly Age of Faith, was greatly aided by the adoption of Christianity by the great majority of Europeans.

The leadership of the Roman Empire, and those of the Germanic tribal societies, was composed of militant individuals who were able to persuade people to follow them into battle by offering them *tangible affective* rewards: the loot and riches to be obtained; the lands to be acquired; and the glory of personal and tribal accomplishments. However, that plundering lifestyle could not be sustained when the promised benefits and rewards no longer materialized, when raids and wars no longer delivered spoils, when battles turned into defeat rather than triumph. When the early Christian evangelists and missionaries began to preach to the poor and despairing that they would be recompensed in heaven if they accepted the new gospel, many despairing people believed them and converted to the new religion. The new elite class that claimed property rights to the occupied lands—kings, princes and magnates—also welcomed the new religion. They did so because they needed people to cultivate their land, and the Christian gospel helped to domesticate restless and unruly tribesmen and turn them into settled, hardworking and obedient farmers or serfs. The secular leaders supported the missionaries and priests because they provided the masses with *promissory mnemonic* rewards, vivid tales of another world where they will be rewarded for their sacrifices. That coalition between the new secular and ecclesiastical leadership had a profound effect on both of them: the pagan warriors turned into Christian knights and soldiers who defended the creed that justified their autocratic rule by divine right; and the saintly preachers turned into supporters of an unjust system and soon used their social position to enrich the Church and themselves.

By the High Middle Age, roughly between the 11th and 15th centuries, most Europeans were born and raised as Christians and, as adults, were expected to become members of a local congregation in good standing. (Only alien minorities, such as Jews, were allowed to practice their own religion in some regions.) Christians were taught that the Bible is God's revelation, and through mnemonic consolidation that message became their moral compulsion, their conscience, that guided the conduct of their daily life. Importantly, the Bible was the source not only of the moral *value* system, but also the source of much of what people learned about the origin and nature of the world and man, presented to them as *facts*. No significant event in the world's or mankind's history, according to the biblical narrative, was due to natural causes. Instead, they were miracles, the outcome of God's satisfaction or dissatisfaction with what people were doing or failed to do. As men sinned, God created a Flood but mercifully instructed the Patriarch Noah how to build a boat to save himself and his family, and Noah was able to accommodate on his boat all the animals that God has created. God parted the Red Sea to allow Moses to free the Hebrews from captivity, and halted the Sun's movement across the sky to give Joshua more time to vanquish his enemies. It was upon this fanciful and unrealistic narrative—which was not supported by any evidence and could not be defended by logical reasoning—that the Church Fathers erected a theological edifice. God is a powerful being and a caring being. It makes sense to submit to His will and turn to Him when in trouble. If we are born sinners and damned to go to Hell, but may gain salvation through baptism, repentance,

participation in holy obligations and following all the Church's dictates, it makes good sense to be a faithful Christian. Indeed, people with a dependent disposition were grateful to the Church and their religious community for the support they received when in trouble. However, people with an autonomous mindset must have resented the Church's intrusion into their private life and interference with their freedom of conscience. Covert dissatisfaction and overt rebellion must have been common and the Church responded to that by suppressing free discourse and empirical inquiry. The Church turned into an authoritarian ideological institution and imparted that anti-rationalist ethos to the High Middle Ages.

The Changing Ethos and Mindset of the Late Middle Ages. People living in small and closed rural communities, particularly illiterate peasants without a basic education, spent much of their time and energy in repetitive hard physical labor. They tended to be more docile and credulous than city residents. Urban people have far more interaction with people of different backgrounds and they have to think and reason to make their occupation or enterprise successful. Cities occupied by artisans, merchants, money exchangers, bankers, and lawyers, emerged first along harbors on the Adriatic and Mediterranean, such as Venice and Genoa, and along navigable rivers, such as Pisa and Florence along the Arno. They were followed by cities of the Hanseatic League and others associated with them, from London on the Thames to Novgorod on the Volga. These cities with prosperous burghers and heads of guilds were able to free themselves from subordination to autocratic kings, feudal nobles and church magnates, and developed regional cultures that differed in many respects from that of the High Middle Ages. In the south, particularly in Italy, this culture gave rise to the historical epoch known as Renaissance, and in the north, particularly in Germany, to the Reformation.

THE MINDSET AND ETHOS OF THE RENAISSANCE. The Renaissance was born in the prosperous city-states of Italy where the ancient Greek and Roman legacy had not completely disappeared. A new class of practical people, merchants and bankers, and a new class cultural leaders, creative artists and scholarly humanists, emerged in significant numbers. The social and political leaders of the Renaissance were rebellious people who were able to free themselves from royal and feudal bondage to form independent city-states. But they lacked the sanctioned authority and stable wealth of kings and nobles who owned large tracts of land, with subjects bound their lands. The wealth of the new elite was based on financial deals that could be lost as quickly as it was gained. Moreover, the followers of these leaders were footloose people who rebelled or vanished when they were no longer rewarded or bribed. Hence, the new rulers had to be far more ruthless and opportunistic—more Machiavellian—than the old aristocracy. Some city-states became republics and experimented with a democratic form of government, but most of them eventually were ruled by an oligarchy of prosperous burghers or, more often, by tyrants. The latter, lacking traditional legitimacy and stable popular support, combined terror and largesse to gain and maintain their rule. Competitors were hounded or killed by hired assassins, and to gain the support of the populace, they spent lavishly in beautifying their cities and supporting artists and scholars.

The Renaissance artists, inspired by the surviving works of classical painters, sculptors and architects, and the humanists inspired by the classical poets, playwrights and philosophers, revived that ancient heritage. The Renaissance artists began to produce works of art in the

Greek and Roman naturalistic style for princes, popes, prelates and rich burghers, and they turned from being anonymous artisans into famous people. Most of them, like Leonardo da Vinci, had no interest in Christian religion; others, like Michelangelo, were religious. But they were always looking for patronage and commissions. They produced artworks for churches and monasteries dealing with religious subjects. Artworks for princes and rich burghers dealt with classical pagan subjects. In time, they produced works of art that far surpassed the ancient models. Renaissance painters mastered the skill to represent their subjects realistically as individuals with idiosyncratic traits and appropriate emotional expressions, rather than as idealized figures. And instead of pasting their subjects on a flat surface, the Renaissance artists rendered them against a realistic three-dimensional background that looked like the real world. That naturalistic representation was associated with the growing appreciation of human beings as unique individuals rather than stereotypes, saints with a halo around their head and devils with horns. The artists themselves were individualists not only in the sense of acting as free agents but also by resisting the ecclesiastical pressure dictating how they should paint. But, as a group (Leonardo was an exception) they were not intellectuals, as the term is used today. They did not question the veracity of the myths they portrayed. Nor were they moralists (perhaps Michelangelo was an exception) with a mission to strengthen people's faith. They were professional artists, aesthetes, who, following the Greek tradition, insisted on portraying their subjects as realistically and truthfully as they could.

The same applies to the mindset of the Renaissance humanists, who were not original thinkers but professional scholars motivated to revive the classical tradition. Selected works by Roman writers, copied by monks in their scriptoria were known throughout the Middle Ages, and priests and educated people read them mainly to improve their Latin and as rhetorical exercises. The humanists set about to uncover other works, often just fragments, that were buried in the libraries of Western and Byzantine monasteries, and had other works translated from the Arabic that were preserved by Muslim scholars. They followed that by collating and editing whatever classical work they could find, and succeeded in restoring much of what we currently know about the literary, philosophical and scientific accomplishments of the ancient Greeks and Romans. The secular scholars at princely courts and those at some of the newly founded European universities came to appreciate not only the letter but also the spirit of the ancient writers.

