The Marble Bases of Kunya Ark and Tash-hauli Palaces in Khiva During the 13th AH/19th AD Century

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Abstract:
Khiva is one of the most important cities in Central Asia and it has great geographical, historical, commercial and cultural significance. The architectural style of Khiva was characterized by use of the graceful carved wooden columns inside and outside the buildings in the city, whether religious buildings such as mosques or civil buildings (i.e. palaces and houses). These columns are usually based on marble or stone bases, not wood. Marble and stone are characterized by hardness, strength and durability in carrying wooden columns and protect them from damage due to humidity, rain and snow in the winter. Marble bases are one of the main branches of marble products industry in Khiva, in addition to the manufacture of cenotaphs, tombstones, foundation plates, Fountains and others. Therefore, the architect was keen to use them primarily in the construction, but also paid attention to their design and decoration using different decorative elements. Such art is as equally important as any other decorative arts (i.e. ceramic tiles that cover the walls or wooden ceilings covering the buildings). It is considered a monumental record and has great artistic and historical significance as it chronicles some of the important buildings in the city, which are mostly attributed to the 13th/19th century. Where the wooden column consists of a wooden block based on a marble base known as "Bay Uston", decorated by

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many decorative elements and inscriptions such as some poems, songs, advices and proverbs, the names of manufacturers who were not referred to in sources and references, as well as history of the buildings and manufacture of those columns. This research aims to study the marble bases in Khiva through two models of the most important remaining palaces in Central Asia from the 13th/ 19th century, namely Kunya Ark and Tash-hauli Palaces to identify the general shape of these bases, raw materials, the manner of their formation and decoration and the most important decorative elements such as the floral ornaments, geometric shapes, architectural elements and reading of inscriptions and analysis of their contents.

Key words
Marble Bases, Khiva, Kunya Ark, Tash-hauli, Agahi ʿIslimi ʿIslam Khawarezmi
Introduction
Khiva is one of the most important cities in Central Asia and it has great geographical, historical, commercial and cultural significance. It is located on the west bank of the Amu Darya River. It is the capital of Khorezm khanate, was later named Khiva khanate.(1)
Khiva was composed of two towns: the inner town (Ichan Qala) and the external town (Dishan Qala). The inner town was the administrative, political and economic center of Khiva. It included many buildings for the establishment of the Khan, the powerful clerics and merchants, and the rest of the city (Dishan Qala) Surrounding the inner town and protected by walls with several gates(2), Khiva reached height of its prosperity in the 13th / 19th century, when it was built in Ichan Qala, an intensive construction process resulting from the expansion and consolidation of Khiva khanate (3).
The architectural style of Khiva was characterized by use of the graceful carved wooden columns inside and outside the buildings in the city, whether religious buildings such as mosques, for example, Juma mosque (6-7th / 10-11th centuries)(4), Ak mosque (1088 A.H / 1677A.D.) (5), Murad Qushbegi (late

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(2) Naumkin ,Vitaly." Khiva", Caught in Time: Great Photograpic Archives, Garnet,(w.d), P.5.
(3) Маньковская, Л." Хива ", Заповедник хорезмского зодчества,Ташкент, 1982, CTP.258.
(4) Juma Mosque: The mosque is located inside Ichan qala to the north of Bahlavan Mahmoud mausoleum, the old mosque was built between (6-7th / 10-11th centuries). The original building of the mosque collapsed over the centuries and then rebuilt in 1203 A.H / 1788 A.D on the same old design, a large number of wooden columns numbered 213 columns dating back to 11th / 17th century. These columns constitute real pieces of art in the art of wood engraving, and the mosque was a center of science and education during many eras.
(5) Ak Mosque: The mosque is located near the eastern gate of Ichan Qala. The white mosque was built in 1088 A.H / 1677 A.D by Anusha Khan, the son of the renowned
12\textsuperscript{th}/18\textsuperscript{th} century\textsuperscript{(6)}, Baghbanli mosque (1224 A.H./ 1809A.D.)\textsuperscript{(7)} or civil buildings (i.e. palaces and houses) such as Kunya Ark in 1098 -1100 A.H. / 1686 -1688 A.D., the Palace of Tash-hauli in 1246- 1254 A.H. / 1830-1838 A.D., and the Palace of Nurnullabay in 1324-1331 A.H/ 1906-1912A.D.\textsuperscript{(8)}. These wooden columns were often used in the covered mosques for supporting the ceilings or in mosques that combine the summer and winter mosques to carry the arches of the outer aisles and the ceilings of the iwans. As for the schools, we do not find a common use of the columns due to their architectural design which depends on

historian Abu Ghazi Khan, to commemorate the rescue of his father from death during his campaign to the city of Kerminia. The current building was built between 1254 and 1258 A.H / 1838- 1842 A.D, the mosque consists of a hall covered by a dome surrounded by a shed from three sides.

Маньковская, Л. "Хива", СТР.238.

Абдурахимов, М." Хорезм ", Ташкент, 1967, СТР.52.

\textsuperscript{(6)} The mosque was built in the late 12\textsuperscript{th} / 18\textsuperscript{th} century. It is located behind the Musa Tura madrasah in Ichan Qala. It was erected by Hassan Murad Qushbegi and his relative Shah Niyaz. However, the mosque only bears Hassan Murad Qushbegi's name. It is a small, square-shaped mosque. In the north is a narrow courtyard and a single-column summer iwan. In the northeastern corner there is a minaret built inside a structure adjacent to Tarahat-khana. Restored in 1418 A.H / 1997 A.D.


\textsuperscript{(7)} The mosque lies in the southeastern part of Ichan Qala. According to an inscription inscribed on the iwan wall ,The mosque dates back to the year 1224 A.H/ 1809 A.D. The name of master "Pakhlavan- kuli" was also mentioned on the stone plaque located east of the mosque entrance. Entrance (Druza Khanh) surrounded by two chambers and iwan two columns and a winter room covered dome. The mosque has a rectangular shape and consists of a Darvaz- Khana lined by a twin-column iwan and a domed winter quarters.

Мадамино, Матякуб. "Хива ", p.36.

