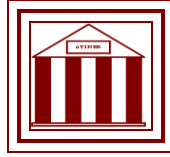


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**The Architectural Analysis of
Tabernacle and Temples**

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The Architectural Analysis of Tabernacle and Temples

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Abstract

Jewish identity refers to a commitment for the common past, which is identified by the exiles and the Temples. From nomadic to settled life, Jews built their habitat in a Temple oriented way. This started with the Tabernacle, which was designed as a portable tent to maintain the Ark of the Covenant.

In the period of the permanent settlement, Solomon built the Temple, which is a stone-structured re-production of the Tabernacle. The layout of the Temple was similar to the Egyptian Temples, which is based on the relations between courtyard, main hall and the sacred room. The destruction of the Temple and the Babylonian exile was the first obstacle in the history of the Temples that changed the whole perspective of the places of worship. After the exile, II Temple was built in 515 BCE and was re-constructed in 19 BCE by Herod. II Temple was a re-production of the Temple in a more modest way. Titus destroyed the second and last Temple in 70, but the idea of the Temple continued to live in the minds of Jews with the Talmudic expressions.

The only physical trace left of these places is the supporting structure of the II Temple, Western Wall. Except the wall, the only knowledge of these places is from Torah and Talmud. This paper is an analysis of the architectural structures of the Temples and the Tabernacle based on the architectural readings from Torah and Talmud, will be visually narrated with the illustrations produced by several artists.

Keywords: the Tabernacle, the Temple, Architectural Structure, Architectural Readings, the Torah, the Talmud

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Introduction

Brenner (2008) defines Judaism as a religion focused community that was forced to migrate, settle in different geographies and live under different sovereignties beginning with the exile of Babylonian; rather than a particular ethnic group living in a government. In addition to that definition Jewish identity is also a commitment to the common past, which includes the idea of the Temple. It began with the Tabernacle that symbolizes the Judaism with socio-cultural phenomena. Besides, the Tabernacle and the Temples architectural features and their spatial provisions have been very significant to history of architecture as well as the Jewish architecture. Them being the first worshipping places for the monotheistic religions that acts as a model for the forthcoming spaces. In this context, this paper is an analysis of the Tabernacle and the Temples, which were the architectural and socio-cultural symbols of Judaism. Due to the lack of physical traces or excavations, the spatial analysis for these places was done by the architectural readings from the Torah, the Pentateuch and the Talmud. It is supported with some illustrations done by the several artist, historian or architectures.

The Tabernacle

Judaism, as the monotheistic religion, started with Abraham, Isaac and Jacob's belief that there is only one God. The God of Abraham, Isaac and Jacob was believed to be not only a power of nature, but far beyond the nature. The worshipping of God was quite simple in that time. It was unbounded from a building or a place. The only requirement for sacrificing ritual is the stone made altar that was erected from the ground (Meek, 2003).

Since the exodus from the Egypt, the Hebrews lived in the desert for 40 years to reach the 'Promised Land'. In the meantime, Moses, the leader and the Prophet of the community, brought down the Ten Commandments that were written in 'Tablets of the Law' from the Mount Sinai. Hebrews needed a place to protect the Ark of the Covenant¹ that preserves the Tablets of the Law; therefore they designed a portable sanctuary called 'the Tabernacle' (Figure 1.)

¹The description of the Ark of the Covenant from Torah;

And they shall make an ark of shittim wood: two cubits and a half shall be the length thereof, and a cubit and a half the breadth thereof, and a cubit and a half the height thereof. And thou shalt overlay it with pure gold, within and without shalt thou overlay it, and shalt make upon it a crown of gold round about. [...]And thou shalt put into the ark the testimony which I shall give thee. [...]And thou shalt make two cherubims of gold, of beaten work shalt thou make them, in the two ends of the mercy seat. [...]And thou shalt put the mercy seat above upon the ark; and in the ark thou shalt put the testimony that I shall give thee. And there I will meet with thee, and I will commune with thee from above the mercy seat, from between the two cherubims which are upon the ark of the testimony, of all things which I will give thee in commandment unto the children of Israel. [Exodus, 25: 10-11,16, 18,21,22].

