Deconstructing the *Mishkan:*

How the Making of Sacred Space is Holy Time

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Introduction

I can remember the feeling vividly. It was 3am when I took a step back from welding a steel piece of art in the Tulane University Sculpture Studio. For hours I had been so focused in the details of how the different pieces of steel were connected that I had not looked at the greater creation. As I saw how the piece was finally taking shape, a wave of emotion flooded over me. It was more than the fact that I had been working furiously into the early morning hours. I felt God's presence there with me in the creative process. Over time, I came to understand that the skills I honed were of my doing, my practice. However, the inspiration and unique artistic visions came from a higher place. I always knew art held an important place in my life, but I did not come to realize its importance to my religious and spiritual health until my time at Hebrew Union College – Jewish Institution of Religion.

Unlike college and my time as an assistant to glass artists, my ability to create sculpture was relegated to the backburner at HUC. My studies of texts, theology, and history did not provide me with the time or encouragement to connect in the way I had for so long. To feed my creative urge, I painted and drew in my apartment, but that was not enough. I needed an outlet for learning. The first project that allowed me to do that was a historical account of the Jews of New Orleans during the time of the civil war. My professor gave me the opportunity to present the information I studied on this particular subject in a creative mode of my choosing. This was the first project in Rabbinical school where I could invest the time and energy in an art project. It required me to solve issues of layout, design, coloring – IT allowed me to get back in touch with skills I had

neglected. Working on the project, as I stared intently at my pen meeting the page, I felt God's presence dwelling with me again.

I became much more aware of my learning style and how I feel about art as a vehicle for education in my time at the Rhea Hirsch School of Education. I became convinced that art learning happens not in the creative process, but in the explanation of that process. When learners set to the task of creating a piece of art, an interpretation of some "text," they truly come to an understanding when they explain back their choices to someone else. Artists must articulate the reason they chose a particular color, to use a certain method, or leave something unfinished to express the particular learning that occurred. I had no idea how I might incorporate this understanding into my final years at school, not to mention my (hopefully) many years in the Rabbinate. I was fortunate that Rabbi Richard Levy requested to set up meetings regarding finding a studio and merging these two seemingly distinct selves – the artist and the rabbi.

It took some time to find a studio, partially due to some of my requirements – an affordable space with the proper electrical setup for arc-welding which allowed me to make noise, dust, and sparks. It was only after a surprising rejection to a program that I became truly motivated. I did not receive acceptance for the Day-School Externship. I went home angry, wishing to get into bed and take a nap until the next day. However, I was so worked up I couldn't sit still. My mind would not shut off so I decided to focus that energy. I started getting creative with my search for a studio space, investigating warehouses, industrial rentals, and auto-mechanic shops. I happened upon an ad for a small studio space and immediately called the owner. I set up a meeting for the next day,

drove down to see it, and wrote the man a check on the spot.[1] I had found the studio; what was I going to do in it?

Around the same time, I had been trying to decide on what I would base my Thesis. What topic would be interesting enough for me to spend a year researching and writing on it? I considered the merits of expanding upon previous projects – investigating the Civil War or Jewish alcohol consumption in Codes. However, I decided I wanted to do something new, unique, and something I may not be able to do ever again (given that I would be working as a full-time rabbi). One suggestion was that I look at the *Mishkan*, the first communal architecture project of the Israelite nation, one that plays a huge role in the life of the Israelites in the desert. Knowing that other artists had recreated the *Mishkan* piece for piece, I wished to do something new with it. With great guidance from Dr. Leah Hochman and Rabbi Levy, I decided to deconstruct the *Mishkan,* to take it apart and flip it on its head. I chose to study texts and create art pieces out of my main learnings, incorporating both physical as well as metaphorical aspects of these sacred spaces.

As for the chapters in this capstone, each one is the result of a main learning from all of my studies. Each chapter explains the main gleaning as well as the art piece that then accompanies it. They can be read individually or together, in virtually any order (the only suggestion being that a reader start with chapter 1 as it gives a more full introduction to the entire project). I considered the possibility of arranging them in chronological order – either by start or by finish. However, the nature of working on many pieces at once

[1] Coincidentally, space freed up and I DID receive the externship on this same day.

makes determining an exact order an arduous task. Therefore, I decided to arrange the chapters alphabetically according to the title of the art piece.

I hope this project will show the importance of not only art-based learning, but many other modes of learning and presentation. I argue for the importance of the artist, not only in a finished project, but regarding the moments spent in creation as well. I humbly submit my argument that God can dwell with us and within us at many times in our lives. For me, it is not only during times of communal prayer, but in the moments of Zen-like transformation that occur in the studio. I sincerely appreciate the Hebrew Union College – Jewish Institute for Religion for allowing me to make this statement. The support that faculty and students have showed, especially on the Los Angeles campus, has proven to be a source of strength and encouragement. I know I will continue to pursue this style of learning – choosing texts and reinterpreting them artistically for others.

1. Introduction to the Capstone

CNNCTNGHVNNDRTH

Amongst the numerous scenes found throughout the *TaNaKh*, a knowledgeable artist undoubtedly finds himself or herself drawn to *Parashat Terumah.*[2] In it we find the instruction given to Moses for the first national monument. The Israelites shall build a place for God to dwell, the tabernacle, under the leadership of especially "wise hearted" and skilled persons. The command to build this holy space, the sanctuary, is a quizzical one. Exodus 25:8 states, "so (you all) make for Me a sanctuary where I will dwell within them."

The interpretations of this verse are many.[34] Why does God say, "I will dwell within them," instead of "I will dwell within it?" A few chapters later, God speaks again regarding dwelling. "And I will dwell amongst the children of Israel and I will be to them their God."[5] Is God dwelling within the structure, or within people? Can God dwell among the people if they had not built the *Mishkan*? These tough questions receive an answer, revealed by the words most often used to reference "dwelling." The Hebrew root *yud-shin-bet*, while more common, does not appear in this narrative. The root *shin-chaf-nun* (the basis for *Mishkan*) reflects a more temporary dwelling. Used in conjunction with the word *ohel*, or "tent," this sort of dwelling references the nomadic lifestyle at the time. Without the nomads to move the accoutrements around, it would be useless and deteriorate. Thus, the sanctuary was not meant to be understood literally as God's abode, like other such institutions in the pagan world. Rather, it functioned to make perceptible

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[2] Exodus 25:1-27:19

[3] Maimonides used this as the argument for the positive commandment to construct a House for God. (In this instance, referring to the next Temple the nation of Israel will build. Maimonides.) *Mishneh Torah Hilchot Beit HaBechirah* 1:1.

[4] Rashi wrote this means that the Israelites shall "make in/for My Name a house of sanctity.

[5] Ex 29:45

and tangible the conception of God's immanence, that is, of the indwelling of the Divine Presence in the camp of Israel, to which the people may orient their hearts and minds.[6]

It appears that had the *Mishkan* not been built, God would not have dwelled within them, they would not be focused on serving the Divine. The Israelites received this commandment to build a sacred structure, a *mikdash*, how were they going to go about constructing it?[7] Moses felt totally inadequate for the task, having none of the technical training, artistic sensitivity, or basic skills necessary to create the tabernacle.[8] Therefore, this large sacred space was overseen by the head contractors, Bezalel and Oholiav, and their legion of skilled workers.[9]

Since it was such a huge communal project one has to wonder, "what happened to the *Mishkan*?" With such emphasis placed on this scene, why do Jews not commemorate it more often? Why do Jews not note the loss of the *Mishkan* as they do

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[6] Nahum M. Sarna, *The JPS Torah Commentary: Exodus* (New York: The Jewish Publication Society, 1991), 158.

[7] Samson Raphael Hirsch noted the two concepts are *mikdash* [Sanctuary] and *Mishkan* [Dwelling Place]. *Mikdash* denotes the mission that we are to discharge for God; *Mishkan* expresses the fulfillment of the promise made to us by the Divine Presence and demonstrated in the flourishing of our outer and inner lives. The sanctuary is to be *mikdash*, the place of our consecration; the *Mishkan* the dwelling place of God's presence. This is the place where we are to go to seek, and to attain, our own consecration and the presence of God. Our consecration; i.e., the mutual covenantal relationship between God and Israel, established through the giving of the Law (by God) and its acceptance (by Israel) is to be the context within which the significane of the Sanctuary as a whole and its parts is to be sought and found. Ephraim Oratz, ed., *The Pentateuch with a Translation by Samson Raphael Hirsch and Excerpts from the Hirsch Commentary*, trans., Gertrude Hirschler (New York: The Judaica Press, Inc., 1986), 306.

[8] "The Architect as Liturgist" by Eugene Mihaly, Prof. of Rabbinic Literature and Homiletics, Hebrew Union College–Jewish Institute of religion, Cincinnati, Ohio (address delivered at 1974 national interfaith conference on religion and architecture, Cincinnati Ohio, April 1974).

[9] The head architect being, of course, God. As Exodus 25:9 states, "According to all that I show you, the pattern (blueprint) of the tabernacle, and the pattern of its instruments, and thus you shall make it."

that of the Temple(s)? Is it possible that the *Mishkan* survived in some fashion and has been integrated into some of the ways in which we organize the construction of our current sacred spaces? These are some of the questions we will attempt to answer. Trying to understand sacred space and sacred structures without also taking the time to create them is a bit like watching a lifeguarding video without doing any of the physical training. There's something to be said for jumping in the water and physically practicing saving someone's life.

Before continuing, however, I must expound upon the words sacred and holy. In my usage, they are interchangeable. Both reference an object or space as being "dedicated" or "set apart." In the context of Judaism, it also holds religious connotations, meaning something worthy of a special type of reverence or respect. In this regard, the Israelites are a holy people because they are consecrated to God.[10] The Hebrew word for sacred and holy comes from the root *kuf-daled-shin*, or *kadosh.*[11]

I began the project by exploring the pivotal text based around the *Mishkan*. What were the key phrases and pieces of architecture that would help inform our current understanding of sacred space? I investigated *midrashim*, to see if any stories could help give us a better understanding of what it meant for God to dwell within the people during and after the construction of the *Mishkan*. Who were the persons to accomplish this important task that Moses was not up to? One unique and interesting piece of information

[10] Deuteronomy 14:2

[11] Other permutations of the word include, "separation, withdrawal; sanctuary; consecrate; apartness, sacredness; to be hallowed; to be honored. Francis Brown , S. Driver, and C. Briggs, *A Hebrew and English Lexicon of the Old Testament* (London: Oxford University Press, 1968), 871-874.

regarding the importance of the *Mishkan* is revealed in its location within the Exodus/Torah narrative.

The book of Exodus is the book of redemption, a historical recollection of a people freed from slavery. At what point did the Israelites become a redeemed people? Was it as soon as they left Egypt? Was it as soon as they crossed the sea into the desert? Was it once they received the Torah? While these are understandable claims, only after the people built their *Mishkan* in the wilderness were they considered a redeemed people.[12] The Structure was made of materials voluntarily given by people with limited resources. Yet even with these limited resources, they were able to create a beautiful and embodied religious space.[13]

Analyzing the entire structure of the *Mishkan* reveals a spatial hierarchy. There is movement between two poles - human/mundane and God/holy. The closer one comes to God's represented "presence" in the *Mishkan*, the more gold covers the sacred objects. Unlike the altar of incense being covered in gold, the altar that received the offerings of the Israelites was made of bronze. Furthermore, as we extend outward, the space becomes filled with more worldly and accessible goods. Wood and linen were used on the outer frame of the entire compound. The Tabernacle as a whole, in its dimensions and

[12] Rabbi Avrohom Biderman, *The Mishkan: The Tabernacle: Its Structure and Its Sacred Vessels* (Brooklyn: Mesorah Publications, Ltd., 2001), 19.

[13] As a part of the project, I wished to try to find subtle ways to deconstruct the *Mishkan*. One of the unique ways in which the materials were gathered was through a voluntary system. Each person gave according to how his (or her) heart was stirred to do so. They only had the possessions they brought with them and materials that could be found in the desert. However, they still managed to create a beautiful, serviceable, and unique sacred space. In this vein, I attempted to use materials that normally might be considered mundane – steel, concrete, and wood. In some instances, the materials were found or acquired by donation. Through thoughtful art-making, I attempted to elevate the look and craft of the materials, providing an example for how any sacred space can do the same.

construction, attempted to express that the Divine is perfect. The smoothest and most expensive shiny materials are used toward the center, the piece associated with the Holy. Furthermore, size and sanctity are in inverse proportion.[14] The larger and more accessible an area is to the Israelites, the less sacred it is. The further the Israelites move toward the mundane, earthly realm, the more that is reflected by the use of earthly materials such as wood. The *Mishkan*, therefore, tried to help the Israelites properly transition from their every-day, worldly lives to that of the sacred and transcendent.

There are other examples within scripture of people existing in or interacting with sacred space. Are there commonalities amongst them? Perhaps. Looking closely at Moses in his initial encounter with God in the beginning chapters of Exodus, the legendary interpreter of religious experience Mircea Eliade saw how sacred spaces can be qualitatively different from others. "Draw not nigh hither; put off thy shoes from off thy feet, for the place where thou standest is holy ground."[15] This is the quintessential example for Eliade. Spatial differentiation of religious man focuses on sacral or "real" space; all other spaces are regarded as formless and of less consequence.[16] For Eliade, a building created purely for functional use, with no regard toward moving the inhabitants toward the divine, is less important. The "true" and "real" work to be done in architecture is those structures that help the inhabitants move toward the sacred and the Divine.

As I began my studies, I thought it important that I investigate how the *Mishkan* has been and could be imbued into Jewish life. I wanted to make sure that I didn't simply

[14] Fred Skolnik, Editor in Chief, "Tabernacle" in *Encyclopedia Judaica, Second Edition Volume 19* (Michigan: Keter Publishing House, Ltd., 2007), 423.
[15] Ex 3:5
[16] Karla Cavarra Britton, "Prologue: The Case for Sacred Architecture," in Constructing the Ineffable: Contemporary Sacred Architecture Karla Cavarra Britton, ed. (New Haven: Yale University Press, 2010), 22.

reconstruct the *Mishkan*, overriding its dynamic meaning. Often times in the erection of an edifice or monument, the effort required for people to recall and interact with the original event changes. For as much as architects may strive to construct the sacred, it may be that over time the physical elements that are meant to inspire the viewer no longer hold the same power. Furthermore as James Young points out, when one builds a "monument," events may not be fully remembered, but buried under other myths and explanations. As cultural reifications, monuments reduce or coarsen historical understanding as much as they generate it, thereby divesting ourselves of the obligation to remember if we assign a monumental form to memory.[17]

I wished to do the opposite of this. Instead of creating a monument (or set of monuments) that relieved the burden from the viewers, I sought to create art pieces that placed the burden on the viewer. The art I generated is not meant to be the end-all be-all of the *Mishkan*, simply a commemoration of its disappearance. The viewers are meant to carry the burden of the remembrance. Both a monument and its significance are constructed in particular times and places, contingent on the political, historical, and aesthetic realities of the moment.[18] Therefore, each viewer brings his or her own understanding of how the *Mishkan* might play a role in his or her life. The viewer, instead of relying on the "monument" to do the recalling for them, must now struggle on an ongoing basis with how the *Mishkan* informs their sacred spaces.

This is one of the goals of the project, along with Jewish ritual. We have holidays that place us in multiple times. Passover, for example, requires us to commemorate the

[17] James E. Young, *At Memory's Edge: After-Images of the Holocaust in Contemporary Art and Architecture*, (New Haven: Yale University Press, 2000), 94.
[18] Biderman, 95.

exodus from Egypt. While we celebrate the past, in present time with a Seder, we also look to the future. We lament the loss of the Temple(s) but we do not remember the *Mishkan*. Even though the *Mishkan* was the first of several communal sacred endeavors, the Temple overrides it. Some might argue that the pivotal event for synagogue architecture was actually a destruction, not a construction. The reason being that since "God's presence could no longer be witnessed," Jews needed to devise an alternative system of connection to the Divine.[19] Even though synagogues existed at the time of the second Temple, their importance as a sacred structure only became elevated to its current status after the destruction.

Looking at the way an edifice "coarsens" memory, the Temple retains characteristics of a monument more than the *Mishkan*. It stands in Jewish memory as a critical juncture unlike many other moments. The personal connection one may hold with the Temple is constantly influenced by how it is mourned. The Temple, unlike the *Mishkan*, was intended to be a permanent sacred space. The root of the English word coming from the old Roman word *templum* means sacred space, however, not a necessarily a building.[20] Both the *Mishkan* and the Temple had places designated as the *mikdash*, the sanctuary. However, while the *Mishkan* is referred to as an *ohel*, a temporary structure, the Temple is referenced as *beit hamikdash*, the House of God.

Perhaps the *Mishkan* never received such elevation in Jewish memory because it still exists. The naming, particularly the repetition of the tabernacle and its individual

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[19] Susan G. Solomon, *Louis I. Kahn's Jewish Architecture: Mikveh Israel and the Midcentury American Synagogue* (Lebanon, NH: University Press of New England, 2009), 15.

[20] Vincent Scully, "The Earth, The Temple, and Today," in *Constructing the Ineffable: Contemporary Sacred Architecture,* ed. Karla Cavarra Britton (New Haven: Yale University Press, 2010), 33.

parts, in the Biblical narrative may "prove" that such a thing has occurred.[21] The Torah does not waste words, so a repetition of the text suggests that unlike the two temples that were sacked and destroyed, Moses' *Mishkan* remained intact and was never captured or desecrated; all of its awesomely holy parts were miraculously hidden.[22] How likely is it that the *Mishkan* still exists, hidden away in some special location where we can't find?[23] In the narrative it disappears, and we've forgotten about it even though we encounter it several times a year in our weekly Torah readings. What we call "forgetting" in a collective sense occurs when human groups fail – whether purposefully or passively, out of rebellion, indifference, or indolence, or as the result of some disruptive historical catastrophe – to transmit what they know out of the past to their posterity.[24]

Perhaps it is through the construction of our sacred spaces, that we may be able to stop forgetting. We can begin to properly remember the holy undertaking wrought by our ancient ancestors in the desert. Therefore the art pieces I created were not meant to be a one-time event that reclaims the *Mishkan;* rather, each piece is designed to inspire and help communities imagine how contemporary synagogue architecture, the Temple in Jerusalem and especially the *Mishkan* might inform the building of our sacred spaces. What will it take to reclaim the synagogue as a hierophanous space, a physical

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[21] The first instance of the construction appears in Chapter 25 of Exodus. Chapter 35 of Exodus follows the earlier prescsriptions almost exactly.

[22] Biderman, 27.

[23] Perhaps, as is the case with Steven Speilberg's *Raiders of the Lost Ark,* the *Mishkan* has a secret, buried location. Another option, as the film suggests in its ending, is that the *Mishkan* is locked away in a nondescript wooden box in a government warehouse filled with nondescript wooden boxes. This popular movie emphasizes how deep the *Mishkan* has actually penetrated western consciousness.

[24] Yosef Hayim Yerushalmi, *Zakhor: Jewish History and Jewish Memory* (Seattle: University of Washington Press: 1996), 109.

manifestation of the holy? To paraphrase Diana Eck, "this project is not constructing the sacred, itself, but enabling us to see it... training the eye to see, training the soul to deep seeing."[25] It is my hope that the art pieces will be more like a counter memorial, one that opens the obligation of memory to the viewers, forcing them into an active role. Many of the pieces therefore, require the viewer to move around, put their hands on, or physically move them. The pieces are designed so that viewers will not stop and look at them for 5 to 10 seconds, rather they will be curious enough to touch, goading their mind to wonder, "What is the reasoning behind this piece?" This will force them to investigate how I titled the art piece, and the main message that can be learned from studying the *Mishkan,* the Temple, and synagogue architecture.

All three institutions are about one main thing: relating and connecting to that which is beyond our reach. The *Mishkan,* the Temple and synagogues are all about connecting to God directly. The sanctuary, filled with all its ritual and worship, attempts to find that elusive ladder that allows humans to climb towards the heavens. In written and spoken language, we understand that God's attributes and characteristics are truly ineffable. They are not something we can express easily with our paucity of words. Is it possible then, to express the ineffable through another mode of human expression? Perhaps these architectural and artistic endeavors can achieve an inspirational status. By consciously setting up our sacred spaces, using the lessons learned from our historical architectural innovations, we might better climb the ladder.

[25] Diana Eck, "Temples of Light," in *Constructing the Ineffable: Contemporary Sacred Architecture,* ed., Karla Cavarra Britton (New Haven: Yale University Press, 2010), 113.

Some might argue that these nonverbal expressions are the only way in which to connect those who live on earth with the Holy One that resides in the heavens. "If the ineffable is incapable of being put into words, then for it to have any representation accessible to human consciousness and experience, the ineffable will only be manifested in those forms of expression which do not rely on spoken language, such as music and architecture.[26] Since God is incapable of being encapsulated by words, additional modes of religious expression can add to constructing the ladder toward the Holy One.

All these forms of expression merely set the stage for the person to have communication with the Divine. As Chuck Pettis states it, "The space created… is receptive, like a vessel. The visitor is the active force entering and filling the vessel."[27] The architect and artist can set the stage for a holy and wholly other encounter. Rabbi Eugene Mihaly argued further regarding the design of sacred space that, "the architecture of the religious structure, the design of the sanctuary, of the art, of the eternal light, the candelabra–the worshiper's experience of and response to them–are acts of prayer in themselves."[28] I intend to go even one step further. Not only are the worshippers' experience a holy encounter but the architects' and artists' *construction* of the object is a holy encounter.

