

The Mughal Empire (Urdu: مغلیہ سلطنت, translit. Mughliyah Salṭanat)[7] or Mogul Empire,[8] self-designated as Gurkani (Persian: گورکانیان, Gūrkāniyān, meaning "son-in-law"),[9] was an empire in the Indian subcontinent, founded in 1526. It was established and ruled by a Muslim dynasty with Turco-Mongol Chagatai roots from Central Asia,[10][11][12] but with significant Indian Rajput and Persian ancestry through marriage alliances;[13][14] only the first two Mughal emperors were fully Central Asian, while successive emperors were of predominantly Rajput and Persian ancestry.[15] The dynasty was Indo-Persian in culture,[16] combining Persianate culture[8][17] with local Indian cultural influences[16] visible in its traits and customs.[18]

The Mughal Empire at its peak extended over nearly all of the Indian subcontinent[5] and large parts of Afghanistan. It was the second largest empire to have existed in the Indian subcontinent, spanning four million square kilometres at its zenith,[4] after only the Maurya Empire, which spanned five million square kilometres. The Mughal Empire began a period of proto-industrialization,[19] and Mughal India became the world's largest economic power, with 24.4% of world GDP,[20] and the world leader in manufacturing,[21] producing 25% of global industrial output up until the 18th century.[22] The Mughal Empire is considered "India's last golden age"[23] and one of the three Islamic Gunpowder Empires (along with the Ottoman Empire and Safavid Persia).[24]

The beginning of the empire is conventionally dated to the victory by its founder Babur over Ibrahim Lodi, the last ruler of the Delhi Sultanate, in the First Battle of Panipat (1526). The Mughal emperors had roots in the Turco-Mongol Timurid dynasty of Central Asia, claiming direct descent from both Genghis Khan (founder of the Mongol Empire, through his son Chagatai Khan) and Timur (Turco-Mongol conqueror who founded the Timurid Empire). During the reign of Humayun, the successor of Babur, the empire was briefly interrupted by the Sur Empire. The "classic period" of the Mughal Empire started in 1556 with the ascension of Akbar the Great to the throne. Under the rule of Akbar and his son Jahangir, the region enjoyed economic progress as well as religious harmony, and the monarchs were interested in local religious and cultural traditions. Akbar was a successful warrior who also forged alliances with several Hindu Rajput kingdoms. Some Rajput kingdoms continued to pose a significant threat to the Mughal dominance of northwestern India, but most of them were subdued by Akbar. All Mughal emperors were Muslims; Akbar, however, propounded a syncretic religion in the latter part of his life called Dīn-i Ilāhī, as recorded in historical books like *Ain-i-Akbari* and *Dabistān-i Mazāhib*. [25]

The Mughal Empire did not try to intervene in the local societies during most of its existence, but rather balanced and pacified them through new administrative practices[26][27] and diverse and inclusive ruling elites,[28] leading to more systematic, centralised, and uniform rule.[29] Traditional and newly coherent social groups in northern and western India, such as the Marathas, the Rajputs, the Pashtuns, the Hindu Jats and the Sikhs, gained military and governing ambitions during Mughal rule, which, through collaboration or adversity, gave them both recognition and military experience.[30][31][32][33]

The reign of Shah Jahan, the fifth emperor, between 1628 and 1658 was the golden age of Mughal architecture. He erected several large monuments, the best known of which is the Taj Mahal at Agra, as well as the Moti Masjid, Agra, the Red Fort, the Jama Masjid, Delhi, and the Lahore Fort. The Mughal Empire reached the zenith of its territorial expanse during the reign of Aurangzeb and also started its terminal decline in his reign due to Maratha military resurgence under Shivaji Bhosale. During his lifetime, victories in the south expanded the Mughal Empire to its greatest extent, ruling over more than 150 million subjects, nearly one quarter of the world's population at the time, with a GDP of over \$90 billion.[34][35]

By the mid-18th century, the Marathas had routed Mughal armies and won over several Mughal provinces from the Punjab to Bengal.[36] Internal dissatisfaction arose due to the weakness of the empire's administrative and economic systems, leading to its break-up and declarations of independence of its former provinces by the Nawab of Bengal, the Nawab of Awadh, the Nizam of Hyderabad and other small states. In 1739, the Mughals were crushingly defeated in the Battle of Karnal by the forces of Nader Shah, the founder of the Afsharid dynasty in Persia, and Delhi was sacked and looted, drastically accelerating their decline. During the following century Mughal power had become severely limited, and the last emperor, Bahadur Shah II, had authority over only the city of Shahjahanabad. He issued a firman supporting the Indian Rebellion of 1857 and following the defeat was therefore tried by the British East India Company for treason, imprisoned and exiled to Rangoon.[37] The last remnants of the empire were formally taken over by the British, and the Government of India Act 1858 let the British Crown formally assume direct control of India in the form of the new British Raj.

