Materiality and Sacred Space in Eero Saarinen's Kresge Chapel

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Ayla Lepine, professor of Theology and Art History, argues that "A holy place should not be a temple to the architect; architecture itself is not divine."[1] She continues by asserting, "Sacred architecture is not about style, then. It is, in part, about the architect as mediator between grace, hope and history."[2] The question then becomes, how does an architect, working in the modern style create a "sacred" space? The answer is not a simple one, especially for a movement whose leading figures possess such strong personalities, such as Le Corbusier, Mies van der Rohe, and Frank Lloyd Wright. Nevertheless, Modernism has been able to produce effective sacred spaces in the sense that they offer an emotive experience for the user. There is a balance to be found between designing a "temple to the architect" and being a "mediator" of grace – a word loaded with Christian connotation.

This paper will thus explore the question of Modernist sacred space in relation to the MIT Chapel designed by Eero Saarinen and dedicated in 1955. It will discuss Modernism's relation to the Liturgical Movement, which helped to open up religious architecture to the new style, as well as explore Saarinen's personal style and its influence on his design for the chapel. Finally, it will discuss the chapel's use of form, space, and materials in order to draw a conclusion on its efficacy as a sacred space.

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1 Ayla Lepine, "Architecture does not teach us what the sacred is, but it may touch it and draw others to it," *Architectural Review* (25 March 2016) http://www.architectural-review.com/today/architecture-does-not-teach-us-what-the-sacred-is-but-it-may-touch-it-and-draw-others-to-it/10004570.fullarticle, accessed 30 March 2016.

2 Ibid.

Modernism and the Sacred

The Modernist movement has a unique relationship with sacred spaces because its rise coincided with the birth of the Liturgical Movement in Germany in the 1930s. The Liturgical Movement soon spread to the rest of the Christian world, finally climaxing in the Second Vatican Council of the 1960s, which declared,

> No church of any style should be considered as the only acceptable one but churches of different artistic styles of each epoch adjusted to the nature of circumstances of the particular nations and the needs of the particular rites are admissible, and that the ensuing treasure trove of art should be carefully preserved.[3]

In declaring thusly, the Catholic Church confirmed Modernism as an appropriate style for sacred architecture. Modernism's principles were well suited to those of the Liturgical Movement, such as the preference for centralized plans encompassing the altar, "so that the faithful can surround it on three sides."[4]

Mies van der Rohe and Le Corbusier, leaders of Modernist architecture, were some of the first to employ their ideals into sacred space. They employed the principles of simplicity and geometry to create spaces in which "there is no chaos, but order in space," and, "it is thanks to this order that our lives can develop and move, that we are able to build many works, give them shape, and inhabit them."[5] Architects of sacred space, and in particular, Le Corbusier, also employed the strong Christian symbol of light in their churches, chapels, and monasteries. For example, Le Corbusier's Chapelle de Notre Dame du Haut at Ronchamp (Fig. 1 and 2) utilizes light as a means of "creating the space," by permitting light to enter in from small

3 Anna Maria Wierzbicka, "Modernsit Architecture and the Sacred - the change of contemporary architecture in the perspective of the early modernsism sacred buildings," 42,45.

4 Ibid., 44.

5 Ibid., 42.

Figure 1. Notre-Dame du Haut at Ronchamp by Le Corbusier.
Geri Merin, *ArchDaily,* http://www.archdaily.com/84988/ad-classics-ronchamp-le-corbusier/54e59e9ce58ece21e00000ee-ronchamp_feature-jpg.

Figure 2. Notre-Dame du Haut at Ronchamp by Le Corbusier, interior with emphasis on use of light.
Rory Hide, *ArchDaily, ht*tp://www.archdaily.com/84988/ad-classics-ronchamp-le-corbusier/5037e73328ba0d599b00038f-stringio-txt.

openings that "enhance the impression of the sacredness of this place."[6]

Therefore, the use of simplicity and symbolism defines Modernism's approach to sacred architecture. The job of the modern architect thus became to "interpret holiness and offer it to the people."[7] Polish architectural critic Konrad Kucza-Kuczyński states, "[Le Corbusier's religious projects] have remained a distinct proof that the emotional climate is of utmost importance when perceiving the space of the sacred."[8] Lepine, clarifies this concept by stating, "The sacred returns and gains architectural form, and it grants us rest and nourishment if we choose to seek it out."[9] In the confusion of the modern age, the role of sacred spaces therefore becomes to offer an emotional experience to the user, to provide him or her with respite and with a space in which to reflect on the divine.

Looking quickly at the MIT Chapel by Eero Saarinen, one can already begin to see these concepts of Modernism in its design: simplicity of form, centralized and approachable altar, mysterious use of light, and reflective space. The remainder of this paper will delve into the chapel's design and efficaciousness in creating a sacred space. First though, it is necessary to consider Saarinen's background, architecture, and personal style.

Eero Saarinen: Architect of the Sacred

Eero Saarinen adhered to the belief that the goal of architecture was "to shelter and enhance man's life on earth."[10] He was strongly influenced by his father, Eliel Saarinen, who trained him in his crafts-based architecture at the family's Cranbrook Educational Community near Detroit. [11] Eliel

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6 Wierzbicka, "Modernsit Architecture and the Sacred," 40.
7 Lepine, "Architecture does not teach us."
8 Wierzbicka, "Modernsit Architecture and the Sacred," 41.
9 Lepine, "Architecture does not teach us."
10 Eero Saarinen, "Eero Saarinen," *Perspecta* (The MIT Press) 7 (1961): 31, *JStor*, accessed 2 April 2016.
11 Richard Ingersoll and Spiro Kostof, "Chapter 19:1940-1970," in

Fig. 3. Last surviging sculpture by Eero Saarinen. Bust of Eiel Saairienen.
Allen Temko, *Eero Saarinen*., Vol. 2. (New York: George Braziller).

imparted onto his son and successor a consideration for the "spiritual function," which he saw as "inseparable from 'practical function.'"[12] Thus, from an early age, one can already begin to see the formation of a deep consideration for the emotional quality of space that his mature structures would come to embody.