Taking the time to create a sacred space/object can imbue it with inherent holiness, not necessarily dependent on a viewer/worshipper. The effort spent designing a piece can be an encounter with God. I have felt the metaphysical and ineffable presence when participating in this act of creation. It is indescribable. While taking the time to

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[26] Britton, 16.
[27] Chuck Pettis, *Secrets of Sacred Space* (St. Paul: Llewelyn Worldwide, Ltd., 1999), 172.
[28] Mihaly.

grind a piece of metal for several hours, one can find one's self in a meditative state. It is possible to reach a meditative state while working on an art piece. By creating sacred spaces, spaces dedicated to God, we enable the possibility of entering into conversation without words. This communication through a special vocabulary of line, form, light, shadow, color and space, allows the artist's creative contribution to transcend the words of liturgy, even as it is inspired, guided and controlled by them.[29]

Since constructing a sanctuary[30] applies to all generations,[31] we can apply lessons learned from the *Mishkan*, the Temple, and Contemporary Synagogue Architecture to our latest creations. According to the understanding of *Nefesh HaChaim*,[32] This means that every Jew should learn from the tabernacle that Jews can fashion a "home" for God, and that this applies to every single Jew, not only to the central Sanctuary.[33] Whether in our personal house or our communal house for God, it is hoped that the main gleanings associated with this Capstone project will inspire, teach, and connect.

The Art Piece

The main goal of sacred spaces is to create a connection to the Heavens. I decided to introduce the capstone project with an art piece that explored the relationship between our home on earth and the one for God in Heaven. This piece, therefore, would be both an introduction to, as well as a part of, the entire project and exhibition show. Using the

[29] Mihaly.
[30] This *mitzvah* can be used as an argument for constructing a synagogue as well as the future third Temple.
[31] Babylonian Talmud *Sanhedrin* 16b
[32] *Nefesh HaChaim* ("Spirit of life") was the preeminent work of Chaim of Volozhin, an accomplished scholar, Talmudist, and yeshiva founder in the late 18th and early 19th century Lithuania.
[33] Biderman, 26.

Heaven and Earth Metaphor, I pondered, “How can I make the viewer actively connect the two locations?” How can I move them from thinking about one pole to thinking about another? I decided, based on inspiration of Yaakov Agam, that I could set the words Heaven and Earth on opposed angles. This would necessitate that the reader would walk around the piece to view both words. When looking at the piece straight on, the viewer gets a glimpse of both words, but neither of them fully. It moves from solely Earth, to a mixture of the two words, and ends with Heaven (while Earth becomes obscured). This

movement is not one way, as the viewer can move back the other way. It is a continuous and fluid journey. This “model,” based upon the sacred spaces, attempts to unite the sacred space of contemporary synagogues, the Temple, and the *Mishkan*.

I also decided to incorporate some physical aspects of the *Mishkan* symbolically in the piece. Since the *Mishkan* was surrounded on all sides by the twelve tribes, I chose to cut twelve pieces of mild-steel angle-iron. This formed the basis of the “canvas.” These twelve pieces of two-foot long steel were welded together on their ends to achieve an accordion-effect. This allowed me to set “heaven” facing one direction and “earth” facing ninety degrees in another direction. The steel was finished using an angle grinder and a flap wheel to give it a polished, reflective finish. This finish provided a good contrast with the wood behind it, allowing the words “heaven” and “earth” to more clearly be seen.

I used an oxyacetylene torch to cut out the space for the letters. This fire-based tool resulted in a rough look, reminiscent of the forging necessary in the desert. After grinding the slag[34] flat, I chose to place wood behind the letters to allow the words to be easily read. For Heaven I chose to use birch and for Earth I chose to use teak. The birch has a nice, white, and airy look, representative of heaven. The brown teak is reminiscent of the mud, dirt, and rock that make up the Earth. The wood was attached to the back using a special all-purpose adhesive.

Using another component from the *Mishkan*, I custom made two support stilts. Instead of "heaven and earth" hanging on the wall, it is more portable with its own legs. It can be moved from one gallery/space to another quite easily. The walls of the Mishkan inspired the support stilts. At the bottom of each piece of acacia wood[35] were two peg-like shapes. This allowed the wood to be slotted into a metal receptacle that made the entire structure more stable. After cutting, sanding, and staining the wood, I mounted them semi-permanently to the steel. This is the introductory art-piece to the entire Capstone Project.

[34] Metal waste as a result of burning through steel with an oxyacetylene torch.
[35] Acacia wood was used in the construction of the *Mishkan*. I did not use acacia wood in any of the art-pieces.

2. Comportment
GSSSSPNDDPC

Buildings and architecture can retain an inherently sacred character. More often then not, however, the structures we create are only made sacred once we inhabit them. When we interact (or at least attempt to) with the Divine in these sacred spaces, then they truly become transcendent (or we see their transcendence). In looking at the ways in which we are to interact with the *Mishkan*, the Temple, and the synagogue, we notice that our comportment, the way we behave, is similar. We are not meant to treat our synagogue like a "regular old building." When we enter the sanctuary we are not at McDonald's or even in our own home. We are somewhere special, and our behavior should reflect that.

Let us start by examining the *Mishkan*. Was just any person allowed in the Tabernacle? No. There were gradations. The Israelites could enter the court only. The priests were the only class allowed to enter into the "holy place." Finally, the high priest was the only person allowed to enter the Holy of Holies – only on the Day of Atonement![36] Furthermore, there were restrictions on who could approach the holy at particular times.[37] The Divine is not always accessible and we should behave accordingly.

However, if individuals went to inquire of the Divine, regardless of their stature within the community, they needed to take a graduated, calculated and self-aware approach. One cannot approach a sacred object, let alone God, suddenly or *irreverently*. To do so would prove fatal. The book of Numbers implores us to act accordingly. "Do this for them that they may live and not die when they approach the Holy of Holies… so

[36] This restriction to the high priest applied in the times of the Temple as well.
[37] Lev 10:1-2, 16:17

they shall not go in to see when the holy things are being covered, lest they die."[38] Improper behavior is so dangerous it leads to death! More than moral implications, there are simply physical dangers that are associated with the power of a sacred object and a sacred space.

This behavior does not just coincide with offering sacrifices. The simple act of transporting certain sacred objects we learn can be dangerous if one does not behave properly. The instructions for bearing the sacred ark are to put staves through rings and carry it on the shoulders of the Levites.[39] What should happen if the Ark were not borne by the wooden staves according to the instruction? Again, the penalty is death. In one instance the Israelites used a cart to transport the Holy Ark instead of properly bearing the chest. The Ark began to tip and a man, Uzzah, was struck down for sticking his hand out to steady it.[40] His death was not just a punishment. It was a warning, showing that there was great power in the sacred Ark. Ordinarily God's way to punish someone is through speech first. In the instance of Uzzah, however, the power of the Ark zaps him immediately.

Other details indicate the need and commonality of behaving ourselves in a proper manner. The orientation around the *Mishkan* indicates this need. The Levite clans resided around the *Mishkan* on three sides – north, west, and south. Moses and Aaron occupied the east section. Beyond those immediate bounds resided the twelve tribes – three tribes on each side of the quadrilateral. This dictation of residency implies a special attitude. The sacred nature of the *Mishkan* requires not only a consciousness of how one acts

[38] Numbers 4:19-20
[39] Exodus 25:14
[40] 2 Samuel 6:7

within the Tent itself, but even within a certain distance. Even the way the Israelites oriented themselves outside of the structure pertained to the sacred work that might be performed within it.

As discussed earlier, the *Mishkan* and the Temple had common [or the same] restrictions regarding the behavior of the priest on Yom Kippur. That is not the only instance where the sacred monument in Jerusalem dictated a certain kind of behavior. Maimonides' exploration of the construction of the Temple highlights this special notion of comportment. He writes:

> *… when the builders [are required] to enter the Temple building to construct or repair it, or to remove an impure object, it is a mitzvah for the [craftsmen] who enter to be priests… All those who enter to repair the Temple should be lowered down inside crates [from the upper floor] (unless that's not possible b/c no crates are available)*[41]

It is understandable that every sacred space may need upkeep at some point. Maimonides notes how the act of entering the Temple for religious purposes is different from something considered a more "menial" task. The repairers of the temple should think about what they might have done that has made them impure. Even when entering the space to fix it, they still need to be pure. Furthermore, the *way* in which they enter is completely different. When a priest enters to communicate with the divine he would normally enter from the main entrance. Here, however, it is made clear that if able, the priest should use an alternative method of entry. Even though working on the edifice of

[41] Maimonides, *Mishneh Torah Hilchot Beit Habechirah* 7:23

the Temple could be considered aiding in "holy work," it is an altogether different task from that of the truly sacred/other.

Examining the regulations for the construction of a synagogue by Maimonides reveals a paucity of instruction. This is balanced out, however, by numerous ways in which he instructs Jews regarding their behavior in and around the sanctuary. First, when in synagogues and houses of study,[42] persons should conduct themselves with honor, respect them (the synagogues) and regularly sweep them.[43] When in a synagogue, a Jew needs to show *kavod* to the sacredness of the institution. How does one accomplish this? Maimonides instructs us – we respect the buildings physically. We maintain the sacred nature by sweeping them.[44] This means we make sure they are kept clean, tidy, and in good working order. One should not pass by a piece of trash in a synagogue, even if one is a visitor to this particular congregation! The instruction is incumbent upon all Jews. We further show *kavod* by our personal actions, deeds that are not necessarily directed toward the synagogue. One should not be so frivolous as to show light behavior such as laughing, joking, mocking, or idle talk.[45] Furthermore, there is no drinking, eating, dancing, or physical recreation.[46]

Like the need to enter the Temple from above, Maimonides discerns the need to pay attention to how we enter and exit holy spaces. One may not enter the sanctuary to

[42] Maimonides chose to include synagogues (*batei Knesset*) and houses of study (*batei midrash*) together. If a person is instructed to treat a synagogue in one way, it makes sense they should also treat a house of study in a similar (or better) manner. This is due to the hierarchy of holiness where a House of Study ranks above that of a Synagogue.
[43] Maimonides, *Mishneh Torah Sefer Ahavah, Hilchot T'filah v'Birkat Kohanim* 11:4
[44] Maimonides, *Mishneh Torah Sefer Ahavah, Hilchot T'filah v'Birkat Kohanim* 11:4
[45] Maimonides, *Mishneh Torah Sefer Ahavah, Hilchot T'filah v'Birkat Kohanim* 11:5
[46] Maimonides, *Mishneh Torah Sefer Ahavah, Hilchot T'filah v'Birkat Kohanim* 11:5

escape the heat in the summer or seek shelter from the rains in the winter.[47] One may not enter the synagogue *only* to call a child from study.[48] They must take the time to pray a little bit before doing any of these other things.[49] A unique problem synagogues can have that the *Mishkan* and the Temple did not was multiple entrances. While the Temple was built with an extra level (to be lowered down for repairs) it had one entrance. Synagogues could have a multitude of doors.

Maimonides takes note of this and instructs Jews against using these doors for non-sacred purposes. If *Ploni's*[50] path happens to be shorter from his house to his job through two different doors of the synagogue, he may be inclined to cut through. This is *verboten*! "If a synagogue or house of study were to have two doors, they do not make use of it as a passage, entering one door and exiting another so that it will shorten their path since it is forbidden to enter them except to do a mitzvah.[51] Clearly, in Maimonides' view the synagogue has a sacred character that demands special comportment, just like the *Mishkan* and the Temple. The penalty is not as clear in the case of the synagogue as punishment by death in some instances with the first two institutions.

In our contemporary day and age, how do we reconcile Maimonides' view of an immense, stately presence? Would he look down upon the T-shirts school children wear into the sanctuary on Sunday mornings? Would he scoff at the alternative modes of learning – yoga, painting, drama – that occur under the roof of the synagogue? I suspect he would be an unhappy man, and that he would not be alone. Solomon Zeitlin points out

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[47] Maimonides, *Mishneh Torah Sefer Ahavah, Hilchot T'filah v'Birkat Kohanim* 11:5
[48] Maimonides, *Mishneh Torah Sefer Ahavah, Hilchot T'filah v'Birkat Kohanim* 11:8
[49] Maimonides, *Mishneh Torah Sefer Ahavah, Hilchot T'filah v'Birkat Kohanim* 11:8
[50] *Ploni* is the Rabbinic, Hebrew equivalent to "John Doe," or "Joe Shmoe."
[51] Maimonides, *Mishneh Torah Sefer Ahavah, Hilchot T'filah v'Birkat Kohanim* 11:7

how there was a point in history where the Jewish masses looked upon the synagogue as a popular institution and called it "the people's house." The rabbis were greatly opposed to the secularization of the synagogue and they even said that the *am ha'aretz* were dying young because they called it "the people's house."[52]

There is no doubt some respect should be given to our houses of worship. We should not treat our sanctuaries like our bedroom. A certain amount of awe and reverence needs to be retained. Yet, we also don't want our synagogue institutions to become cold and uninviting. This leads to uninspired worship and lack of connection with the divine. It's important to remember also the changes that have come about in understandings of how humans learn, communicate, and develop. Sometimes humor is a necessary coping mechanism. At certain ages, children are hardwired to play and joke, not able to sit still with reverence. But that doesn't mean we should let loose. One possibility is to compartmentalize the synagogue. Temple Judea in Tarzana, CA separates the Sanctuaries, the places where the Torah is held, from other places.

At Temple Judea, a *parochet* surrounds all these areas letting you know you are entering an extra-sacred space. In these spaces, food is not allowed and behavior is a little bit more regulated. Food can be enjoyed in the social hall, among many other places in the synagogue. A play-yard can be set up where the seemingly boundless energy of young children can be expended. Where Maimonides speaks regarding *beit Knesset*, I interpret him as referring to the *mikdash*, the sanctuary, of the *Beit Knesset*.

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[52] Solomon Zeitlin, "The Origin of the Synagogue: A Study in the Development of Jewish Institutions" *The Synagogue: Studies in Origins, Archaeology and Architecture*, ed. Harry M. Orlinksy (New York: KTAV Publishing House, Inc., 1975), 23.

The Art Piece

I was highly intrigued to read about the lowering of the Priest by a crate. It made me think of all the ways I enter the synagogue from other doors. Sometimes it is for the betterment of ritual practice - installing speakers underneath the *bimah*. Sometimes it was for inappropriate reasons – playing hide and go seek before religious school. Some persons become so familiar with the synagogue due to their work (or a relative's work) that it is hard not to feel extremely familiar on the premises. This is not a negative thing, for it can allow the person a chance to connect to the divine, to not feel that God is so transcendent that they cannot communicate with the Holy.

The art piece is actually a "sculptural-sketch," a model for a larger idea. Inspired by the lowering of the priest, two glass pieces would be connected via a cable. One glass piece would be placed on the ground. An arm-apparatus would extend up at an angle in which the cable would rest. The second block of glass would be suspended, hanging straight down from the arm-apparatus. This would be reminiscent of one person aiding in the lowering of another into the Temple for maintenance purposes. The glass would appear to dangle precariously. It would remind us how dangerous it can be if we do not pay attention to our actions and behaviors in and around holy space. The holiness of the space can be degraded and our bodies can be injured.[53] In the case of the synagogue, we may suffer spiritually as well.

To begin the model-sketch, I began by stripping some old-copper electrical wire that was taken out of my studio when it was re-wired for my welder. After the plastic casing was removed, I twisted the copper wire to give it a braided look. The plan was to

[53] The danger of this would be more highlighted if created on a large scale.

cast two glass blocks in identical steel molds, then jam the copper into the hot-molten glass.[54] Copper is unique in that it has approximately the same rate of expansion and contraction as glass.[55] Unfortunately, during the process of annealing, the heat burned through the copper wire. Steel, while not necessarily compatible with glass, can sometimes be inserted into hot glass if it is thin enough. I cast a second set of glass cubes connected by these small steel wires.

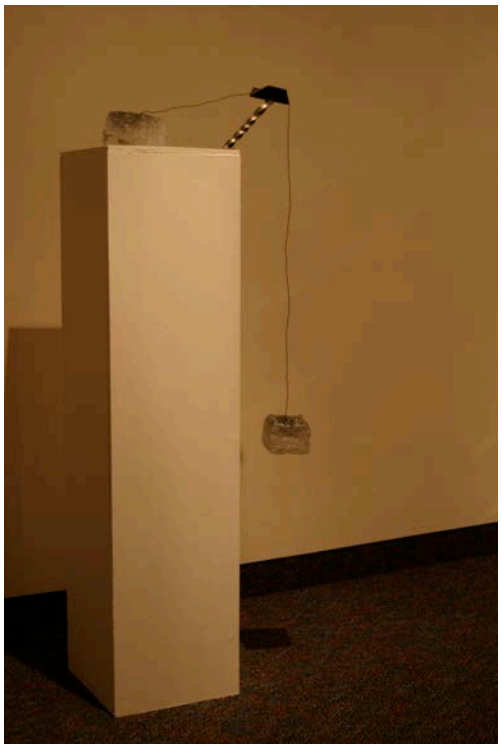
Unclear of how exactly I wished the glass to look, I made three separate model possibilities using different molds. The cleanest look of the three was a steel mold, with a clear vision through the glass. The second look came from a sand-mold. While this allowed me to play with the texture the most, I felt the blocks came out a little too flat. The third process used a wood-mold. By casting the hot-glass into a wood-mold, the edge texture becomes a unique look. It adds a depth and feel that the other two processes just didn't have. Furthermore, as the glass burns up the sides of the mold, some of the carbon becomes trapped inside the glass. I felt this process most represented the lost-nature of the *Mishkan* as well as achieved a look with which I was most happy.

[54] Glass expands and contracts significantly when it changes temperatures. When it is in molten, "cast-able" form, it's over 2000 degrees Fahrenheit. Once poured into the mold, it must be allowed to cool to a temperature closer to 1200 degrees. If it is pulled from the mold too quickly, it will not be able to hold its shape and will slump. It must then be stored in an oven, and annealed. It holds at a temperature around 950 degrees until it can slowly be brought down to room temperature. If it is allowed to stay out after casting, the glass will fracture, possibly in an explosive way. The thicker and larger the glass piece, the longer it needs to hold in the annealer, the more slowly it needs to be stepped down to room temperature.

[55] Inserting other metals, such as steel or aluminum, often results in disaster for the glass.

I found glass to be the perfect representation for the priest being lowered for maintenance in the Temple. Glass can be fragile as most people often see it. It can easily be chipped, broken, or shattered if not taken care of properly. This medium perfectly represents the frailty of our bodies. It further contains the properties of reflection and refraction. The light that shines on the glass can provide a myriad of different views and inspirational moments. So too can the light within a particular location affect the way in which a worshipper might approach the divine.

The arm apparatus by which the two glass blocks are connected is a simple design. I cut two pieces of angle iron and one piece of square bar. After heating the square bar with an oxyacetylene rosebud, I twisted the bar with a bench vise and a vice-grip to create a new look. Instead of a straight piece of square bar, it would twist and wind itself up, creating an effect that brings the eye up and down the steel. After cooling the square bar in water, I welded the three pieces of steel together. The first piece of angle iron provides a nice grip and solid foundation on the edge of the pedestal. The second piece of angle iron provides a nice track on which the connecting wire rests. A viewer can adjust the glass, if he or she chose to carefully move the two pieces of connected glass up and down, simulating the lowering of the priest. It should seem somewhat precarious to them, reminiscent of the dangers involved in approaching and interacting with a sacred space in an inappropriate way.



3. Hope for future
MMBLMBL

Architecture symbolizes a view of the world; it is an expression of its time in the self-representation of a certain culture. The shape of our cities, even today, reflects certain power structures, principally the central role of religion, and represents, so to speak, an image of the cosmos. It therefore follows that the design and construction of sacred buildings constitutes the highest challenge of architecture.[56]

Starting in the book of Genesis, our ancestors attempted to create sacred space. Noah,[57] Abraham[58] and Jacob[59] created places that represented their connection to the Divine. Each location was reflective of the person(s) who created it, their theological understanding, and the environment in which they lived. The *Mishkan*, the first communal architectural endeavor by the Israelites, was designed as a temporary and portable structure. As the Israelites wandered throughout the desert, they packed up their sacred space and brought it with them all the time. When the *Mishkan* was settled and properly built, God would allow God's own presence to dwell amongst the Israelites, settling in like a cloud on a mountain. If the *Mishkan* were reflective of the Israelites at this time, what exactly did it try to express?

Ramban, Rabbeinu Bachya, and others explained that the entire *Mishkan* and all its parts symbolize Mount Sinai. The glory that rested on the mountain in an awesomely open manifestation, with a crescendo of shofar blasts and fiery holiness would henceforth be in the Tabernacle, but in a subdued, quiet manner.[60] Just as God spoke to Moses from

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[56] Robert Klanton and Lukas Feireiss, *Closer to God: Religious Architecture and Sacred Spaces* (Gestalten Verlag: 2010), 5.
[57] Genesis 8:20
[58] Genesis 12:8, 22:9
[59] Genesis 35:7
[60] Biderman, 23.

the mountain, so too in the *Mishkan* God came to Moses from atop the ark. An interesting note about the construction of the *Mishkan* is the command to build it. “Let them make me a sanctuary, that I may dwell in them.”

As many commentators have explored, why did God say the dwelling would happen in the people, not in the structure? Like many sacred architectural achievements, the *Mishkan* was meant to inspire the people who would interact with it. The only reason a physical building had to be built was to motivate the people spiritually. The building was made of wood and stone, not inherently sacred materials.[61] The main thing is the people who inhabit the building, who must be immersed in the holiness of the divine presence, sanctifying their hearts and standing in awe of God. Such a structure is then called a sanctuary, a tabernacle, or a holy temple.[62] It does not depend on the lumber out of which it is made but on the hearts of the people who congregate in the place. If the people leave for the night, the place retains some of its sacred character. However, the persons are not there to inhabit the structure, to recognize the holiness that stands within it. A portion of the holiness comes from the way in which the people interact with the space.

Eventually the *Mishkan* gave way to the Temple. The Temple symbolized a rooted people. The tribes occupied the Land while God’s presence dwelled permanently. The structure of the Temple is reflective of this rooted people. The Temple’s layout reflected the *Mishkan* in that it was a series of courtyards leading to the Holy of Holies. The materials and scope of the building, however, were much more permanent and grand

[61] I do not believe that any raw material is inherently sacred. In order to become sacred, something has to be set apart or consecrated.