\textsuperscript{(8)} This palace was built by Mohammed Rahim Khan for his son Isfandiar in 1324-1316 A.H/ 1906-1912 A.D. The palace consists of the residential part of the Khan and the traditional Arzkhan (the listening room), the Kurinyshkhana (the celebration hall), the palace is characterized by European style in design, architecture and decoration. In the palace, in 1337 A.H /1918 A.D, Isfandiar was killed by the pre-ruling ruler of Khiva, who was called by bloody Isfandiar by the hoodlum, Djunaid Khan, in March 1339 A.H / 1920 A.D. The organizational committee of the Communist Party of Khorezm held its meetings in the former palace, The palace was the seat of the government of the Soviet People's Republic of khorozm, the palace is now used as the Museum of History and Revolution Khiva.

the court and rooms with arched iwans. As for the palaces, we find them frequently used due to the multiplicity of architectural units inside them between reception halls, official units, administrative, residential buildings and others. These columns are usually based on marble or stone bases, not wood. Marble and stone are characterized by hardness, strength and durability in carrying wooden columns and protect them from damage due to humidity, rain and snow in the winter. Marble bases are one of the main branches of marble products industry in Khiva, in addition to the manufacture of cenotaphs, tombstones, foundation plates, Fountains and others. Therefore, the architect was keen to use them primarily in the construction, but also paid attention to their design and decoration using different decorative elements. Such art is as equally important as any other decorative arts (i.e. ceramic tiles that cover the walls or wooden ceilings covering the buildings). It is considered a monumental record and has great artistic and historical significance as it chronicles some of the important buildings in the city, which are mostly attributed to the 13th /19th century. Where the wooden column consists of a wooden block based on a marble base known as "Bay Uston", decorated by many decorative elements and inscriptions such as some poems, songs, advices and proverbs, the names of manufacturers who were not referred to in sources and references, as well as history of the buildings and manufacture of those columns.

The study will be limited to the marble bases inside Kunya Ark and Tash-hauli Palaces in Khiva. In these fortified palaces, the Khorezmian aristocratic class such as khans of khorezm, the rulers of cities and the princes of some independent emirates lived. Thousands of slaves, city dwellers, peasants and skilled craftsmen participated in the construction, paintings, plaster, wood and stone works.\(^9\) On the other hand, the marble bases

were in good condition, characterized by their distinctive unique style and give us a clear picture about the marble bases in Khiva during that period, but also highlight the most important features of engraved marble in Khiva.

First: Descriptive study

Kunya Ark

The word "Kunya Ark" means the "old fortress" and it became the fortress of Khiva from thirties of the 13th / 19th century, a distinction from the new palace "Tash-hauli". The construction of Kunya Ark started in 1098-1100 A.H / 1686-1688 A.D by order of Arang Khan (10) the son of Anusha Khan (11), and the dates engraved in the castle indicate that the construction and equipment of Kunya Ark continued throughout the 13th / 19th century. The palace consists of several parts, including the throne hall, harem–living court, arsenal, mint, summer mosque, kitchens, garrison, and so on.

The marble bases of Kunya Ark are located in the reception hall "Kurinyshkhana", the first building in the palace was built by Arang Khan in the 11th / 17th century. It was demolished in the 12th / 18th century during the Iranian armies' campaign in Khiva. It was rebuilt in 1219-1221 A.H /1804-1806 A.D in the reign of

(10) Muhammed Arang Khan ruled for four years (1103-1107 A.H / 1691-1695 A.D). After he ascended the throne, he began to deny many princes loyal to Subhan Quli Bukhara's Khan. He took the opportunity of exiting Subhan Quli to Khorasan and he turned his army to Bukhara. There was a battle that ended with the defeat of the Khorezmains and many of them were captured and Arang Khan was poisoned.


(11) Anusha Muhammed Bahadr Khan was ruled from 1074-1097A.H / 1663- 1685A.D. Anusha Khan re-built the old capital of Khorezm on the left bank of Amu Darya, and thus began a new boom of urban growth in the region. Anusha and his successors began to call themselves Shahs after invasion of Anusha of Mashhad at the end of the 11th / 17th century, he invaded Ma'wra Al-nahr more than once and looted the residence of the Jubari Khawajas in Bukhara.

Eltuzar Khan\(^{(12)}\) by his employee, Yusuf Mehtar\(^{(13)}\), and the completion of the building and decorations was during the reign of Allah kuli Khan\(^{(14)}\) in 1241 – 1258 A.H / 1825 – 1842 A.D\(^{(15)}\).

**Reception Hall (Kurniyshkhana) (Plate 1)**

Kurniyshkhana was built in the style of the traditional Khorezmian residence. It consists of throne hall with an iwan, which was built on two wooden columns and the hall is completely covered with ceramic tiles. The hall overlooks a fenced courtyard with a terrace in the middle to erect tent in case of reception of the nomads guests.

**The marble bases in the reception hall " Kurniyshkhana "**

Reception hall's iwan is based on two wooden columns on two marble bases.

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\(^{(12)}\) Inak's Eltuzar was the first khan of the Uzbek tribe in 1219 A.H / 1804 A.D - the family that ruled khanate until 1339 A.H / 1920 A.D - where he declared himself Shah and mint coins in his name and recorded the text "Eltuzar heir of khorezm Shahs ". Eltuzar Khan took care of the affairs of the country well and eradicating the rebels and thieves who used the main roads. He married an illegitimate marriage from the daughter of Sayed Akhund Khawaja, and died after a conflict with Bukhara.


\(^{(13)}\) Mehtar : Minister of Finance in khanate, who also controls internal affairs, and was generally from Sarts.

Howorth, Henry H." History of the Mongols from the 9\(^{th}\) to the 19\(^{th}\) century", p.964.

Madamino, Matyakub." Khiva ", p.110.

\(^{(14)}\) Allah kuli Khan: He is the son of Muhammad Rahim Khan. He took over the throne after the death of his father between the years 1210 - 1258 A.H/ 1795 – 1842 A.D, he inherited a strong state with great influence on neighboring countries. Muhammad Rahim Khan and his son Allah kuli Khan took care to build irrigation facilities, restoration and repair of old irrigation networks, a technical and architectural renaissance took place in the city of Khiva, which was ordered by the construction of the Palace of Tash Hauli (1246-1254 A.H / 1830- 1838 A.D), Tim Allah kuli Khan (1248- 1251 A.H / 1832- 1835 A.D), Alla Kuli Khan madrasa (1251 A.H/ 1835 A.D) and other buildings.


Right base (plate 2):
Located to the right of the stand in front of the iwan, a marble base divided into three horizontal sections:
The lower section is a cube with four similar facades adorned with abstract floral ornaments, curved foliate branches of semi-palmettes, interspersed with trefoil leaves, flowers and multi-petal rosettes. In the center of the front façade, there is a hexagonal shape resembling a stamp, which is filled with an inscription in the nasta'liq calligraphy, "سلام خوارزمی ۱۲۷۴" (1274), while in the far right, there is another inscription "عمل خواجه اسلام". (Figure 7)
The middle section is a polygonal conical shape that is wide from the bottom and narrowing upward as it is decorated with arabesque designs of semi-palmettes and trefoil leaves separated by trefoil arches frames in high relief. (Figure 2)
The upper section is a cylindrical polygonal shape decorated by different designs of arabesque.(Figure 2)

Left base (plate 3):
Located to left of the stand in front of the iwan, a marble base divided into three horizontal sections:
The lower section is a cube with four different facades. The front façade of this section is adorned with cartouches including calligraphic inscriptions in nasta'liq of Persian poetry written in three lines, with floral motifs of semi-palmettes and leaves. The cartouches are included by multi-petal flowers, leaves and semi-palmettes. The lower part is adorned with botanical motifs in high relief. It is a design of two curved foliate branches, one of which is semi-palmettes and the other trefoil leaves. The remaining three facades are decorated with various designs of vegetal ornaments composed of curved floral branches, semi-palmettes, leaves and flowers.
The middle section is an octagonal conical shape that is wide from the bottom and narrowing upward. The cut corners are
decorated with botanical designs of arabesque like semi-palmettes and trefoil leaves extending to the upper part of the base. The front façade is adorned with cartouches filled with inscriptions in nasta'liq calligraphy written in four lines, topped by a decorative design of arabesque, and from the bottom another inscription, "۱۲۷۴" (1274).

