

First Church of Christ, Scientist

6427 E. Indian School Road, Cases No. 5-ZN-2013 and 1-HP-2013

Historic Significance and Integrity Assessment Report to the
Scottsdale Historic Preservation Commission

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Background on Places of Worship Study

As part of an ongoing effort to record and preserve Scottsdale's post-World War II built environment, the City of Scottsdale Historic Preservation Office (HPO) conducted a survey of extant historic places of worship. The survey results and associated research were then incorporated into the 2010 historic context report. The study provides city staff and the council-appointed Historic Preservation Commission with an understanding of the story relating to the development of post-war religious institutions in Scottsdale, and provides a context for nominating individual properties to be listed on the Scottsdale Historic Register. The research findings are summarized below prior to describing the specific property proposed for designation.

The places of worship study focused on the religious structures constructed during the post-war period of 1945 to 1973 since the sole remaining intact pre-World War II religious structure in Scottsdale has already been documented and designated - the OLPH Mission Church on Brown Avenue. A post-war population and building boom in Arizona and Scottsdale continued into the 1950s, through the 1960s, and into the early 1970s but the severe recession of 1973 to 1975 greatly slowed housing construction and other economic activity. The field survey process involved an on-the-ground analysis of 28 extant Scottsdale houses of worship and campuses of buildings with construction dates from 1945-1973. Essential historical and architectural information relating to subject properties was recorded on survey forms and additional research documented the context of religious institution development during the subject period.

International Trends

Until the dawn of World War I, churches and other places of worship in Europe and North America typically followed older traditional styles of architecture. A very dramatic departure from traditional forms is evident in a very personal version of Art Nouveau by Antonio Gaudi in the incomplete Sagrada Familia in Barcelona, Spain. Gaudi took over design of this church in 1884. The Modern Movement that started in Europe rocked the traditional architecture of churches and other types of buildings following the Arts and Crafts Movement and the Art Nouveau period. The tenets of the Modern movement to reject the past and ornament led to a major decline in the use of revival styles of architecture for places of worship by the end of World War II. Another early departure from the dominant traditional styles was the Unity Temple in Chicago by Frank Lloyd Wright in 1906. Wright used concrete to form a sanctuary in the shape of a cube and designed concrete ornamental columns for the exterior.

Attitudes of religious groups in the West were also changing to more modern, egalitarian, socially involved doctrines in the 20th century. Views on the role of the laity, congregation, or community of worshippers in the planning for religious buildings changed as some religious organizations became less hierarchical. Local Catholic laity took the reforms of the Second Vatican Council as a sign that modern architecture was now acceptable for church design and that traditional styles like Gothic

Revival were no longer prescribed. While architects generally rejected ornament as contrary to the rules of the International Style or other sub-styles of modern architecture, churches and other sacred buildings still included the symbols of the specific religious traditions embodied in the structure whether it be in the windows, altars, floor plans or roof forms.

International Innovations in Concrete Construction

Architects and engineers have been using concrete to cover large public spaces for a long time. The oldest standing large concrete dome is the Pantheon in Rome completed around AD 125. Other early well-known places of worship with large concrete domes include; 1) the 537 Hagia Sophia in Istanbul, Turkey, 2) the 1626 St. Peter's Basilica in Rome, and 3) the 1708 St. Paul's Cathedral in London, by Sir Christopher Wren. Concrete and domes have been used in places of worship for a very long time as a roof form to inspire worshippers.

The leading European firms and practitioners of innovative concrete structures during the Modern architectural era were centered in Italy, Spain and Germany beginning as early as the 1920s. Pier Luigi Nervi and Pietro Belluschi from Italy gained acclaim by designing large ribbed concrete vaults to cover aircraft hangars and stadiums, such as their two 1960 Olympic Stadiums in Rome. Felix Candela from Spain left Spain for political reasons to practice in Mexico. Felix Candela was a master designer of thin shell concrete churches in the fifties including the Church of Santa Maria Miraculosa in 1954 and Lomas de Cuernavaca Chapel in 1959. His hyperbolic paraboloid roof forms and other sculptural curved shell designs in Mexico proved that thin shell concrete structures were stable and cost effective. German engineers at Dyckerhoff and Widmann designed the 1922 Zeiss Planetarium concrete dome in Jena, Germany and the 1931 market halls in Budapest, Hungary covered with large-scale thin shell concrete barrel vaults.

