Part four

The great transformation

Chronology

15th century

Ottomans conquer Constantinople 1453.

High point of Italian Renaissance—Leonardo da Vinci, Michelangelo, Macchiavelli 1450-1520.

Strengthening of monarchies in France, Spain, Britain 1490s.

Spanish monarchs conquer Granada 1493.

Columbus lands in Caribbean 1492.

16th century

Portuguese sieze Goa 1510.

Ottomans conquer Cairo 1517, Algiers 1529, besiege Vienna 1529.

Influence of Renaissance spreads through western Europe. Erasmus in Holland, Dürer in Germany, Rabelais in France.

Lutheran Reformation sweeps southern Germany 1518-25.

Cortés conquers Aztecs 1519-21.

German Peasant War 1525.

Mogul conquest of northern India 1529.

Pizarro conquers Inca Empire 1532.

Reformation from above and closing of monasteries in England 1534-39.

First agricultural enclosures in England.

Copernicus publishes a theory of the universe after 30 year delay 1540.

Ivan the Terrible centralises power in Russia, begins conquest of Siberia (1544-84).

French wars of religion 1550s, 1560s.

Council of Trent inaugurates counter-Reformation 1560s.

Wave of witch-burning 1560-1630.

Pieter Breughel's paintings of life in Flanders 1540s to 1560s.

The first revolts of Low Countries against Spanish rule 1560s, 1570s.

Shakespeare writes first plays 1590s.

17th century

Giordano Bruno burnt at stake by Inquisition 1600.

Kepler in Prague calculates orbits of planets accurately 1609.

Galileo uses telescope to observe moon 1609.

Thirty Years War begins in Bohemia 1618.

First English colonies established in North America 1620s and 1630s.

Spread of American crops (potatoes, maize, sweet potatoes, tobacco) across Eurasia and Africa.

Harvey describes circulation of blood 1628.

Galileo refutes Aristotelian physics 1632, condemned by Inquisition 1637.

Descartes' *Discourse on Method* begins 'rationalist' school of philosophy 1637.

Holland takes over much of former Portuguese Empire 1630s.

Rembrandt paints in Amsterdam 1630s to 1660s.

English Civil War begins 1641-42.

Reign of Shah Jahan in India, building of Taj Mahal begins 1643.

Collapse of Ming Dynasty in China, Manchu conquest 1644.

Indian cotton goods exported in ever greater quantities to Europe.

End of Thirty Years War 1648.

English king beheaded 1649.

'Second serfdom' dominant in eastern Europe.

Hobbes' *Leviathan*—materialist defence of conservative politics 1651.

Beginning of plantation slavery in Americas, 20,000 black slaves in Barbados 1653.

Growing market for Chinese silks and porcelain in Europe and Latin America.

England wins wars against Holland, takes Jamaica 1655.

Aurungzeb seizes Mogul throne in India 1658, war with Marathas 1662.

Boyle discovers law of gases, defends theory of atoms 1662.

Newton completes revolution in physics 1687.

'Glorious Revolution' of 1688 confirms domination of England by market-oriented gentry.

Locke inaugurates 'empiricist' school of philosophy 1690.

Whites and blacks unite in Bacon's rebellion in Virginia in 1687, legislature bans black-white marriages 1691.

Chapter 1

The conquest of the New Spain

> When we saw so many cities and villages built on the water and other towns on dry land and that straight level causeway…we were amazed and said it was the enchantments they tell of in the land of Amadis, on account of the great towers and pyramids and buildings arising from the water and all built of masonry. And some of our soldiers even asked whether the things that we saw were not a dream.[1]

> The temple itself is higher than the cathedral of Seville… The main plaza in the middle of the city, twice the size of the one in Salamanca, is surrounded by columns. Day after day 60,000 people congregate there to buy and sell. Every sort of merchandise is available from every part of the empire, foodstuffs and dress and in addition objects made of gold, silver, copper…precious stones, leather, bone, mussels, coral, cotton, feathers…[2]

> It is so beautiful and has such fine buildings that it would be remarkable even in Spain… In many of the houses of the Incas there were vast halls, 200 yards long by 50 to 60 yards wide… The largest was capable of holding 4,000 people.[3]

The first Europeans to come across the civilisations of the Aztecs in Mexico and the Incas in Peru in the 1520s and 1530s were astounded by the splendour and wealth of the buildings they found. The Aztec city of Tenochtitlan was as great as any in Europe. The Inca capital of Cuzco was on a smaller scale, but was linked by roads the like of which were unknown anywhere in Europe. They connected an empire 3,000 miles in length—greater than the whole of Europe or even of Ming China.