**The upper section** is a cylindrical polygonal shape decorated with different designs of arabesque in high relief ends with an inscription "۱۲۷۴" (1274). The front façade of this section has an inscription in nasta'liq calligraphy in two lines, and all the poetic verses are engraved from top to bottom as follows: ( Figure 5 )

<table>
<thead>
<tr>
<th>ایشان حضور داران جناب</th>
<th>فلک گنبدین بیل سو اورهم حباب</th>
</tr>
</thead>
<tbody>
<tr>
<td>بنای فلک کا بو بولسه قرار</td>
<td>آینهگ تخت جاهی غنی اعتبار</td>
</tr>
<tr>
<td>به ایمیدی رعایاغه قیل عدل و داد</td>
<td>تایبات دیسانگ ایکی جهاندا مراد</td>
</tr>
</tbody>
</table>

The translation of the inscriptions from the Uzbek language into Arabic was written by Kameljan Rahimov, senior researcher at the Peroni Institute of Eastern Manuscripts in Tashkent, Uzbekistan. (16)

**Tash-hauli Palace**
"Tash-hauli" means the stone courtyard. Tash-hauli Palace is one of the few remaining palaces in Central Asian region. There are 163 rooms, three large courtyards and five small courtyards (17). The palace was built during the reign of Allah Kuli Khan in 13th/19th century. It consists of three main parts: courtyard of harem, "Mekhmankhana", a building for receptions of the Khan and the feasts, "Arzkhana" official administrative building. The construction of the palace continued from 1246

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(16) The translation of the inscriptions from the Uzbek language into Arabic was written by Kameljan Rahimov, senior researcher at the Peroni Institute of Eastern Manuscripts in Tashkent, Uzbekistan.

(17) Абдурахимов, М. "Хорезм", СТР. 55.
A.H. 1830 A.D. until 1254 A.H. 1838 A.D. as recorded in inscriptions of the building on wooden columns, marble bases and ceilings\(^{(18)}\).

**Courtyard of harem (Haramlik)(Plate 4)**

This courtyard is the first part to be built in the Palace of Tash-hauli (1246-1248 A.H. 1830 – 1832 A.D.). It is separated from the general part of the palace by a long corridor that connects the residential rooms of the Khan and his wives\(^{(19)}\). The courtyard of harem is a rectangular extending from west to east, its southern side is occupied by five iwans, four small iwans are for the Khan's wives, while the fifth iwan, which is more rich and wealthy, is dedicated to the Khan himself. Each iwan has a single-column, living room called Saray and the servants' room. The rest of the courtyard is divided into two floors dedicated to the Khan's relatives, his mother and concubines\(^{(20)}\), and the palace's walls are adorned with ceramic tiles (majolica), carved wooden columns, marble and colored wooden ceilings\(^{(21)}\).

**Marble bases in courtyard of the harem (Haramalk)**

**The first base (plate 5):**

This base bears the wooden column overlooking the courtyard in palace's first iwan close to the entrance side. This base consists of three horizontal sections:

**The lower Section** is a cube and has four facades, each two are similar in shape and decoration.

**Front and rear interface**

Each interface is decorated with a rectangular shape. Its upper angles are concave. The interior design is geometrical. It consists of two medallions of four adjacent lobes that are joined by another geometric shape with pointed and concave sides and

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\(^{(18)}\) Atakulova, K. "Khiva ", The city and the legends, Davar Nashriyoti, Tashkent, 2012, p.16.

\(^{(19)}\) Маньковская, Л. " Хива ", CTP.233.

\(^{(20)}\) Madamino, Matyakub." Khiva ", pp.77- 78.

\(^{(21)}\) Atakulova , К. " Khiva ", p.17.
connected to the medallions' sides by a small circular shape and
the entire design is executed on a vegetal background,
surrounded by a narrow frame adorned with intricate geometrical
design like diamonds and hexagon shapes, surrounded by another
frame filled with botanical ornaments consisting of two
intertwined foliate branches of semi-palmettes in high relief.
(Figure 3)

**Left and right interface**

Each interface is decorated with a rectangular shape. Its upper
angles are concave. The interior design is geometrical, a semi-
octagonal shape that intertwines with two smaller polygonal
shapes and the entire design is executed on a foliate background
of semi-palmettes and trefoil and five-lobed leaves in high
relief. (Figure 3) The rectangular shape is surrounded by a narrow
frame decorated with intricate geometrical design, intricate
diamonds and orthogonal shapes in high relief. Surrounded by
another frame with botanical decorations composed of
interlocking foliate branches of semi-palmettes and various
leaves in high relief.

**The middle section** consists of two parts. The lower part is a
polygonal conical shape that is wide from the bottom and
narrowing upward. The four corners of the lower cube and
beginning of the middle section are formed by almond shape and
divided into four sections that are decorated by simple floral
motifs in high relief. This section is adorned with vegetal
ornaments. So that the opposite sides are similar in decoration.
The upper part is cylindrical and is decorated with duplicate
inscription "واحسانه" , overlapping with foliate branches on floral
background, and the date of ۱۲۴۸ (1248) in high relief. ( Figure 6 )

**The upper section** is a cylindrical shape filled with an
inscription in nasta'liq calligraphy which reads: "الله في جوار
اصاحب"
" تعالى وامس في أمان الله تعالى " interlocking with branches of semi-palmettes and various leaves in high relief. (Figure 6)

**The second base (plate 6):**

This base bears the wooden column overlooking the courtyard in palace's second iwan close to the entrance side. This base consists of three horizontal sections:

**The lower Section** is a cube has four facades, each two are similar in shape and decoration.

**Front and rear interface**

Each interface is decorated with a square frame adorned with oblique and zigzag shapes and occupied from the inside by two adjacent mihrabs, each of which begins with arches topped by rows of small niches that end with a carved half-dome. (Figure 4) The mihrabs are separated by floral motif of semi-palmettes, leaves and six-petals rosettes.

**Left and right interface**

Each interface is decorated with a square shape with a geometrical design of an octagonal shape, broken strips form an orthogonal shape in the middle, fully designed on a floral background of foliate branches of semi-palmettes, trefoil and five-lobed leaves, and four and multi-petals rosettes in high relief.

