

"The Creation of Adam" (Michelangelo, Sistine Chapel)

The transition from the Middle Ages to the modern period (14th-16th century) wasn't triggered by a specific event. Rather, it was a complex process in which the ways of thinking slowly began to change. The medieval worldview shifted and became increasingly "modern" as man himself – human proportions and ideals – moved to the center stage. Since this process is inextricably linked to the rediscovery of classical antiquity, the era following the Middle Ages is labelled "Renaissance".

Renaissance

Dawn of the Modern Age

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From medieval to modern thinking. A look at Petrarch and Pico della Mirandola.

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Pico della Mirandola and the “Renaissance Manifesto”

Giovanni Pico della Mirandola was one of the foremost intellectuals and writers of the Italian Renaissance. Pico boasted that he had studied all schools of philosophy, which he tried to demonstrate by drawing up no less than nine hundred theses for public disputation at the age of only twenty-four. As a preface to his theses, he wrote his famous *Oration on the Dignity of Man*, in which he solemnly proclaimed the unlimited potentiality of human beings. A key text of Renaissance humanism, this work has also been called the manifest of the Renaissance.



Pico della Mirandola (left)

Pico della Mirandola, *On the Dignity of Man*

At last the best of artisans [God] ordained that the creature to whom He had been able to give nothing proper to himself should have joint possession of whatever had been peculiar to each of the different kinds of being. He therefore took man as a creature of indeterminate nature, and assigning him a place in the middle of the world, addressed him thus: “Neither a fixed abode nor a form that is yours alone nor any function peculiar to yourself have We have given you, Adam, to the end that according to your longing and according to your judgment you may have and possess what abode, what form, and what functions you yourself desire [...]

The nature of all other beings is limited and constrained within the bounds of laws prescribed by Us. You, constrained by no limits, in accordance with your own free will, in whose hand We have placed you, shall ordain for yourself the limits of your nature. We have set you at the world’s centre that you may from there more easily observe whatever is in

the world. We have made you neither of heaven nor of earth, neither mortal nor immortal, so that with freedom of choice and with honor, as though the maker and moulder of yourself, you may fashion yourself in whatever shape you shall prefer. You shall have the power, out of your soul’s judgment, to be reborn into the higher forms, which are divine.”

O supreme generosity of God the Father, O highest and most marvelous felicity of man! To him it is granted to have whatever he chooses, to be whatever he wills. According to Lucilius, beasts as soon as they are born bring with them from their mother’s womb all they will ever possess. Spiritual beings, either from the beginning or soon thereafter, become what they are to be for ever and ever [...]

On man when he came into life the Father conferred the seeds of all kinds and the germs of every way of life. Whatever seeds each man cultivates will grow to maturity and bear in him their own fruit. If they be vegetative, he will be like a plant. If sensitive, he will become

brutish. If rational, he will grown into a heavenly being. If intellectual, he will be an angel and the son of God.

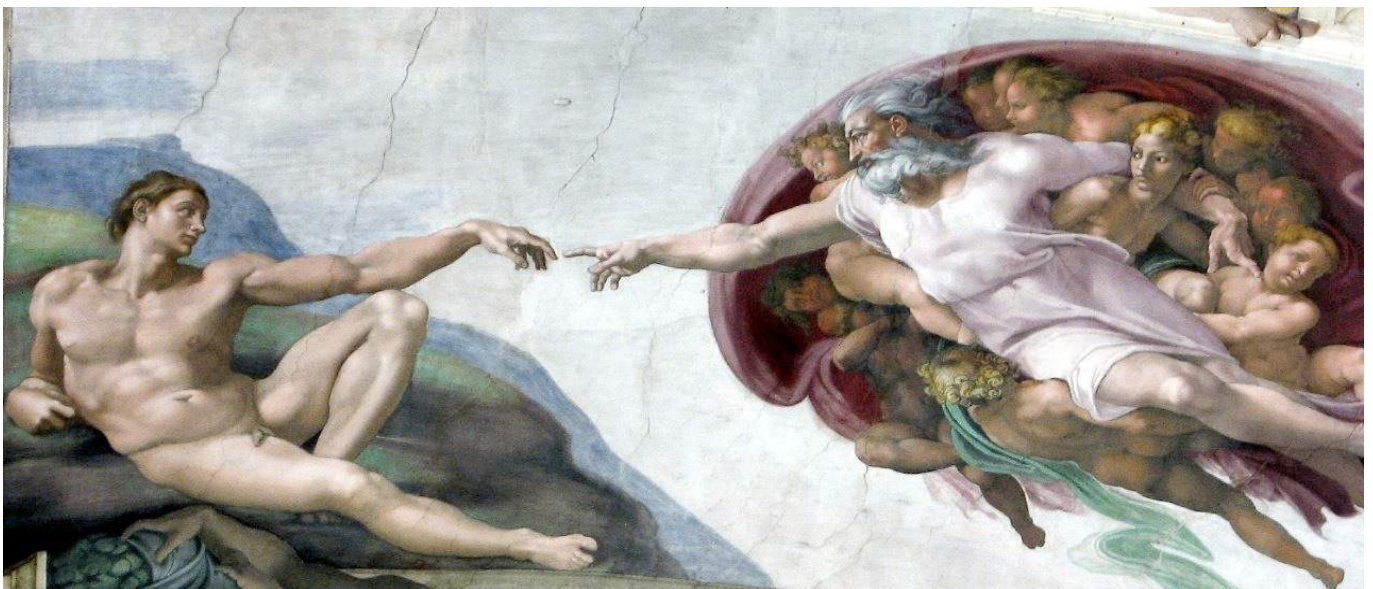
According to Pico, what is it that distinguishes man from the rest of creation?

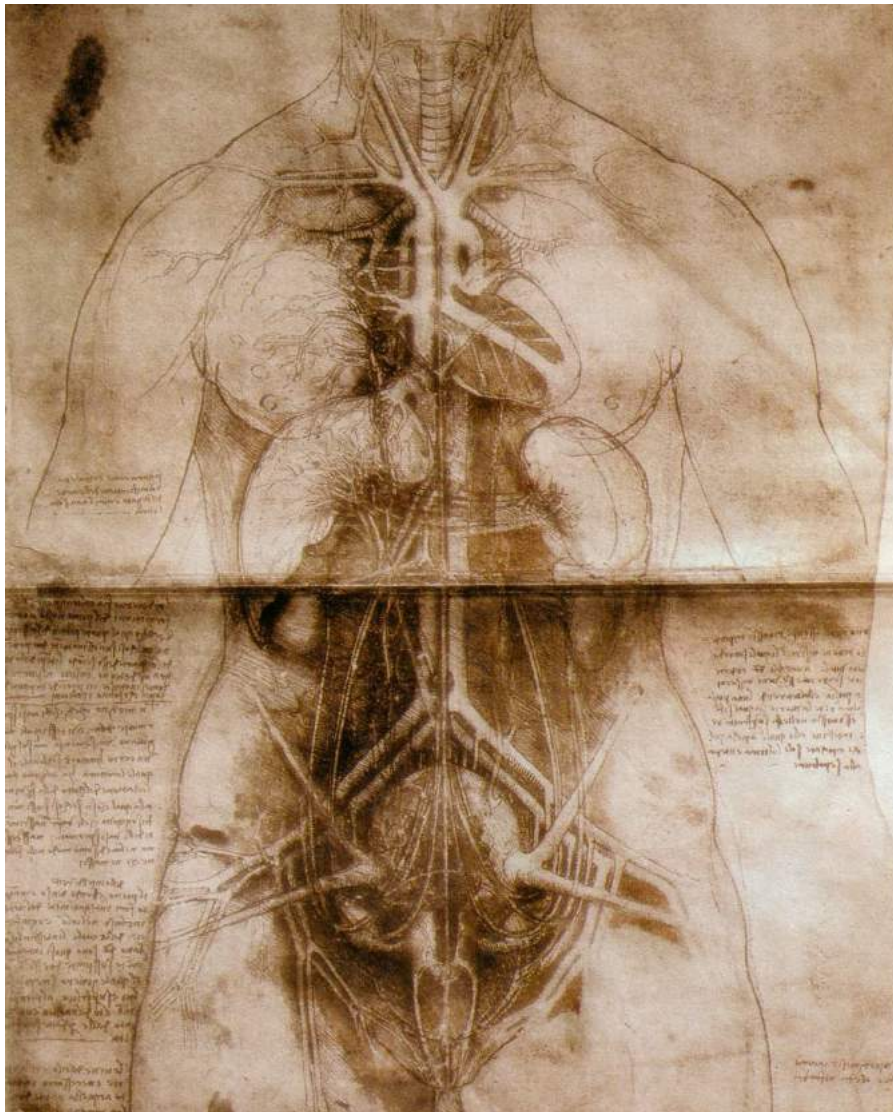
Compare the worldview expressed in Pico’s preface to medieval European culture. What are the differences? Are there similarities?