The civilisations were based on advanced ways of providing their

people with livelihoods, using sophisticated systems of irrigation. They had developed means of collecting goods and moving them hundreds or even thousands of miles to their capitals. Advances in agriculture had been accompanied by advances in arts and sciences—architecture, visual arts, mathematics, the drawing up of calendars which correlated the movement of the moon (the basis of the months) with the apparent motion of the sun (the basis of the year).

Yet within the space of a few months, small military forces led by Spaniards Hernan Cortés and Francisco Pizarro—who were little more than ruffians and adventurers (Pizarro was illiterate)—had conquered both empires.

They were following in the footsteps of the earlier adventurer Christopher Columbus (in Spanish, Cristobal Colon). This sea captain from Genoa had persuaded the co-rulers of Spain, Ferdinand of Aragon and Isabella of Castile, to finance an expedition to find a way to the fabled civilisation of China (Cathay) and the wealth of the 'spice islands' (the East Indies) by sailing westwards across the Atlantic.

There is a widespread myth that Columbus's arguments were based on some new, scientific understanding that met resistance from those with superstitious 'flat earth' beliefs. In fact, the view that the world was round was quite widespread by the 15th century. Columbus himself mixed bad science, quotations from classical Greek and Roman authors and religious mysticism.[4] He came to believe he was God's appointed instrument to rescue Christianity before the Apocalypse.[5] He underestimated the Earth's circumference by about 25 percent by misunderstanding the (correct) calculations of the 10th century Arab geographer Al-Farghani. He set off with three small ships on 3 August 1492, expecting to arrive at China or Japan in a number of weeks and encounter subjects of the 'Great Khan' who had ruled China in Marco Polo's time (200 years before). Instead, he reached a small island in the Caribbean in the second week of October, from where he sailed on to the islands that are now Cuba and Haiti.

The islands were inhabited by people who had neither states nor private property, and who were remarkably friendly to the mysterious newcomers. 'They were a gentle, peaceful and very simple people,' the Spanish wrote of the inhabitants, who they called 'Tainos'. 'When the boat was sent ashore for water, the Indians very gladly showed them where to find it and carried the filled casks to the…boat'.[6]

But Columbus's aim was not to befriend the local inhabitants. What fascinated him was the gold of the pendants they wore in their noses. He wanted to enrich himself and justify to the Spanish monarchs their expenditure on his voyage. He repeatedly tried to learn from the inhabitants where gold was to be found even though he did not understand a word of their language or they a word of his!

He wrote later, 'Gold is most excellent…whoever has it may do what he wants in this world, and may succeed in taking souls to Paradise'.[7]

Columbus wrote to his royal sponsors that the inhabitants were 'such an affectionate and generous people and so tractable that there are no better people or land in the world. They love their neighbours as themselves and their speech is the sweetest and gentlest in the world, and they always speak with a smile'.[8] But his aim was to capture and enslave these people. His son tells, 'He ordered that some of the people of the island be made captives… So the Christians seized 12 persons, men, women and children'.[9] He planned to build a fortress from which 'with 50 men they [the inhabitants] could be subjected and made to do all that one might wish'.[10]

Not all the inhabitants of the islands were silly enough to tolerate such behaviour. Columbus was soon claiming that alongside the peaceful Tainos there were warlike 'Caribs', who needed to be subdued because they were 'cannibals'. There was not then and has never been since any evidence that these people ate human flesh. Columbus himself never set foot on a single island inhabited by Caribs, and the only ones he ever met were women and children his crew had taken captive. But the talk of cannibalism justified the Spanish using their guns to terrify the indigenous peoples and their iron swords and crossbows to cut them down. Well into the 20th century, the myth of general 'cannibalism' among 'savage' peoples remained a potent justification for colonialism.[11]