Etymology

Contemporaries referred to the empire founded by Babur as the Timurid empire,[38] which reflected the heritage of his dynasty, and this was the term preferred by the Mughals themselves.[39] Another name was Hindustan, which was documented in the *Ain-i-Akbari*, and which has been described as the closest to an official name for the empire.[40] In the west, the term "Mughal" was used for the emperor, and by extension, the empire as a whole.[41] The use of Mughal derived from the Arabic and Persian corruption of Mongol, and it emphasised the Mongol origins of the Timurid dynasty.[24] The term gained currency during the 19th century, but remains disputed by Indologists.[42] Similar terms had been used to refer to the empire, including "Mogul" and "Moghul".[8][43] Nevertheless, Babur's ancestors were sharply distinguished from the classical Mongols insofar as they were oriented towards Persian rather than Turco-Mongol culture.[44]

History

Main article: Mughal emperors

Babur and Humayun (1526–1556)

Babur, founder of the Mughal Empire

The Mughal Empire was founded by Babur (reigned 1526–1530), a Central Asian ruler who was descended from the Turco-Mongol conqueror Timur (the founder of the Timurid Empire) on his father's side and from Chagatai, the second son of the Mongol ruler Genghis Khan, on his mother's side.[45] Ousted from his ancestral domains in Central Asia, Babur turned to India to satisfy his ambitions. He established himself in Kabul and then pushed steadily southward into India from Afghanistan through the Khyber Pass.[45] Babur's forces occupied much of northern India after his victory at Panipat in 1526.[45] The preoccupation with wars and military campaigns, however, did not allow the new emperor to consolidate the gains he had made in India.[45]

The instability of the empire became evident under his son, Humayun (reigned 1530–1556), who was driven out of India and into Persia by rebels.[45] The Sur Empire (1540–1555), founded by Sher Shah Suri (reigned 1540–1545), briefly interrupted Mughal rule. Humayun's exile in Persia established diplomatic ties between the Safavid and Mughal Courts, and led to increasing Persian cultural influence in the Mughal Empire. The restoration of Mughal rule began after Humayun's triumphant return from Persia in 1555, but he died from a fatal accident shortly afterwards.[45]

Akbar to Aurangzeb (1556–1707)

Akbar the Great (reigned 1556–1605) was born Jalal-ud-din Muhammad[46] in the Rajput Umarkot Fort,[47] to Humayun and his wife Hamida Banu Begum, a Persian princess.[48] Akbar succeeded to the throne under a regent, Bairam Khan, who helped consolidate the Mughal Empire in India.[45] Through warfare and diplomacy, Akbar was able to extend the empire in all directions and controlled almost the entire Indian subcontinent north of the Godavari River. He created a new class of nobility loyal to him from the military aristocracy of India's social groups, implemented a modern government, and supported cultural developments.[45] At the same time, Akbar intensified trade with European trading companies. India developed a strong and stable economy, leading to commercial expansion and economic development. Akbar allowed free expression of religion, and attempted to resolve socio-political and cultural differences in his empire by establishing a new religion, Din-i-Ilahi, with strong characteristics of a ruler cult.[45] He left his successors an internally stable state, which was in the midst of its golden age, but before long signs of political weakness would emerge.[45]

Jahangir (born Salim,[49] reigned 1605–1627) was born to Akbar and his wife Mariam-uz-Zamani, an Indian Rajput princess.[50] Jahangir ruled the empire at its peak, but he was addicted to opium, neglected the affairs of the state, and came under the influence of rival court cliques.[45] Shah Jahan (reigned 1628–1658) was born to Jahangir and his wife Jagat Gosaini, a Rajput princess.[49] During the reign of Shah Jahan, the culture and splendour of the luxurious Mughal court reached its zenith as exemplified by the Taj Mahal.[45] The maintenance of the court, at this time, began to cost more than the revenue.[45]

Akbar holds a religious assembly of different faiths in the Ibadat Khana in Fatehpur Sikri.

