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Israelite Bread: Mundane and Consecrated

Frank E. Leibold
Wright State University - Main Campus

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Israelite Bread:
Mundane and Consecrated

A project submitted in partial fulfillment of the requirements for the degree of Master of Humanities

By

Frank E. Leibold

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Wright State University
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Bread was not only fundamental to the eating habits of the ancient Israelites it was central to their Divine worship service. In the narrative section of the project, we will look at the history of bread and its importance in the cultural development of the ancient Israelites. This study will focus primarily on the Showbread, which was prepared and eaten weekly by ancient Israelite priests. The topics will include: 1) The history of bread; 2) An introduction to bread in the Bible: mundane and consecrated; 3) The making and shaping of the Showbread; 4) The Table and Side Dishes; 5) Rabbinical Traditions of the Showbread; 6) Trends in Judaism, Christianity, and Islam; 7) Conclusion. There will also be an Overview of the Creative Project and an Appendix with illustrations of the Showbread.

Section 1: The History of Bread

According to archeologists, bread goes back more than 30,000 years. \(^1\) The first bread was most likely a cooked grain-paste made from roasted and ground grains and water. Bread was developed either accidentally or by deliberate experimentation with water and flour. Descendants of this early type of bread are still commonly made today from various grains in many parts of the world, including Mexican tortillas, Indian chapatis and naans (unleavened breads). Flat breads of these types also formed a staple in the diet of many early civilizations exemplified by the Sumerians eating a type of barley flat cake.

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The Stone Age was a prehistoric period lasting about 2.5 million years. In this time period, stone was used as the hard source material in the manufacture of implements. Natives made firm portions of stone-crushed barley and wheat mixed with water, cooked near a fire. This is suggested by a millstone for grinding corn, found by archeologists, that dates as far back as 7,500 years. The ability to plant and gather cereals contributed to the fact that man settled into a group or village, rather than live a nomadic existence hunting and herding. Agreement among botanists indicates wheat, oats, barley and other grains fit into the classification of grasses. It is unknown as to what wild form of wheat grass and how the modern equivalents of bread are connected but strains of modern grass are similar. Most of the wild grasses bear cereal blossoms, which are both male and female elements, and bear food stores. This is so that during germination, the young plants have a high survival rate and consequently man finds an abundant supply of food at all times.2

The skill of the baker is one of the earliest and most fundamental professions in the world. Loaves of bread and rolls were found fossilized in ancient Egyptian tombs. In the British Museum's Egyptian galleries one can see actual loaves made and baked over 5,000 years ago. Also on display are grains of wheat that ripened in those ancient summers under the Pharaohs. Wheat was also found in pits where human settlements flourished 8,000 years ago.3

In the life of the Greeks as well bread played a significant role. For the Greeks bread fell into two categories, maza-barley based bread for the common person or artos-wheat preferred by the wealthy. Homer in his works referred to the human race as “bread eaters.”4 The Greeks enjoyed eating bread with honey, cheese, and olive oil as well as in a porridge or soup. For the

3 Ibid.
Greeks bread made up about 70% of their daily caloric intake. The Greeks traded wheat in “Amphoreus,” a word that is translated as “two handles” and refers to the two handles on the containers. Although there were many different sizes, the most common size found in various archeological sites seems to be about five gallons. The 12th century BC Egyptians purchased flat bread called “ta” from stalls in the village streets. The ritual bread in ancient Greek offerings to their gods, known as psadista, was made of fine flour, oil and wine.

Bread was the basis of sustenance for the Israelites as well. Cereals and bread accounted for roughly half of their caloric intake each day. Bread, however, had other functions as well. Bread was used both for food, and, also as a religious symbol.