Despite his crude methods, Columbus found very little gold. He was not any more successful on the next voyage he made in 1493, with much greater investment by the monarchs, a much larger fleet and 1,500 would-be settlers—'artisans of all kinds, labourers and peasants to work the land, the *caballeros* [knights], *hidalgos* [gentlemen] and other men of worth drawn by the fame of gold and the wonders of the land'[12]—as well as many soldiers and three priests. After establishing seven settlements, each with a fort and several gallows, across the island of Hispaniola (Haiti), he decreed that every 'Indian' over

the age of 14 had to supply a certain amount of gold every three months. Those who did not were to be punished by having their hands cut off and left to bleed to death.[13] Yet despite this barbarity, they could not meet the demand for gold, for the simple reason that no one had discovered more than very small quantities on the island.

Columbus tried to supplement his hunt for wealth from gold with another source—slavery. In February 1495 he rounded up 1,600 Tainos—the 'gentle', 'peaceful' and helpful people of two and a half years before—and sent 550 of them in chains on a ship to Seville with the aim of selling them as slaves. Two hundred died on the passage across the Atlantic. He followed this by establishing an *encomienda* system, which enabled appointed colonists to use the forced labour of Indians.

The impact of Columbus's measures on the people he still insisted on calling 'Indians' was disastrous. The population of Hispaniola was probably well over a million, and possibly much higher, at the time of Columbus's first landing[14]—20 years later it was around 28,000, and by 1542 it was 200. The settler-turned-priest Las Casas blamed the methods of the colonists, 'the greatest outrages and slaughterings of people'.[15] More recently, another cause has often been stated as more important—the diseases brought by the Europeans to which the 'Indians' had no immunity. Measles, influenza, typhus, pneumonia, tuberculosis, diphtheria and, above all, smallpox would have done terrible damage to people who had never encountered them before. Yet it is difficult to believe that disease alone accounts for the virtual obliteration of the islands' original inhabitants. In most parts of the mainland Americas at least some of the 'Indians' survived. The scale of the deaths in the earliest Spanish colonies must owe something to the barbarity of the methods of Columbus and his settlers.

Yet the barbarity in itself could not provide Columbus, the settlers and their royal sponsors with the wealth they wanted. The first colonies were fraught with problems. The gentlemen settlers found life much harder than they expected. Their Indian workers died, leaving them without a labour force to run the large estates they had marked out. Settlers from the lower classes soon grew tired of the pressures to work from above. The tale of Columbus's period as governor of Hispaniola is one of repeated rebellions against his rule. He responded with the same barbarity he showed to the indigenous peoples. At the end of his third voyage he was sent home to Spain in

chains—to jeers from Hispaniola's settlers—after his replacement as governor was horrified to find seven Spaniards hanging from the gallows in the town square of Santo Domingo.[16] He was released after a spell of confinement in Spain. But his fourth voyage was a miserable affair. He was banned by the crown from the settlements of Hispaniola and ended up shipwrecked, before returning to Spain disillusioned and virtually forgotten. The Spanish monarchy which had sponsored him was still more interested in its battles against the French for domination of Italy than in islands far away. Its attitude only changed when other adventurers discovered massive wealth.[17]

The conquest of the Aztecs

In 1517 Moctezuma, the Aztec ruler of Mexico, received the first reports of strange, pale men sailing off the shores of his realm in 'a number of mountains moving in the middle of the water'.[18] The ships belonged to a reconnaissance expedition. Two years later a force of 500 men from Spain's Cuban settlement landed, headed by the soldier Hernan Cortés who had heard rumours of a great empire and was determined to conquer it. His men regarded this ambition as mad beyond belief and Cortés had to burn his own ships to prevent them retreating back to Cuba. Yet within two years he had conquered an army hundreds of times larger than his own.