The young Saarinen was also strongly influenced by his mother Loja – a sculptor, weaver, photographer, and architectural model-maker in her husband's firm.[13] In fact, Eero first intended to become a sculptor, and before beginning his architectural studies at Yale University, he spent a year at the Grande Chaumière in Paris.[14] Regardless of the strong influence of the International Style on Saarinen, the sculptor-architect was also responsible for "some of the most hybrid forms of the 20th century," and it is evident that "This enthusiasm for the plastic form, … [was] undeniably allowed to influence his architecture" (Fig. 3).[15]

Saarinen's "hybrid forms" – what Allen Temko, Saarinen biographer and critic, calls "heroic sculptural architecture" – were based on six principles formulated by Saarinen throughout his career.[16] The first three of these principles – function, structure, and awareness of time – had been drawn from the International Style, but the second three – expression of the building, concern with the total environment, and carrying a concept to its ultimate conclusion – were formulated by Saarinen, and were no doubt influenced by the Expressionism of the mid-twentieth century.[17]

World Architecture: A Cross-Cultural History (New York: Oxford University Press, 2013), 885.

12 Allen Temko, *Eero Saarinen*, vol. 2 (New York: George Braziller), 11.

13 Temko, *Eero Saarinen,* 13.

14 Ibid., 15.

15 Architects, *Objects and Furniture Design: Eero Saarinen,* edited by Sandra Dachs, Patricia de Muga, Laura García, and Nuria Jorge (Barcelona: Edcisiones Polígrafa, 2013), 12; Ingersoll and Kostof, "Chapter 19:1940-1970," 885.

16 Temko, *Eero Saarinen*, 8.

17 Saarinen, "Eero Saarinen," *Perspecta,* 32.

The Expressionist Movement strongly influenced Saarinen's ideology. In his essay for Yale University's *Perspecta* journal, Saarinen variously described the architecture of his epoch as "manmade nature," having "been returned to a more personal art," and whose duty it was "to shelter and enhance man's life on earth."[18] He believed architecture to be an art that must work with society, but also that every building should possess a unique character.[19] For Saarinen, the primary architectural question was: "How can the whole building convey emotionally the purpose and meaning of the building?"[20] The answer was to be found in his sculptural Expressionism, whose articulation can almost always be traced back to the artistic and crafts-based education that Saarinen received from his parents at Cranbrook. Even though he worked within the International Style, Saarinen returned to a more personal expression of architecture, as conveyed in his statement for *Perspecta*: "The conveying in architecture of significant meaning is part of the inspirational purpose of architecture and therefore, I believe, one of the fundamental principles of our art."[21]

Despite his preference for a plastic, sculptural, and Expressionist architecture, Saarinen considered architecture's emotive value as the epitome of good design. Saarinen understood architecture's ability to elicit an emotive response as a sacred one, such as he described in *Perspecta*:

> I believe that it has a much more fundamental role to play, almost a religious one…. Religion gives him his primary purpose. The permanence and beauty and meaningfulness of his surroundings give him confidence and a sense of continuity.[22]

Thus, it is evident that Saarinen possessed the appropriate tools for the cre-

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18 Saarinen, "Eero Saarinen," *Perspecta,* 29.
19 Ibid., 29, 31.
20 Ibid., 31.
21 Ibid., 32.
22 Ibid., 30.

ation of sacred space, such as the one he would create at MIT in its non-denominational chapel.

MIT Chapel: The Sacred Space

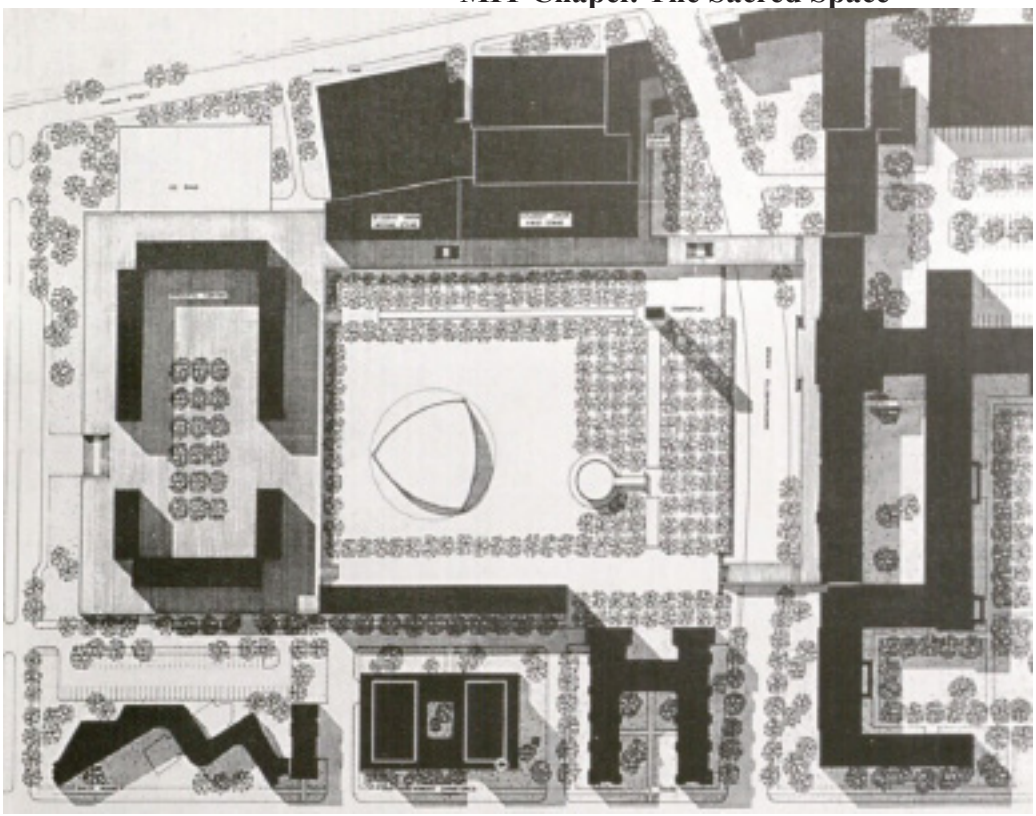

Figure 4. Saarinen's original plan for the plaza, with the Auditorium, Chale, and Student Union. Jayne Merkel, *Eero Saarinen* (New York: Phaidon Press, 2005) 114.

