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United States Department of the Interior
National Park Service

National Register of Historic Places
Multiple Property Documentation Form

Sub Rev requested

_x_ New Submission ____Amended Submission

A. Name of Multiple Property Listing

Resources Designed by Bruce Goff in Oklahoma

B. Associated Historic Contexts

(Name each associated historic context, identifying theme, geographical area, and chronological period for each.)

Resources Designed by Bruce Goff in Oklahoma, 1918-1982

(A) A Life in Architecture
(B) An Interpretation of Organic Architecture
(C) A Compositional Pattern

C. Form Prepared by

name/title Professor Arn Henderson, FAIA

College of Architecture
street & number Gould Hall, University of Oklahoma telephone 405-325-3868

city or town Norman state OK zip code 73019

D. Certification

As the designated authority under the National Historic Preservation Act of 1966, as amended, I hereby certify that this documentation form meets the National Register documentation standards and sets forth requirements for the listing of related properties consistent with the National Register criteria. This submission meets the procedural and professional requirements set forth in 36 CFR Part 60 and the Secretary of the Interior's Standards and Guidelines for Archeology and Historic Preservation. (___ See continuation sheet for additional comments.)

Signature and title of certifying official — Date: July 31, 00

Oklahoma Historical Society, SHPO
State or Federal agency and bureau

I hereby certify that this multiple property documentation form has been approved by the National Register as a basis for evaluating related properties for listing in the National Register.

Signature of the Keeper — Date: 9/14/00

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Provide the following information on continuation sheets. Cite the letter and the title before each section of the narrative. Assign page numbers according to the instructions for continuation sheets in How to Complete the Multiple Property Documentation Form (National Register Bulletin 16B). Fill in page numbers for each section in the space below.

(A) **BRUCE GOFF: A LIFE IN ARCHITECTURE**

The Formative Years (1904-1938)

Bruce Goff (1904-1982) was born in Alton, Kansas to Corliss Arthur Goff and Maude Rose Furbeck Goff. Soon after his birth, the family moved to Oklahoma and lived in the small towns of Henryetta, Skiatook, and Hominy. In 1913, Corliss Goff left the family in care of Goff's great-grandmother in Ellis, Oklahoma to seek business prospects in Denver, Colorado. Goff's great-grandmother, Hezekiah York Mezzick, is attributed to sparking the young boy's interest in drawing. She also had collections of sea shells, feathers and crystals that fascinated Goff and proved to be some of his favorite objects all of his life. Elements of -- or the actual objects -- were occasionally incorporated into his later designs. Goff, his sister, and his mother stayed in Ellis for three years, when the family moved to Denver to rejoin the father. In 1915, Goff's father accepted a job in Tulsa, Oklahoma to work for a business managed by one of his brothers, and the family settled in Tulsa.[1]

Goff began his apprenticeship in Tulsa in 1916 at the age of twelve. His father, after seeing imaginary buildings that Bruce had drawn, sought to convince an architectural firm to train him to be an architect. After inquiries about a good architectural firm, he took Bruce and the drawings that he had produced to downtown Tulsa to the firm of E.A. Rush & Company.[2]

E.A. Rush and Company was a father-son owned business originally started by the father Amos William Rush in Tulsa before 1911. He was joined by his son, Edwin Arthur Rush in 1912. In 1915 they added Asbury Endacott to their partnership. Their early Tulsa buildings can be generally characterized as following the popular academic trends of the time, although the younger Rush admired work of Frank Lloyd Wright.[3]

A.W. Rush was approached at the firm, and agreed to give Goff summertime employment as an apprentice. He was given a desk in the outer office of the architectural firm, and his progress was closely monitored by the elder Rush. Goff later recalled that the first assignment he was given was to trace the classical orders. But it was tedious work to Goff and he did not enjoy the new constraints placed on his artistic abilities. Goff's displeasure was apparent. He was moved into the drafting room and told to try his hand at designing a house. His first design earned him the nickname "Frank Lloyd Wright, Jr." by other members of the firm. Although Goff, at one point, claimed that he was unaware of using Wrightian ideas, he was probably introduced to Wright's design concepts by E.A. Rush. Goff, later in life, related a story about how Rush, before initiating work on a new design, would consult a document he kept in a locked cabinet. Finding the cabinet unlocked one day, and curious about the contents of the secret document, Goff discovered it was a copy of a 1908 issue of Architectural Record with Wright's

now-famous article, "In the Cause of Architecture."[4] His discovery had great impact and Goff later described "..I sensed something important there, a devastating feeling of beauty."[5] Goff wrote to Wright and he responded by sending him a copy of the 1910 Wasmuth edition published in Berlin.[6] This was the beginning of a life-long friendship.

Upon graduation from Tulsa Central High School in 1922, Goff joined the architectural firm in a full-time capacity and increasingly assumed design responsibilities. When the Rushes retired, Goff became a partner with Endacott.[7] The primary factor contributing to opportunities for Goff and the firm was that Tulsa entered a period of accelerated growth that began after statehood in 1907 until the end of the 1920s. The population of Tulsa increased from 7,298 in 1907 to 18,182 in 1910, then rose to 72,075 in 1920, reaching 141,258 in 1930.[8] The population increase was due to the discovery of oil in Tulsa and the surrounding areas; it was the biggest oil strike in the world at the time. The revenues from oil that made Tulsa a very wealthy city were matched with civic and commercial building reflecting the achievements of the oil barons.

Between the years 1918 and 1933 Goff worked on projects of various size and complexity and acquired broad experience. Thirty designs were built that included an office building, a church, ten residences, small commercial buildings, warehouses and alterations to several existing buildings.[9] By contrast, after Goff left Tulsa in 1933 most of the buildings designed by the firm were single-family residences.

During the period of Goff's apprenticeship and early career, several modern movements had considerable influence on his emerging ideas about architecture. Avant-garde architects, reacting to the explosion of ideas in a changing society, sought to infuse their work with qualities of imagination in a search for expressions reflecting their own time. Although the various movements of the early twentieth century embraced different goals, there is a common undercurrent of rejection of the past. Two of the major leaders in America were Louis Sullivan and Frank Lloyd Wright. Both men, in their prolific writings and buildings, profoundly influenced Goff. Sullivan, often given credit by historians as the pioneer of modern architecture, adamantly rejected the resurgence of classicism and sought to create forms that were true to their purpose. His conceptualization of architecture embraced an integration of form, function, and structure fused with highly original and imaginative ornament derived from nature. Goff particularly admired Sullivan's small banks produced in the last years of his life.[10] Goff was also attracted to Sullivan's designs of ornament and his ability to combine elements of symmetry and asymmetry in a single composition.[11] Wright, initially drawing inspiration from Sullivan, developed his own design pattern through a series of houses in the Chicago suburb of Oak Park by relating the house to the site with broad overhanging eaves, raised terraces and open interior spaces

clustered around a central fireplace with vistas into adjacent rooms. Wright, like Sullivan, rejected historicism and sought to develop an architecture expressive of American democratic ideals.