[62] MeAm Lo'ez, *The Torah Anthology: Book 9, The Tabernacle: Plans for the Sanctuary* (Brooklyn: Moznaim Publishing Corporation, 1990), 26-27.

in nature. Instead of wooden walls and curtains, which could be taken apart at a moment's notice, the Temple was made of stone. The scale of the project was significantly larger. Instead of resting wherever the Israelites moved in the desert, the Temple was built on Mount Moriah, the place of the *Akkedah.*[63]

After the destruction of the Second Temple by the Romans in 70 CE, synagogues became the primary religious Jewish structures. While there is architectural evidence that synagogues existed at the time of the Temple, they did not rise to prominence until the second destruction. Paradoxically, even though synagogues brought Jews together for centuries, they were a constant reminder that the original Temples had been lost, and that all the Jews had been exiled from the Holy Land.[64]

Synagogues, like all sacred architecture, are meant to reflect both the values of the community as well as a connection to the divine. The unique aspect of synagogue architecture is its use of memory as a defining character. This sacred memory defines identity, is communal and has a dynamic concern with the future, not only the past.[65] Normally, memory for a person recalls something that happened in the past. However, the Jewish person remembers that the Exodus is his or her story, recalling the deliverance of the past, but also hopes for that same deliverance in the community's future.

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[63] The importance of the *Akkedah* cannot be understated. Numerous books and interepretations have been created regarding the meaning of this seminal event in the history of the Jewish People. The incident, as related in Genesis 22, tells of how Abraham accepts the divine command and almost sacrifices his son. It was a site of revelation, and receives a name reflective of this place's new sacred nature. In verse 14, Abraham names the spot *Adonai yera'eh*, literally "it shall be seen." God's presence can be seen on this particular mountaintop.

[64] Henry & Daniel Stolzman, *Synagogue Architecture in America: Faith, Spirit, & Identity* (Australia: The Images Publishing Group Pty Ltd, 2004), 21-22.

[65] Miroslav Volf, "Architecture, Memory, and the Sacred," in *Constructing the Ineffable: Contemporary Sacred Architecture*, ed. Karla Cavarra Britton (New Haven: Yale University Press, 2010), 64.

Therefore, sacred buildings become "not only 'a space of experience' (the past made present in memory), but also a 'horizon of expectation' (the future made present in the same memory)."[66]

Are synagogues monuments to/for the people that build them? Perhaps, even when intended as temporary. According to the article, *Nine Points on Monumentality*, the number one distinguishing characteristic of monuments is that "they are intended to outlive the period, which originated them, and constitute a heritage for future generations. As such, they form a link between the past and the future."[67] By this standard synagogues are temporary and create an institution that lives in multiple moments at once. While the building may be made out of hardy materials in order to last, it is also temporary.

To build a building is in line with the statute given by God in Exodus. "In the tent of meeting, outside the veil that is before the testimony, Aaron and his sons shall set it in order, to burn from evening to morning before Adonai. *It shall be a statute forever throughout their generations* on behalf of the children of Israel."[68] By building a synagogue to inspire connection for both generations present and future, architecture can attempt to transcend a particular moment. When sacred spaces are created, mythic time is able to repeat itself. Just as we stand at the Sea daily, not just at the singular moment in the Torah, so too can we create transcendent times. This attempt to explore the meaning of our history, both past and future, is in line with the Talmudic rabbis, who strove to interpret it for their own and future generations.[69]

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[66] Volf, 64.
[67] J. L. Sert, F. Léger, S. Giedion, Nine Points on Monumentality, (1943).
[68] Exodus 27:21
[69] Yosef Hayim Yerushalmi, *Zakhor: Jewish History and Jewish Memor*y (Seattle, University of Washington Press: 1996), 18.

Being rooted in particular times can be seen by the acquisition of national styles. In whatever place Jews have existed, they erected sacred structures that took into account the local styles. In Poland, for instance, a large number of wooden synagogues existed[70] reflecting the main construction material in that part of Europe at the time. Just as important as the influence of national styles on synagogue design in recent centuries, however, has been the influence of particularistic Jewish concerns. What cannot be understated, especially when looking at certain historical architectural achievements, was the power messianic faith once imbued in both the Jewish past and future.[71] While Jews were considerate of and concerned with fitting seamlessly into the local architectural environs, they at the same time did not lose sight of the Jewish identities of the congregations for whom they built.

An example of this affinity for messianism was the port Jews of America.[72] Designers of synagogues often used Solomon's Temple as a model. This use of the Neo-Solomonic order reflected how the building of synagogues in the New World predicted the arrival of the Messiah and the erection of the Third Temple.[73] The liturgy already reflected the messianic impetus. However, building synagogues in this manner also reinforced the relationship between architecture and redemption! To imitate the holy structures and its proportions was to attempt to make a dwelling place for God and his redemptive, purifying light. [74]

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[70] Prior to World War II. A large number of these wooden synagogues were destroyed either by war or by pogrom.
[71] Yerushalmi, 95.
[72] Laura Leibman, "Sephardic Sacred Space in Colonial America" from *Jewish History* (2011) 25:13-41, 13.
[73] Leibman, 24.
[74] Leibman, 24.

Touro Synagogue in Newport, Rhode Island was one such example. The structure was built according to Ezekiel,[75] with the future dimensions of the synagogue being 100 units. Thirty seven units from the front was the place of the veil, separating the Holy of Holies from the main courtyard. In Touro Synagogue, the *tevah*, the place where the Torah was read aloud, was placed right at this demarcation. Furthermore, the structure used columns, like those in the courtyard of the Temple, as well as an elevated women's section, presumably as the courtyard once had. The Touro building was dedicated on the second day of Hanukkah in 1763, thereby highlighting the analogy between the foundation of the synagogue in Newport and the reclaiming of the Second Temple in Jerusalem.[76]

Synagogue construction can be a dynamic symbol of a thriving contemporary Jewish life. While they are most important to local communities, Jewish institutions have never been permanently tied to any one neighborhood, single building or resident population.[7778] One particular example of this is the Jewish community of New Orleans. Within the city, at least three distinctive geographical shifts have been made throughout the history of the area. This reflects that while the sacred spaces of Jews are important, their portability is only somewhat "less moveable" than that of the *Mishkan.* Furthermore,

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[75] Ezekiel 40.

[76] Leibman, 26.

[77] Susan G. Solomon, *Louis I. Kahn's Jewish Architecture: Mikveh Israel and the Midcentury American Synagogue* (Lebanon, NH: University Press of New England, 2009), 15.

[78] That being said, there are communities that are tied to particular locations, in regards to both their physical location as well as their congregational identity. An example of this would be Wilshire Boulevard Temple in Los Angeles, California. Even though the Jewish community has moved around the greater Los Angeles area, the synagogue has retained its site. Not every synagogue moves, but the ability exists if the congregation chose to do so. Another example may be "Rockdale Temple" in Cincinnati that is actually located on Ridge Road (instead of Rockdale).

just as parts of the *Mishkan* were incorporated into the construction of the Temple, recreating older buildings or reusing parts of former sanctuaries has often had strong currency.[79] Temple Judea in Tarzana, California, for example repurposed some of the stained-glass windows when they rebuilt their main sanctuary.

Unlike the tabernacle and the temple, synagogue buildings have long fulfilled three main functions. All three of these are reflected in the Hebrew used for the name. Synagogue has been called *beit knesset*, a house of assembly. This illustrates that the synagogue was a place for people to meet, the place for the community to gather. The second function a synagogue has fulfilled is as a house of prayer and worship, a *beit t'filah*. While personal prayer is certainly an important piece of an individual's Jewish life, the rabbis have always stressed the importance of the power of a group of pray-ers. The third function that a synagogue has fulfilled is that of a *beit midrash*, a house of study.[80] Just as important as these three functions, however, synagogues are also a *mivnei simli*, symbolic structures fraught with meaning. A synagogue building often acts as a concrete representation of the character and condition of the Jewish community.[81]

Just as ritual committees can make choices about the prayer service that is reflective of the community, so too can the building committee figure out how to express the values that particular congregation embodies. While the building may be made of concrete and set in a particular location, the people move in and out of it, move with in the structure itself. I sought to create an art piece that was reflective of this paradox of

[79] Solomon, 91.

[80] Midrash has many interpretations and meanings. The root *daled-resh-shin* is reflective of seeking after something, in this case God.

[81] Lee Shai Weissbach, "Buildings Fraught with Meaning: An Introduction to a Special Issue on Synagogue Architecture in Context" from *Jewish History* (2011) 25:1-11, 1.

motion and permanency of an institution that is in one location, in many locations, and waiting to become something more in the world to come.

The synagogue is a Diaspora institution that thinks it is permanent. The synagogue is similar to the *Mishkan* for the following reason. The *Mishkan* was designed as a structure for a people not yet settled in the Land. This sacred construction eventually gave way to the holy Temple, *Beit HaMikdash*. Similarly synagogues *should* eventually give way to the future Temple.[82] The *Mishkan* was a symbol of the wilderness. Synagogues are a symbol of the community but also of the Diaspora. They take on unique characteristics of the architecture in the lands in which they are constructed. However, in the end all this should give way to a new future.

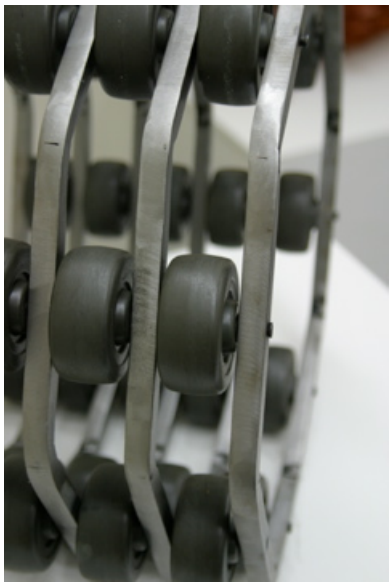
The Art Piece

How could I best represent the gleaning that synagogues are both temporary and permanent, that they can represent both the congregation in its present state as well as a

[82] Although historically, Reform Judaism did not necessarily highlight this thought process. In fact, by naming their institutions with the word Temple, they emphasized the centrality and the permanent nature the synagogue held in Jewish Life. "Rabbinical Judaism posits the coming of a personal Messiah; Reform Judaism, rejecting this, teaches the coming of the Messianic age of universal peace… the thought of priesthood of the whole people of Israel has been substituted for the priesthood of the families of Aaron, so has the belief in the Messiahship of the people displaced the traditional faith in the advent of the individual, personal Messianic king… they do not expect or long for a Messiah who will lead the Jews back to Palestine, but regard the country to which they belong either by birth or citizenship as their only fatherland." David Phillipson, *The Reform Movement in Judaism* (United States: Ktav Publishing House, Inc., 1967) 5-6,118. This stands in contrast to many Orthodox congregations, recognizing the temporary nature of their synagogue, who frequently used *different* words to signify the location of a Jewish community and sanctuary. (*Knesset*, *anshe*, congregation, *adas*)

future filled with hope? I began to ponder the creation of something that moved, yet went nowhere. What sort of object could I create that was both mobile and immobile at the same time? It could look like it was able to move, waiting for something to happen to it. I began to sketch with circles, playing with the way in which an art piece might be dynamic, yet static at the same time. I created a design that had circles within circles, a form which could rotate, roll, and be ready to go somewhere, yet sat still, waiting for some greater force to push it towards the future.

I constructed 6 frames made of 3/8" mild steel square bar. Each 6-inch piece was



cut on an angle so that an octagon would be formed when the pieces were welded together. The center of each side was drilled through so that a steel rod could be threaded through the 6 frames to act as an axle. Each axle has 5 hard-anodized rubber wheels resting on it, for a total of 40 wheels within the entire piece. Due to the construction materials, the piece is quite heavy. It looks as if it should move, however, it would require a great amount of inertia to get started. Just as the future world will be signaled by a great event, the coming of the Messiah, so too does this piece need a ton of energy to get it started.

The piece is designed to sit either on a pedestal or inside a structure so that it can move, yet it does not actually go anywhere. The key word being "yet." The energy of this piece makes it want to jump out of its encasing, fly right off the pedestal.[83] It's ready and

[83] This need for movement can be seen in the marks that appear on the top of the pedestal. It was obvious while it was on display, that viewers had been putting their hands on the piece, rolling it around just in that short space.

waiting, seeking to be released at some future time. It is mobile, yet it is immobilized. This also reflects the tension of an individual and the community, a tension that is fraught in the design of every single synagogue. How does the architect design a structure that enhances the feeling that a particular person is a part of the group, but the same time remain separate and individual in the presence of God? [84]

The piece is intended to inspire those who build their buildings to think symbolically. How can we create a building that is more than just a building, but becomes a vital monument? To achieve this, to become more than concrete, the construction needs to express the feeling and thinking of a collective force–of the people who are represented by it.[85] Then the building can become more than a building. It can become a place of vibrant life existing in the past, present, and future time.

[84] "The Architect as Liturgist," Eugene Mihaly, Prof. of Rabbinic Literature and Homiletics, Hebrew Union College–Jewish Institute of Religion, Cincinnati, Ohio (address delivered at 1974 national interfaith conference on religion and architecture, Cincinnati Ohio, April 1974)

[85] Sert, Léger, and Giedion.

4. Direction, Place, Orientation

LGHTWRDS

In 1998, URJ Camp Coleman completed construction on and began using a second outdoor chapel. Unlike the chapel by the lake,[86] which faced east (quite memorable on Saturday mornings for the sun shone directly in the campers' eyes), the chapel in the forest[87] faced the southwest. This proved problematic at times when the congregation stood and bowed. During the *Barchu* and *Aleinu*, inevitably a group of people turned their backs to the ark to face east. Sometimes a visiting faculty member or songleader would try to reconcile the issue, but no satisfying answer emerged. Camp Coleman is one of many Jewish institutions that has grappled with the notion of sacred direction and orientation.

However, before exploring the relationship between the *Mishkan*, the Temple, and contemporary synagogues, we need to confront the difference between orientation and direction. Etymologically, orientation signifies simply a turning toward the east. We are concerned not only with the east, but also with the west, the north and the south. No direction or location stands independent of another direction or location. Furthermore, given God's power, the Divine has the ability to imbue directions other than the east with holiness. This leads to the question, "is there a hierarchy of directions? Furthermore, what happens when one stands at the center – does East still hold a special significance? In other words, where would one face if he or she were to stand at the Holy of Holies, in the absolute center?

Sacred direction becomes a balance between the worshipper and the deity. In the temples of old the sacred direction was related not to the worshiper, but to the deity that had the temple as its abode. The direction was rendered sacred by the deity's looking

[86] Now named the Hillman Chapel.
[87] Now named the Strauss Family Chapel.

through the portal.[88] However, in our case God moves. The Holy One resides somewhere else (in the heavens) but comes to dwell with and amongst the people of Israel (at least for a time). Another way to understand this is from the human perspective. The Tabernacle was the place where the community could serve God tangibly. This action creates a center, and this sacred spot is saturated with power. Even when at the center, however, sacred direction still comes into play.[89]

When God's perceived glory, or *kavod,* filled up the tent of the *Mishkan*,[90] how did sacred direction come into play? The tabernacle became the Torah's primary focus immediately after the revelation at Sinai. To some interpreters of tradition, such as Franz Rosenzweig, the building of the Tabernacle becomes the goal and pinnacle of the Pentateuch.[91] Much of its physical structure is modeled after the revelatory elements that comprise the revelation.[92] The Holy of Holies is always set up in the east.[93] Presumably when the Israelites camped, they did so with the same three tribes per side.[94] Does this

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[88] Franz Landsberger, "The Sacred Direction in Synagogue and Church" *The Synagogue: Studies in Origins, Archaeology and Architecture,* ed. Harry M. Orlinksy (New York: KTAV Publishing House, Inc., 1975), 182.

[89] As in the case with the *Mishkan* and the Temple, the approach to the altar was built on a specific side. For the Temple, the altar had a ramp on the south side, meaning that direction had a special relationship that the other directions did not. Maimonides *Mishneh Torah hilchot Beit HaBechirah* 2:13

[90] Exodus 40:34

[91] W. Gunther Plaut, ed., *The Torah: A Modern Commentary, Revised Edition* (New York: URJ Press, 2005), 543.

[92] Joshua Berman, *The Temple: Its Symbolism and Meaning Then and Now* (New Jersey: Jason Aronson, Inc, 1995), 163.

[93] Vincent Scully, "The Earth, The Temple, and Today," in *Constructing the Ineffable: Contemporary Sacred Architecture,* ed. Karla Cavarra Britton (New Haven: Yale University Press, 2010), 28.

[94] To the East: Issachar, Judah, Zebulun. To the West: Manasseh, Ephraim and Benjamin. To the North: Asher, Dan and Naphtali. To the South: Gad, Reuben, and Simeon. The Levites, including Moses and Aaron's sons, camped immediately surrounding the *Mishkan*, forming a barrier of sorts between the rest of the Tribes and the Tent. For an

mean the tribes in the east held special favor in the eyes of God while those on the west side were "furthest" from God? Possibly.[95]

The *Mishkan's* orientation toward the east represents one argument for creating synagogues where the sacred direction the worshippers face is east. Synagogues, in orienting themselves in such a direction can be a reflection of the first communal, sacred building project. In all likelihood, a similar plan was attached to the Temple of Solomon, with the portal of the Temple facing toward the east.[96] This direction had no relation to the worshipper, however. The arrangement served, in all probability, to let the sun, at a certain early hour on sacred days to penetrate into the Temple and shine upon the Ark of the Covenant where it was deposited.[97]

With synagogues, even though they existed at the time of the Temple, it was otherwise. The synagogue was not the dwelling place of the deity in the way that God's glory inhabited the *Mishkan* or The Temple of Solomon.[98] The synagogue was a

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illustration see W. Gunther Plaut's *The Torah: A Modern Commentary, Revised Edition* (New York: URJ Press, 2005), 898.

[95] Different texts make reconstructing the exact placement of the tribes confusing. Further confusing the issue is the blessing Moses bestows upon the tribes at the end of the book of Exodus. Exodus 33:12 states, "Of Benjamin he said: Beloved of the Eternal, He rests securely beside [God], Who protects him always, as he rests between God's shoulders." He was so called beloved because the Jerusalem Temple was located in its territory. Plaut, 1422. However, in the layout of tribes outside the *Mishkan*, Benjamin is in the west.

[96] Ezekiel 43:1-4 *Then he led me to a gate, the gate that faced east. And there, coming from the east with a roar like the roar of mighty waters, was the Presence of the God of Israel, and the earth was lit up by His Presence. The vision was like the vision I had seen when I came to destroy the city, the same vision that I had seen by the Chebar Canal. Forthwith, I fell on my face. The Presence of the Lord entered the Temple by the gate that faced eastward.*

[97] Franz Landsberger, "The Sacred Direction in Synagogue and Church" *The Synagogue: Studies in Origins, Archaeology and Architecture*, Harry M. Orlinksy, ed. (New York: KTAV Publishing House, Inc, 1975), 182.

[98] As noted in Ezekiel 10:18.

community house, with its chief function being to serve as a place of prayer for a large assembly of people. If the sacred direction of the Temple might be called theogenous, that of the synagogue, by pointing a way for the worshiper, should be called anthropogenous.[99] Interestingly enough, the development of ancient synagogues shows a complex struggle regarding sacred orientation, some of which is based upon the Temple.

The earliest type of synagogue, found mainly in the Galilee and on the Golan, was a building with a sumptuous façade containing three entrances facing the direction of Jerusalem. There were two rows of columns and the hall was bare of ornament. There was yet no shrine for the Torah-scrolls. Instead, they were brought into the room in a receptacle as needed.[100] It seems that the rest of the congregation stood with their backs to Jerusalem facing the elders, who were supposed to transmit the prayers of the community in the direction of the Holy city. In later Diaspora synagogues, on the other hand, the buildings point towards Jerusalem and their entrances face the opposite direction.[101]

In the second or transitional group, new layouts were erected so that the entrance and the direction of prayer should not be oriented in the same way: that is, towards Jerusalem.[102] The last group, built on the basilica plan, contained a long hall divided into nave and aisles by two rows of columns, ending in a semicircular apse pointing toward Jerusalem. The Torah-Shrine was placed in the apse pointing toward Jerusalem.[103] If

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[99] Landsberger, 240.
[100] G. Foerster, "Notes on Recent Excavations at Capernaum (Review Article) " *The Synagogue: Studies in Origins, Archaeology and Architecture*, ed. Harry M. Orlinksy, (New York: KTAV Publishing House, Inc, 1975), 97.
[101] Foerster, 108.
[102] Foerster, 98.
[103] Foerster, 98.

placed in the Golan and the Galilee, this would mean that the synagogues actually faced *southwards,* not necessarily directly east![104] One distinct difference regarding synagogues was their proliferation. While the *Mishkan* was portable, there was only one. Similarly, only one "true" Temple stood at any given time. Synagogues as a sacred space interact with the world in a completely different manner than its predecessors.

Louis Finkelstein argued, however, that while the Temple stood as a place to offer sacrifice, this served as a secondary function in the sacred structure. According to Finkelstein, its first and most important function was to serve as an avenue through which human prayers might come to God.[105] The offering up of prayer has continued to be one of the main functions of the Synagogue, even at the time of the Temple's existence. There is evidence that people in ancient Israel prayed anywhere they felt appropriate and called, particularly in public squares in the open area.[106]

Once the Temple was destroyed, God's presence and the nature of the Divine's dwelling changed.[107] This is highlighted by a few selections from the Talmud. The rabbis sought to bring the theogenous[108] into an anthropogenous space, which would highlight

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[104] Synagogues in North Africa, Europe, and America have usually faced east, while those of Babylonia and Asia Minor have faced west. Walter Jacob, "18. Orientation of the Synagogue, 1979" in *American Reform Responsa: Collected Responsa of the Central Conference of American Rabbis 1889-1983*, ed. Walter Jacob (New York: Central Conference of American Rabbis, 1983), 61-62.