that was located in the center of the Israelite camp¹ (Tümer, 2004; Schwarzer, 2001). ‘And thou shalt rear up the tabernacle according to the fashion thereof which was shewed thee in the mount.’ (Exodus, 26:30) indicates that the sketches that have been shown to Moses at the Sinai Mount formed the plan layout of the Tabernacle. The Tabernacle described in the Exodus, Ch. 26-27;

Moreover thou shalt make the tabernacle with ten curtains [...] The length of each curtain shall be eight and twenty cubits, and the breadth of each curtain four cubits; and every one of the curtains shall have one measure [...] And thou shalt make curtains of goats' hair to be a covering upon the tabernacle: eleven curtains shalt thou make. The length of one curtain shall be thirty cubits, and the breadth of one curtain four cubits: and the eleven curtains shall be all of one measure [...] And thou shalt make boards for the tabernacle of shittim wood standing up. Ten cubits shall be the length of a board, and a cubit and a half shall be the breadth of one board. Two tenons shall there be in one board, set in order one against another: thus shalt thou make for all the boards of the tabernacle [...] And thou shalt make bars of shittim wood; five for the boards of the one side of the tabernacle, And five bars for the boards of the other side of the tabernacle, and five bars for the boards of the side of the tabernacle, for the two sides westward. And the middle bar in the midst of the boards shall reach from end to end. And thou shalt overlay the boards with gold, and make their rings of gold for places for the bars: and thou shalt overlay the bars with gold. (Exodus, 26:1,2,7,8,15-17,26-29)

And thou shalt make the court of the tabernacle: for the south side southward there shall be hangings for the court of fine twined linen of an hundred cubits long for one side [...] The length of the court shall be an hundred cubits, and the breadth fifty every where, and the height five cubits of fine twined linen, and their sockets of brass. (Exodus, 27:9,18)

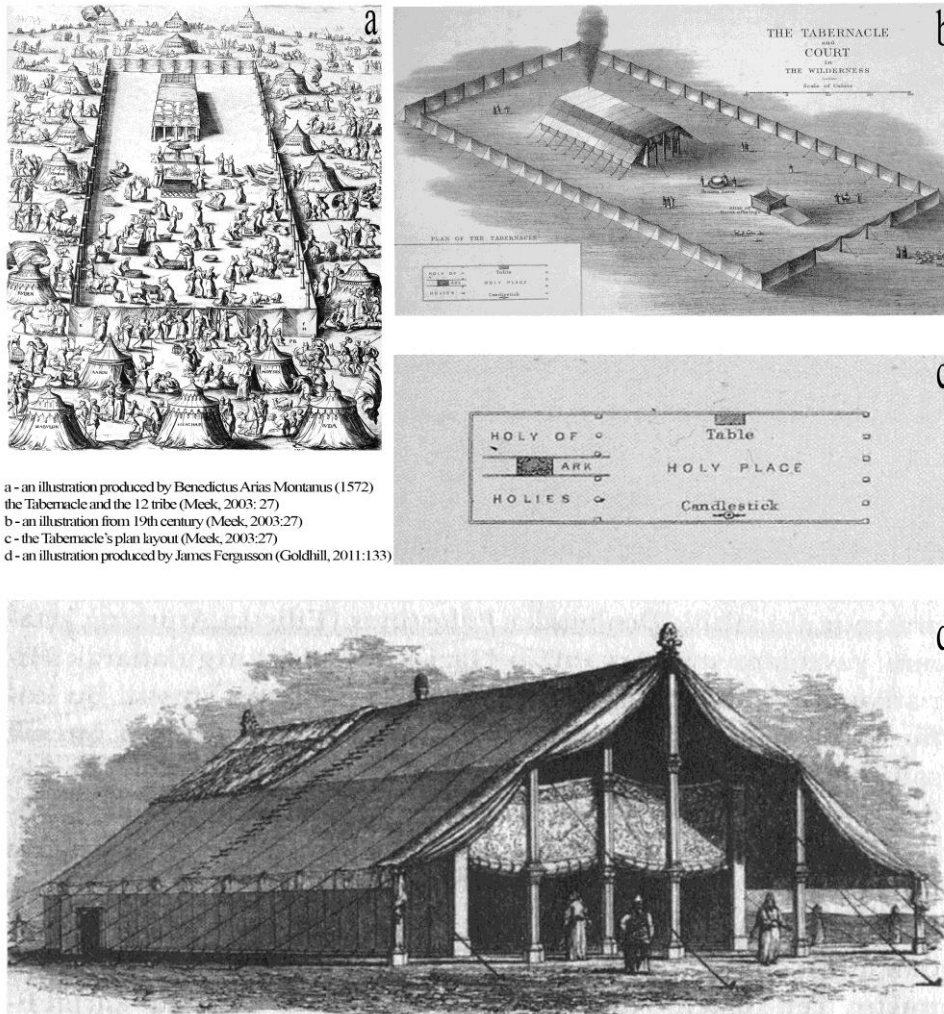
As described in the Exodus, spatial organization of the Tabernacle was a reinterpretation of Egyptian temple's courtyard, main hall and the sacred room combination (Figure 1-plan layout of the Tabernacle). To stabilize the curtains that surround the courtyard, eleven wood columns were built in the short side and twenty-one wood columns in the long side. The main structure provided two different functions, Holy of Holies and outer sanctuary. Four columns separate the sanctuary that was designed two times larger than the Holy of Holies, in which the Ark of the Covenant was placed. The height of the mass being same as the width, the Holy of Holies was formed as a perfect cube. It is