His success rested on a number of factors. Moctezuma did not destroy Cortés's forces on their beach-head while he had the chance, but provided them with the facilities to move from the coast to the Valley of Mexico. There was no limit to Cortés's duplicity and, on reaching the Aztec capital of Tenochtitlan, he pretended to befriend Moctezuma before taking him captive. The smallpox germs the Spanish unknowingly carried swept through Tenochtitlan, striking down a huge number of people at a decisive moment in the Spanish siege of the city. Finally, the Spanish enjoyed superiority in arms. This was not mainly a question of their guns, which were inaccurate and took a long time to load. More significant was the steel of the Spaniards' armour and swords, which could slash right through the thick cloth which constituted the armour of the Aztecs. In the final battle for Tenochtitlan, superior Spanish naval technology enabled them to dominate the lakes around the city, driving off the canoes the Aztecs relied on to maintain food supplies.

Some of the elements in the Spanish victory were accidental. If Montezuma's brother, Cuitlahuac, had been ruling in his place, Cortés would never have been given a guided tour of the capital and a chance to kidnap the emperor. Cortés's troops were certainly not invincible. At one point Cortés was forced to flee Tenochtitlan and lost most of his army. If the Spanish had encountered more opposition, the divisions in their own ranks might have proved decisive—since a new Spanish force had landed in Mexico with orders to treat Cortés as a traitor.

However, underlying the accidental factors in Cortés's victory was something more fundamental. He was confronting an empire that, like the Spanish Empire, was exploitative and oppressive, but with a less advanced technology at its disposal.

The Aztecs had originally been a hunting-gathering people with some limited knowledge of agriculture, who had arrived in the Valley of Mexico in the mid-13th century. The area was already settled by several city states, heirs to the remnants of the Teotihuacan and Mayan civilisations (described in part two), which subjugated the Aztecs and left them only the most infertile land to till. The Aztecs did not remain subjugated for long, however. They made a technological breakthrough which enabled them to increase their crop output enormously—cultivation on artificial islands (*chinampas*) on the lakes—and the turn to intensive agriculture was accompanied by the rise of an aristocratic class which enforced labour on the rest of society. The aristocracy was not content with just exploiting the Aztec lower classes. Soon it was fighting the other city states for hegemony over the Valley of Mexico, and then it embarked on the creation of an empire which stretched hundreds of miles south to what is now Guatemala. The rise of the new militaristic ruling class was accompanied by the growth of a militaristic ideology. It centred on the worship of the old tribal god of the Aztecs, Huitzilopochtli, the hummingbird, who gave eternal life to those who died violently, but required continual infusions of human blood to sustain him on his daily journey. A central ceremony of this religion was the human sacrifice of prisoners of war—and subject peoples, as well as paying material tribute to the Aztecs, had to hand over a number of women and children for sacrifice. This religion provided the Aztec warrior class with the determination to fight to construct an empire. It also helped reconcile the often hungry Aztec lower classes to their lot, in much the same way that the Roman circuses and 'triumphs' (when captured

princes were strangled) had done. But as the empire grew, it created tensions in Aztec society as some ruling class individuals raised the sacrifices to unprecedentedly high levels, until on one occasion 80,000 victims were said to have been slaughtered on the platform of Tenochtitlan's temple in 96 hours.[19] It also heightened the sense of oppression among those who had been conquered, even as it created a climate of terror which made them afraid to rebel. They were attracted to cults of a more pacific character. Even among the Aztec aristocracy there was a belief that one day the peaceful feathered serpent god Quetzalcoatl would return.

The Spanish conquerors arrived just as these tensions were at their sharpest. A great famine had hit the Aztec lower classes in 1505, forcing many to sell themselves into slavery. The level of loot from conquest was in decline, and Moctezuma had increased his own power within the ruling class using the blood sacrifice cult. Yet the challenge to the cult was great enough for him to fear Cortés was the returning Quetzalcoatl and to welcome him accordingly. More important, perhaps, the peoples who had been subjugated by the Aztecs rushed to back the invaders. There were more indigenous troops fighting on the Spanish side than on the Aztec side in the final battle for Tenochtitlan.

Both the Aztec and the Spanish empires were based on tribute, backed by vicious retribution against those who tried to rebel. Both held to the most inhuman of religions, with the Spanish being as prepared to burn heretics at the stake as the Aztecs were to sacrifice people to appease the gods. After the conquest the Spanish established a permanent *auto da fé* (place for burning heretics) on the site of the Tenochtitlan marketplace.[20] But Spain had the use of the iron-based technologies which had developed across Eurasia and north Africa in the previous two millennia, while the Aztecs were dependent on stone and wood-based technologies, even if they had advanced these further than people anywhere else in the world. Of the metals, they had only gold and copper—and copper was rare and used only for decoration. Their weapons were made of obsidian, a stone that can be given a razor sharp edge but which breaks easily.