Section 2: An Introduction to Bread in the Bible: Mundane and Consecrated

Bread is referred to, and used as, food and as part of religious ritual in numerous biblical texts. In Genesis 1:29 (wherein God instructed Adam about what he can eat) we read: “G_d said, 'See, I give you every seed bearing plant, that is upon all the earth, and every tree, that has seed baring fruit; they shall be yours for food.’” Therefore, we see that the Divine plan in Genesis was for humans to consume grains and other vegetation. A specific reference to bread as a staple is found in Genesis 18, wherein Abraham offered hospitality to traveling strangers. It says, “Let a little water be brought; bathe your feet and recline under the tree. And let me fetch a morsel of bread that you may refresh yourselves. . . . Abraham hastened into the tent to Sarah, and said, ‘Quick, three seahs of choice flour! Knead and make cakes!’” (Gen. 18:4-6). We see that bread was an integral part of the meal and this text also represents the earliest biblical recipe for bread

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5 Ibid, 219.
6 Tamara Eskenazi and Andrea L. Weiss, The Torah: A Womens Commentary, (New York: URJ and Women of Reform Judaism, 2008), 38
7 All quotations from the Bible are from Adele Berlin, Marc Zvi Brettler and Michael Fishbane, The Jewish Study Bible, trans. Tanakh Translation Jewish Publication Society (New York: Oxford University Press, 1999), unless otherwise noted.
making. The expression “choice flour “corresponds to the Hebrew kemah solet. Moreover, we shall see this special type of flour was also used in the Showbread.

As bread was important in everyday living, it was also used as a part of Divine service. Leviticus discusses the significant thanksgiving offering and required the following: “This offering, with cakes of leavened bread added, He shall offer along with his thanksgiving sacrifice of well-being” (Lev. 7:13). This is the offering one would bring before G_d to be burnt on the altar of sacrifice, thanking G_d for all his provision, and recognizing that G_d was the provider of all good things.

Section 3: The Making and Shaping of The Showbread

Of the kinds of bread that were part of Divine worship, the most significant was the Showbread. The term Showbread (or in its more archaic form Shewbread) was derived from Martin Luther’s German rendering Schaubrot. It was first rendered in English by William Tyndale in his 1526 translation of the New Testament and reiterated in 1530 translation of the Pentateuch.8

The English term Showbread corresponds to the Hebrew lehem ha-panim which is first mentioned in Exodus 35:13. Lehem refers to bread and ha-panim literally means the face/s. As an abstract noun, it can also mean presence. The Jewish Study Bible renders this expression herein as “the bread of display.”

Rashi (also known as Shlomo Yitzhaki born February 22, 1040 – July 13, 1105) was a medieval French rabbi famed as the author of the first comprehensive commentary on the Talmud as well as a comprehensive commentary on the Tanakh (Hebrew Bible). According to Rashi, the term “the face/s” refers to the construction of each loaf having two outward looking faces or sides.

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“The Hebrew term for the ‘bread of display’ is ‘face bread’—it had a ‘face’ looking toward either side of the Temple.”

A second interpretation was offered by another medieval Jewish commentator Ibn Ezra (Rabbi Abraham ben Meir Ibn Ezra (1089 — 1164)). According to Ibn Ezra, *ha-panim* does not refer to the sides of the loaf, but rather to G_d’s presence. He wrote, “Literally ‘face bread’; the straightforward explanation for this name is what follows in the verse, for ‘before Me’ is literally ‘to My face.’”

The most detailed discussion of the Showbread and its preparation is found in Leviticus Chapter 24, which says, “You shall take choice flour and bake of it twelve loaves, two-tenths of a measure for each loaf. Place them on the pure table before the Lord in two rows, six to a row. . . . He shall arrange them before the Lord regularly every Sabbath day, it is a commitment for all time on the part of the Israelites. They shall belong to Aaron and his sons, who shall eat them in the sacred precinct; for they are his as most holy things from the Lord’s offerings by fire, a due for all time” (Lev. 24:5-9).

