UNIT- II (DRAWING)
MEDIVAL PERIOD

This article is about medieval Europe. For a global history of the period between the 5th and 15th centuries, see Post-classical history. For other uses, see Middle Ages (disambiguation).

Middle Ages	
A stained-glass panel from Canterbury Cathedral, c. 1175 – c. 1180, depicting the Parable of the Sower, a biblical narrative	
Including	Early Middle Ages High Middle Ages Late Middle Ages
Key events	Fall of the Western Roman Empire Spread of Islam Treaty of Verdun East–West Schism Crusades Magna Carta Hundred Years' War Black Death Fall of Constantinople

Exploration of North America

Chronology

Antiquity
Late antiquity

- Early modern period
  - Renaissance
  - Age of Discovery

In the history of Europe, the **Middle Ages** or **medieval period** (also spelt **mediaeval** or **mediæval**) lasted from approximately 500 to 1500 AD. It is the second of the three traditional divisions of Western history: antiquity, medieval, and modern. Major developments include the economic predominance of agriculture, exploitation of the peasantry, slow inter-regional communication, the importance of personal relationships in power structures, and the weakness of state administration. The period is sometimes subdivided into the Early, High, and Late Middle Ages, and the early medieval period is alternatively referred to as the Dark Ages.

Population decline, counterurbanisation, the collapse of centralised authority, the mass migration of tribes (mainly Germanic peoples), and Christianisation, which had begun in late antiquity, continued into the Early Middle Ages. The movement of peoples led to the disintegration of the Western Roman Empire and the rise of new kingdoms. In the post-Roman world, taxation declined, the army was financed through land grants, and the blending of Later Roman civilisation and the invaders' traditions is well documented. The Eastern Roman Empire (or Byzantine Empire) survived, but lost the Middle East and North Africa to Muslim conquerors in the 7th century. Although the Carolingian dynasty of the Franks reunited many of the Western Roman lands by the early 9th century, the Carolingian Empire quickly fell apart into competing kingdoms which later fragmented into autonomous duchies and lordships.

During the High Middle Ages, which began after 1000, the population of Europe increased greatly as the Medieval Warm Period allowed crop yields to increase, and technological and agricultural innovations introduced a "commercial revolution". Slavery nearly disappeared, and peasants could improve their status by colonising faraway regions in return for economic and legal concessions. New towns developed from local commercial centers, and urban artisans united into local guilds to protect their common interests. Western church leaders accepted papal supremacy to get rid of lay influence, which accelerated the separation of the western Catholic and eastern Orthodox Churches and triggered the Investiture Controversy between the papacy and secular powers. With the spread of heavy cavalry, a new aristocracy stabilised their position through strict inheritance customs. In the system of feudalism, noble knights owed military service to their lords in return for the lands they had received in fief. Stone castles were built in regions where central authority was weak, but state power was on the rise by the end of the period. The settlement of Western European peasants and aristocrats towards the eastern and southern peripheries of Europe, often spurred by crusades, led to the expansion of Latin Christendom. The spread of cathedral schools and universities stimulated a new method of intellectual discussion, with an emphasis on rational argumentation known as scholasticism. Mass pilgrimages prompted the construction of massive Romanesque churches, while structural innovations led to the development of the more delicate Gothic architecture.

Calamities which included a great famine and the Black Death, which reduced the population by 50 per cent, began the Late Middle Ages in the 14th century. Conflicts between ethnic and

social groups intensified and local conflicts often escalated into full-scale warfare, such as the Hundred Years' War. By the end of the period, the Byzantine Empire and the Balkan states were conquered by a new Muslim power: the Ottoman Empire; in the Iberian Peninsula, Christian kingdoms won their centuries-old war against their Muslim neighbours. The prominence of personal faith is well documented, but the Western Schism and dissident movements condemned as heresies presented a significant challenge to traditional power structures in the Western Church. Humanist scholars began to emphasise human dignity, and Early Renaissance architects and artists revived several elements of classical culture in Italy. During the last medieval century, naval expeditions in search for new trade routes introduced the Age of Discovery.

Terminology and periodisation

Palais des Papes (Avignon, France)

The Middle Ages is the second of the three major periods in the most enduring scheme of analysing European history: antiquity, the Middle Ages and the modern era.[1] The Italian Leonardo Bruni (d. 1444) was the first to use tripartite periodisation in 1442,[2] and it became standard with the German historian Christoph Cellarius (d. 1707).[note 1][4] The adjective "medieval" or "mediaeval", pertaining to the Middle Ages,[5] derives from *medium aevum* ("middle age"), a Neo-Latin term first recorded in 1604.[6]

It customarily spans the period between c. 500 and 1500, but its start and end years are arbitrary.[7][8][9] A common starting point, first used by Bruni, is 476: the year the last Western Roman Emperor was deposed.[2][10] There is no universally-agreed-upon end date; the most frequently-used dates include 1453 (the fall of Constantinople), 1492 (Christopher Columbus's first voyage to the Americas), and 1517 (the beginning of the Protestant Reformation).[11]

Europe, according to historian Miri Rubin, "did not live to a single rhythm over this period". Christianisation, the conversion of Europe to Christianity, took place in waves, and (re)urbanisation began in different regions at different times.[9] Scholarly consensus characterises the period by the economic predominance of agriculture, exploitation of the peasantry, the importance of interpersonal relations—violence, patronage, kinship, and charisma—in power structures, slow inter-regional communication, and a fragile state bureaucracy.[12]

Historians from Romance language-speaking countries tend to divide the Middle Ages into two parts: early ("high") and late ("low"). English-speaking historians, following their German counterparts, generally subdivide the period into thirds: Early, High, and Late.[13] During the 19th century, the Middle Ages were often known as the Dark Ages; with the adoption of the three subdivisions in the early 20th century, however, use of that term was restricted to the Early Middle Ages.[14] Historians who regard the Middle Ages as a Eurocentric concept tend to avoid its use in global history, although studies of "Medieval India", the "Muslim Middle Ages", and similar subjects are not uncommon.[15][16]

Cartulary and *historical source*

A letter from Zhiznomir to Mikula, written on birch bark in the city of Novgorod during the early 12th century

Certain aspects of medieval society (including the lives of women or slaves) are poorly documented, which limits a comprehensive study of the period.[17] The systematic publication of medieval written sources began with the *Rerum italicarum scriptores* by Ludovico Muratori (d. 1750), which was followed by similar series such as the *Monumenta Germaniae Historica* in Germany and the Rolls Series in the United Kingdom. These large collections primarily contain annals, chronicles and other narrative sources focusing on the deeds of powerful men.[18] Professional historians treat medieval narratives cautiously, since they are often filled with distorted facts or unrealistic information.[19] Documents of state or church administration such as royal charters and chrysobulls are indispensable sources of medieval history, although many are forged.[20] Other written sources include graffiti, seals, and letters.[21]

Since the 1950s, archaeology has significantly contributed to studying the history of poorly-documented regions, periods, and groups (such as peasantry); chronological dating, however, is still uncertain.[22][23] Legislation may influence archaeological research. New finds of coins and hoards are frequently exhibited in jurisdictions with liberal regulation such as England and Wales, but in other countries (such as Italy) finds from unofficial excavations are seldom published.[24] Although medieval images and sculptures may provide useful information about everyday life, a critical approach is necessary; irony, satire, and anachronism were popular stylistic devices of medieval artists.[25]

Later Roman Empire

Main article: Later Roman Empire

: Fall of the Western Roman Empire

Portrait of the Four Tetrarchs, now in Venice, Italy

The Roman Empire reached its greatest territorial extent during the 2nd century AD, and the following two centuries saw the slow decline of Roman control of its outlying territories.[26] Runaway inflation, external pressure on the frontiers, and outbreaks of plague combined to create the Crisis of the Third Century.[27] The army doubled in size[28] and military expenses steadily increased, primarily in response to the war with the Sasanian Empire.[29] The need for revenue led to increased taxes, more centralised and bureaucratic state

administration, and a decline in numbers of the curial (landowning) Emperor Diocletian (r. 284–305) split the empire into separately-administered eastern and western halves in 286. This system, which eventually had two senior and two junior co-emperors (known as the Tetrarchy) stabilised the imperial government for about two decades.[30] After a period of civil war, Constantine the Great (r. 306–37) restored internal peace and re-founded the city of Byzantium as the eastern capital of Constantinople in 330.[31]

Roman society stabilised in a new form which differed from the earlier classical period, with a widening gulf between rich and poor and a decline in the vitality of smaller towns.[32] Another change was the Christianisation of the Roman Empire accelerated by the conversion of Constantine, although Christianity emerged as the empire's dominant religion only at the end of the 4th century.[33] Debates about Christian theology intensified, and those who persisted with theological views condemned at the ecumenical councils faced persecution. Heretical views survived through proselytising campaigns outside the empire or because of local ethnic-group support; examples include Arianism among the Germanic peoples and monophysitism in Egypt and Syria.[34][35] Judaism remained tolerated, although legislation limited Jewish rights.[36]

The early Christians developed their own symbolism by the 3rd century, often by reinterpreting popular motifs of pagan Roman art.[37] The solemnity of later Roman artists' abstract style effectively visualised Christian messages,[38] and Christ's enthroned figure became a principal element of early Christian art.[39] Under Constantine, basilicas (large halls which had been used for administrative and commercial purposes) were adapted for Christian worship.[40] The first illuminated manuscripts—hand-written books decorated with colourful miniatures—were produced with the spread of silent reading in the 5th century.[41]

Civil wars between rival emperors diverted soldiers from the empire's frontier forces, allowing invaders to encroach beginning in the mid-4th century.[42] Although these movements of peoples have been described as "invasions", they were often not just military expeditions but mass migrations into the empire.[43] In 376, hundreds of thousands of Goths fleeing from the Huns received permission from Emperor Valens (r. 364–78) to settle in Roman territory in the Balkans. The settlement did not go smoothly and, when Roman officials mishandled the situation, the Goths began to raid and plunder. Valens, attempting to put down the disorder, was killed fighting the Goths at the Battle of Adrianople.[44] The Alans, Vandals, and Suebi crossed into Gaul in 406, and into present-day Spain in 409; a year later, the Visigoths (a Gothic group) sacked the city of Rome.[45][46] The Franks, Alemanni, and the Burgundians ended up in Gaul; the Germanic groups now collectively known as Anglo-Saxons settled in Britain,[47] and the Vandals conquered the province of Africa.[48] The Hunnic king Attila (r. 434–53) led invasions into the Balkans in 442 and 447, Gaul in 451 and Italy in 452, but his Hunnic confederation fell apart after his death.[49]