Within three years of beginning his apprenticeship, the first design by Goff, a residence, was constructed. Commissioned by B.L. Graves in Los Angeles, the 1919 house has a strong Wrightian affinity with its broad overhanging roof, horizontal siding and clusters of windows at the corners. But in plan, the resemblance to Wright's Oak Park work is problematic. In Oak Park, the central element of the square plan is defined by a core of kitchen and multiple fireplaces which, like Wright, emphasizes the dominance of hearth as a focal element of the composition. Goff though, by placing the core at the very center of the symmetrical arrangement, established a conceptualization of open space wrapped completely around the core. This mode of organization had major implications for Goff as the design established themes that he developed in later projects in a variety of permutations.

Goff's early stylistic dependence on Wright dissipated quickly as the result of his discovery of Wright's second installment of "In the Cause of Architecture" published in 1915.[12] In this article Wright expressed disdain of imitators who, he believed, had little understanding of his underlying design principles. Even though the theoretical ties to Wright continued, Goff sought other models. He wrote an admiring letter to Sullivan in 1920 who responded with a cordial note of encouragement. That same year Goff designed a mausoleum that incorporated, in both massing and ornament, elements of Sullivan's design pattern.[13] Later during the decade of the 1920s he again turned to Sullivan for inspiration in the design of a large church commission. But Goff sought other sources as well. Through reading periodicals, in both the office and public library, he discovered the Prairie School.[14] Comprised largely of former associates of Wright, this loosely-knit confederation sought to expand a trinity of site, usage of local building materials and the individuality of their clients as determinants of design. Few, however, freed themselves from the bondage of appearance to Wright. Nonetheless, Goff was attracted to their ideas and images. The second design for the 1922 Way House built in Tulsa is a rather conventional exercise in Prairie School architecture. Ironically, it is not a design that Goff appears to have been strongly committed to. The first design, rejected by his client, is more imaginative and provides clear illustration of the sources of Goff's expanding influences. The first design is European derived. Based on a series of interlocking cubic forms in an irregular plan with walls extended into the landscape, the flat smooth walls, apparently stucco, recall the emerging aesthetic of European avant-garde architects. Although the expression is rather generalized and difficult to relate to a specific movement, Goff was quite attracted to the work of the Austrian Secession and particularly the designs of Joseph Hoffman. A hypothetical study for a house with a central atrium, done the same year as the first design for the Way House, suggests an

affinity with Hoffman.[15] Goff, in fact, was aware of Hoffman as a designer possibly as early as 1920. He purchased a portfolio of reproductions of paintings by the Viennese painter Gustav Klimt while still in high school. The portfolio, and the box containing it, were designed by Joseph Hoffman.[16]

Goff's awareness of the other arts as potential sources of inspiration for architecture may have been stimulated initially by Wright's admiration of music and Japanese art. Goff, like Wright, began collecting prints and books on Japanese art at an early date. His later discovery of the Edo Period painter Jackuchu Itó became a continuing source of inspiration and admiration. The brilliant colors and rich patterns of Jackuchu's paintings had specific influence on Goff's own paintings and the decorative murals in some of his buildings during the latter phase of his career. Goff was also greatly stimulated by music. Although Wright admired Beethoven, Goff was attracted to French Impressionist composers. He especially was fond of Debussy with his original approach to composition embracing overlapping tonal patterns, coloration and new harmonic relationships with unresolved dissonance.

Goff had an enormous sense of curiosity and drew inspiration from a variety of sources. He learned about avant-garde art, literature and music from reading the periodicals Dial and Broom.[17] He was influenced by the Russian-born designer Erte (Romain de Tirtoff) whose work appeared on the covers of Harper's Bazaar. Goff was attracted to his exotic colors and geometric shapes and Erte's belief that clothes should be designed to reflect the personality of the client rather than the designer. This view reinforced Goff's emerging conviction that buildings too should be designed to reflect the personality, needs and desires of a specific client. Since all clients were different, the architect, then, should strive for a variety of solutions.[18]

Goff admired the work of a number of illustrators prominent during the 1920s including Aubrey Beardsley, Maxfield Parrish, Harry Clarke, Kay Nielsen and Arthur Rackham.[19] The writings of Claude Bragdon, with illustrations of geometric pattern, were also influential on his developing aesthetic ideals. Bragdon's notions of the importance of beauty in architecture; of the use of color; and the geometric basis of ornament must surely have appealed to Goff.[20]

Projects designed by Goff in the early 1920s suggest an influence by the German architect Eric Mendelsohn. Sketches by Goff during this period are very similar to Mendelsohn's visionary designs in both massing and illustration technique. The Adah Robinson Studio in Tulsa (1923) has a vaguely Mendelsohnian appearance with a dominant planer verticality magnified by chamfered corners which are projected at the cornice.

Two major projects designed in the mid-1920s -- the Tulsa Building (1925) and the Boston Avenue Methodist Episcopal Church (1926) -- suggest other

influences but also reveal considerable skill of assimilation and integration of those influences. Goff was beginning to mature as a designer. The multi-story Tulsa Building with its pleated limestone facade and abstract geometric cornice recalls work by both Eliel Saarinen and Joseph Hoffman. Both of these sources are also evident in the Boston Avenue Methodist Episcopal Church, built a year later. However the most direct source for this design was a church by Sullivan constructed in Cedar Rapids, Iowa in 1910. The plan organization has a strong affinity with the Sullivan church and Goff recalled that he kept a rendering of Sullivan's project on the office wall while working on the design. The most dramatic element of the church, a tower over two hundred feet tall, suggests still another source. The primary shaft of the tower, with chamfered limestone piers alternating with vertical bands of glass, is terminated with pierced finials which repeat a theme at the cornice of the lower sanctuary and education wing. But the element terminating the tower represents a new influence, one of German Expressionism. Constructed of glass and copper, the crystalline crown was designed to reflect both sunlight and moonlight.[21]

The initial source of Goff's awareness of Expressionist architecture was through Barry Byrne and Alfonso Iannelli. While Goff was designing the Boston Avenue Church, Byrne's nearby Christ the King Church was under construction. Iannelli, designer of the sculpture on Wright's Midway Gardens, collaborated with Byrne on the new Catholic church for Tulsa. During a construction visit, Iannelli met Goff and began sending him publications on new European architecture. Shortly after their introduction, Goff traveled to Chicago to see buildings by Wright and Sullivan and to meet Barry Byrne. Both Iannelli and Byrne had traveled together in Europe and gave Goff first-hand impressions of the new German, French, and Dutch architecture.[22]

Goff's interest in crystalline imagery established a theme returned to many times throughout his career. His next major Tulsa project, however, represents a fusion of other sources. The facade of the Page Warehouse (1927) was a remarkably innovative and precise composition of form and structural pattern. The interplay of angled shear brackets on the exposed concrete columns with the projecting flat slab form an expressive pattern that clearly echoes the structural determinism of avant-garde French architects. And the rhythmic decorative brickwork recalls buildings of the Amsterdam School. But there is another reference that is more immediate: Christ the King Church by Barry Byrne. In that building Byrne created clusters of decorative brick piers arranged in a vertical projecting zigzag pattern at the corners. Certainly Byrne's design also has an affinity with Dutch architecture, but the stepped motif of the Page Warehouse brickwork seems closer to the church in Tulsa than buildings in Holland.