From the above quotation, numerous aspects of the Showbread can be derived. The twelve loaves of the Showbread correspond to the twelve tribes of Israel. They were baked once a week by the priests and displayed from one Sabbath to the next, whereupon they were then eaten by the priests. As noted previously, in reference to the Abraham story, choice flour, or “solet,” was specified. Baruch Levine, in his commentary on this verse, asserts that this refers specifically to semolina flour. The text specifies that each loaf weighed two-tenths of a measure. The standard biblical measure was an *ephah*, which has been calculated at 20.878 dry measure quarts. Since

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10 Ibid. 224.
12 *The Jewish Study Bible*, 2105
each loaf was two-tenths of an ephah, it would constitute 4.174 quarts, which would be the equivalent of 2.87 pounds.

Although the Bible does not specify how the flour was to be prepared, according to the Mishnah, the early rabbinic law code compiled c. 200 C.E., the flour had to be sifted eleven times. Additionally, at the start of Chapter Eleven of tractate Menahot (in the Mishnah), each loaf was prepared in a special mold. Rashi’s biblical commentary on Exodus 25:29 describes these bread molds in some detail. He says, “These were molds in which the bread was shaped; the bread was made in the shape of a box with two of its sides broken out. The bottom of the ‘box’ was folded up on either side like two ‘walls.”

According to the Mishnah, the dimensions of each loaf are given as 10 tefahs long and 5 tefahs wide. Each tefah corresponds to 2.915 inches, and therefore, the dimensions of the loaf are 29.15 inches long and 14.58 inches wide. The Showbread was unleavened according to Josephus.

Section 4: The Table and Side Dishes

The Showbread table is described in some detail in the Bible. The Torah says that the table was made with acacia wood, used for its lustrous color, shades, and durability. The wood was then covered with gold and it stood on four legs. It was built with rings at the four corners to accept the two acacia wood poles, also covered in gold. This was used as the instrument to lift and carry the large and heavy table. The Torah goes on to say the table edges were decorated in gold.
In Exodus 25:23-30 we read: “You shall make the table of acacia wood, two cubits long, one cubit wide, and a cubit and a half high. Over lay it with pure gold, and make a gold molding around it, and make a gold molding for the rim round about. Make four gold rings for it, and attach the rings to the four corners at its four legs. The rings shall be next to the rim, as holders for poles to carry the table. Make the poles of acacia wood, and overlay them with gold; by these the table shall be carried. Make its bowls, ladles, jars and jugs with which to offer libations; make them of pure gold. and on the table you shall set the bread of display to be before Me always.” 18

There were a variety of utensils on the Showbread table. There was a ladle to portion out frankincense, two bowls in which the frankincense was placed and burned, a pitcher to pour out libations and an accompanying jug. The exact shape of these utensils is not known but the Bible insists that they must be made out of gold. The burning of the frankincense substituted for the customary burning of a grain offering. The priests ate Showbread in a holy place, as it was holy to G_d.

By examining images of the Showbread table on coins minted in Israel during the Roman period, as well as on the Arch of Titus, constructed in Rome at the end of the first CE, one notices differences in how the Showbread Table is depicted. 19 These varied depictions lead to various interpretations. Some scholars contend that it was a small flat table. This is an overly simplistic view. Other scholars have been influenced by the description passed down from the classical Rabbis. According to this perspective, the table had vertical supports and half circle or half-hollow rods separating the breads, as well as separator angle pieces that were attached to the uprights.

18 Other references include Exodus 37: 10-16, and 39:36, Lev. 24: 5-6, Num. 4: 7-8.
19 See Appendix for these images.
These opposing and differing viewpoints have lead to a variety of possible Showbread table designs.

In Exodus 25:23-30, and Exodus 37:10-16, we find that additional information is provided. It tells us that on the north side of the Holy Place, or the Court of the Holy, the Showbread table was positioned. In Lev 24:5-9 it states that twelve loaves were displayed upon it. These loaves were symbolic of the twelve tribes of Israel. Also kept on the Table of Showbread, were offerings of wine as shown in Numbers 28:7. Sources vary slightly on the exact measurement of a cubit, but generally it is accepted that the table was three feet long by one and a half feet wide and stood a little over two feet tall. The golden rim stood approximately three inches wide and three inches tall. Some are of the theory that the rings of gold attached at the legs were affixed so that the tabletop would not come off when it was lifted up from the legs.