¹Moses, Aaron and Aaron' sons settled in the entrance of the Tabernacle area, whereas the Levites and the 12 tribes settled in the surroundings of the Tabernacle (Meek, 2003).

believed that the angel statues that were called *kerubim* protected the Ark of the Covenant in the Holy of Holies¹ (Meek, 2003; Tachau, 1926).

Figure 1. The Tabernacle

THE TABERNACLE



In the main sanctuary in front of the Holy of Holies, there was a golden candelabrum, an altar for incense and a table that was called the 'Table of the Presence' for the showbread to be placed. On the same axis that is located through the entrance of Holy of Holies, there was a bronze altar and a bronze washbasin to wash hands and feet for the sacrificing ritual (Meek, 2003).

The importance of the Tabernacle besides being the first worshipping place to Hebrew was that it contained the architectural principles almost every

¹Historians thought that the winged goddess statues that protected Egyptian Temples inspired the *kerubim*.

place of worship from the ancient times to the present had. The architectural elements in the Tabernacle were directly copied in the Temples and the interpretation of these elements was symbolized in synagogue architecture. In this context it can be said that the Tabernacle is an important example of portable architecture, which contributed a lot to the architecture of worshipping places of every monotheistic religion.

The Temple (Solomon's Temple)

The history of the Temples can neither be defined only by the rituals that have been done nor by an architectural history. Because even though there isn't any physical presence of the Temples; the idea of the Promised Lands, the area of the Temples and the Temples itself was kept as an existence from the past and a purpose for the future in the minds and memories for centuries. The other reason for the Temples being a dominant feature in Jewish history is that the place itself served as a center of Judaism for the whole kingdom. Thus Temples have focused the population in one place and also centralized the whole community in the political sense (Goldhill, 2011).

From nomadic to settled life, the Temple is different from the polytheistic and idolatrous temples in terms of not having expressions like statues or paintings of God. Judaism being a monotheistic religion required a place that expresses a God who is everywhere in a spiritual sense rather than a place that does not have an exact physical form (Goldhill, 2011).

Assumed as a model for the temples that will be designed in the future, the Temple -the Solomon's Temple- was a stone-structured re-production of the Tabernacle. The need of a permanent place for God emerged in David's era. But being a warrior king David is not allowed to build the Temple. Therefore he provided all the workers, the materials, the right place and the design for the Temple and gave all of them to his son, Solomon (Goldhill, 2011; Tümer, 2004). After Solomon took the throne from his father, he built the Temple on Mount Moriah, where the threshing floor that David has assembled as an altar to God was. The Temple was constructed in seven years, near the palace and the castle-Antonia (Meek, 2003).

Although it cannot be supported by the findings of the archaeological excavations, the readings from the I Kings would define the Temple's architectural stance.