**The middle section** consists of two parts. The lower part is a conical octagonal shape that is wide from the bottom and narrowing upward. The four corners of the lower cube and beginning of the middle section are formed by almond shape divided into two sections decorated with simple floral motifs. This section is decorated with botanical ornaments, which resemble the opposite sides in terms of decoration (i.e. semi-palmettes, leaves and rosettes in high relief). It has narrow frames adorned with geometric diagonal and zigzag shapes. The upper part is a cylindrical shape decorated by four rows of muqarnas.
The upper section is a cylindrical shape adorned with a refined design. Its arches are filled with floral motifs of semi-palmettes in high relief.

The third base (plate 7):
This base bears the wooden column overlooking the courtyard in palace's third iwan close to the entrance side. This base consists of three horizontal sections:

The lower Section is a cube and has four facades, each two are similar in shape and decoration. Facades of this section are decorated with a geometrical septuple shape. The interior part is decorated with floral motifs. The design is opposite and inverse curved semi-palmettes on background of foliate branches, with pointed and trefoil leaves, flowers, tri and five-petals rosettes in high relief. (Figure 1) It is surrounded by a narrow frame that takes the same shape and is adorned with modified floral branches of semi-palmettes in high relief.

The middle section is a conical octagonal shape that is wide from the bottom narrowing upward. The four corners of the lower cube and beginning of the middle section are formed by an almond shape divided into two vertical sections with only a frame in the middle decorated with zigzag shapes. This section is decorated with vegetal motifs, branches, leaves and four, five and six petals rosettes in high relief. It has narrow frames decorated with geometric diagonal shapes. The upper part is a cylindrical decorated with three rows of muqarnas.

The upper section is a cylindrical shape decorated with a geometrical design, with four-lobed medallions, contiguous and interlocking shapes in high relief, with floral motifs of leaves and tri, four and six-petal rosettes.

The fourth base (plate 8):
This base bears the wooden column overlooking the courtyard in palace's fourth iwan. This base consists of three horizontal sections:
The lower Section is a cube and has four facades, each two are similar in shape and decoration. Facades of this section are adorned with a square filled with floral motifs, which are foliate branches ending with opposite and inverse curved semi-palmettes in high relief.

The middle section is a conical octagonal shape that is wide from the bottom and narrowing upward. The four corners of the lower cube and beginning of the middle section are formed by a prominent shape resembling a niche is adorned by vegetal motifs in high relief. This section is decorated with botanical ornaments and foliate branches of semi-palmettes.

The upper section is a cylindrical shape decorated with botanical decorations and foliate branches of semi-palmettes in high relief.

The fifth base (plate 9):
This base bears the wooden column overlooking the courtyard in palace's fifth iwan. It is based on a low terrace without decorations. This base consists of three horizontal sections:

The lower Section is a cube with four facades similar in shape and decoration. This section is similar with the fourth base. Facades of this section are decorated with a square filled with floral motifs, which are vegetal branches ending with opposite and inverse curved semi-palmettes in high relief.

The middle section is a conical octagonal shape, that is wide from the bottom and narrowing upward. The four corners of the lower cube and beginning of the middle section are formed by an almond shape is decorated by four and seven-petal flowers and leaves. This section is decorated with curved foliate branches ending with semi-palmettes in high relief.

The upper section is a cylindrical shape adorned with floral motifs of foliate branches interspersed with tri and four petals rosettes and serrated leaves.
Reception Hall (plate 10)
Or the so-called "mekhmankhana" or "Ashrat- hauli" was the second stage of construction in the Palace of Tash-hauli can be reached from the harem through a long corridor and some luxurious small buildings. It is a courtyard with a high iwan for receiving guests, based on single-column. Behind the iwan on the lower and upper floors were the guest rooms, as well as the throne room on the second floor.\(^{(22)}\). In the southern iwan, there were celebrations of the palace and reception of the guests and ambassadors. The iwan is decorated by maijolica tiles and colored ceilings\(^{(23)}\). In the middle of the courtyard, there are two high places for the tent, since Khans were living in tents in the winter\(^{(24)}\).

The marble base in the reception hall (plate 11):
The iwan has only single base bearing the wooden column overlooking the courtyard. This base consists of three horizontal sections:

The lower Section is a cube and has four facades similar in shape and decoration.

The right interface
It is noted that the interfaces of the base are similar in terms of the general shape and decoration, but differ in terms of the designs executed on them, decorated by a trefoil arch with an inscription in nasta'liq calligraphy in two lines:

الله عم جعل هذا الحجر الأسطوانة المصقل التي يرى
عكس الناظر كالمراة ساكنًا

On background of foliate branches with semi-palmettes, various leaves and tri, four and six petals flowers in high relief, surrounded by two regular rows around the arch, each of which is composed of two curved and intertwined branches of semi-palmettes on background of simple foliate branches with pointed,
serrated and trefoil leaves and tri and four petals rosettes in high relief. This design extends to the end of the second and middle section of the base.

**front interface**
The front interface of this section is adorned with a trefoil arch with an inscription in nastā'liq calligraphy in two lines:

وَثَابِتَا بِالدُّولَةِ الْأُبْدِيَةِ وَالْنَّصِرَة

On background of branches with semi-palmettes, leaves and flowers, surrounded by lobed frame with a design of botanical decorations composed of curved and intertwined branches of semi-palmettes on a background of simple floral branches with leaves, flowers and rosettes in high relief. This design extends to the end of the second and middle section of the base.

**The left interface**
Similar to the right facade in terms of the general shape, designs and decorative elements and differs in the inscription written in two lines reads:

الخشتَة والسلطنَت
والإبْتُو الأياَلت والرَفعت

**The rear interface**
The rear interface is similar to the front in terms of the general shape, design and decorative elements, but differs in the inscription written in two lines:

والبِسالتِ والجلَّالتِ إلى

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**The middle section** is a conical octagonal shape that is wide from the bottom, narrowing upward. The four corners of the lower cube and beginning of the middle section are formed by an almond shape is adorned by stylized botanical decorations. This section is decorated with designs of abstract vegetal ornaments that resemble the opposite sides in terms of decoration, which start in the opposite sides of the four sides from the beginning of
the lower cube and end at the end of this section, while the corner sides occupy floral designs of arabesque of semi-palmettes, leaves and rosettes in high relief.  

The upper section is a cylindrical shape occupied by adjacent square areas decorated by different designs of arabesque in high relief. 

Second: Analytical and comparative study  

Analytical Study:  

This study aims to identify location of these bases within the palaces, the reasons for their use, the raw materials used in their manufacture, the sources of their importation, how to manufacture them, the method of engraving, the general shape and style of formation and decorations, as follows:  

In terms of location:  

The marble bases "Bay Uston" in the two palaces are based on different height terraces to adjust height of the wooden columns to carry the high iwan's ceilings overlooking the courtyards, which are designed to receive the cold northern wind and turn to the courtyards to reduce the heat of the summer. Therefore, every iwan in Khiva is twice the height of the house and is always oriented toward the north\(^{(25)}\), whether it is within the residential parts of the palaces or the official halls of reception and celebrations.  