Saarinen's Expressionism was to first take form in his designs for university settings, notably at the Massachusetts Institute of Technology for its Kresge Auditorium and Chapel.[23] University campuses held a particular importance for Saarinen:

> [Saarinen] wished to renew, maintain, and improve … the organic expression of the *civitas* which he found weakened or destroyed virtually everywhere in modern civilization, with one significant exception – the university campus. Here was a permanent environment, often encapsulated within surrounding megalopolitan squalor,

23 Ingersoll and Kostof, "Chapter 19:1940-1970," 885.

> and threatened by it, but nevertheless basically healthy and capable of new growth. 'Universities are the oases of our desert-like civilization,' he wrote, '… they are the only beautiful, respectable pedestrian places left.'[24]

Saarinen's plans for MIT included the development of a plaza on the outskirts of the 1950s campus, near the Charles River, just south of the campus's main axis (Fig. 4). The plaza was to be bounded by the chapel, the auditorium, and by a never-actualized student union, as well as contain triangular patches of paving surrounded by the lawn.[25] He designed the sequence of buildings concurrently, and they were truly meant to be a whole piece articulated around the plaza. Saarinen was also very conscious of the existing structures, for as his father had taught him, it was necessary for each object to be "designed in its 'next largest context – a chair in a room, a room in a house, a house in an environment, environment in a city plan."[26] For example, as architect David M. Foxe states,

> Saarinen creates asymmetrical outdoor spaces amongst the trees, giving each building its own sense of place and identity without competing for prominence. Even the use of brick in the chapel and the exterior terrace of the auditorium help to build a visual relation to the curved brick forms of Aalto's Baker House visible beyond.[27]

Besides the obvious use of similar materials, Saarinen also considered the cylindrical forms of the chapel and the Kresge Auditorium (Fig. 5) as being in dialogue with the many domes of MIT's existing buildings, in particular,

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24 Temko, *Eero Saarinen*, 27.

25 Michelle Miller, "AD Classics: Kresge Auditorium/ Eero Saarinen and Associates," *ArchDaily* (3 April 2014), http://www/archdaily.com/492176/ad-classics-kresge-auditorium-eero-saarinen-and-associates, accessed 7 April 2016; David M. Foxe, "Saarinen's Shell Game: Tensions, structures, and Sounds at MIT," *Nexus Network Journal* (Kim Williams Books) 12, no. 2 (2010): 194.

26 Saarinen, "Eero Saarinen*," Perspecta,* 31; Temko, *Eero Saarinen,* 14.

27 Foxe, "Saarinen's Shell Game," 194.

Figure 5. Kresge Auditorium, a concrete shell supported on three plinths. Its primary purpose is a music venue. Its sculptural concrete and open glass contradict the simple brick geometry of the chapel.
Jayne Merkel, *Eero Saarinen* (New York: Phaidon Press, 2005) 116.

that of Welles Bosworth (Fig. 6).[28]

Figure 6. The MIT Dome, designed by Well Bosworth, served as inspiration for Saarinen's cylindrical forms.
John Phelan, *Kilian Court , Builidng 10, and the Great Dome, WikiCommons*, https://en.wikipedia.org/wiki/Campus_of_the_Massachusetts_Institute_of_Technology#/media/.File:MIT_Building_10_and_the_Great_Dome,_Cambridge_MA.jpg

The project's two realized structures – the chapel and the auditorium – are described as "fraternal twins."[29] As Foxe alludes to, the two buildings do each appear to have their own sense of place in the plaza, but they are nevertheless in dialogue. One is a contemplative structure, while the other is an active configuration whose primary purpose is as a music venue. Indeed, Michelle Miller of *ArchDaily* calls attention to their opposing, yet related, features when she states, "The inward-looking chapel is a windowless brick extrusion in contrast to the outward thrust and transparency of the auditorium."[30] Saarinen incorporated a direct visual line between the two structures: The chapel's main axis is aligned with the auditorium's off-center south entrance (Fig. 7a and 7b).[31]

Saarinen stated that the cylindrical form of the chapel came about as "a result of site explorations to create a form that maximizes its similarity as seen from many vantage points, and as a function of minimizing the maximum interior distance."[32] Furthermore, the cylinder would carry the "eye around its sweeping shape." The circular plan, in accordance with the Liturgical Movement, also "seemed right" to Saarinen, "for this was basically a chapel where the individual could come and pray and he would be in

28 Foxe, "Saarinen's Shell Game," 196.
29 Ibid., 195.
30 Miller, "AD Classics: Kresge Auditorium/ Eero Saarinen and Associates."
31 Foxe, "Saarinen's Shell Game," 194.
32 Foxe, "Saarinen's Shell Game," 196.

