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The Historical Roots of Weaving: A Tapestry of Human Ingenuity and Cultural Heritage

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Abstract
The historical roots of the weaving profession are a tapestry woven deeply into the fabric of human civilization. Dating back millennia, this ancient craft finds its genesis in the evolution from nomadic lifestyles to settled communities. Prehistoric humans utilized natural fibres like flax, wool, cotton, and silk to fashion rudimentary textiles for clothing, shelter, and daily necessities. Across ancient civilizations, weaving held pivotal importance. From Mesopotamia's evidence of looms in Ur and Babylon to Egypt's mastery of linen production, textiles were integral to societal structures. China's renowned silk industry, Greece's myths of skilled weavers, and the medieval guilds of Europe all underscore weaving's cultural and economic significance. The Industrial Revolution marked a pivotal shift with mechanized looms and factory production transforming the industry. Yet, amidst modernization, hand-weaving traditions persist, honouring craftsmanship and heritage. Weaving's historical journey intertwines with human progress, reflecting innovation, trade, and cultural expression across diverse societies, threading together the very essence of human history.
Keywords: Textile craft, Ancient civilizations, Loom technology, Prehistoric textiles, Mesopotamian weaving, Egyptian linen, Silk production, Greek and Roman weavers, Medieval guilds, Industrial Revolution textiles, Hand-weaving traditions, Cultural significance, Technological advancements, Weaving heritage, Societal impact.

Introduction

It is known that among today's export products in Uzbekistan, cotton fibre and yarn spun from it occupy one of the leading positions.

The art of weaving, a craft intertwined with the very fabric of human history, traces its origins to the dawn of civilization. From the earliest nomadic societies to the bustling trade routes of ancient civilizations and the revolutions of the Industrial Age, weaving has been an essential thread weaving through the narrative of human existence. This ancient craft, rooted in the manipulation of fibres to create textiles, holds a rich tapestry of cultural significance, technological evolution, and societal impact.

This journey through time begins with the ingenuity of prehistoric humans, who utilized natural fibres to craft essential textiles for survival. Across the epochs, weaving evolved, shaping the cultural identities of Mesopotamia, Egypt, China, Greece, and Rome, leaving intricate imprints on their histories. The guilds of the Middle Ages preserved and propelled weaving techniques,

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laying the groundwork for the transformative era of mechanization during the Industrial Revolution.

Today, as automated processes dominate the textile industry, the enduring legacy of hand-weaving traditions persists, cherished for their craftsmanship and cultural heritage. This exploration delves into the historical roots of the weaving profession, unravelling its significance in shaping societies, economies, and the very essence of human expression across the ages.

The main part

Weaving is one of the leading branches of the textile industry. Weaving is undoubtedly one of the oldest arts and crafts in the world. Primitive man began to use his hands as a "natural" labor tool, and created various things in search of ways to facilitate his livelihood. One of the simplest methods of such creation was weaving together pieces of animal skin, grass, reeds, ivy, bushes and tree branches. Ancient people put these things next to each other and sewed them together. As a result, a certain item was created. This is how weaving, the simplest type of weaving, came about. The first clothes and shoes, mats, baskets and nets were the first textile products. It is believed that schooling appeared before spinning. The man knew how to weave the fibres of some plants before he learned to spin them.

Weaving items were found as a result of numerous excavations in Egypt, India, China, the lands between the Amudarya and Syrdarya rivers, Peru and Mexico. These objects confirm that weaving arose as a result of the natural desire of ancient people to create, and at the same time, it arose independently of each other in different parts of the world. In the first weaving looms, the trunk was placed vertically and tied to horizontal pegs made of tree branches. This placement of the thread was convenient for the weaver. The loads hung under the railing held him tight.

By the Bronze Age, looms were so advanced that some tribes still use them today. Two pillars were buried upright, a rope was attached to it and ropes were tied to it. Thanks to the improvement of machines of this type, the tanda and raw gas collectors (conveyor and goods roller) were invented.

The clothes worn by the mummies found in Egypt show that people at that time had mastered the art of weaving. Despite the fact that the weaving equipment is so advanced, some of the results achieved by the ancient masters were not achieved. For example, the scarf on the forehead of a mummy kept in one of the British museums is so densely woven that there are 213 threads per centimetre and 83 threads per centimetre. Modern looms cannot weave fabric with a density of more than 150 threads per centimetre. One kilometre of such kalava yarn would weigh 185 mg, and its surface density would be 5 g. Both vertical and horizontal looms were common in ancient Egypt

The first great invention in weaving was made by John Key on May 26, 1733. On this day, he received a patent for a "flying shuttle" or, as it is called in Russia, "aircraft shuttle". This shuttle is so-called because it works very fast.