That effort of the humanists had an enduring educational consequence. In contrast to the Scholastic pedagogical system that *drilled* students to become competent professionals—priests, lawyers, doctors, and state officials—the humanistic educational system sought to turn their students into *educated* persons with a more naturalistic view of the world. Like the Renaissance artists, the Renaissance humanists became agents of the aesthetic education of the young. However, the humanists did not produce an intellectual revolution. They still advocated education through memorization and rote learning, and did little to advance the rationalist ideal of encouraging people to use their critical faculties and think for themselves. The humanists rejected the Scholastics preoccupation with trying to reconcile Christian faith with Aristotle's logic in favor of Plato's idealistic philosophy, but they did not create a new philosophy and they did little to promote scientific research. And few of them were "humanists" in the modern sense of the term, advocating a more humane treatment of the subject population. Pico de

la Mirandola's *Oration on the Dignity of Man* was an exceptional message; most rulers of the Renaissance practiced all along what Machiavelli advocated in his political treatise, *The Prince*:

Whoever wishes to found a state and give it laws, must start assuming that all men are bad and ever ready to display their vicious nature whenever they find occasion for it ... Men can be made good only by force and habit ... the organization of force through army and police and the formation of habits through rules and laws ... [and] religious observances ...

(Quoted from Durant, 1953, pp. 556-557).

Much like the emperors of ancient Rome, the Renaissance princes were autocrats who used bribery and coercive methods to control a restless populace. Considered from a psychological perspective, both the Renaissance social order and its culture sought to revert to the affective/impulsive ethos of the Classical Age.

THE MINDSET AND ETHOS OF THE REFORMATION. The Renaissance did not endure for long in Italy and had relatively little influence on cultural developments outside the Italian city-states. Some European kings did welcome Renaissance artists and they exerted some influence on German, Dutch and Flemish painting. However, the parallel economic development and growing urbanization in central and northern Europe produced a different ethos than it did in Italy. Most of the prosperous cities and towns remained under the rule of traditional royal dynasties and the population at large remained devout Christians. What people objected to were the greed, corruption, and obfuscation practiced by the clerics of the Roman Church and, therefore, many of them immediately lined up behind the leaders of the Reformation—Luther, Calvin, Zwingli, John Knox, and others of lesser fame.

The Protestant opposition to the Roman Church had practical as well as ideational aspects. From the practical perspective, ordinary people rebelled against the Church's endless demand for financial support. The rulers resented the currency flow from their nations to Rome, much of which went to finance the luxurious life style of the pope, cardinals and bishops. The kings of established dynasties, relying more and more on bureaucrats rather than clerics, became powerful and welcomed the opportunity to become independent on the Roman Church that kept meddling in their affairs; they also welcomed the opportunity to confiscate Church property and lands. From an ideational perspective, the Reformation was a liberation movement against Catholic dogmatism and obfuscation. Having become better educated and able to read the Bible in the vernacular—which became easily available and cheap in printed form—religious people felt that they could free themselves from the tutelage of the priests and use their own conscience to guide their daily lives.

The leaders of the Reformation were not rationalists or humanists but religious traditionalists who advocated a return to the spirit of early Christianity. Protestants of some denominations, rejected Catholic idolatry and relic worship; such magic practices as the Eucharist, incantations and the sprinkling of holy water; saint's days, processions and pilgrimages; and the presumed ability of clerics to absolve sin and perform miracles. They simplified church services and tended to become more puritanical than the Catholics. However, the Bible remained the holy scripture of Protestants, the fount of an absolute moral code and the source of all true knowledge. Hence, they had no more interest in scientific research or critical thinking than did the Catholics. Learning about Copernicus' theory that the earth and planets rotate around

the sun, Luther commented: “This fool wishes to reverse the entire scheme of astronomy; but sacred Scripture tells us that Joshua commanded the sun to stand still, not the earth.” And Calvin stated likewise, “Who will venture to place the authority of Copernicus above that of the Holy Spirit?” (Durant, 1957, p. 858). And as a reflection of their mnemonic mindset, most of them remained just as doctrinaire and intolerant of those of other faiths as were the Catholics. Indeed, some of them, like Luther, were fanatics who called their Catholic opponents devils and whores, and advocated war against them.

THE MINDSET AND ETHOS OF THE COUNTER REFORMATION. The ethos of the Renaissance had considerable influence on the conduct of popes, cardinals and bishops who spent the great wealth of the Church on beautifying their churches and chapels, and living in great luxury in their palatial residences. The widespread outcry against that trend, and in response to the spread of Protestantism, a reform movement arose within the Church. In line with its rigid conservatism, the Council of Trent in the 16th century rejected any change in Church dogma and sacramental practices but recommended the tightening of clerical discipline and the need of prelates to return to a less materialistic and hedonistic lifestyle. A Holy Office, staffed by leading cardinals, was established, charged with supervision of Church organization and activities. This movement came to be known as the Counter Reformation. At the forefront of this movement was the Order of Jesus founded by Ignatius Loyola. The Jesuits, as they became known, lived under strict discipline and were committed to educating priests and layman alike to become devout Catholics and defenders of the faith. They rejected any criticism of church doctrine and the individualistic ideal of freedom of conscience, and advocated the collective obligation of all Catholics to obey papal dictates. To insure strict adherence to Catholicism, an Index of Prohibited Books was issued that proscribed the reading of Protestant books, and censored any work that was critical of the Church or was considered heretical. All books had to be submitted to ecclesiastical censorship for permission (*imprimatur*) to be printed (Fig. 11-42). Books by contemporary Catholic writers, such as Erasmus, Rabelais and Montaigne were put on the Index, as were later the creative works of modern scientists (Galileo, Kepler, Newton), philosophers (Bacon, Descartes, Spinoza, Locke, Hume, Kant), and political writers (Montesquieu, Voltaire, Diderot). And to fight heretics, the authority of the Inquisition was expanded to



Fig. 11-42. Cover page of the 1564 edition of the Index of Prohibited Books.

prosecute them. Galileo was put under house arrest, and Bruno was burned at the stake. The Church was committed to suppress the free exchange of ideas and the right of the individual to guide his conduct by his own conscience.

The conflict between Catholics and Protestants was fierce and led to the harassment and persecution of people in the countryside, towns and cities throughout Europe, and to wars between principalities and nations. There were incidents of religious persecution and civil war in France, Germany, Britain, the Netherlands, Scandinavia, Bohemia and elsewhere. The Thirty Years' War (1618-1648) killed 33-66% of Germany's population (Fig. 11-43). That war was based on rivalry between the great royal dynasties and princely houses. The population ruled by one or another king or prince was coerced to adopt the religion of the ruler. When the religious war ended, Catholicism remained the dominant religion in Ireland, Italy, Spain, France, Bavaria, Austria, Hungary and Poland. Protestantism dominated in England and Scotland, much of Scandinavia, most of the Baltic countries, and northern Germany.