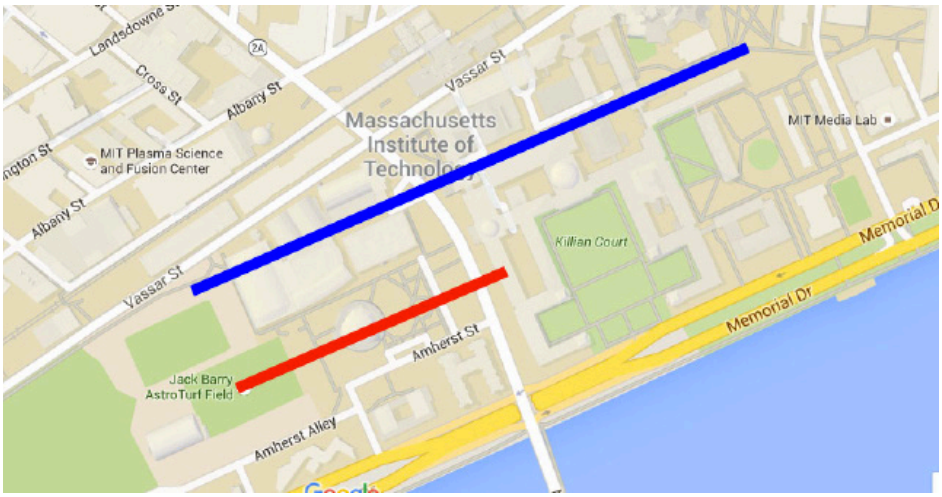

Figure 7a. MIT Axis. The blue line depicts MIT's main campus axis, and the red depicst the new axis by Saarinen, built a little of the south of the main campus. During the time of construcion, this area was on the edge of the campus.
Google Maps.

Figure 7b. Kresge Oval. The tension between the Kresge Auditorium and MIT Chapel is easily seen in this image, as the two brothers seem to face off. One can also see the off-center entrance to the auditorium, which is lined up with the chapel's main axis.
Jayne Merkel, *Eero Saarinen* (New York: Phaidon Press, 2005) 115.

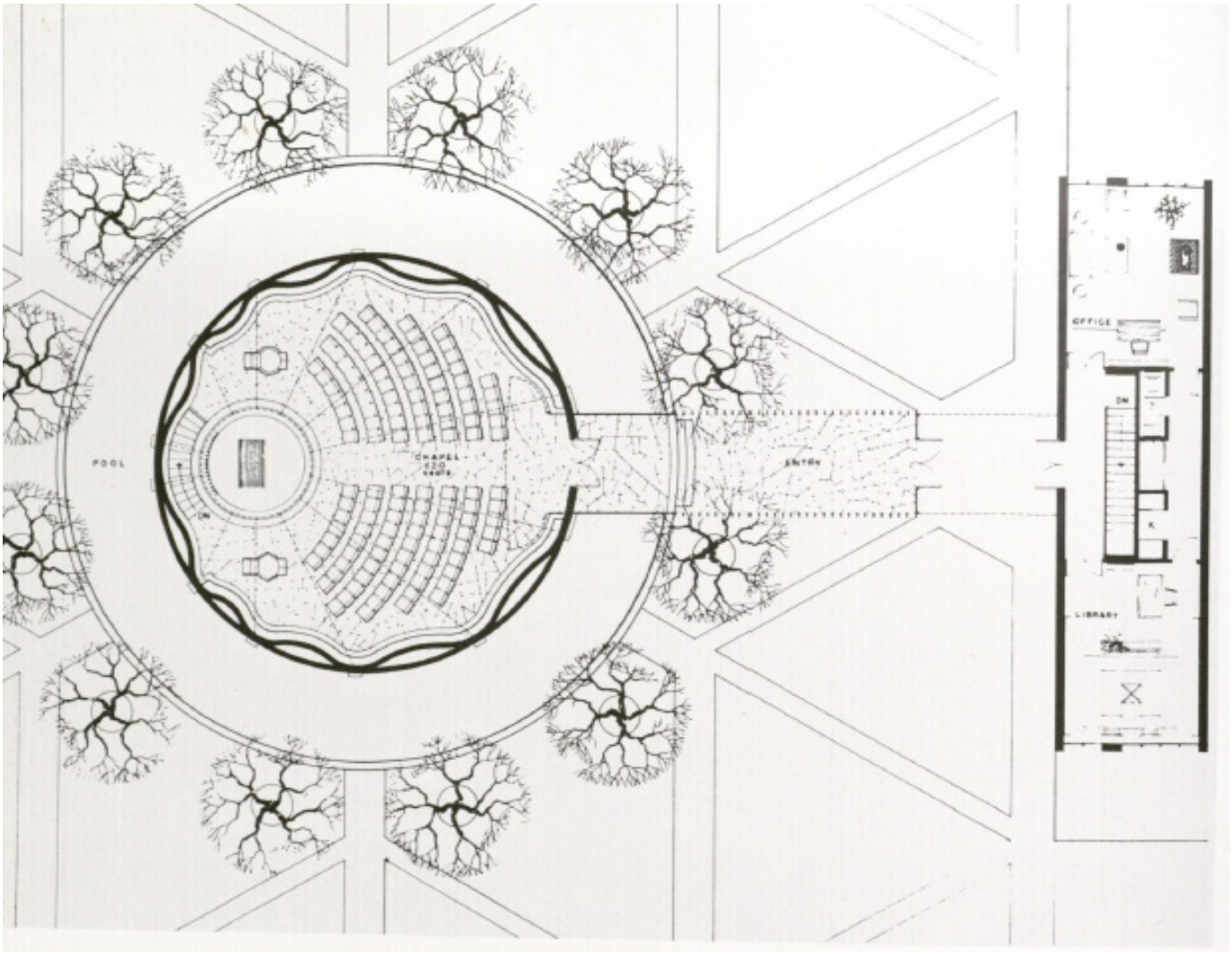

Figure 8. Chapel Plan. The undulating walls are clearly visible, as well as the moat surrounding it, and the entrance passageway. The altar is centralized and approachable from three sides. Jayne Merkel, *Eero Saarinen* (New York: Phaidon Press, 2005) 118.

contact with the altar" (Fig. 8).[33]

Even though Saarinen sought to create a plaza across which the auditorium and chapel's forms would be in tension, the chapel was intended to be somewhat secluded. The relatively small interior was meant as a refuge from the bustle of an urban campus and of Massachusetts Avenue, as a pur-

33 Eero Saarinen, *Eero Saarinen on His Works* (Yale University Press, 1968), 42.

posefully hidden enclosed space.[34] The chapel is surrounded by trees, which according to Foxe, create "a filtered mosaic of light and shadow on the brick cylinder as well as the ground" (Fig. 9).