In terms of raw material:  

Marble and stone are the main materials used in the manufacture of wooden columns' bases in Khiva. These stones are characterized by their resistance to salts, humidity, rain and snow, and their durability, hardness and quality. These characteristics are not found in the wooden bases, which are more prone to damage. The use of marble in Khiva was common

in manufacture wooden columns' bases compared to stone and wood.

The use of white and gray marbles was limited in the manufacture of these bases. It was brought to Khorezm from regions of Nurata in the state of Samarkand, Yomurtau, Qaratau\(^{(26)}\) and Sultan Aweys Mountains \(^{(27)}\) in Karakalpakistan, the main regions for importing the marble to Khiva\(^{(28)}\).

**In terms of formation and decoration**

These bases are based on selection of the marble pieces to be shaped and carved according to the prevailing style in the city, then a cylindrical hole would be made in the middle of the upper surface of the base, which is installed in the wooden column inside, after that the engraver begins polishing and adjustment of external surfaces to be decorated and put the appropriate design using simple tools such as different types of hummers and chisels. Finally, the embossing process begins by laying the main lines of the design, including the main square of each facade, then the frames in the lower section. In the center section, the artist creates frames for the facades, division the almond shapes, then engraves the internal parts and background too.

The style of engraving on the bases’ surfaces varied in form from the high to hollow relief and the multi-level engraving, and the engraver creates decorative designs on engraved background also. While depth of the engraving on the marble bases varied between the flat, non-deep engraving known as "Yasi Uima", which has depth of 1-1.5 cm, deep engraving known as "Chokur

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\(^{(26)}\) Qaratau: A mountain range, located northwest of Tian shan in southern Kazakhstan, and the name is Turkish origin means "black mountain". The range extends about 260 miles (420 km) with Sirdaria and rises to 7,139 feet (2.176 meters).

www.britanica.com/place/qaratau.

\(^{(27)}\) Sultan Aweys Mountain in Karakalpakstan is not more than 500 meters (sultan weese-dag), located in the province of Peroni.

www.advantour.com

\(^{(28)}\) Бобожонов, Дилмурод." Хоразм амалий санъят усталари ", Хива, 2010, СТР. 42.
Uima". In this type of engraving, the depth takes a dark color and light color surface (29). The engraving on the bases of Kunya Ark Palace is more deep than Tash-hauli bases, which are evident in the use of multi-level engraving.

**In terms of general shape:**
Some of the bases take the drawn form such as the third and fourth iwans' bases in the harem courtyard at Tash-hauli Palace and the left base in the reception hall of Kunya Ark palace; the filled form such as the first and second iwans' bases, the harem courtyard and the base of reception hall's iwan at Tash-hauli Palace; and the balanced form such as the base of the fifth iwan in the harem courtyard at Tash-hauli Palace and the right base in the reception hall in Kunya Ark.

**The bases forming styles and their parts:**
The marble bases usually consist of three horizontal sections that start from the bottom in a cubic shape. In this case study, the marble bases were divided into two types:

**The first type:** This style is characterized by the center section which is the cut corners and this type represents the marble bases of Kunya Ark Palace.

**The second type:** This type is characterized by the middle section which begins with a prominent almond shape called Imjak, and this type represents bases of Tash-hauli Palace. The marble bases of this type is divided into clear three horizontal sections adorned with frames as follows:

**The lower section** is a cube with four facades, often were divided into a central square called "Kok-Rak" surrounded by a frame or two called "Oria-Tash".

**The middle section** is called "buen", which is either a conical polygonal shape that is wide from the bottom narrowing upward, 

or two parts. Lower part is a polygon and the upper either a cylindrical or from rows of the muqarnas.

**The upper section** is a cylindrical shape called "Oria Tash Bashi", which is mediated from the top a hollow cavity called "Zwanga Ike Marginak" (30) to stabilize the wooden column.

**In terms of decorative composition:**
The decorative composition of the bases in the two palaces came in more than one format in terms of:

1. **Division of the bases’ surfaces**
The artist carried out the decorations on the base surfaces by making major designs without identifying them with narrow frames separating the decorative units such as the reception hall bases in Kunya Ark palace and bases of the fourth and fifth iwans in Tash-hauli Palace, while surfaces of some of the bases were divided by a main square with narrow frames that separate sections of the bases and between decorative units and others. This form represents the bases of the first, second and third iwans in the harem's courtyard and reception hall's iwan at Tash-hauli Palace.

2. **Type of decoration**
The artist made only one type of decoration, the vegetal motifs, only on the surfaces of some bases, and sometimes accompanied by a simple inscription such as the right base in the reception hall of Kunya Ark Palace and the fourth and fifth iwans' bases in Tash-hauli palace and without decorative background of the designs. While combining botanical motifs, geometric shapes, inscriptions and architectural elements on the rest of the bases in a variety of ornamental designs and decorative backgrounds of designs.

3. **Simplicity and complexity**
The study of the marble bases of the two palaces shows that the decorations of the reception hall bases in Kunya Ark Palace and

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(30) Зохидов, П.Ш. "Меьмор Олами", Тошкент, 1996, СТР.56.
the fourth and fifth iwans' bases of the harem court in Tash-hauli Palace are simple as compared to the first, second and third iwans' bases of the courtyard and reception hall's iwan at Tash-hauli Palace, whose designs are more complex and precise and their design on a vegetative background and more than a level of engraving.

4 - Method of implementation of inscriptions
When studying the inscription on the bases, we find that the engraver was based on more than one method in the implementation of inscriptions, we find it sometimes engraved from the top down when implementation of verses on the left base in the reception hall in Kunya Ark Palace, and sometimes engraved from the right side, especially in the inscriptions are recorded in Arabic, while some dates were recorded with random distribution on the surfaces of some bases.

In terms of decorative elements
The engravers in the city of Khiva were interested in adorning the marble bases with different types of ornaments. The vegetal decorations, simple and complex geometric shapes, architectural elements and inscriptions were collected in exquisite ornamental formations testifying to the skill of the engravers, accuracy and beauty of the decorative design.

Vegetal decorations
Stylized motifs "Islimi" were the most decorative motifs used in adorning the bases. Their main elements were the curved foliate branches, which were mainly dependent on semi-palmettes and some various leaves, such as trefoil and five-lobes, serrated and pointed leaves, accompanied by various shapes of flowers and rosettes such as tri, four, five, six and multi-petals rosettes.