DECIMATION OF THE GERMAN POPULATION DURING THE RELIGIOUS WAR

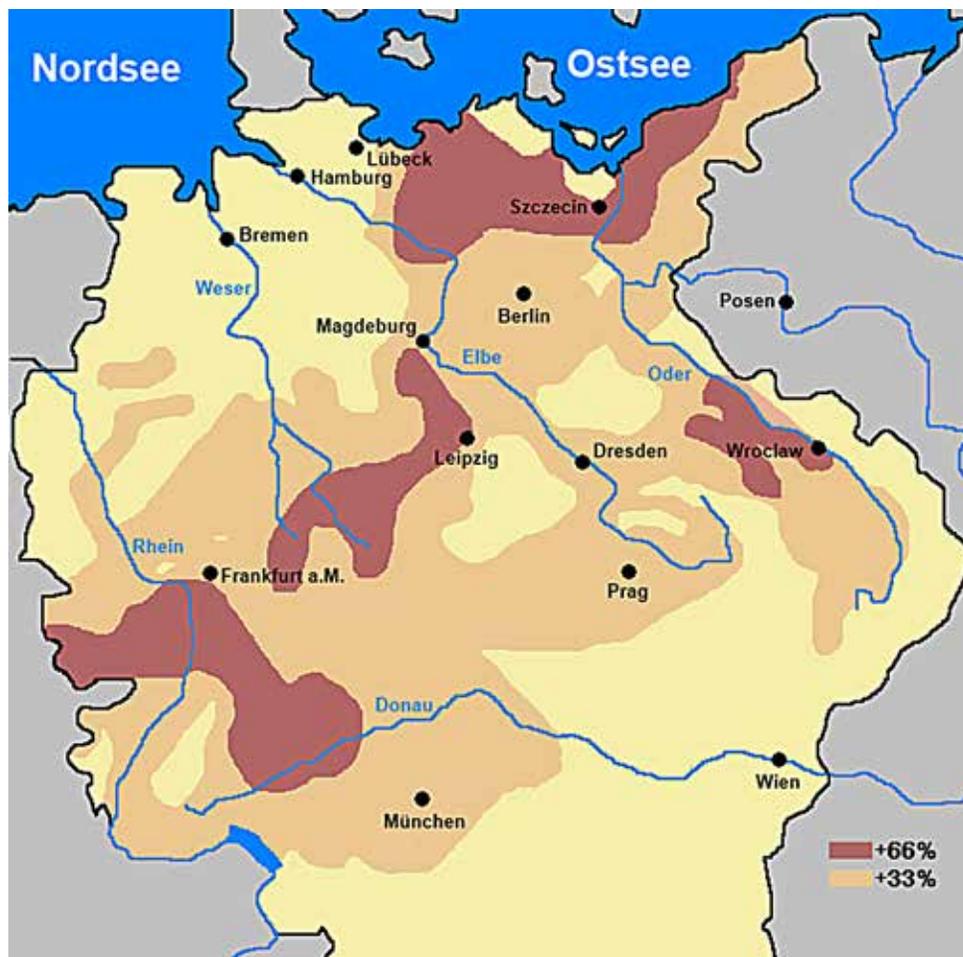


Fig. 11-43. Reduction of Germany's population by the end of the Thirty Years' War. (From Wikipedia Commons)

In summary, both the Renaissance and the Reformation challenged the Catholic ethos of authoritarian dogmatism but neither of them attacked Christianity. What the two movements achieved was a modification of the Christian creed: a return to the simpler religiosity of earlier times in the Protestant North, and a change to a more disciplined religiosity in the Catholic South. But the Renaissance rulers, clerics, burghers and humanists, and the leaders of the Reformation were not ideational rationalists, and they contributed little to experimental science and empirical philosophy that started the development of our Modern Age.

11.4.4. Mindset and Ethos of the Different Social Classes. Notwithstanding the Christian ideal of human equality and peace on earth, the Western nations during the Middle Ages were neither egalitarian nor pacific. At first approximation, this may be attributed to two factors. First, medieval Western societies developed a strictly hierarchical political organization with profound differences in the mindset and ethos of the ruling class of royals, nobles and prelates, and the subservient class of serfs, peasants and artisans. Second, notwithstanding the efforts of the papacy and of several royal dynasties to turn Europe into a single Empire under God, Christendom, competition among kings and princes and the rising nationalism turned Europe into a patchwork of particular nations, principalities and city-states that repeatedly fought one another for gain and glory. Preaching brotherhood, as the medieval experience testifies, may have modified human behavior but failed to change human nature. Although the dominant medieval ethos was an mnemonic/compulsive one—sedentary, docile, traditional and communal—that ethos failed to create a fair system of justice through an equitable distribution of wealth and abolishing wars between nations.

The Inegalitarian Medieval Mindset and Ethos. Although the majority of Europeans professed to be faithful Christians, there were considerable differences in the mindset of members of the social hierarchy in terms of their personal and collective needs and wants, beliefs and prejudices, the way they thought, and how they conducted themselves. Kings, and those with hereditary claims to royal succession and autocratic rule, developed a different mindset than the magnates—dukes, counts and barons—who were lords in their own domains but subservient to the monarchs. Prelates—cardinals, bishops and abbots—as spiritual heads of their diocese or monastery developed a different mindset than the secular rulers. And commoners—serfs, peasants and laborers—who were subservient to all and had limited legal rights, developed a different mindset than the rich nobles and prelates whom they served. And when the new class of wealthy burghers emerged, they acquired a mindset different from all the others. It was inevitable that conflicts developed among these different classes and the coalitions that they formed to promote their vested interests.

THE MINDSET OF KINGS AND ROYALTY. A monarch headed each sovereign nation in medieval Europe, a legally-empowered autocrat. Importantly, he was also sanctified in that position by a symbolic act performed by a representative of the Church, occasionally the pope, such as anointment or crowning. Religious sanctioning obliged the king to be just, fair and pursue peace, an obligation derived from a Judeo-Christian myth. However, the anointed kings of Europe, with rare exceptions, did not conform to this ideal and that led to endless conflict between the popes and kings, Church and State. The medieval Christian kings much like the typical autocrats of pagan times were preoccupied with enriching themselves and their families

by living in ostentatious luxury. Instead of looking out for the interests of their subjects, they taxed the poor and fought endless wars to perpetuate their dynasty. Although governing their nation by “divine right,” saintliness was not their job description. Because succession to the throne was often disputed, the borders of their nation were under constant threat, and rebellion was always in the background, they had to be ruthless rulers, fearless warriors, and shrewd politicians. The able medieval king used all means available to him to control his subjects and eliminate those threatening his rule. If powerful and rich enough, he was above the law, both secular and canonical. And even though they did not consider themselves to be descendants of gods, members of royal dynasties (Carolingians, Hohenstaufens, Angevins, Bourbons, Hohenzollerns, Habsburgs, etc.) considered themselves to be the only legitimate candidates for European kingship, irrespective whether they were nationals of the counties they came to rule.

However, few kings in the history of medieval civilization were outstanding rulers because they were not chosen for their proven abilities or accomplishments but by hereditary rights. And it was rare that the legal successor of a monarch, ideally a son, had the personal qualifications to fill that difficult position. Contrary to the myth, the ritual of anointment or coronation did not alter the genetic endowment of the individual. Moreover, in order to maintain their legitimacy to rule in the absence of merit or talent, most monarchs wasted their country’s resources on ostentatious displays of grandeur and opulence, and on unnecessary wars that sometimes led to victory and at other times to defeat. As a consequence, while the mindset of some talented monarchs did temporarily influence the ethos of their nation, they rarely produced an enduring cultural trend because successive rulers usually differed from one another in temperament, character and abilities to maintain continuity.

THE MINDSET OF NOBLES AND THE ARISTOCRATIC MEDIEVAL ETHOS. It was not the fiction of their genetic superiority that assured the feudal nobles’ dominant political and social role in medieval civilization but their education, wealth and military training. The ideal nobleman was literate, was a devout Christian, and someone respected for his superior personal qualities. He was also the owner and able manager of his large estate, which involved not only knowledge of good agricultural practices but also the ability to maintain good working relations with the tenants and serfs who performed all the necessary labor. Finally, he was also a skilled warrior, with training in the arts of horsemanship and military leadership. From a mindset perspective these qualifications were based on different mental dispositions and talents. To be a good Christian required love of human beings, humility and compassion, respect for the poor, the weak, and the sick. Estate management is a demanding job that requires organizational ability and the tenacity to supervise the performance of monotonous daily routines meticulously and tirelessly. And to be an effective warrior requires the readiness to move from place to place as circumstances demanded, the facility to adapt to highly variable conditions, and the ability to exert excessive physical energy when needed.

