

ANCIENT ERA

Cotton is a plant that produces white fibers in its seed case.

When the seeds are removed, the white fibers can be combed and spun (twisted) into thread and woven into cloth. People domesticated, or cultivated cotton in more than one place. In South Asia, cotton cultivation dates back at least 5000 years to Harappan civilization. In the Americas, cotton fabrics have been found that date to 7000 years ago. In Egypt and Western Asia, cotton dates back to about 5000 years ago. Africans also cultivated cotton around this time.



Cotton's advantages are that it is easily washable, absorbent and cool in hot weather, and it can be dyed in bright colors and printed in repeating designs. On India's long coastline, cotton weaving, printing and dyeing took place. Compounds such as alum were found that kept the dye from washing out or running together with other colors. This allowed beautiful, multicolored, woodblock designs to be created. Indian cotton fabrics gradually became world-famous, and were manufactured along India's coasts, and sold all around the ports of the Indian Ocean.

CLASSICAL ERA



The indigo plant was a valuable plant found in documents as early as the 7th century BCE, in Babylon, and later also mentioned in Greek, and Roman sources. Chinese silks were also dyed with indigo during this period. As the name shows, indigo was first cultivated for dye in India, and supplied other societies with cakes of the dyestuff through long-distance trade. The name *indikon* in Greek, and *indicum* in Latin reflect this origin as well. Other plants can be used to make blue dye, but indigo is very strong and colorfast when washed. Indigo has also been used as a pigment, or coloring agent, in

inks and paints.



Indigo is difficult to process. The plant itself is not blue. The flower is pink, but the clear liquid is extracted from the plant by crushing it and leaving it in holes in the ground to ferment for several weeks. Then the remaining paste can be pressed into cakes and dried, or yarn and cloth can be dipped into the pure dye-pits. It becomes a bright, pure blue that is permanent. Today we know indigo's color best because it is the color of blue jeans, perhaps the most famous global article of clothing, with a very ancient past.



MEDIEVAL ERA

True blue color is rare in nature. When found, it is valuable, especially if it can be used to dye cloth. Indigo was already known in India before the 2nd millennium and traded since at least the 4th century BCE. By the 9th century CE, indigo was pressed into small cakes like the one shown here and sold in Baghdad markets. It was exported to Africa and the Mediterranean, where it replaced another blue dye plant called woad. By the 11th century CE, indigo plants were being cultivated in Muslim Spain.



Among the Saharan nomadic tribes indigo-dyed cloth was so commonly used as turbans wrapped across the face against the desert sand that the tribesmen's faces were often stained blue. The photo above shows three men on camels wearing clothing dyed with indigo.



Since indigo was used to dye denim (the fabric of blue jeans), this is not surprising, since jeans give off color on the skin when they are new, and even after many washings. Indigo is still a popular dye color today, but the plant dye has been replaced by chemical dyes that are easier to manufacture.

FIRST GLOBAL ERA

Dungarees is another word for jeans--denim pants worn originally for work, and now a global fashion item. The word dungaree entered the English language in 1696 but originates from the Hindi word *dungri*, meaning a type of coarse, sturdy cloth. This sturdy cloth was first fashioned into pants in India and worn by Portuguese sailors.



These dungarees were sailor pants with wide, straight or bell-bottom legs. Dyed in indigo blue--the same color used in jeans today--the pants became popular with other sailors. The purpose of the wide legs was so that a sailor could quickly roll up his pants to swab the decks, or so he could easily take them off if he fell overboard. The thick cotton fabric, *dongari kapar*, was sold in a part of Bombay near a fort called the Dongari Killa. The fort was later rebuilt and in 1854, a cotton mill was established by the English there.

Dungarees, starting as a common Indian cloth, then became a sailor's uniform. In the United States and Australia, dungarees were popular as durable work pants worn by farmhands and herders, cowboys, and miners. From there, they entered the clothing market. Ironically, many of the world's jeans are made in sewing factories around the Indian Ocean rim, not far from the place where they originated.