The floral motifs occupied the first place in the ornaments, which was used by the engravers as the main design in decorating the squares of the bases and in the frames and as a background of some designs which came as follows:
Main botanical designs:
These designs took large areas and were often carried out inside the main squares on surfaces of the bases, including:
- curved floral branches of semi-palmettes interspersed with trefoil leaves, flowers and multi-petals rosettes, such as bases of the reception hall at Kunya Ark Palace.
- Prominent opposite and verse semi-palmettes on a background of foliate branches with pointed and trefoil leaves, flowers and tri and four petals rosettes" aylanma islimi" such as the third iwan's base in the harem courtyard at Tash-hauli Palace.
- foliate branches ending with opposite and verse semi-palmettes such as the fourth iwan's base in the harem courtyard at Tash-hauli Palace. (Figure 1)

Sub-designs:
These designs have taken smaller spaces that have been used in the decoration of narrow frames surrounding the squares or conical or cylindrical or almond shapes surfaces on the base surfaces and are mainly dependent on semi-palmettes. (Figure 2)

Geometric shapes
The artists in Khiva were keen to decorate the bases with simple and complex geometric shapes" girikh"(31). In addition to the Islimi patterns, they used the upright, diagonal, orthogonal, circular, square, diamonds, hexagonal, septuple, octagonal, cross shaped, zigzag forms, intricate and complex forms of geometric shapes, some four-lobed medallions and others. (Figure 3) The geometric shapes came in the second place after the vegetal motifs. They were used by the engravers in work of the boundaries between sections of the bases, as well as implementation of external frames to divide the surface of the bases between the main square and successive frames, and sometimes the artist made geometric shapes as an essential

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(31) Literally, the knot, used to describe architectural decorative patterns executed on the arabesque geometric grid.
element in design of the square on background of simple vegetal motifs, as well as geometric shapes were used in the ornament of the surrounding frames.

**Architectural elements**
The marble engravers in Khiva was cared to form and decorate the marble bases with some architectural elements such as the mihrabs, which marked base of the second iwan in the harem courtyard at Tash-hauli Palace and gave it a unique and distinctive shape. (Figure 4) It was a simulator of the plaster mihrabs in Khiva for example, juma mosque mihrab. Where the engraver worked two mihrab in façade one of the bases overlooking the courtyard and filled with a half-dome and a group of niches and arches. The muqarnas were also one of the common architectural elements in the buildings of Khiva, whether in the mihrabs or minarets. We find that the engravers used it in to decorate the marble bases in Tash-hauli Palace, as well as the arches such as trefoil and multifoil arches that have appeared on many decorative arts in Central Asia.

**Inscriptions**
Despite vegetal decorations were common on the marble bases, we find that the inscriptions have a special place and great importance on the bases' surfaces, both in Tash-hauli and Kunya Ark Palaces, and these inscriptions are as follows:

**In terms of form**
The inscriptions on the marble bases combined between Arabic and old Uzbek languages ("Chagatai")\(^{(32)}\). It was common in

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\(^{(32)}\) Chagatai language is one of the Central Turkish languages. It is a literary language belonging to the family of the languages of the Altai. It has been considered as the language of literary expression in Central Asia since the time of Prince Timur and the Timurid sultans until the 8\(^{th}\) /14\(^{th}\) century. It is considered Ali Shir Nava’i a minister of Sultan Hussein Mirza Baikra is one of the most famous writers who wrote their poetry and prose works in this language. The Chagatai turkish language is very much influenced by other Islamic languages - especially Persian and Arabic - in its vocabulary and so on. The Uzbek language is the last stage in the development of this language and represents its modern and contemporary image.
Khiva the recorded inscriptions both on the architecture or applied arts such as Quranic verses and prophetic hadiths and some advices and proverbs in Arabic, while the poems attributed to the famous poets in Khorezm were implemented in Persian and Uzbek languages. The engravers were used nasta'liq, where this calligraphy was popular in the Central Asian khanates in the 12th-13th/18th-19th centuries.

In terms of content

The engraved inscriptions on the marble bases were characterized by the diversity of their contents between poems, advices, proverbs, prayers, dates, and names of the manufacturers, which came as follows:

Poetry and advices

According to the historical sources, Sayyed Muhammad Khan of Khorezm ordered the khorezmian poet and historian Agahi during his reign between 1273 and 1281 A.H/1856-1864 A.D,
wrote a poet about the just and unjust judgment that speaks of justice and support of the oppressed. It was carved on a piece of white marble in the year 1274-1275 A.H / 1857-1858 A.D by the famous craftsman in Khiva Islam Khawaja engraver and then it become the marble base of the left column in the reception hall in Kunya Ark, where he receives the citizens to listen to their demands and complaints to be such verses in front of the complainant and Khan always remind him of the need to follow the truth and support the people who are oppressed.

Agahi has dedicated several poems to Khans of Khiva and other prominent figures. His poem, entitled "A poem of advice", was dedicated to Muhammad Rahim Khan II, "Fairuz" (1281-1328 A.H / 1864-1910 A.D), in which he advises him on the good management of the khanate, and the poem was written in Mathnawi reflecting his political and educational point of view, and based on the poet's opinion on consolidation of the pillars of any state, the ruler must be characterized by many good virtues, be pure heart, educated, care for the poor and to apply the provisions of the legitimacy conclusively.

Pseudonym Payani, a poet, writer and senior official in the court of Khiva Aghai died one year after the Russian invasion of Khiva in 1291 A.H/ 1874 A.D. Munis, Shir Muhammad Mirab. & Others." Firdaws Al-Iqbal ": History of Khorezm, Translated from chaghatay and annotated by Yuri Bregel, Brill, Lieden, Boston, Koln 1999. 


Uzbek national dictionary, No.12,V.6, Tashkent, (w.d), pp.452-453.


(36) Бобожонов, Дилмурод." Фирдавсмонанд шаҳар",СТР.28.

(37) Al-Mathnawi means in Arabic the binaryl system in which one part of the verse is united and each verse has its own rhyme, thus liberating the system from the unified rhyme. https://ar.m.wikipedia.org/wiki.

(38) Uzbek national dictionary, pp.452-453.
The translation of the poem is:

O, Sultan. Keep in mind that no matter what you are revered, decent and knowledgeable

The dome of the sky is nothing but dots on the surface of the water

Look at how stable the orbit is (if that’s stability)

You cannot count on the stability of this throne and honor

If you want happiness in this life and the afterlife as well

Then seek the opportunity now and cooperate with commune, by being just and protecting people’s rights

O, you who lodge in this palace

You better know that this place is not eternal

Realize that fortune of the world does not meet anyone

And that fortunes of this life are not trustworthy

Never count on something that is changeable

And by all means, protect the rights of the oppressed.

In addition to the poem performed on the marble base in the reception hall of Kunya Ark Palace, there are many poems by the Khorezmian poet Agahi, which were carried out by the engravers on stone and marble products, including plates containing poems by the most famous poet Khudaibergan Muhrkan.

In addition to poems of the great Khorezmian poets, the advices and proverbs had a share of the engravers' interest in Khiva and were recorded on the marble bases, including:

"اصحب في جوار الله تعالى وامس في أمان الله تعالى"

(39) He was born in 1238 A.H/ 1822 A.D from the tribe of Baba Karwan Bashi in Mohammed finaa’s family the skilled craftsman in casting guns in Khiva. He learned from his father the casting of guns, learned the calligraphy from usta Erman Khalifa, and the craft of seal industry from usta Islam Khawaja He was named Diwan because he worked in the Diwan at the Khan Palace in Khiva. He got the title of Muhrkan because he worked on making molds and seals in the international money factory. He was also skilled in the art of engraving on metals. He became one of the most famous singers of his time. He worked in the manufacture and decoration of musical instruments. He was a calligrapher copied the books.