Goff's next major project in Tulsa, the Riverside Studio (1928), reflects his assimilation of the International Style. The box-like assemblage, stepping

down a hill, is replete with familiar icons of Modernism -- flat roofs, smooth walls of stucco and windows with thin steel frames. Goff, though, was searching for a more personal idiom of expression and infused the design with unique features that transcended the familiar. The front facade is dominated by a very large circular window with an etched glass motif of abstract musical notations for his music-teacher client. Windows on either side extend diagonally to the cornice and are connected at the corners with flush panels of black glass and evoke an association of musical scales. For Goff, it was a way of achieving an expression of originality, but also reinforced his commitment to provide specific architectural meaning for a specific client.

Goff built little in the closing years of the 1920s but explored ideas with angled geometries in hypothetical projects and commissions that remained unbuilt. His proposal for the Phi Beta Delta fraternity house (1930) in Norman, Oklahoma is particularly significant. The centralized core of the buildings was bisected by two linear wings of individual rooms. Each of the rooms was canted to provide corner exposure so the resulting pattern was one of a sawtooth configuration. The facade was to be clad entirely in aluminum paneling and Goff developed this angled motif thematically with a chevron pattern played against a pattern of embossed diamonds. The contrast between the two patterns was magnified by selection of different surface finishes, one honed and the other polished.[23] Angular reflecting pools, planter beds and diamond-shaped windows unified the geometry of the two patterns. The design, though unbuilt, is important because it foreshadows ideas Goff developed in work following World War II. The angled geometry clearly expanded the possibilities for new and innovative architectural form. Goff, in fact, advocated the exploration of new geometries in an article published in Western Architect the same year he designed the fraternity house.[24] Moreover, the geometric configuration allowed expression of individual components as elements of a larger composition. The interplay of two patterns on the skin of the building reveals also an interest in pattern-rich facades.

Goff's skill at mastering complex geometries suggests a remarkable maturity that would hold forth the promise of professional development. But Tulsa, like the rest of America, was soon caught in the throes of the Depression. Although he passed the state licensing examination in 1930, and with retirement of E.A. Rush became a partner in the firm with Endacott, there was little work.[25] In 1932 the partnership was dissolved and Goff attempted to practice on his own for two years. During this time he maintained correspondence with Iannelli, who encouraged him to come to Chicago so they might collaborate on projects. He also had an offer from Wright to join him at Taliesin as a senior assistant but declined, fearful of losing his own identity. In 1934 Goff relocated to Chicago with the hope of expanding Iannelli's industrial design firm to include architectural services. They worked together on two projects but the results were disappointing to Goff and he soon tired of designing industrial products. The following year, upon

Iannelli's recommendation, he accepted a part-time teaching position at the Chicago Academy of Fine Arts. In 1936 Goff took a position as chief designer of the Vitrolite division of Libby-Owens-Ford glass company. In this capacity he had responsibilities for design of both alterations to existing buildings and a hypothetical design for a tall building promoting the use of Vitrolite. Although Goff learned about a variety of glass products -- and his experience there probably intensified his interest in reflective materials -- he soon felt his ideas compromised and he left in mid-1937 to return to part-time teaching and independent practice in Chicago.[26]

Still, he had limited opportunities to build. By the end of 1938 he had only three houses constructed in the Chicago area. Two of these, the Rant and Elin houses, were built on adjoining lots in Northfield, Illinois and both were built of common Chicago brick with a flat roof. Both houses also were related thematically with asymmetrical rectilinear plans and similar scale. Stylistically both reflect a mixture of the International Style and Wright's Usonian houses. Although he assimilated a new direction by Wright, none of these designs were particularly innovative and, as such, did not reflect the sense of creative individuality and diversity of later work.

Goff at age thirty-four had more than twenty years experience in architecture. He entered the profession in times of relatively good economic prosperity in a propitious location. Tulsa was a boom town and architects had commissions. Goff had an opportunity to learn and he was committed entirely to architecture. Like Wright, he was self-taught and, like Wright, he quickly recognized architecture as a supremely individual act of creativity. Although he had an earlier offer of academic training, at no cost, he declined, fearful it might compromise his creative impulses.[27] Goff believed he might best learn by following his own instincts coupled with a process of actually building. That he assimilated many influences is evident from the diversity of work during his years in Tulsa. Although some designs were quite innovative, the early work does not have the sense of continuity of ideas that characterizes buildings produced in later years. But Goff did three major buildings in Tulsa: the Boston Avenue Methodist Episcopal Church; the Page Warehouse, destroyed in the 1970s by construction of an expressway; and the Riverside Music Studio. All of these three buildings defined the seeds of ideas for work yet to come. Some of the ideas lay dormant in his imagination for a decade or more as they do not consistently appear until buildings constructed after World War II. It would seem though, that by the time Goff left Tulsa many of his major concepts giving definition to his architecture -- revealed both by the three major buildings, several unbuilt commissions and a few hypothetical designs -- were in place. It would simply take time for these ideas to expand and ultimately fuse together to define his own pattern of composition. Although it may be problematic, for good architecture requires both patience and maturation, Goff might have developed faster had it not been for the Depression. For nearly a decade, in both Tulsa and Chicago,

he had few commissions and, as a consequence, he continued to struggle with his own architectural identity.

Discovery and Transformation (1939-1946)

Beginning in 1939, as the effects of the Depression in America began to wane, Goff's opportunities to build increased. His interest in angled geometry, explored during the past decade in unbuilt projects and hypothetical designs, intensified with renewed confidence. Three houses of 1939 and 1940 reflect this continued interest. There is a continuity of time, place and geometry that binds these three designs together. Moreover, each house, though infused with diverse design elements, also signals the emergence of thematic ideas consistently developed in work of later years. Collectively, these three houses represent the initial phase of development of Goff's compositional pattern -- the beginnings of strands of continuity in his architectural expression.