There are several possible arrangements for the Showbread on the table. One theory is that the Showbread was round and the two stacks of six were side by side. The incense burnt on top of each stack and the carafe of wine would sit on the table between the two curves of the bread. Another theory holds that the Showbread was rectangular and stacked on top of each other, with the incense on top and a carafe in front. Some theories based on Rabbinic oral tradition add side poles to help hold the bread in place, as well as half-hollowed rods between the loaves to help air circulate between the bread so it did not mold or mildew. Others show that the bread was laid out on the table in two rows, not stacked. They show the incense at one end and the carafe of wine at the other.20

Section 5: Rabbinical Traditions of the Showbread

The rabbinic writing about the Showbread table and the lamp stand in the Holy Place emphasized both the mundane and spiritual perspectives. Pragmatically, the bread had to be propped up and aired out. The spiritual perspective of the table referred to the relationship between man and G_d. This indicated that G_d wanted to dine with man in fellowship, to be their G_d and they would be His people.

Many Rabbis throughout the course of time have commented on the placing of the Showbread and table. Exodus 26:35 reads: “Place the table outside the curtain and the lampstand by the south wall of the Tabernacle opposite the table, which is to be placed by the north wall.” Commentators have asked many questions as “why the layout of the temple articles called for in Leviticus involve such elaborate instructions.” Many suggest that it would have been easier to direct the placement of the Showbread table to the north side and the lamp stand to the south side. The way it is written indicates that the lamp placement is entirely dependent upon the placement of the table of Showbread. As noted recently: “The Table of Showbread determined the distance from the veil of the Holy of Holies that the Menorah would occupy. The Menorah determined the direction in the Holy place that the Table would occupy. It was crucial that these two items must intermingle in their placement within the Mishkan.”

According to Pirkei Avot 3:21 (a mishnaic text also known as Lessons of the Fathers), “if there is no flour, there is no Torah.” From this it can be derived that if a person’s basic material

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needs are not met, they will not be able to study Torah. The table of bread was just outside the curtain where the Ark of the Covenant and Torah were kept. The two are intertwined and rely on each other—the Torah as represented by the lamp stand and basic needs connected to the Showbread. Each is necessary and entirely dependent on one another.  

Bekhor Shor, a medieval Jewish commentator, believed that the lamp stand and table were only a sign for princes or royalty. This observation was based on 2 Kings 4:10, “Let us make a small enclosed upper chamber and place a bed, a table, a chair, and a lampstand there for him so that he can stop there whenever he comes to us.” This arrangement was set up in this manner for Elisha who was considered to be a prince. The short but meaningful height of a cubit and a half high was built in such a way that the table was not on the ground. People in this time and area would have eaten and engaged in their own religious feasts sitting and eating on the ground. Keeping with this thinking Bekhor Shor continued observing that the utensils on the table were those found on the tables of kings in the area. He believed the bowls were not for the incense but for kneading the dough and the other vessels for keeping the water for the dough. Rashi believed some of the bowls for the table were “Molds made for the bread.” He believed that the jars referred to in the text were actually hollow tubes to create air spaces or gaps between the breads and the jugs were used merely to prop up the bread. Rashi still gave the table and appointments holy significance by not relating it to the local customs. According to Rabbi Samuel bar Nahman, in regards to the table of Showbread: “It is greater than deliverance, for deliverance

22 Ibid.
24 Carasik, The Commentators Bible: Exodus, 1049
25 Ibid.
26 Ibid.
27 Carasik, The Commentators Bible: Exodus, 1049
comes by the hand of an angel – “‘the angel who delivers me from every evil’” (Gen. 48:16) – but provision for man’s needs comes from the Hand of God Godself. ‘You give it openhandedly, feeding every creature to its heart’s content’” (Psalm 145:16). Rabbi Samuel saw the connection between G_d and the daily need for substance and worship in the temple Holy Place.29