Бобожонов, Дилмурод." Хоразм амалий санъат усталари ". СТР.43.
This means: (Keep Allah’s company, and let His protection embrace you) engraved on the base of the first iwan in courtyard of the harem at Tash-hauli Palace. It's an advice to khan and anyone who stands in front of the column to be always with God and His faithfulness. (Figure 6)

**Prayers**

The prayers recorded on one of the marble bases in the reception hall in Tash-hauli Palace, has the phrase

 اللهم اجعل هذا الحجر الإسطوانة المصقل التي يرى عكس الناظر كالمرآة ساكنًا وثابتًا بالدولت الأبدية والنصرت(----) وزين بزيتنت الحشمت والسلطنت – والأبتو الآيات والرفعت والباسلت والجلالت إلى يوم القيامة سنة 1248 (1832 م)."

Which means: O, God. Let this polished cylinder stone of, that reflects viewers like a mirror, be stable and everlasting in this victorious state (----) and let it be adorned with decency and sultanate, honor, valor, and majesty till the end of time 1248, which is a prayer for the column's base of stability and victory forever, and be adorned with decency and superiority and valor and majesty to the doomsday.

**Dates**

Dates are the most important inscriptions engraved on the marble bases that chronicle manufacture of the bases and determine the historical period in which they were built and passed those palaces. The dates were recorded in Persian numerals and confirmed more than once on the same base. These dates show that the bases were made during the 13th /19th century, to represent bases of Tash-hauli Palace in the first half of the 13th /19th century, specifically in the year "1248 A.H / 1832 A.D."

On the basis of the history recorded on the marble bases and some of the wooden columns and ceilings in the palace, the date of construction of the palace was 1830 – 1838 A.D. The recorded date on one of the bases of the harem courtyard and the iwan's base of the reception hall at Tash-hauli palace indicates that it was manufactured in 1248 A.H / 1832 A.D, while the bases of
Kunya Ark dates back to the second half of the 13th / 19th century in 1274 A.H / 1857 A.D. (Figures 5, 7)

**Signatures of manufacturers**

On the right base in the reception hall at Kunya Ark Palace, there is a signature of the maker twice, once in the form "عمل خواجه اسلام" which means (a work of Khawaja Islam) and another "خوارزمي 1274" (Islam Khawrazmi 1274) (Figure 7) (plate 12), one of the famous masters of marble engraving and seals in Khiva during the second half of the 13th/19th century. The title of Khawaja is evidence of his elevation and position among his family, as well as his pride in his homeland and the title of Khwarazmi, indicates that he follows the prevailing Khorezmian artistic traditions in engraving on marble, stone and wood.

While in Tash-hauli Palace, the signature of the manufacturer is not mentioned on the bases, but depending on the method and style of engraving and decoration carried out on the bases likely the work of two or more engravers in the manufacture and decoration of those bases, and perhaps the engraver Islam Khawaja himself participated in the work of some marble bases in a courtyard of the harem at Tash-hauli Palace, which is similar in terms of decoration and the method of engraving with the bases that Islam Khawaja made and engraved and recorded his name in Kunya Ark Palace.

**Comparative study**

Comparing the columns' bases in the palaces of Khiva with the bases in Bukhara, we find that the stone column bases in Khiva are very different from those in Bukhara and Samarkand in terms of their artistic quality, the general form and the decorations. The buildings in Bukhara, whether religious or civil it combined

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the use of wooden and marble bases and conformed in form and decoration and all took the same style.

In terms of technical quality, the marble bases in Bukhara were different to those in Khiva, both in terms of quality of marble and the accuracy of industry and composition.

In terms of the general shape is simple as the base begins with a square shape its upper four corners ends in triangles to convert the square into the polygon followed by a part of conical polygon also longer and narrowing upward, followed by a polygonal block based on it the body of the column, specially, the mosques of Bukhara in the 12th / 18th century, such as Al-Siddiqin mosque of in the 12th / 18th century, and continued in the mosques of 13th / 19th century such as Khalifa Khudaidad Mosque 1211 A.H/ 1798 A.D, Mosque of I Bibi Inaq in 1310 A.H/ 1892 A.D, and the Abdul Hakim Qushbegi mosque 13th /19th century, and examples of civil buildings are bases of the reception hall in Bukhara Ark 12-13th / 18-19th centuries.

In terms of decoration, they are either without decoration or with simple floral and geometric ornaments.

**The most famous marble and stone engravers in Khiva in the 13th / 19th century**

In Khiva, stone engravers worked on stone and marble with wood engravers in one workshop. There were common features in their crafts\(^{(41)}\). The specialists in stone engraving craft in Khiva were known as Sangtarosh in Tajik language. The word "sang" means stone. And Tashtarosh in Uzbek language. The word "Tash" means stone\(^{(42)}\).

The village where the marble sculptors lived was named "Sangar". This village joined the city of Khiva and now called "Sangar Quarter"\(^{(43)}\).

\(^{(41)}\) Akilova, N." Stone carving ",P.43.
\(^{(42)}\) Зохидов, П.Ш. " Меймур Олами ", СТР.48- 54.
\(^{(43)}\) Бобожонов, Дилмурад. " Хоразм амалий саньат усталари ", СТР. 42.
The Sangtarosh used hammers, spikes, multiple chisels, and other tools. Each of the Sangtarosh reserved their tools in the blacksmiths individually, and in turn the blacksmith did these tools according to the description of the Sangtarosh\(^{(44)}\). These craftsmen specialize in a work of polished marble slabs used in construction and covering the floors, marble plates and endowments for the city's architectural buildings, the marble bases of the wooden columns, tombstones and marble cenotaphs, as well as tools and utensils such as pots, jugs, dinner plates (lyagans), grain mills (grains), stone coverings (Adana)\(^{(45)}\), as well as the morters and pestles that were used in the tobacco grinding and jugs that were used in the preparation of sour milk "raib" and other products\(^{(46)}\).

The engraver K. Rahman Berganov was one of the most famous craftsmen who specialized in stone engraving in Khiva at the end of 13\(^{th}\) / 19\(^{th}\) century and beginning of the 14\(^{th}\) / 20\(^{th}\) century. He inherited this craft from his grandfather Khudaybergan Banaev and his father Rahman Bergan Khudayberganov who also specialized in the same craft\(^{(47)}\).