The design of the Cole House in Park Ridge, Illinois (1939) represents a synthesis of rectilinear and angled geometry. In plan the components are all rigorously ordered in a right-angle relationship with flat roofs at varying heights delineating different zones of activity. Goff created an illusion of lightness with the design by separating the roofs from opaque wood-clad walls below with large sheets of glass with angled mullions. The motif established by these mullions was magnified by a series of trellises which also were angled and projected from both the front and rear facade. That same year Goff designed a house for Paul Colmorgan in the nearby suburb of Glenview. Like the earlier Cole House the plan organization is rectilinear with multiple interior levels. It is the sequence of these spaces, fused with dramatic form on the exterior, that is distinctive. The stair landing, enlarged to define an alcove, cantilevers over a lily pool below. At eye level a planter box is cantilevered from the alcove. Above that element two exaggerated scuppers cantilever from the shed roof to drain into the pool below creating twin waterfalls when it rains. The Unseth House, Park Ridge, Illinois (1940) represents a continued pursuit of architectural design with angular geometry. In plan the house is triangular with extensions at two corners, a garage on the front and porch on the rear. The theme established by the plan geometry was further emphasized with the use of diagonal siding and a repeating rhythm of triangular fixed-glass windows and operable shutters. The interior focal point of the design was the brick fireplace surrounded by triangular high windows which join a triangular skylight on the roof.

All three of these Chicago designs -- the Cole, Colmorgan, and Unseth houses -- were pivotal for the house that followed, the Irma Bartman House of Fern Creek, Kentucky (1941). Commissioned as a weekend retreat, the so-called Triaero house is a remarkable design in minimum-space planning with a dramatic cantilevered roof that appears to hover over the diminutive crystalline form.

The design represents an achievement of paramount importance in the career of Goff for it is a masterful fulfillment of architectural expression derived from triangular geometry that is sustained in both plan and facade. It is a dramatic composition, thematically developed, of articulated forms and pattern. Moreover, the Bartman House represents a complete assimilation of many influences and a freedom and independence from Frank Lloyd Wright. The design was, in essence, an act of liberation. Finally, the Bartman House clearly defined many of the characteristics, such as structural expression, separation of the roof from the walls with a clerestory, and triangular plan geometry, that formed Goff's compositional pattern. He used these underlying design principles, with numerous variations, many times over.

In August 1942, anticipating he would be drafted, Goff enlisted in the Navy and was assigned to a construction battalion in the Aleutian Islands.[28] He initially dreaded his assignment in such a remote location. But he had opportunities to remodel existing Navy buildings and to design future houses for associates. Though the houses remained unbuilt he expanded his skills at manipulating geometry with designs that included plans based on octagons.[29] Goff also was inspired by the landscape. The Navy camp was located in a valley near a range of extinct volcanoes and in the early morning light the mountains cast purple shadows and the snow appeared pink from the rising sun. Goff recalled:

> They were the most fantastic forms I ever saw. Rounded tops, sharp crags, perfect cones. It looked like some place on the moon. It knocked my breath out. I knew then I was going to like it.
>
> In the summer there were 1,500 kinds of flowers. Begonias, violets, lupins, brownslipper orchids, deep purple Japanese iris. Lord, you couldn't even walk any place without walking all over 'em. I went hiking in the mountains -- Ballyhoo Mountain. It looked like a headless sphinx. And Pyramid Valley with seven waterfalls. The most beautiful scenery I ever saw. Magnificent rocks with breakers smashing on 'em. The tundra was a mat of vegetation -- solid over everything -- olive brown in the winter and then it looked like Holstein hides when the ice started to melt. In the summer it got emerald green. And then the rainbows started. Like a loose wash of color. It was just a grand place.[30]

His appreciation of the landscape reinforced his conviction that all great artists look to nature for inspiration. Wright, he believed, was a great architect because "his houses looked like they're growing right out of the landscape."[31]

In October 1943 Goff was reassigned to Camp Parks, near San Francisco, until his discharge from the service in December 1945. His opportunities for design

expanded with this assignment and included remodeling several camp buildings.[32] The interior alteration of the Star Bar is particularly revealing of his ingenuity with the use of found materials. His interest in utilizing common manufactured products in architectural composition was established earlier with inclusion of ash trays as windows in the front doors of both the Cole and Colmorgan houses. Goff's wartime experiences, however, had the effect of expanding the possibilities of the use of unorthodox materials and objects. In the Star Bar Goff created screening elements of surplus plywood cut with circular openings to subdivide the space. White string, stretched to form warped planes, created an illusion of enclosure overhead. A cone-shaped wire construction contained balloons animated by a fan below. Plywood, stained with shoe polish, was cut into small tiles for the floor covering.[33]

Goff also built a major project during his last year in the Navy, the Camp Parks Chapel. In this design he employed Quonset hut construction to create a linear vaulted space with massive brick pylons and a reflecting pool defining the entry. Goff transformed a standard prefabricated building system into a personalized and individual expression. Upon completion of the building it won the praise of both Iannelli and Eric Mendelsohn. It was soon published in Architectural Forum and thereafter appeared in several anthologies on modern architecture.[34]

After discharge from the service, Goff remained in California and attempted to practice independently. Although he had several commissions, none were built. Three projects, though, were especially significant in his artistic development. The first of these was a house for James San Jule in Sausalito, California, designed immediately prior to his separation from the service.[35] Conceptually it is an extension of ideas developed in the earlier Graves and Bartman houses with the plan derived from a primary geometric shape. Unlike both the earlier designs though, with a core located at the center, Goff defined the service functions of the San Jule house as four free-standing curved elements arranged symmetrically within an open square plan. Compositionally it was a circle within a square yet functionally the curved service units established two zones: an inner zone for congregate activities and an outer zone for quiet and private activities. Goff also enriched the design with horizontal roof ridges framed diagonally to the corners of the square plan. Each quadrant of the roof was intended to slope in a direction perpendicular to the flat ridge rather than the exterior wall as in a conventional hip roof. The effect of the geometric configuration was one of a pinwheel roof of four separate components. Goff magnified this pinwheel theme by extending the exterior walls into the landscape to define triangular terraces and gardens. By sloping the walls at the same angle as the roof, they simply vanished into the earth. It was a design of great clarity and repose. And the combination of circular, square and triangular components not

only revealed the importance of geometry in Goff's emerging expression but also suggested an aesthetic potential for new combinations.

The second of these designs, the Gillis House, Bend Oregon (1945) also was begun shortly before he left the Navy and was an extension of ideas based on circular and curvilinear geometries explored in earlier projects.[36] The plan of the Gillis project was derived primarily from a spiral geometry that also incorporated a protruding rectilinear element. The spiral form, extending into the landscape and jutting upward like the prow of a ship, was to be built of rough-hewn stone with irregular-shaped openings. This masonry enclosure, defining the exterior wall of the house, followed a curve approximating a logarithmic spiral. But as the curved wall converged toward the front of the house it changed abruptly into a rectilinear glass box. Interior space was defined on three different levels connected with spiral ramps with partial screening partitions of closely-spaced saplings. An irregular-shaped lily pool, with an assemblage of lava rock, extended under the glass box to the interior at the lowest level.