Because the mindset required of a sedentary estate manager and of a mobile warrior are intrinsically antithetical, it is likely that a young nobleman was by natural disposition better suited to be either a good landlord or a good warrior. Moreover, the two occupations were incompatible: as a dedicated warrior, ready to fight any time and any place, the nobleman could not take good care of his estate; and as a dedicated estate manager he could not afford to leave

his land for any length of time. The nobleman who had several sons, legitimate or illegitimate, may have trained a docile son to become an effective domain manager; a more aggressive one to become a skilled warrior; and a weaker or bookish one to become a bishop or abbot. It was the skilled and brave warrior that became the pride of a noble family and the hero of medieval society. Horsemanship, martial skills, and the courage to face the enemy became a matter of aristocratic honor, with the lord and his knights donning heavy armor, and dressing in colorful uniforms, marching proudly through the streets and country roads, accompanied by the music of drummers and trumpeters.

It was very common that the wealthy noble hired talented commoners—a majordomo, stewards and reeves—to run his estate. Thus many nobles had plenty of leisure time, and they used that to develop three distinctive aristocratic traits: reluctance to engage in economically useful activities; pride in military accomplishments; and practicing a behavioral trait known as chivalry. First, aristocrats came to consider not only physical labor beneath their dignity but also any direct involvement in pecuniary activities, buying and selling, because that was the demeaning task of commoners. Instead, they spent much of their time and energy in such activities as hunting, participating or attending tournaments, or wasting precious resources on lavish entertainment of their peers. Second, having the means and the leisure time, a nobleman could easily be persuaded to help out a family member, an ally or his king, to join them in an offensive or defensive expedition, or go on a crusade initiated by a bishop or the pope. Third, many nobles adopted the moral code of chivalry, a trait reflecting Christian ideals. The rowdy and uncouth warrior of the Dark Age changed into a disciplined and honorable person not only by behaving courteously towards all by displaying gallantry towards ladies, but also aiding the disadvantaged, the sick, and the poor. This aristocratic ethos added to the respect the nobles received from the populace, and contributed to their social dominance in spite of the social injustice they perpetuated.

THE MINDSET AND ETHOS OF POPES AND THE CATHOLIC CHURCH. The early Christian missionaries and priests were preachers and spiritual counselors rather than administrators and politicians dealing with secular affairs. However, after Christianity became the Roman Empire's state religion, and the subsequent disintegration of Rome's imperial government, the bishops of devastated cities began to assume a role in the maintenance of social order. The bishops of Rome, in particular, were challenged to maintain civil order in their devastated city and, as popes, they filled the power vacuum and became the *de facto* rulers of the city of Rome and its surroundings. Fought over and ineffectually controlled by Visigoths, Lombards, and Byzantine emperors residing in Constantinople, the popes assumed two responsibilities, serving as spiritual leaders of the Church and as civic authorities. This had an enduring historic consequence because as administrators of the Papal State, the popes came into conflict with ambitious local magnates and the kings of Europe, and that led to a prolonged adversarial relationship between Church and State.

A consideration of the fundamental difference in Church and State relations between the western (Catholic) and eastern (Byzantine) Christendom attests to the importance of this development. Following Constantine's translocation of the seat of the Roman Empire from Rome to Byzantium—the Eastern Roman Empire, a Greek civilization—the Latin civilization

of the Western Roman Empire disintegrated. In contrast to what transpired in the West, the Byzantine emperors were able to defend their realm for over a thousand years, until the Ottoman Turks occupied Constantinople (Istanbul) in the 16th century (Vasiliev, 1952). And even though the border of the Byzantine Empire was in constant flux, the emperors were able to maintain social order much of the time. Prominent among the Byzantine emperors was Justinian, who reigned from 527 until 565. As an absolute autocrat, Justinian replaced the Senate with a bureaucracy under his strict jurisdiction, and turned the Orthodox Church into a department of the state. Justinian served not only as a secular ruler but, as God's representative on earth, he was the religious head of the state. He concerned himself with religious matters and his crowning achievement was the erection of Hagia Sophia, the largest church in Christendom for a thousand years.

Justinian delegated the performance of religious ceremonies to a patriarch, who was his appointee without any political power, even lacking the authority to appoint a bishop or abbot. Although some patriarchs stood up against weaker emperors, that resistance did not endure. The Byzantine system has been referred to as Caesaropapism (Geanakoplos, 1965). The consequence of this system was that the patriarchs, far less involved in political machinations, were better able to maintain the purity of the Christian gospel than did the popes who were endlessly competing with secular authorities. The patriarch John Chrisostom (4th century) preached against the accumulation of wealth and luxury, and John the Almsgiver (11th century) gave away the church's wealth of his see to feed the poor. In contrast, the Western popes sought to exercise control over the kings and the kings sought to meddle in papal affairs, both sides using whatever means were available to them at any given time. The kings usually used their military power, and the popes, without an army, used their ecclesiastical power to threaten kings with excommunication. At times the popes succeeded in selecting or deposing a king and, conversely, many a king succeeded in selecting or deposing a pope. Charlemagne helped Leo III by defeating the Lombards, and the grateful pope crowned him the Holy Roman Emperor on Christmas day in 800. Charlemagne did not use that title, because that implied the right of the pope to elect an emperor. About two centuries later, Pope Gregory VII excommunicated Henry IV, German king and Holy Roman Emperor, and forced him come to Canossa to beg for forgiveness. Some time after his humiliation, Henry succeeded in deposing the pope. Early in the 14th century, Boniface VIII excommunicated king Philip IV of France; Philip captured Boniface and he died soon thereafter. An important element in this contest between pope and king was the issue of investiture. Kings, as sovereigns, insisted on the right to select bishops within their realm, often appointing members of their family or allied nobles; the popes in turn, as heads of Christendom, insisted on their right to select the bishops. By the 12th century, the power of kings to interfere with papal elections was temporarily abolished, and laymen were excluded from the choice of bishops. But that did not end the contest.

To sustain its power and influence, the papacy turned into a political organization with a court and a large bureaucracy. To support that change, the papacy became an elaborate financial institution. Bishops throughout Europe were commissioned to pour funds into the papal treasury, donations were extracted from pilgrims who visited Rome, and large sums were collected from the corrupt sale of indulgences. The wealth of the papacy made possible the construction of St. Peter's Basilica, perhaps the largest and certainly the most magnificent

church that, with its ostentatious rituals and ceremonies, was bound to awe the faithful and attract more pilgrims to Rome. The pope, who was supposed to represent Christ—an itinerant preacher who abhorred money—came to head one of the richest institutions the Western world. While some of the popes were pious old men, the *institution* of the papacy became as concerned with the propagation of the faith as with shady financial transactions that required overt and covert political maneuverings.

How did the Church develop into such an all-pervasive institution? Its political maneuverings may have helped, but more importantly that may be attributed to the Church's great success in controlling the mindset of people through early indoctrination and relentless preaching and exhortation. And while there was widespread dissatisfaction with the greed and luxurious lifestyle of prelates and popes, and opposition to supporting the clergy by paying tithes, the Church prevailed because it was able to maintain control of the minds of people by exploiting mnemonic mechanisms and outlawing rational arguments against the basic tenets of Christian doctrine and practice. In a world where most commoners were illiterate, the parish priest was the main source of answers to their queries about the riddle of existence: birth and the struggle to survive, health and disease, luck and misfortune, and what happens to them and their dear ones after death. And even those who were literate received their education in schools taught or supervised by clerics who presented all knowledge from the Christian perspective and did not tolerate any criticism of the basic tenets of the creed. Most people came to believe, as they were taught, that they were born sinners and the only path to salvation was by leading the life of good Christians and faithful supporters of the Church. Priests told people what is virtuous and what is sinful, what they have to do or abstain from doing to assure God's grace. Due to that indoctrination, most people had no doubts that without baptism, regular church attendance, and the performance of all the other religious obligations, they were doomed to burn in Hell.