And the house which king Solomon built for the LORD, the length thereof was threescore cubits, and the breadth thereof twenty cubits, and the height thereof thirty cubits. And the porch before the temple of the house, twenty cubits was the length thereof, according to the breadth of the house; and ten cubits was the breadth thereof before the house. And for the house he made windows of narrow lights [...] And the house, when it was in building, was built of stone made ready before it was brought thither: so that there was neither

hammer nor axe nor any tool of iron heard in the house, while it was in building [...]So he built the house, and finished it; and covered the house with beams and boards of cedar [...]And he built the walls of the house within with boards of cedar, both the floor of the house, and the walls of the ceiling: and he covered them on the inside with wood, and covered the floor of the house with planks of fir. And he built twenty cubits on the sides of the house, both the floor and the walls with boards of cedar: he even built them for it within, even for the oracle, even for the most holy place. And the house, that is, the temple before it, was forty cubits long [...]And the oracle he prepared in the house within, to set there the ark of the covenant of the LORD. And the oracle in the forepart was twenty cubits in length, and twenty cubits in breadth, and twenty cubits in the height thereof: and he overlaid it with pure gold; and so covered the altar which was of cedar. (I Kings, 6:2-4,7,9,15-17,19,20)

As stated in I Kings, the Temple's rectangular structure (Figure 2 – the plan layout of the Temple) was measured 30 meters long, 10 meters wide and 15 meters high. The entrance hall on the east façade was about 10 meters long and 5 meters wide. Porticoes surrounded the other facades. With these additions the buildings were approximately 50 meters long by 25 meters wide area. Hebrews needed to walk thorough a certain number of rectangular courtyards¹ to reach the main sanctuary. Entrance to these courtyards was based on the social status. The first of these spaces was the Outer Courtyard. It was open to public and could be used by the people of different religions. Next space was the Women's Hall. Then, there was Israelites Hall placed in the Inner Courtyard where only Hebrew men could enter. Priests Hall was located after these. Only the Cohen's descended from Aaron's and the Levite's that were responsible for the sacrificing ritual could enter this hall. The hall, which enclosed the main building and was used for sacrificing ritual, had a bronze altar (Türkoğlu, 2003; Scharwer, 2001). The courtyard that has been surrounded with stonewalls was covered with a lower wooden roof. After a while, Cohen's modified this place by building shelters to live. After it lost its function, a second hall was built around the courtyard and the Priest Hall was opened to the male Hewrew (Meek, 2003; Örs, 1999; Goldhill, 2011).

At the Temple's entrance there were two columns built by a Phoenician craftsman called Hiram or *Huram of Tyre*. The columns called *Jachin* and *Boaz* (Figure 2 – the illustration of Jachin and Boaz) were 9 meters high, adorned with pomegranate and lily ornaments. These columns were defined in the I Kings Ch. 7;

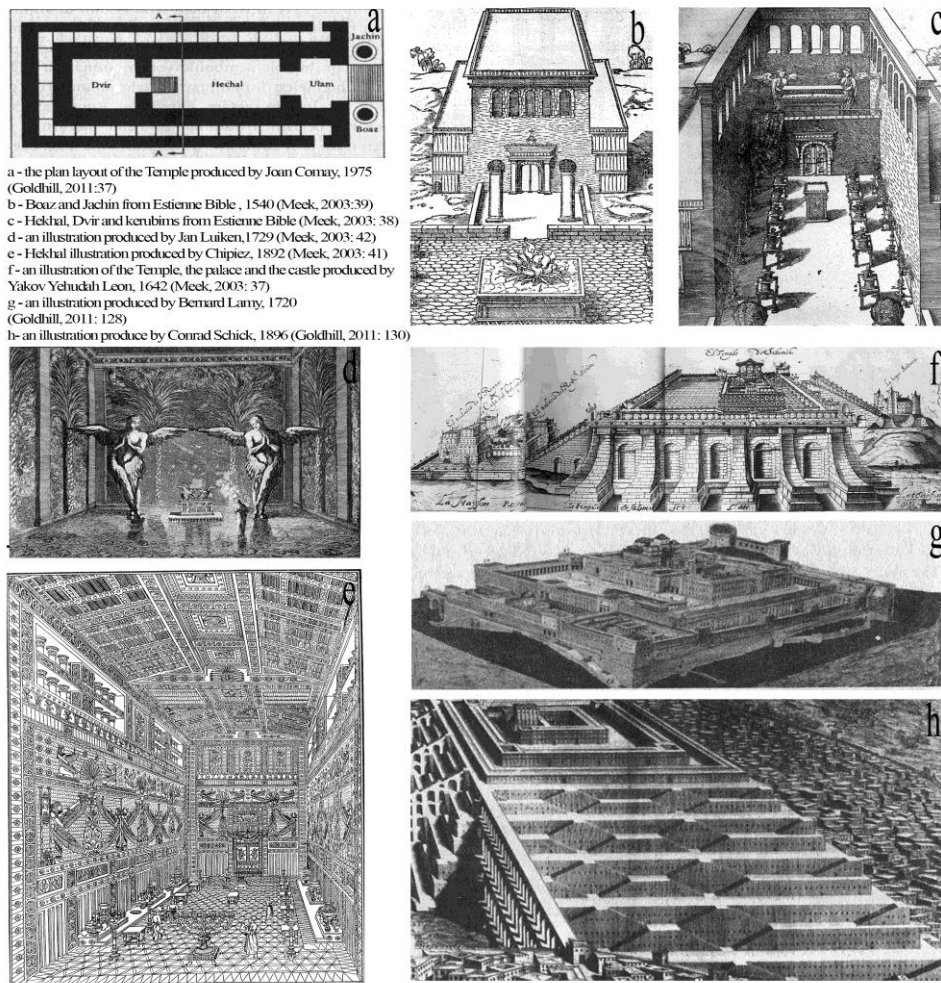
For he cast two pillars of brass, of eighteen cubits high apiece: and