Perhaps the most influential church built in Europe with a Modern architectural style is the Notre Dame Du Haut Chapel in Ronchamp, France by Le Corbusier in 1955. The expressive sculptural forms for the walls, towers and roof of this chapel created a worship space from concrete like no other. Le Corbusier designed many other buildings in concrete, including curved forms, but his chapel in Ronchamp gained international acclaim and probably inspired other architects to use concrete in expressive ways. Another well-known sculptural concrete building from the last century is both revered and notorious – the Sydney Opera House completed in 1973 in Sydney, Australia and designed by Jorn Utzon to resemble sails on the harbor. The severe cost overruns for this opera house made up of multiple thin shell concrete double curved forms required substantial increases in public funds to be completed. These financial problems to construct an innovative and expressive thin shell concrete design may have discouraged future publicly funded projects using similar construction methods.

To contain costs for concrete construction, some designers turned to factory made concrete wall and roof sections that could be quickly assembled on site. Construction methods using factory manufactured or precast parts has been called by different names including prefabrication (prefab) and system building with the intent being to save time and money on construction.

National Trends

The American way of life transformed dramatically following World War II since the outbreak of World War II required the full attention of the citizenry and leadership of the nation. While the war

effort fully remedied the economic doldrums that had been plaguing the population for over a decade since the Great Depression, the material restrictions imposed during the war years constrained the purchasing ability of the American consumer. Thus, the end of hostilities unleashed a torrent of consumerism that would shape the remainder of the twentieth-century. The horrors of World War II and the fears of the Cold War fostered strong religious sentiment in the United States during the immediate post-war era. Americans turned to religion in record numbers, aware of the tremendous suffering brought about by years of worldwide combat and suspicious of the official atheism espoused by the leaders of Communist nations. Lured by employment opportunities, temperate climates, and quality-of-life concerns, many Americans began to leave the crowded industrial centers of the East for the open lands of the West. The region west of the Rockies experienced unprecedented growth following the war peopled by a rush of Americans taking part in a great Westward migration. Though claiming just 5% of the national population in 1900, the Western region of the United States boasted nearly 17% of the nation's residents by the year 1970. By necessity, the American religious community began an aggressive building campaign to house the new congregants. Faced with a swelling population moving to previously undeveloped areas religious sects raced to build new structures to accommodate the faithful.

The international architectural trends by the mid- century described previously had their U.S. parallels. After the Modern Movement gained a strong hold in 1945, later American churches reflect the international trend towards Modern architecture, including using new materials in innovative ways for religious buildings. Many American architects were just as willing to reject past historical styles and ornamentation as their European contemporaries. Architects also collaborated with structural engineers to build religious buildings for large numbers of worshipers.

Thin Shelled Concrete Construction and Concrete Structures in America

Early thin shelled concrete structures in America are often credited to one design engineer, Anton Tedesko who was sent to Chicago, IL in 1932 from his German firm of Dykerhoff and Widmann. He was sent to market their innovative patented technology on thin shell concrete roof design, including stress calculations for doubly curved shells like domes. In Germany, Walter Bauersfeld designed a light-weight structural steel framework in 1922 to construct the Zeiss Planetarium dome in Munich. Barrel vaults and domes had been built in Germany for a couple of decades before Tedesko came to America so the technology and construction methods used by German firms had been successfully tested in Europe. The engineering firm that Anton Tedesko joined, Roberts and Schaefer, became a leader in the design and construction of thin shell concrete roofs in America after the Great Depression. Thin shell concrete roof system designs in America are now credited with two major innovations in concrete construction; the wide-spanning, short barrel shell, and the ribless shell. Historic preservationists and structural engineers are now taking an interest in preserving some of the most noteworthy thin shell concrete structures from this era after some buildings have been demolished, like the 1975 Seattle Kingdome, and others have been threatened, like the TWA terminal in New York by Eero Saarinen.