Figure 9. MIT Chapel surrounded by trees, secluding it from the plaza and enhancing the sense of contemplative isolation. Personal photograph.

Saarinen included an encompassing "moat" so that "the water surrounding the chapel creates a physical and visual separation penetrated only by the bridge-like passage of the entryway."[35] Even this passageway – or narthex, as Saarinen referred to it – is purposeful in its attempt to further isolate the chapel from the plaza. Saarinen called the narthex a "decompression chamber," which tightly compresses the visitor via its low ceiling before being "released into the 30-foot ceiling height of the extraordinary chapel," (evidently an allusion to the entrance into Paradise; Fig. 10).[36] The narthex serves also as a transitory space – a purgatory in which one moves from the hustle of Massachusetts Avenue and the MIT campus into a divine space of contemplation. Furthermore, one is forced to walk to the opposite end of the plaza, almost behind the chapel, in order to access the entranceway, which passes over the moat and into the chapel (Fig. 11). Foxe further explains, "This low, translucent corridor provides a transitional, intermediate space that sets the viewer on a linear course down the chapel's main axis to the altar

34 Jayne Merkel, *Eero Saarinen* (New York: Phaidon Press, 2005), 114; Foxe, "Saarinen's Shell Game," 191.

35 Foxe, "Saarinen's Shell Game," 198.

36 Ibid., 197; "MIT Chapel, Cambridge, Massachusetts Eero Saarinen 1955," *Galinsky* (2010), http://www.galinsky.com/buildings/mitchapel, accessed 7 April 2016.

Figure 10. Narthex/ Entrance Passageway.
Jayne Merkel, *Eero Saarinen* (New York: Phaidon Press, 2005) 119.

Figure 11. Narthex, exterior.
Personal photograph.

Figures 12a 12b. Moat. Notice the inner walls curvature, allowing the arched opening through which light reaches the interior. Personal photograph.

and oculus."[37] Thus, the entire procession, from the plaza, over the moat, through the narthex, and into the chapel, is a religious experience, a spiritual transformation, and a cleansing of the mind to prepare it for contemplation and prayer.

Besides separating the chapel's "inner world of contemplation" from it urban setting,[38] the moat (Fig. 12a and 12b), as a passage over a body of water, is rich in Judeo-Christian symbolism. Indeed, the entirety of the chapel's experience is rich in religious symbolism, which Foxe best summarizes in stating,

> It harkens back to more primal architectural concepts, focusing on simple elements of water and light…. Saarinen's design includes a shallow pool of water that functions as a reflecting pool to the

37 Foxe, "Saarinen's Shell Game,"193.
38 "MIT Chapel, Cambridge," *Galinsky.*

Figure 13. Aalvar Aalto's Baker Hall. Its brick structure inspired the use of brick in the chapel. *ArchDaily,* http://www.archdaily.com/61752/ad-classics-mit-baker-house-dormitory-alvar-aalto/5037e00628ba0d599b000144-ad-classics-mit-baker-house-dormitory-alvar-aalto-photo.

> exterior as well as reflecting light to the interior. While the exterior remains a quiet, closed cylinder surrounded by still water, the interior of the chapel is a ring of undulating brick ripples…. These ever-changing patters of light are the primary contact the interior space has with the outside world, the light having been mediated by the water's surface…. For many traditions, the single overhead oculus piercing the curved, black, night-like ceiling is an appropriate connection to divine connotations.[39]

Foxe thus defines the role of three of the chapel's materials: brick, water, and light (there is also wood, which he does not mention). Saarinen intended the chapel to be "a place where an individual can contemplate things larger than himself," and he employed these four materials to create a sacred, contemplative space.[40]

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39 Foxe, "Saarinen's Shell Game," 1919.

40 Saarinen, *Eero Saarinen on His Works*, 42.

Brick, as aforementioned, is employed on the exterior as a means of creating a dialogue with the existing MIT campus, especially Alvar Aalto's Baker Hall (Fig. 13). Yet, the brick also takes on a more mysterious quality because, as Foxe expresses, its "eccentricity invites viewers to speculate as to how 'true' the brick is."[41] This mystery is caused by the arches, which while "effectively supporting planar brick walls, transmitting their distributed loads to discrete points of support, the curvature in plan of the cylindrical face means that in perimeter the brick swerves beyond the line of action of the arch" (Fig. 14).[42]

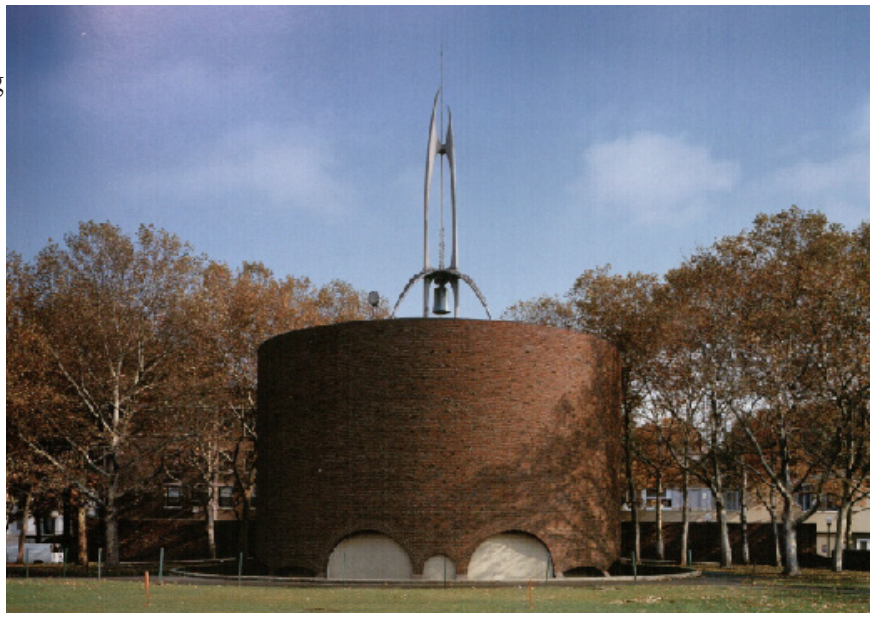

Figure 14. Chapel exterior, highlighting the structural arches. Jayne Merkel, *Eero Saarinen* (New York: Phaidon Press, 2005) 117.