The Gillis design represents a radical experiment in Goff's development. With walls of stone, sapling partitions and lily pool, the composition strongly suggests a design both inspired by and in harmony with nature. But the glass box is a dissonant element, one that is visually unresolved. It seems unrelated to the controlled composing of curved and circular components. Although its location served to visually link interior spaces to the lily pool beyond, it is a disparate element. Perhaps its inclusion was intended to be an acknowledgement that architecture reflects both the natural and man-made world. It is likely, though, that Goff was aware of the value of dissonance in design as a means of creating tension. Debussy, a favorite of his, developed similar ideas in musical composition and the extrapolation from hearing to seeing would have been easy for one as talented as Goff.[37]

The last distinctive project of his California period was a residential design for Don Leidig in Hayward, California in 1946. Like the earlier San Jule and Gillis projects it was never built, but the design represents an important conceptualization in the evolutionary development of Goff's architectural vision. The design suggested possibilities very different from the symmetrical and centralized San Jule project. Although he developed many centroidal designs in the following decades, the Leidig project expanded ideas of architectural composition based on an assemblage of dualities. It was a concept of isolated and independent geometric components arrayed in a naturalistic and free-form collage of plants and water.

Two undulating sandstone walls, set on the side lot lines, defined boundaries at the edges. Between the two walls, and extending to both the front and rear, were a series of shallow, connected lily pools that were to be supplied by water from a well on the property to create an effect of a flowing

stream.[38] The pools, as were planted areas of trees and shrubs, all had free-form edges to compliment the undulating sandstone walls. The effect was one of a sensuous, curvilinear composition of natural elements with mullionless glass walls -- angled at the front and curved at the rear -- juxtaposed over the collage. The outer glass walls were treated as elements independent of the planters and lily pools without correspondence between the two geometries. A meandering deck of variable width with random edges was raised slightly above water level to connect a series of circular pavilions. Each of these pavilions provided space for different activities: one was for sleeping; another accommodated bathroom and dressing functions; and others were for dining and cooking with a larger pavilion serving as a gathering space. Each of the circular pavilions would be raised above water level and cantilevered from a central stem to visually reinforce the illusion of floating. Walls of the pavilion varied: one was opaque; another was defined as folding screens that might be either open or closed; and others combined low walls with open platforms. The sense of autonomy of each pavilion was intensified by provision of a high circular roof, with a continuous clerestory, raised above the primary roof enclosing the collage of plants and water.

The structural system and roof of the Leidig design was equally distinctive. The central stems supporting the floor in each pavilion were extended as columns to support a tapered beam high above the primary roof. Anchored to the beam were a series of cables connected to the front and rear edges of the overhanging roof. The broad, flat plane of the roof, with a decorative circular motif forming a trellis at the fascia -- much like the floating lily pads on the pools of water below -- would itself appear to float in space as it cantilevered over the mullionless glass walls below.

In some respects the Leidig project parallels the concept of open planning explored by Wright, European modernists and others. The affinity, though, is largely visual rather than functional. The absence of walls defining separate rooms in the public areas is the accepted meaning of the open plan. Circulation would be possible by several routes, rather than in a fixed path, and the use of a given area might change from time to time along with the furnishings. Visually the open plan also became a way of extending a vista from one space to another. It was a device architects used to establish spatial interconnectedness and an illusion of greater volume. With the Leidig project though, Goff gave a very different meaning to the concept of the open plan. The pavilions all had discrete functions and even the path of circulation was fixed. The presence of pools of water surrounding the pavilions also acted as barriers separating one activity from another. But like traditional open planning all the Leidig design elements formed a spatial continuum and all were related together visually. Goff again made a significant departure from the precepts of modernism by creating not simply an open, larger volume but also an interior landscape of trees, shrubs and pools of water. By extending these landscape elements to the exterior, in both

front and rear, coupled with the use of glass walls without mullions, he narrowed the distinction between interior and exterior space. The Leidig design thus clearly established Goff's theoretical posture on the role of nature in architectural expression. Architecture was an organic art with direct references to the natural world. And his conceptualization of the open plan, defined by a series of geometric pavilions juxtaposed against a collage of nature, represents both a synthesis and a significantly individual interpretation of one of the major themes of the Modern Movement.[39]

Goff also had other architectural commissions during this phase of his career, but like the earlier projects none were built. He was probably frustrated and discouraged by the postwar material and labor shortages. In November 1946 he accepted an invitation to teach architecture at the University of Oklahoma. Though he never attended college he was enormously pleased because of the recognition of his accomplishments in architecture.[40]

From 1939, with design of the Cole House, to the 1946 proposal for the Leidig House, a remarkable transformation in Goff's aesthetic occurred. The former design initiated a series of diverse and individual expressions in residential architecture. The latter represents a creation of enormous dualities, of a man-made and natural world, of vigor and strength, and of delicacy and subtlety. Certainly it is one of the most imaginative conceptualizations in the history of modern architecture. It is also of particular importance in Goff's career for it established a clear pattern of continuity for work that followed. It remained only for Goff to return to Oklahoma to realize the potential of his talent.

Expressions of Diversity and Continuity (1947-1982)

Goff assumed teaching responsibilities in the School of Architecture at the University of Oklahoma at the beginning of the spring semester in January 1947 and was appointed Chairman the following September. The timing of his return to Oklahoma was significant because it was a period of accelerated growth in higher education. With the influx of returning World War II veterans Goff had opportunities to add faculty who shared his views. Until the time of his departure in December 1955, Goff built an innovative program that gained widespread recognition for both himself as educator and the OU school. During this period other American schools of architecture were expanding upon the ideas of Walter Gropius at Harvard and Mies van der Rohe at the Illinois Institute of Technology. Moveover, in the larger architectural community in America the International Style had come to fruition.

Goff gave direction to the school based not on preconceived imitation but on creativity and originality. He encouraged students to discover their own individuality through a process that embraced "discipline in freedom."[41]

Freedom, and hence individual expression, he believed could only come about through disciplined work in addressing the issues of client, site, structure and building materials. For Goff architecture was not solely a continuum of inventive form and space, but rather the formal aspects of a design would derive their own reality from efforts to solve specific problems. From this pedagogical underpinning he viewed his role as educator as one who might ".. liberate the genius in others."[42] Goff persuaded students to learn to trust their own intuitions and an emphasis of the school thus became one of design originality. The sense of freedom that prevailed, as a clear alternative to most other schools of architecture, attracted transfer students. Although the University of Oklahoma, at the time, was a small university serving mostly Oklahoma residents, its program in architecture gained an international reputation. Students from all over America, and several foreign countries, who were dissatisfied with the limitations of Modernism came to OU to study with Goff.

For Goff it was an ideal time in his career to devote his energies to teaching. It assured him a steady source of income but also allowed him the flexibility for professional practice. He had grown up in Oklahoma and it was a familiar place. The quiet atmosphere of a small-town university setting must also have appealed to him. At age 43, with a youthful appearance, he had nearly three decades of experience in architecture. His ideas were new and refreshing and the students were enthusiastic. The sense of excitement, and student loyalty, was intensified as projects by Goff began to be realized. With local and national press coverage of both his buildings and the school, his vision of a new direction in architectural education was intensified.[43] Both students and teacher were enormously stimulated. As Goff encouraged the students towards imaginative solutions, he too was encouraged by their own commitment to creativity. It would seem there was a symbiotic relationship between teaching and learning for Goff. He was a source of inspiration who in turn was inspired by his students' efforts.