¹It is told by some historians that the rectangular shaped courtyards, which surrounds the Holy of Holies was an architectural symbolization of the ritual done during the Exodus from Egypt to the Promised Land by putting the Ark of the Covenant to the portable tent every night and aligned in rectangular form (Goldhill, 2011).

a line of twelve cubits did compass either of them about. And he made two chapters of molten brass, to set upon the tops of the pillars: the height of the one chapter was five cubits, and the height of the other chapter was five cubits [...] And he made the pillars, and two rows round about upon the one network, to cover the chapters that were upon the top, with pomegranates: and so did he for the other chapter. And the chapters that were upon the top of the pillars were of lily work in the porch, four cubits [...] And he set up the pillars in the porch of the temple: and he set up the right pillar, and called the name thereof Jachin: and he set up the left pillar, and called the name thereof Boaz. And upon the top of the pillars was lily work: so was the work of the pillars finished (I Kings 7:15-16,18,19,21-22)

Figure 2. *The Temple*

THE TEMPLE



Passing through these brass columns one could reach the first room that functioned as a porch of the main building. The place called *Ulam* acted as a separation between the holy and unholy. It was measured 5 meters long and 10 meters wide. Between the Holy of Holies and *Ulam* there was a place called *Hekhal* that lead people to the Holy of Holies (Figure 2.). *Hekhal's* dimensions were 20 meters long, 10 meters wide and 15 meters high. The clerestory windows that were at the upper levels lighted the *Hekhal*. Also there were 10 candelabrum – each side had 5 – that lighted the *Hekhal* (Örs, 1999). On the contrary, Holy of Holies was purposely designed without openings to create a dark space. This was also told in the I Kings as ‘Then spake Solomon, The LORD said that he would dwell in the thick darkness’ (I Kings, 8:12). Holy of Holies was shaped as a perfect cube with a 10 meter long edge. The aim of the height difference between the Holy of Holies and *Hekhal* isn’t described in the Pentateuch. Holy of Holies and *Hekhal* was separated with a door with angel, lotus and palm tree ornaments (Örs, 1999).

In the Holy of Holies there were two golden surfaced wooden *kerubim* (Figure 2 – the illustration of the *kerubims*) statues similar to the Tabernacle. One of *kerubim's* wings was on top of the Ark of the Covenant, while the other one leaned towards the walls of the Holy of Holies.

And they brought up the ark of the LORD, and the tabernacle of the congregation, and all the holy vessels that were in the tabernacle, even those did the priests and the Levites bring up. And king Solomon, and all the congregation of Israel, that were assembled unto him, were with him before the ark, sacrificing sheep and oxen, that could not be told nor numbered for multitude. And the priests brought in the ark of the covenant of the LORD unto his place, into the oracle of the house, to the most holy place, even under the wings of the cherubims. For the cherubims spread forth their two wings over the place of the ark, and the cherubims covered the ark and the staves thereof above (I Kings, 8:4-7)

Even today, the Temple is substantial in shaping the community besides its physical and architectural importance. Even though it doesn’t exist physically, it serves as a reminder of ideological and physical terms and is a model for the future worshipping places (Goldhill, 2011).

