

WODDEN PRINTING BLOCKS IN CENTRAL ASIA IN THE 13TH H./19TH ERALY 14TH H./20TH G. CENTURY (AN ARCHEOLOGICAL ARTISTIC STUDY)

Wooden Printing Blocks in Central Asia in the 13th H./19th G. Century and the Early 14th H./20thG.Century (An Archaeological Artistic Study)

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Abstract

The museums of Uzbekistan keep several wooden printing blocks that were used for printing on textiles in the 13th H./19th G. century and the early 14th/ 20th G. century. They are an important aspect of manufacturing wooden artifacts because of having many specialized centers in the wood craft in Central Asia, especially in Bukhara, Samarkand, Tashkent, Khokand, Khiva and other areas. These printing blocks have different shapes, sizes, types and designs. They are decorated with many decorative elements, including floral motifs, geometric shapes, and architectural elements. Moreover, they help identify the wood industry in Central Asia at the time, in terms of technique, decoration method, engraving, and decorations. The present study aims to highlight the models of these wooden printing blocks, such as their forms, types, raw material, technique of manufacturing and decoration, decorative elements, and designs. The results may help the researchers of applied arts in Central Asia.

Keywords: Blocks, Wood, Central Asia, Ūimākūrlik, High relief, Positive block.

Introduction

In Central Asia, craftsmen were best known for wood engraving (YūghūtshNaqshŪimākūrlik)(Садыкова, Левтеева&Султанова, 1986), especially in the 13th H./19th G. century and the early 14th/ 20th G. century. Many specialized and distinctive centers in the wood industry were established in Bukhara, Samarkand, Khiva, Tashkent, Khokand and other areas (Pugachenkova& Khakimov,1988) because Central Asia has the best types of trees. Therefore, good timber was used in the various wooden artifacts, including doors, columns, ceilings, boxes, chairs, furniture, and household utensils.

Craftsmen joined several core handicrafts, such as the manufacturing and decoration of wooden artifacts related to architectural constructions, e.g. doors, columns, and ceilings. They could also join minor fields, including carpenters (*ānūvīchi*) of agricultural tools, cargos, woodturning (*chārkhchīlīk*), and small wooden products (*sūgūtārūshi*)(Садыкова, Левтеева&Султанова, 1986). They made musical instruments, printing blocks (*kālībchi*), etc.

Wooden printing blocks "*chītkālīb*" is an important domain of the products for specialized carpenters and engravers of wood in Central Asia. Their manufacturing related to print and decorate textiles. Simply, their decorative elements mirror those printed on textiles. Moreover, woodblock printing on textile is a craft shared by many craftsmen, such as weavers, dyers (Dyers are two types: (*rangrez*), i.e. craftsmen engaged in dyeing in all colors, except for blue and (*kautgary*), i.e. dyers using indigo with tints ranging from dark blue, nearly black to blue)(Sukhareva, 2013), wood engravers (*Ūimākūr*), and textile printers (*chītḡārs*).

Engraving is the basis of woodblock printing, which mainly relies on transferring decorations, units, or designs to the surface of textiles. While some parts of the design that will be printed are (high), the others are (base) in order not to leave any marks on the surface (Radwan, 2018). Woodblock printing saves time and effort because of being easily implemented and produced, especially for large quantities. Moreover, it is cheap (Maher, 1986).

Many studies were conducted on wood in Central Asia in Arabic or other languages (Abd al-ḥakim, 2018, Deniké, 1968, Hassan, 2018, Marzuq, 2019, Ремпель, 1982 & Salim, 2011). However, they addressed the building-related wooden works, such as doors, columns, and ceilings. No study, to the author's knowledge, addressed the wooden printing blocks only, in terms of raw materials, manufacturing technique, classification, types, and analysis of decorations.

The present study aims to document these wooden printing blocks and identify their wood types, methods of manufacturing and decoration, shapes, sizes, and decorative elements. It utilizes the collection of wooden printing blocks kept at the museums of Uzbekistan. Therefore, it may help identify the printed decorations of textiles in Central Asia at the time that were unlike the embroidered textiles.