His tenure at OU proved to be one of the most productive times of his career and he produced some of his finest work. Buildings designed from early 1947 until his departure in late 1955 exhibit a remarkable sense of diversity. But there is also a sense of continuity that relates these designs and subsequent designs produced throughout the rest of his life, together. It is this dimension of continuity that authenticates a body of mature work. Although the diversity of appearance is a source of stimulation, for the buildings are so compelling visually, it is the underlying strands of continuity that also informs us of those principles of design most important to him. There are indeed common characteristics in his buildings, particularly those constructed after World War II, and collectively they form a pattern of composition. Those specific characteristics that comprise Goff's compositional pattern will be discussed later.

His first commission after returning to Oklahoma was a house for H.E. Ledbetter built in 1948 two blocks west of the OU campus. The location was significant for Goff as a teacher because it meant his students could conveniently observe first-hand the sequence of construction. It was a major opportunity for students to witness an imaginative design come into being. Undoubtedly Goff's credibility, as both a creative designer and as one who could solve the practical problems of building with great authority, was enhanced. The expression of the Ledbetter House was derived, in part, from the Leidig project in California of the previous year. Though it was built on a small, corner lot and differs in major ways from the earlier design, the Ledbetter House was a realization of a composite composition reflecting two realms, one associated with the freedom of nature and the other reflecting the order of a man-made world.

The following year Goff designed a house for Ruth Ford in Aurora, Illinois. Mrs. Ford was the owner of the Chicago Academy of Fine Arts where Goff had taught before the war. [44] Conceptually the design drew upon the San Jule project with the primary public space at the center of the centralized plan. But the similarities end there for the Ford House was an asymmetrical composition of spherical units. The design also extended the utilization of Quonset hut components as structural elements Goff had previously used in the chapel at Camp Parks, California. In the chapel design he used the Quonset ribs in a conventional manner to create a linear barrel-vaulted space, but in the Ford House the ribs all converge to a central mast. The house also is distinctive for the use of coal inset with glass cullets as masonry. A student assistant who helped prepare working drawings recalled Goff told him that Meis van der Rohe had once proposed using coal as a masonry material.[45] The Ford house is also important because it combines, for the first time in Goff's design evolution, two earlier ideas. The first of these is the notion of form visualized as a primary geometric shape with an interior volume that corresponded to that geometry. The other idea is that of a symmetrical space with a vertical axis, derivative from a hypothetical project of 1922 and the 1946 San Jule project. Both of these ideas became united in the Ford House and in many subsequent designs.

Another project of 1948 that illustrates linkage of these ideas, with great clarity, was the design of the Hopewell Baptist Church in rural Edmond, Oklahoma. The twelve-sided plan defining the sanctuary converged to a star-shaped skylight at the apex. Thus a major characteristic of Goff's pattern became evident: the exterior form anticipated and revealed the interior space. With tapered trusses constructed of surplus oil field drill stem placed on the exterior and decorative light fixtures made of fluted aluminum cake pans suspended on the interior, the design is illustrative of his skill at creating an imaginative solution within the constraints of an extremely limited budget.

His proposal in 1949 for a non-denominational chapel on the University of Oklahoma campus extended the theme of centroidal geometry of the Hopewell Church. Though it was never built it was a major accomplishment in design and is indicative of his artistic development and maturity. The scheme was defined by two detached components, a sanctuary and educational building. The dominant sanctuary was a composition of intersecting pyramidal forms arising from a plan of three radiating wings set in a hexagonal pool of water. The roofs of the continuum of pyramidal forms were glazed with faceted, rose-tinted glass panels. Each of these panels, supported by a lattice of aluminum structural members, were to be double-glazed with pink fiberglass insulation and concealed fluorescent tubes. The diamond-shaped faceted panels would be highly reflective in sunlight and would glow at night. Moreover, this dimension of reflectivity would be magnified by the presence of the surrounding pools of water. The smaller educational wing, rectangular in plan and set independently to one side of the chapel, was similarly clad in faceted glass panels.[46]

Students built a model of the project which was published in Architectural Forum in July 1950. The model, beautifully crafted and rich in detail, was so realistic that published photographs were often mistaken for a project actually constructed. It was not uncommon for architects from abroad who were touring in America to inquire at the OU College of Architecture as to the exact location of the Crystal Chapel even well into the 1980s.

Goff's next major building was a residence designed in 1950 for the Eugene Bavinger family on a wooded rural site east of Norman. Bavinger, a University of Oklahoma art professor, disliked conventional houses and wanted a large, open space with room to grow indoor plants. The design Goff proposed for them was inspired by both the Gillis and Leidig projects. But it may also have been influenced by the Russian architect Vladimir Tatlin in his 1920 design of a Monument for the Third International.[47] Like both the Gillis project and Tatlin's design, the enclosing wall was based on a logarithmic spiral. Like the Leidig design, much of the area contained by the masonry walls was defined as a collage of plants and pools of water. Space for specific activities were also remarkably similar to the Leidig proposal. But rather than a series of pavilions on a single level, in the Bavinger House they became platforms arrayed in space three-dimensionally. Each was located at a different height and the pattern echoed the upward spiraling geometry of the masonry wall. The Bavinger House is also like the Leidig project in another respect, that of structural expression. Both employed a cable-supported roof. Extensively published in the ensuing decades in both the popular press and professional articles and books, the Bavinger House is regarded as one of his finest designs. In 1987 it received the Twenty-Five Year Award from the American Institute of Architects in recognition of its architectural importance.

Contrasting with the lush and the romantic Bavinger House design were three houses based on rectilinear plan geometry done at about the same time. The 1949 Cox House in Boise City, Oklahoma is a series of loosely-arranged cubic elements of brick that echoes Wright's Usonian houses. Goff separated the thin roof plane with bands of glass from the masonry forms below to magnify the contrast between those elements. A design of 1950, completed the same year as the Bavinger design, for J.D. Wilson in Pensacola, Florida emphasized repetitive interlocking modules based on a cube with the exterior walls clad with redwood siding in a concentric pattern. Wilson was Goff's commanding officer at Camp Parks and the design produced -- precise and logical in its detailing -- has a remarkable sense of appropriateness. The 1952 Corsaw House in Norman, Oklahoma, designed the following year, expanded a theme of design with modules with a rich facade pattern.