Shah Jahan's eldest son, the liberal Dara Shikoh, became regent in 1658, as a result of his father's illness. However, a younger son, Aurangzeb (reigned 1658–1707), allied with the Islamic orthodoxy

against his brother, who championed a syncretistic Hindu-Muslim culture, and ascended to the throne. Aurangzeb defeated Dara in 1659 and had him executed.[45] Although Shah Jahan fully recovered from his illness, Aurangzeb declared him incompetent to rule and had him imprisoned. During Aurangzeb's reign, the empire gained political strength once more.[45] Aurangzeb expanded the empire to include almost the whole of South Asia, but at his death in 1707, many parts of the empire were in open revolt.[45] Aurangzeb is considered India's most controversial king,[51] with some historians arguing his religious conservatism and intolerance undermined the stability of Mughal society,[45] while other historians question this, noting that he built Hindu temples,[52] employed significantly more Hindus in his imperial bureaucracy than his predecessors did, opposed bigotry against Hindus and Shia Muslims,[53] and married Hindu Rajput princess Nawab Bai.[49]

Decline (1707–1857)

Aurangzeb's son, Shah Alam, repealed the religious policies of his father, and attempted to reform the administration. However, after his death in 1712, the Mughal dynasty sank into chaos and violent feuds. In 1719 alone, four emperors successively ascended the throne.[45]

During the reign of Muhammad Shah, the empire began to break up, and vast tracts of central India passed from Mughal to Maratha hands. The far-off Indian campaign of Nadir Shah, who had priorly reestablished Iranian suzerainty over most of West Asia, the Caucasus, and Central Asia, culminated with the Sack of Delhi and shattered the remnants of Mughal power and prestige.[45] Many of the empire's elites now sought to control their own affairs, and broke away to form independent kingdoms.[45] But, according to Sugata Bose and Ayesha Jalal, the Mughal Emperor, however, continued to be the highest manifestation of sovereignty. Not only the Muslim gentry, but the Maratha, Hindu, and Sikh leaders took part in ceremonial acknowledgements of the emperor as the sovereign of India.[54]

The Mughal Emperor Shah Alam II made futile attempts to reverse the Mughal decline, and ultimately had to seek the protection of outside powers i.e. from the Emir of Afghanistan, Ahmed Shah Abdali, which led to the Third Battle of Panipat between the Maratha Empire and the Afghans led by Abdali in 1761. In 1771, the Marathas recaptured Delhi from Afghan control and in 1784 they officially became the protectors of the emperor in Delhi,[55] a state of affairs that continued further until after the Third Anglo-Maratha War. Thereafter, the British East India Company became the protectors of the Mughal dynasty in Delhi.[54] The British East India company took control of the former Mughal province of Bengal-Bihar in 1793 after it abolished local rule (Nizamat) that lasted until 1858, marking the beginning of British colonial era over the Indian Subcontinent. By 1857 a considerable part of former Mughal India was under the East India's company's control. After a crushing defeat in the war of 1857–1858 which he nominally led, the last Mughal, Bahadur Shah Zafar, was deposed by the British East India Company and exiled in 1858. Through the Government of India Act 1858 the British Crown assumed direct control of East India company held territories in India in the form of the new British Raj. In 1876 the British Queen Victoria assumed the title of Empress of India.

Causes of decline

Historians have offered numerous explanations for the rapid collapse of the Mughal Empire between 1707 and 1720, after a century of growth and prosperity. In fiscal terms the throne lost the revenues needed to pay its chief officers, the emirs (nobles) and their entourages. The emperor lost authority, as the widely scattered imperial officers lost confidence in the central authorities, and made their own deals with local men of influence. The imperial army, bogged down in long, futile wars against the more aggressive Marathas lost its fighting spirit. Finally came a series of violent political feuds over control of the throne. After the execution of emperor Farrukhsiyar in 1719, local Mughal successor states took power in region after region.[56]

Contemporary chroniclers bewailed the decay they witnessed, a theme picked up by the first British historians who wanted to underscore the need for a British-led rejuvenation.[57]