[105] Louis Finkelstein, "The Origin of the Synagogue" *The Synagogue: Studies in Origins, Archaeology and Architecture*, Harry M. Orlinksy, ed. (New York: KTAV Publishing House, Inc, 1975), 6.

[106] Folberg, 167.

[107] Although Jerusalem's importance, especially regarding individual prayer, did not necessarily dissipate. Even if one is riding a horse and does not have time to dismount, he should direct his eyes or his heart toward the city. (*Berachot 30a*)

[108] Temples in ancient days were believed to be theogenous. In this worldview, the temple was a portal to and from the native home of God. Synagogues, however, were focused on the human. The Jewish God did not (nor ever) existed in a finite space.

how the synagogue interacted with the *Shechina*, the dwelling presence of Adonai. Before continuing, it is important to note that the *Mishkan* and *Shechina* share the same tri-root letters of *shin, chaf, nun*. The first selection from the Talmud reads as follows:

> *Where [is the Shechina] in Babylon? Abaye said: In the synagogue of Huzal and in the synagogue Shaf-weyathib in Nehardea… "Yet I have been to them as a little sanctuary (Ezek 11:16) R. Isaac said: This refers to the synagogue and houses of learning in Babylon. R. Eleazar says: This refers to the house of our teacher in Babylon. Raba gave the following exposition: what is the meaning of the verse "Lord, thou has been our dwelling [*ma'on*] place?"(Psalm 90:1) This refers to synagogues and houses of learning. Abaye said: Formerly I used to study at home and pray in the synagogue, but when I noticed the words of David, "O Lord I love the habitation [*me'on*] of thy house,"(Psalm 26:8) I began to study also in the synagogue.*
>
> *- Babylonian Talmud, Megillah 29a*

Parsing this quotation out, we find the Talmud comparing the synagogue directly to the Temple. Using a quote from Ezekiel, it keys in on the word *mikdash* to describe the sanctuary. What is like a "little sanctuary?" Synagogues and houses of learning, of course![109] Furthermore, God's dwelling place now resides in every synagogue, every place where Jews come together to study and pray. This stands as a major contradiction to the understanding of God's resting place prior to the destruction of the synagogue. *Bava Batra 25a* also highlights how God's presence dwells within every synagogue, no longer in a single sacred structure.[110]

However, the Rabbis wished to overcome the transcendent nature of an all-powerful, all-knowing God.

[109] Houses of learning technically occupy a higher position in Maimonides' understanding of the hierarchy of holiness. "It is permitted to make a synagogue into a house of study, but a house of study cannot be made into a synagogue since a house of study is more sacred in sanctity than a synagogue and we raise to a holier use but do not lower…" Maimonides, *Mishneh Torah, Sefer Ahavah, Hilchot t'filah v'birkat kohanim* 11:13.

[110] R. Oshaia expressed the opinion that the *Shechinah* is in every place. For R. Oshaia said: What is the meaning of the verse, "Thou art the Lord, even thou alone; thou hast made heaven, the heaven of heavens, etc?" Thy messengers are not like the messengers

Berachot 31a may be most useful in understanding the complete rejection of the concept of one direction known as the resting place of God.

> *Our Rabbis taught: When a man prays, he should direct his heart to heaven. Abba Saul says: A reminder of this is the text, "Thou will direct their heart. Thou will cause thine ear to attend." (Ps 10:17) It has been taught: Such was the custom of R. Kaibab: when he prayed with the congregation, he used to cut it short and finish in order not to inconvenience the congregation, but when he prayed by himself, a man would leave him in one corner and find him later in another, on account of his many genuflections and prostrations.*
>
> *- Babylonian Talmud, Berachot 31a*

Here, a new sacred direction is introduced. No longer do we have simply the four cardinal directions – east, south, west, and north. The Talmud introduces Up and Down[111] in regards to a new sacred orientation (which inherently means there are at least six main directions). A person who prays may face east, but his or her prayers will ascend to heaven in order to connect with the Divine. The Talmud further shows an example of Rabbi Akiva. He would pray, when on his own,[112] in virtually any and every direction. How should we understand this? Akiva may have been so swept up in his prayer that this happened unintentionally. Conversely, Rabbi Akiva may have done it purposefully, acknowledging the presence of God in every direction. The fact that it was the great

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of flesh and blood. Messengers of flesh and blood report themselves to the place *from* which they have been sent, but thy messengers report themselves to the place to which they are sent… R. Ishmael also held that the *Shechinah* is in all places, since R. Ishmael taught: From where do we know that the *Shechinah* is in all places? – Because it says "And behold, the angel that talked with me went forth and another angel went out to meet him." (Zech 2:7) It does not say "went out after him" but "went out to meet him." This shows that the *Shechinah* is in all places. R. Shesheth also held that the *Shechinah* is in all places because [when desiring to pray] he used to say to his attendant: set me facing any way except the east. And this was not because the Shechinah is not there, but because the *Minim* prescribe turning to the east. R. Abbahu however, said that the *Shechinah* is in the west: for so said R. Abbahu: What is the meaning of "*uryah*?" It is equivalent to *avir yah* [air of God}.

[111] Symbolically of heaven (up) and earth (down).

[112] As opposed to when he led the congregation in prayer.

Rabbi Akiva informs us that praying in a direction other than east, or other than toward Jerusalem, is a distinct possibility. Congregations do not need to be obsessed with facing east.[113] Sometimes environmental regulations or restrictions may require the ark be placed in a direction different from East. The most important value is that the congregation as a whole faces the same direction and orients their prayers together toward the Divine.

The Art Piece

I wished to play with the notion of sacred orientation and direction. It seems there is an obsession regarding the need to face the "correct" way.[114] Perhaps there is an understanding that by doing so our prayers will be more efficacious. The danger being, of course, that if we face the "wrong" direction our prayers might go unheeded. This notion seems preposterous, especially given some of our Talmudic texts reinforcing God's omnipresence. With this in mind, I pondered how architects use materials to build structures that interact with the immaterial. This presents them with quite a challenge.

Architecture that remembers the immaterial does not just sit there glorifying itself, it evokes, provokes or invites. I tried to think of ways in which I could create an art piece that would allow the viewer to become more active, a worshipper instead of simply a viewer. I wanted a piece that radiated power, but also received input from the viewer. As glass artist J.W. May pointed out, there is a big difference between domestic and sacred

[113] Although they can lead to unique architectural innovations and achievements. B'nai Israel Synagogue in Pittsburgh, Pennsylvania had its entrance in the east. As worshippers entered they followed circular, rising interior walkways that led to the actual synagogue. The Ark was placed above the exterior doorways within the synagogue. Jacob, 63.

[114] *Berachot 31a, Bava Batra 25a*

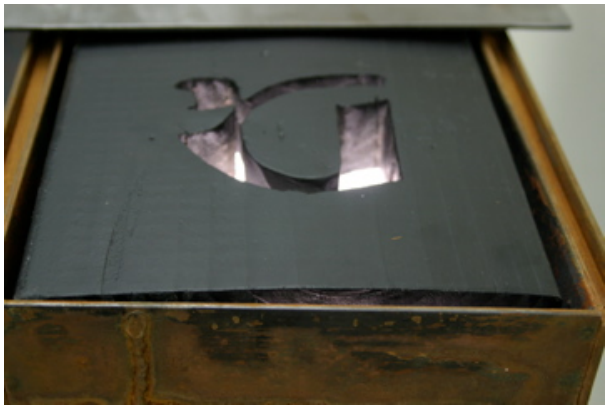
spaces. Domestic spaces are usually considered "lived-in" while sacred spaces are typically temporarily inhabited,[115] but most importantly have interaction with those who inhabit it. How could I make sure my temporarily "inhabited"[116] art piece would draw true interaction with the viewers?

Before constructing I had two pieces of art that inspired me. The first was the word *mizrach* that is often placed on the walls of domestic spaces. In various galleries and markets,[117] one can find decorated pieces of wood and metal that, when placed on the proper wall, orient a worshipper in their home. This allows them to "properly" direct their eyes and hearts toward the easterly prayer direction. The second piece of art that inspired me was a picture of a hanging missile in a gallery.[118] The spotlit floodlighting created a shadow that made a completely new shape below the pieces of art. I knew the use of light was critical to this piece.

I thought, what better way to dissect the traditional notion of sacred direction than have all four cardinal directions represented? I chose to create a wooden board with the first letters of the Modern Hebrew words[119] for the four cardinal

[115] JW May, " Ritual Domestic", 2-3.
[116] Or "viewed" in this case."
[117] Especially the *shuks* of Israel.
[118] I have been unable to find this artists and artwork to include in the thesis.
[119] Choosing the Modern Hebrew instead of the biblical designations for the four cardinal directions created an unintended consequence. A number of viewers needed to think harder

directions. A *tzadee*,[120] *daled*,[121] and two *mems*[122] were carved into a piece of pinewood with approximate dimensions of 2”x8”x32”. The four letters of the four directions would need a box with lights in them to project the lights and shadows. I decided to face the box upwards to project onto the ceiling instead of on the wall. This reflected some of the teachings of the Talmud regarding the importance of the sacred direction of the Heavens.



My immediate inclination was to build a box of steel, giving it handles, like the look of the Holy Ark. I debated, however, how likely someone might be to touch the ark, especially considering the dangerous power it contained.[123] In order to make a more inviting art-piece, I decided to design it like a more mundane construction. To achieve this effect, I took strips of 2” wide mild steel flat bar and welded them together. The pattern I created was meant to allude to the look of a brick home or synagogue. After constructing the box, the steel was painted with a rust-like patina to give it a red-orange color, reminiscent of brick.

The lights were set below the wood with the cut-out-letters to project onto the ceiling of whatever gallery space it might inhabit. When installing the four separate

[120] *Tzafon*, “north.”
[121] *Darom*, “south.”
[122] *Ma’arav*, “west” and *Mizrach*, “east.”
[123] See Chapter 2: Comportment.

LEDs, I discovered that not only did columns need to be installed on the interior of the box, but also the lights needed to be moved even further away from the carved out letters. The lights were shining across other letters, creating extra shadows and half-letters off to the side. While this was an interesting effect, it made the reading of the letters much harder.[124]

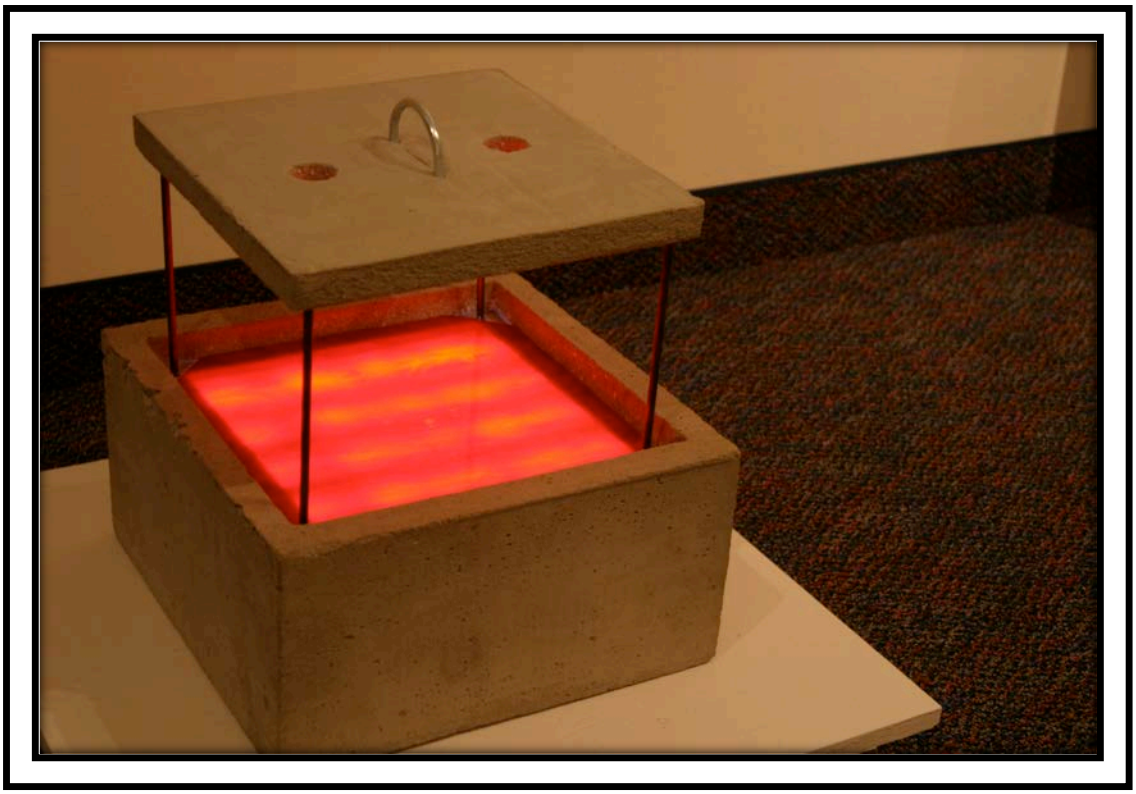
I cut and ground a steel slider, adding wheel-like assemblages so the viewers could play with the letters that appeared on the ceiling. Instead of a single word (*mizrach*) on the eastern wall, the viewer removes one of the cardinal directions by blocking the light with the steel slider. As the viewer interacts with the piece, they can decide which of the cardinal directions shall disappear from the ceiling.[125] Furthermore, the letters overlap, creating new letter combinations and some completely different light-designs. Optimally, the piece would be placed in a dark room, or section of the room. This highlights the letters even more when the they are the only light emitted into the space.

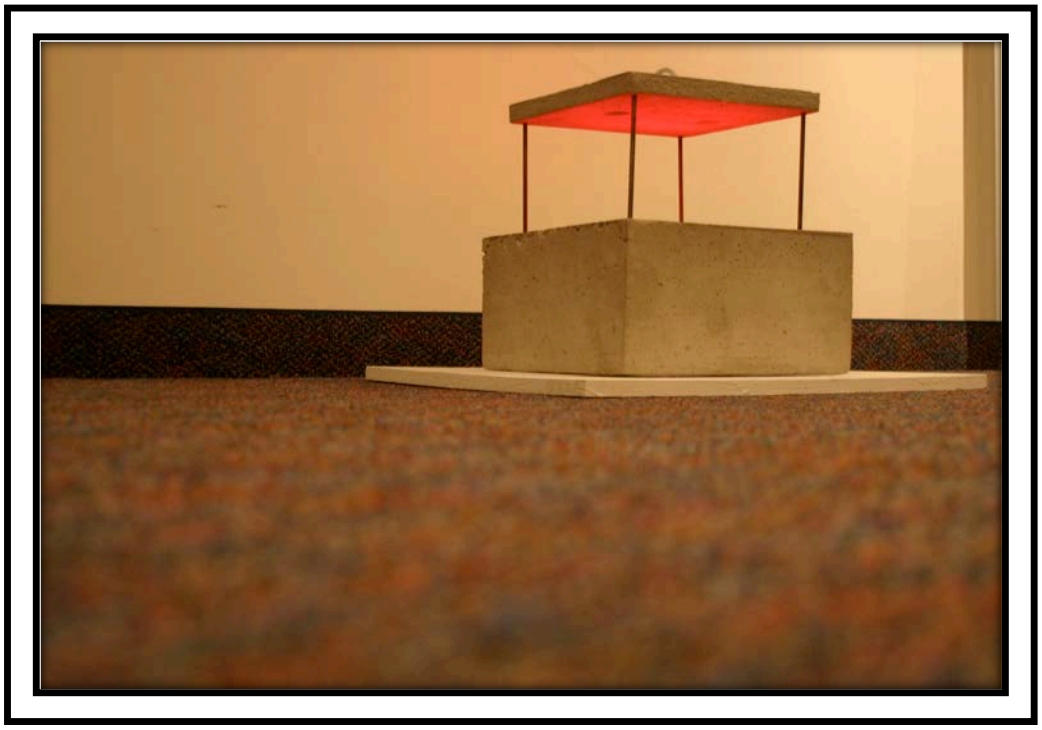
[124] This created a "happy accident" as some artists like to call it. Sometimes the process of making the art piece leads to a new inspiration and a new understanding. My original conception had the light-letters projected onto the ceiling individually. When the steel top was moved, one letter would always be blotted out. In this new version, the letters overlapped. It made it harder to read and more intriguing than just three or four letters set individually on the ceiling.

[125] Another unintended consequence: the viewers often times did not realize the light created a projection on the ceiling. More often than not the viewers I observed looked solely at the steel and wood of the piece. It was usually when they noticed the Hebrew letters were backwards that they looked up, noticing the letters on the ceiling. This prompted a second round of sliding the steel cover.

The four different variations the letters projected onto the ceiling.

5. Unusual entryways
SHTTN





Virtually every building is entered and exited from the same location. Thus, one perceives everything first in one direction, and then afterwards in the reverse direction (outside of things like museums).[126] This statement reflects the construction of the *Mishkan*. It had only one entrance point – every person approached the altar and the Ark via the same path. However, not every *thing* departed in the exact reverse direction. Blood from the animal sacrifice would drip down and be left on the ground. The smoke from the burning would ascend into the air, out the top of the *Mishkan* towards the heavens.

The Temple was similar. Maimonides describes the main features of the overall Temple complex.

> *The following elements are essential when constructing this House: a) the sanctuary, b) the Holy of Holies, c) in front of the sanctuary there should be a place called the Entrance Hall. All three together are called the Temple. We must make another partition around the Temple, set off from it, resembling the curtains surrounding the courtyard of the [sanctuary in the] desert. Everything encompassed in this partition is similar to the courtyard of the Tent of Meeting and is called the Courtyard. The entire area is referred to as the* mikdash.[127]

Just as the *Mishkan* only had one main entrance for persons to enter and exit, so too did the Temple. Unlike the *Mishkan*, however, the Temple was comprised mainly of stone. A much more permanent structure, the Temple did not have the luxury of packing up and moving. Whereas the Israelites' desert experience allowed them to move away from the

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[126] Stanley Tigerman, "The Tribe Versus the City-State: A Conundrum for the Jewish Project," in *Constructing the Ineffable: Contemporary Sacred Architecture* Karla Cavarra Britton, ed. (New Haven: Yale University Press, 2010), 142.

[127] Maimonides, *Mishneh Torah, Hilchot Beit HaBechirah 1:5*

blood and carcasses, the Temple would need a mechanism for dealing with the excess material. The blood and smoke would need to be dealt with.

The cloud of smoke created from the burnt offering necessitated a simple solution – have an opening in the roof for the smoke to ascend. However, the blood requires a more elegant solution. The blood needed to be routed somehow out of the building. Maimonides explains how there were "two holes in the southwest corner [of the Altar's base] resembling two thin nostrils."[128] They were called *shittin*. The blood would run off through them and be mixed together in the drainage canal in that corner. From there it would flow out to the Kidron River."[129] The priests would enter with the sacrifice from the main entrance, and the blood would run down through two open pipes toward the river.

However, the drainage of the blood was not as simple as water down a sink. Various parts of the animal may have traveled with the blood as it seeped out – cartilage, bone, charred wood. These non-liquid items might cause a blockage. The architects of the Temple needed to include a filtration system. Their solution was to put in the floor of the corner of the altar a piece of marble, a one-cubit by one-cubit block with a ring affixed to it. The priests would then descend there to the *shittin* and clean them.[130] The *shittin* were among several pathways of the ancient temple by which things entered and exited the holiest of holy spaces.

The blood of the sacrifice, while important, was not the only thing that arrived or departed in an unusual manner from the building. Maimonides illuminates how persons

[128] Maimonides, *Mishneh Torah, Hilchot Beit HaBechirah* 2:11
[129] Maimonides, *Mishneh Torah, Hilchot Beit HaBechirah* 2:11
[130] Maimonides, *Mishneh Torah, Hilchot Beit HaBechirah* 2:12

who come to inspect and maintain the premises must do so in a manner completely unique from the priestly sacrifice. Builders who are required to enter the Temple building to construct it, repair it, or to remove it should be lowered down inside crates.[131] [132]

We are not given a lot of information regarding "other" entranceways in the synagogue. One of the few "requirements" of a synagogue found in Talmudic literature only speaks to the entrance of more ethereal elements, such as light and air. The main thrust of the argument is that no person should pray in a room unless it has windows, since Daniel 6:11 can be quoted, "Now his windows were open in his upper chamber towards Jerusalem."[133] There isn't as much of an argument for the "other" entranceways to the synagogue as there is for the Temple and the *Mishkan*.

Maimonides notes that, when we enter the synagogue, we cannot do so simply for our own private pursuits. According to Rambam, the synagogue structure is meant to be used for a particular purpose, and one should not enter to take care of other matters. If a person enters to call his child or find someone, he should read a little bit of scripture or pray so that his entrance to the synagogue is not for his personal desires alone.[134] People also cannot cut through the synagogue for their own activities, to make their path shorter by way of the synagogue.[135] Maimonides did not indicate, however, whether a person who comes to work for, or on, the synagogue needs to behave in a particular manner.[136]

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[131] Maimonides, *Mishneh Torah Hilchot Beit HaBechirah* 7:23
[132] For more information on this action, see Chapter 2: Comportment.
[133] *Berachot 34b*
[134] Maimonides, *Mishneh Torah Sefer Ahavah Hilchot T'filah v'birkat Kohanim* 11:8
[135] Maimonides, *Mishneh Torah Sefer Ahavah Hilchot T'filah v'birkat Kohanim* 11:9. This, of course, refers to the Sanctuary-portion of the synagogue. If there are adjoining buildings, such as office space or social halls, it would seem acceptable.
[136] Whereas, a person who enters the Temple needed to do so in a very particular way.