Another design of 1952 for John Garvey in Urbana, Illinois illustrates Goff's diversity of approach and his skill at manipulating geometry. Garvey, a music professor at the University of Illinois, wanted a house where he and his wife, also a musician, might give performances for small audiences, yet practice independently. For the Garvey's Goff designed a glass cylinder containing a garden with the enclosing roof framed by curved structural elements, much like open-web Quonset hut joists, radiating outward from the center of the garden. Goff envisioned spanning the joists with wire mesh fencing and spraying them with transparent plastic coating. Water flowing over the surface would cool the garden in summer and provide insulation in the winter when frozen. Goff enriched the transparent cylinder with its trumpet-like roof with a series of spherical elements at the perimeter. These spherical elements, to be made from prefabricated gas storage tanks, were arrayed in space at different heights and connected together by a curved, plastic-enclosed ramp spiraling upward within the garden. Each spherical tank was to contain a different function and included bedrooms, a study, bathroom and a kitchen and dining area. Each of the spheres had transparent plastic bubbles attached to the surface for light and view and each was enriched visually by a radiating pattern of aluminum pipe which formed a contrasting ornament and structual armature. A major living space, designed also to accommodate musical performances, was located at the garden level and connected to the ramp. The driveway to the house was defined by a suspendend carport and curved transparent fence with a decorative motif of spherical planters suspended by radiating pipes.

Although the Garvey design is clearly linked to the earlier Leidig project and the Bavinger House, with a series of self-contained rooms given individual expression in a garden setting, it was also a remarkable study in translucency and transparency. It was a design of enormous depth with great contrast. The activities of private living, contained within the opaque spheres, were concealed. Yet the total architectural composition, including passage through space, was open and revealed instantly. The Garvey design represents yet

another interpretation by Goff of dualities, of visual integration of opposites, in defining creative architecture. Yet there were many familiar elements in the composition. Even the ubiquitous element of water was present. But it was on the roof -- a flowing stream in the sky -- rather than earth-bound.

Goff, though, was ahead of technology. The manufacturer of the sprayed plastic coating would not guarantee the product for more than five years.[48] Goff declined to pursue the design and developed a second scheme in 1954. This second design, which was built, was greatly simplified. Defined by a circular plan with a low conical roof and an interior arrangement of the public space at the center with private functions at the perimeter, the design recalled earlier themes.

In 1954 Goff received a commission for the design of a residence for the L.H. McCullough family in Wichita Falls, Texas. The project, and the series of designs produced, provides a useful example of a problem that plagued Goff throughout the post-war years, one of building costs. In many cases Goff's aspirations exceeded the budget of his clients and it was not uncommon for him to redesign projects to reduce the cost.[49] The first McCullough design continued ideas of modular elements that defined the Wilson House. The plan organization of the McCullough project, though, relied on overlapping circular elements much like the "Wedding Ring" pattern in quilt design. The central space in each of the three circular elements was intended to provide separate living zones and the overlapping areas were to accommodate bedrooms, dining and service functions. The circular motif established in plan would have been visualized spatially with groined vaults as enclosing elements. But the cost estimates exceeded the $30,000 budget.[50] Goff revised the design and attempted to retain the pattern of overlapping geometric elements. In the second design the circular motif yielded to interlocking octagons and the enclosing roof was defined as hipped roofs over the three central zones with a flat roof on the overlapping areas and carport. Still, the cost was excessive. The third design, eventually built, was a radical departure from the previous efforts. Conceptually the plan organization was similar to the 1941 Bartman House with a service core at the center surrounded by open space.

During 1955, the final year of his tenure at the University of Oklahoma, Goff designed two other projects that were built, the Frank House in Sapulpa, Oklahoma and the Pi Lambda Phi Fraternity House in Norman. The two-story, fraternity house was another variation on a triangular, centroidal plan with an open double-height space defining the central lounge. However, it burned not long after it was constructed. In the design for the John Frank family, Goff continued to expand ideas of curved geometry. Derived from a segment of an arc, the plan was organized with linear closet units defining one exterior wall and projecting bathrooms defining the entry on the opposite wall. In principle, the expression of these components was simply an extension of the

idea forming the conceptual core of the Leidig project, the Bavinger House and the first design for the Garvey's. But rather than expressing entire "rooms" as elements of a larger composition, Goff instead articulated the smaller service functions to create visual interest on the facade. It represented an important change in thinking for Goff because an adjacency of major spaces allowed greater economy. Moreover, by using folding wood screens and sliding partitions and locating service functions on the exterior walls, all the adjoining spaces could be expanded and extended visually. The Frank House represents a design of great clarity in achieving both spatial continuity and facade articulation. It was to serve in principle as a pattern for other projects in later years.

As Goff was completing the designs for both the Frank residence and the fraternity house, in the final months of 1955, he left the university for full-time practice.[51] By January 1956 his architectural office, combined with living quarters, was established in Frank Lloyd Wright's Price Tower in Bartlesville, Oklahoma.

Soon after his arrival in Bartlesville Goff began work on the second design of a combined residence-work space for Joe Price. Price was the younger son of Harold C. Price who amassed a fortune with the invention of a new technique for welding oil pipeline. Joe Price had met Goff in 1951 while studying electrical engineering at the University of Oklahoma. It was a fortuitous meeting for both as their lives became intertwined in significant ways and their friendship endured for the remainder of Goff's life. It was through their initial meeting that Joe Price's interest in architecture, ultimately shared by the entire Price family, developed. When the Price family considered constructing a building for their business enterprise in 1952 Goff encouraged them to retain Frank Lloyd Wright which resulted in the Price Tower. Shortly thereafter the eldest son, Harold C. Price, Jr., commissioned Wright to design his own home in Bartlesville and his father built a Wright-designed winter home in Phoenix. But Joe Price turned to Goff for his studio. The design Goff produced in 1953 was unprecedented for him. It mirrored his fascination with angled and crystalline geometry but in a composition of enormous dissonance. The design -- a series of self-contained forms set on pedestals -- seemed to point toward a new direction in expression, but unfortunately it was short-lived. Price showed the design to Wright who was openly critical because of the absence of any planning module and extravagant costs.[52]

The second design for the Price Studio in 1956 was conceived as a large triangular space anchored at the three corners by paired, elongated hexagonal units containing closets, a kitchenette and a bathroom. Extending beyond these units, in a pinwheel composition, were three other functions: a carport, screened porch and a bedroom. Each of these separate functions had their own individual expression and compositionally the design reflected Goff's

development at achieving both variety and unity simultaneously. The Price Studio, with major additions by Goff, in 1966 and 1974, was the only large and luxurious house Goff built. Although the building was destroyed by fire in 1997, it was one of his best works and embodied, in its final form, all of the compositional characteristics that collectively defined the pattern of his mature work, and hence, his philosophy of architecture.[53]

The years 1957 to 1959 were among the busiest and most productive times of his career. He pursued themes established earlier but there were very few designs modeled on an expression of individual components within a larger totality, such as the platforms of the Bavinger House or the spherical elements of the first Garvey project. Instead, the principal spaces within tended to be aggregated together and some of the designs revealed an interest in manipulating geometry to create a varied and more complex form. However, two designs illustrate a significant variation of an expression of individual components. Both the Motsenbocker House in Bartlesville and the Comer House in nearby Dewey, Oklahoma repeated an idea developed two years earlier in the Frank House, that of projecting the bathrooms from the front of the house. It was a device that allowed him to use a service function to articulate the primary facade, and thereby, generate visual interest. Certainly Goff had no desire to express the function of these components of a house, it was simply the potential for form and scale hierarchies that interested him. In fact, there is no association whatsoever of form revealing function. They are simply abstract forms that modulate or contrast with the primary form.