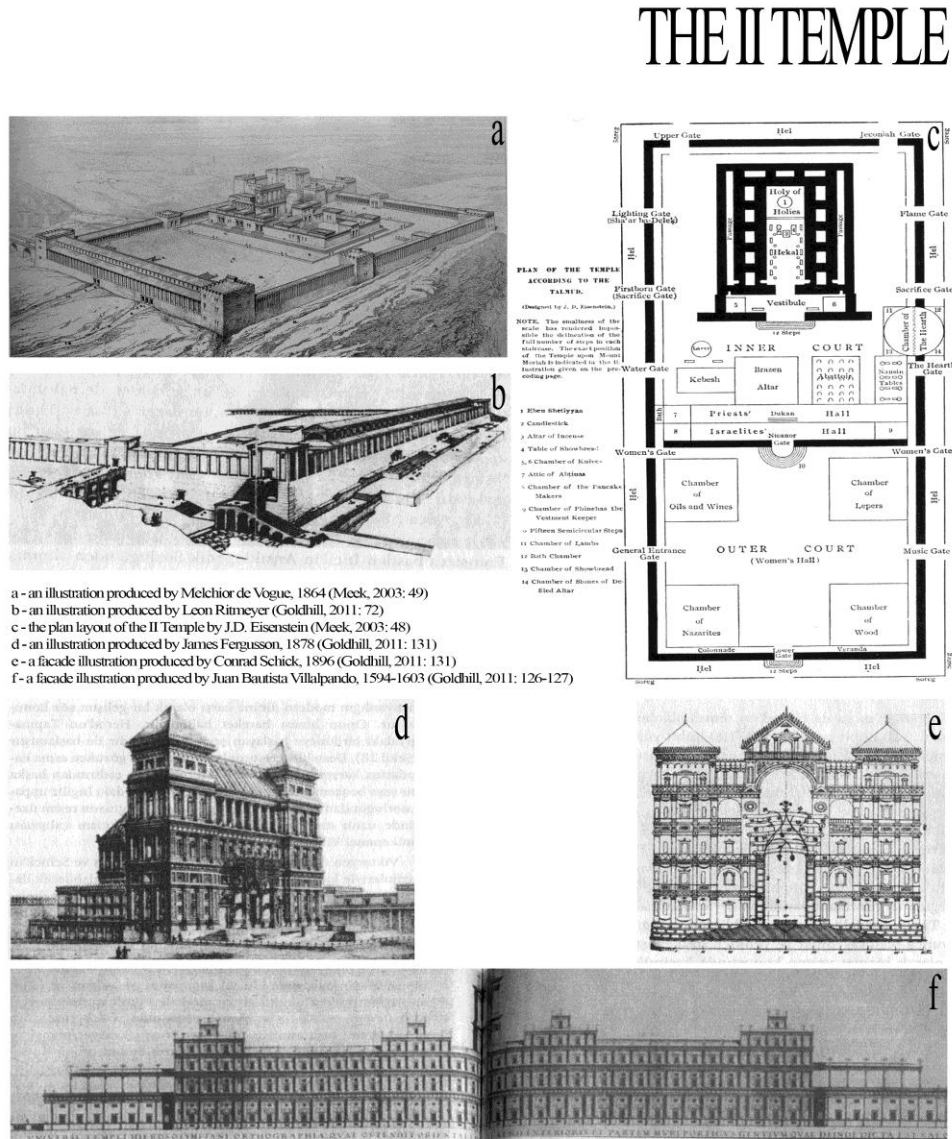
II Temple (Herod’s Temple)

Several sources refer only two temples that were built in the pre-ancient time. But on the contrary, even before Herod’s Temple (so called II Temple), a man named Zerubbabel built a temple by the orders of the Persian king Sirus in 515 BCE. Zerubbabel Temple was constructed in five years. In comparison with the Temple, the Zerubbabel Temple was much simpler and stood for 500

years. In 19 BCE, Herod said he was going to restore it and re-built the Temple¹ (Meek, 2003; Goldhill, 2011).