These texts highlight the main idea that every sacred space, particularly buildings, contains a variety of entrances and exits. Since our main objective in the synagogue is to connect with the Holy one, often through prayer, there are other pathways that do not immediately come to mind. How shall electricity flow into the building? How will water be carried through pipes in the walls? Windows can have a magical and enchantingly reflective effect if considered in the construction of a holy space. All manner of elements enter the sacred space to potentially create a connection with the Divine. The *Mishkan* and the Temple challenge us to see these elements in the way that we envision a person entering into the synagogue.

Furthermore, there will undoubtedly be persons working on the maintenance and upkeep of the facilities. This too is holy work. As such, these individuals should be respected and understood in a manner befitting their sacred tasks. They may not use the "main" entrance for their job, as often times they are working behind the scenes, or moving in the shortest routes possible to get their work done. The texts on the *Mishkan*, the Temple, and the synagogue command us to treat all manner of people involved in the sacred work of the synagogue in a way that they too will care as about the space as much as we do.

When designing a space it is important to consider how symbolic associations provoked by architecture can vary widely and personally, for these associations are completely personal, not the subject of imposed narrative.[137] These architectural elements meant to set the stage for an encounter with the sacred are usually designed with one

[137] Moshe Safdie, "The Architecture of Memory: Seeking the Sacred," in *Constructing the Ineffable: Contemporary Sacred Architecture* Karla Cavarra Britton, ed. (New Haven: Yale University Press, 2010), 203-204.

particular viewpoint – the main entrance. How can we design our environment for persons who come to do "holy work" from side doors? How can we think of more than just the governmental regulations imposed upon us for how windows should be installed, choosing to also ponder the impact they can have on those who will dwell within the sanctuary? If we do not think more deeply about these entrances and exits, our attempts at "architectural achievement will become to us little more than decorated sheds devoid of deeper meaning."[138]

The Art Piece

The *shittin* block fascinated me when I first came across it. It surprised me how much sense it made. Just as we need special filters for our air conditioning units and bathtub drains, so too the Temple needed a special drain for the blood from the sacrifice! In pondering the ring,[139] I vacillated between whether it was one piece with the marble, or a second piece. I had a hard time conceiving a ring carved out of the same piece of marble with the two "nostrils" for the draining of the blood. I figured a ring with a 6-inch diameter would serve best to carry and lift this first block.

For this first prototype,[140] I understood from Maimonides' words that this was a literal block of marble. Therefore I envisioned a cube, approximately 1'x1'x1' in dimensions. I chose to use concrete in place of marble due to its availability and low cost.

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[138] Miroslav Volf, "Architecture, Memory, and the Sacred," in *Constructing the Ineffable: Contemporary Sacred Architecture* Karla Cavarra Britton, ed. (New Haven: Yale University Press, 2010), P62

[139] "Below, in the floor of that corner of the Altar, was a place, a cubit by a cubit, [covered by] a block of marble, with a ring affixed to it." Maimonides, *Mishneh Torah, Hilchot Beit HaBechirah* 2:12

[140] I did not realize at the time it would be a prototype.

Furthermore, I figured by casting the block in place around the steel ring, I would be able to have a ring attached to the block without a visible seam. I debated about using concrete color-dye for the entire block. I wanted to enliven the piece and pay homage to the blood that undoubtedly stained the marble. In keeping with my theory of creating dynamic art pieces, I figured this made the block too much of a static monument. I decided, however, that using red LEDs[141] would better reflect "the vertical nature" of the sacrifice. The red blood streamed down to the earth while the smoke of the sacrifice ascended up toward heaven. Furthermore, the viewer might be enticed to look down into the two holes, to see from where the light emitted.

After casting the block, allowing it to dry, and breaking it out from the wood mold, I discovered a massive complication in my design. The size and weight of the block proved unwieldy. I couldn't see how the *shittin* could be used in this manner. This prototype ended up weighing approximately 180 pounds, hard to move even with a handtruck! This required a re-envisioning of the piece.

As I returned to and investigated Maimonides' texts, I noticed I build a cube, thinking the piece was equal in three separate directions – length, width, and height. His text however, only said *amah al amah*, a cubit by a cubit! I came to see another way the *shittin* functioned. If it was designed like a tile - thin and square (12"x12"x1") - it would be light enough to pick up. I designed the piece with a new look so this thin tile dropped easily into another block (as if it were the floor). With a ring in the top-center (instead of in the side) a priest or maintenance person could easily pick up the tile by the ring and

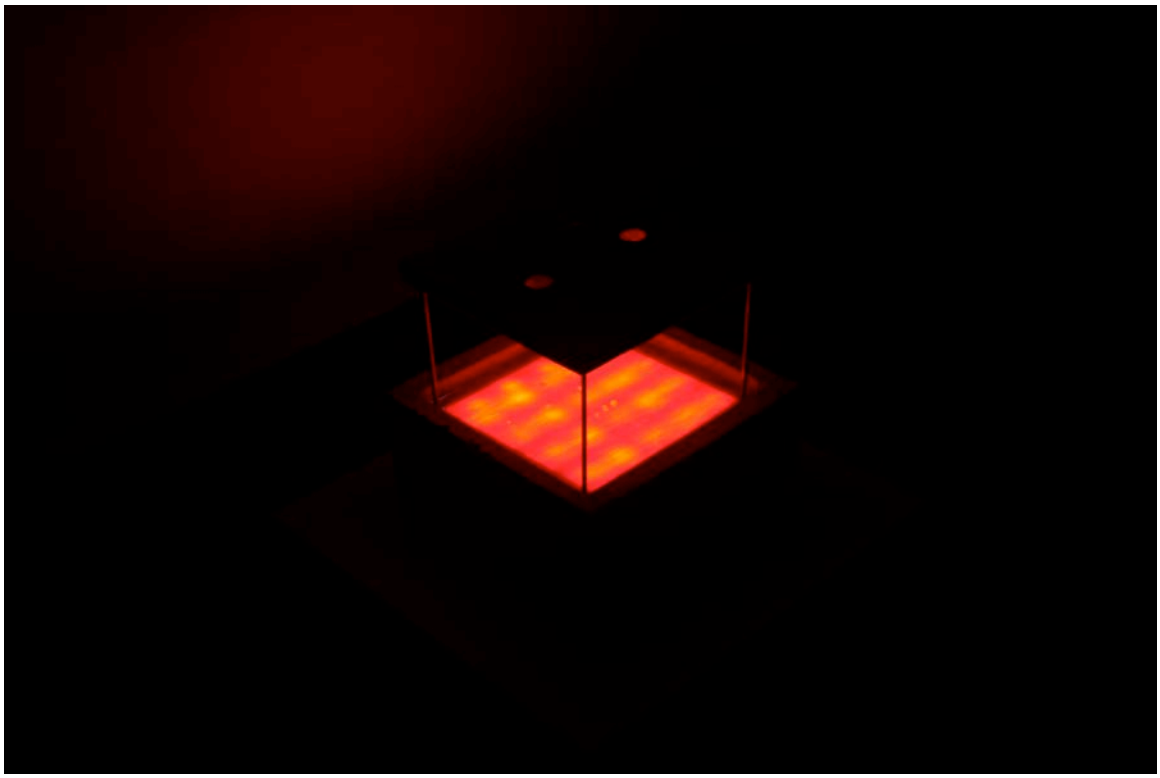
[141] Light emitting diodes

clean it off. This new two-piece prototype revealed, however, that it did not have the capability to produce a truly bright and stunning red light through these two little holes.

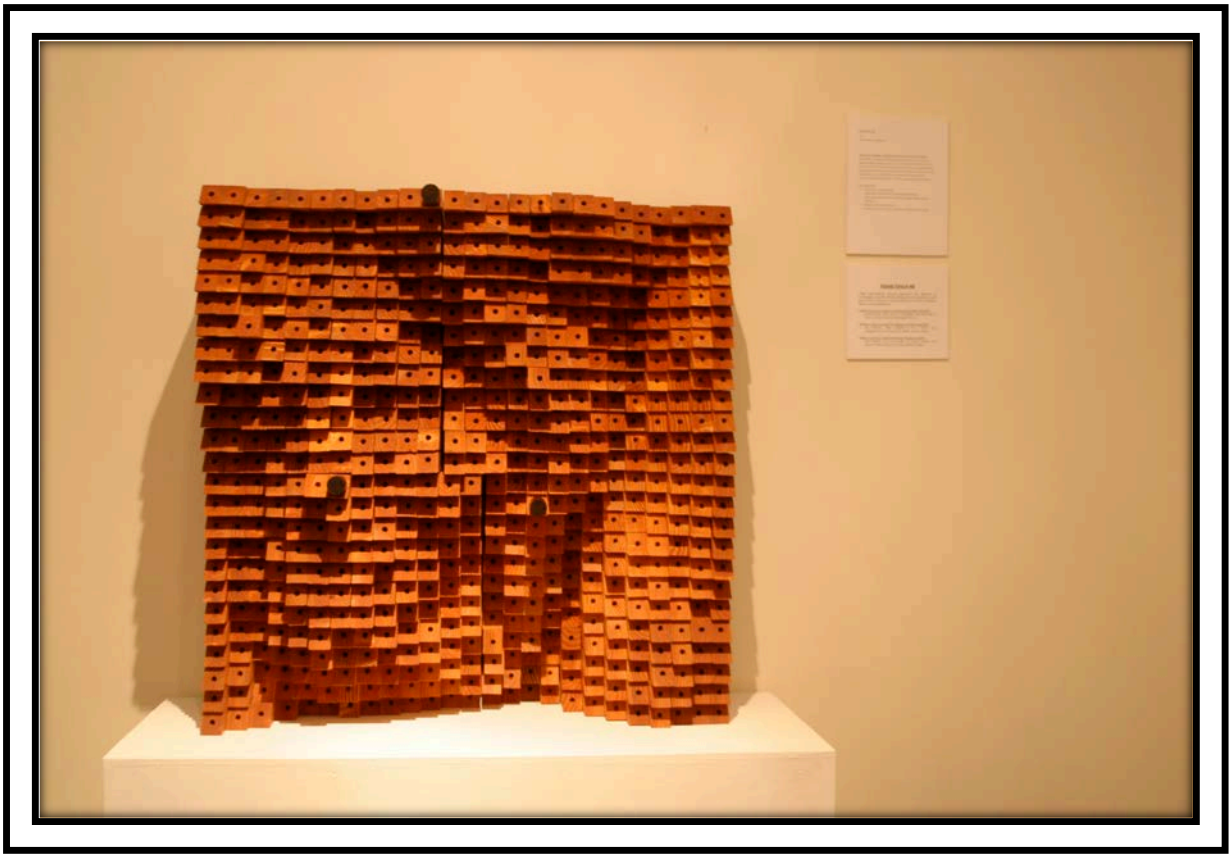
I felt compelled to pay homage to vertical nature of the blood and smoke, and began work on a third version of the shittin.[142] I crafted a special block to use as a positive mold.[143] With a shape reminiscent of the headpiece of *tefillin*, I placed it in the center wood-walled mold. Casting over top of the piece produce a shape that allowed for space for the LED lights, as well as a secondary level to place a piece of stained glass. This third model of the *shittin* involved raising the tile and creating a space for more light to emit out of the bottom block. Four holes were drilled in both the concrete block and the concrete tile (with attached ring). I cut four pieces of mild-steel round bar to go into the holes, elevating the tile several inches above the block.

I chose to use LED light-sticks instead of a rope-light or other light source that required an electrical outlet. I wanted a truly clean look for the block where, when placed on the floor, a person could walk all around it wondering, "from where does the light source find its power?"[144] When turned on, the light emits and reflects off all types of surfaces. The "nostrils" in the tile prompt many viewers to look straight down to see how the light and red glass look through such a limited viewing area. The *Shittin* block emits the light best when in a dark space, creating a truly dramatic effect.

[142] Also, the main block (as opposed to the tile) broke in the process of removal from the wood-interior mold.
[143] To create a negative space in the final form.
[144] This created a conundrum, in that as a battery powered light source, it will dim and need replacement batteries.



6. Differences in Dwelling
TPGRPHCMP



Where would you build the *Mishkan*?

Where would you build the Temple?

Where would you build a synagogue?

During the time of the Second World War, three prominent Europeans created a treatise entitled *Nine Points on Monumentality*. The historian, artist, and architect stated, "buildings cannot be conceived as isolated units… they have to be incorporated into the vaster urban schemes. There are no frontiers between architecture and town planning, just as there are no frontiers between the city and the region." In other words, location is just as important as the building itself. Sometimes geography and terrain require unique solutions or tough decisions as to how to construct a particular structure in that particular place.

In the case of the *Mishkan*, it appears that the camp could be set up virtually anywhere. The collapsible and portable nature of the A-framed tent makes it evident that the *Mishkan* was never meant to be a permanent structure, but rather a precursor to a more lasting and thick structure. As Rabbi Avrohom Biderman points out, it is a structure designed only for a nation on the move.[145] The terrain necessary for the *Mishkan* simply had to have enough space to accommodate the size of the court and its accoutrements. Once that encampment was set up, God's presence[146] descended with the Israelites. As they picked up and moved the camp, the presence departed from their midst, only to return once the *Mishkan* was reassembled. The portability of the structure was emphasized by the fact that even after the Israelites' entry into the land of Israel it continued to be a portable structure. Congruent with this fact, the Torah almost always

[145] Biderman, 57.
[146] *Kavod* can be translated as "glory."

refers to the *Mishkan* as an *ohel* - a tent. The *Mishkan* was a potent symbol of the unique relationship between God and the Jewish people. Born out of the Sinai experience, its minutiae represented a perpetuation of that event,[147] particularly the portability as representative of the nomadic experience.

The location of the Temple is the most exacting of our three religious structures. The temple was to be erected upon Mount Moriah, the location where the *Akkedah* theoretically took place, the rock where Abraham almost sacrificed his son Isaac. The geography, somewhat surprisingly, is not the highest spot in the greater area. The general blueprint of the Temple is meant to follow the shape and the dimensions of the *Mishkan*. The *Mishkan's* layout prefigured the architecture of the First and Second Temple in the sense that it contained a series of sacred spaces that were separated by interior courts and curtains.[148] The Temple's structure generally is the largest of the buildings we investigate. It was large enough that a synagogue, which became well established as a religious institution by this time, occupied a space in one of the precincts of the Temple itself.[149] Maimonides points out how immense the space must be for the temple based on mandatory elements:

> *The following elements are essential when constructing this House: a) the sanctuary, b) the Holy of Holies, c) in front of the sanctuary there should be a place called the Entrance Hall. All three together are called the Temple. We must make another partition around the Temple, set off from it, resembling the curtains surrounding the courtyard of the [sanctuary in the] desert. Everything*

[147] Joshua Berman, *The Temple: Its Symbolism and Meaning Then and Now* (New Jersey: Jason Aronson, Inc, 1995), 76.
[148] Stolzman, 26.
[149] Folberg, 161.

encompassed in this partition is similar to the courtyard of the Tent of Meeting and is called the Courtyard. The entire area is referred to as the mikdash.[150]

Like the *Mishkan*, the Temple can be referred to as the *mikdash*, the sanctuary. However, there is an addition to the name of the Temple, *beit hamikdash*, "house of holiness." This implied a more solid foundation than the *ohel* of the *Mishkan* and reflected the process of transition of Israel's ontological and spiritual ascent – a strengthening of the covenantal bond.[151] … After that bond was maximized, the only cherubim mentioned are the ones planted on the floor of the holy of holies, symbolizing the rootedness of God's presence.[152]

One should note the placement of the Temple within the dimensions of the Old City of Jerusalem. Investigating from a topographical perspective, we see that the temple is at the highest spot within those boundaries. At the spiritual center of the land of Israel lay this sanctuary. Within the sanctuary was the most sacred place - the Holy of Holies. Within the Holy of Holies – the site endowed with the greatest *kedusha* - rested the Ark of the Covenant. Bearing the tablets of the covenant at its center was the preeminent symbol of the covenant between God and Israel.[153] This was also true of the *Mishkan*, the main difference being that since it was a permanent structure, the *kavod* of *Adonai* did not depart on a regular basis from the Temple.

[150] Maimonides, *Mishneh Torah: Hilchot Beit HaBechirah* 1:5
[151] Berman, 77.
[152] Berman, 79.
[153] Berman, 12.

The synagogue, like the *Mishkan*, theoretically can be built almost anywhere, according to virtually any style.[154] It can be the smallest or the largest of the three religious buildings. Certain religious guidelines, however, have been given which may aid in determining the placement of synagogues geographically. The most notable instruction outlines how a community should place the synagogue at the highest point of a city. Maimonides illuminates for us in his *Sefer Ahavah. "When they build the synagogue they should only build it in the highest/hilliest part of the city. As it is said, "At the head of the noisy streets she calls[155]' And they raise it until it is higher than all the courtyards of the town as it is said, 'To exalt the house of our God.[156]'"[157]* His point of view is backed up by earlier sources in Jewish tradition. The Talmud emphasized this same point saying, "*Every city whose roofs are higher than the synagogue will ultimately be destroyed, as it is said 'to exalt the house of our God and to repair the ruins thereof.'*[158]"[159][160]

A great difference in the way the Divine interacts in sacred spaces of the synagogues regards the Holy of Holies. The Torah, the law given to the Israelites by *word* takes the highest precedence in the construction of the space. The physical representation of the law in the form of the tablets disappeared and was replaced by a

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[154] Synagogues never had an iconic shape or style that could identify them as uniquely Jewish buildings. Instead, Jewish architecture has followed local styles and placement rather than universal patterns of design. Stolzman, 15. This provided for a certain freedom regarding where and how a synagogue can be constructed.
[155] Proverbs 1:21. The "she" in this verse is Wisdom calling.
[156] Ezra 9:9
[157] Maimonides, *Mishneh Torah: Sefer Ahavah, Hilchot T'filah v'Birkat Kohanim* 11:2
[158] Ezra 9:9
[159] Babylonian Talmud, *Shabbat 11a*
[160] City ordinances controlled by the ruling government often prohibited this ruling from being enacted.

(new) book. This change, along with trends in contemporary culture, prompted a change in how a sacred building is used. Now it is more rational, more secularized, and emphasizes the word, the pulpit, not the altar of sacrifice.[161] This use of word, the necessity of noise for prayer, communication through verbal rituals changed the way the sacred space needs to be constructed.

The contents are not the only part of our sacred spaces to which much attention must be paid. Architecture cannot remain entirely distinct from, even oblivious to, the history it shelters; its spatial configuration is never truly independent of this history.[162] A community's history, an individual's history, or a piece of national memory, can be just as ingrained in the consciousness of the people who inhabit the building as the arrangement within the structure. Even though elements may seem to stand independently, different pieces still interact with each other, either physically or metaphorically. Therefore, every building needs to be understood in terms of spatial arrangements but in synagogues the exterior, or public, face tends to be of less importance than the interior, sacred space.[163]

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[161] Scully, 40.

[162] James E. Young, *At Memory's Edge: After-Images of the Holocaust in Contemporary Art and Architecture*, (New Haven: Yale University Press, 2000), 155.

[163] Samuel D. Gruber, *American Synagogues: A Century of Architecture and Jewish Community* (New York: Rizzoli, 2003), 12.

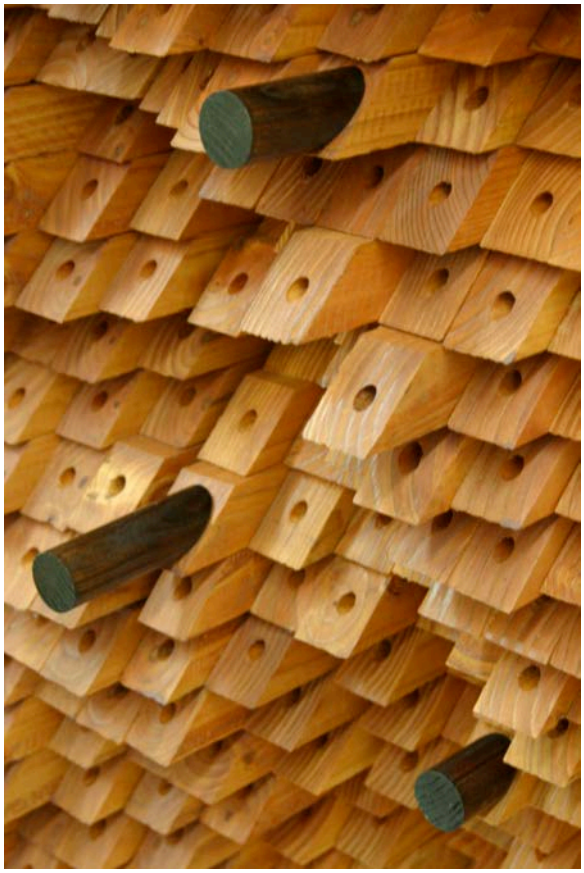
The Art Piece

One of the concepts that struck me most regarding the study of this topic was the way in which sacred spaces are integrated into their geographical surroundings. Each of the three sacred spaces – the *Mishkan*, the Temple, and synagogues – contains unique qualities regarding how they can be constructed and how they integrate with the environment. As with several other art-pieces in this project I attempted to make an interactive experience for the viewer. When a person encounters the pieces from far away, they see a beautiful texture and color. Only when they come closer do they realize there is more going on.

Highly unlikely to be known to the viewer, this art piece is a topographical map of the surrounding area of Jerusalem. I constructed it using pieces of wood that were 2”x2”. I overlaid a grid onto a map of Jerusalem and decided for every ten-feet of change on the map I would use one-inch for that piece of wood. The grid contained twenty-five rows and twenty-five columns, resulting in a total of 625 individual pieces of wood. The individual pieces were attached using exterior-wood screws built from the outside in. This resulted in a look that did not show the heads of the screws. Knowing that the total amount of wood would be quite heavy, I decided to break it into four quadrants. I created a steel frame to hold the four quadrants together, making sure it held as one piece. I decided to turn the

topographic map on its side, so that it would be grounded against a wall like a painting, instead of rising from the floor like the earth. This served two purposes. First, from the very beginning I envisioned this being a piece that was displayed head-on, as if it were a painting or drawing hung from the wall.[164] Second, being displayed on its side makes it a little unclear to the viewer that it is a topographic map of Jerusalem. I like when these surprises come in after the viewer has been looking at the piece for a while. It adds some more intrigue and depth to the piece.