Section 6: Trends in Judaism, Christianity, and Islam

Contemporary groups such as The Temple Institute in Jerusalem, Israel, headed by Rabbi Chaim Richman, are working to reconstruct the priestly garments and the artifacts of the temple with the hope of rebuilding it. The Institute is currently working with modern day scholars as well as a wealth of information from the rabbinic traditions. They are collecting gold, silver, and money to design and outfit the future temple. Currently, it is stated by The Temple Institute, that they are producing breads that could be used for the Showbread.30

Since 1987, this group of Rabbinical researchers, designers, and craftsmen has been creating, in the Jewish Quarter of Jerusalem, what they call a "Temple-in-waiting." Their efforts have resulted in computerized visualization and blueprints for the Third Temple and the production of ritually qualified vessels, garments, and other items necessary for a restoration of the Temple services. This organization has been at the forefront of the publication of Third Temple research. Among the items that have been or are in the process of being created are: apparel for the high priest; the eleven sacrificial incense spices, urns, ewers, incense pans, forks, shovels, and carts (for burnt offerings); the gold and silver mizrak (vessels used to dispense sacrificial blood on the altar); the golden laver, flasks and measuring cups (used in the libation offerings); vessels for the meal

28 The Holy Bible, New International Version, Biblica, Inc.
offerings; the lottery boxes (for the Day of Atonement); the mortar and pestle and the stone vessels
(kelal) for grinding and holding the purifying ashes of the red heifer; the golden Menorah (lamp
stand); cleaving instruments and oil pitchers for replenishing the oil for its light; silver trumpets
(for assembling Israel at the Temple); and the barley altar.

Professor Zohar Amar of Bar Ilan University, “who is known for his research concerning
the ketoret incense used in the Holy Temple, as well as research into and the revival of ancient
methods of dying fabrics, (which the Temple Institute has adapted for the production of the
Biblical argaman (purple), techelet (blue), and tola’at shani (scarlet), used in the priestly
garments), reported on his latest research and experimentation with reproducing the lechem
hananim, (Showbread), baked by the kohanim as part of the service in the Holy Temple
sanctuary.”31 To this moment, no findings have been released only that an attempt to make the
showbread has been made. The Temple Institute is also in the process of making a detailed survey
of the Temple area, which includes the layout of the Holy of Holies and the Holy Place where the
Menorah and the table of Showbread would be positioned.

The Temple Institute has finished fashioning the bowls out of donated gold for incense and
the carafe for the libations. The two golden bezichin -- frankincense vessels, referred to in the
passage from Exodus as "spoons"-- are an essential element of the golden Showbread table and the
service of the Showbread. These two bezichin were used to contain the two handfuls of
frankincense that the priests were instructed to place upon the Showbread table beneath the twelve
loaves of lechem hapanim – Showbread, the work continues to the current day.

31 Ibid.
There is much debate as to whether these articles should be remade. Many conservative rabbis believe that to build a Third Temple would be blasphemous. They believe the next temple will be made by G_d and dropped down into place in a whirl of fire. It has been stated that to attempt to build and refurnish the temple is contrary to prophecy. Those who press forward believe that it is an eternal commandment for the Israelites to continually work toward the rebuilding and maintenance of the temple. They quote, "And they shall make for Me a sanctuary, and I will dwell amongst them" (Exodus 25:8). The Temple Institute also invokes Maimonides by asserting: “The purpose of the commandment of building the Temple is in order to offer the sacrifices, and it is a perpetual commandment that is binding upon every successive generation. The vessels of the Temple are an intrinsic part of the commandment and constitute a portion of the Temple structure, and all the units, separately and together, are considered as one precept.”32 Rebuilders point to Biblical texts and scholarly opinions like this to support their position to rebuild the temple and to refashion all the necessary artifacts to go with it.