“The Creation of Adam” Michelangelo

“The Creation of Adam” (1511/12) from the ceiling of the Sistine Chapel is not only one of the most celebrated and re-produced paintings of all times, but also a widely recognized icon of Renaissance culture.

Which elements of Pico’s text do you find represented in Michelangelo’s “The Creation of Adam”?





Sketch by Leonardo da Vinci

Andalusia), classical scriptures had been studied widely as Islamic scholars enriched Roman and Greek thinking with knowledge from the Orient. With the gradual Christian “reconquista” of the Iberian peninsula, this cultural treasure found its way back to central Europe where it fell on fertile ground and kindled the emerging Renaissance culture.

In their studies of the classical texts, the Christian scholars of the Renaissance stuck to the original transcripts, which had been written in Greek and Latin. Often, they came up with new translations, because they didn’t want to rely on possibly erroneous ones. This is how modern philology was born.

The enthusiasm for classical antiquity soon spread to other areas, such as art and architecture. Medieval Gothic style, for example, was replaced by classical architectural elements reminiscent of Greek and Roman antiquity.

Humanism

The term “humanism” (lat. ‘humanus’ = human) lies at the very heart of Renaissance culture. It stands for the intellectual attitude of the new age which brought human proportions and ideals back to the centre of interest. During the Middle Ages, virtually every aspect of earthly life was oriented on the eternal afterlife. In the Renaissance, people started to shift their focus back to their existence on earth. Man was no longer seen as a dull creature, listlessly awaiting death. Rather, the Renaissance gives birth to man as an independent being, as an individual who is capable of shaping his own life by making use of his imaginative and creative powers. Artists, teachers, scientists and advisors of rulers; all of them referred to themselves as humanists. In order to ensure the spread of the new way of thinking, universities and academies were founded in many European countries.

Humanism and the Church

As Renaissance thinking spread across Europe, the role of the church in the area of science got under attack. Even though the church accepted a certain scientific involvement, it didn’t tolerate any results contradicting theological dogma. Scientific findings not in tune with the word of God were rejected and fought.

Why could the church not accept any worldview contradicting religious truth?

Which problems did humanism cause for the church?

Renaissance Art

With respect to art history, the term Renaissance refers to the fifteenth and sixteenth century.

What is new in Renaissance art? How does it differ from medieval art?

2. Renaissance and Humanism

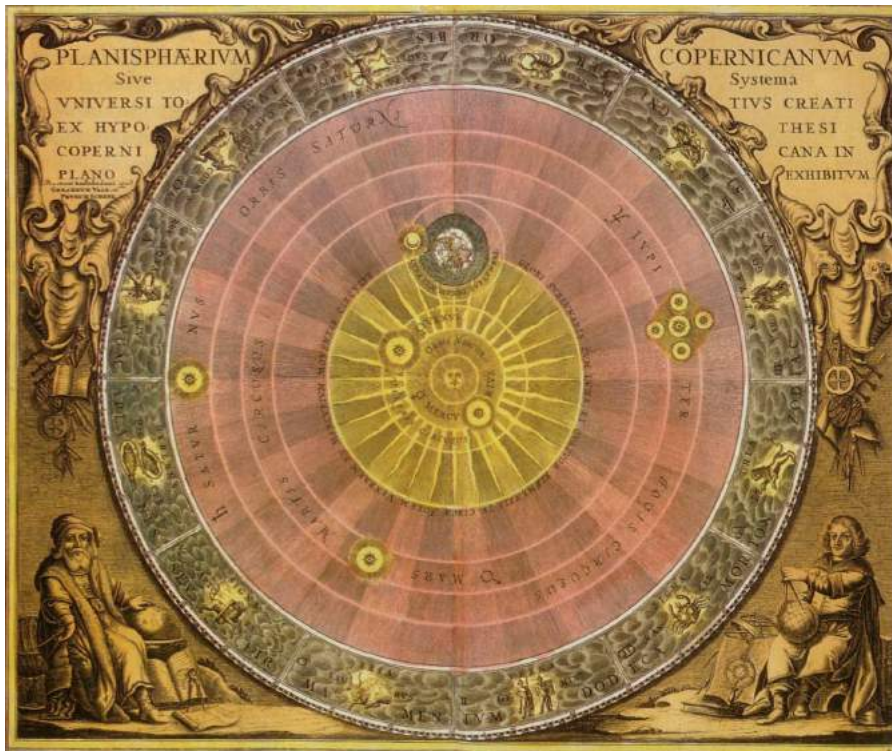
The Renaissance was a time of awakening. In almost every aspect of culture such as art, literature, science and economy, medieval thinking was challenged and prevailing stereotypes questioned. As part of this process, Europe became more “modern”.

The Rebirth of Antiquity

From the fourteenth century onwards, the scriptures of classical authors were gradually rediscovered. A variety of unknown or forgotten texts by Greek and Roman thinkers came to light again. Not only were these documents of outstanding intellectual quality, but they also offered non-religious ideas and scientific stimulus highly welcome to Renaissance humanists. Some of the texts were rediscovered in the cloister libraries and freed from the chains of the church.