Using the wood allows for a natural look much like the stone and shrubbery of Jerusalem. Sometimes when stone is cut, shards break off, producing an unsteady and unpredictable terrain on which to build. I mimic this, as well as to add some texture, the various 2”x2” pieces of wood were cut on a 45 degree angle. Because of this, the terrain became sharper, less inviting, and appeared unsteady. Furthermore this makes the viewer a little more hesitant when they reach in to place the three wooden dowels (described in the next paragraph). 3/8” holes were drilled into each 2”x2” so that the dowels can easily be moved around.



[164] Instead of being hung on a wall the piece sits on a pedestal two feet from the ground. This kept me from doing some major engineering as well as allowed me to move it to a new location much easier. As long as the piece has a wall and some floor space, it can be set up virtually anywhere.

Viewers are presented with three wooden dowels representing the three main sacred structures. These dowels are stained darker than the 2”x2” pieces of wood that make up the map to distinguish them. Furthermore, their circular shape makes them appear different from the “landscape” of the map. The viewers are prompted with the same questions as found at the beginning of this chapter. I require the viewer to ponder where they might build the *Mishkan*, the Temple and a synagogue. Included are some small details regarding the “rules” for building the sacred structures.

Regarding the synagogue, the viewer reads Maimonides’ instruction that the synagogue roof must be higher than all other roofs in the town. This would prompt the viewer to place the smallest dowel on the highest 2”x2”. A particular detail about the map is that the 2”x2” that sticks out the most is not within the confines of the Old City.[165] The middle dowel represents the *Mishkan* and simply states how the *Mishkan* was a Tent

designed for a nation on the move. This dowel can be placed virtually anywhere. The final and longest dowel represents the Temple. The piece of information the viewer is given states that the Temple was constructed on Mount Moriah, the place where Abraham almost sacrificed Isaac.

[165] Interestingly, some viewers place the dowel vertically as high as they can, rather than the piece of pinewood that sticks out the furthest.

Conflicts can occur regarding where the dowels could be placed. If the viewer chooses to insert the synagogue in the highest space within the Old City, they are forced to reconcile the fact that the Temple needs to be placed there as well. One of the curious and interesting parts about this pieces being interactive is that the pieces move. If a viewer approaches the pieces one day, several days later a person may have moved it, the sacred structures continually moving on the wooden topographic map. This adds another layer of dynamism to the piece.

7. Lots of Tensions
WRDSNWD

An examination of the *Mishkan*, the holy Temple, and the synagogue institution reveals a number of tensions or dichotomies. In some ways these tensions are not polar opposites but rather simply different interpretations of the Sacred Space. In some ways, the community incorporated the previous sacred space into their current architectural endeavor. The question then becomes, what are these tensions and how do we deal with them?

One of the unique aspects of the construction of the *Mishkan* comes from the Bible text itself. God commanded the Israelites to make an offering for the building of the sanctuary, the holy space. It is not an outright command, however, for God spoke of how each man "shall give it willingly with his heart."[166] The amount of materials the Israelites willingly gave was impressive. Bezalel and Oholiav, the head contractors, explained how "the people are bringing much more than enough for the service of the work."[167] Moses therefore commanded the Israelites to cease bringing offerings for the sanctuary since what they had was more than sufficient to make it.

Using Maimonides to look at the construction of the temple or the synagogue reveals a completely different character regarding how the people might be involved in the process of acquiring resources. Regarding the Temple, it is a positive commandment, *mitzvat aseh*, to build a house for God, *bayit ladonai*. However, unlike the *Mishkan*, not only are those who are "willing of heart" required to assist with the building of the Temple. *Everyone* is obligated twofold: to build and to assist both personally and

[166] Exodus 25:2
[167] Exodus 36:5

financially.[168] In this particular instance, Maimonides states that both men and women are *chayavin livnot.*[169] The Hebrew root *chet-vav-vet* implies a heavy level of obligation, often referencing being bound religiously. This proves that while with construction of the *Mishkan* in the desert everyone who wanted to give did so, in the construction of the Temple everyone will need to give. This obligations stands regardless of whether they would be unwilling.[170]

Maimonides also illuminated the construction of a synagogue. Wherever there are ten Israelites, they build a synagogue, and the residents compel each other to build for themselves a synagogue.[171] The second half of the line is critical to understanding the tension of the character of the sacred undertaking. The residents literally compel one another to contribute to the building of the synagogue regardless of their personal desires and willingness. This implies that people existed who would not contribute, contrary to the situation in the desert with the *Mishkan*. The Hebrew verb that says the Israelites force their fellow to participate comes from the root *chaf-vav-fay*. They figuratively

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[168] Maimonides, *Mishneh Torah Hilchot Beit Hab'chirah* 1:12. The full text reads, *In any place that there are ten Israelites in it, they need to prepare/build in it a house/place where they can assemble/meet in it for prayer for each time of prayer. So this place is called a house of assembly/meeting. And the residents of the city compel/force each other to build for themselves a synagogue and purchaseing of Torah and the Prophets and the Writings.* Maimonides does not bring a proof text from the Bible for this "forcing of another person."

[169] Maimonides, *Mishneh Torah Hilchot Beit Hab'chirah* 1:12

[170] The construction of Solomon's Temple in 1 Kings 5 highlights an interesting use of resources. Solomon's Temple was so great he required assistance from nations outside of his Israelite brethren – both in the raw materials as well as the building-work itself.

[171] Maimonides, *Mishneh Torah Sefer Ahavah Hilchot T'filah u'birkat Kohanim* 11:1

"bend" the other person (to do their will). This is in stark contrast to the Israelite in the desert whose heart was moved, *yidvenu libo*.[172]

The construction of the three main sacred spaces we examined was significantly different as were their purposes. With the disappearance (or destruction) of one particular institution, another came along to inherit a prominent position within the Jewish tradition. This inheritance, however, did not directly subsume the previous sacred structure. The Temple served a different purpose and so too the synagogue from the Temple. As historian Samuel Gruber stated, synagogues did not replace the Jewish Temple – the locus of Jewish worship in antiquity. The functions of the *Mishkan*, Temple and the synagogue were fundamentally different – ritual sacrifice for the first two, prayer for the latter. Thus, the architecture of the synagogue differs from the Temple.[173] The rules therefore that govern the type of construction vary significantly. God, as architect of the *Mishkan*, gave very specific rules. The layout of the Temple was then based on the original design of the *Mishkan*. The rise of synagogues, however, gave Jews much greater freedom to express their values through a building, rather than fulfill a template laid out for them by the Divine.

The Hebrew words used in connection with the various spaces also highlight the differences in the buildings. The root of the word *Mishkan* means "dwell." The tabernacle – even after entry into the land of Israel – was a portable structure. Accordingly, it is almost always referred to as an *ohel* - a tent. In days of the Tabernacle, God dwelled with the Jewish people. But while in the desert Israel had not yet created a social and spiritual

[172] The meaning of the root verb for the heart being moved to do so is virtually the opposite of the forcing. *Nun-daled-vet* means something "donated, given willingly, or consecrated."

[173] Gruber, 18.

order worthy of God's fullest association. His bond with the Jewish people was not yet complete. Thus, while God allied himself with the Jewish people, it was only in quarters that were temporary and transient.[174]

In contrast, the Temple was triple the size of the tabernacle, had stone walls and a roof,[175] and was consistently referred to as a *bayit* - a house. In Hebrew it is referred to as *beit hamikdash*, meaning "the holy house." What's interesting to note about the Temple's name is that it focuses on something that is holy, consecrated to God, and not necessarily related to humans. When we investigate the multitude of biblical heroes who might deserve the term *kadosh*, we find that the Bible never uses the term *kadosh* to describe them.[176] There are holy objects and holy spaces, but not holy individuals.

Even in English, the word Temple reflects this notion of being set apart. Temple comes from *templum*, meaning a space that is "cut off" or demarcated as being consecrated to the gods. A temple is a sacred edifice and a place of religious worship. Temple is also related to the words *tempus* and *temperare*, bearing the connotation of doing things at the right time. Finally, *temple* is derived from *contemplare*, meaning to view intensely or for a long time.[177] The sacred space -- the temple -- is actually the basis for all existence because it includes time (*tempus*), space (*templum*), and self (*contemplare*).[178]

The synagogue, or *beit haknesset*, means "house of meeting." This stands in stark contrast to the focus of the first two buildings – that being the divine. Both the dwelling

[174] Berman, 78.
[175] 1 Kings 6
[176] Berman, 3.
[177] Pettis, *Secrets of Sacred Space* (St. Paul, Llewelyn Worldwide, Ltd, 1999), 173.
[178] Pettis, 173.

and the holiness come from God's presence resting in those spots. The word *beit haknesset* occurs very frequently in Tannaitic literature, but is never found in the Bible. Just the word *knas*, in the sense of assembly of men, occurs for the first time in the Bible in the Exilic and Post-Exilic period. The word synagogue in the sense of a Jewish house of worship is derived from the Greek.[179] The construction of a synagogue reflects the attempt of humans to connect with the divine. However this space requires that humans fill and use it. It is not necessarily sacred on its own.

In discussing the connection of synagogue with the Temple and the *Mishkan*, one might wonder if in fact the synagogue is a replica in some way. Rather than a copy or a double, the synagogue could be a doppelgänger. Often used in literature as a haunting or evil twin-like character,[180] it literally translates as "double goer" and is often understood as "eerily similar; lookalike." Rather than simply investigating how a synagogue might physically look like the *Mishkan* or the Temple, I wish to highlight the supernatural aspect of a doppelgänger, something that strikes a chord within a viewer or worshipper.

Taking a cue from Sigmund Freud, the first part of the "double," the *Mishkan*, has not necessarily *completely* disappeared.[181] The synagogue, as a successor to both the *Mishkan* and the Temple, may be comprised from parts of the first two institutions, thereby creating a sense of connectedness. An inner sense of familiarity can arise feeling

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[179] Solomon Zeitlin, "The Origin of the Synagogue: A Study in the Development of Jewish Institutions" in *The Synagogue: Studies in Origins, Archaeology and Architecture*, ed. Harry M. Orlinksy (New York: KTAV Publishing House, Inc, 1975), 17.

[180] As was the case with Spiderman's doppelgänger, an evil and somewhat mindless eight-limbed creature which possessed many of Spiderman's physical qualities, but none of his mental. See *The Infinity War* #1.

[181] Sigmund Freud, *The "Uncanny"* (1919), 10.

reminiscent of the original, but not necessarily directly connected to it.[182] It was not intentionally imitated, but elements from it are incorporated. An example of success, and appealing to the sensitivity within a person, is the construction of the Antioch Baptist Church in Perry County, Alabama. Part of the Rural Studio Project,[183] the church was repurposed and rebuilt from 75% of the old and decrepit building. Infused with a new life, the churchgoers were able to retain continuity with the generations that had inhabited the first building, while moving forward in a new space.

Again, Freud explored this concept focusing on the German word *unheimlich.* The essential factor in the production of the feeling of the uncanny rests on intellectual uncertainty. The uncanny would always be that in which one does not know where one is.[184] In Arabic and Hebrew "uncanny" means the same as "demonic," "gruesome." But in German, the word *unheimlich* (uncanny) ends up taking on multiple roles. On the one hand, it means that which is familiar and congenial, and on the other, that which is concealed and kept out of sight.[185] Synagogues and architecture can move us to feelings of awe when it puts us in a "strange" place of both the unknown and the familiar. In other words, where Freud saw the uncanny, or *unheimlich*, Abraham Joshua Heschel saw

[182] This is one of the justifications for the use (in my opinion, overuse) of Jerusalem stone in contemporary American synagogues. The Jerusalem stone comes from Israel, reminding the congregation not only of the land of Israel, but is virtually the same material as the Temple. This is meant to place the occupant of the synagogue in a different mental state, so much so that they are transported to another place and time.

[183] An architectural program at Auburn University founded by Samuel Mockbee, The Rural studio looks to combine hands-on experience with social activism. Often, the projects work on a limited budget and look to acquire cheap, local materials while transforming them into something that looks exquisite and high-end.

[184] Freud, 2.

[185] Freud, 4. *Unheimlich* literally means "not homely; not familiar."

wonder and awe. It is when the concealed is kept out of sight, yet becomes revealed at the same time.

While we are instructed not to make a house according to the Temple's design,[186] it is possible that the architect can introduce pieces or components of our previous sacred structures. The combination of certain components can express the universal in the particular. Much like the musician and the poet, the architect and artist can help a worshiper experience the God who is beyond all place and limited space. When artistic genius touches upon the uncanny it "communicates paradoxical realities of experience… the invisible is seen; the temporal is timeless; the infinite is finite, and 'God is in his holy temple.'[187]„[188]

The Art Piece

I found inspiration for WRDSNWD in James E. Young's exploration of the Holocaust in Contemporary Art and Architecture. He wrote regarding an installation in Berlin, "how better to remember a destroyed people than by a destroyed monument? Rather than commemorating the destruction of a people with the construction of yet another edifice... mark one destruction with another destruction. Rather than filling in the void left by a murdered people with a positive form, the artist would carve out an empty

[186] Maimonides, *Mishneh Torah Hilchot Beit HaBechirah Ch 7:10*
[187] Habbakuk 2:20
[188] Eugene Mihaly, "The Architect as Liturgist" (address delivered at 1974 national interfaith conference on religion and architecture, Cincinnati Ohio, April 1974)

space... by which to recall a now absent people."[189] How might I recall some sacred institutions without simply rebuilding them?

Just as the *Mishkan* was built and rebuilt time and again, so too would this be a temporary construction that could be remade anew. I acquired some used pallets[190] from various construction sites. These pallets held materials to be used for building structures – things as simple as apartments and grocery stores. I methodically deconstructed them into equally long pieces. I used a cats paw[191] and a hammer to remove the nails, then cut the leftover pieces into 16" long flat pieces of wood. Furthermore, just as the *Mishkan* and the Temple were lost or destroyed, I tried to create a look reminiscent of this. I used the oxyacetylene rosebud torch to burn one side of each of the 16" long pieces of wood. This would call to the mind of each viewer a sense of fire and destruction.

In order to commemorate all the different tensions by building a temporary structure, I needed a way to build without adhesives. I wanted the entire piece to be held

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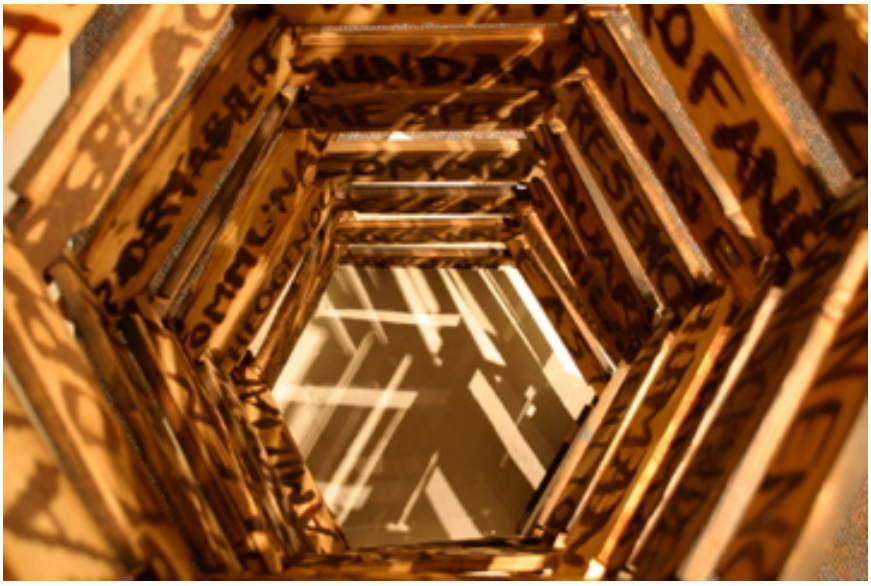
[189] James E. Young, *At Memory's Edge: After-Images of the Holocaust in Contemporary Art and Architecture* (New Haven: Yale University Press, 2000), 90.

[190] Pallets are flat, (usually) wooden structures used to transport goods in a stable manner. They allow for boxes of goods, or one heavy object, to be moved with a pallet-jack or a forklift. They are routinely found at the back of stores like Target.

[191] A cat's paw is a standard carpentry tool used for pulling nails. A metal instrument with a "v" cut into one end of the long shaft, it provides good leverage for removal.

together simply with the weight of the rest of the wood pieces. Using a jigsaw, I cut four notches into each piece of wood (two on each end). The "layers" of 3 pieces of wood notch into each other for the structure to become a vertical tower. Every time it is built and rebuilt, a new set of tensions emerges. While the pieces are designed to sit in the base of a concrete slab, the order in which the words connect and reach toward the heavens changes for each new rebuilding of the piece. Each piece of wood can theoretically interchange with any other piece in another spot. I took inspiration from a 2009 temporary exhibition in Milan, Italy where the designers Established & Sons housed their high-end, custom furniture within roughly forms enclosures out of untreated wood.[192]



Normally, I do not prefer to work with words and letters. However, if God's words are good enough to create, why can't I use them as well? I took a cue from Exodus as to how to arrange the words. God said that if the Israelites make the tabernacle, "I will dwell inside them."[193] Since he was speaking of the tabernacle, he should have said, "I

[192] Philip Jodidio, *Temporary Architecture Now!* (Italy: Taschen, 2011), 162-165.
[193] Exodus 25:8

will dwell inside it."[194] From this verse I chose to place the words on the inside of the wood instead of facing out. The inside is lighter, contrasting with the burnt wood outside. The viewer needs to interact with the piece, straining to read within the column and catch all the words. A process of cataloging, comparing, and trying to decide which words are

in tension with each other happens. Again, inspired by James E Young's book, I attempted to make a memorial that is the opposite of redemptive. Instead of being given a simple understanding of how to compare the *Mishkan*, the Temple, and contemporary synagogue architecture, the viewer must be made uncomfortable. The viewer must struggle to put him or herself on the inside, to do the work of remembering themselves. As Young states it, "it is that memory of historical events which never domesticates such events, never makes us at home with them, never brings them into the reassuring house of their demonstrated meaning. It is to leave such events unredeemable yet still memorable, unjustifiable yet still graspable in their causes and effects.[195] This piece (and hopefully others) forces each individual viewer to think, to move, and to process the *Mishkan*, the Temple, and synagogues.

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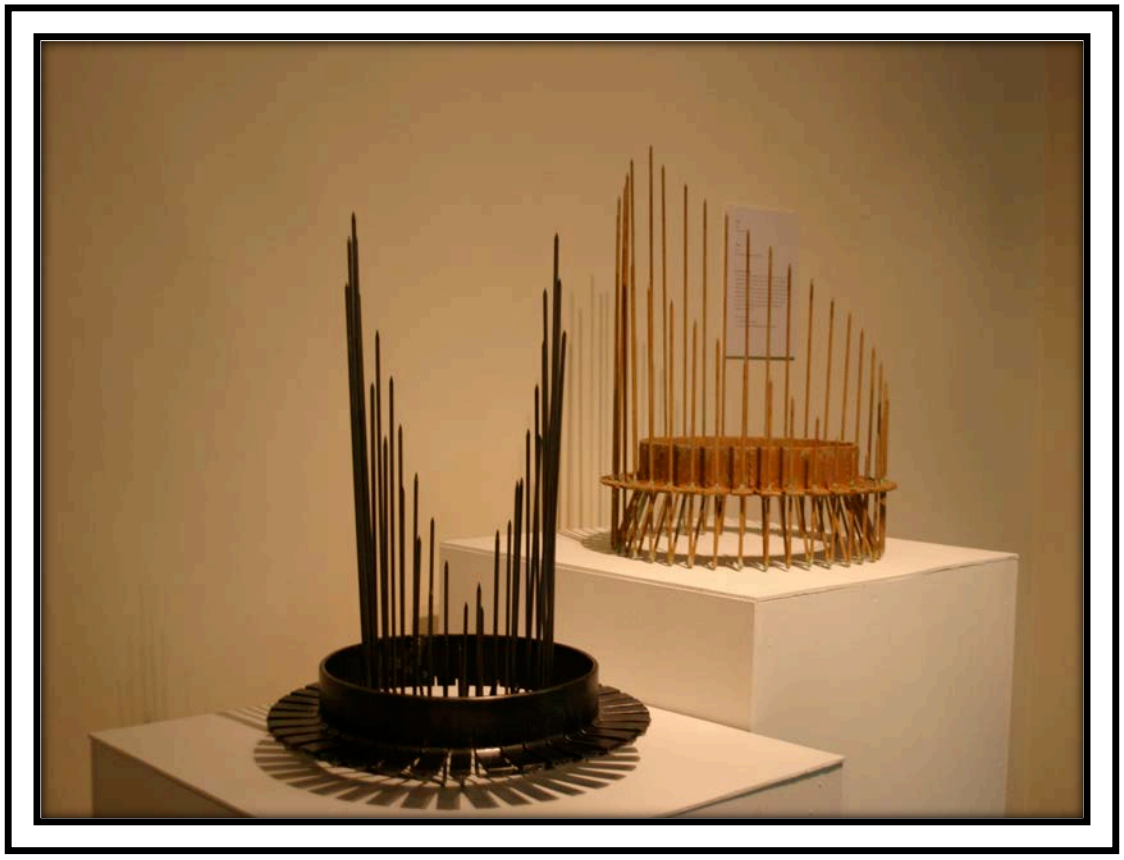
[194] MeAm Lo'ez, *The Torah Anthology: Book 9, The tabernacle: Plans for the Sanctuary* (Brooklyn: Moznaim Publishing Corporation, 1990), 26.

[195] James E. Young, *At Memory's Edge: After-Images of the Holocaust in Contemporary Art and Architecture* (New Haven: Yale University Press, 2000), 155.