To deal with the migrations, the Eastern Roman elites combined the deployment of armed forces with gifts and grants of offices to the tribal leaders; the Western aristocrats failed to support the army and refused to pay tribute to prevent invasions by the tribes.[43] These invasions led to the division of the western part of the empire into smaller political units, ruled by the invading tribes.[50] The 5th-century emperors were often controlled by military strongmen such as Stilicho (d. 408), Aetius (d. 454), Ricimer (d. 472), or Odoacer (d. 493), who were partly (or fully) non-Roman.[51] Odoacer deposed Romulus Augustulus (r. 475–76), the last western emperor, assumed the title of *rex* (king) and took full control of Italy, although in theory he ruled as a representative of the eastern emperor Zeno (r. 474–91).[52] The Eastern Roman Empire (known as the Byzantine Empire after the fall of its western counterpart) had little ability to control the lost western territories, but its emperors maintained a claim on them.[53]

Early Middle Ages

Main article: Early Middle Ages

Post-Roman kingdoms

Main article: Barbarian kingdoms

Post-Roman kingdoms and tribes, and the Byzantine Empire after the end of the Western Roman Empire

In the post-Roman world, the fusion of Roman culture with the customs of the invading tribes is well documented. Popular assemblies, which allowed free male tribal members more say in political matters than had been common in the Roman state, developed into legislative and judicial bodies.[54] Much of the scholarly and written culture of the new political entities was based on Roman intellectual traditions.[55] Many no longer supported their armies through taxes, instead relying on granting them land or rent; with less need for large tax revenues, the taxation systems declined.[56]

In Britain, the Celtic Britons' culture had little impact on the Anglo-Saxon way of life, but the linguistic assimilation of the natives to the newcomers is evident. By c. 600, new political centres emerged; some local leaders accumulated considerable wealth, and a number of small kingdoms (such as Wessex and Mercia) were formed. Smaller kingdoms in present-day Wales and Scotland were still under the control of the native Britons and Picts.[57] Ireland was divided into even smaller political units, perhaps as many as 150 tribal kingdoms.[58]

The Ostrogoths moved to Italy from the Balkans under Theoderic the Great (r. 493–526). He set up a kingdom marked by its co-operation between the natives and the conquerors. Power struggles between Romanised and traditionalist Ostrogothic groups followed his death, providing the opportunity for the Byzantines to reconquer Italy.[59] The Burgundians settled in Gaul, where they reorganised their kingdom.[60] Elsewhere in Gaul, the Franks and Celtic Britons established stable polities. Francia was centred in northern Gaul, and the first king about whom much is known is Childeric I (d. 481). Under his son Clovis I (r. 509–11), the founder of the Merovingian dynasty, the Frankish kingdom expanded and converted to Christianity.[61] Unlike other Germanic peoples, the Franks preferred mainstream Christianity to Arianism; this facilitated their cooperation with the native Gallo-Roman aristocracy.[62] Britons fleeing from *Britannia*—present-day Great Britain—settled in what is now Brittany.[note 2][63]

Other monarchies were established by the Visigoths in the Iberian Peninsula, the Suebi in northwestern Iberia, the Vandals in North Africa,[64] and the Lombards in northern Italy.[65] Coming from the Asian steppes, the nomadic Avars conquered most Slavic, Turkic and Germanic tribes

in the lowlands along the lower and middle Danube by the end of the 6th century.[66] Another steppe people (the Bulgars) defeated a Byzantine imperial army in 681 and established the First Bulgarian Empire, subjugating the local Slavic tribes near the Danube Delta.[67]

The settlement of peoples was accompanied by changes in language. Latin, the literary language of the Western Roman Empire, was gradually replaced by vernacular languages (which evolved from Latin) collectively known as Romance languages. Greek remained the language of the Byzantine Empire, but Slav migrations expanded the area of Slavic languages in central and eastern Europe.[68]

Byzantine survival

Main articles: Byzantine Empire under the Justinian dynasty and Byzantine Empire under the Heraclian dynasty

A mosaic of Justinian with Archbishop Maximianus of Ravenna, bodyguards, clerics and courtiers (Basilica of San Vitale, Ravenna, Italy)

The Eastern Roman Empire remained intact and experienced an economic revival which lasted into the early 7th century. Political life was marked by closer relations between the political state and the Christian Church, with theological matters assuming an importance in Eastern politics that they did not have in Western Europe.[69] Legal developments included the codification of Roman law;[70] the most comprehensive compilation, the *Corpus Juris Civilis*, was made under Emperor Justinian (r. 527–65).[71] The Byzantines regularly employed eunuchs for administrative tasks or as guardians or tutors of women and children, since they considered castrated men exceptionally intelligent and loyal servants.[72]

Justinian nearly died during the Nika riots, a popular revolt that destroyed half of Constantinople in 532. After crushing the revolt, he reinforced the autocratic elements of the imperial government and mobilised his troops against the western Arian kingdoms. The general Belisarius (d. 565) seized North Africa from the Vandals and attacked the Ostrogoths, but his campaign was interrupted by an unexpected Sasanian invasion from the east. Between 541 and 543, a deadly outbreak of plague decimated the empire. Justinian developed an extensive system of border forts to compensate for the lack of military personnel, but stopped maintaining the public roads. He resumed his expansionism in a decade, completing the conquest of the Ostrogothic kingdom and seizing much of southern Spain from the Visigoths.[73]

Justinian's re-conquests and building program have been criticised by historians for bringing his realm to the brink of bankruptcy, but many of the difficulties faced by his successors were due to other factors (including the massive expansion of the Avars and their Slav allies).[74] Eastern border defences collapsed during a new war with the Sasanian Empire, and the Persians seized Egypt, Syria, and much of Anatolia. The Avars, Slavs and Persians attacked Constantinople in 626, but could not conquer it. Emperor Heraclius (r. 610–41) launched an unexpected

counterattack against the heart of the Sassanian Empire two years later, recovering the territories previously lost to the Persians.[75]

Early medieval European dress

In Western Europe, values attached to Latin scholarship and education largely disappeared. Although literacy remained important, it became a practical skill rather than an indication of status. By the late 6th century, the principal means of religious instruction were music and art rather than books.[76] Most intellectual efforts imitated classical scholarship, but some original works were also created. The writings of Sidonius Apollinaris (d. 489), Cassiodorus (d. c. 585), and Boethius (d. c. 525) were typical of the age.[77] Aristocratic culture focused on great feasts rather than literary pursuits. Family ties among the elites were important, as were the virtues of loyalty, courage, and honour; these ties led to the prevalence of feuds in aristocratic society. Most feuds seem to have ended quickly, with the payment of compensation.[78]

Women participated in aristocratic society primarily as wives and mothers, with the mother of an underage ruler especially prominent in Francia. The lack of many child rulers in Anglo-Saxon society meant a lesser role for women as queen mothers, but this was countered by the increased role played by abbesses of monasteries.[79] Women's influence on politics was fragile, and early medieval authors tended to depict powerful women in a bad light.[note 3][81] Women were more respected in Scandinavian societies; a Viking woman could demand compensation from her husband for domestic violence, act as a seeress, or even command ships.[note 4][83] Women usually died at a considerably younger age than men, primarily due to complications at childbirth. The disparity in numbers between marriageable women and men led to the detailed regulation of legal institutions protecting women's interests, including their right to the *Morgengabe* ("morning gift").[84] Early medieval laws acknowledged a man's right to have long-term sexual relationships with women other than his wife (such as concubines), but women were expected to remain faithful. Clerics censured sexual unions outside marriage, and monogamy also became the norm of secular law in the 9th century.[85]

Reconstruction of an early medieval peasant village in Bavaria, Germany

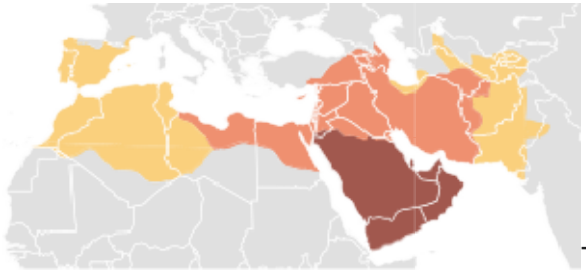
Landholding patterns were not uniform; some areas had greatly fragmented holdings but large, contiguous blocks of land were the norm in other areas. These differences permitted a wide variety of peasant societies, some dominated by aristocratic landholders and others with a great deal of autonomy.[86] Land settlement also varied greatly. Some peasants lived in large settlements with as many as 700 inhabitants, and others on isolated farms.[87] Since legislation made a clear distinction between free and unfree, there was no sharp difference between the legal status of the free peasant and the aristocrat; it was possible for a free peasant's family to rise to the aristocracy through military service.[88] Demand for slaves was covered with warring and raids. After the Anglo-Saxons' conversion to Christianity, slave hunters mainly targeted the

pagan Slav tribes; the English word "slave" derives from *slavicus*, the Medieval Latin term for Slavs.[] Christian ethics brought about significant changes in the position of slaves during the 7th and 8th centuries, since their right to a more humane treatment was enacted.[90]

City life and Culture were declining. Although the northern Italian cities remained inhabited, they decreased significantly in size.[note 5][92] Cities also shrank in northern Europe, and civic monuments and other public buildings were raided for building materials.[93] Jewish communities survived in Spain, southern Gaul and Italy. The Visigothic kings made concentrated efforts to convert the Hispanic Jews to Christianity, but the Jewish community quickly revived after the Muslim conquest of Spain.[94] Muslim rulers employed Jewish courtiers,[95] but Christian legislation forbade the appointment of Jews to government positions.[96]

Rise of Islam

Spread of Islam and *Early Muslim conquests*



The early Muslim conquests

Expansion under Muhammad, 622–632
Expansion during the Rashidun Caliphate, 632–661
Expansion during the Umayyad Caliphate, 661–750

Religious beliefs were in flux along the Eastern Roman and Persian frontiers, as state-sponsored Roman missionaries proselytised among the pagan steppe peoples and the Persians made attempts to enforce Zoroastrianism on the Christian Armenians.[97] The emergence of Islam in Arabia during the lifetime of Muhammad (d. 632) brought about more radical changes. After his death, Islamic forces conquered Syria, Persia, and Egypt. The Eastern Romans halted the Muslim expansion at Constantinople in 674–78 and 717–18; in the west, Islamic troops conquered North Africa, annihilated the Visigothic Kingdom in 711, and invaded southern Gaul beginning in 713.[98]