Modern views on the decline

Since the 1970s historians have taken multiple approaches to the decline, with little consensus on which factor was dominant. The psychological interpretations emphasise depravity in high places, excessive luxury, and increasingly narrow views that left the rulers unprepared for an external challenge. A Marxist school (led by Irfan Habib and based at Aligarh Muslim University) emphasises excessive exploitation of the peasantry by the rich, which stripped away the will and the means to support the regime.[58] Karen Leonard has focused on the failure of the regime to work with Hindu bankers, whose financial support was increasingly needed; the bankers then helped the Maratha and the British.[59] In a religious interpretation, some scholars argue that the Hindu powers revolted against the rule of a Muslim dynasty.[60] Finally, other scholars argue that the very prosperity of the Empire inspired the provinces to achieve a high degree of independence, thus weakening the imperial court.[61]

Jeffrey G. Williamson has argued that the Indian economy went through deindustrialization in the latter half of the 18th century as an indirect outcome of the collapse of the Mughal Empire, with British rule later causing further deindustrialization.[62] According to Williamson, the decline of the Mughal Empire led to a decline in agricultural productivity, which drove up food prices, then nominal wages, and then textile prices, which led to India losing a share of the world textile market to Britain even before it had superior factory technology.[63] Indian textiles, however, still maintained a competitive advantage over British textiles up until the 19th century.[64]

Administrative divisions

Main article: Subah

Subah (Urdu: صوبہ) was the term for a province in the Mughal Empire. The word is derived from Arabic. The governor of a Subah was known as a subahdar (sometimes also referred to as a "Subah"[65]), which later became subedar to refer to an officer in the Indian Army. The subahs were established by padshah (emperor) Akbar during his administrative reforms of 1572-1580; initially

they numbered 12, but his conquests expanded the number of subahs to 15 by the end of his reign. Subahs were divided into Sarkars, or districts. Sarkars were further divided into Parganas or Mahals. His successors, most notably Aurangzeb, expanded the number of subahs further through their conquests. As the empire began to dissolve in the early 18th century, many subahs became effectively independent, or were conquered by the Marathas or the British.

The original twelve subahs created as a result of administrative reform by Akbar:

Agra Subah

Ajmer subah

Awadh Subah

Bengal Subah

Bihar Subah

Delhi Subah

Gujarat Subah

Kabul Subah

Illahabad Subah

Lahore Subah

Malwa Subah

Multan Subah

Economy

See also: [Economic history of India](#) and [Timeline of the economy of the Indian subcontinent](#)

The Indian economy was large and prosperous under the Mughal Empire.[66] During the Mughal era, the gross domestic product (GDP) of India in 1600 was estimated at about 22.4% of the world economy, the second largest in the world, behind only Ming China but larger than Europe. By 1700, the GDP of Mughal India had risen to 24.4% of the world economy, the largest in the world, larger than both Qing China and Western Europe.[67] Mughal India was the world leader in manufacturing,[21] producing about 25% of the world's industrial output up until the 18th century.[22] India's GDP growth increased under the Mughal Empire, with India's GDP having a faster growth rate during the Mughal era than in the 1,500 years prior to the Mughal era.[67] Mughal India's economy has been described as a form of proto-industrialization, like that of 18th-century Western Europe prior to the Industrial Revolution.[19]

The Mughals were responsible for building an extensive road system, creating a uniform currency, and the unification of the country.[68] The empire had an extensive road network, which was vital to the economic infrastructure, built by a public works department set up by the Mughals which designed, constructed and maintained roads linking towns and cities across the empire, making trade easier to conduct.[66]

Coinage

A silver rupee coin made during the reign of the Mughal Emperor Alamgir II.

The Mughals adopted and standardized the rupee (rupiya, or silver) and dam (copper) currencies introduced by Sur Emperor Sher Shah Suri during his brief rule.[69] The currency was initially 48 dams to a single rupee in the beginning of Akbar's reign, before it later became 38 dams to a rupee in the 1580s, with the dam's value rising further in the 17th century as a result of new industrial uses for copper, such as in bronze cannons and brass utensils. The dam was initially the most common coin in Akbar's time, before being replaced by the rupee as the most common coin in succeeding reigns.[6] The dam's value was later worth 30 to a rupee towards the end of Jahangir's reign, and then 16 to a rupee by the 1660s.[70] The Mughals minted coins with high purity, never dropping below 96%, and without debasement until the 1720s.[71]