The Catholic ethos under the guidance of the papacy endured with little change for over a millennium. But it was generally not the popes but the College of Cardinals (who elected the pope) and the Roman Curia (the vast papal administrative apparatus) that assured that continuity. With some notable exceptions, the cardinals, themselves a geriatric group, elected elderly members of their coterie to become the pope, which meant that most popes had neither the requisite time nor the mental energy to introduce substantial changes in church dogma or practice. Although presented to the outside world as venerated heads of the Church with great knowledge and wisdom, most popes spent most of their time in ceremonial affairs, at audiences with visiting dignitaries and officiating at pompous ceremonies at St. Peter's Basilica. The function of the pope was not, like many secular rulers, to modify the laws as circumstances changes, but to see to it that the law never changes. The bulls and encyclicals by popes rarely offered a change in Church dogma but were typically reiterative homilies urging the clergy and the laity to defend the faith.

THE MINDSET OF PEASANTS AND COMMONERS. The commoners of Western medieval society consisted of a large population of peasants living in hamlets and villages, and a smaller population of artisans, merchants, and burghers residing in towns and cities. Unlike contemporary farmers of economically developed nations who are educated, work the land with machinery, own

property, and are citizens with the same rights as everybody else, medieval peasants were uneducated toilers who did everything manually, were poor, had limited or no legal rights, and were looked upon by nobles and burghers with disdain as boorish and dumb people.

The medieval peasants, irrespective of their legal status, had a hard life and were typically poor (Rösener, 1992; Freedman, 1999). Using simple tools, all their work had to be done manually, toiling from dawn to dusk. They lived in houses with mud (wattle and daub) walls, a dirt floor and a thatched roof, and owned little property. Unless they lived near a lake or river, they did not bathe and disease was rampant. Child mortality was high, and life expectancy short. The medieval judicial system treated them very harshly (Janin, 2004). The mildest wrongdoing was punished by public humiliation. Crimes such as stealing or vandalism were punished by bodily mutilation, such as branding with a hot iron, cutting off the offender's ears, fingers or hand, or blinding. The guilt or innocence of an accused was determined by ordeals of fire or water. The assumption was that these trials revealed divine judgment. Villages did not have prisons: women accused of adultery were strangled or burnt; men accused of serious crimes were tortured before they were killed by such brutal methods as hanging, racking or quartering. The bodies were left unburied as a public warning of the consequences of criminal behavior. By the 13th century, trial by ordeal was beginning to be replaced with trial by jury, but the aim of medieval justice remained punishment rather than correction.

Due to the combination of their economic exploitation, harsh treatment, and religious indoctrination, medieval peasants developed an ambivalent mindset. They did not attend school as children and were illiterate. Whatever they knew and believed in was based on what was passed to them orally by their elders, consisting of an admixture of pagan and religious items, and what they learned from the priest's sermons as they attended church. Most of them were superstitious and turned to their patron saint for help. As one bishop complained, they "worship images of saints ... They have not abandoned idols, but only changed their names" (Durant, 1950, p. 743). They touched or kissed relics, believing that they could produce miracles. With little knowledge of the natural causes of phenomena, and without familiarity with different views (many of them never left their village) medieval peasants tended to accept uncritically the pagan traditions of their elders and what their priest told or taught them. The pagan tradition was to attribute misfortune, such as illness, drought, flood, plague and other catastrophes to evil forces and black magic brought on by others. They believed in two incongruent myths: the pagan one, which induced them to fight adversity by using magic and respond violently toward those causing harm; and the religious one, which made them accept suffering as deserved punishment, submit oneself to God's will and pray for his mercy. As a consequence, the narrow-minded medieval peasant became either a brutish or a pious individual, and quite often a combination of the two, alternating between impulsive violence and feeling guilty, turning to God for forgiveness. These are alternating dispositions we characterize as affective/impulsive brutality and mnemonic/compulsive docility, with the two often in conflict within the tormented mind of the same individual.

The mnemonic indoctrination to become docile and pious in exchange for the promise of heavenly rewards could not abolish the poor people's impulse to respond to deprivation and frustration with anger and violence. The aggressive temper of medieval peasants was manifest

in their cursing, drinking, stealing and other acts that, as firm believers, they themselves must have considered sinful. Although the medieval peasant became a true believer, he was, like his barbarian ancestors, prone to brutality. As an 11th century German bishop complained:

Every day murders in the manner of wild beasts are committed among the dependents of St. Peter. They attack each other through drunkenness, through pride, or for no reason at all. In the course of one year, thirty-five serfs of St. Peter, completely innocent people, have been killed ... and the murderers, far from repenting, glory in their crime.

(Bloch, 1961, pp. 411-412).

On a larger scale, the violent temper of peasants became manifest in the rebellions and organized wars that took place from time to time throughout Europe between the 14th and 16th century in Bohemia, Bulgaria, England, Estonia, Flanders, France, Hungary, and other lands. The Catholic Church, in support of kings and many nobles, opposed the peasants' rebellions, the leaders of the Reformation tended to support them. However, Martin Luther, who played a role in initiating the German Peasants' War, changed his position as that war progressed. In his pamphlet, *Against the Robbing and Murdering Hordes of Peasants*, he urged the nobles to "smite, slay, and stab the rebels and to show no mercy until the rebels had been put down." And while it is recorded that in some of their engagements the peasants behaved barbarously, it is also known that the armies of the nobility massacred over 100,000 peasants before that war ended. The subjugated peasantry had to wait for another age before they were given civil rights and became respected farmers. But as sedentary people residing in the closed environment of villages, they tended to be to this day more religious than urban people living in a more heterogeneous social setting.

THE MINDSET AND ETHOS OF BURGHERS. When the medieval towns and cities began to prosper, the new economic class of burghers came into conflict with the nobility above them in the hierarchic order and the workers beneath them. Diligent and enterprising merchants could become prosperous by keeping the difference between the purchase price of goods and the selling price. Craftsmen employing workers could profit from paying as little as possible for the labor performed by their employees. And bankers could become very rich by investing in various enterprises and lending money and charging high interest rates. As usury was prohibited by Church dogma, that brought the burghers into conflict with the clergy but they were absolved if they became benefactors of their community. And members of crafts and professions formed powerful guilds to strengthen their political position vis-à-vis kings, princes and nobles, and the guilds adopted patron saints to gain religious legitimacy. By virtue of the demands of their occupation, the new class of burghers contributed to the development of practical rationalism, and the rise of modern capitalist economic system, but they did not challenge Christian religion.

11.4.5. Christian Ideals and Medieval Realities. Jesus' sermon to his listeners was to love each other, abstain from seeking wealth and pursue peace, and thus create a new social order, what he called the Kingdom of God. These were the lofty ideals that were broadcast by the Apostles and the missionaries throughout the Roman world and later became the canonized tenets of medieval Christendom. However, instead of becoming an egalitarian and peaceful commonwealth—the Kingdom of God—the history of medieval Christendom is a record of

unending strife between the social classes and wars among the different nations. Although most Christians were committed to live in conformity with their shared religious ideals, in reality they fought each other much of the time due to their conflicting economic, social and national interests. The strong oppressed the weak, the rich exploited the poor, the law was discriminatory and harsh, and intolerance was rampant. The guardians of the faith, Catholic or Protestant, did little to ameliorate the flagrant human rights violations that took place throughout the Middle Ages. Instead they tended to ally themselves with the secular authorities in order to preserve their own privileged position and protect their vested interests. State and Church did little to reform the unjust social order by abolishing the excessive privileges of the rich and ameliorate the hardship of the poor, and failed to provide the working people with an education to enable them to develop their natural potentials, live in dignity, and enable them to participate in the political arena to defend their rights.