Furthermore, the conquest of Constantinople by the Islamic Turks in 1453 played an important role in the rebirth of antiquity in Western Europe. In Constantinople, the former capital of the Eastern Roman Empire, the connection to classical culture had never been lost. Around the mid-fifteenth century, nu-

merous Byzantine scholars who had been building upon classical knowledge to establish the cultural eminence of Constantinople, fled the Turkish invasion and brought their writings to Western Europe. There, their expertise fueled the budding Renaissance. Apart from this, the contact with the highly developed culture of the Islamic world was crucial for the European Renaissance. On the one hand, this connection was established as a consequence of the Crusades and the occupation of Islamic Palestine by Christian armies between 1100 and 1300. On the other hand, from the early middle Ages until well into the fifteenth century, most of the Iberian peninsula (i.e. Spain and Portugal) was controlled by the Moors, an Islamic people which brought Europe into contact with the high cultures of the Orient. In the Caliphate of al-Andalus (modern-day



Copernicus's vision of the universe

1. According to da Vinci, what are the rules a scientist has to follow?
2. What is this scientific method called?

Progress in Medicine

This new scientific methodology made huge advances possible in a variety of areas. In medicine, for example, new ground was broken. Paracelsus (1493-1541) was one of the most famous physicians of his time. He had studied in Italy and travelled widely across Europe before settling in Basel. As a professor at university, he held his lectures in the vernacular German instead of Latin. Instead of strange medieval remedies such as dove's dung, snake blood or herbs gathered at full moon, he introduced chemical drugs, which could be dosed exactly with the help of experiments. Paracelsus highlighted the connection between mental and physical health, he explored the causes of certain vocational diseases and prescribed hydrotherapy – all of which are strikingly “modern” approaches to medical practice.

Universities now also organized anatomical lectures, in which bodies were dissected. The discovery of the circulatory system is only one example for the enormous medical advances made in the Renaissance. For close to one and a half millennia, scientific consensus prevailed on the ancient scholar Galen's hypothesis that the liver was where blood was produced in the body. The British physician William Harvey (1578-1657), however, had doubts about this theory. In his involvement in the matter, he proceeded in typically Renaissance fashion: rather than simply studying and interpreting existing manuscripts, he did his own research. After years of experimenting, he published his new theory in 1628, stating that the heart was the engine of the circulatory system. Nevertheless, his discovery was fiercely rejected in the wider public. Very often, Renaissance scholars were critical thinkers not afraid of challenging prevailing doctrines. Not surprisingly, then, more conservative-minded sections of society strongly opposed some of these new theories.

Inventions and Technology

Craftsmen improved their techniques. In mining, huge elevators were constructed and the shafts were driven deeper into the ground. Numerous inventions were made during the Renaissance period as for example the first prototypes of glasses improving eyesight, the first wearable watch, an improved compass, gun powder as well as pistols and canons.

Astronomy

In astronomy, the medieval worldview was virtually turned upside down. Around 1400, most people in Europe believed that the earth was a fixed disc with Jerusalem located in the centre of it. This worldview had been influenced by the Bible. Medieval world maps tipi-

3. The Rise of the Natural Sciences

In the course of the Renaissance, many scientists freed themselves from the constraining influence of the church and started to explore the human being and the world in “modern” ways.

Natural Phenomena in Medieval Times

At the beginning of the 11th century, the Saxon historian Thietmar of Merseburg wrote:

“Nicht verschweigen will ich ein Wunder, das sich zu Zeiten des Kaisers in Rom am Himmel zeigte. Kriegsleute Herzog Hermanns von Schwaben hatten gewaltsam Grundbesitz der Mönche von St. Paul besetzt und lehnten trotz häufiger, demütiger Bitten die Freigabe ab. Da zogen alsbald schwere Wolken herauf, Blitze zuckten und offenbarten den Zorn des Herrn. Dann folgten furchtbare Donnerschläge, töteten vier der Besten von ihnen und verjagten die übrigen. So erwies sich, dass auch die Armen Christi in dieser Welt nicht verächtlich sind. Ihr Schirmer ist der barmherzige Gott, und er vergilt recht nach Verdienst denen, die sie ehren und in ihrer Not erhören; ihre Verfolger aber straft er: leichter hienieden oder schwerer in der Ewigkeit.”

1. How did Thietmar of Merseburg interpret the natural phenomenon?
2. How would you explain his interpretation?

The Rise of the Natural Sciences

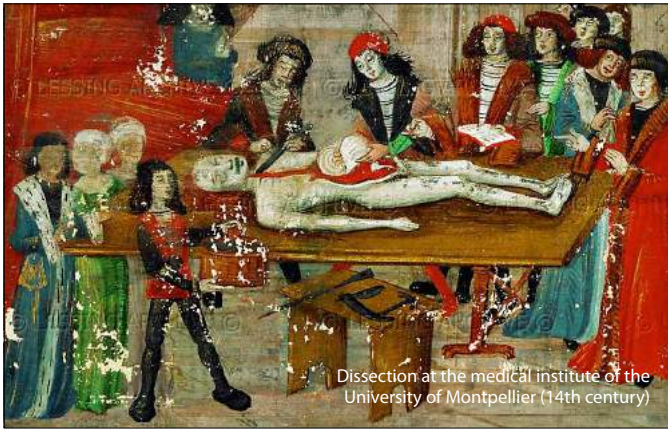
Throughout the Middle Ages, the Bible was the source of all knowledge. The word of God was not questioned and thus there was no doubt about some fundamental issues such as

how the world was created, for example. Intellectual curiosity and a thirst for knowledge were taboo, considering the fact that God himself had punished Adam and Eve with the expulsion from paradise.

What was Eve punished for?

Influenced by Renaissance humanism, the second half of the fifteenth century saw a blossoming of the natural sciences. Scholars no longer used the Bible in order to explore the world, but instead relied on mathematical and physical analysis based on the exact observation of nature. On the rules governing scientific method, da Vinci (1452-1519) wrote:

“To me it seems that those sciences are vain and full of error which are not born of experience, mother of all certainty, first-hand experience which in its origins, or means, or end has passed through one of the five senses [...] Beware of the doctrines of those speculators whose thinking is not confirmed by experience [...] This be the one true rule which a scientist exploring nature's effects may follow: While nature begins with the law and ends with experience, as scientists, we are forced to proceed the opposite way. This means that we have to start with experience and explore the world from there.”



Public dissection of a corpse

cally show three continents – Europe, Africa and Asia. As a fourth continent, according to most medieval thinkers, there had to be a giant “Terra Incognita” [lat. “unknown world”], keeping the flat, disc-shaped earth from flipping over under the weight of the northern continents. Notwithstanding the fact that some medieval scholars had recovered manuscripts of Greek and Roman thinkers claiming that the earth was a globe as early as in the twelfth century, it wasn’t until Renaissance spirit took root in Europe that this worldview found wide acceptance. On the basis of the works of Ptolemy, who had lived in Alexandria in the second century AD and had transferred the shape of the globe to a map, many “Ptolemaic world maps” were now published. Martin Behaim, a physician from Nuremberg, used the Ptolemaic model to have the first wooden globe manufactured in 1492. In the same year, the theory of the earth as a globe was proven correct very much by chance, as Columbus arrived in the new world, believing that he had found the sea route to Asia. Definite proof, finally, was furnished by the first circumnavigation of the globe by Ferdinand Magellan in 1519/1521.

An even more revolutionary discovery was made by the astronomer Nicolas Copernicus (1473-1543). In the prologue of his work “On the Revolutions of the Heavenly Spheres”, he writes:

“I began to be annoyed that the movements of the world machine, created for our sakes by the best and the most systematic Artisan of all [God], were not understood with greater certainty by the philosophers, who otherwise examined so precisely the most insignificant trifles of the world. For this reason I undertook the task of rereading the works of all the philosophers which I could obtain to learn whether anyone had ever proposed other motions of the universe’s spheres than those expounded by the teachers of astronomy in the schools. And in fact first I found in Cicero that Hicetas supposed the earth to move. Later I also discovered in Plutarch that certain others were of this opinion.