The lack of metal led to other lags in Aztec technology. For instance, the Aztecs had no wheeled vehicles. Gordon Childe suggested this was because wheels need to be shaped by a saw, something not easy to make without a metal harder than copper.[21]

Why had the Aztecs not learned metallurgy? Jared Diamond points

to certain geographical disadvantages similar to those in Africa. The peoples of Mexico could not draw on innovations made thousands of miles away. Mexico was separated by the tropical belt of Central America from the other great Latin American civilisation in the Andes—which had moved further towards metallurgy, but was still not acquainted with iron.[22] But the Mexicans also did not have any great incentive to adopt metallurgy. They had managed to develop sophisticated methods of food production and build impressive cities without it. If they faced periodic famines, so did the iron based civilisations of Europe and Asia. It was only when they were suddenly faced with the iron armaments of the Europeans that their lack of metallurgy became a fatal disadvantage, causing them to be overthrown by people who in other respects were not more 'advanced'.

The subjection of Peru

History rarely repeats itself closely. But it did when a relative of Cortés, Francisco Pizarro, sailed south from Panama down the Pacific coast of South America in the early 1530s, a decade after the conquest of Mexico.

He had made two previous surveillance trips and knew that somewhere inland was a great empire. This time he landed at the coastal town of Tumbez with 106 foot soldiers and 62 horsemen. There he received news of a civil war in the great Inca Empire as two half brothers, Atahualpa in the north and Huascar in the south, quarrelled over the inheritance of their father, the Great Inca Huana-Cupac. Pizarro was quick to make contact with representatives of Atahualpa, assuring him of his friendship, and received an invitation to meet him at the town of Cajamarca in the Andes. The journey inland and up into the mountains would have been virtually impossible for the Spanish contingent without Inca guides to direct them along a road which had well provisioned rest places at the end of each day's march.

At Cajamarca the Spaniards stationed themselves within the walls of the town, most hiding with their guns and horses. Atahualpa left most of a huge Inca army behind and entered the town in ceremonial fashion with 5,000 or 6,000 men, in no way prepared for fighting. Pizarro's brother Hernando later recounted:

> He arrived in a litter, preceded by three or four hundred liveried Indians, who swept the dirt off the road and sang. Then came Atahualpa, surrounded by his leaders and chieftains, the most important of whom were carried on the shoulders of underlings.[23]

A Dominican monk with the Spaniards began speaking to Atahualpa, trying to persuade him to convert to the Christian religion and pay tribute to the Spanish king—on the grounds that the pope had allocated this part of Latin America to Spain. The Inca is said to have replied:

> I will be no man's tributary… As to the pope of which you speak, he must be crazy to talk of giving away countries that do not belong to him. As for my faith, I will not change it. Your own god, you say, was put to death by the very men whom he created. But my god still lives in heaven and looks down on his children.[24]

He threw to the ground a Bible that had been handed to him. The monk said to Pizarro, 'Do you not see that while we stand here wasting our breath or talking with this dog, the field is filling with Indians. Set on them at once. I absolve you'.[25] Pizarro waved a white scarf, the hidden Spanish troops opened fire and, as the noise and smoke created panic among the assembled Incas, the cavalry charged at them. There was nowhere for the Incas to flee. According to Spanish estimates, 2,000 Incas died, according to Inca estimates 10,000.[26]

Atahualpa was now a prisoner of the Spanish, forced to act as their front man while they took over the core of his empire. He assumed he could buy them off, given their strange obsession with gold, and collected a huge pile of it. He was sorely mistaken. Pizarro took the gold and executed the Inca after a mockery of a trial at which he was charged among other things with 'adultery and plurality of wives', 'idolatry' and 'exciting insurrection against the Spanish'. He was taken to the city square to be burnt at the stake, where he said he wanted to convert to Christianity—believing the Spanish would not burn a baptised Christian. He was right. After his baptism, Pizarro ordered he should be strangled instead.[27]