CHRISTIAN IDEALS AND HUMAN NATURE. Was the medieval interlude in the development of Western civilization—the period between the Classical Age and the Modern Age—a total failure from the perspective of mental and cultural evolution? The answer from a neuropsychological perspective is that the medieval Christian experiment in trying to create a just society was, indeed, a failure because there are limits to what mnemonic mechanisms—indoctrination, preaching and brainwashing—can do to change inborn human nature. The two unfounded Christian myths are that human egotism, greed and hostility are due to moral turpitude (because the fictitious Adam disobeyed God, all of his descendants are born sinners), and that salvation is possible through repentance and turning to Christ. In contrast, the neuropsychological evidence indicates that our selfish and aggressive traits are due to our affective animal heritage, which can be controlled in varying degrees by mnemonic and rational mechanisms, by training and deliberation, but not totally inhibited. While there are no limits to what the almighty God of the believer might be able to do to change a person's moral status, there are limits to what mnemonic and rational mechanisms can do to curb our inborn affects. Although Jesus preached that a just and peaceful world would come if we turned the other cheek when slapped and loved one's enemies, neuropsychology has empirically shown that to be unrealistic wishful thinking. Insulted, injured and frustrated people respond with innate dispositions based on a host of endocrine and emotional reactions, like anger and hatred, that no preaching or goodwill can inhibit. This conclusion is supported by the social experiment that we know as medieval history.

THE FAILURE OF THE MEDIEVAL SOCIAL EXPERIMENT. In spite of all the indoctrination and sermonizing, the people of medieval society remained an assorted lot, with generous and callous people, saints and sinners, ascetics and profligates at all social levels—whether kings or popes, princes or prelates, burghers or peasants. Did religious indoctrination and preaching accomplish anything of societal consequence? Did the adoption of Christian faith turn aggressive people into peaceful ones, selfish people into generous ones, callous people into kindhearted ones? It undoubtedly occurred in some instances but the historic evidence indicates that it did not occur on a large scale. The historic evidence suggests that their Christian faith reinforced the kindness of those who were by natural disposition kind, as illustrated by a man like Francis of Assisi who loved all living creatures, animals and men, sinner and virtuous. But it may also have been the case that their religious faith turned people with a hostile disposition

into fanatics, like many members of the Inquisition who had no compunction in torturing and killing people judged to be heretics in the name of Christ. Why did medieval Europe fail to become a harmonious, peaceful and just civilization? The argument we present below is that the founders of Christianity, living in a prescientific age, had no understanding of the biological and psychological determinants of *human nature*, and greatly overestimated the extent to which *human behavior* can be changed by indoctrination and sermonizing. Apart from the unfounded myth that men are born “sinners” and they can be “saved” by such magic practices as baptism or sacraments, the down-to-earth Christian idea and practice that early education and continued preaching can change human nature and, as a result, change society was proven by medieval history to be wrong. Contrary to the assumption that our human predicament is due to moral failure—that having been created in the image of God man was originally virtuous but then succumbed to temptation and all of his descendants are born sinners—the scientific evidence indicates that our complex nature is due to a conflict between our animal heritage and the demands of social life.

The available scientific evidence indicates that human beings are born with prosocial and antisocial temperamental dispositions that tend remain their enduring traits throughout life and they also differ individually by apparent genetic differences in these dispositions (Thomas and Chess, 1977; Buss and Plomin, 1984; Henderson and Wachs, 2007). Children are also born with individual differences with regard to their learning ability and malleability, and their intellectual ability to think and reason, and these traits are enduring (Plomin et al., 1994; Deary et al., 2009). While there is no agreement in the number of these temperamental traits and the terms to designate them, among those identified are children and adults (i) who are willful, restless and impulsive (“undercontrolled”); (ii) shy, obedient and self-critical (“overcontrolled”); and (iii) self-confident and self-reliant (“resilient”) (Zentner and Bates, 2008). These characterizations parallel our neuropsychological distinction between the affective/impulsive, the mnemonic/compulsive, and the rational/calculating mindsets. Combined with the historic evidence regarding the ethos of the Middle Ages, we may infer that notwithstanding the power of mnemonic indoctrination, an individual born, for instance, with an egotistical and aggressive mindset is unlikely to change and become an altruistic and peaceful individual. In all primate societies there are individuals who are more assertive and domineering than others—the alpha males among chimpanzees, the chiefs in tribal communities, and the tyrants and dictators in civilized societies. These individuals tend to use whatever means are available to them to subordinate or subjugate members of their society to gain advantages. And in all primate societies there are also meek and shy individuals who will readily follow leaders and submit themselves to authoritarian rule. Importantly, in addition to the coercive physical control exerted by secular rulers, shamans, prophets, priests and theocrats have used ideological means to control and subjugate gullible people. Medieval civilization was profoundly influenced by its religious leadership. From the outset, as the new nation states were forming, a dual hierarchic order was established: with kings, lords and barons asserting secular control over a subjugated population, and missionaries and priests asserting spiritual control over them. However, while the European Middle Ages can be characterized, in broad terms, as a unified Christian civilization—the Age of Faith or Christendom—its ethos was not a unified one. Due to the different interests and upbringing of people belonging to the different classes—royals, prelates, nobles, burghers, peasants and laborers—there were

substantial difference in the mindset of individuals belonging to these groups and in the ethos of their subcultures.

WHO WERE THE FAITHFUL? In an attempt to answer this question, we have to distinguish between the likely mindset of different members of the medieval hierarchic society. It is reasonable to assume that the early missionaries had absolute faith in the coming of the Judgment Day and the virtuous receiving their rewards for their good work, because they got no earthly rewards for what they were doing. They were not compensated materially for their missionary work, and they exposed themselves to harassment, frustration and, in some cases, martyrdom, as they moved from one place to the next and sought to convert the pagans. Some of them were mystics who harbored the delusion that they were directly communicating with God, and some had visions of the suffering and resurrected Jesus, and of the bliss of Heaven and the horrors of Hell. It is also reasonable to assume that, in contrast, many of the kings and princes were not true believers because history records that they did not heed the injunctions of the Ten Commandments or follow Christ's Gospel. They were not meek but seekers of power; not poor but hoarders of wealth; not abstemious but ostentatious consumers; not peaceful and compassionate but aggressive and callous. Nonetheless, virtually all kings and princes professed to be good Christians and supported the Church in many ways. Many of them professed to be pious Christians as a political expediency because they were cognizant of the Church's role, through its indoctrination and preaching, in the preservation of the prevailing social order.

Were the priests, monks and prelates true believers? The available historic evidence suggests that they were a mixed lot. Those who lived abstemiously, spent most of their time in prayer and meditation must have been genuinely devout Christians. But others may have had ulterior motives in becoming clerics and only simulated to be devout believers. Some people opted to become priests because that offered a good living; some became monks because monasteries were a safe haven in a dangerous world; and many of the bishops and abbots were ambitious individuals who sought power and influence, and were duly rewarded for their effort by living like princes. History records that over and over again the monasteries that were founded as ascetic communities, dedicated to the worship of God, turned after a few generations into rich institutions whose members lived in comfort and some of them in luxury. The final question remains: were the common people true believers? Did the ecclesiastical indoctrination succeed in making serfs and peasants genuinely believe that it was their religious and moral obligation to toil for their masters and endure the restrictions and humiliation that went with their lowly social status? The likely answer is that most of them were true believers. Not having access to medical help, peasants prayed and offered sacrifices when they or their children got sick, when drought threatened their harvest, and when epidemics threatened their village. And paradoxically, those of them who in their anger and frustration violated the moral code of their faith by cursing, cheating, lying, fornicating and brawling, became particularly devout because they believed the myth that that they will be forgiven by turning to their village priest, confess their sins, and gain absolution by repenting and making the prescribed sacrifices.