Just as God created the world out of words, so do we as humans. In this particular art piece, I attempted to reach towards the heavens with words. With the destruction of the *Mishkan* and the Temple, the word became the most important part of our tradition. This can be seen by the fact that the most sacred object in Judaism is now the Torah, the word. These words, these tensions, lighten our life when we contemplate them, and enable us to move from the profane outside, across the threshold, to the sacred within.

List of words used: Portability, permanency, human, divine, sacred, mundane, profane, flexible, rigid, communal, individual, creativity, instruction, timelessness, time specific, Sephardic, Ashkenazic, similar, differentiated, approachable, untouchable, past, future, present, private, public, Israel, Diaspora, immanent, transcendent, commanded, willing, volunteered, compelled, *heimlich*, *unheimlich*, canny, uncanny, absence, presence, tribe, nation, people.

8. Thoughtful Art-Making
ZRM1 & ZRM2



The Second Commandment reads, "You shall have no other gods beside me. You shall not make for yourself a sculptured image, or any likeness of what is in the heavens above, or on the earth below, or in the waters under the earth. You shall not bow down to them all, or serve them."[196] These biblical prohibitions stemmed from the realization of "the power of images"[197] to lead their viewers to another place (in this instance the worship of other Gods). The Second Commandment, however, does not preclude undertaking artistic endeavors and creating unique works. In fact, we find in the construction of the *Mishkan* a celebration of the skills and design abilities of Bezalel and his team of artists in the desert. There were many different objects that needed to be made, and many different ways to make them. Bezalel was accomplished in metalworking, stone carving and wood.[198] His assistant, Oholiav, and his cadre of artists set at the task with a variety of other skills including embroidery and weaving.[199]

In looking at the Biblical texts detailing how these weavers wove and these metalworkers forged, we find numerous descriptions. Cubits of wood, lengths of linen, and different styles of metalworking abound in this part of Exodus. The most poignant verses for our understanding are not the descriptions of the objects themselves. The dimensions *were* important for the Israelites, for they needed to fulfill God's word. However, for our purposes, taking from the *Mishkan* and using it to inform our construction of sacred spaces, these verses are moot. The verses from which we can learn the most do not tell us about the colors or dimensions, but rather, how these things were

[196] Exodus 20:3-5
[197] Vivian B. Mann, *Jewish Texts on the Visual Arts* (New York: Cambridge University Press, 2000), 5.
[198] Exodus 31:2-5
[199] Exodus 35:34-35

created. We can be informed about how to create sacred space that aids in connecting us with the Divine.

What we find is a plan. The *Mishkan* was not a haphazard affair of cobbling random materials together. God showed a pattern, format, or structure of how the persons shall make it.[200] The word *tavnit*, God's blueprint, appears three times in the chapter, and references to it can be found when God speaks of "how I showed you."[201] Not only was there a plan, but thoughtfulness in the art making. In Exodus, this can be described as persons who are "wise of heart," whom God has filled with the "spirit of wisdom."[202] This illustrates that artists of great skill constructed all the elements of the Mishkan with great thought.[203] Not only did the artists work with the end in mind, but also they did so with a special feeling within their heart. They achieved that Zen-like status to which many artists can relate, a feeling of an "extra presence" as they carved the stone and wood. It is only their special attachment to the Divine within their hearts that allows for God's glory to descend among the people. The main element used in the construction of the *Mishkan* was actually this wisdom or purity of the heart,[204] not the wood and metal of the tabernacle.[205]

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[200] Ex 25:9, 40
[201] Ex 26:30, 27:8
[202] Ex 28:3, Ex 31:3-5
[203] Ex 38:23
[204] The word "heart" appears twenty times in between chapter 25 and 40 (the end of the book of Exodus). While it often refers to the willingness of one's heart, *wisdom* also appears a multitude of times – *chochmat lev*, or *chacham lev*.
[205] MeAm Lo'ez, *The Torah Anthology: Book 9, The Tabernacle: Plans for the Sanctuary* (Brooklyn:Moznaim Publishing Corporation, 1990), 26.

Just as the *Mishkan* was constructed with skillful labor and thoughtful processes, so too was Solomon's Temple.[206] So too, shall the future (third) Temple be built according to a pattern. Maimonides uses Ezekiel's vision as the basis for this blueprint that includes the areas and effects to be included in the future Temple.[207] After doing so he explained how thoughtful the future artists needed to be in their construction. "We may not split the stones used for the building on the Temple Mount. Rather, we must split and chisel them outside, and [afterwards] bring them in."[208] He cited the biblical source that neither hammer, axe, nor any iron tool was heard while the house was being built.[209] This can be interpreted as a prohibition against tools of war being used to create the Temple.

Another way to understand this action is that a full plan was needed before the Temple could be constructed. The skilled artisans needed to measure and cut the stone outside its final set spot. The Temple was already a sacred spot before construction began! Moreover, though, this proves there was an extreme amount of thought that went into the process of creating the sacred space at the time. Maimonides further stated that when the time comes to rebuild the Temple, that it is preferable that the community beautify the structure to the peak of their capacity, using gold plating as the most magnificent if possible.[210] This was not meant to be ostentatious. It shows the thoughtfulness and care for a sacred space that was dedicated to God. These materials

[206] 1 Kings 5:20, 2 Chronicles 2:6
[207] Maimonides, *Mishneh Torah Hilchot Beit HaBechirah* 1:5-6
[208] Maimonides, *Mishneh Torah Hilchot Beit HaBechirah* 1:8
[209] 1 Kings 6:7
[210] Maimonides, Mishneh Torah Hilchot Beit HaBechirah 1:11

were highly valued and to use them reflected the prominence structures dedicated to God played in the people's lives.

How did this careful consideration and thoughtful craftsmanship translate into rabbinic rules for the construction of the sanctuary? A search for texts regarding how exactly a synagogue should be constructed yields a remarkable paucity of laws. This is surprising especially given the rabbinic concern for prayer. R. Ezekiel Landau, the great legist of the 18th century points out that we have no prescribed form whatsoever for the shape of synagogues (even though he frowned on innovations which merely were imitations of current fashions).[211] Maimonides devoted a select few passages to the construction of synagogues. He focused more on the behavior in and around the structures rather than on the buildings themselves.

All three institutions, the *Mishkan*, the Temple, and synagogues, represent attempts to create a sacred space, space which tries to connect to the Divine. When a work reaches a maximum of intensity, when it has the best proportions and has been made with the best quality of execution, when it has reached perfection, a phenomenon takes place that we may call "ineffable space." When this happens these places start to radiate.[212] A synagogue, or any piece of architecture, can help a person arrive at a place in their mind and hearts which may not be described in words. The great architect and theorist, Le Corbusier, described such a carefully controlled experience as being close to the Cubists' own spatial experiments around 1910, with their search for a mathematical

[211] Joseph M. Baumgarten, "Art in the Synagogue: Some Talmudic Views" in The Synagogue: Studies in Origins, Archaeology and Architecture, Harry M. Orlinksy, ed. (New York: KTAV Publishing House, Inc, 1975), 79.

[212] Le Corbusier from an interview recorded at La Tourette, 1961 – Quoted in Andre Wogenscky, Le Corbusier's Hands, English Trans. Martina Milla Bernad (Cambridge, Mass: MIT Press and London, 2006), p. 81.

"fourth dimension" capable of providing a unique human phenomenon extending beyond real time and space.[213] In other words, architectural wonder does not come about by happenstance. Approaching the ineffable is the product of a deliberate intentionality. There is a certain level of unpredictability and projection within the human experience[214] in that each viewer experiences a sacred space in a unique and perhaps different way. However, thoughtfully using the material to reach toward the immaterial may allow the worshipper to view what is hidden.

Which buildings can embody the sacred? Which spaces become more than concrete and enter into a sacred dimension? Structures in which their architects approached the task of creation with full thoughtfulness. Yes, they may pay attention to how the materials used might be reflective of a high-end craftsmanship, but they need to think beyond this and how a particular construction may be viewed symbolically. Louis I. Kahn showed an insightful process in his construction of sacred space. He talked about the "character" of a building and how it should be uniquely representative of what it is.[215] He spoke of how architecture "might be defined as the thoughtful making of spaces."[216] Kahn understood that Jews were freer than other religious groups to experiment with their ideas. Synagogues had never become standardized in the way that some churches and other religions' sacred spaces had. This allowed architects like Kahn to do more than apply superficial decorations, but manipulate floor plans and other aspects for spaces to

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[213] Karla Cavarra Britton, "Prologue: The Case for Sacred Architecture," in Constructing the Ineffable: Contemporary Sacred Architecture Karla Cavarra Britton, ed. (New Haven: Yale University Press, 2010) P13

[214] Ibid, P20

[215] Solomon, 120.

[216] Louis Kahn, "Directions in Architecture," presentation at Pratt Institute, New York, November 10, 1959. Transcript, Kahn Collection, box 53, "1969 Lectures LIK."

truly embody Judaism,[217] to truly assist in connecting with God. Trying to think of those ways to connect, and using the architectural elements to move the viewer toward an experience, can lead to truly transcendent design.

All of this opens up questions of how do we create space, especially sacred and profound space? How do we arrange space and light to help invite someone to encounter the Divine? How can architecture help us to worship, to do more than just sit in the room, but to interact with the divine? With these questions in mind I found myself focused on the altars, the brazen one for animal sacrifice and the golden one for incense. One particular detail about the golden altar stood out. Along the edge was a crown of gold about it, *zer zahav saviv*.[218] While *zer* can have several meanings such as wreath or rim,[219] I couldn't get away from the image of a crown set upon the altars in the *Mishkan*. The Altar, as an object that helped reach close to God, I felt the crown was representative of God's sovereignty. The crown is royal, regal, and recognized in virtually all cultures.

[217] Susan G. Solomon, Louis I. Kahn's Jewish Architecture: Mikveh Israel and the Midcentury American Synagogue (Lebanon, NH: University Press of New England, 2009) P1

[218] Exodus 25:11

[219] Marcus Jastrow, *Dictionary of the Targumim, Talmud Bavli, Talmud Yerushalmi and Midrashic Literature* (Judaica Press, 2004), 396.

The Art Piece

Even though I was still in the beginning stages of doing my research, I decided to begin work on this crown. I started to make it in conjunction with the divine proportion. I cut angle iron into thirty-seven identical 1-inch pieces. The number thirty-seven was chosen based upon the sacred dimension found in Ezekiel[220] and explained in greater detail in Chapter 3: Hope for the Future. I arranged them in a circle to represent the crown, even though the altars were rectangular and square in shape. I cut mild steel round bar of varying lengths to protrude up from the angle iron. I used a bench grinder on the ends to create a "dangerous" spike. This is reminiscent of the need to approach the Holy of Holies with trepidation. One cannot simply walk up to it and put one's hands on it. The spikes look imposing, letting the viewer know of the metaphorical danger.[221]

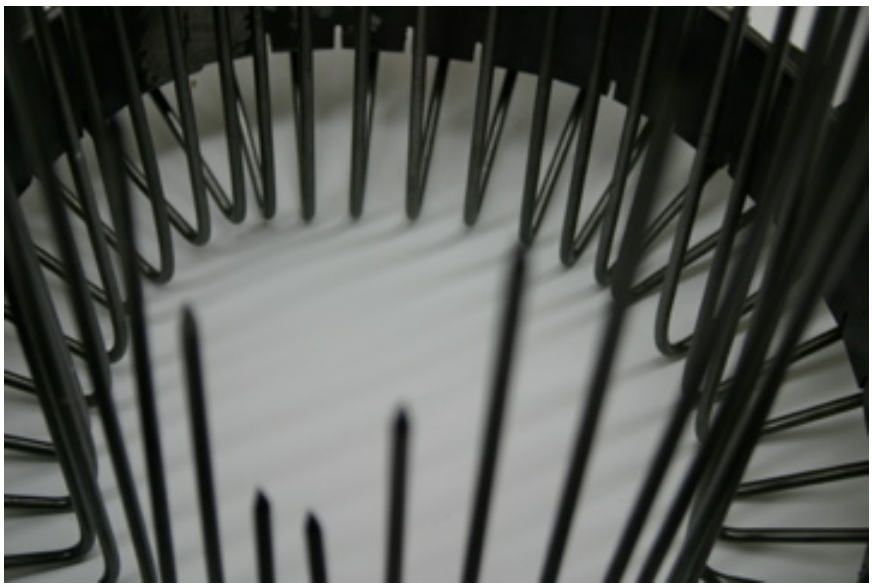
I had already welded the 37 pieces together and begun construction on the round stock when I came across the texts regarding thoughtful construction and wise-hearted

[220] Chapter 40. See also Laura Leibman, "Sephardic Sacred Space in Colonial America" from *Jewish History* (2011) 25:13-41, 13.

[221] Also, physical danger. I cut my arm on the spikes when moving them in the studio one day.

process.[222] I thought how might my process be more reflective of the sacred task that the architects of the *Mishkan* undertook? How could I be more thoughtful in my process? I took my inspiration from the text "Of a talent of pure gold shall all these vessels be made, and see, you shall make them in their pattern that you see on the Mount."[223] The altar and all the vessels were made of a singular piece. I had been constructing the crown out of many different pieces; chopping them apart and just sticking it back together through the welding process.

This prompted me to think how could I better create a piece out of as few "talents" of steel as possible. I wanted to create a piece more in line with how the altar was made, of one solid block of gold or stone.[224] Therefore, I bent a new piece of angle iron with 37 individual creases, using an oxyacetylene torch and a bench vise. Instead of



cutting many pieces of round bar, I used the torch to bend the curves necessary to make the spikes move from horizontal to vertical. This allowed me to avoid an iron tool as well as use as few pieces (one talent) of steel as

[222] Exodus 28:3, 31:6, 35:10, 35:25, 36:1-2, 36:4, 36:8
[223] Exodus 25:39-40
[224] Maimonides, *Mishneh Torah Hilchot Beit HaBechirah 2:16.* "When building the Altar, it must be made as one solid block, resembling a pillar. No empty cavity may be left at all. We must bring whole stones, both large and small."

possible. This new process required me to think of the ways in which I could create pieces more thoughtfully. How can we create spaces that are more thought out? How will the method of construction help relay a message? I had a small studio space and a limited budget. It required me to think ahead of which moves I needed to make. It required measuring out how much steel I might need in advance, how I could cut the steel to waste as little as possible. Not only can our thoughtful process help us to reach the divine, but also it can help us be more economical and earth-friendly as well. The texts (Torah and Maimonides) speak of building out of one talent or one solid rock. I see this as an argument for wasting not where we can avoid it. Creating thoughtfully means to keep God in our hearts and the ends in our minds as we begin and continue to create.

The construction of the second rim/crown, being more thought out, yielded fewer "ugly spots" and connections that needed to be hidden. I reflected on how the end-finish or patina could be reflective of the main gleaning, to be thoughtful in our art-making and sacred space creation. The chopped-up first crown needed a patina that reflected an older object, an object that was neglected. I decided to put turquoise rust on the surface. For the second and more refined crown, I felt the newness and sharpness should be reflected. I polished the steel up with a wire brush

and sealed it with polyurethane. I decided the two crowns, ZRM1 and ZRM2, should be displayed next to each other. The different pieces would show what it could mean when we truly try to be "wise of heart" and think through the "why" of particular construction processes. The two styles could easily be contrasted one against the other. Hopefully, they would show that when there is wisdom in our hearts we are able to create places where God can dwell with us in sacred structures.

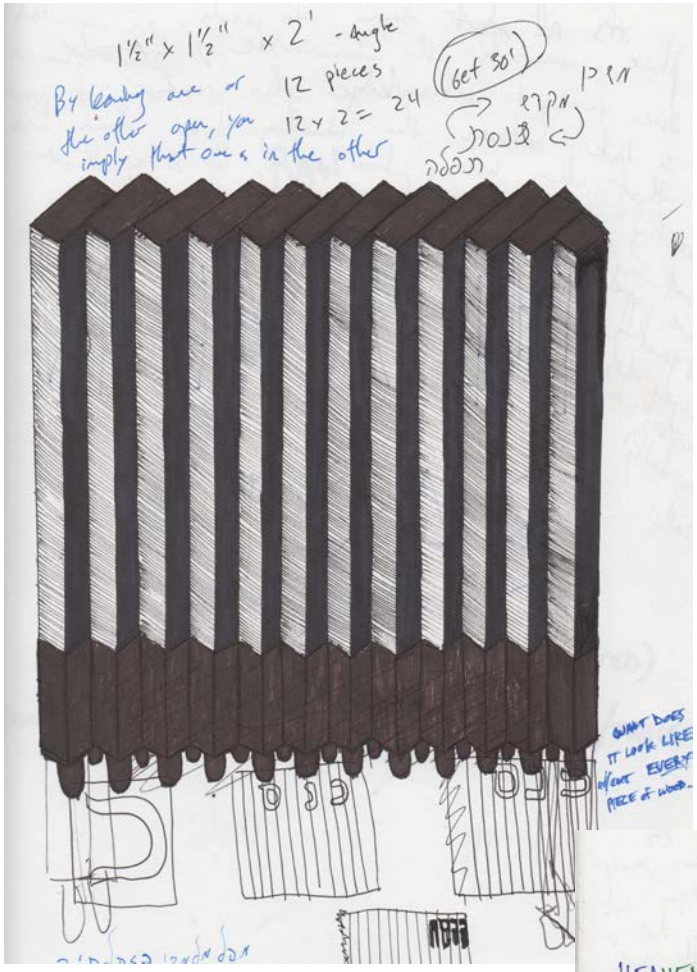
Conclusion

My glass professor at Tulane, Gene Koss, always preached about the need to put one's best foot forward. As an artist, you would never put an art piece in a show you had not finished or did not think was your best work. Routinely, I would make more pieces than I intended to show, whittling out 25% of the work I had made for the final exhibition. Such was the case with this project as well. From my studies over the summer, I ended up with thirteen art projects in mind. Some were based on minute details, like the ramp leading up to the altar, and not main learnings. Some ideas were too unfinished to pursue. These I will keep in mind for the future. I am extremely pleased with how the project turned out.

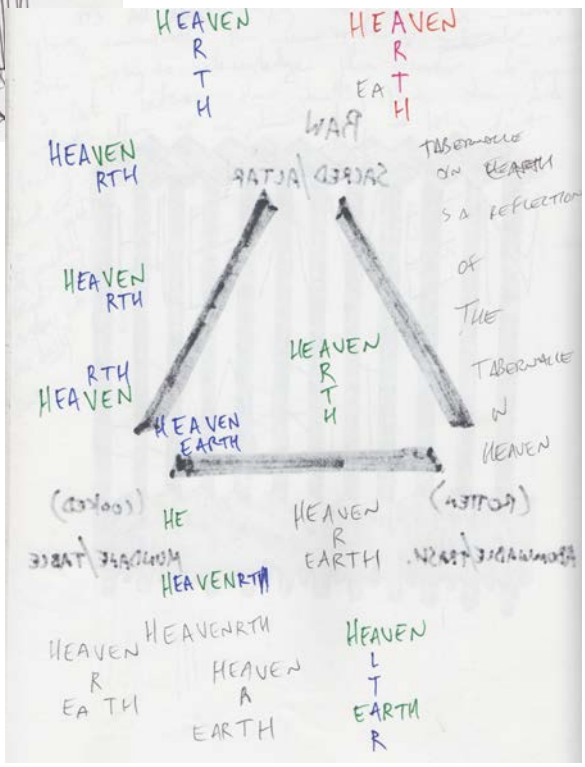
The entire project proved quite liberating and I am now excited for the future. I know that being able to create sculpture helps improve other areas of my life. Much like my time spent improving my physical health, my artistic health improves my spiritual, religious and academic life. Since this project is by no means exhaustive of the subject, I definitely plan to continue artistic endeavors such as this. The learning I have assimilated into my core is invaluable, and hopefully I've presented the material in a way to open it up to a new audience, one that might not have been able to connect to the text before. For as long as we have been around, human beings have been creating.

For as long as we've been aware of the Divine, we've been trying to connect with God. This project has deepened my relationship, and I hope that many more avenues can appear for myself, and the individuals with whom I shall come into contact (either through personal interactions or my art).

Appendix A: Sketches and "Process Pictures"



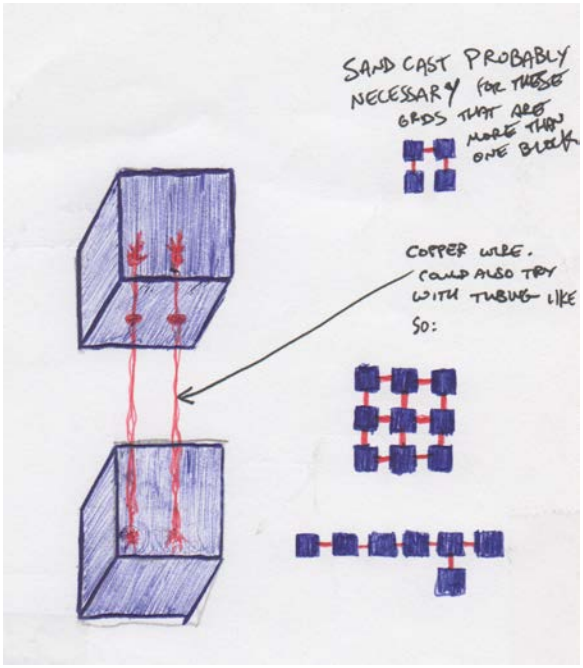
Sketch of CNNCTNGHCNNDRTH

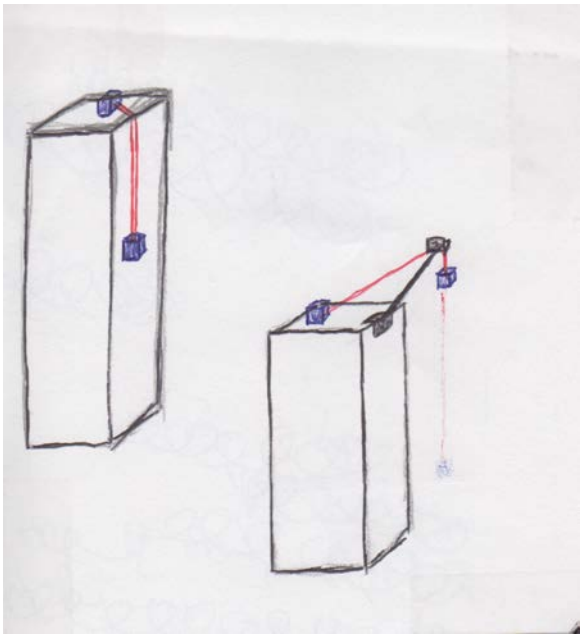


Working out how Heaven and Earth would play with each other given the folds of the steel.