\(^{(44)}\) Садыкова, Н. С. "Кустарные Промыслы в Быту Народов Узбекистана XIX – XX", Ташкент, 1986, СТР.67.
\(^{(46)}\) Садыкова, Н. С. "Кустарные Промыслы в Быту Народов Узбекистана XIX – XX", СТР.67.
\(^{(47)}\) Atakulova, K. "Khiva ", P.49.
The results
The study of the marble bases of Kunya Ark and Tash-hauli Palaces in Khiva city, the most important remaining palaces of the 13th / 19th century, not only in Khiva but throughout the Central Asian region, has reached many important results for the researchers in architecture and arts in Central Asia, as follows:

1- Marble was one of the main materials used in the manufacture of bases in Khiva because of its resistance to salt, moisture, rain and snow; as well as its durability, hardness and quality. It was brought from the areas of Nurata, Yomurtau, Qaratau and the Sultan Aweys mountains in Karakalpakstan.

2- The style of engraving on the bases surfaces varied in form from the high to hollow relief and the multi-level engraving. While depth of the engraving on the marble bases varied between the flat, non-deep engraving known as "Yasi Uima", which has depth of 1-1.5 cm, and deep engraving known as "Chokur Uima".

3- The marble is divided into two types. The first type is characterized by the middle section which is the cut corners, while the second type is characterized by the middle section which begins with a prominent almond shape called Imjak.

4- The decorative elements implemented on the marble bases in the city of Khiva varied between the floral decorations, simple and composite geometric shapes, architectural elements and inscriptions in exquisite decorative formations.

5- The design of "iylanma islimi " was the most common decorative motif on surfaces of the marble bases. It is opposite and verse semi-palmettes with leaves, flowers and rosettes.

6- The engravers used the geometric shapes in a work of external frames to divide the surface of the bases between the main square and successive frames, and sometimes the artist made geometric shapes as an essential element in the design of the square on background of simple vegetal motifs.

7- The inscriptions on the marble bases combined between Arabic and old Uzbek languages ("Chagatai", The engravers
were used nastā'liq, where this calligraphy was popular in the Central Asian khanates in the 12th-13th / 18th-19th centuries.

8- The inscription on the marble bases was characterized by the diversity of its contents among poems attributed to the famous poets in Khorezm, such as the Khorezmian historian and poet Agahi, in addition to prayers, advices, proverbs, the dates and names of the craftsmen.

9- Dates are the most important inscriptions engraved on the marble bases that chronicle manufacture of the bases and determine the historical period in which they were built and passed those palaces. These dates show that the bases were made during the 13th / 19th century.

10- The inscriptions showed signature of the manufacturer and the engraver, Islam Khawaja Al-Khwarizmi, one of the famous masters of marble engraving and seal industry in Khiva during the second half of the 13th / 19th century.

11- The comparative study of the column bases in the palaces of Khiva with the bases in Bukhara indicated that the columns' bases which were made of stone in Khiva differ significantly from those in Bukhara and Samarkand in terms of marble quality, industry accuracy and shape.
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(Figure 1) Main botanical design on the third base of courtyard of harem in Tash-hauli Palace (worked by the researcher).

(Figure 2) Sub-designs on the right base of the reception hall in Kunya Ark (worked by the researcher).
(Figure 3) Models of geometric shapes on the first base of courtyard of harem in Tash-hauli Palace (worked by the researcher).

(Figure 4) The mihrabs, which marked base of the second iwan in the harem courtyard at Tash-hauli Palace (worked by the researcher).
(Figure 5) Poetic verses on the left base of the reception hall in Kunya Ark (worked by the researcher).

(Figure 6) Inscriptions on the first base of courtyard of harem in Tash-hauli Palace (worked by the researcher).

(Figure 7) Signature of Khawaja Islam on the right base of the reception hall in Kunya Ark (worked by the researcher).
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(Plate 2) Right base of the reception hall in Kunya Ark (Photographed by the researcher).

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(Plate 4) Courtyard of harem in Tash-hauli Palace (Photographed by the researcher).

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(Plate 10) Iwan of the reception hall in Tash-hauli Palace (Photographed by the researcher).

(Plate 11) The base of reception hall's iwan in Tash-hauli Palace (Photographed by the researcher).
(Plate 12) Signature of Khawaja Islam on the right base of the reception hall in Kunya Ark (Photographed by the researcher).
القواعد الرخامية بقصر كونيا آرك وطاش حولى
في مدينة خيوه خلال القرن 31 هـ / 19 م

م. هدى صلاح الدين عمر محمد

ملخص البحث:

خيوه واحدة من أهم مدن آسيا الوسطى ولها أهمية جغرافية وتاريخية وتجارية وحضارية عظيمة، وقد امتاز الطراز المعماري لمدينة خيوه باستخدام الأعمدة الكبيرة الحشبية الرشيقة والمحمولة في داخل وخارج البناء بالمدينة سواء كانت مبانى دينية مثل المساجد أو مبانى مدنية مثل القصور والبيوت. عادة ما ارتكزت هذه الأعمدة على قواعد مصنوعة من الرخام أو الحجر وليس من الخشب، وذلك لما يتميز به الرخام والحجر من الصلاحية والقوة والمثابرة في تحمل الأعمدة الخشبية وحمايتها من التلف بسبب الرطوبة وسقوط الأمطار والثلوج شتاء. تعتبر القواعد الرخامية أحد فروع صناعة المنتجات الرخامية الهامة في مدينة خيوه بالإضافة إلى صناعة النقوش وشواهد القبر واللوحات التأسيسية واللوحات الخصمة بالوقوف والنقوش وغيرها. لذلك حرص المعمار على استخدامها بشكل أساسي في البناء وبلغ من اهتمامهم بهذه القواعد أن اعتنوا بتغليظها وتشكيلها على نسب معين وتزيينها بمتنازل العناصر الزخرفية، كما أنها لم تقت أهمية عن بقية الفنون الزخرفية الأخرى مثل البلاطات الخزفية التي تكسى الجدران أو الأسقف الخشبية التي تغطي المباني، فضلا عن أنها تعتبر

سجلا حافلا كما أن لها أهمية فنية وتاريخية كبيرة حيث أنها تؤثر في بعض المباني الهامة بالمدينة، والتي يناسب معظمها للقرن 13 هـ / 19 م. حيث يتكون العقد الخشبي من كتلة خشبية ترتكز على قاعدة رخامية تعرف باسم" باب أستون"، نفذت عليها العديد من العناصر الزخرفية والنقوش الكتابية مثل بعض الأشعار والقصائد والأساطير والحكم والأمثال، وأسماء الصناع الذين لُقبوا بالمصادر والمراجع إلى جانب تاريخ مباني وصناعة تلك الأعمدة. ويهدي هذا البحث دراسة القواعد الرخامية في مدينة خيوه من خلال تنويع أشكال القصور الراقية في آسيا الوسطى من القرن 13 هـ / 19 م وهما قصور كونيا آرك وطاش حولى للتعريف على الشكل العام لهذه القواعد والمواد الخام وطريقة تشكيلها وزنفلتها، وأهم العناصر الزخرفية المنذنة عليها من زخارف نباتية وأشكال هندسية ورسوم معمارية، وقراءة النقوش الكتابية وتحليل مضامينها.

الكلمات الدالة

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