For the Christian church the Showbread is the earliest form of the saving power of G_d. That is where Jesus represented himself as G_d through the Passover meal’s bread and wine. This Showbread and the three elements that were shown to Moses in a vision on Mount Sinai were a similar representation of God (the Ark of the covenant in the Holy of Holies, the Menorah in the holy Place, and across from it the Showbread Table).33 Also on the table were the carafe of wine and cups to pour the wine into. The sacrifice that took place on this altar of the Showbread was unique in that the priests consumed the bread and wine. This non-bloody sacrifice (as opposed to

32 The Temple Institute’s Thirtieth Annual Conference on Temple Research (accessed May 2011).
the killing and burning of the sacrifices happening outside the Holy Place on the Altar) was ordered to be a perpetual sacrifice before G_d always.

Likewise we read in the New Testament in I Corinthians 11:23-29 where Paul writes, “The Lord Jesus, on the night he was betrayed, took bread, and when he had given thanks, he broke it and said, ‘This is my body, which is for you; do this in remembrance of me.’ In the same way, after supper he took the cup, saying, ‘This cup is the new covenant in my blood; do this, whenever you drink it, in remembrance of me.’ For whenever you eat this bread and drink this cup, you proclaim the Lord’s death until he comes. So then, whoever eats the bread or drinks the cup of the Lord in an unworthy manner will be guilty of sinning against the body and blood of the Lord. Everyone ought to examine themselves before they eat of the bread and drink from the cup. For those who eat and drink without discerning the body of Christ eat and drink judgment on themselves.”

The Showbread and wine were considered holy, the physical representation of G_d before man. Three times a year the Showbread would be brought out and lifted up for all the Jewish males to see. The Eucharist today represents a non-bloody sacrifice representing the death of G_d’s son on the cross. Just as the Showbread was made holy in the presence of G_d, so the Eucharist is also made holy in the presence of G_d. It is also interesting that when the Ark of the Covenant and the Showbread were on the table, the Menorah was lighted. So too in the Catholic Church today, when the Eucharist is in the tabernacle, (the metal box behind the altar), there is a light burning.

34 The Holy Bible, New International Version, Biblica, Inc..
The showbread is intricately intertwined with the entirety of the Temple and the Temple artifacts. Currently, with the split of opinion in the Jewish community, and the Muslim holy shrine, the Dome of the rock, sitting on the temple mound, the third Temple does not look like it is going to progress very fast. Although utensils and garments are being produced for the future rebuilding at this time, many obstacles stand in the way. "The more awareness you raise, and the more you stress that Judaism isn't real without the temple, the more you're encouraging conflict over holy space in Jerusalem," said Gershom Gorenberg, an Israeli historian and journalist who wrote, *The End of Days*, a book about the struggle over the Temple Mount.\(^{37}\) His approach is in conflict with the founders of the Temple Institute who believe it is necessary to rebuild the temple.

The Head of the Islamic movement of the northern area accuses Israel of conspiring to build a Jewish Temple on Temple Mount. Sheikh Salah stated that Israel is conspiring to encroach on the Temple Mount to build a Jewish temple near the Al-Aqsa mosque. Sheikh Raed Salah, the head of the Islamic Movement northern branch, said in a letter to Arab kings and leaders of Muslim countries, that he urged all Muslims to torpedo "Israel's plan that aims at dividing the Al-Aqsa Mosque between Muslims and Jews whereas in the Jewish part it plans to build its imaginary temple." Salah said the whole complex was Muslim but Israel was trying to expropriate parts of it. For the Muslims this site is considered the third most holy place for their religion. The Jews consider this site as the holiest site for them. The Muslim community in Israel is saying that the temple never actually existed and that it has always been a holy site for the Muslims. They consider the temple excavations around the mound as a farce trumped up to fool people into believing in a temple that did not truly exist. They are asking the government to stop all the

archeological excavations on the grounds. They say that not only did the temple never exist but also the excavations threaten the structural integrity of the Mosque that is standing there.38