After the seventies buildings constructed with concrete exteriors were less common. This probably resulted from several factors including changing public tastes in materials, problems with maintenance or weatherproofing for some concrete buildings, structures becoming obsolete, increasing costs for labor, conflicts between engineers, contractors, and building code officials over

structural integrity, and the end of the initial Modern architectural era. Another factor that may have turned the public and clients against concrete buildings was the Modern architectural style called 'Brutalism'. This style is characterized by using raw concrete with an unfinished exterior surface in structures lacking any decorative elements. Examples of Brutalism include; 1) the 1963 Yale Art and Architecture Building in New Haven, CT by Paul Rudolph, 2) the 1966 Whitney Museum in New York by Marcel Breuer, 3) the 1968 Boston City Hall by Kallmann McKinnell & Knowles, and 4) the 1971 Orange County Government Center in Goshen, NY by Paul Rudolph. There have been some active public debates in recent years over whether to keep or demolish some of these concrete Brutalist buildings.

Concrete was also used in a less brutal, more ornamental way by some modern architects although not all the architectural critics of the sixties and seventies appreciated alternative design approaches to the Modernist ideal of rejecting all ornamentation. One of the architects that decided to reject a strict interpretation of modern architecture and the use of materials was Edward Durell Stone. His projects shifted in style from severe modernism and the International style to an ornamental formalism. Stone covered his large box buildings with ornamentation such as screen walls made up of decorative concrete blocks, not unlike the exterior of the Arizona State Legislature building in Phoenix. A visit to Frank Lloyd Wright at Taliesin in Wisconsin also convinced Stone to use a warmer architectural style. After his earlier 1937 Museum of Modern Art building in the International style, he designed 2 Columbus Circle in New York with a decorative marble façade including filigree-like portholes along the corners and along the top of the 12 story 1964 building. Unfortunately the original façade of 2 Columbus Circle was destroyed by a new façade. Stone also designed the grand and formal John F. Kennedy Center for the Performing Arts in Washington, DC in 1962. The Kennedy Center is similar in form to his 1958 U.S. Embassy building in New Delhi, India. The embassy also uses screen walls made up of decorative perforated concrete blocks.

Arizona and Scottsdale Trends

The war and post-war periods brought about tremendous economic and demographic changes to the state. The wartime boom, followed by the post-war population shift that brought vast numbers of Americans to the Sunbelt, would forever alter the state. Nonetheless, religious institutions played an important role in the social fabric of post-war Arizona. Drawing influence from local materials, Modernist principles, historical regional styles, or a combination of the three, many houses of worship within the state stand as architectural landmarks representing the Modern architecture movement. The 1957 Chapel of the Holy Cross rising from a rock outcropping in Sedona and designed by Anshen and Allen is one such structure. However, a Frank Lloyd Wright designed church in Phoenix constructed after Wright's 1959 death embodies the spirit of many post-war Scottsdale church designs surveyed for this report. The First Christian Church on 7th Avenue was completed in 1973 with 'desert masonry' concrete and stone walls like those used at Taliesin West.

Scottsdale began as a small community originally founded by Baptist minister Winfield Scott in 1888. The strong religious beliefs held by community members during the early years of settlement were demonstrated through informal home based church services and the prohibition of alcohol in the community in May of 1897. However, the climate and natural surroundings were soon to act as magnets that would draw in outsiders and shift the focus of the community. The dry air, pleasant winter climate and stunning vistas soon lured tourists, part-time residents and tuberculosis patients

alike, as documented in the 2004 “Historic Context for Scottsdale’s Development as an Arts Colony and Tourist Destination” report by Debbie Abele and Liz Wilson. Recognized as a haven for affluent tourists by the end of the pre-World War II period, Scottsdale differed greatly from the small town settlement known by Winfield Scott. By the early 1950s, Scottsdale boasted an intriguing mix of residents and visitors. Scottsdale was noted for its appealing lifestyle, climate, and surroundings. Town leaders decided incorporation was necessary to direct inevitable future growth that would expand the population. The Maricopa County Board of Supervisors approved Scottsdale’s bid for incorporated status on June 25, 1951.