The conquerors bypassed the mountainous northwestern region of the Iberian Peninsula and a small kingdom, Asturias, emerged as the centre of local resistance.[99] The defeat of Muslim forces at the Battle of Tours in 732 led to the reconquest of southern France by the Franks, but the main reason for the halt of Islamic growth in Europe was the overthrow of the Umayyad Caliphate and its replacement by the Abbasid Caliphate. The Abbasids were concerned with the Middle East, losing control of portions of the Muslim lands in the west. Umayyad descendants took over Al-Andalus (or Muslim Spain), the Aghlabids controlled North Africa, and the Tulunids became rulers of Egypt.[100] The Islamisation of the countryside in Al-Andalus was slow. Christians were regularly employed in state administration, but violent inter-religious conflicts could lead to their mass migration to the north.[101] Except for Byzantium, Muslim Spain was the only place in Europe where eunuchs played a preeminent role in administration and social life, holding positions such as guardians of religious shrines or harem servants.[102]

Trade and economy

: *Saqaliba*

Gold solidus of the Austrasian king Theudebert I

As migrations and conquests disrupted trade networks throughout the old Roman lands, goods from long-range trade were replaced with local products. Non-local goods in the archaeological record are usually luxury goods or metal works.[103] In the 7th and 8th centuries, new commercial networks were developing in northern Europe. Goods such as furs, walrus ivory and amber were delivered from the Baltic region to western Europe, triggering the establishment of toll stations and conflicts over their control.[104] In the post-Roman kingdoms, base metal coinage nearly ceased but bronze Roman coins remained in circulation. Although gold coins were struck, they were mainly used for extraordinary expenditures such as the purchase of land or luxury goods. A shift from gold coinage to the mint of silver pennies began in the late 7th century, with the cessation of Byzantine subsidy payments to the Lombards and Franks. The elites' new emphasis on Christian charity also increased the demand for coins of lower value.[105]

The flourishing Islamic economies' constant demand for fresh labour force and raw materials opened a new market for Europe c. 750. The continent emerged as a major supplier of house slaves and slave soldiers for Al-Andalus, northern Africa and the Levant.[106][107] In addition, timber, fur and arms were delivered from Europe to the Mediterranean; Europe imported spices, medicine, incense, and silk.[108] Large rivers, connecting distant regions, facilitated the expansion of transcontinental trade.[109] Contemporaneous reports indicate that Anglo-Saxon merchants visited fairs at Paris, pirates preyed on tradesmen on the Danube, and Eastern Frankish merchants reached as far as Zaragoza in Al-Andalus.[110]

Church life

An 11th-century illustration of Pope Gregory the Great, inspired by the Holy Spirit, dictating to a secretary

The idea of Christian unity endured, although differences in ideology and practice between the Eastern and Western Churches were increasing.[111] Native Roman aversion to Arian conquerors reinforced the traditional Christian concept of the separation of church and state in the west; this concept was alien to eastern clergymen, however, who regarded the Roman state as an instrument of divine providence.[111] After the Muslim conquests, Byzantine emperors could less effectively intervene in the west. When Leo III (r. 717–41) prohibited the display of paintings of human figures in places of worship, the papacy rejected his claim to declare new dogmas with imperial edicts.[112] Although the Byzantine Church condemned iconoclasm in 843, issues such as the rivalry for ecclesiastic jurisdiction over newly-converted peoples and the unilateral modification of the Nicene Creed in the west widened to the extent that differences were greater than similarities.[113] In the west, the tithe (originally a voluntarily contribution) began to be levied as a church tax on agrarian products during the 10th century.[114]

Few western bishops looked to the papacy for leadership. The only part of Western Europe where the papacy had influence was Britain, where Gregory the Great (pope 590–604) had sent a mission to convert the Anglo-Saxons to Christianity.[115] Church attendance was low, and meetings with itinerant clergy and pilgrimages to popular saints' shrines were instrumental in religious education.[116] Irish missionaries were most active in Western Europe between the 5th and 7th centuries.[117] They were the first to use handbooks, known as penitentials, to determine appropriate acts of penance—typically prayers and fasts—for sinners. They emphasised sexual morality and prescribed severe penances for adulterers, fornicators and those engaged in non-reproductive sexual acts (such as homosexuals).[118] In contrast with official Christianity, the Bogomils in the Balkans condemned sexual reproduction because they considered Satan the creator of the physical universe.[119]

The Early Middle Ages saw the rise of Christian monasticism. Monastic ideals spread from Egypt in hagiographical literature, especially the *Life of Anthony*. Most European monasteries focused on community experience of the spiritual life, known as cenobitism.[120] The Italian monk Benedict of Nursia (d. 547) developed the Benedictine Rule, which was widely used in western monasteries.[121] In the east, monastic rules compiled by Theodore the Studite (d. 826) gained popularity after they were adopted in the Great Lavra on Mount Athos during the 960s.[122]

Monasteries had a deep effect on local society, acting as land trusts for powerful families and centres of political authority;[123] they were the main (and sometimes only) outposts of education and literacy in a region. Many surviving manuscripts of the Latin classics were copied by monks.[124] Monks were also the authors of new works on history, theology, and other subjects by authors such as Bede (d. 735), a native of northern England.[125] The Byzantine missionary Constantine (d. 869) developed Old Church Slavonic as a new liturgical language, establishing the basis for a flourishing Slavic religious literature; a new script was adopted c. 900, now known for Constantine's monastic name as Cyrillic.[126] The Saxon nun Hrosvitha (d. 1000) wrote the first non-liturgical medieval dramas.[127][128]

In Western Christendom, lay influence over church affairs reached its apex during the 10th century. Aristocrats regarded the churches and monasteries under their patronage as their personal property, and simony—the sale of church offices—was a common practice. Simony aroused a general fear, since many believed that irregularly-appointed priests could not confer valid sacraments such as baptism.[129] Monastic communities were the first to react to this fear with rigorous observance of their rules. The establishment of Cluny Abbey in Burgundy in 909 initiated a more radical change, since Cluny was freed from lay control and placed under the protection of the papacy. The Cluniac Reforms indicated that the reformist idea of the "Liberty of the Church" could be achieved with submission to the papacy.[130]

Carolingian Europe

Carolingian Empire

A page from the *Utrecht Psalter*, completed *c.* 800

The Merovingian kings customarily distributed Francia among their sons and destroyed their own power base with extensive land grants. In the northeastern Frankish kingdom of Austrasia, the Arnulfings were the most prominent beneficiaries of royal favour. As hereditary Mayors of the Palace, they were the power behind the throne beginning in the mid-7th century. One, Pepin of Herstal (d. 714), also assumed power in the central Frankish realm of Neustria. His son, Charles Martel (d. 741), took advantage of the permanent Muslim threat to confiscate church property and raise troops by parcelling it out to the recruits.[131]

The Carolingians, as Charles Martel's descendants are known, succeeded the Merovingians as the royal dynasty of Francia in 751. The Merovingian king Childeric III (r. 743–51) was deposed that year, and Charles Martel's son Pepin the Short (r. 751–68) was crowned king with the consent of the Frankish leaders and the papacy. Pepin attacked the Lombards, enforcing their promise to respect papal possessions. His subsequent donation of central Italian territories to the Holy See marked the beginning of the Papal States.[132][133]

Pepin left his kingdom in the hands of his sons: Charles, more often known as Charlemagne (r. 768–814), and Carloman (r. 768–71). When Carloman died, Charlemagne reunited Francia and embarked on a programme of expansion. He subjugated the Saxons, conquered the Lombards, and created a border province in northern Spain.[134] Frankish troops also destroyed the Avars, facilitating the development of small Slav principalities primarily ruled by ambitious warlords under Frankish suzerainty.[note 6][136] The coronation of Charlemagne as emperor on Christmas Day 800 marked the return of the Western Roman Empire, although the Byzantines did not recognise him as a second "emperor of the Romans".[137]

His empire was administered by an itinerant court that travelled with the emperor and about 300 imperial officials (known as counts), who administered the empire's counties.[138] The central administration supervised the counts with imperial emissaries, known as *missi dominici*, who were roving inspectors and troubleshooters. The clerics of the royal chapel were responsible for recording important royal grants and decisions.[139]

Charlemagne's court was the centre of the cultural revival sometimes known as the Carolingian Renaissance. Literacy increased with development of the arts, architecture and jurisprudence, and liturgical and scriptural studies under the auspices of the Anglo-Saxon scholar Alcuin (d. 804). He developed a script, presently known as Carolingian minuscule, which facilitated reading with the clear separation of words and the extensive use of punctuation. Charlemagne sponsored changes in church liturgy, imposing the Roman form of worship on his domains and Gregorian chant in liturgical music for the churches.[140] His commitment to liturgical uniformity stimulated the development of musical notation, leading to the compilation of the first neumed prayer books by the middle of the 9th century. The systematic study of Byzantine liturgy contributed to the development of music theory in the west.[note 7][142] Late-9th-century theoretical studies contain the earliest certain references to the arrangement of harmonic intervals in polyphony.[note 8][144]

Breakup of the Carolingian Empire

East Francia, Middle Francia, West Francia, and Viking Age

Territorial divisions of the Carolingian Empire in 843, 855, and 870

Charlemagne continued the Frankish tradition of dividing his empire between his sons, but only one son – Louis the Pious (r. 814–40) – was still alive by 813. Louis's reign was marked by divisions of the empire among his sons and civil wars between various alliances of father and sons. Three years after his death, his three surviving sons divided the empire among themselves in the Treaty of Verdun.[145] A kingdom between the Rhine and Rhone rivers was created for Lothair I (r. 817–55) to go with his lands in Italy, and his imperial title was recognised. Louis the German (r. 843–76) controlled the eastern lands in modern-day Germany. Charles the Bald (r. 843–77) received the western Frankish lands making up most of modern-day France.[146] Charlemagne's grandsons and great-grandsons divided their kingdoms among their descendants, eventually destroying all internal cohesion.[147]

There was a brief reunion of the empire by Charles the Fat in 884, although its units retained separate administrations.[148] By his death, early in 888, the Carolingians were close to extinction; non-dynastic claimants assumed power in most of the successor states, such as the Parisian count Odo in Francia (r. 888–98).[149] In the eastern lands, the dynasty ended with the death of Louis the Child (r. 899–911) and the selection of the Franconian duke Conrad I (r. 911–18) as king.[150] The dynasty was restored in West Francia in 898 and 936, but the last Carolingians could not control the aristocracy. In 987, the dynasty was replaced with the crowning of powerful aristocrat Hugh Capet (r. 987–96) as king.[note 9][151]