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The essence of John Key's invention is as follows: before this invention, the weaver used to swing the blade between the hems with one hand and hang it with the other hand, and he would thread the thread to the edge of the fabric with the hand that held the blade. was reaping. Two weavers were working on wide looms. They rocked the shuttle from one side to the other using levers connected to each other. Both weavers were involved in weaving the rope thread around the edge of the fabric with a flying batan.

In Russia, the "plane shuttle" has been widely used since 1814. Such shuttles entered Central Asia in the second half of the 19th century.

In 1786, a mechanically operated loom appeared in the world. It was created by Edmund Cartwright, a village priest who was completely ignorant of textiles.

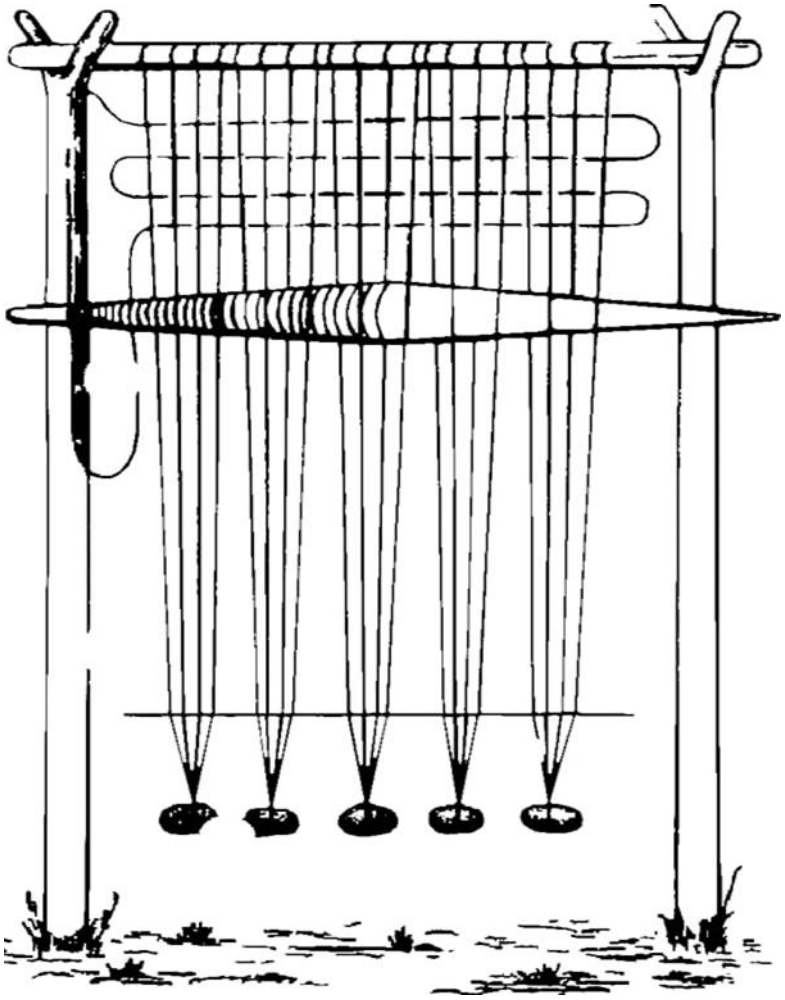

Figure 1. The first loom.

At the end of the 19th century, the design of the pilta loom, which appeared in Dansig, was the first attempt to solve the problem of mechanization of weaving.

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In the 17th century, workers protested against the introduction of such a loom throughout Europe, but the loom became more and more widespread. In the French encyclopedia of the 18th century, this machine was described as "widely used". But even in the 19th century, it was proposed to improve it.

The disadvantages of shuttle looms led to the creation of the second generation of looms in the 19th century - shuttleless looms. Currently, the share of looms in the textile industry is decreasing due to the fact that they are used for weaving some fabrics.

In the Deu Òextail joint enterprise equipped with shuttleless looms, pneumatic looms of the company "Toyoda" (Japan), "Picanol" (Belgium), "Somet" (Italy) and other types of looms are installed. These machines are equipped not only with high productivity but also with modern communication and information technologies. Automatic control of these processes allows for an increase in the variety of manufactured products.

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