INDUSTRIAL AND IMPERIAL ERA

The history of jeans is full of as many twists and turns as the fibers that make up the fabric. Its history spans the globe over several centuries, with stops in India, Europe, and America, in which ships and sailing played large roles. After 1500, European sailors stopped at Indian ports to buy clothing made of strong cotton for their hard working use. They bought tough, wide-legged pants for sailors called dungarees after the Indian name *dungri*, a type of coarse, sturdy cloth. The pants were dyed with indigo, which was practical for not showing the dirt like white sailcloth. Sailors have worn an everyday blue uniform called dungarees through the twentieth century.

Denim's history may have started with a twill (or diagonal weave) fabric called *Serge de Nimes* after the textile city in Southern France. The name may have been shortened to 'denim,' or 'nim' when the fabric was imitated in English factories. *Serge de Nimes* differs from stiff, plain-weave sailcloth canvas because it is strong, but its twill weave makes it softer, and it was darker, from indigo blue and natural yarns, with the blue showing on the fabric's face. Originally, the fabric may have been linen, wool, or a blend.

The name 'jeans' goes back to sailing, where the name echoes the Italian port of Genoa [*Genes* in French], referring to sailor pants again. There



may be a connection to India here, and to dungarees, through the Red Sea trade, or Mediterranean links with Portugal.

'Denim' and 'jeans' linked up in the United States during the 1850's California Gold Rush. In 1853, a German Jew named Levi Strauss went to California and opened a store to serve the mining camps. He sold buttons, thread, and lots of canvas sailcloth for tents and the Conestoga Wagon bringing in waves of migrants workers. Answering the miners' complaints about easily ripped pants, Strauss started making pants from canvas with pockets to carry gold nuggets! They sold well. One of Strauss' customers, a Nevada tailor named Jacob Davis, told him how he added copper rivets to the seams and pocket corners of his pants to make them even stronger, and the two patented the idea. With demand rising, Levi Strauss contracted with garment factories in the eastern US to ship 'jeans pants' made from denim twill instead of canvas to sell in California. When they became popular for workingmen, the name 'jeans' became associated with Strauss' denim pants. He also put the red Levis tag on the back pocket. Over time, denim jeans made their way out of the mining camps and into mainstream society, first in the United States, and then the world. They are manufactured today around countries facing the Indian Ocean.



20th CENTURY



The uniform for US Navy sailors since 1916 is shown in the image, with a white cotton, round-brimmed hat called a "dixie cup" after the paper cup by that name. Sailor pants, including those worn in the nineteenth and twentieth century U.S. Navy, are called dungarees. They are indigo blue today, but earlier in history, they were a rough, sturdy fabric used for sails and tents, perhaps even made by sailors out of used sailcloth. Hammocks for sleeping on shipboard could be made from the same cloth. Sailors needed pants with wide legs for easy wearing and working on the ship in wet conditions. Tight pants wouldn't do the job.

According to Navy historians, *"After battles, it was the practice in both the American and British Navies for Captains to report more sail lost in battle than actually was the case so the crew would have cloth to mend their hammocks and make new clothes."* The name "dungaree" goes back to

Dongari Kapar, India, where the rough cloth first got its name and its "indigo" color. The word dungarees, goes back to a thick Indian cotton cloth made at Dongari Kapar at Bombay, which was one of many cottons imported to Europe in the 17th and 18th centuries. According to the Oxford English Dictionary, the word dungaree entered English with the meaning of indigo-blue sailor pants in 1696. Blue or natural, the name was taken into the vocabulary for exactly what Portuguese sailors bought to wear in India: wide-legged, blue-dyed, tough dungarees.

A lighter indigo blue shirt with pockets completes the navy sailor's uniform, a common fabric for laborers who work with their hands, called "blue-collar" workers. The fabric is called *chambray*, as some say, named after the French city of Chambray, but the origin of the light cotton dyed in blue is Indian. Advertisements for "blue and white cottons" called Camboys, plaid Cambricks, and other "India Goods" were common in 19th century newspapers. Just as the fabric of dungarees came to be called denim after the French city of Nimes, the origin lies with an earlier Indian fabric dyed deep blue with indigo, and used for work clothing.