The II Temple's area contained two courtyards, which were called inner and outer courtyard. As in the Temple, the inner courtyard was formed by the main building -The Holy of Holies, *Hekhal* and *Ulam*- and its own courtyard (Figure 3.). But the ornamentations and the materials used was much modest contrary to the Temple (Meek, 2003).

Figure 3. The II Temple



¹Jews believe that the third and the last temple will be built when Messiah comes. Therefore Herod's Temple is accepted as a follow up to the Zerubbabel Temple and called the II Temple.

The II Temple was constructed in southwestern direction on a base of approximately 144.000 square meters. Four Jerusalem lime stoned walls¹ supported the base (Meek, 2003). According to the *Middoth* in Talmud, Temple Mount had five entrances; two of which were located on the south façade. The remaining entrances were on other façades, one for each.

There were five Gates to the Temple mount- the two gates of Huldah on the South which were used both for enterance and exit, the gate of Kiponus on the West which was used both for enterance and exit, the gate of Taddi on the North which was not used (by the public) at all, and the eastern fate over which was a representation of the palace of Susa and through which the high priest who burnt the red heifer and all who assisted with it used to go forth the mount of olives. (Mishna - Mas. Middoth Chapter 1, Mishnah 3)

As mentioned before, Herod's Temple was built with the same approach as the Temple. The plan layout of the Temple along with the building itself and the courtyards that aligned by the social status were repeated. The main building was also a repetition of the Temple, which also had *Ulam*, *Hekhal* and Holy of Holies, in the same order (Figure 3 – the plan layout of the II Temple). In the II Temple Holy of Holies and *Hekhal* was separated by a curtain. Corinthian columns surround the façade that was built from white stone (Meek, 2003). By Herod's demands the whole interior of the II Temple was covered with gold. The uncovered surfaces were left white. Doors that are almost 20 meters high were adorned with vineyards and golden candelabrum ornaments. It also had Babylonian carpets adorned with blue, red and violent colored sky depictions (Goldhill, 2011).

The Temple mount was five hundred cubits by five hundred. The greater part of it was on the South; next to that on the east; next to that on the North; and the smallest part on the West. The part which was most extensive was the part most used. (Mishna - Mas. Middoth Chapter 2, Mishnah 1)

The court of Israel was a hundred and thirty-five cubits in length by eleven in breadth. Similarly the court of the priests was a hundred and thirty-five cubits in length by eleven in breadth, and a row of Stones seperated the court of Israel from the court of the priests [...] the court of the priests was made two and a half cubits hisher than that of Israel. The whole of the Azarah was a hundred and eighty-seven cubits in length by a hundred and thirty-five in breadth, and thirteen prostrations were made there. (Mishna - Mas. Middoth Chapter 2, Mishnah 6)

¹The Western Wall that stands still today is the place that Jews gathered and mourn every year for approximately 200 years.

The Hekal was a hundred cubits by a hundred with a height of a hundred. The structure was six cubits, then it rose forty, then a cubit for ornamentation, two cubits for the guttering, a cubit for the roof and a cubit for the plastering. The height of the upper chamber was forty cubits [...](Mishna - Mas. Middoth Chapter 4, Mishnah 6)

Results & Conclusion

Supported by the visuals of several illustrators for ages, the definite dimensions and spatial organizations that is written in the Torah, the Pentateuch and the Talmud, the development of a common understanding to describe the plan layouts and sections of the Tabernacle and the Temples was possible. Therefore it can be said that each of the Tabernacle and the Temples' had mutual **spatial organization**, which was a combination of courtyard, main hall and the sacred room similar to the Egyptian temples. But in the contrary the Torah and the Talmud doesn't give specific information about the form and the façades of these buildings. For this reason, there are several different architectural expressions by the illustrators who were influenced by the perception of movements in their time, like classical, gothic, renaissance, Moorish, Egyptian, Assyrian. The illustrators interpreted these, sometimes to prove the movement's accuracy by relating with the original worshipping places. However, from an objective perspective, the geographical and cultural relation between the Jewish community and Egypt indicates that these sacred places' spatial organization could have been influenced from the Egyptian temples.

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