Wooden printing blocks

The shapes and sizes: The wooden printing blocks differed in terms of size, including the square, rectangular, rectangular with beveled angles, irregular pentagon, semi-

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circular, quarter round, and almond-shaped. They varied in size and were big, small, or medium.

The types : In terms of use, there are two types of wooden printing blocks:

Black contours were made with a block called a *başma*, carved from a hardwood such as pear. The block used for red color areas, called a *dūd*, was carved from a soft wood such as poplar (Carmel,2003). The printed textiles were mainly printed with black and red on a cotton background of cream color (Harvey,2002). The traces of these dyes, including the black, crimson, and yellow, are still present on the wooden printing blocks.

The raw material: In the 13th H./19th G. and early 14th H./20th G. century, woodworkers used local wood in Central Asia to make different fixed and movable artifacts. For example, they used walnut, Platanus, elm, juniper, mulberry, apricot, poplar (Морозова, Аведова&Махкамова, 1979), pear, and quince (Akilova&Avedova,1999). Moreover, they imported some types of wood, such as beech, oak, and pine (Морозова, Аведова&Махкамова, 1979). They used the aforementioned types of wood, especially pear and poplar, to make the wooden printing blocks. To put it differently, most of the wooden artifacts in the buildings of Central Asia were made of local wood, e.g., especially walnut and oak, in the (8th-10th H./14th-16th G.) centuries (Ebaid,2005).

The manufacturing: The craftsman selects a piece of a suitable size. He cuts it to get the required shape and makes a position to hold the block while printing, such as an upper simple handle, a notable wooden part, or deep points in two sides to put the fingers. After shaping, he softens, polishes, and prepares the block for decoration.

In the investigated blocks, the background of the decoration is wider and broader than the back by beveling the sides. Some pieces consist of one piece, two parts, or more because the craftsman used small pieces of wood to make a block and employ the surplus wood when making large products. He also completed the design or a part by instilling the pieces with nails. Sometimes, the craftsman wanted to increase the width of the block by combining two layers of wood.

The decoration: Applying the decorations on the wooden printing blocks goes through two stages.

Drawing on wood: The engraver makes a plan to implement decorations in terms of design, whether one floral or geometric decorative element, a complete design, or a part of the design. The decorations were transferred to wood using stencil and powder that is known as "*akhta*" or making a sketch using a compass and a ruler that is known as

"*pārgūrīŪimā*"(Садыкова, 1986). After that, the engraver begins engraving and implementing the decorations.

Engraving: Wood engraving is one of the most common artistic styles in Central Asia (Ванина,2008). Engravers "*Ūimākūr*" (Зохидов,1996) made use of high and base relief to implement various forms. For example, the well-finished base engraving made the blocks masterpieces (Harvey, 2002). Accordingly, two types of blocks were used. The decorations of the *positive* blocks were high relief. When they were immersed in dyes and printed, the decorations became colorful. The decorations of the *negative* blocks were base relief. When they were immersed in dyes and printed, the background only became colorful(Maher,1986). Sometimes, engraving the block was for implementing decorations and making frames or borders not dyeing. This resembled textile painting in a faster manner, especially when producing larger quantities. The study illustrated that the positive blocks with high relief decorations were more common than the negative ones in Central Asia.

The decorative elements: Engravers took care of decorating the wooden printing blocks by several designs that mainly relied on the floral motifs and geometric shapes along with some architectural elements. We found several models of such blocks that contained floral motifs, geometric shapes, or a combination of both along with other units, e.g. the architectural elements.

Floral motifs : The blocks were decorated with floral motifs. They included stems and leaves (*barg-bargak*), such as the lanceolate, triple, pointed, almond, and dentate. Moreover, different flowers were used, such as carnation "*chīnnīgūl*"(Carnation flower is a symbol of fertility in Bukhara and the surrounding areas. It has good features. For example, it is tranquilizer and has a relieving scent).

(Gillow& Sentence,2010), pomegranate "*ānūrgūl*", tulip "*lālāgūl*", iris "*sapsārgūl-sawsangūl*", and cotton "*pākhtāgūl*"(Rakhimov,2006). Multifaceted and multi-petal small flowers were used along with other things. They had talisman and medical characteristics to attract good fortune, repel bad luck, and treat illness (Baker,1995).