Frankish culture and the Carolingian methods of state administration had a significant impact on neighboring peoples. Frankish threat triggered the formation of new states along the empire's eastern frontier: Bohemia, Moravia, and Croatia.[152] The breakup of the Carolingian Empire was accompanied by invasions, migrations, and raids by external foes. The Atlantic and northern shores were harassed by the Vikings, who also raided the British Isles and settled there. In 911, the Viking chieftain Rollo (d. c. 931) received permission from the Frankish king Charles the Simple (r. 898–922) to settle in present-day Normandy. The eastern parts of the Frankish kingdoms, especially Germany and Italy, were under continual Magyar assault until the invaders were defeated at the Battle of Lechfeld in 955.[153] In the Mediterranean, Arab pirates launched

regular raids against Italy and southern France; the Aghlabids conquered Sicily, and the Umayyads of Al-Andalus annexed the Balearic Islands.[154]

New kingdoms and Byzantine revival

See also: Byzantine Empire under the Macedonian dynasty, Byzantine–Arab wars (780–1180), Byzantine–Bulgarian wars, Christianisation of Bulgaria, and Christianisation of Kievan Rus'

10th-century Ottonian plaque from the Magdeburg Ivories, with Christ receiving a church from Otto I

The Viking settlement in the British Isles led to the formation of new political entities, including the small (but militant) Kingdom of Dublin in Ireland.[155] The Anglo-Saxon king Alfred the Great (r. 871–99) reached an agreement with Danish invaders in 879, acknowledging the existence of an independent Viking realm in Britain.[156][157] By the middle of the 10th century, Alfred's successors had restored Anglo-Saxon control of the territory.[158] In northern Britain, Kenneth MacAlpin (d. c. 860) united the Picts and the Scots into the Kingdom of Alba.[159]

The Ottonian dynasty established itself in Germany in the early 10th century, driving back the Magyars and fighting the disobedient dukes. After an appeal by the widowed Queen Adelaide of Italy (d. 999) for protection, Otto I (r. 936–73) crossed the Alps into Italy, married the young widow and had himself crowned king in Pavia in 951. His coronation as Holy Roman Emperor in Rome in 962 demonstrated his claim to Charlemagne's legacy.[160] Otto's successors remained keenly interested in Italian affairs, but the absentee German kings were unable to assert permanent authority over the local aristocracy.[161] In the Iberian Peninsula, the Basque fight for independence led to the formation of the Kingdom of Navarre and the counts of Barcelona gained autonomy in the Carolingian border province. Asturias expanded slowly south, and continued as the Kingdom of León.[162][163]

The Eastern European trade routes towards Asia were controlled by the Khazars. Their multi-ethnic empire resisted the Muslim expansion, and their leaders converted to Judaism.[164] A new trade route developed at the end of the 9th century, bypassing Khazar territory and connecting Central Asia with Europe across Volga Bulgaria; the local inhabitants converted to Islam.[165] Swedish traders and slave hunters ranged down the rivers of the East European Plain, captured Kyiv from the Khazars, and attempted to seize Constantinople in 860 and 907. Contacts with Francia paved the way for missionary efforts by Christian clergy in Scandinavia, and Christianisation was closely associated with the growth of centralised kingdoms

in Denmark, Norway, and Sweden.[166] Norse colonists settled in Iceland and created a political system that hindered the accumulation of power by ambitious chieftains.[167]

Byzantium revived under Emperor Basil I (r. 867–86) and his successors Leo VI (r. 886–912) and Constantine VII (r. 913–59), members of the Macedonian dynasty. The imperial court was the centre of a rebirth of classical learning known as the Macedonian Renaissance. The military was reorganised, which allowed the emperors John I (r. 969–76) and Basil II (r. 976–1025) to expand the empire's frontiers.[168]

Missionary efforts by Eastern and Western clergy resulted in the conversion of the Moravians, Danubian Bulgars, Czechs, Poles, Magyars, and the inhabitants of the Kievan Rus'.[169] After Moravia fell due to Magyar invasions c. 900, dukes of the Czech Přemyslid dynasty consolidated authority in Bohemia.[170] In Poland, the destruction of old power centres accompanied the formation of the state under the Piast dukes.[171] In Hungary, the princes of the Árpád dynasty used extensive violence to crush opposition by rival Magyar chieftains.[172] The Rurikid princes of Kievan Rus' emerged as the rulers of East Europe's vast forest zones after Rus' raiders sacked the Khazar capital, Atil, in 965.[173] Bulgaria was annexed by the Byzantines between 971 and 1018.[152][174]

Architecture and art

: Migration Period art and pre-Romanesque art and architecture

A page from the *Book of Kells*, an illuminated manuscript from the British Isles

New basilicas were built in the major Roman cities and post-Roman kingdoms from the 4th to the 6th centuries.[note 10][175] Byzantine church architecture adopted an alternative model imitating the rectangular plan and the dome of Justinian's Hagia Sophia, the largest single-roofed structure in the Roman world.[176] As the spacious basilicas became less useful with the decline of urban centres in the west, they gave way to smaller churches until the basilica form of architecture revived in the Carolingian Empire.[177] A new standard feature of Carolingian basilicas is the use of a transept: the "arms" of a T-shaped building which are perpendicular to the long nave.[178] In Al-Andalus, the Great Mosque of Córdoba became an extraordinary example of Moorish architecture.[179]

Halls built of timber or stone were the centres of political and social life. Their design often adopted elements of later Roman architecture such as pilasters, columns, and sculptured discs.[note 11][180] After the disintegration of the Carolingian Empire, the spread of aristocratic castles indicates a transition from communal fortifications to private defence. Most castles were wooden structures, but the wealthiest lords built stone fortresses.[note 12] One or more towers (now known as keeps) were their most characteristic features, but castles often developed into multi-functional compounds with drawbridges, fortified courtyards, cisterns or wells, halls, chapels, stables and workshops.[182]

Gold pouring into the tribal leaders from the Roman Empire was regularly remoulded into new artifacts, such as massive necklaces and eagle-shaped fibulae, by local goldsmiths. Their unrealistic style, often influenced by Iranian polychrome and cloisonné metal works, was introduced into Roman territory by the invading peoples.[183] Artisans working for post-Roman elites developed a distinct, abstract design characterised by ribbons and highly-stylised animal motifs.[184] Literary works such as the Old English epic poem *Beowulf* and the Nordic sagas refer to great royal treasures, but only a few of them survived; they included grave goods from Childeric's tomb at Tournai and the rich Anglo-Saxon burial at Sutton Hoo. Religious art quickly assimilated several elements of secular style, such as strapwork ornamenting and extensive segmentation.[185] Paintings have mostly survived in richly-decorated Gospel Books, including the *Book of Kells* and the Lindisfarne Gospels—two examples of the Insular art of Ireland and Northumbria.[note 13][187]

The Hellenistic tradition of realistic portrayal survived in the Mediterranean.[188] Although the iconoclastic movement restricted Byzantine art, the iconophiles' triumph paved the way for an artistic renewal.[note 14][190] The more naturalistic Mediterranean style was an important inspiration for western artists under Charlemagne, who considered the visual arts a powerful instrument of education and propaganda.[191] After a long pause, Carolingian art rediscovered the human figure and Western artists often depicted people in illuminated codices.[note 15] These were often protected by sumptuous book covers made of gold, pearls, and polished gemstones.[192] Charlemagne's court seems to have been responsible for the acceptance of figurative monumental sculpture in Christian art[193] and, by the end of the period, near-life-sized figures such as the Gero Cross were common in important churches.[194] In England, book illuminators freely enriched their Insular heritage with Carolingian motifs such as sprigs of foliage. In post-Carolingian Germany, manuscripts illustrated with lively pictorial cycles indicate the impact of contemporary Byzantine art on Ottonian artists. In Christian Spain, artists adopted Islamic decorative motifs such as Kufic letters and Moorish arches.[195]

Military and technology

Byzantine cavalry chasing Muslim horsemen in a miniature from the 12th-century *Madrid Skylitzes*

The creation of heavily-armoured cataphract-type soldiers as cavalry was an important feature of the later Roman military, although the deployment of highly-specialised troops continued. The invading tribes had different emphases on types of soldiers, ranging from the primarily-infantry

Anglo-Saxon invaders of Britain to the Vandals and Visigoths, who had a high proportion of cavalry in their armies.[196] The greatest change in military affairs was the adoption of the Hunnic composite bow in place of the weaker Scythian composite bow.[197] The Avar heavy cavalry introduced the use of stirrups in Europe,[198] and it was adopted by Byzantine cavalrymen before the end of the 6th century.[199] Another development was the increasing use of longswords and the progressive replacement of scale armour by mail and lamellar armour.[200]

The importance of infantry and light cavalry began to decline during the early Carolingian period with the increasing dominance of elite heavy cavalry, although a large proportion of the armies appear to have been mounted infantry rather than true cavalry.[201] The use of militia-type levies of the free population declined. One exception was Anglo-Saxon England, where the armies were still composed of regional levies known as the *fyrd*.[202] In military technology, one of the main changes was the reappearance of the crossbow as a military weapon.[203] A technological advance with implications beyond the military was the horseshoe, which allowed horses to be used in rocky terrain.[204]

High Middle Ages

: High Middle Ages

Society

13th-century French historiated initial with the three classes of medieval society: those who prayed (the clergy), those who fought (the knights), and those who worked (the peasantry)

Between c. 950 and 1060, severe droughts struck the Middle East and the Eurasian Steppe experienced anomalous cold. The ensuing famines led to riots and military coups in the Byzantine Empire, the Abbasid Caliphate, and Egypt, and forced masses of nomadic Turks to seek new pasture lands in Iraq, Anatolia, and the Balkans. Their influx caused much destruction, and culminated in the establishment of the Seljuk Empire in the Middle East.[205] In contrast, a period of population expansion began in Europe and its estimated population grew from 35 to 80 million between c. 1000 and 1347. The exact causes remain unclear, and improved agricultural techniques, assarting (bringing new lands into production), a more clement climate, and the lack of invasions have been suggested.[206][207]