The newly incorporated town boasted six churches in 1951, all of which had been constructed prior to the war. While new congregations had formed during the years following the war, none had yet mustered the resources to build a new house of worship. Scottsdale churches built during the 1950s continued to employ rather traditional sanctuary designs. The design of the 1956 Our Lady of Perpetual Help campus incorporated Spanish-themed building materials while the 1956 Scottsdale Methodist Church, 1958 Scottsdale Presbyterian Church and the First Baptist Church of Scottsdale were built with desert masonry elements. These structures were discernible as architectural descendants of traditional design for houses of worship. Beyond service contributions to the community, religious structures brought aesthetic appeal to the growing town. Scottsdale congregations set about erecting a string of architecturally notable facilities during the 1960s and early 1970s. The 1966 Los Arcos Methodist Church, a 12-sided thin shell concrete paraboloid creation located east of the former Los Arcos Mall site, served as a stunning example of the new style of architecture embraced by Scottsdale congregations of the era. Unfortunately the Los Arcos Methodist Church closed and was demolished in 2012 for a housing redevelopment project.

After having lost numerous annexations battles with Phoenix to the west, Scottsdale leaders were left with no choice but expand to the north through a series of annexations. Thus, the chronological pattern of church development tends to trend northward as housing continued to expand into land far north of the original town site. The recession of 1973-1975 severely curtailed new housing activity in Scottsdale. Accordingly, no new houses of worship were constructed on new locations in Scottsdale between the 1973 and 1978 with one exception - the 1975 Church of Jesus Christ of Latter Day Saints on 82nd Street near Saguaro High School.

Location

The First Church of Christ Scientist at 6427 E. Indian School Road was initiated for HP overlay zoning consideration by the City’s Historic Preservation Commission (HPC) on February 7, 2013. The 1962 sanctuary building and church continues to be used for church services. The proposed HP overlay includes 1.8+/- acres.

History and Description

Our research has identified this 1962 church as the design of T. S. Montgomery, a prominent architect of the period. Other Montgomery designed churches or projects in the area include; 1) the 1961 St. Barnabas on the Desert Episcopal Church at 6715 N. Mockingbird Lane in Paradise Valley, 2) the 1964 sanctuary addition for the Scottsdale United Methodist Church at 4140 N. Miller Road, 3) the 1966 Prince of Peace Lutheran Church at 3641 N. 56th Street in Phoenix, and 4) the seven building retail complex on 5th Avenue originally called Craftsman Court, listed on the local register in

2002. The four churches in the area designed by T. S. Montgomery in the sixties, including the subject property, were each for a different denomination which demonstrates the architect's ability to design sacred spaces for a variety of clients. The First Church of Christ, Scientist was listed in the city directory in 1958. The Second Church of Christ, Scientist in Scottsdale is located at 10180 N. Hayden Road with the deed dated in 1977, roughly 15 years after the first church opened in Scottsdale. According to church members, the opening of a second Scottsdale church and other newer churches for the denomination reduced the attendance at First Church of Christ, Scientist.

Precast rectangular concrete units are used to form a screen wall on the north side of the sanctuary. The screen wall helps diffuse the light and also partially obscures views of the street from the interior. Two different size concrete block units with the same proportions are used on the façade. The larger blocks (16" x 24") were used on the sanctuary wall facing Indian School Road and smaller blocks (12" x 18") were used on the screen wall along the west side of the building. The French word 'brise soleil' for sun breaker is another term used to describe a screen wall. A second screen wall composed of smaller rectangular blocks is along the west side of the building. Both walls give the facades a decorative appearance using a very simple design of stacked blocks, similar to the screen walls employed by Edward Durell Stone and other architects. Because a local block manufacturer produced a variety of 'Superlite' decorative concrete blocks starting in the fifties, architects like T. S. Montgomery had the opportunity to utilize this inexpensive building material in creative ways. Using concrete blocks for screen walls was less common as a characteristic design element for non-residential buildings after the study period. Arizona architects still use various types of screening elements to block the sun's heat.

The solid walls are of burnt adobe brick alternating with glass curtain walls with the grill of stacked concrete blocks in front of the glass mentioned above. A copper fascia with raised seams and a scalloped appearance runs along the top of the walls and an ornamental copper sculptural spire is in the middle of the western brick wall. Copper downspouts are also on the western wall set in from the side walls. The architect has selected and used materials in innovative ways to achieve a modern look within a Southwestern context. The ornamentation provided by the copper fascia, copper spire and downspouts and the concrete screen walls is understated and elegant and gives the building a human scale. For the classroom area the architect based the layout on a half-circle, but this part of the building is not visible from the street. The roof of the Sunday school half-circle space is supported by beams radiating from a central concrete wall so the interior ceiling looks like the sun and its rays. The ceiling beams may be precast concrete.