These blocks were decorated by one floral unit or several units. Sometimes, the design was implemented one time or replicated. The investigated wooden printing blocks contained several floral designs, such as

Flowers: This design mainly relies on flowers. For example, a flower was engraved on a wooden block dating back to the 13th H./19th G. century and kept at the State Museum of History of Uzbekistan. The obverse is decorated by a big blooming flower with a lobbed composite center containing a five-petal small rose. Two four-petal small roses

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(*chūrbārggūl – tūrtbārg*)(Khakimov,1999) that encompass a high relief leaf with cordate and pointed leaves emerge from the upper part of the flower.(fig.1)

Fig. (1): A wooden printing block, the 13th H./19th G. century, the State Museum of History of Uzbekistan.



Another wooden printing block dating back to the 13th H./19th G. century is kept at the Islam Khodja Complex. The obverse is adorned by a big lobbed flower that begins with linear leaves from below. A semi-dentate leaf surrounds the upper part of the flower. This design is identical to another wooden printing block dating back to the 14th H./20th G. century kept at theUzbekistan State Museum of Applied Art.(fig.2)



Fig. (2): A wooden printing block, the 14th H./20th G. century, Uzbekistan State Museum of Applied Art.

Bukhara State Architectural Art Museum holds a rectangular wooden printing block, which dates back to the late 13th H./19th G. century. In the middle, there is a lobbed flowersurrounded by carnation and dentate leaves.(fig.3)

Fig. (3): A wooden printing block, the late 13th H./19th G. century, Bukhara State Architectural Art Museum.



Sometimes, the engraver replicates one flower to cover the whole block. For example, a wooden printing block of the 13th H./19th G. century is kept at the Islam Khodja

Complex. The obverse is adorned with floral motifs in high relief. These motifs are three rows of small three-petal flowers (*shūnābārg*) (Khakimov,1999) that begin with two linear leaves.(fig.4)



Fig. (4): A wooden printing block, the 13th H./19th G. century, the Islam Khodja Complex.

Stems and flowers: The design consists of one or more simple stem(s) from which a group of flowers and small roses, such as pomegranate, clove, and cotton along with multifaceted leaves emerge. For example, a wooden printing block of the 13th H./19th G. century is kept at the Islam Khodja Complex. The obverse is adorned with floral motifs in high relief. These motifs are four stems that end with clove flowers, five-petal flowers, and dentate leaves.(fig.5)

Fig. (5): A wooden printing block, the 13th H./19th G. century, the Islam Khodja Complex.



The same design is engraved on a block of the same era at the same museum. The obverse is adorned with a stem from which clove flowers, four-petal flowers, as well as dentate and linear leaves emerge.(fig.6)



Fig. (6): A wooden printing block, the 13th H./19th G. century, the Islam Khodja Complex.

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A third example is a block of the late 13th H./19th G. century is kept at Samarkand Regional Museum of Local Lore. The obverse is decorated with a stem from which composite leaves and flowers emerge. The sides are surrounded by leaves. (fig.7)

Fig. (7): A wooden printing block, the 13th H./19th G. century, Samarkand Regional Museum of Local Lore.



The State Museum of History of Uzbekistan holds a model of this design engraved in a wooden printing block of the 13th H./19th G. century. The obverse is adorned with a stem from which pointed and triple leaves (*sibārgī*) and different flowers, such as iris and pomegranate. (fig.8)



Fig. (8): A wooden printing block, the 13th H./19th G. century, the State Museum of History of Uzbekistan.

This design continued in the early 14th H./20th G. century. It was engraved on a block kept at the Uzbekistan State Museum of Applied Art. The obverse is decorated with a rinceau of four cotton flowers from which almond-shaped leaves emerge. (fig.9)

Fig. (9): A wooden printing block, the early 14th H./20th G. century, Uzbekistan State Museum of Applied Art.



The same design is sometimes replicated on the same block. For example, a wooden block of the late 13th H./19th G. century is kept at Samarkand Regional Museum of Local Lore. The obverse has a replicated design of three six-petal flowers from which triple leaves emerge. It is based on an oval shape from which leaves emerge.(fig.10)



Fig. (10): A wooden printing block, the late 13th H./19th G. century, Samarkand Regional Museum of Local Lore.