Nevertheless, the brick also offers an organic quality that is evoked in Foxe's description of the chapel as evocative of "primal" forms. The rolling interior walls (Fig. 15), along with the darkness, creates a sense of being underground, or perhaps of stalactites in a cave, which were, in fact, amongst some of the first places of human worship. This effect is further enhanced by the inclusion of bricks of a rougher texture randomly placed amongst the regular rows. *Galinsky*'s description of the chapel compares the brick surface to the texture of an "old servant's hand, rough and faithful, imprinted with memories from the years."[43] Perhaps it is humanity's collective consciousness, engraved with the memory of cave-worship, that evokes the sense of the sacred in an "organic" and "primal" textural environment.

41 Foxe, "Saarinen's Shell Game," 205.
42 Ibid.
43 "MIT Chapel, Cambridge," *Galinsky.*

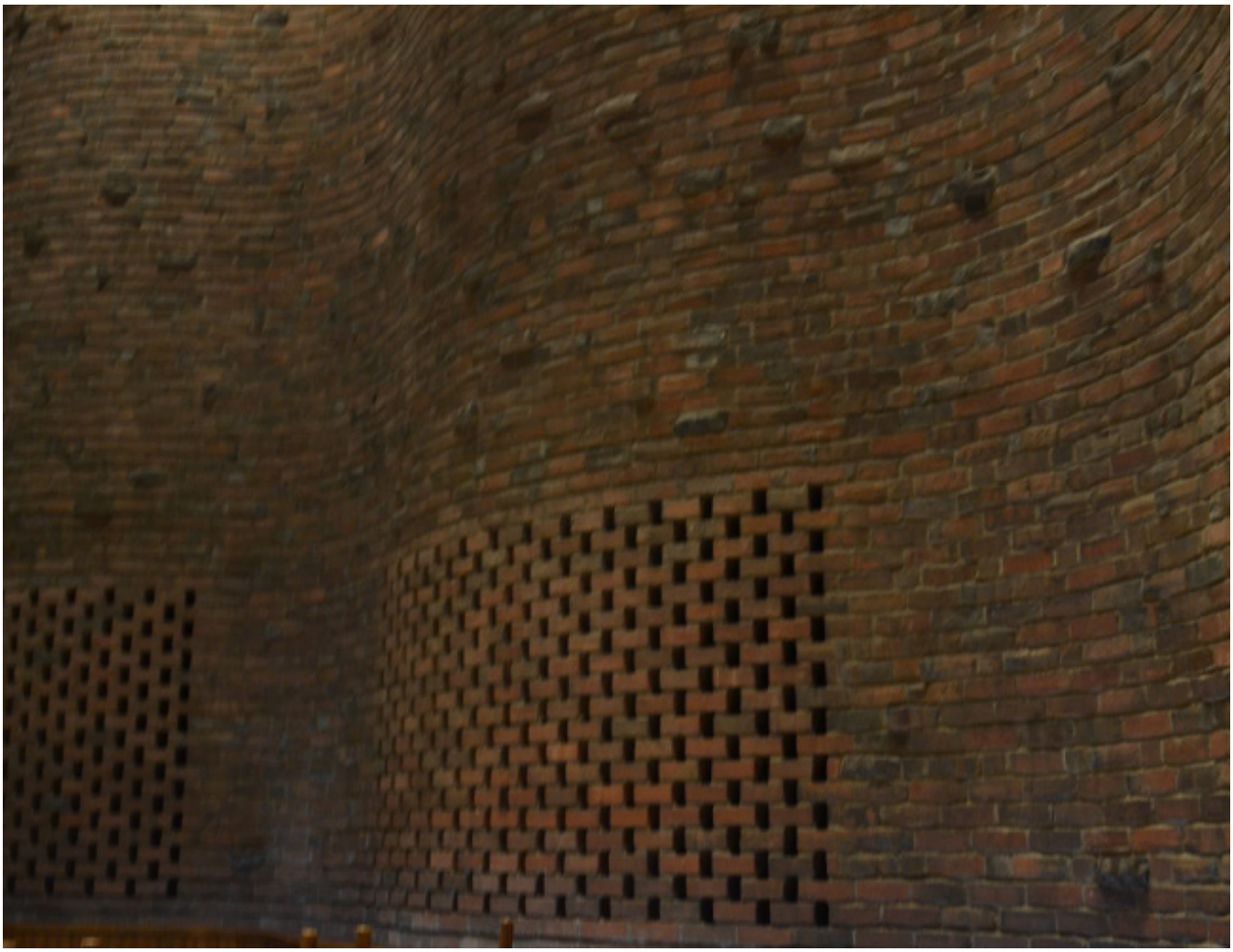

Figure 15. Brick interior walls. Notice the randomly placed bricks with a rougher texture that extrude from the wall, increasng the sense of being underground or in a cave. Personal photograph.