Therefore, having obtained the opportunity from these sources [...] I thought that I too would be readily permitted to ascertain whether explanations [...] could be found for the revolution of the celestial spheres on the assumption of some movement of the earth [...]

By long and intense study I finally found that [...] the earth and the rest of the planets traverse a great circle in annual revolution around the sun [...] Moreover, since the sun remains stationary, whatever appears as a motion of the sun is really due rather to the motion of the earth”.

1. What did Copernicus discover? What is this worldview called?
2. Why did Copernicus question the prevailing theory? Where did he find another explanation? How did he proceed thereafter?

Copernicus hesitated to publish his astrological findings because his calculations didn’t seem exact enough to him. What he had failed



Printing office

to notice was that the orbits of the planets around the sun were elliptical instead of circular; a fact which caused problems in his calculations. Contrary to common belief, the church didn’t react to Copernicus’s research. The idea of the earth moving around the sun seemed so completely against common sense that for a long time the heliocentric worldview was not taken seriously. If the earth was whirling around in the universe, sceptics argued, there would have to be a conceivable airflow on its surface.

The Invention of Printing

One of the most important inventions in the Renaissance period was movable type. Around 1450, Johannes Gutenberg revolutionized printing in Europe. Until then, block print had been in wide use. In this technique, entire pages were carved onto a template and then printed on paper. Gutenberg designed single letters cast in lead and thereby invented modern printing which in essence was used well into the twentieth century.

What advantages did Gutenberg’s method have? What consequences must it have had?

Not everyone was excited about Gutenberg’s invention. In 1485, the archbishop of Mainz (Gutenberg’s hometown) declared in a decree:

“Wenn man auch zur Aneignung gelehrten Wissens dank der sozusagen göttlichen Kunst des Druckens an die Bücher der verschiedenen Wissenschaften in reichlichem Masse und leicht herankommen kann, so haben wir trotzdem vernommen, dass gewisse Menschen, verführt durch die Gier nach eitlen Ruhm oder Geld, diese Kunst missbrauchen [...] Denn wir mussten sehen, dass Bücher, die die Ordnung der heiligen Messe enthalten, und ausserdem solche, die über göttliche Dinge und die Hauptfragen unserer Religion verfasst worden sind, aus der lateinischen in die deutsche Sprache übersetzt wurden und nicht ohne Schande für die Religion durch die Hand des Volkes wandern [...] Denn wer wird den Laien und ungelehrten Menschen und dem weiblichen Geschlecht, in deren Hände die Bücher der heiligen Wissenschaften fallen, das Verständnis verleihen, den wahren Sinn herauszufinden? [...] Uns auch soll daran gelegen sein, dass die unbefleckte Reinheit der göttlichen Schriften erhalten werde, und so befahlen wir, dass man keine Werke, welcher Art sie seien, [...] verbreite oder erwerbe, öffentlich oder heimlich, [...] sofern nicht die zu druckenden Werke jeweils vor dem Druck, die gedruckten vor dem Vertrieb durch eigens dazu bestellte Doktoren und Magister der Universität in unserer Stadt Mainz [...] durchgesehen und mit einem Sichtvermerk zum Druck oder Vertrieb freigegeben worden sind.”

1. Which arguments are used to justify the surveillance of the printing offices? What is this procedure called?
2. What do you think is the actual motivation behind this decree?



Depiction of the bubonic plague (Toggenburg Bible)

The Black Death

"The Black Death" is the term used for the plague epidemic which befell Europe in the mid-fourteenth century. In no more than four years – from 1347 to 1351 – the Black Death claimed more than 25 million victims, carrying away a third of Europe's population at that time.

Among historians, there is an ongoing debate about whether the plague was the only reason for the extremely high death toll. Other diseases such as the smallpox might have played a part as well. The paragraphs below, however, focus on the plague only.

The Plague

The bubonic plague is a highly contagious disease which is caused by bacteria. Rodents like rats are particularly prone to contracting it from fleas. The rat flea, then, is the carrier of the bubonic plague. Because of the fact that in a plague epidemic, enormous numbers of rats are killed, the fleas revert to befalling humans as new hosts. Once a flea bites, the germs are transmitted.

Once a patient has contracted the bubonic plague, among the emerging symptoms are intense fever attacks and inflammations of the lymph system causing big and very painful bruises – so-called bubos. The disease itself is actually not lethal but in most cases there is a spread of the plague bacteria throughout the circulatory system which ultimately results in severe blood poisoning (similar to meningitis) and eventually causes death.

Furthermore, there is the pneumonic plague which is contracted by droplet infection. This variety of the plague is particularly aggressive since it directly befalls the lungs and the respiratory system.

The Black Death in Europe

Scientists have located the origin of the pandemic in central Asia or China where the Black Death had raged in 1331. From there, the disease probably spread westward along the Silk Road. In 1346, the plague reached the Genoese city of Kaffa, they used the plague as a biological weapon by catapulting plague victims across the city walls. Some inhabitants of Kaffa managed to escape on ships (including rats) and thus brought the disease to Sicily. From southern Italy the Black Death eventually spread across all of Europe.

As from 1347 onwards, ship crews were held in quarantine for forty days ("une quarantaine de jours = forty days").

Critically assess this safety measure.

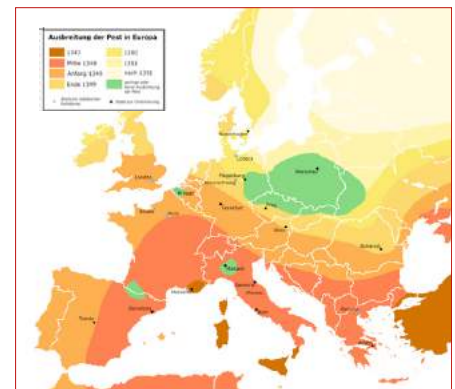


Plague doctor in Rome (17th century)

Interestingly, not every region was affected by the plague. Milan, for example, was mostly spared, whereas four fifths of the population of Florence were killed. In the prologue to his *Decameron*, the Florentine poet Boccaccio wrote about the Black Death in his hometown:

"One citizen avoided another, hardly any neighbour troubled about others, relatives never or hardly ever visited each other. Moreover, such terror was struck into the hearts of men and women by this calamity, that brother abandoned brother, and the uncle his nephew, and the sister her brother, and very often the wife her husband. What is even worse and nearly incredible is that fathers and mothers refused to see and tend their children, as if they were not theirs [...] Such was the multitude of corpses brought to the churches every day and almost every hour that there was not enough consecrated ground to give them burial [...]"

What consequences did the plague have on the European societies of the late Middle Ages?



The spread of the plague in Europe

Medicine and the Church

The physicians of the time didn't know the principles of contagion – the possibility of contracting the disease from animals was never considered. Rather, people thought that foul winds were spreading the plague. Because of this, they tried to keep the disease at bay by burning fragrant substances.

Apart from a punishment from God, the church offered no explanation for the Black Death, which affected all sections of society. In some places, so-called flagellants paraded the streets, whipping themselves to atone for their sins.

The Plague Today

After the Black Death had drastically decimated Europe's population from 1347-1351, the following centuries saw several smaller epidemics. The last outbreak of the bubonic plague dates from February 2005, when, according to the WHO, 61 people died in the Republic of Kongo.