Feudalism regulated fundamental social relations in many parts of Europe. In this system, a lord granted property—typically land—to a vassal in return for services (primarily military) rendered.[208][209] In other parts of Europe such as Germany, Poland, and Hungary, inalienable allods remained the dominant forms of landholding. Their owners owed homage to the king or a higher-ranking aristocrat, but their landholding was free of feudal

obligations.[210][211] In the Byzantine Empire and the Balkan states, the *pronoia* system—landholding with limited rights—benefited the military aristocracy.[212]

Most medieval Western thinkers divided society into three fundamental classes: the clergy, the nobility, and the commoners. Commoners, about 98 per cent of the total population, were mainly rural peasants and artisans. The number of townspeople was growing, but never exceeded 10 per cent of the total population.[213][214] Many peasants were no longer settled on isolated farms but had gathered into more-defensible small communities, usually known as manors or villages.[206][215] In the system of manorialism, a manor was the basic unit of landholding; it consisted of smaller components, such as parcels held by peasant tenants and the lord's demesne.[216] As churchmen prohibited the enslavement of coreligionists, a new form of dependency (serfdom) almost completely supplanted slavery by the late 11th century. Unlike slaves, serfs had legal capacity and their hereditary status was regulated by agreements with their lords. Restrictions on their activities varied, but their freedom of movement was customarily limited and they usually owed *corvées* (labour services).[217][218] Peasants left their homelands in return for economic and legal privileges, typically lower taxes, and the right to administer justice in their communities. Cross-border peasant movement had radical demographic consequences, such as the eastward spread of German settlements.[219]

With the development of heavy cavalry, the uniform class of free warriors split into two groups. Those who could equip themselves as mounted knights were integrated into the traditional aristocracy, and the others were assimilated into the peasantry.[220] The new elite's position was stabilised through the adoption of strict inheritance customs, such as primogeniture: the eldest son's right to inherit the family domains undivided.[221] Nobles were stratified in the land and people over whom they had authority; the lowest-ranking nobles did not hold land, and had no vassals.[note 16][223] The nobility was never a closed group; kings could raise commoners to the aristocracy, wealthy commoners could marry into noble families, and impoverished aristocrats could lose their privileged status.[224] Western aristocrats often moved to the peripheries of Latin Christendom with the support of local rulers who appreciated their military skills or as conquerors.[note 17] French-speaking noblemen mainly settled in the British Isles, southern Italy or Iberia, and German aristocrats preferred Central and Eastern Europe.[226]

The clergy was divided into two types. The secular clergy cared for believers' spiritual needs and mainly served in parish churches, and the regular clergy lived under a religious rule as monks, canons, or friars.[227] The introduction of clerical celibacy—the ban on priestly marriage—distinguished Catholic clergy from the laity.[228] Church courts had exclusive jurisdiction over marital affairs,[229] and church authorities supported popular peace movements in the west.[230] Laypeople were obliged to confess their sins to a priest at least once a year beginning in the early 13th century, which reinforced priestly control of their lives.[231]

Women were officially required to be subordinate to some male: their father, husband, or other kinsman. Women's work generally consisted of household or other domestic tasks, such as child care. Peasant women could supplement the household income by spinning or brewing at home, and they did field-work at harvest time.[232] Townswomen could engage in trade, but often only by right of their husband; unlike their male competitors, they were not always allowed to train apprentices.[233] Noblewomen could inherit land in the absence of a male heir, but their potential to give birth was considered their principal virtue.[234] Since women were not ordained priests, the only roles open to them in the church were as nuns.[235]

Economic revival

Impression of the earliest known seal of the northern German city of Hamburg (1241)

The expansion of population, greater agricultural productivity, and relative political stability laid the foundations for the commercial revolution in the 11th century.[236] People with surplus cash began investing in commodities such as salt, pepper, silk, wine and honey in faraway markets.[237][238] Rising trade brought new methods of dealing with money and gold coinage was again minted in Europe, first in Florence and Genoa. New forms of commercial contracts emerged, allowing risk to be shared within the framework of partnerships known as *commenda* or *compagnia*.[239] Bills of exchange also appeared, enabling the easy transmission of money. Since many types of coins were in circulation, money changers facilitated transactions between local and foreign merchants. Loans could be negotiated with them, which gave rise to the development of credit institutions known as banks.[240]

As local commercial centres developed into towns, economic growth caused a new wave of urbanisation. Kings and aristocrats primarily supported the process in the hope of increased tax revenues.[241] Most urban communities received privileges acknowledging their autonomy, but few cities could eliminate all elements of external control.[242] Townspeople engaged in the same trade or profession were united in confraternities known as guilds. These associations typically made rules governing quality, training, and pricing, and only their members had access to local markets.[243][244]

The Italian maritime republics, such as Amalfi, Venice, Genoa, and Pisa, were the first to profit from the revival of commerce in the Mediterranean.[236] In the north, German merchants established associations known as *hansas* and controlled trade routes connecting the British islands and the Low Countries with Scandinavia and Eastern Europe.[note 18][246] Trading fairs were established and flourished in northern France, allowing Italian and German merchants to trade with one another and with local merchants.[247]

Economic growth provided opportunities for Jewish merchants to spread throughout Europe with the support of local rulers.[248] Jews could not engage in prestigious trades outside their communities, and often took low-status jobs such as ragmen or tax collectors.[249] They were especially active in moneylending, because they could ignore the Christian clerical condemnation of loan interest.[250] Jewish moneylenders and pawn brokers reinforced antisemitism which manifested itself in the blood libel and pogroms. Church authorities' growing concerns about Jewish influence on Christian life inspired legal segregation[note 19] and the expulsion of the Jews from England.[252]

Church reforms

The Romanesque Church of Maria Laach Abbey, built mainly between 1130 and 1156

Papal elections were controlled by Roman aristocrats during the early 11th century, but Emperor Henry III (r. 1039–56) broke their power and placed reform-minded clerics on the papal throne. With popular support, they achieved the acknowledgement of their jurisdiction in church affairs in many parts of Europe.[253] The head of the Byzantine Church, Patriarch Michael I Cerularius (d. 1059), refused papal supremacy and was excommunicated by a papal legate in 1054. After a series of mutual excommunications, this East–West Schism led to the separation of the Roman Catholic and Eastern Orthodox Churches.[254][255]

Lay investiture—the appointment of clerics by secular rulers—was condemned at a 1059 assembly of bishops in Rome.[256] Henry's son and successor Henry IV (r. 1056–1105) wanted to preserve the right to appoint his own choices as prelates in his lands, but his appointments outraged Pope Gregory VII (pope 1073–85). Their quarrel developed into the Investiture Controversy, also involving other powers because kings did not relinquish control of appointments to bishoprics or abbeys voluntarily. All conflicts ended with a compromise—in the case of the Holy Roman Emperors, with the 1122 Concordat of Worms.[note 20][258][259]

The High Middle Ages was a time of great religious movements.[260] Old pilgrimage sites such as Rome, Jerusalem, and Compostela received increasing numbers of visitors, and new sites such as Monte Gargano and Bari rose to prominence.[261] Popular movements emerged to support the implementation of church reform, but their anticlericalism sometimes led to the rejection of Catholic dogma by radical groups such as the Waldensians and Cathars.[262][263] To suppress heresies, the popes appointed special commissioners of investigation known as inquisitors.[264] Monastic reforms continued; the Cluniac monasteries' ceremonies were alien to those who preferred the simpler hermetical monasticism of early Christianity, or wanted to live an "apostolic life" of poverty and preaching. New monastic orders were established, including the Carthusians and the Cistercians. In the 13th century, mendicant orders who earned their living by begging (the Franciscans and the Dominicans) were approved by the papacy.[265]

Individuals who were thought to receive divine revelations might present a challenge to clerical monopolies, but most respected official doctrines. The veneration of popular mystics, such as Francis of Assisi (d. 1226), was often sanctioned by church authorities.[266] Many popular mystics were women.[267] Among them, the nun Hildegard of Bingen (d. 1179/80) was a prolific and highly-respected scholar who proudly said that "no man can be made without a woman".[note 21][269][268] Jewish mysticism culminated in the compilation of the *Zohar*, a 13th-century summary of kabbalistic teaching.[270]

Rise of state power

Europe and the Mediterranean Sea in 1190

The High Middle Ages saw the development of institutions that would dominate political life in Europe beyond the late 18th century.[271] The kings' right to rule without a foreign power's intercession became widely accepted, introducing the idea of state sovereignty.[note 22][273] The concept of hereditary monarchy was strengthening,[274] and the first queens regnant assumed power as female succession was recognised in most countries.[note 23][276] The chancery emerged as the central office of royal government and a court of appeals.[277] Taxation quickly developed, because revenues from the royal domains could no more cover state expenditures. Extraordinary taxes were initially levied for military purposes, but by the end of the period taxes were collected more regularly.[278] Effective taxation depended on consent which reinforced the role of representative assemblies, allowing them to exert influence on state administration.[279][280]

The papacy, long attached to an ideology of independence from secular influence, first asserted its claim to temporal authority over the Christian world.[281] The Papal Monarchy reached its zenith under the pontificate of Innocent III (pope 1198–1216).[282] As rulers of much of central Italy and feudal overlords of some of the Catholic rulers, the popes became deeply involved in secular politics.[283] Sicily and southern Italy had been seized by Norman war bands from the local Lombard, Byzantine and Muslim rulers between 1016 and 1091, and Roger II (r. 1105–54) united the Norman principalities into the Kingdom of Sicily.[284]

In the Holy Roman Empire, the Ottonians were replaced by the Salians in 1024. They protected the lesser nobility to reduce ducal power, and seized Burgundy before clashing with the papacy under Henry IV.[285] After an interval from 1125 and 1137, the Hohenstaufens succeeded the Salians. Their recurring conflicts with the papacy allowed the northern Italian cities and the German princes to extort considerable concessions from them. In 1183, Frederick I Barbarossa (r. 1155–90) sanctioned the right of the Lombard cities to elect their leaders; the princes' autonomy was recognised during the reign of his grandson, Frederick II (r. 1220–50).[286] Frederick II's efforts to dominate Italy eventually led to the fall of his dynasty.[note 24] In Germany, a period of interregnum civil war began during which Sicily—Frederick's maternal inheritance—was seized by the ambitious French prince Charles I of Anjou (r. 1266–85).[288] During the civil war, the right of seven prince-electors to elect the king was reaffirmed. Rudolf of Habsburg (r. 1273–91), the first German king to be elected after the interregnum, realised that he could not control the whole empire. He granted Austria to his sons, establishing the basis for the Habsburgs' future dominance in central Europe.[289][290] After his death, three Alpine peasant communities formed the Swiss Confederacy to defend their judicial autonomy against his kinsmen.[291][292]