MEDIEVAL INTOLERANCE AND DISCRIMINATION. In the spirit of Jesus' Sermon on the Mount, Paul wrote to a group of new converts to Christianity: "There is neither Jew nor Greek, there

is neither slave nor free, there is neither male nor female, for you are all one in Christ Jesus” (Galatians 3:28). And Paul admonished them that they must pursue justice and peace rather than material goods and wealth: “For the Kingdom of God is not a matter of eating and drinking but of righteousness and peace and joy in the Holy Spirit” (Romans 14:17). However, medieval Christendom did not conform to these ideals: it was not tolerant, peaceful and just but discriminatory, militant and unjust. The Church insisted that only those who are baptized, received the sacraments and slavishly follow established dogmas will be “saved,” and that led to an intolerance toward and persecution of those who were not members of the Christian community. Admittedly, the Gospels’ message about the virtue of tolerance has been a mixed one. We read Jesus having preached: “Do not judge so that you will not be judged” (Matthew 7:1); and “You yourselves know how unlawful it is for a Jew to associate or to visit anyone of another nation, but God has shown me that I should not call any person common or unclean” (Acts 10:28). But we also read “I come not to bring peace, but to bring a sword” (Matthew 10:34), and “If anyone comes to you and does not bring this teaching, do not receive him into your house or give him greeting, for whoever greets him takes part in his wicked works” (John 1:10-11). “And the master said to the slave, Go out into the highways and hedges and compel people to come in, so that my house may be filled” (Luke 14:23).

The most persistent victims of medieval intolerance were the Jews who lived in Christian lands. What was the disagreement between Christians and Jews all about? It was the mnemonic obstinacy of two groups about a fictitious matter. During the Babylonian Captivity and after their return to Israel, the despairing Hebrew prophets came up with the daydream that soon God will send a king from the house of David, the Messiah (the anointed), to liberate the Jews from foreign oppression. That fantasy turned into a myth and the Jews kept praying to see the day when the Messiah will enter Jerusalem and freedom and justice will be restored. Decades and centuries passed and the Messiah failed to come. Occasionally, some individuals claimed to be the Messiah; one among them was Jesus. Most Jews refused to accept Jesus as the Messiah, a few of them did. The latter became the founders of Christianity. After the Romans put down the Jewish Revolts most Jews left Israel. In time, Christianity became a world religion while Judaism remained the religion of a small ethnic group, and the Jews residing in the West became a minority amongst the Christian majority. The Jews fortune waxed and waned, as they were targets of periodic persecution, expulsion, and martyrdom. Since the Messiah was a phantom of wishful thinking, what Christian and Jews disagreed about was mnemonically preserved myth.

MEDIEVAL MILITANCY. The early missionaries and priests were preaching the virtue of peace and equanimity to aggressive and callous barbarians whose ethos valued militancy and exuberance. The evangelists’ task was the drastic transformation of people’s mindset, something that could not be achieved rapidly or thoroughly. But it was ultimately the assent to what they were preaching—respect for authority, submission to superiors, endurance of injustice in exchange for rewards in the next world—that helped the toiling and exploited masses to accept their subservient status. In contrast, the nobles were trained to be brave warriors. Notwithstanding their Christian creed they kept fighting one another, either to defend or enlarge their territories, or gain spoils, or advance economically. And it was the conflict of Christianity with the similarly militant Islam—the Moors who conquered Spain and threatened

France, and later the Turks who occupied Greece and parts of Eastern Europe—that turned medieval Christendom into an extremely militant civilization.

MEDIEVAL OBFUSCATION. From the perspective of the advancement of human rationality—the liberation of human consciousness from superstition and seeking a realistic understanding of the world—the leaders of the Church have been guilty of mystification and obfuscation. The Church claimed to have readymade answers to the problems of the origin of the world, mankind’s history, and the purpose and meaning of human life because they are spelled out in the Bible, and questioning the Bible’s validity was a mortal sin. However, the Christian theologians were confronted with doubts from the very beginning that the Bible was a transcription of God’s oral revelation. The Bible contains irrational narratives and claims, and it is full of inconsistencies. The irrational matters are of two sorts: those describing the origin and nature of the physical world, and those that deal with the constitution of the spiritual world. The Old Testament narrative, for instance, that God created Adam out of dust, and later created Eve out of Adam’s rib is obviously a fairytale, not unlike endless others that, according to anthropological evidence, primitive peoples have dreamt up in different cultures (Frazer, 1922). The biblical account of the constitution of the spiritual world is no less irrational. Because Adam was created in God’s image, the implication is that the almighty God, although immortal, is a physical being with human features. This is a very primitive anthropomorphic idea that was dismissed by Greek writers and philosophers. But more importantly, while according to the Old Testament there is only one God, Yahweh, the New Testament has added two others, God the Son and God the Holy Ghost. But Christianity still claims to be a monotheistic religion. Still another irrational myth is that, although we are born sinners, salvation is possible because Jesus, God’s son sired by the Holy Ghost, sacrificed himself on the cross to save mankind. If Jesus is an immortal God, what is the meaning of His dying on the cross and how does his sacrifice absolve Christians of their sins?

Because the biblical narrative could not stand up to rational criticism, the Church Fathers outlawed rational discourse. Secular schools and academies were closed, classical books were burned, and the select few who received a basic education attended ecclesiastical schools that were taught not by secular scholars but monks and priests. The young were indoctrinated that the Bible is the fount of all knowledge and critical thinking is evil, a temptation by Satan (whoever he is) to lead the innocent astray. Of course, there were able thinkers who were puzzled by the contradictions of the biblical narrative and message, and who questioned one or another particular Church dogma. But they were either told that they were not mature enough to understand the wisdom of the article of faith that puzzled them or that it was a mystery beyond human understanding. But most of those who had doubts probably kept quiet because they were intimidated by the prevalent ethos of their culture, the threat of excommunication, and the danger of severe punishment.

In summary, we may attribute medieval Christendom’s failure to realize the original Christian ideals to the following interrelated factors. First, the Apostles and early missionaries overestimated the power of teaching and preaching in changing human behavior. While indoctrination is an effective mnemonic mechanism to modify some facets of human conduct, it cannot override the egotistical affects that are our inborn reptilian, simian and hominid heritage.

We are born with built-in endocrine, autonomic and brain mechanisms that drive us to be greedy, aggressive and lustful under specific environmental conditions and circumstances. Second, as practical leaders of men, the Church authorities did come to realize how unwilling self-centered people are to carry out their religious and communal obligations. Hence, they turned to the use of a combination of material and spiritual coercive means to make people assent to the Church's theocratic rule. The Church came to exercise material coercion by collaborating with the secular authorities to physically punish those who were declared dissenters or heretics. Third, as a consequence of that collaboration between the theocratic Church and the autocratic State, instead of working for the poor and powerless, as was its avowed mission, the Church became an ally of and later subservient to kings and magnates. While the Christian ideal was the brotherhood of all, the religious leaders of Christendom sanctioned the hierarchic order of medieval Europe that was far more rigid and pronounced in medieval Europe than ever before. Instead of promoting social equality, the Church acquiesced to the subjugation and exploitation of serfs and peons. Fourth, although some monks continued to live an abstemious life, the prelates who came to own large tracts of land became exploiters of the toiling masses, living in luxury that rivaled the life of princes and nobles. Fifth, while the Christian ideal was peace on earth, medieval history is a record of endless wars between kings and princes. Although it was the Church's religious mandate to prevent wars among the Christian nations of Europe, it made little effort to do that. Indeed, as a religious duty, the Church instigated wars with the Muslims to liberate Jerusalem. The cross came to be worn not only by pious monks but also by fierce Crusaders, many of whom were more interested in gain and glory than the dissemination of Christian ideals. Finally, in order to maintain its spiritual monopoly, the Church outlawed any criticism of its doctrines, the free exchange of ideas, and the advancement of science. Thus, the advancement of rationalism begun by the philosophers of Greece and the scientists of the Hellenistic world was halted by the Church for over a thousand years. The liberation of the minds of people of ignorance and superstition that was begun by the ancient intellectuals, and their promotion of liberal education and the merits of freedom of consciousness was ended by ecclesiastical edict. Serfs and peasants received no schooling at all, and the education of the privileged few was carried out in parochial schools that replaced liberal education and the free exercise of reason with the promotion of an irrational set of myths and dogmas.