From the monthly "Augsburger Monatsbilder"

4. The Economy in the Early Modern Age

The most important economic development in the Middle Ages was the rise of the towns as centres of trade. Nevertheless, economic thinking remained conservative throughout the Middle Ages. The modern thinking inherent in humanism also influenced late medieval economies and resulted in the development of what is now known as early capitalism.

Urban Boom in the Middle Ages

After the turn of the millennium, Eastern Europe witnessed the rise of what is really an ancient concept: urban life. In the centuries following the fall of the Eastern Roman Empire, there had been only few towns of considerable size because the Germanic peoples now controlling central Europe lived as nomads. In most areas, therefore, small villages surrounded by woods dominated the landscape. In the High Middle Ages, however, urban life came into flower again. Former Roman settlements like Zurich or Basel started to grow; in other places like St. Gall or Lucerne, urban settlements developed around a cloister. Towns proved such a successful concept that many new settlements were formed. This way, the noble house of Zähringen lay the foundation for Fribourg (1157) and Bern (1191). While around the turn of the millennium there had been 200-300 towns in Europe, by the early fifteenth century this number had soared to 4000.

1. What are some of the advantages and disadvantages of urban life?
2. What were the best places to found a new town?

Townsfolk

Throughout the Middle Ages, the people living in towns enjoyed economical and legal privileges. Because of the fact that living in a town was essentially different from life in a village or a castle, a new social class started to emerge which should henceforth be known as the urban middle class. The social hierarchy of a medieval town was very clear. The upper class, the so-called Patriciate, consisted of high clerks and rich merchants. The latter had originally been traveling tradesmen but as the urban settlements grew, they became sedentary since the ever increasing number of clients in towns made working from a fixed trading point profitable. Where merchants settled, the public market grew rapidly because rare and expensive goods could now be supplied. This in turn filled the pockets of the Patricians who collected fees and customs. Not surprisingly, therefore, the ruling classes promoted the naturalisation of merchants. Experience of the world, audacity and (most importantly) wealth made the merchants highly influential people within the social structure of medieval towns. The urban middle class consisted of master craftsmen as well as lower clerks and less wealthy merchants. The lower class, final

ly, included farmers, menials and maids who were dependent on a lord. The Jews took a special position in the social hierarchy (see "Jews in the medieval town", page 12).

Governing the town

Most towns were governed by an aristocratic landlord. Often, his family had founded the town on their land which justified his claim to rule and collect customs and fees. Due to the economic success of many towns and their inhabitants, however, the confidence of the middle class grew and participation in the political sphere soon seemed to be within reach. This frequently resulted in tensions between the aristocratic elite and the citizens who often managed to expel their landlord. As from the 13th century onwards, thus, most of the major towns were ruled by town councils. The members of these were originally recruited from among the social elite, i.e. the Patriciate and rich merchants. By the mid-14th century, however, the guilds called for political participation. This way, two kinds of towns began to develop; those where the Patriciate was in control and so-called "guild towns", with town councils dominated by the guilds.

The Guilds – Professional Associations of the Middle Ages

An important feature of medieval towns was the fact that members of a certain professional group started to form associations – the so-called guilds. The merchants in a town, for example, collaborated to fund mercantile expeditions which served to spread the risk on many shoulders.

Consider these excerpts from various guild regulations:

“Kund und zu wissen sei es, es haben Reinzo, Wilderich und Everold und die übrigen Handwerksgeossen in frommer Hoffnung auf ein ewiges Leben im Jahre 1149 eine Bruderschaft der Decklakenweber gebildet. Danach sollen: 1. alle Decklakenweber innerhalb der Mauern, einheimische oder fremde, sich der Ordnung dieser Bruderschaft unterwerfen. 2. Wer sich dem widersetzen wollte, soll mit der Strenge des Gerichts unter Verlust seines Vermögens zu Unterwerfung und Gehorsam gezwungen werden.”

“Der Becken halb setzt der Rat [der Stadt Reutlingen] drei aus dem Rat zu Brotbesehern und zwei von den Becken [...] Sie besehen das Brot [...] in 14 Tagen oder einem Monat einmal [...] Welcher zu klein backt, den strafft man um fünf Schilling Heller.”

“2. Wer in diesem Handwerk [der Leinenweber in Köln] und Bruderschaft ist, der soll den Meistern jederzeit gehorsam sein. So nicht, soll er dem Handwerk eine kölnische Mark Busse bezahlen. 3. Niemand soll eine Stück Ware verkaufen, es sei denn zuerst im Tuchhaus geprüft. 4. Wer sein Tuch zu kurz oder zu schmal macht, muss sechs Schilling Busse zahlen [...] 5. Hat ein Meister drei Jahre lang im Handwerk gedient, soll er einen Vollharnisch [Rüstung] haben und halten zu Nutzen der Stadt. 6. Wenn zum Totengeleit aufgerufen wird und einer dem nicht nachkommt, zahlt er ein halbes Pfund Silber Busse.”

“Kein Meister darf einem anderen seine Kunden wegnehmen.”

“Wer sonntags arbeitet, soll 2 Pfund Wachs als Busse zahlen.”

1. What are some of the typical elements in a guild regulation?
2. What advantages and disadvantages did these regulations bring about for the craftsmen on the one hand and the clients on the other?

Notwithstanding the advent of Renaissance thinking, the medieval guilds existed for a long time. It wasn't until well into the nineteenth century that most European states dispersed the guilds.



The guild of the cloth merchants

Modern trading companies

During the Renaissance, the attitude of many merchants started to change. The business of the traditional associations of merchants decreased as they were facing a new form of trading company. These companies were not a cooperation of various independent merchants, but instead they were mostly owned by a single family. Also, they did not only invest in traditional trade; rather, they made enormous profit in mining and banking. In Germany, the most successful of these companies was the trading and banking house of the Fugger family in Augsburg.

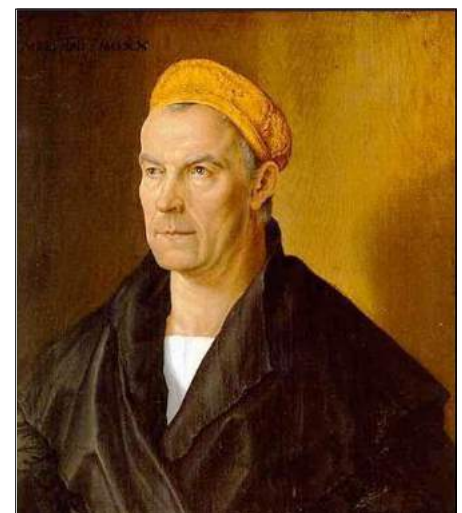
As many other merchant families, the Fugger family had become wealthy in long-distance trade (especially trading cloth and spices). It was only the financial involvement of Jacob Fugger with the Habsburgs [Austrian noble house, from which the German emperor was recruited from 1452 onwards], however, which laid the basis for the spectacular success of the Fugger family. Jacob Fugger lent the emperor huge sums and in return, his family was allowed to exploit the profitable copper and silver mines of Tirol. With the help of Maximilian I., who was entirely dependent on the credits of the Fugger family, they managed to get control over the Hungarian mines as well, establishing a monopoly in the European copper market. Rich citizens and noblemen put their money to work in the Fugger banking system and lived off the interests. Even various Popes were among the clients of the Fugger family, which shows the enormous influence of them.