Despite India having its own stocks of gold and silver, the Mughals produced minimal gold of their own, but mostly minted coins from imported bullion, as a result of the empire's strong export-driven economy, with global demand for Indian agricultural and industrial products drawing a steady stream of precious metals into India.[6] Around 80% of Mughal India's imports were bullion, mostly silver,[72] with major sources of imported bullion including the New World and Japan,[71] which in turn imported large quantities of textiles and silk from the Bengal Subah province.[73]

Labour

The Mughal Empire's workforce in the early 17th century consisted of about 64% in the primary sector (including agriculture) and 36% in the secondary and tertiary sectors, including over 11% in the secondary sector (manufacturing) and about 25% in the tertiary sector (service).[74] Mughal India's workforce had a higher percentage in the non-primary sector than Europe's workforce did at the time; agriculture accounted for 65–90% of Europe's workforce in 1700, and 65–75% in 1750, including 65% of England's workforce in 1750.[75] In terms of contributions to the Mughal economy, in the late 16th century, the primary sector contributed 52.4%, the secondary sector 18.2% and the tertiary sector 29.4%; the secondary sector contributed a higher percentage than in early 20th-century British India, where the secondary sector only contributed 11.2% to the economy.[76] In terms of urban-rural divide, 18% of Mughal India's labour force were urban and 82% were rural, contributing 52% and 48% to the economy, respectively.[77]

Real wages and living standards in 18th-century Mughal Bengal and South India were higher than in Britain, which in turn had the highest living standards in Europe.[78][62] According to economic historian Paul Bairoch, India as well as China had a higher GNP per capita than Europe up until the late 18th century,[79][80] before Western European per-capita income pulled ahead after 1800.[81]

Mughal India also had a higher per-capita income in the late 16th century than British India did in the early 20th century.[76] However, in a system where wealth was hoarded by elites, wages were depressed for manual labour,[82] though no less than labour wages in Europe at the time.[78] In Mughal India, there was a generally tolerant attitude towards manual labourers, with some religious cults in northern India proudly asserting a high status for manual labour. While slavery also existed, it was limited largely to household servants.[82]

Agriculture

Indian agricultural production increased under the Mughal Empire.[66] A variety of crops were grown, including food crops such as wheat, rice, and barley, and non-food cash crops such as cotton, indigo and opium. By the mid-17th century, Indian cultivators begun to extensively grow two new crops from the Americas, maize and tobacco.[66]

The Mughal administration emphasized agrarian reform, which began under the non-Mughal emperor Sher Shah Suri, the work of which Akbar adopted and furthered with more reforms. The civil administration was organized in a hierarchical manner on the basis of merit, with promotions based on performance.[3] The Mughal government funded the building of irrigation systems across the empire, which produced much higher crop yields and increased the net revenue base, leading to increased agricultural production.[66]

A major Mughal reform introduced by Akbar was a new land revenue system called *zabt*. He replaced the tribute system, previously common in India and used by Tokugawa Japan at the time, with a monetary tax system based on a uniform currency.[83] The revenue system was biased in favour of higher value cash crops such as cotton, indigo, sugar cane, tree-crops, and opium, providing state incentives to grow cash crops, in addition to rising market demand.[84] Under the *zabt* system, the Mughals also conducted extensive cadastral surveying to assess the area of land under plow cultivation, with the Mughal state encouraging greater land cultivation by offering tax-free periods to those who brought new land under cultivation.[85]

Mughal agriculture was advanced compared to Europe at the time, such as the common use of the seed drill among Indian peasants before its adoption in European agriculture.[86] While the average peasant across the world was only skilled in growing very few crops, the average Indian peasant was skilled in growing a wide variety of food and non-food crops, increasing their productivity.[87] Indian peasants were also quick to adapt to profitable new crops, such as maize and tobacco from the New World being rapidly adopted and widely cultivated across Mughal India between 1600 and 1650. Bengali peasants rapidly learned techniques of mulberry cultivation and sericulture, establishing Bengal Subah as a major silk-producing region of the world.[84] Sugar mills appeared in India shortly before the Mughal era. Evidence for the use of a draw bar for sugar-milling appears at Delhi in 1540, but may also date back earlier, and was mainly used in the northern Indian subcontinent. Geared sugar rolling mills first appeared in Mughal India, using the principle of rollers as well as worm gearing, by the 17th century.[88]