Section 7: Conclusion

The Showbread is an intricate and essential part of the Jewish religion and culture. It is a point of contact where the people of Israel and G_d meet and break bread together. The Bible is very specific on the requirements of baking the Showbread, and how it is to be positioned and consumed. The Bible and the words of the Rabbis seem to point to a greater importance of the Showbread then at first glance. The Showbread calls for the people of Israel to see themselves as a Holy people set apart, sharing bread with G_d. This theme is carried on in the Christian Eucharist. Thus the Showbread is important to Christians and Jews.

While these issues have an effect on the current status of the Temple and the Showbread, they have no bearing on the historical relevance it has had throughout history. Its significance for Judaism and Christianity is felt in many parts of the world. To some believers it is the face of God himself; to others it shows the provision of a kind Father to His children. Still others see it as a sign of fellowship with God and His chosen land. No matter what the perspective, the philosophies and lessons of the Showbread can be applied to many walks of life.

Overview of Creative Project

The creative project will result in the production of a facsimile of one of the loaves of the Showbread and an accompanying powerpoint slide presentation documenting the entire process. This will entail experimentation involving the creation of a unique mold of wood, sifting the

38Sheikh Salah: Israel wants to encroach on parts of Temple Mount [online], Yedioth Internet. 2007 [cited 20 May 2011]; available from World Wide Web: http://www.ynetnews.com/articles/0,7340,L-3443895,00.html
special semolina flour 11 times as prescribed in the Talmud, mixing the dough and baking the loaf, such that the end product corresponds to the Bible’s regulations in terms of size and shape. See the appended illustration, which highlights the peculiar shape of the Showbread loaf, as based on Rashi’s commentary.

**Findings and Summary**

When beginning this project, I had no understanding of the fact that there was bread in the holy place. I heard indirectly about bread eaten only by the priests but I thought it had something to do with the bread that was sacrificed – not bread that was offered to G_d. However, in researching Showbread, I discovered there was both biblical and historical significance to this bread.

The first picture of the Showbread displayed it as round and staked up on a table. With further research, the Showbread was thought to have other shapes that show up in its history. Flat loaves, square loaves, rectangular loaves, “v” shaped loaves (Fig.1) were used, as well as round ones. With all the different shapes used historically, I was confused as to how to proceed with the experiment. After reading about the various bread molds the priests used to make the loaves, I realized that the Showbread was going to be more complicated. I was intrigued by the molds and questioned that if the bread were either just square or round there would be no need for a mold.

The Bible was the first source I used to research. I found the first description of the loaf in the book of Leviticus. After reading about the weight of the flour, the length and width of the bread, and the description of the ends of the loaf being seven fingers high, it became apparent that flat bread would not rise high enough to have ends seven fingers high. This would require actually turning the ends up. This led to the discussion of many ancient Jewish scholars talking about the
faces of the bread. How could you see both the inside and the outside of the loaf? This was further extended in the description of the name of the bread, which referred to the faces of G_d and G_d’s presence in the place.

In order to find the formula of the Showbread, many decisions needed to be made. Issues needing to be resolved about the Showbread were whether it was leavened or not, what ingredients would need to go into the formula, how to keep it fresh, and how to prevent mold.

The decision to make the bread unleavened was chosen because almost all ancient scholars wrote of the bread as unleavened. Modern scholars debate this because nowhere does it say that the Showbread was or needed to be unleavened. This seems to be a modern debate. Most rabbinic scholars point to the fact that no bread used in the temple is leavened. Therefore, I decided to set all leavened formulas aside (Slides 22, 23, 24).