3.2.Geometric shapes

Geometric shapes were ranked second in the decorations of the wooden printing blocks. Engravers engraved decorative designs of pure geometric shapes or accompanied with floral motifs. These shapes included squares, circles, rectangles, arrows, as well as oval and almond-like (*būdūm*) shapes. They were separate units or complete designs.

For example, a rectangle wooden printing block of the late 13th H./19th G. century is kept at Samarkand Regional Museum of Local Lore. The obverse is decorated with five rows of tangent circles that encompass rhombuses containing four-petal small roses.(fig.11)

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Fig. (11): A wooden printing block, the late 13th H./19th G. century, Samarkand Regional Museum of Local Lore.



Sometimes, engravers used small adjacent squares to make geometric shapes, such as functional shapes. For instance, the obverse of a wooden printing block kept at the Uzbekistan State Museum of Applied Art is decorated with a high relief of three zigzag rows of adjacent squares. The design ends with "T" letters that are part of the zigzag shapes if the block is replicated on the textile.(fig.12)



Fig. (12): A wooden printing block, the early 14th H./20th G. century, Uzbekistan State Museum of Applied Art.

This design continued in the early 14th H./20th G. century. It was engraved on a rectangular block kept at the Uzbekistan State Museum of Applied Art. The obverse is decorated with four vertical rows of oval shapes separated by dentate continuous rhombuses.(fig.13).

Fig. (13): A wooden printing block, the early 14th H./20th G. century, Uzbekistan State Museum of Applied Art.



3.3. Floral and geometric designs

The museums of Uzbekistan keeps some wooden printing blocks in the form of quarter circles that combine floral motifs and geometric shapes. By the end of woodblock printing, a replicated shape of a circle or a medallion encompassing a complete design is obtained. Such designs may decorate the sides or center of the textile.

For example, a quarter circle wooden printing block of the late 13th H./19th G. century is kept at Bukhara State Architectural Art Museum. The obverse is decorated with high relief floral motifs of a quarter composite flower surrounded by a lobbed frame (fig.14). This design was common on ceramic products, such as plates and suzani.



Fig. (14): A wooden printing block, the late 13th H./19th G. century, Bukhara State Architectural Art Museum.

Another block dating back to the 13th H./19th G. century is kept at the State Museum of History of Uzbekistan. The obverse is decorated with floral motifs of a quarter circle in high relief. The quarter-circle consists of a star shape (*yūldūz*) in the middle. It encompasses a multi-petal small flower. Stems forming arched shapes emerge from the star shape and encompass a tulip flower. From the arched shapes, palmettes emerge and encompass small almond-like shapes (*būdūmchā*). They encircle triple leaves. A narrow frame of dentate half-circles surrounds this design from outside. (fig.15)

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Fig. (15): A wooden printing block, the 13th H./19th G. century, State Museum of History of Uzbekistan.



3.4. The almond-like shape (būdūm)

The almond-like shape was common in the applied arts of Central Asia, especially in the 13th H./19th G. century. It dominated the ceramic, metal, embroidered and printed textiles, and wooden artifacts. It was engraved in the wooden printing blocks. Sometimes, the block itself or its decoration was almond-like. This shape took many forms.

The almond-like shape was engraved on the block. It was composite (i.e. including another almond-like shape) or floral elements, such as stems, flowers, and leaves. For instance, a wooden printing block of the late 13th H./19th G. century is kept at Samarkand Regional Museum of Local Lore. The obverse is decorated with a big almond-like shape with dentate sides. The shape ends with a leaf containing lobbed and dentate flowers, six-petal small roses, and linear leaves. (fig.16)



Fig. (16): A wooden printing block, the late 13th H./19th G. century, Samarkand Regional Museum of Local Lore.

This design continued in the early 14th H./20th G. century. For example, an almond-like wooden printing block. The obverse is decorated with a large almond-like shape, which contains a smaller one (*būdūmchā*) (Khakimov, 1999). Small bright roses are attached to the sides of the almond-like shape. (fig.17)

Fig. (17): A wooden printing block, the early 14th H./20th G. century, Uzbekistan State Museum of Applied Art.