According to evidence cited by the economic historians Immanuel Wallerstein, Irfan Habib, Percival Spear, and Ashok Desai, per-capita agricultural output and standards of consumption in 17th-century Mughal India were higher than in 17th-century Europe and early 20th-century British India.[89] The increased agricultural productivity led to lower food prices. In turn, this benefited the Indian textile industry. Compared to Britain, the price of grain was about one-half in South India and one-third in Bengal, in terms of silver coinage. This resulted in lower silver coin prices for Indian textiles, giving them a price advantage in global markets.[78]

Industrial manufacturing

Up until the 18th century, Mughal India was the most important center of manufacturing in international trade.[21] Up until 1750, India produced about 25% of the world's industrial output.[62] Manufactured goods and cash crops from the Mughal Empire were sold throughout the world. Key industries included textiles, shipbuilding, and steel. Processed products included cotton textiles, yarns, thread, silk, jute products, metalware, and foods such as sugar, oils and butter.[66] The growth of manufacturing industries in the Indian subcontinent during the Mughal era in the 17th–18th centuries has been referred to as a form of proto-industrialization, similar to 18th-century Western Europe prior to the Industrial Revolution.[19]

In early modern Europe, there was significant demand for products from Mughal India, particularly cotton textiles, as well as goods such as spices, peppers, indigo, silks, and saltpeter (for use in munitions).[66] European fashion, for example, became increasingly dependent on Mughal Indian textiles and silks. From the late 17th century to the early 18th century, Mughal India accounted for 95% of British imports from Asia, and the Bengal Subah province alone accounted for 40% of Dutch imports from Asia.[90] In contrast, there was very little demand for European goods in Mughal India, which was largely self-sufficient, thus Europeans had very little to offer, except for some woolens, unprocessed metals and a few luxury items. The trade imbalance caused Europeans to export large quantities of gold and silver to Mughal India in order to pay for South Asian imports.[66] Indian goods, especially those from Bengal, were also exported in large quantities to other Asian markets, such as Indonesia and Japan.[73]

Textile industry

See also: Muslin trade in Bengal and Mughal clothing

A woman in Dhaka clad in fine Bengali muslin, 18th century.

The largest manufacturing industry in the Mughal Empire was textile manufacturing, particularly cotton textile manufacturing, which included the production of piece goods, calicos, and muslins, available unbleached and in a variety of colours. The cotton textile industry was responsible for a large part of the empire's international trade.[66] India had a 25% share of the global textile trade in the early 18th century.[91] Indian cotton textiles were the most important manufactured goods in world trade in the 18th century, consumed across the world from the Americas to Japan.[21] By the

early 18th century, Mughal Indian textiles were clothing people across the Indian subcontinent, Southeast Asia, Europe, the Americas, Africa, and the Middle East.[92] The most important center of cotton production was the Bengal province, particularly around its capital city of Dhaka.[93]

Bengal accounted for more than 50% of textiles and around 80% of silks imported by the Dutch from Asia,[90] Bengali silk and cotton textiles were exported in large quantities to Europe, Indonesia, and Japan,[73] and Bengali muslin textiles from Dhaka were sold in Central Asia, where they were known as "daka" textiles.[93] Indian textiles dominated the Indian Ocean trade for centuries, were sold in the Atlantic Ocean trade, and had a 38% share of the West African trade in the early 18th century, while Indian calicos were major force in Europe, and Indian textiles accounted for 20% of total English trade with Southern Europe in the early 18th century.[62]

The worm gear roller cotton gin, which was invented in India during the early Delhi Sultanate era of the 13th–14th centuries, came into use in the Mughal Empire some time around the 16th century,[94] and is still used in India through to the present day.[95] Another innovation, the incorporation of the crank handle in the cotton gin, first appeared in India some time during the late Delhi Sultanate or the early Mughal Empire.[96] The production of cotton, which may have largely been spun in the villages and then taken to towns in the form of yarn to be woven into cloth textiles, was advanced by the diffusion of the spinning wheel across India shortly before the Mughal era, lowering the costs of yarn and helping to increase demand for cotton. The diffusion of the spinning wheel, and the incorporation of the worm gear and crank handle into the roller cotton gin, led to greatly expanded Indian cotton textile production during the Mughal era.[97]