Detail of the Bayeux Tapestry showing William the Conqueror *(centre)* and his half-brothers, Robert, Count of Mortain *(right)* and Odo, Bishop of Bayeux, in the Duchy of Normandy

The French monarchy slowly began to expand its authority over the nobility.[293] The kings faced a powerful rival in the Dukes of Normandy, who conquered England in 1066 under William the Conqueror (r. 1035–87). The cross-channel empire further expanded when Henry II (r. 1154–89) of the Angevin dynasty ascended the throne, since he had seized large areas of France through inheritance and marriage.[note 25][295] The first Anglo-Norman lordships in Ireland were established during his reign.[296] The Angevin Empire remained intact under his son Richard I (r. 1189–99), but Richard's brother John (r. 1199–1216) lost the northern French possessions to the French king Philip II Augustus (r. 1180–1223).[297] John's financial exactions to pay for his unsuccessful attempts to regain Normandy led to the 1215 Magna Carta, a charter that confirmed the rights and privileges of free men in England.[298] In France, Philip Augustus's son Louis VIII (r. 1223–26) distributed large portions of his father's conquests among his younger sons as appanages—virtually independent provinces—to facilitate their administration.[299] His son Louis IX (r. 1226–70) improved local administration by appointing inspectors, known as *enquêteurs*, to oversee the royal officials' conduct. The royal court at Paris began hearing litigants in regular sessions almost year-round.[300]

The Iberian Christian states began to push back against the Islamic powers in the south, a period known as the *Reconquista*.[301] After a number of divisions and reunifications of the Christian states, the Christian north had coalesced into the four kingdoms of Castile, Aragon, Navarre, and Portugal by 1230.[302][303] Aragon emerged as a naval power, conquering Sicily from the Italian Angevins and Sardinia from the Genoese.[304][305] Southern Iberia remained under the control of Islamic states, initially under the Caliphate of Córdoba (which broke up in 1031 into a shifting number of petty states known as *taifas*). Although the Almoravids and the Almohads (two dynasties from the Maghreb) established centralised rule of southern Iberia in the 1110s and 1170s respectively, their empires quickly disintegrated and allowed further expansion of the Christian kingdoms.[306] The Catholic Scandinavian states also expanded; the Norwegian kings assumed control of the Norse colonies in Iceland and Greenland, Denmark seized parts of Estonia, and the Swedes conquered Finland.[307]

In the east, Kievan Rus' fell apart into independent principalities. Among them, the northern Vladimir-Suzdal emerged as the dominant power after Suzdalian troops sacked Kyiv in 1169.[308] Poland also disintegrated into autonomous duchies, enabling the Czech kings to expand in the prosperous Duchy of Silesia.[309] The kings of Hungary seized Croatia, but respected the liberties of the native aristocracy. They claimed (but only periodically achieved) suzerainty over other lands and peoples such as Dalmatia, Bosnia, and the nomadic Cumans.[310] The Cumans supported the Bulgarians and Vlachs during their anti-Byzantine revolt that led to the restoration of Bulgaria in the late 12th century.[311] West of Bulgaria, Serbia gained independence.[312]

With the rise of the Mongol Empire in the Eurasian Steppe under Genghis Khan (r. 1206–27), a new expansionist power reached Europe.[313] The Mongols conquered Volga Bulgaria, shattered the Rus' principalities, and laid waste to large regions in Poland, Hungary, Croatia, Serbia and Bulgaria between 1236 and 1242. Their commander-in-chief, Batu Khan (r. 1241–56)—a grandson of Genghis Khan—set up his capital in Sarai on the Volga, establishing the Golden Horde: a virtually-autonomous Mongol state. The Mongols extracted heavy tribute from the Rus' principalities, and the Rus' princes had to ingratiate themselves with the Mongol khans for economic and political concessions.[note 26][315] Under Mongol pressure, the Anatolian Seljuk Sultanate disintegrated into small (but often aggressive) Turkic lordships such as the one ruled by the Ottoman clan on the Byzantine border.[316] The Mongol conquest was followed by a peaceful period in eastern Europe, facilitating the development of direct trade contacts between Europe and China through new Genoese colonies in the Black Sea region.[317] The new land and sea routes to the Far East were described by the trader Marco Polo (d. 1324).[236]

Crusades

Main articles: Crusades and Crusading movement

See also: Byzantine Empire under the Komnenos dynasty, List of Crusades, and Rhineland massacres

Krak des Chevaliers in Syria, built during the crusades for the Knights Hospitallers.

Clashes with secular powers led to the militarisation of the papacy. In response to a Byzantine appeal for military aid against the Seljuk Turks, Urban II (pope 1088–99) proclaimed the First Crusade at the Council of Clermont. He declared the liberation of Jerusalem as its ultimate goal, and offered indulgence—the remission of sins—to all who took part.[318] Tens of thousands of commoners formed loosely-organised bands to march to the east. They lived by looting, and attacked Jewish communities. Few of them reached Anatolia, and those who succeeded were annihilated by the Turks.[319] The official crusade departed in 1096 under the command of prominent aristocrats such as Godfrey of Bouillon (d. 1100) and Raymond of Saint-Gilles (d. 1105). The crusaders defeated the Turks in major battles at Dorylaeum and Antioch, allowing the Byzantines to recover western Anatolia. The westerners consolidated their conquests in the Middle East into crusader states, but their security depended on external military assistance (which led to further crusades).[320] Muslim resistance was raised by ambitious warlords such as Saladin (d. 1193), who captured Jerusalem in 1187.[321] New crusades prolonged the crusader

states' existence for another century, until the last strongholds fell to the Mamluks of Egypt in 1291.[322]

The papacy also used the crusading ideology in other theaters of war.[323] The Iberian crusades became fused with the *Reconquista*, and reduced Al-Andalus to the Emirate of Granada by 1248. The German and Scandinavian rulers' expansion against the neighbouring pagan tribes developed into the Northern Crusades, forcing the assimilation of a number of Slavic, Baltic and Finnic peoples into the culture of Catholic Europe.[324] The Fourth Crusade was diverted from the Holy Land to Constantinople and captured the city in 1204, setting up a Latin Empire in the east. Michael VIII Palaiologos (r. 1259–82), ruler of a Byzantine rump state,[note 27] recaptured the city in 1261 but parts of Greece remained under western rule.[325][326] The Albigensian Crusade, against the Cathars of Occitania, provided an opportunity for the French monarchy to expand into the region.[327]

With its unique ceremonies and institutions, the crusading movement became a leading element of medieval life.[note 28] A crusader oath could be fulfilled with a cash payment beginning in 1213, which gave rise to the sale of plenary indulgences by church authorities.[329] The crusades fused monastic life with military service in the framework of a new type of monastic order, the military order, including the Knights Templar, the Hospitallers and the Teutonic Knights.[330][331] The Teutonic Knights focused much of their activity in the Baltic, where they founded their own state in 1226.[332]

Intellectual life

: Renaissance of the 12th century

Cathedral chapters were expected to operate a school beginning in the late 11th century, and the more-lenient cathedral schools quickly marginalised the traditional monastic schools. Schools reaching the highest level of mastery in the disciplines they taught received the rank of *studium generale*, or university, from the pope or the Holy Roman Emperor.[333][334] The new educational institutions encouraged scholarly discussion.[335] Debates between the realists and the nominalists about the concept of "universals" were especially heated. Philosophical discourse was stimulated by the rediscovery of Aristotle (d. 322 BC), the Ancient Greek philosopher, and his emphasis on empiricism and rationalism. Scholars such as Peter Abelard (d. 1142) and Peter Lombard (d. 1164) introduced Aristotelian logic into theology.[336] Scholasticism (a new method of intellectual discourse and pedagogy) required the study of authoritative texts, notably the Vulgate and patristic literature, but references to them could no longer override rational arguments.[337] Scholastic academics summarised their (and other authors') views on specific subjects in comprehensive sentence collections known as *summae*, including the *Summa Theologica* by Thomas Aquinas (d. 1274).[338]

A chantar m'er de so qu'eu no volria—a *tenso* by the *trobairitz* (female troubadour) known as Comtessa de Dia to her former lover, reminding him her beauty and unselfish love.[339]

Chivalry and the ethos of courtly love developed in royal and noble courts. This culture was expressed in the vernacular languages, rather than Latin, and consisted of poems, stories, legends, and popular songs. Often the stories were written down in *chansons de geste* (songs of great deeds), glorifying their male heroes' often-brutal acts, including *The Song of Roland* and *The Poem of the Cid*. Chivalric romance praised chaste love, and eroticism was primarily expressed in poems by troubadours.[340][341] Chivalric literature was inspired by classical mythology and the Celtic legends of the Arthurian cycle collected by Geoffrey of Monmouth (d. c. 1155).[342] Other literary genres included spiritual autobiographies, chronicles,

philosophical poems, and hymns.[note 29][343] Theatre developed in mystery plays, but comic farces such as those by Adam de la Halle (d. 1287/88) also became popular.[344] Previously present only in liturgy, polyphony appeared in secular songs in the form of motets; their popularity led to the fading of older liturgical forms, such as *organum*. Composers seceded from traditional rhythmic modes which required the invention of a new notation system, known as mensural notation, mainly developed by the music theorist Franco of Cologne c. 1260.[345]

The 11th-century discovery of a copy of the *Corpus Juris Civilis* paved the way for the systematic study of Roman law at Bologna, which led to the recording and standardisation of legal codes throughout Western Europe.[note 30] Around 1140, the monk Gratian (fl. 12th century)—a teacher at Bologna—wrote what became the standard text of ecclesiastical law in Catholic Europe: the *Decretum Gratiani*.[348] Greek and Islamic influence replaced Roman numerals with the decimal positional number system, and the invention of algebra allowed more-advanced mathematics. Astronomy benefited from the translation of Ptolemy's *Almagest* from Greek into Latin. Medicine was studied, especially in southern Italy, where Islamic medicine influenced the school at Salerno.[349]

Architecture and the arts

León Cathedral, an example of Rayonnant Gothic, completed in three phases from the 13th to 15th centuries

Encastellation continued, with stone fortresses built in regions where central authority was weak.[350] Many were motte-and-bailey structures, but *Bergfriede* (tower castles) were preferred in central Europe and competing urban families built tall towers in Italian cities and towns.[note 31][352] The great pilgrimages encouraged the construction of large churches along pilgrimage routes.[note 32] This led to the development of stone architecture which resembled classical Roman building design and is known as Romanesque. Romanesque buildings have massive stone walls decorated with sculpture in relief and are typically covered by barrel, groin or rib vaults,[354] but they have a number of regional variants.[355] Traditional Byzantine religious architecture remained dominant in the Balkans, although some Serbian churches have a Romanesque influence.[note 33][357]