Sometimes, the engraver engraves a couple of almond-like shapes (*qūshbūdūm*) (Зоҳидов,1996) on one block. For example, a rectangle wooden printing block of the 13th H./19th G. century is kept at the State Museum of History of Uzbekistan. The obverse is decorated with two almond-like shapes. Each shape has an upper part of three petals. The almond-like shape is composite and contains another almond-like shape of dentate sides and a smaller almond-like shape in the middle. A stem emerges from the almond-like shapes. Moreover, circular shapes that resemble the bunches of grapes (*angur*) emerge from the stem (fig.18). This design was in base relief. It was printed on a piece of textile (of a large collection in red) kept at the State Museum of History of Uzbekistan.



Fig. (18): A wooden printing block, the 13th H./19th G. century, State Museum of History of Uzbekistan.

The engravers created several designs of this shape. Accordingly, the almond-like shape was small and replicated and took the form of rows. For example, a rectangular wooden printing block of the 14th H./20th G. century is kept at the Uzbekistan State Museum of Applied Art. The obverse is decorated with parallel rows of small compact and vicious almond-like shapes (*būdūmchā*). (fig.19)

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Fig. (19): A wooden printing block, the early 14th H./20th G. century, Uzbekistan State Museum of Applied Art.



Sometimes, the almond-like shapes were decorated with floral elements, such as the small roses, internally. For instance, a wooden printing block of the 13th H./19th G. century is kept at the Islam Khodja Complex. The obverse is adorned by seven rows of small almond-like shapes encompassing four-petal small flowers (*chūrbārg*). (fig.20)



Fig. (20): A wooden printing block, the 13th H./19th G. century, Islam Khodja Complex.

3.5. Architectural elements

The architectural elements were embedded in the main decorative items of the block. Thus, they were limited to machicolises (*madūkhīl*)(Khakimov,1999) in the form of up and down triple leaves (*madūkhīlbārgī*) within a basic design on a rectangular wooden block dating back to the 13th H./19th G. century and kept at Bukhara State Architectural Art Museum(fig.21).

Fig. (21): A wooden printing block, the late 13th H./19th G. century, Bukhara State Architectural Art Museum.



They were attached to the main decorative elements, such as the parabolic arch (*mikhrūbī*), on some blocks. For instance, a wooden printing block of the late 13th H./19th G. century is kept at Samarkand Regional Museum of Local Lore. The obverse is decorated by a frame with a parabolic arch and dentate parties internally. Both sides of the arch have leaves. In the middle of the frame, there is a floral motif of stems from which pointed flowers, as well as dentate and linear shapes, emerge. (fig.22)



Fig. (22): A wooden printing block, the late 13th H./19th G. century, Samarkand Regional Museum of Local Lore.

4.Results

1-The use of the wooden printing blocks spread in Central Asia in the 13th H./19th G. century and the early 14th H./20th G. century. It was the era of the renaissance of applied arts, in general, and textile, in particular, in Central Asia.

2- The wooden printing blocks differed in terms of size, including the square, rectangular, rectangular with beveled angles, irregular pentagon, semi-circular, quarter round, and almond-shaped. The size and types varied, as well. In terms of use.

3-There are two types of wooden printing blocks, namely *başma* to make black contours and *dūd* for red color decorations.

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- 4- Local wood, such as pear and poplar, was used to make wooden printing blocks in Central Asia.
- 5- The wooden printing blocks consisted of one wooden piece of more and were fixed by nails to employ the surplus wood in making blocks. This technique did not affect the engraved decorations.
- 6- The engravers employed high and base relief in implemented the decorations on the wooden printing blocks. This technique was known as "ūimā".
- 7- The positive blocks with high relief were the most common in Central Asia in the 13th H./19th G. century and the early 14th H./20th G. century.
- 8- Different decorations were implemented on the wooden printing blocks and included floral motifs, geometric figures, almond-like shapes, and architectural elements. Because inscriptions were rarely used, they did not appear on the printed textiles.
- 9- The wooden printing blocks and their designs express the decorative units printed on cotton textiles and not the main design in the 13th H./19th G. century and the early 14th H./20th G. century. The printer used these blocks as tools to coordinate the suitable designs.
- 10- The wooden printing blocks showed models of dyes used for printing because they left traces, such as red, crimson, yellow, and black.

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