The massacre and the murder of Atahualpa set the pattern for the conquest of the rest of the Inca Empire. As hundreds more Spanish soldiers joined him, attracted by the lure of gold, Pizarro established one

of Atahualpa's brothers as puppet emperor and set off on a march to the Inca capital, Cuzco, burning alive another Inca leader, Calicuchima, who tried to oppose him. On taking the city, the Spaniards stole gold from the houses and temples and seized Inca princesses. The 56 year old Pizarro was proud to have a child by a 15 year old, who he married off to a follower. The treatment of ordinary Incas was later described by a priest, Cristobal do Molina, who accompanied a Spanish column south into Chile:

> Any native who would not accompany the Spaniards voluntarily was taken along bound in ropes and chains. The Spaniards imprisoned them in very rough prisons every night, and led them by day heavily loaded and dying of hunger. One Spaniard on this expedition locked 12 Indians in a chain and boasted that all 12 died of it.[28]

The Spanish conquerors aimed to enrich themselves and resorted to slavery as well as the looting of gold. They divided the country into *encomiendo* districts over which chosen colonists had the power to extract forced labour, relying on the Laws of Burgos of 1512-13, which ruled that Indian men were compelled to work for Spaniards for nine months of the year. The decree was meant to be read out to the Indians, who were told their wives and children would be enslaved and their possessions confiscated if they did not obey.[29] There was also tribute to be paid to the priests who, in some cases, 'maintained private stocks, prisons, chains and ships to punish religious offenders'.[30]

The Spanish did not have things all their own way. They faced a succession of revolts. One of Pizarro's brothers was besieged in Cuzco for months. Inca resistance was not crushed until the execution of the last emperor, Tupac Amura, in 1572. But the Incas were doomed for similar reasons to the Aztecs in Mexico. They had copper, but not iron, and llamas rather than the much stronger horses and mules. A Bronze Age civilisation, however refined, could not withstand an Iron Age one, however crude. The horses were, as Hemmings put it, 'the tanks of the conquest'.[31] It was only when Indians further south in Chile acquired the use of horses that the advance of the conquerors suffered serious setbacks.

A few members of the imperial family did manage to survive under the new set up, integrating themselves into the Spanish upper class. As Hemmings relates, 'They were as eager for titles, for coats of arms,

for fine Spanish clothes and unearned income as any Spanish *hidalgo*'.[32] But for the masses who had lived in the Inca Empire, life became incomparably worse than before. One Spaniard noble wrote to the king in 1535, 'I moved across a good portion of the country and saw terrible destruction'.[33] Another contrasted the situation under the Incas with that after the conquest: 'The entire country was calm and well nourished, whereas today we see only infinite deserted villages on all the roads in the kingdom'.[34]

The harm done by the conquest was made worse by the obsession of each of the new rulers with gaining as much wealth as possible. This led to bitter civil wars between rival Spanish commanders and to risings of the newly rich settlers against representatives of the Spanish crown. As rival armies burned and pillaged, the irrigation canals and hillside terraces which had been essential to agriculture went to waste, the llama herds were slaughtered, the food stocks kept in case of harvest failure were eaten. The hungry were hit by the same European diseases which had caused so much harm in the Caribbean. The effect was even greater than that of the Black Death on 14th century Europe. In the valley of Lima only 2,000 out of a population of 25,000 survived into the 1540s. The indigenous population of the empire fell by between a half and three-quarters.

So devastated was the land that even the Spanish monarchy began to worry. It wanted an empire that would provide wealth, not one denuded of its labour force. Again and again in the mid-1500s it debated measures to limit the destructiveness of the settlers and to control the exploitation of the Indians. It was then that priests like Las Casas who denounced the settlers came to prominence. Yet their efforts did not lead to much change in the former Inca Empire, since by now forced labour was essential for the profits the crown was getting from its silver and mercury mines at Potosi—a city whose population of 150,000 made it one of the largest in the world. In 1570 a commission headed by Archbishop Loyza agreed that since the mines were in the public interest, forced labour had to be tolerated.[35]