Romanesque art (especially metalwork) was at its most sophisticated in Mosan art, in which distinct artistic personalities—including Nicholas of Verdun (d. 1205)—became apparent, and an almost-classical style is seen in works such as a font at Liège.[358] Few wall paintings survive, although references to images abound in written sources. The employment of itinerant artists, and the use of sketches of murals facilitated the transmission of artistic motifs over long distances.[note 34] Embroidery flourished; churches and castles were decorated by tapestries, and clerical vestments were adorned with needlework images.[360]

Structural innovations introduced the evolution of Gothic architecture from Romanesque. They included pointed arches to reduce lateral thrust, flying buttresses to reinforce walls, and rib vaults to minimise their static importance. The new solutions allowed the extensive use of large stained glass windows.[361] Gothic architecture emerged during the reconstruction of the Saint-Denis Abbey, near Paris, under Abbot Suger (d. 1151).[362][363] The new style quickly spread, dominating religious architecture in much of Catholic Europe until the end of the Middle Ages.[note 35][366]

Manuscript illumination gradually moved from monasteries to lay workshops, and the book of hours developed as a form of devotion for laypeople.[367] Metalwork continued as the most prestigious form of art, with Limoges enamel a popular and relatively-affordable option.[368] In Italy, the innovations of Cimabue, Duccio, and the Trecento master Giotto (d. 1337) greatly increased the sophistication and status of panel painting and fresco.[369] Increasing prosperity during the 12th century resulted in greater production of secular art; many carved-ivory objects such as gaming pieces, combs, and small religious figures have survived.[370]

Technology and the military

Further information: List of medieval European scientists and military of the Mongol Empire

Portrait of Cardinal Hugh of Saint-Cher (d. 1263) by Tommaso da Modena (1352), the first known (albeit anachronistic) depiction of spectacles

Technology developed primarily in minor innovations and the adoption of advanced technologies from Asia with Muslim mediation.[371] Major technological advances included the first mechanical clocks and convex spectacles, and the manufacture of distilled spirits.[372][373] In Europe, horizontal treadle looms were introduced in the 11th century; windmills were first built after 1100, and spinning wheels appeared c. 1200.[372][374] Large scale construction projects advanced building technology, and increased demand for raw materials like timber, stone, and bricks.[375] Shipbuilding improved with the use of the rib-and-plank method rather than the Roman system of mortise and tenon. Other improvements to ships included lateen sails and the stern-post rudder, both of which increased sailing speed.[376] The astrolabe and compass allowed navigation at a great distance from shore.[377]

The development of a three-field rotation system for crops increased land use by over 30 per cent, with a consequent increase in production.[378] The improvement of the plough allowed heavier soils to be farmed more efficiently. The spread of horse collars led to the use of draught horses, who required less pasture than oxen.[379] Legumes such as peas, beans, and lentils were grown more widely, in addition to cereal crops.[380]

In military affairs, the use of specialised infantry increased. Along with the still-dominant heavy cavalry, armies often included mounted and infantry crossbowmen, sappers and engineers.[381] Crossbow use increased, partly because of the increase in siege warfare.[note 36][203] This led to the use of closed-face helmets, heavy body armour, and horse armour.[383] In contrast, the Mongols remained lightly-armoured steppe horsemen even after they adopted

Chinese military devices.[note 37] The extensive use of spies for reconnoitering enemy land was a prominent factor in their successful military campaigns.[385]

Late Middle Ages

Late Middle Ages

Society and economy

Main article: Crisis of the late Middle Ages

Execution of ringleaders of the *Jacquerie* revolt, from a 14th-century manuscript of the *Chroniques de France ou de St Denis*

The average annual temperature began declining c. 1200, gradually introducing the Little Ice Age. Climate anomalies caused agricultural crises, culminating in the Great Famine of 1315–1317.[386] Starving peasants slaughtered their draft animals, and survivors had to make extraordinary efforts to revive farming.[387] This was followed in 1346 by the Black Death, a pandemic that spread throughout Europe and killed about one-third of the population. As plague continued to strike Europe until 1400, its total population fell by about 50 percent.[note 38][388]

The trauma of the plague led to pogroms against the Jews and the self-mortification of flagellants.[390] Peasants who survived the pandemic paid lower rents to landlords, but demand for agricultural products declined and lower prices barely covered their costs. Urban workers received higher salaries, but were heavily taxed. Governments occasionally tried to raise rural rents or keep urban salaries low, provoking popular uprisings which included the *Jacquerie* in France, the Peasants' Revolt in England, and the Ciompi Revolt in Florence.[391] Conflict polarised ethnic groups, and local statutes prohibited intermarriage and limited guild membership along ethnic lines.[note 39][393] Private feuds were almost permanent in politically-fragmented regions, and local skirmishes often escalated into full-scale warfare.[394]

Labour services owed by peasants for their land tenure were often changed into cash rent, providing landlords with a stable source of income. Landlords joined to extort privileges from their governments, but royal administrations began to protect the interests of the poor.[395] Serfdom was officially abolished in many places,[396] although in other regions (primarily

central and eastern Europe) it was imposed on tenants who had been free.[397] The rise of banking continued, fuelled partly by the cross-border movement of papal revenues with the mediation of large merchant houses. They also loaned money to warring royalty at great risk, and some were bankrupted when kings defaulted on loans.[note 40][399]

The Jewish communities were permanently expelled from France and, provisionally, from most German cities and principalities. In contrast, Hungarian and Polish rulers encouraged the immigration of Jewish moneylenders.[400] Massive pogroms led to the mass conversion of Spanish Jews in 1391. The "new Christians" were suspected of heresy, and the Spanish Inquisition was established to test their faith. Jews who refused to convert were exiled from Spain in 1492, and from Portugal in 1497. Most Spanish Jews left for the Ottoman Empire.[401][402]

State resurgence

Although the growth of central governments continued, more than 500 autonomous polities existed at the end of the period.[403] Successful dynasties reigned over several states (primarily in close cooperation with local elites), but could not freely redistribute resources throughout their realms.[note 41][404] Fiscal and military matters were regularly discussed with representatives of elite groups—primarily the nobility, prelates, and burghers—at legislative assemblies known as parliament, *diet*, *cortes*, or *Landtag*.[405] Legal procedures improved as discretionary justice, previously dispensed by kings and their retainers, was delegated to professional lawyers.[404]

Joan of Arc in peasant dress, wearing her arms, in a late-15th-century miniature

In Germany, elected emperors were no more than supreme arbiters even if they had a significant power base in their hereditary lands.[note 42][407][408] Imperial authority was even more limited in Italy, where Florence, Milan, and Venice exploited the power vacuum to expand.[409] The centuries-old rivalry between England and France escalated into the Hundred Years' War when Edward III (r. 1327–77) laid claim to the French throne in 1337.[410][411] The English won the battles of Crécy and Poitiers, captured the city of Calais, and took control of an expanded Gascony by 1360. Aristocratic feuds escalated into a civil war, allowing Henry V of England (r. 1413–22) to seize much of France.[412][413] The unconquered French regions put up a strong resistance, boosted by the visions of peasant girl Joan of Arc (d. 1431). By 1453, Charles VII of France (r. 1422–61) expelled the English from the country except for Calais.[414][415] England fought a long civil war known as the Wars of the Roses, which ended after Richard III (r. 1483–85) died fighting at Bosworth and his opponent, Henry Tudor, consolidated power as Henry VII (r. 1485–1509).[416] The wars prevented the English from expanding in the British Isles, but

royal power remained weak in Scotland and much of Ireland was ruled by feuding local lords.[417][418]

Succession trouble was not uncommon in the Iberian kingdoms; intermarriages between royal houses created conflicting claims to thrones, and royal bastards could successfully claim their paternal inheritance.[419][420] Portugal opened a new theater of anti-Muslim warfare in Morocco by seizing Ceuta in 1415.[421] Aragon and Castile were divided by conflicts between magnate factions or about the limits of royal government, but the Castilian Isabella I (r. 1474–1504) and her Aragonese husband Ferdinand II (r. 1479–1516) reinforced royal power.[422] They completed the *Reconquista*, conquering Granada in 1492.[423]

The idea of elective kingship revived in the central European and Scandinavian monarchies for a variety of reasons, including aristocratic aversion to foreign influence.[424][425] Royal power was restored in Poland early in the 14th century, during a period when the Teutonic Knights' expansion intensified. The Knights primarily targeted Lithuania, a loose confederation of mainly-pagan Lithuanian chieftains and Orthodox Rus' principalities. The common enemy prompted a Polish–Lithuanian union sealed by the marriage of Lithuanian grand duke Jogaila (r. 1377–1434) and the Polish queen Jadwiga (r. 1384–99), and the Lithuanian conversion to Catholicism.[426][427] In Scandinavia, Margaret I of Denmark (r. 1387–1412) consolidated Denmark, Norway, and Sweden in the 1397 Union of Kalmar, but only the Danish–Norwegian union was lasting.[note 43][430]

After Polish, Hungarian, and Lithuanian invasions, and succession crises undermined the Golden Horde's power in the 14th century, the princes of Muscovy began annexing the Rus' principalities (often in competition with Lithuania).[note 44] Under Grand Prince Ivan III (r. 1462–1505), the conquest of the great trading cities of Novgorod and Tver completed Muscovy's dominance in the northeast.[433][434] In southeastern Europe, the small Vlach principalities of Wallachia and Moldavia emerged; their rulers primarily accepted the suzerainty of Hungarian or Polish kings.[435]

Collapse of Byzantium and rise of the Ottomans

Byzantine Empire under the Palaiologos dynasty and Rise of the Ottoman Empire

Byzantine–Ottoman wars, Bulgarian–Ottoman wars, and Hungarian–Ottoman Wars

The Battle of Nicopolis, from the late-16th-century Ottoman illuminated chronicle *Hünername*