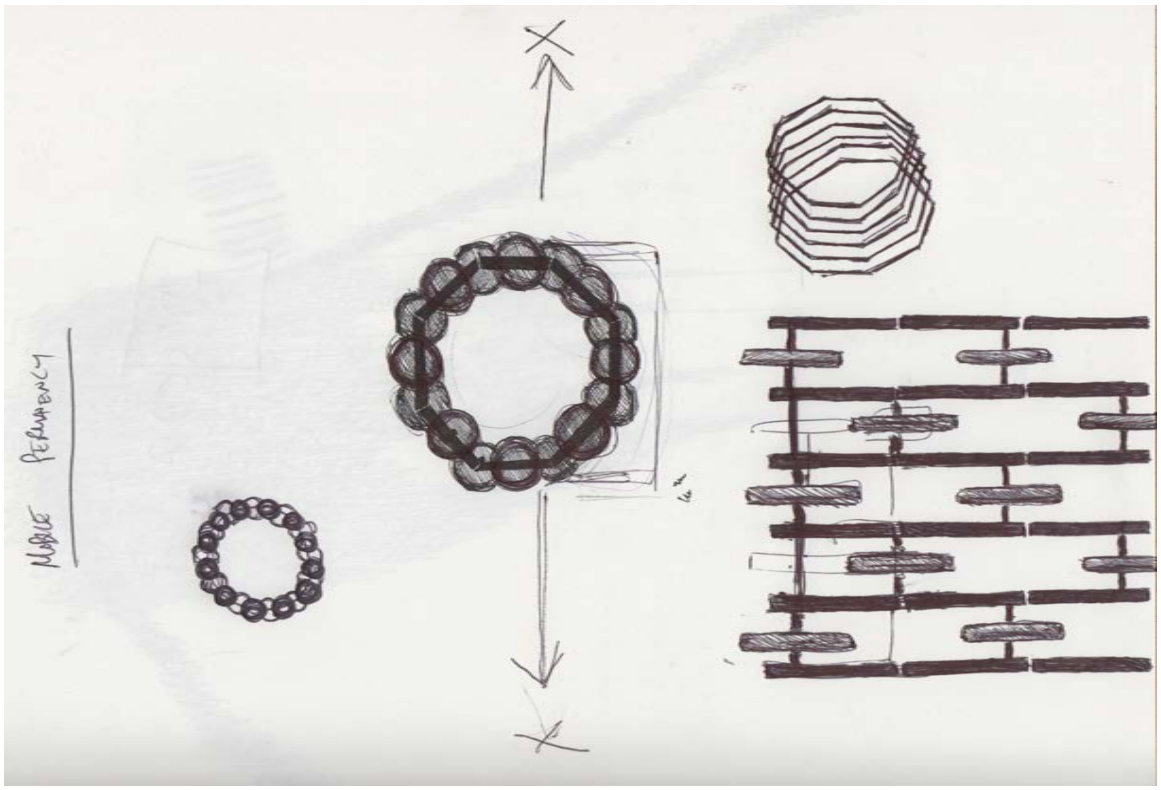
Silicon based adhesive being used to attach the birch and teak woods on the back of CNNCTNGH-VNNDRTH.

Sketch of GLSSSPNDDPC determining how to connect two pieces of glass.





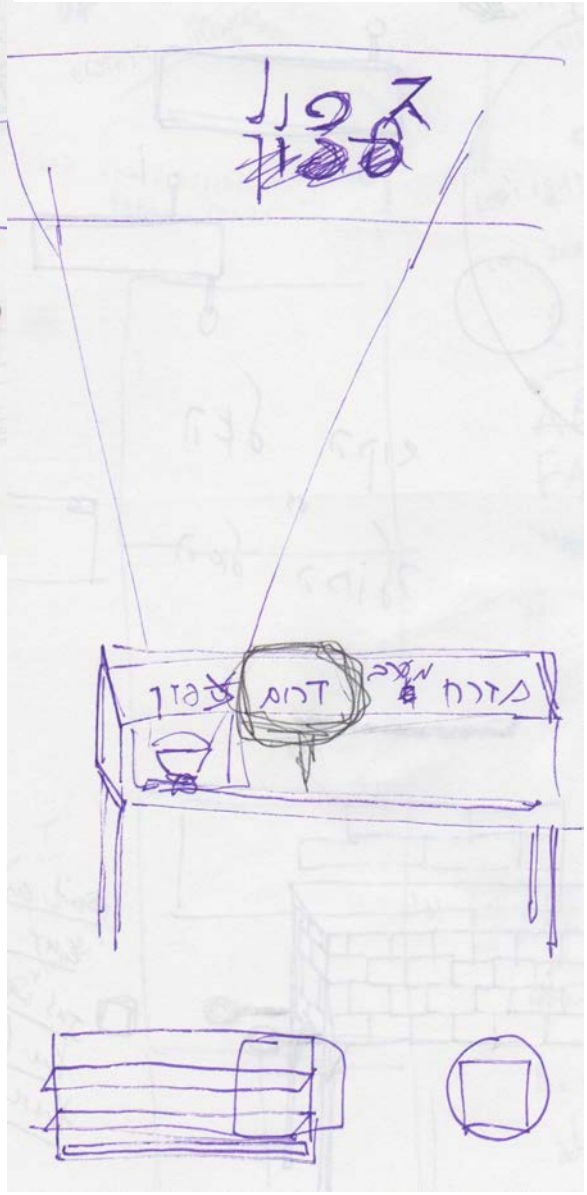
Sketch of GLSSSPNDDPC imagining the look of the hanging block with and without a metal extension.



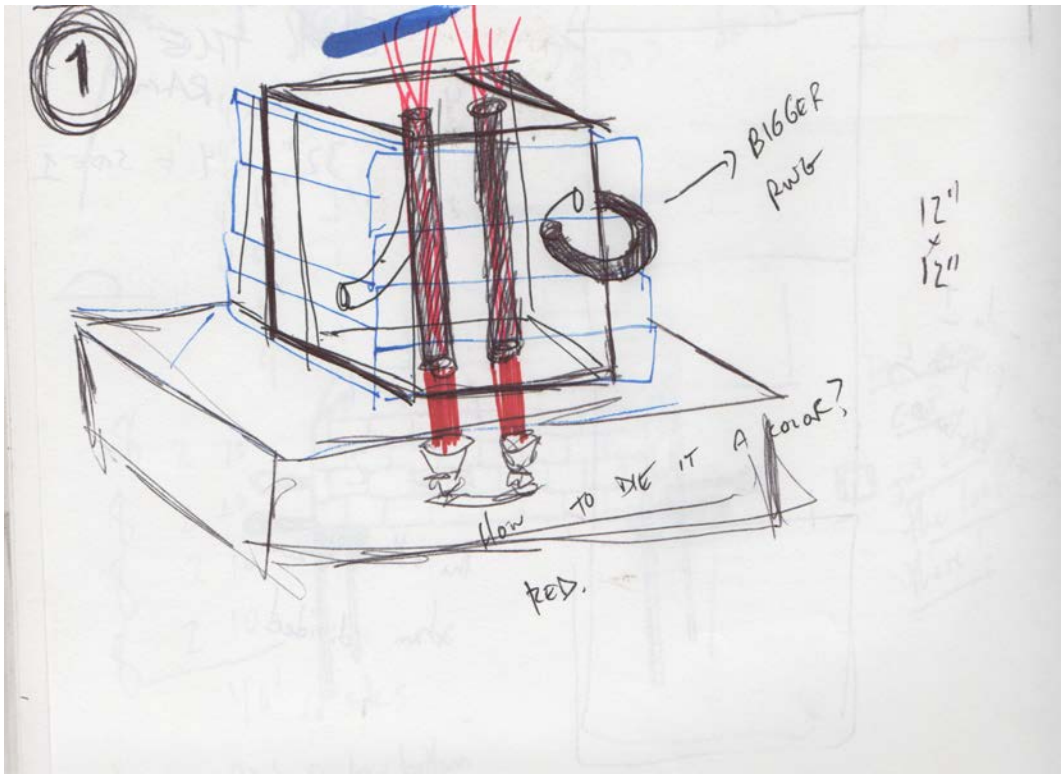
Sketch of MMBLMBL

Welded frames with drilled holes for axles of MMBLMBL

Sketch of LGHTWRDS

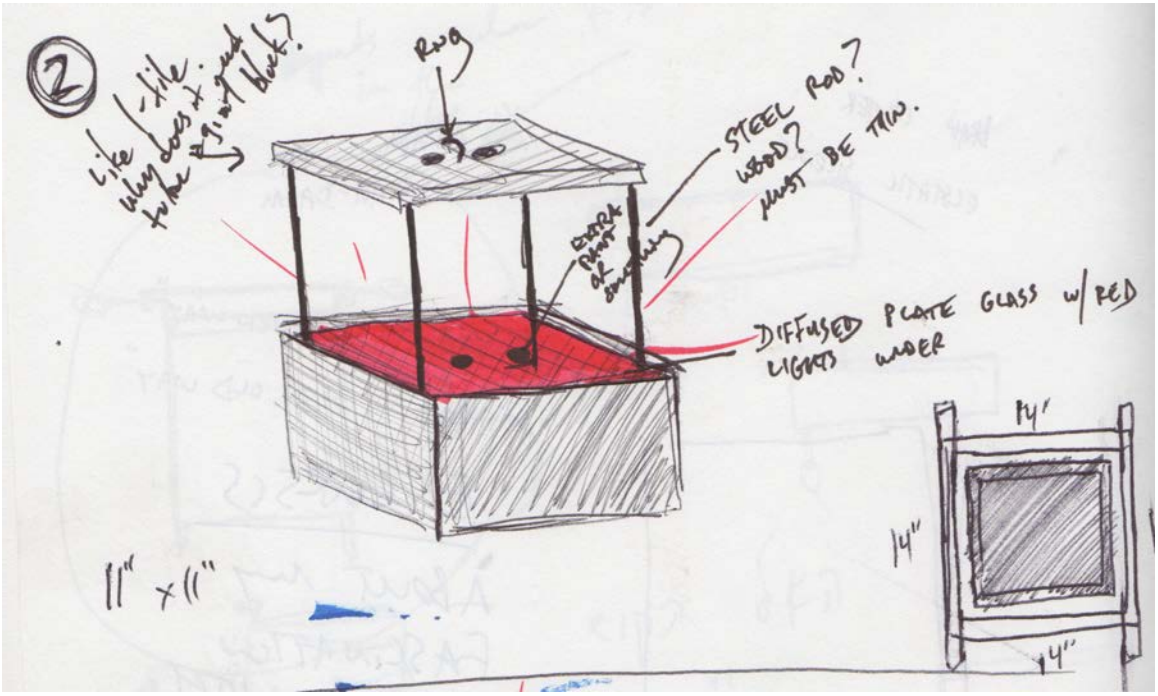


Sketch of LGHTWRDS



Sketch for first version of SHTTN.

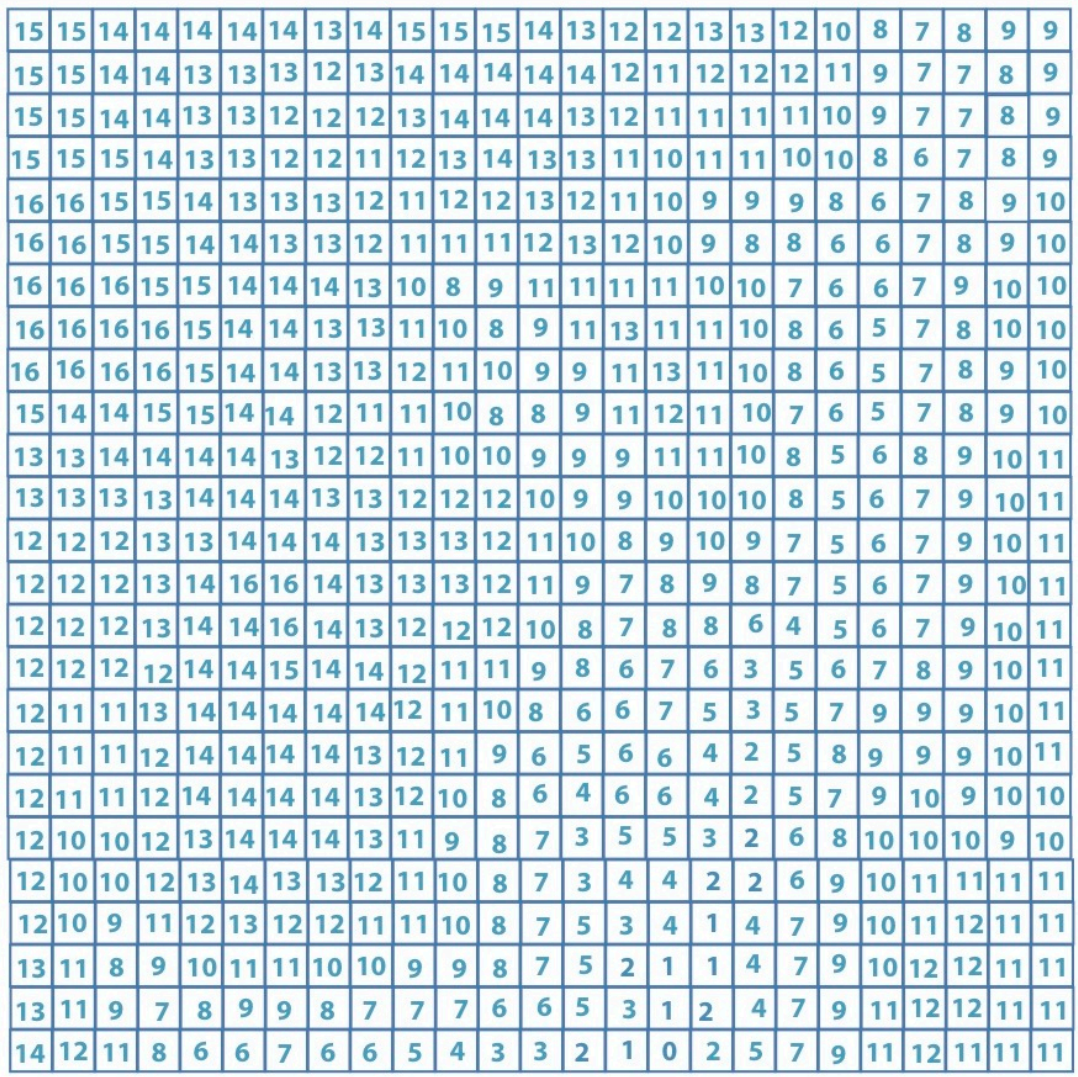
Sketch for second (and third/final) version of SHTTN.



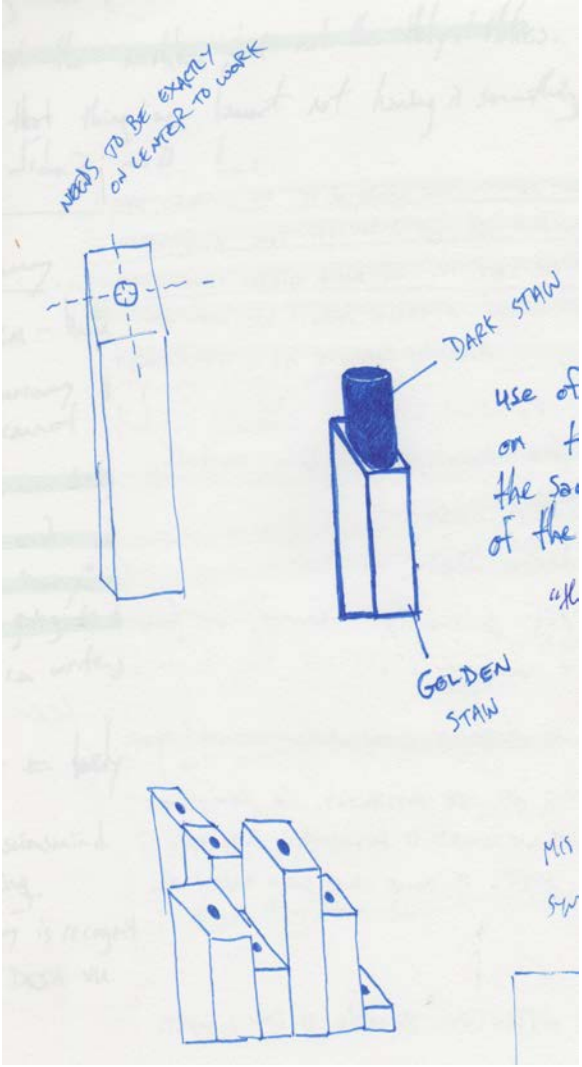
Foam Mold for inner “negative space” of SHTTN (where the lights and stained glass rest).

Jiggling all the air bubbles out and packing the concrete as tight as possible into the final version of the SHTTN.

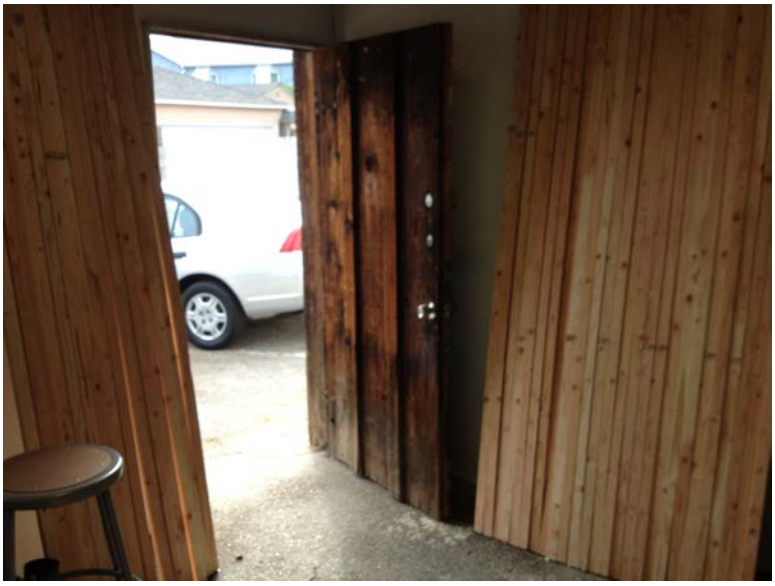
ToPoGRaPHiCMaPGuiDe



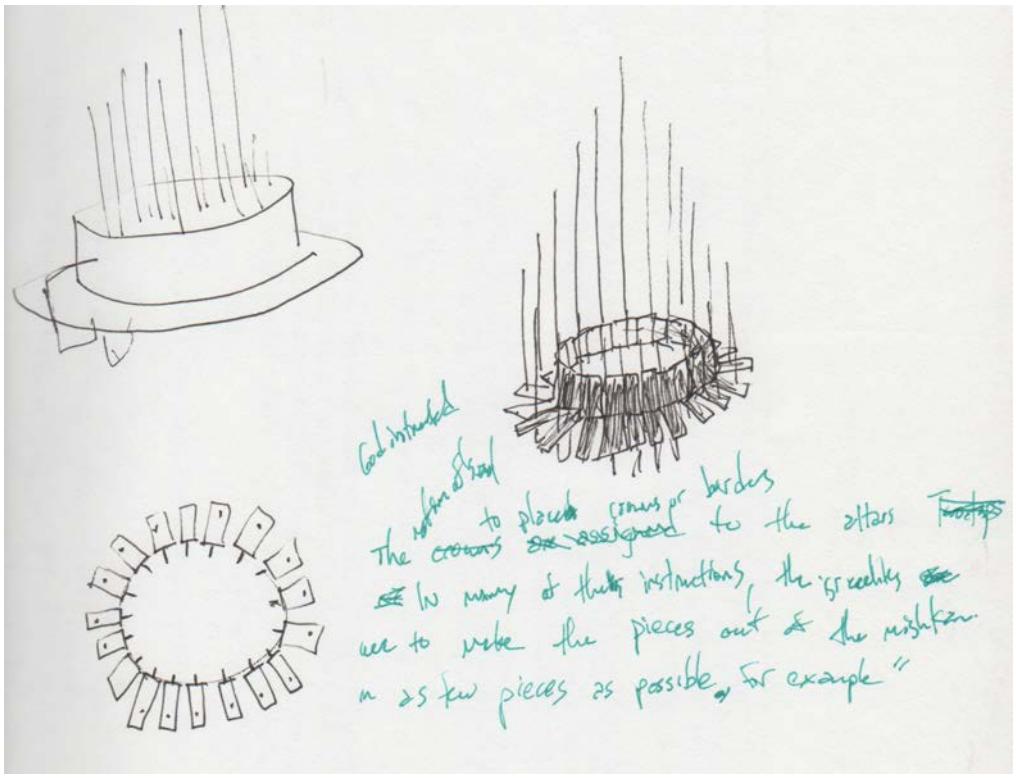
Layout of the Topographic map so I could keep track of how many inches a particular piece of wood needed to be for a particular location on the map.



Sketch for what the individual pieces of the TPGRPHCMP would look like, including a dark-stained dowel.



Uncut eight-foot pieces of 2”x2” pine wood waiting to be cut into appropriate lengths.



Top: Sketch for ZRM1

Bottom: Welding ZRM2.

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