Traditional long-distance trading, but especially mining and banking made Jacob Fugger (nicknamed “the rich”) the wealthiest man in Europe. Jacob Fugger is an extraordinary entrepreneur in a economical age now commonly referred to as early capitalism. “I want to make profits as long as I live” is said to have been Jacob Fugger’s motto.

Which modern elements do you see in the economic thinking of the Fugger family?

Jacob Fugger established the oldest social housing project still in operation today – the so-called “Fückerey” (today “Fuggerei”). This project was intended for Catholic workers and families in good repute who had got into financial problems through no fault of their own. Beggars were not welcome. The rent was extremely low and the houses were very well furnished. If possible, the inhabitants were to continue working and move out once they managed to get by on their own again.

Critically assess this concept.



‘Jakob Fugger’ (Dürer, 1520)

What does the portrait by Albrecht Dürer say about Jacob Fugger “the rich”?



5. The European Expansion

Starting with Portugal and Spain, European seafarers left the coasts of the old continent behind and reached Asia, discovered a new continent and circumnavigated the world. The Renaissance had created the mental and technological prerequisites for the exploration of the oceans and the new world.

It is no coincidence that the first significant European expeditions of discovery took place during the Renaissance. The atmosphere of awakening of the time also inspired the seafarers, who were now eager to venture beyond the limits of the known world and explore unchartered territory. Throughout the Middle Ages, the Atlantic Ocean had been a dangerous, alien world which was teeming with monsters and ended abruptly, drawing incautious ships into the abyss.

With the advent of the Renaissance, this fear was replaced by curiosity: seafarers desired to know and explore the world beyond the horizon. This new approach was supported by the insight that the world was not a flat disc, but a globe – a fact that had already been known to ancient Greek scholars but was now beginning to be widely acknowledged. This opened up new possibilities for adventurous explorers.

For centuries, seafaring had taken place only along the coastlines. This changed drastically in the early modern period.

What problems did seafaring on the high seas pose for seamen before the Renaissance?

Renaissance Progress

The solutions for the problems of seafaring on the high seas were typical for the Renaissance. Due to the Renaissance spirit of exploration and the rise of the natural sciences, technological problems could be overcome. A new type of ship, the caravel, made sailing on the high seas possible and comparatively safe. New navigational instruments like the astrolabe enabled the seafarers to orient themselves far off the coast. With the help of an astrolabe, the captain of a ship was able to measure the distance between the polar star and the horizon, from which the latitude could be determined. It was only in the 18th century that the exact determination of the longitude became possible.

Why was it much more difficult to determine the longitude?

Portugal as Pioneer

Under prince Henry the Seafarer, Portugal was the first nation to explore the Africa's west coast systematically. Bartolomeo Diaz circuited the southern tip of Africa (the Cape of Good Hope) in 1487. In 1498, Vasco da Gama reached India. Between 1519 and 1522, finally, Fernao de Magalhaes [Magellan] achieved the first circumnavigation of the

world, yielding definite proof for the fact that the earth is a globe.

Why did the Portuguese have the leading role in the early stages of seafaring on the high seas?

Towards the end of the 15th century, Spain entered the scene, establishing itself as a nation of seafarers. Because Spain had to acknowledge Africa as a Portuguese sphere of influence, the interest of the Spanish Crown moved to the West which is why it funded Christopher Columbus's quest for a westward sea route to China.

Motives of the Expeditions of Discovery

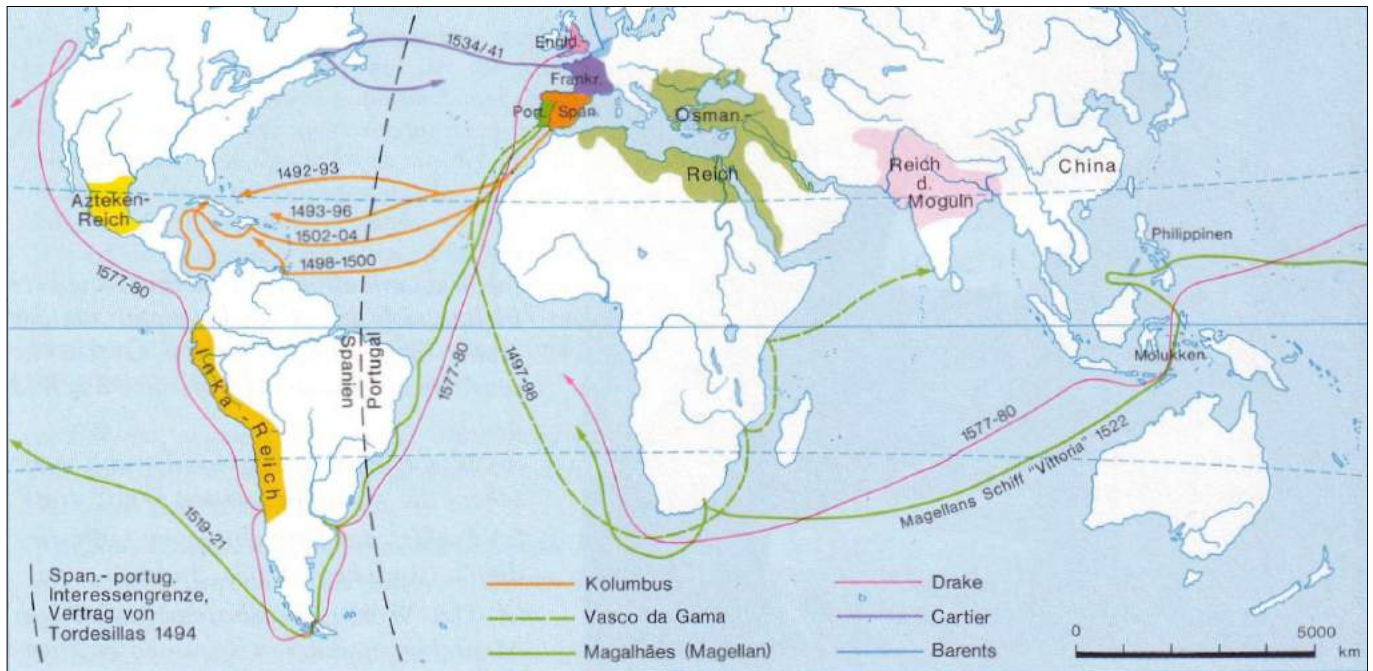
Apart from the mental and technological prerequisites which made the exploration of the seas possible, economical interests played a crucial part in the European expansion. The towns of the mediterranean region had witnessed an enormous boom starting in the high Middle Ages. Trading with spices and cloth from Asia was particularly lucrative. The old trading routes ran overland and were thus exposed to political turmoil. After the Turks had conquered the Byzantine empire in 1453, they occupied the strategically important town of Constantinople [Istanbul], thereby cutting the mediterranean countries off from the direct trade with the Orient. The Turks figured as intermediaries which made the products much more expensive. Therefore, the desire for an alternative route to China became stronger and stronger – an alternative route which should eventually be found on the high sea.

Also, the quest for precious metals – especially gold and silver – played an important role. These resources were scarce, because the Oriental luxury goods had to be paid for in gold and silver. Additionally, there were rumours of a mythical land of gold – the so-called El Dorado, which kindled European desires for the treasures to be found overseas.