Facing financial crises and threats from the west, the restored Byzantine Empire was unable to prevent Turkish expansion in Anatolia. Revolts by Catalan mercenaries and recurring civil wars further weakened the empire,[note 45] allowing the Ottoman Turks to establish a strategic bridgehead at Gallipoli in 1354.[437][438] Within a century, the Ottomans reduced the competing southeastern European kingdoms, principalities and lordships to tributary states.[439][440] International coalitions, such as the crusades of Nicopolis (1396) and Varna (1444), could not stop their advance.[441] The last Byzantine emperor, Constantine XI (r. 1449–53), died during the conquest of Constantinople by Sultan Mehmed II (r. 1451–81).[442] Talented military commanders could repel individual Ottoman attacks[note 46] but the Ottomans conquered almost all of the Balkans; Bulgaria was occupied in 1396, Serbia in 1459, Byzantine Greece in 1460, Bosnia in 1463, and the Albanian lords' resistance was broken by 1488.[444] Ottoman rule was highly centralised, and sultans often appointed slaves to the highest offices. During the late 15th century, the sultans began murdering their brothers to avoid succession crises.[445]

Controversy in the church

Since prolonged papal elections and conflicts with the Roman aristocracy had undermined papal authority in Italy, the seat of the papacy was moved to the city of Avignon in 1309. During the period of the Avignon Papacy, Frenchmen assumed leadership of the Catholic Church. When the French king Philip IV (r. 1285–1314) brought false charges against the wealthy Knights Templar, Pope Clement V (pope 1305–14) could not prevent their suppression in 1312. Although the papal seat was returned to Rome in 1377 due to popular pressure, disputes among the church leadership led to the Western Schism; two and, later, three rival lines of popes were each supported by several states. The schism was resolved at the Council of Constance with the resignation of one pope and the deposition of his two rivals, which paved the way for the election of an Italian cardinal as Pope Martin V (1417–31).[448][449]

Theological debates intensified.[450] English theologian John Wycliffe (d. 1384) criticised popular acts of devotion such as pilgrimages, and challenged Catholic doctrine on the Eucharist.[451] His teachings influenced two major movements condemned as heretical by Catholic authorities: Lollardy in England and Hussitism in Bohemia.[452] The Bohemian movement began with teachings of Czech theologian Jan Hus (d. 1415), who was burned at the stake at Constance. Hussitism, the target of anti-heresy crusades, survived as an officially-recognised denomination in Bohemia.[note 47][454][455] In the hope of western support against the Ottomans, Byzantine church leaders submitted themselves to the papacy at the 1438–39 Council of Florence; most Orthodox believers rejected papal supremacy, however, and those who supported the church union died in exile.[note 48][457]

Mysticism and devotional literature flourished.[458] Meister Eckhart (d. 1327), a critic of Aquinas, urged the faithful to focus on perfecting their inner divine core. Although his works were censured for heresy, copies of his sermons survived which were read by Protestant reformer Martin Luther (d. 1546).[459] The most characteristic late-medieval reform movement, the *Devotio Moderna* emphasised lay piety, community experience and personal faith.[460] In the Orthodox world, the Athonite monks Gregory of Sinai (d. 1346) and Gregory Palamas (d. 1359) promoted a form of meditative prayers known as Hesychasm.[461] A general fear of evil practices led to the first witch trials c. 1450 and a popular handbook, the *Malleus Maleficarum* (*Hammer of the Witches*), laid the groundwork for early modern witch hunts.[462]

Scholars, intellectuals, and exploration

Age of Discovery and *Spanish colonization of the Americas*

Clerics studying astronomy and geometry (French, early 15th century)

Prominent late-medieval philosophers departed from Aristotelian logic. Among them, William of Ockham (d. c. 1348) concluded that natural philosophy could not prove God's existence. Under his influence, most scholars who researched subjects yielding verifiable conclusions (such as mathematics or physics) no longer analysed theological issues.[463] Marsilius of Padua (d. 1342), however, was still inspired by Aristotle to argue in favor of a community's right to regulate its life and control the clergy.[464] Scholars such as Petrarch (d. 1374) intensively studied classical literature; many emphasised human dignity, and were known as humanists.[465]

The poetry of Dante (d. 1321) and the prose of Boccaccio (d. 1375), both from Florence, indicate that the Italian Tuscan dialect had matured into a literary language on a par with Latin. English reached the same level with *The Canterbury Tales* by Geoffrey Chaucer (d. 1400). French became standardised with theoretical discussions about chivalric literature. One of the sharpest critics of chivalric romances, Christine de Pizan (d. c. 1430), wrote the feminist utopian *The Book of the City of Ladies*.[466] The standardisation of song structures led to three *"formes fixes"* (fixed forms)—*rondeau*, *ballade*, and *virelai*—in the early 14th

century.[467] Literacy improved as new schools and universities were established throughout Europe,[note 49] often sponsored by urban authorities or wealthy individuals.[470][471] The invention of the printing press with movable type simplified the mass publication of books, and competition between publishing houses contributed to the quick spread of news and ideas.[472]

Several factors, primarily a growing demand for gold and European merchants' eagerness to avoid customs payments, prompted the search for a direct maritime route to India along the African coasts. Initially, the Portuguese led the explorations; Dinis Dias landed at Cap Verde in 1444, Bartolomeu Dias (d. 1500) sailed as far as the Cape of Good Hope in 1486, and Vasco da Gama (d. 1524) reached India in 1498. After visiting the African slave markets, the Portuguese became deeply involved in the slave trade with Europe and the Muslim world.[note 50][475] Christopher Columbus proposed a westward, alternative route to India. He gained Isabella of Castile's support for his voyage of exploration that led to the European discovery of the Americas in 1492.[476][477]

Technological and military developments

Labours of the Months, an agricultural calendar c. 1470, from a manuscript of Pietro de Crescenzi's manual on farming

In cloth production, the second main employer after agriculture,[478] the increased use of sheep with long-fibred wool allowed a stronger thread to be spun[374] and the use of buttons to close garments enabled a better fit.[479] Popular tailoring designs were quickly spread by pedlars, and trends in fashion were dictated by the Burgundian ducal court in much of 15th-century Europe.[480] In metalworking, the blast furnace increased the quantity and quality of iron.[481] The first patent law, in 1447 in Venice, granted a ten-year monopoly to inventors for their inventions.[482]

As increased tax revenues allowed the employment of mercenaries in growing numbers,[483] wars began to be primarily fought by professional soldiers throughout nearly all of Europe in the mid-14th century.[484] Mercenaries were initially hired for wars, but a standing army was created in France in the late 1440s.[485] Around 1438, child tribute from the Christian population began supplying the Ottoman army with professional foot soldiers known as Jannisaries.[486] In Bohemia, religious enthusiasm, stern discipline and the use of wagon forts were key factors in Hussite victories.[487] The earliest references to cannons were recorded in the early 14th century, and the use of cheap handguns quickly began to spread c. 1360.[488]

Art and architecture

The wealthiest Italian and French princes regularly hired foreign artists, which led to the convergence of courtly styles. This International Gothic reached much of Europe around 1400, producing masterpieces in sculpture and miniature.[note 51][490][491] Throughout Europe, secular art increase in quantity and quality; the mercantile classes of Italy and Flanders became important patrons during the 15th century, commissioning small portraits and a growing range of luxury items such as jewellery, cassone chests, and maiolica pottery.[492] In France and Flanders, tapestry weaving of series such as *The Lady and the Unicorn* became a major luxury industry.[493]

Florence emerged as the center of intellectual and artistic life for most of the Quattrocento. The Medici—the city's most influential family—gathered a significant collection of classical sculptures and opened it to local artists. The Tuscan architect Brunelleschi (d. 1446) studied the Pantheon in Rome before completing the plan of the dome of the Florence Cathedral. The use of one-point perspective for creating the illusion of depth was another innovation, demonstrated by reliefs on the bronze door of the Florence Baptistery by Lorenzo Ghiberti (d. 1455). Early Renaissance artists restored the nude and eroticism (including homoerotocism) in artworks such as the bronze statue *David* by Donatello (d. 1466) and *The Birth of Venus* by the painter Boticelli (d. 1510).[494] Flemish painters quickly improved their technique. When completing his *Ghent Altarpiece*, Jan van Eyck (d. 1441) used oil paint to create a translucent surface and tiny bushes to achieve a more lifelike representation of the natural world.[495]

Printing houses throughout Europe began the mass production of inexpensive playing cards and primitive religious images during the mid-15th century. Block books—woodcuts containing illustrations and text—rapidly became popular, with best-sellers including the *Biblia pauperum* (*Paupers' Bible*) and *Ars moriendi* (*Art of Dying*).[496] Horror stories were widely read, including German booklets describing the cruel acts of Wallachian prince Vlad the Impaler (r. 1456–62).[497] The first large illustrated printed book, the *Nuremberg Chronicle*, was published in 1493.[498]

Modern perceptions and historiography

: Dark Ages (historiography), Medieval studies, and Middle Ages in popular culture

Medieval illustration of the spherical Earth in a 14th-century copy of *L'Image du monde*

According to David Lindberg, the medieval period has frequently been described as a "time of barbarism, ignorance, and superstition" which placed "religious authority above personal experience and rational activity".[499] This is a legacy of the Renaissance and Enlightenment, when scholars favourably contrasted their intellectual culture with the past. Renaissance scholars saw the Middle Ages as a period of decline from the high culture and civilisation of the classical world. Enlightenment scholars saw reason as superior to faith, and viewed the Middle Ages as a time of ignorance and superstition.[11] One misconception is that all people in the Middle Ages believed that the Earth was flat.[500] This is untrue; lecturers in medieval universities commonly argued that evidence indicated the Earth was a sphere.[501] Science historian Edward Grant said, "If revolutionary rational thoughts were expressed in the Age of Reason, they were only made possible because of the long medieval tradition that established the use of reason as one of the most important of human activities".[502]

During the 19th century, the brutality of the French Revolution sparked intense nostalgia for the medieval period. This medievalism inspired several influential intellectuals, including British historian Thomas Carlyle (d. 1881), French architect Eugène Viollet-le-Duc (d. 1879), and German composer Richard Wagner (d. 1883). Romantic nationalism sought the origins of modern nations in the Middle Ages, stimulating oppressed ethnic groups' national awakening and the expansionism of empires.[503] The professionalisation of historical study began with the German historian Leopold von Ranke (d. 1886). He emphasised primary sources and studied several aspects of history, but his students focused on political history. Historians of the French *Annales* school such as the medievalist Marc Bloch (d. 1944) broadened their perspective, examining culture, society, and identity. Marxism, with its emphasis on class conflict, influenced historical research in the Soviet Bloc. Monographs on the medieval history of certain groups such as women, Jews, slaves, heretics and homosexuals have been regularly published since the 1970s, with the influx of people from diverse social backgrounds into universities.