As already alluded to, the darkness of the chapel also creates a sense of the "primal." Yet, the darkness, which is "comforting and intimate," is "penetrated by … two otherworldly sources of light."[44] Indeed, light is the primary material employed by Saarinen in the chapel; it is what defines the space and "transforms the spiritual space into a religious architectural experience that words cannot fully describe."[45] Light is a material loaded in Christian connotations, for Christ is the Light of the World. For Jews as well, light is an important symbol of hope. Foxe articulates this aspect well when he says that the oculus brings "the 'light of the world' to a surrounding environment of darkness."[46]

There are two light sources in the chapel. The most obvious is the oculus above the altar. Saarinen incorporated a sculpture by his Cranbrook colleague, Harry Bertoia, to reflect the light streaming downward onto the altar (Fig. 16a). The sculpture is a simple structure of wire and metal plates, but "since it is supported at its top and bottom by the building, it does not tend to read as 'sculpture' separate from the architecture, but rather as an emphatic focal point within the aesthetic whole."[47] Eduardo Souza of *ArchDaily* describes the Bertoia sculpture as a "cascading waterfall of light that is constantly adjusting, moving, and redefining the interior of the chapel."[48] It is for this reason that light truly must be considered a material in Saarinen's chapel: It is not merely a symbol of Christian hope, but rather a definer of the space. At certain points of the day, the light will accentuate different spaces, and one becomes drawn to that which the light reflects. Nevertheless, the symbolic aspect is vital, and it "mediates the transition

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44 "MIT Chapel, Cambridge," *Galinsky.*

45 Eduardo Souza, "AD Classics: MIT Chapel Eero Saarinen," *ArchDaily* (17 February 2011), http://www.archdaily.com/112682/ad-classics-mit-chapel-eero-saarinen, accessed 7April 2016.

46 Foxe, "Saarinen's Shell Game," 193.

47 Ibid., 193.

48 Souza, "AD Classics: MIT Chapel."

Figure 16a. The oculus and Bertoia scultpure that reflects the light and highlights the altar. Jayne Merkel, *Eero Saarinen* (New York: Phaidon Press, 2005) 112.

Figure 16b. Oculus and sculpture detail.
Personal photograph.

from the light of above to the illuminated marble below, reflecting the mediation between God and man at times of worship" (Fig. 16b).[49]

The secondary light source comes up from the arches along the chapel's wall, reflected up by the water in the moat (Fig. 17). This creates a softer, more diffused light that illuminates the areas of the chapel further away from the direct light of the oculus. Saarinen describes how he came to be inspired to incorporate this softer light during his student travels in Greece, yet the excerpt is also an excellent summary of the "primal," natural

49 Foxe, "Saarinen's Shell Game," 193.

sacredness that he sought to create:

> The challenge of the interior was to create an atmosphere conducive to individual prayer. Since this is, uniquely, a non-denominational chapel, it was essential to create an atmosphere which was not derived from a particular religion, but from basic spiritual feelings. A dark interior seemed right – an interior completely separated from the outside word…. I have always remembered one night on my travels as a student when I sat in a mountain village in Sparta. There was bright moonlight overhead and then there is a soft, hushed secondary light around the horizon. That sort of bilateral lighting seemed best to achieve this otherworldly sense. Thus the central light would come from the altar – dramatized by the shimmering golden screen by Harry Bertoia – and the secondary light would be reflected up from the surrounding moat through the arches.[50]

Figure 17. Diffused light is reflected up from the moat. Personal photograph.

Being as the chapel is non-denominational, it was necessary to conjure a "powerful spiritual quality not associated with any particular religion but common to all."[51] This was especially important for MIT, which counted 46 countries as represented amongst its student population in the late 1940s.[52] Thus, Saarinen, drawing upon his experiences on the Greek mountainside, sought rather to create a "place of solitude and escape that induces a process of reflections."[53] Thus, as Jayne Merkel, a Saarinen biographer and critic, asserts, "Embraced by the encircling walls and mesmerized by the flickering light, one speaks in a whisper or falls silent, sensing a higher power."[54]

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50 Saarinen, *Eero Saarinen on His Works*, 42.
51 Merkel, *Eero Saarinen,* 114.
52 Ibid.
53 Souza, "AD Classics: MIT Chapel."
54 Merkel, *Eero Saarinen*, 114.

Figures 18a 18b. Wooden chairs/ lecturne.
Personal photograph.

Despite the many spiritual connotations of Saarinen's chapel, the fourth material that he employs – wood – possess a more human quality. Wood is present at the areas of human contact. For example, almost all the interior furnishings, from the chairs to the lectures and organ balcony, are made of wood (Fig. 18a and 18b).[55] Also present is wooden wainscoting, "placed to curve alongside areas of human interaction, with varying and increasingly variable radii of curvature" (Fig. 19).[56] The warmth of the wood elicits a feeling of familiarity and of warmth in a darkened environment built of hard brick, especially being as it is located right at hip level, inviting the visitor to run his hand along it as he ambulates the space.

The wood also helps to accentuate the other materials. Foxe states that the variations of the radii "increase or form a visual crescendo towards the focal areas."[57] The wainscoting inflects the brick walls, along which it

55 Souza, "AD Classics: MIT Chapel."
56 Foxe, "Saarinen's Shell Game," 197.
57 Ibid.

Figure 19. Wooden wainscoting. Personal photograph.

curves, but also the water and the diffused light because it is up through the distance between it and the wall that the light is allowed to enter from the arches below.[58] The undulating wainscoting, together with its twinned brick walls, also points up toward the oculus, thus directing attention to the primary element of the design, as well to a contemplative emotional state. Indeed, as Saarinen clarifies, "The interior wall was curved, both for acoustical reasons, and to give the space a lack of sharp definition and an increased sense of turning inward."[59] Thus, one can see in every aspect of the design, the "turning inward," of contemplative reflection and prayer.

58 Souza, "AD Classics: MIT Chapel."
59 Saarinen, *Eero Saarinen on His Works,* 42.

Figure 20. TWA terminal at Kennedy Airport, New York. Richard Ingersoll and Spiro Kostof, "Chapter 19:1940-1970," in World Architecture: A Cross-Cultural History (New York: Oxford University Press, 2013), 888.