Last but not least, the willingness to spread Christianity all over the globe was a motif for the European Expansion. The aim was to convert the heathen peoples overseas. From the very beginning of the European Expansion, therefore, monks accompanied the explorers on their journeys.



Astrolabe



The European Expansion

The Example of Christopher Columbus

Columbus (1451-1506) was originally from Genoa and had sailed both the Mediterranean Sea and the Atlantic. Like many humanists of the time, he had come to the conclusion that the earth was a globe and that there had to be a westward route to India. He thus successfully urged the Spanish crown, Isabel of Castile and Ferdinand of Aragon, to assign him with the task of an expedition of discovery and to fund his project.

On 3 August 1492, three ships set sail. Some two months later, on the early morning of 12 October 1492, the crew spotted the coast of a small island. Later that morning, Columbus went ashore and thanked God. On behalf of the Spanish crown, he took possession of the island and named it after the saviour San Salvador. He had reached an island of the Bahama group which today is called Watling island. On subsequent expeditions, Columbus discovered Cuba as well as Haiti. In January 1493, he left the new world for Spain where he arrived on 16 March. Columbus believed to have found Asia until his death in 1506 which is why he called the inhabitants of the Caribbean islands "Indians".

Some centuries before, the Vikings had reached the eastern coast of modern-day Canada. However, they failed to establish lasting settlements. In 1519, the first white settlers appeared in Central America – an event which should change the history of the American continent in most dramatic ways.

Columbus lands in America:

"11-12 October: We spotted some albatrosses and some reed [...] and we came across a small plank [...] Because the 'Pinta' was faster,

the crew on that ship spotted the coast first and gave the respective signals [...] At two o'clock in the morning, the coast was clearly visible. We waited for the day to dawn before moving in on the island which was called 'Guanahani' in the Indian tongue.

I approached the coast on board of a boat equipped with arms and went ashore. There, I unfurled the royal flag [...] I called for the two captains and the notary and told them to witness my taking possession of this island on behalf of the king [...] Right away, numerous

natives gathered around me [...] Knowing that these were people who were much rather converted to Our Holy Faith by love than by the sword, I planned to make them my friends and gave them red hats and necklaces made from glass [...] In exchange, they brought forth parrots, cotton, long spears [...] They walked around naked as God had created them [...] They did not have any proper weapons, neither did they know any. I showed them swords and, because they had never seen anything like it, some of them touched the sheaths, cutting themselves as a result. They had no sort of iron. Their spears were wooden, with some sort of stone or bone sharpened at the end. They are surely loyal and clever slaves, for they were soon able to understand and repeat after me most of what I was telling them. Also, I am convinced that they will easily be converted to Our Holy Faith.

23 December: I have found wonderful pieces of gold around here [...] May God in his com-
passion and mercy help me find those gold mines that must be part of this land".

1. What was particularly important for Columbus?
2. What did Columbus think about the native population?
3. Compare the source above with the depiction on page 13. What are similarities/differences?

The European discovery of the new world had devastating consequences for the native populations. For many "Indians", the encounter with the "white man" proved deadly.

Which was the deadliest weapon of the Europeans?



Christopher Columbus

The Trade with America

The trade with Asia continued to focus on spices and luxury goods: pepper, cloves, nutmeg, cinnamon, tea and coffee found their way to the European markets where they were sold for a lot of money.

Why were spices so popular in Europe?

After the discovery of the American continent, a busy exchange of goods with Europe started to develop.

Which of the following goods were exported from Europe to America in the 16th century and which products were imported from America to Europe?

Pineapples, peanuts, gold, chickens, coffee,
cacao, potatoes, corn, olives, oranges, horses,
vines, cattle, sheep, pigs, silver, tobacco,
tomatoes, wheat, lemons, sugarcane

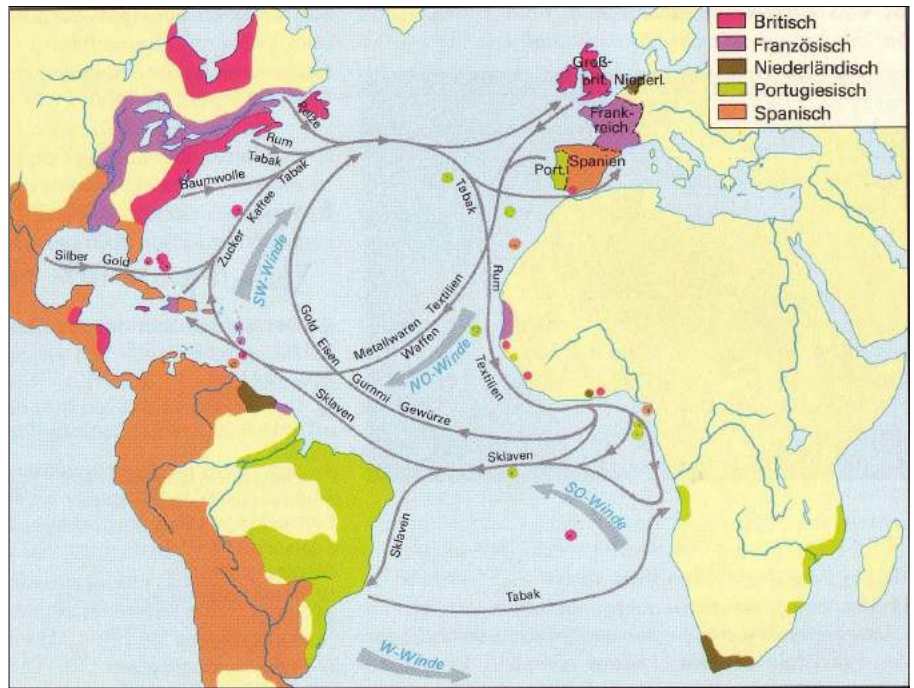
The trade with exotic products did not only enrich the diets of wealthy Europeans, but it also strengthened the economical development in general and brought immense wealth to trading centres on the European coast. Part of this wealth was reinvested in the expansion and embellishment of the towns. During the Renaissance, many rich merchants and noblemen also supported artists and thereby



Vasco da Gama

Vasco da Gama (1469-1524) was the first seafarer to break away from the American coastline and discovered the remaining segment of the westward sea route to India (1498). On his way back he noted into his logbook:

"The journey took us three months minus three days. The causes for this were weak winds and headwind, slowing our journey down so much that the whole crew fell ill. Their legs were swollen and they had ulcers all over their bodies. This way, we lost thirty men along the way".



Transatlantic Triangular Trade

funded some of the most important works of art in European history.

Also, the modern approach to economical investment was fostered by the transatlantic trade. The willingness to take a risk was a prerequisite for the trading companies of the time – the possibility of losing a ship and its cargo was a financial catastrophe. On the other hand, a successful trading expedition held the promise of enormous profits.

The Spanish conquest of the Aztec Empire

The Aztecs began settling in modern-day Mexico in the 13th century. Soon after, they founded their capital Tenochtitlan, located on an island [modern-day Mexico City]. The Aztecs established a powerful position in the region as they subdued rivaling tribes and peoples and forced them to pay tributes to them. In order to strengthen their dominance, they were engaged in constant wars with neighbouring peoples. By the time the Spaniards appeared on the scene, the Aztecs were ruling a vast area which was relatively difficult to control.