It was reported that, with an Indian cotton gin, which is half machine and half tool, one man and one woman could clean 28 pounds of cotton per day. With a modified Forbes version, one man and a boy could produce 250 pounds per day. If oxen were used to power 16 of these machines, and a few people's labour was used to feed them, they could produce as much work as 750 people did formerly.[98]

Shipbuilding industry

Mughal India had a large shipbuilding industry, which was also largely centered in the Bengal province. In terms of shipbuilding tonnage during the 16th–18th centuries, the annual output of Bengal alone totaled around 2,232,500 tons, larger than the combined output of the Dutch (450,000–550,000 tons), the British (340,000 tons), and North America (23,061 tons).[99]

The Mughals maintained a small fleet for carrying pilgrims to Mecca, and imported Arabian horses in Surat. Debal in Sindh was mostly autonomous. The Mughals also maintained various river fleets of Dhows, which transported soldiers over rivers and fought rebels. Among its admirals were Yahya Saleh, Munnawar Khan, and Muhammad Saleh Kamboh. The Mughals also protected the Siddis of

Janjira. Its sailors were renowned and often voyaged to China and the East African Swahili Coast, together with some Mughal subjects carrying out private-sector trade.

Indian shipbuilding, particularly in Bengal, was advanced compared to European shipbuilding at the time, with Indians selling ships to European firms. Ship-repairing, for example, was very advanced in Bengal, where European shippers visited to repair vessels.[99] An important innovation in shipbuilding was the introduction of a flushed deck design in Bengal rice ships, resulting in hulls that were stronger and less prone to leak than the structurally weak hulls of traditional European ships built with a stepped deck design. The British East India Company later duplicated the flushed deck and hull designs of Bengal rice ships in the 1760s, leading to significant improvements in seaworthiness and navigation for European ships during the Industrial Revolution.[100]

Bengal Subah

Main article: Bengal Subah

See also: Muslin trade in Bengal

Ruins of the Great Caravanserai in Dhaka.

The Bengal Subah province was especially prosperous from the time of its takeover by the Mughals in 1590 until the British East India Company seized control in 1757.[101] It was the Mughal Empire's wealthiest province,[102] and the economic powerhouse of the Mughal Empire, generating 50% of the empire's GDP.[103] Domestically, much of India depended on Bengali products such as rice, silks and cotton textiles. Overseas, Europeans depended on Bengali products such as cotton textiles, silks and opium; Bengal accounted for 40% of Dutch imports from Asia, for example, including more than 50% of textiles and around 80% of silks.[90] From Bengal, saltpeter was also shipped to Europe, opium was sold in Indonesia, raw silk was exported to Japan and the Netherlands, and cotton and silk textiles were exported to Europe, Indonesia and Japan.[73]

Bengal was described as the Paradise of Nations by Mughal emperors.[104] The Mughals introduced agrarian reforms, including the modern Bengali calendar.[105] The calendar played a vital role in developing and organising harvests, tax collection and Bengali culture in general, including the New Year and Autumn festivals. The province was a leading producer of grains, salt, pearls, fruits, liquors and wines, precious metals and ornaments.[106] Its handloom industry flourished under royal warrants, making the region a hub of the worldwide muslin trade, which peaked in the 17th and 18th centuries. The provincial capital Dhaka became the commercial capital of the empire. The Mughals expanded cultivated land in the Bengal delta under the leadership of Sufis, which consolidated the foundation of Bengali Muslim society.[107]

After 150 years of rule by Mughal viceroys, Bengal gained semi-independence as a dominion under the Nawab of Bengal in 1717. The Nawabs permitted European companies to set up trading posts across the region, including firms from Britain, France, the Netherlands, Denmark, Portugal and Austria-Hungary. An Armenian community dominated banking and shipping in major cities and

towns. The Europeans regarded Bengal as the richest place for trade.[106] By the late 18th century, the British displaced the Mughal ruling class in Bengal.

Demographics

See also: Demographics of India: History

Population

India's population growth accelerated under the Mughal Empire, with an unprecedented economic and demographic upsurge which boosted the Indian population by 60%^[108] to 253% in 200 years during 1500–1700.^[109] The Indian population had a faster growth during the Mughal era than at any known point in Indian history prior to the Mughal era.^[108]^[67] The increased population growth rate was stimulated by Mughal agrarian reforms that intensified agricultural production.^[84] By the time of Aurangzeb's reign, there were a total of 455,698 villages in the Mughal Empire.^[110]