We are heirs to the Middle Ages but live in a civilization with a different ethos. As we shall describe it in the next chapter, the mnemonic/compulsive medieval ethos was shattered by the development of the rational/calculating ethos during the next period of Western development, the Age of Reason. Associated with the discovery of lands and people hitherto unknown to Europeans, and an industrial and intellectual revolution, two new movements arose: a practical-rationalist movement in economics, technology, politics and social organization; and an ideational-rationalist movement in science, scholarship, philosophy and ethics. In economics, that new rationalist movement was the development of Capitalism, the use of worldwide commercial and monetary transactions, driven by the acquisitive profit motive of entrepreneurs and financiers. In technology, that rationalism became manifest as the Industrial Revolution, the invention of new machines and new energy resources to produce goods in immense quantities. In scholarship the new age began with the introduction of the Scientific Method, which mandates that the acceptance of traditional beliefs and the acquisition of new knowledge requires systematic observation, experimentation, quantification, and public verification. In

philosophy it was the development of Logical Empiricism, the requirement that our theories of the nature of the external world and of ourselves must be based on logical interpretation of scientific findings rather than assertions based on myths, legends, and authoritarian pronouncements. The rationalist movement in politics began during the Enlightenment when philosophers came up with various ideas how to reorganize society on the basis of an analysis of the dynamics of human nature and social relations. However, an inadequate understanding of the biology and psychology of human nature handicapped the efforts of the thinkers of the early Enlightenment. We may be currently living in the second epoch of the Age of Reason, beginning to better understand human nature and have a more realistic appreciation of our place in nature. We are also beneficiaries of immense practical-rational advances in the mass production of high quality goods that make our life more comfortable, and of advances in medical science that have considerably extended our life expectancy. However, the ideational conflict between rationalism and irrationalism persists both within our civilization and in our relations with other civilizations with a different cultural history.

11.4.6. Our Medieval Cultural Legacy. Modern Western civilization is the direct heir to the civilization of the European Middle Ages. Our medieval heritage has material and spiritual components, and from the perspective of the evolution of rationalism, some of them have had positive, others negative effects on the development of the modern ethos. We begin with the positive influences, and then turn to the negative ones.

(i) Turning barbarians into civilized people. It was during the Middle Ages that the savage and footloose tribal peoples of Europe, who spent much of their time and energy fighting one another, changed into sedentary land cultivators and formed permanent rural communities. The exhortations of Christian missionaries and clergymen contributed greatly to the creation of the new ethos of docility, diligence, and cooperation.

(ii) Using new agricultural techniques. The fertile soil of Europe, its ample water supply and temperate climate offered rich and reliable harvests but also required the use of improved tools and greater energy investment. The introduction of heavy plows pulled by teams of oxen or horses, the use of windmills and waterwheels, and other agricultural improvements made possible the better utilization of available resources.

(iii) Changing Europe's forests into agricultural lands. The landscape of Europe substantially changed during the Middle Ages as more and more virgin forests and grasslands were put under intensive cultivation. Sparsely populated areas where people subsisted on small-scale hoe cultivation, and whatever was locally available, were turned into large and productive estates.

(iv) Establishment of central governments. The growing yield of the land made the production of surplus food and other goods possible to provision a non-laboring noble class that united tribal groups and established states with a central government. The governments improved social order by passing laws, by establishing judicial courts, and by acquiring sufficient military power to reduce and eventually eliminate tribal strife and warfare.

(v) *Formation of prosperous towns and cities.* Surplus goods from agricultural expansion stimulated trade with merchants and artisans in the growing towns and cities. Division of labor and the formation of guilds in urban settings led to improvements in the production of quality goods. The barter economy gradually changed into a monetary one. Many towns with harbors began to develop an international trade and became prosperous cities. Most of these cities are still part of the European landscape.

(vi) *Architectural and artistic advances.* Because of insecurity, most residences, churches and monasteries built in the early Middle Ages were designed to withstand enemy assault rather than as works of art. But as the states became more powerful, great advances were made in building public edifices and private residences of high artistic quality. Prosperous princes and burghers also encouraged the development of painting and sculpture, and the works of the great artists of the Renaissance have never been surpassed.

However, the effort to create social order, the Middle Ages were a period of oppression in the history of Western civilization, with the great masses of working people denied civil rights by royals, nobles and clerics that ruled them.

(vii) *The autocratic rights of kings.* Heads of the established states, the kings, did not rule by the consent of the people. Most of them claimed hereditary rights to kingship by virtue of their descent from an established royal dynasty. Crowned kings ruled by “divine rights” and they exercised their autocratic power to the extent that their abilities and circumstances permitted. The autocratic power of kings endured in some countries into the Modern Age.

(viii) *The theocratic rights of popes.* The popes were not elected by the community of Christians but, initially, by the machinations of powerful kings and later by the College of Cardinals. Once elected, the pope became the Vicar of Christ on earth with the power of defending the established dogmas of the Church by any means available. The freedom of entertaining one’s own beliefs was outlawed.

(ix) *The excessive privileges of nobles.* The lands assigned by kings to their subordinates—who were granted patents of nobility—eventually became hereditary owners of those properties. And by virtue of their wealth and local political power, the feudal nobles became a social class with many legal and financial privileges. The nobles had plenty of leisure time and wasted precious resources of their estates on ostentatious life styles.

(x) *The exploitation of serfs and peasants.* As legal owners of large estates, the nobles turned the masses of landless people into serfs or tenants, burdening them with heavy obligations and taxation. The children of peasants received no formal education, and grew up illiterate. Although the peasants resented their subordination and humiliation, and occasionally rebelled, they were unable to free themselves from bondage for centuries.

(xi) *Social discrimination.* In the hierarchical system of the Middle Ages, everybody was born into a particular social class, with minimal opportunity to improve one’s status. Serfs and peasants had few legal rights and were treated as inferior beings. Even prosperous

artisans and merchants were treated as commoners and were looked down upon by the nobles. Discrimination on the basis of class identity was the order of the day.

(xii) *Bigotry and intolerance.* The prevailing social order was considered to be a divine design. People who did not conform to prevailing norms were distrusted, treated with contempt, and occasionally persecuted. This applied in particular to those who were dissenters, heretics or not church members.

(xiii) *Dogmatism and irrationalism.* The clergy played an important role in medieval society as guardians of the Christian faith and as ideological supporters of the prevailing social order. The maintenance of religious unity was in the interest of both Church and State, and therefore those who criticized or rejected the irrational myths and dogmas of the Church were ostracized, excommunicated or severely punished. Reason, the clergy declared, can only be used to support canonical beliefs but not to contradict them.

(xiv) *Discouraging scientific research.* The Bible contains not only a code of moral values but also a narrative of presumed facts about the origin and nature of the world. The latter, however, has many shortcomings and is not supported by science. Hence the Church was not in favor of promoting scientific research and censured those who came up with findings that could not be reconciled with the biblical narrative.

(xv) *Banishment of the freedom of consciousness.* Man is endowed with the ability to think and reason, and also with drive to inquire into the veracity of what he is told and taught. The ancient Greek philosophers have gone a long way in liberating the human mind of fairytales, superstitions and prejudices. The right to think one's own thoughts and decide what to believe or not believe in—the freedom of consciousness—was banished during the Middle Ages by the authoritarian and dogmatic leaders of the Church.