Due to the structure of the Aztec Empire, which possibility was there for the Spanish conquerers?

The structure of the Aztec Empire was similar to the European societies of the Middle Ages. The nobility formed the head of the state with a king as the ruler. At the time of the Spanish invasion, king Moctezuma [Montezuma] II. was in power, who ruled from 1502 to 1520. The middle class of the Aztec society included citizens and free farmers. On the lowest level of the societal scale were the slaves. The Aztec Empire featured a highly developed urban culture in which trade and warfare played major roles. Like other American cultures, the

Aztecs had considerable astrological knowledge but knew neither metal tools nor the wheel. Their religion was very complex; as a main God, they worshipped Huitzilopochtli, the God of the sun. Also, the Aztecs offered their Gods human sacrifices. Often, a victim's heart was cut from its body in full consciousness. In most cases, war captives were used as sacrifice.

Why did the Aztecs use human sacrifice?

What impression must the Aztec culture have made on the Spanish conquerors?



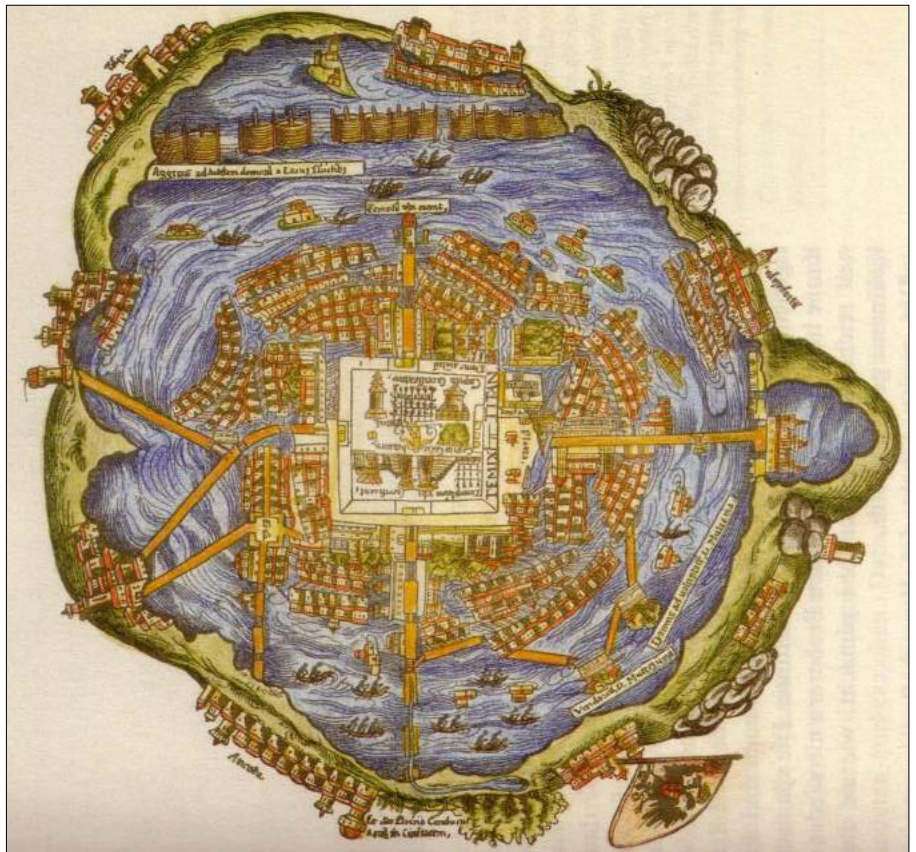
Human sacrifice

*Is a culture which knows human sacrifice necessar-
ily barbarian?*

The Spanish Conquistador Hernan Cortes (1485-1547) came to Hispaniola (Santo Domingo) when he was only nineteen years old. In 1511, he played a part in the conquest of Cuba which he had planned with Diego Velazquez, who later became governor of the island. This was the start of Cortes's rise to prominence. In 1518, Velazquez assigned him the task of conducting an expedition into the Mexican mainland. In 1519, Cortes landed in Tobasco at the coast of modern-day Yucatan. He brought with him 11 ships, 508 soldiers, approximately 100 sailors, 16 horses and a handful of cannons. Cortes proved to be a deft tactician in his dealings with indigenous peoples. This way, he gained the trust of the Indian tribe that lived in Tobasco. Among other things, the Spaniards were bestowed with twenty women, including 'Malinche' who eventually became Cortes's interpreter and lover.

Cortes disciplined his troops and had all his ships destroyed. Then, he set off for Tenochtitlan, the capital of the Aztecs, while making sure to get into as few conflicts with Indian tribes as possible.

On 8 November 1519, Cortes and his troops entered the capital of the Aztecs. King Moctezuma welcomed Cortes as a guest of honor, because he saw him as the incarnation of the God Quetzalcoatl, whose return had been prophesied. There is some dispute among historians about whether this is actually the historical truth or rather a myth the Spanish conquerors brought into being after the conquest of the Aztecs. However, together with Malinche, Cortes succeeded in manipulating Moctezuma to accept the Spanish takeover of Tenochtitlan. Moctezuma was held as a sort of 'voluntary' prisoner in order to



Tenochtitlan

ensure that the Aztecs would refrain from attacking the Spaniards.

Nevertheless, in 1520, bloody conflicts between the gold-greedy Spaniards and the native Aztecs emerged, as a result of which Moctezuma was killed. Cortes had to escape from Tenochtitlan. In the course of the following year, however, he mobilized his troops again and won the support of nearly 200'000 Indian allies. With their help, Cortes besieged Tenochtitlan and conquered the city on 13 August 1521.

1. Why had Cortes all his ships destroyed?
2. Why did he avoid conflicts with Indian tribes?
3. Why were the Spaniards supported by Indian tribes?
4. How could some five hundred Spaniards conquer the powerful Aztec Empire?
5. Are the Spanish conquerors 'evil' and the Aztec conquered 'good'?

The Consequences of the European Expansion

The consequences of the European Expansion in the 15th and 16th century are manifold and continue to have an effect on the world today.

From a European perspective, the world opened up and history turned into world history. Because it was the Europeans who took the initiative and were successful in exploring almost all of the globe, they claimed the leading role in the new world. Many foreign cultures had proven to be technologically

inferior – a fact which only strengthened the feeling of superiority amongst Europeans. European culture and the respective way of life – including Christianity – were spread across the globe with evangelical zeal. Today, this process is referred to as the "Europeanisation" of the world. As part of this process, indigenous cultures were mostly repressed or destroyed.

The economical interests of Europe were mostly enforced with no regard for the existing societal and economical structures in the new world. The destruction of those structures brought many regions of Central and South America (as well as Africa) into dependency of Europe – the effects of which can still be seen in numerous countries today.

In Europe, the transatlantic trade shifted the economical and political power towards the Atlantic coast. Seafarer nations and colonial powers like Spain and Portugal rose to become the leading nations of the 16th century. In the course of the next two centuries, they were gradually replaced by Great Britain and the Netherlands.

In all of Europe, however, progress became the norm. This is one of the main reasons why the two centuries following the European Expansion saw European nations in leading roles worldwide. Other important cultures like the Islamic world or China were far more conservative and static which lead to them being surpassed by European powers.



Hernan Cortes