The entrance vestibule and the rooms supporting the worship space are in a one-story building to the south of the sanctuary that appears to have a flat roof. The entrance doors to the west are double-doors of mahogany. After you enter the church in an area with burnt adobe interior walls, the opposite eastern wall also has double wooden doors leading into a courtyard and garden area. Flanking each set of doors are floor-to-ceiling windows. The doors and windows are surrounded by and supported by three rectangular concrete arches. A later addition was added to the southeast corner of the building following the curve of the Sunday school space but the addition has a rectangular shape on its south and east facades. This addition by Florence & Walling Architects, Inc. from Tempe, AZ was approved by the city in 1971.

The roof of the worship space is low-pitched and is formed of precast concrete panels that have curved recesses on the interior. The recesses in the precast panels accommodate the lighting but the uneven interior surfaces may improve the acoustics as well. The precast roof panels are supported by concrete columns in the interior of the sanctuary set in several feet from the outside walls. The cross-section for the roof rises at a low pitch from the columns towards the ridgeline and the roof form a cantilever as it rises at a low pitch from the columns to the outer walls. The fact that the roof is cantilevered on the sides means that the stacked concrete screen wall and the opposite partially glass wall do not need to carry the weight of the roof since the roof is supported by the two rows of interior concrete columns. When Indian School Road was widened to three lanes in each direction the church replaced the single-pane windows on the street side with double-pane windows to reduce the traffic noise. The south side of the sanctuary and the north side of the classroom area form a small relatively private landscaped courtyard to the east of a north-south interior courtyard connecting the different functions. The glass on the south side of the sanctuary goes up about seven feet and then the upper half of this exterior wall is burnt adobe brick supported by a concrete beam and columns in the wall. One of the sections of glass includes a sliding arcadia door to open up into the courtyard.

The building has a pleasing human scale through the architect's selection and use of small- scaled materials like bricks and blocks. First Church of Christ, Scientist won the Valley Beautiful Citizens Committee Award in 1969. The building was also listed on page 119 of the AIA Arizona chapter's 1983 book entitled *A Guide to the Architecture of Metro Phoenix*. In 2009 the American Institute of Architects/Phoenix metro included the First Church of Christ, Scientist in their *Phoenix 25: Phoenix Metro Guide to 25 notable and public buildings* (page 10). The church's architecture was also featured on page 74 of Doug Sydnor's 2010 book on *Scottsdale Architecture*, as was T. S. Montgomery's 1964 sanctuary for the Scottsdale United Methodist Church on Miller Road.

Significance

The church is proposed for recognition and considered eligible for listing under Section 6.113.A.3. in Scottsdale's ordinance (National Register Criterion C) as representing the work of a master, possessing high artistic value or embodying the distinctive characteristics of a type, period or method of construction. Of the four properties under consideration, this T. S. Montgomery church is the best example of the Southwest Modern architectural style using regional materials on the exterior in a creative way – copper fascia and spire, burnt adobe brick walls and stacked precast concrete blocks. Montgomery is recognized as a talented architect in the region from the sixties who was selected as the architect by four different Christian denominations. The church itself has received awards and is recognized by architects as a significant local building for its artistic/aesthetic value. The architect's use of block screen walls is representative of a design element employed during the study period.

Summary Statement of Significance

The First Church of Christ, Scientist has maintained its integrity and it possesses high artistic values that have been recognized by other architects and organizations. T. S. Montgomery was a talented local architect responsible for several noteworthy church projects in the sixties. This church is considered the work of a master by a respected architect. The architect's use of concrete and local materials gives this place of worship a warm feeling and a human scale - quite different in character

from the harsh use of concrete by architects of the Brutalist style at the time. Lastly, the architect's creative use of precast concrete block screen walls, precast concrete roof panels, burnt adobe bricks, wooden doors and copper fascia makes this church an excellent example of sixties Southwest Modern architectural style.

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