I found the list of ingredients as a core group easy: flour, water and salt. The experience of making many French baguettes has allowed me to know that loaves are fresh for about a day - maybe two. However, the Showbread was fresh for a week. What other ingredients were added to lengthen its use? There are thousands of formulas to review, yet after examining many hundreds a short list of added ingredients seemed to repeat more often than any others. Oil and honey seemed to be the most commonly used products. (Wine was also a top runner but it appears to be a more modern addition.) How do they work? Oil shortens the gluten strands causing the bread to stay fresher longer as would the invert sugars of honey. Therefore, I added these two ingredients to the core formula (Slide 24).

The next consideration I made was to determine the amount of each ingredient to be used. If I used too much liquid, the bread could stay fresher longer. However, this would cause the
bread to fail to adhere to the mold as easily and would increase the formation of mold on the bread. Using too little liquid would cause the bread not to come together with proper gluten formation.

The formulas examined gave many different percentage formulations for each ingredient. Several sources gave instruction that the flour had to be three times the amount of water but never said why or referenced the source. From experience, I know that when water is less than fifty percent (Bakers Percentage), it will be difficult for the dough to develop gluten properly. After much trial and error (and after averaging the most common percentage of flour to water), the final formula was set at to be one hundred percent flour to sixty percent water (Baker’s Percentage). I then calculated the salt, honey and oil percentages accordingly (Slide 22).

My next step was to experiment with different types of flours to bake the bread. I used flour from grains that would have been historically accessible. I chose millet, all-purpose, bread, artisan high gluten, semolina, whole wheat (most common), organic whole wheat, and barley flour (Fig. 33-40). I first made a test batch of each of the breads. I tested each grain’s flavor, the ease of molding, how quickly they staled, and the overall look of each grain. All purpose flour, artisan high gluten flour, and bread flour made appropriate unleavened breads with good crust, nice aroma and color, and they mixed well. They did tend to dry out quickly and to develop mold very fast; however, this could be due to the high humidity we experience in our geographic region (Fig. 32).

Common whole wheat and organic whole wheat flours were denser. The higher fiber content helped them absorb more water and thereby stay fresher longer. Both flours had good flavor and held their shape. Millet flour formed a hard dense cake and was hard to form and it did not hold together well. Millet flour baked dry. Barley flour was slack and sticky and did not pick up well in the bowl. While some of these flours performed satisfactorily, they were not as good as
the semolina flour. The semolina flour not only came together as well as the all-purpose and bread flours did, it also absorbed more water similar to the whole wheat flour. Seminola flour was easy to shape and baked hard and, more importantly, it tasted good. It held its freshness longer than any of the other flours and did not begin to mold until ten days out from baking (Fig. 34).

Further research provided more validation for the use of seminola flour. The word used most often for the type of flour used to bake Showbread was the same word given to the breads made with semolina flour. This seemed to confirm that semolina flour was the flour used by the ancient Jewish people for the Showbread.

Next, after the mold was designed (Slides 4 - 14), it was time to try to answer how the sides of the mold were constructed to stand up right. In testing the first breads in the mold, gravity worked against the bread standing up and the sides collapsed. Side supports were added to help the loaf ends to stand up (Fig. 19, 20). While this was helpful, it was still not successful. I then tried to drape the dough over the side supports. This helped somewhat but left the loaf ends curled. The force of gravity on the dough stressed it and left it thin at spots and twisted.

I next designed an inner mold for support (Fig. 50). The theory was that the inner mold would provide strength to support and hold up the sides of the loaf. After the design and fabrication of the inner mold, I tried the semolina flour again to make unleavened bread. The inner mold did not provide enough strength to hold up the sides of the bread. Therefore, I then tried it again but this time I turned the whole mold over as I placed into the oven (Fig. 52). When the bread was removed from the oven, the sides stayed up and the unleavened bread itself was flat and crisp yet retained good moisture (Fig. 53). I support that this was the formula for how the ancient Jewish priests were able to make the bread of faces to place before G_d.
Appendix

The Shape of the Bread:


The arch of Titus:

A Detail from the Arch

Detail highlighting the Showbread Table:

Bibliography