Conclusion

It is apparent that Saarinen has succeeded in creating a contemplative space for prayer, a non-denominational space evocative of inherently human spiritual symbols. Nonetheless, the question remains as to whether or not the MIT Chapel is a "temple to the architect." It is certain that the chapel is not in line with Saarinen's more sculptural pieces, such as the TWA Building at Kennedy Airport (Fig. 20), the Dulles airport building (Fig. 21), or even the Kresge Auditorium across the plaza. Rather, the MIT Chapel is a simple form – a cylinder. Saarinen employs his strong personal sense of design to create an emotive space, but it is not a structure indicative of his very personalized and easily recognized style. Thus, one could argue that the MIT Chapel is not a "temple to the architect," unlike, for example, Mies van der Rohe's University Chapel at the Illinois Institute of Technology (Fig. 22), which is typical of his personal style, with the steel frame and large glass fenestration.[60] Rather, it is more akin to Le Corbusier's Notre-Dame du Haut at Ronchamp, which is so unlike all of Le Corbusier's other functionalist architecture, and which also plays with the role of light and concrete as an "organic" material to evoke the sense of primordial sacredness.

Saarinen, while still employing simplicity and symbolism – Modernism's principles for sacred architecture – has, as Lepine states, "interpreted

60 Wierzbicka, "Modernsit Architecture and the Sacred," 39.

holiness for the people."[61] He did not attempt to imbue the space with Judeo-Christian symbolism, but rather drew upon his experience of "sacred" nature, of simple "primal" forms and materials. Saarinen employs natural, or naturally derived, materials: wood, water, light, and brick. The chapel is infused with the sense of sacredness because it evokes the simplicity of primal holiness that is inherent in all humanity and that harkens back to the era of cave-shrines.

Figure 21. Dulles Airport, Washington, D.C.
Richard Ingersoll and Spiro Kostof, "Chapter 19:1940-1970," in World Architecture: A Cross-Cultural History (New York: Oxford University Press, 2013), 889.

However, the fact that the chapel was intended to be a place of *personal* contemplation causes difficulties in congregational services. For example, the electrical lights decrease the oculus's effect. They are illuminated during services in order to help the congregation read, but in so doing, they flush out the natural light streaming in from the oculus.[62] Thus, the oculus loses its focal and symbolic power. Also, the area between the sculpture and the altar is rather narrow for the priest during Roman Catholic services, and processions are nearly impossible in a short, circular space. Furthermore, Foxe specifies that many of the religious groups (in particular, Muslims and Buddhists) do not even use the chapel for their services.[63]

In fact, Saarinen held so strongly to the tenant that architecture was supposed to induce a *personal* emotion – and to the extent of the chapel, a sacred one – that he forwent the modernist principle of functionality. For example, he states,

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61 Lepine, "Architecture does not teach us."
62 Foxe, "Saarinen's Shell Game," 201.
63 Foxe, "Saarinen's Shell Game," 199.

> It is only when structure can contribute to the total and to the other principles that it becomes important…. The problem of a chapel is an obvious one. Imagine what Chartres Cathedral would like if the Gothic master builders had not placed their main effort on the inner meaning and emotional impact of this building but instead concentrated their effort on making the plan work functionally.[64]

Merkel further validates this radical statement when she quotes the *Architectural Forum*'s contemporaneous article: "[Saarinen and his associates] have challenged current thinking and started some basic rethinking about architecture and building."[65] From this standpoint, the chapel is a "temple to the architect" in the sense that it possesses his radical design elements and breaks with the mainstream International Style.

Furthermore, the fact that Saarinen has criticized certain aspects of the building strengthens this argument. Rather than be satisfied with having succeeded in creating a sacred space, he expressed disappointment in the structure: "I wish that we had given these arches a richer, stronger three-dimensional quality. And I am aware that the connection between the narthex and the chapel is clumsy."[66] Additionally, he states,

> The shapes of the buildings are closed. They do not contribute anything toward creating unity within an area which so badly needs unity. From the beginning, we conceived of these buildings on a great square, but neglected to define and crystalize exactly how it would be achieved. This we should have done.[67]

Saarinen would have the structure be perfect in order to feed his own ego as the potential designer of a perfect structure.

However, this is an unfair conclusion because Saarinen continued by expressing his profound contentedness at the interior's success: "I am happy

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64 Saarinen, "Eero Saarinen," *Perspecta,* 31-2.
65 Merkel, *Eero Saarinen*, 115.
66 Foxe, "Saarinen's Shell Game," 205.
67 Saarinen, *Eero Saarinen on His Works*, 42.

with the interior of the chapel. I think we managed to make it a place where an individual can contemplate things larger than himself."[68] The above quotes speak more to the failure of creating the plaza as a unified place.

Hence, Saarinen did not create a "temple to the architect," but rather a successful interior space, isolated from the bustle of an urban setting, where people of any creed could go and contemplate a higher power. He employed simple, organic, and symbolic materials to which any faith could relate. Saarinen utilized his sculpture's background to construct a space where the human comes into contact with the divine. Here, he has answered the question he posed himself for all of his works – that is, "How can the whole building convey emotionally the purpose and meaning of the building?" – through the use of materials. Temko thus best summarizes the MIT Chapel, when he states,

> That the brick drum is magnificently lighted within by reflections passed upward through the low arches of varying diameter that rise from the moat to coincide with the undulating interior shell, only serves to call the entire structural esthetic into question. This is sculpture, as much a hollowed-out solid as a shell, in which light and shadow, roughened texture, and the delicate – overly delicate – foil of Harry Bertoia's shimmering screen, have all been subjectively combined as an image – and idolum – of religious experience.[69]

68 Foxe, "Saarinen's Shell Game," 205.
69 Temko, *Eero Saarinen*, 29.

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