Missing too in houses of this period is the virtuosity of structural expression that characterized buildings in the late 1940s and early 1950s. Although that characteristic continued to be evident, it was more subdued. This dimension of his work was probably a reflection of the budgets of his clients for most were people of ordinary means. Also diminished was an interest in centroidal designs, one of an expression of a dominating, primary geometric form accompanied by a vertical axis. Only two such designs from this period, in addition to the Price House, were built. One of these, the third design for the McCullough's with a dodecahedonal plan, did not offer new ideas. The 1958 Gutman House in Gulfport, Mississippi, however, significantly extended Goff's vision of form floating in space. Raised on clustered stilts above the ground, to protect against the danger of flooding, the triangular plan was enclosed with a hipped roof that was repeated on the underside with a form of the same profile. Goff visually magnified the crystalline form of the house through enrichment of the surface. With an exterior skin of white stucco, he had workmen dash bits of crushed glass and mirror into the wet plaster so the prismatic surfaces would sparkle and reflect light.[53]

During this period, Goff also did several houses with plans organized with rectilinear geometry. The Pollock House in Oklahoma City (1957) extended a

theme of design with modules realized in the earlier Wilson House. In plan, nine interlocking squares are nested together in an arrangement that is rotated forty-five degrees to a square, stone plinth. Each of these modules is given individual expression by the resultant diamond-shaped roofs capped with a skylight. The 1959 Bennett House in Bartlesville provides an example of Goff's skill, even on a restricted budget, of creating a rich spatial hierarchy. Similarly, two other houses from this period are notable for a clarity of correspondence between functional activities and form diversity. Both of these designs, the Freeman House in Joplin, Missouri (1958) and the Collins House in Bartlesville (1959) share another point in common: both were designed three times. Although Goff felt a sense of discouragement over rejection of earlier designs because of excessive cost, that he still managed to create imaginative works is a tribute to his tenacity.[54]

His most consistent work from 1957 to 1960 were a series of houses with a composite plan geometry. One of these, the Comer House, combined rectilinear and angled elements with a prominent structure supporting a carport that appears to float in the air. The Mostsenbocker House, with a plan geometry derived from segments of an arc, contrasted curved elements with angled bathrooms and a carport to enliven the facade. The 1958 Jones House, also in Bartlesville, has an irregular plan composition of octagonal elements clustered informally around a massive fireplace. The Durst House in Houston Texas, also designed in 1958, is another design of great plan complexity and irregularity. And like other Goff designs, the differences in a definition of privacy between the front and rear of the house is reflected in the expression of form. A front wing, facing the street, is a segmented arc with large circular windows rising above the roof with an imposing and almost anonymous and mechanistic sense of scale. A radial wing, set on one edge of the property extends toward the back of the lot. These two wings define a naturalistic, wooded garden at the back and both the scale and composition of the architectural elements facing the garden are informal and delicate. A design of 1959, the Gelbman House in Jacksonville, Florida, and another of 1960, the Gryder House in Ocean Springs, Mississippi, feature very unusual plan geometry. The plan for the Gelbman House consisted of a semi-circle from which extended two wings curved in opposite directions. Approach to the house was by ramps defined by the curved wings on one side and a large reflecting pool on the other. The theme of inclusion of water as a major element of the composition was expanded in the Gryder design. A complex plan geometry of circular segments that defined the house, was set behind a large circular lily pool with access by a tubular covered bridge. The Gryder House was an exceptional design in other respects too. The complexity of the overlapping elements of the plan geometry was matched by a dramatic curved roof, sensuous curved windows and projecting cone-shaped balconies.

Goff built only one non-residential design during the time he practiced in Bartlesville, the Educational Building for the Redeemer Lutheran Church in

1959 in Bartlesville. He was originally commissioned to design a church complex consisting of a sanctuary with a detached education building. The congregation planned to build the smaller building first and use it while the sanctuary was being constructed. The ensemble he designed was one of remarkable contrasts. The sanctuary had a long rectangular plan with rounded ends and Goff told one of his assistants the form was derived from a 1932 church that was to have been built in Oklahoma City.[55] But the similarities ended there. The Redeemer sanctuary was intended to have walls built entirely of glass cullets. Goff envisioned a gradation in thickness with the walls tapering and diminishing toward the top. The effect he wanted to achieve was one of a transition of light, opaque at the bottom and translucent at the top. In this way, one's eyes would be lifted heavenward. Although the sanctuary was never built, the education building was completed in 1961. The geometry -- a simple rectangular box -- is unremarkable but it is an important design. With walls constructed of concrete block veneered with gray-green limestone and studded with glass cullets and square windows rotated obliquely, the entrance canopy and spires form a delicate counterpoint. It is an excellent example of his ability to achieve great surface richness, in both color and texture, on a very limited budget.

With the beginning of a new decade the number of commissions declined and his designs became more restrained. None employed composite geometry and only one house, the Adams House in Vinita, Oklahoma (1961) was modeled on centroidal geometry. But the Adams House, like the earlier McCullough House was not the first design but a subsequent one and it too had a twelve-sided plan. Possibly Goff's interest in the project had diminished and he reverted to a familiar design strategy. Three other houses, all with rectilinear plans, were built during the remaining years of his Bartlesville practice: the Fitchette House in Bartlesville (1961), the Barby House in Beaver, Oklahoma (1962), and the fourth design of the Rudd House in Portola Valley, California, also in 1962.

In late 1963 Goff became involved with a developer to plan and design prefabricated houses on a 72-acre parcel near Kansas City, Kansas. It was an experimental project underwritten by the Federal Housing Authority. Although he moved to Kansas City in April 1964 none of these projects were ever realized.[56] Still, he attracted other clients. For the William Dace family he designed a linear house that combined rectangular and circular elements. With a dominant rhythm of cylindrical closets expressed on the facades, the 1964 design built in Beaver, Oklahoma, echoed the grain elevators associated with dry-land farming scattered throughout the landscape of western Oklahoma.

The year 1965 was a productive one for Goff with twenty-four commissions, five of which were built. It also ushered in a period of renewed interest in centroidal geometry as the defining mode of plan organization. For a ski lodge in Crested Butte, Colorado, he developed a conical scheme that related

visually to the surrounding conifer forests. In the Lawrence Hyde House, Kansas City, Kansas, he defined the central living space as a large square with a hip roof and central fireplace-skylight. The four sides of the square plan were extended to accommodate bedrooms, kitchen, work and study areas and alcoves for the primary congregate space. A rectangular block of bathrooms, intruded into the central living space, provided privacy for the bedrooms. Although it disrupted the symmetry of the prismatic space, Goff used that element to his advantage. By establishing a low independent ceiling in the bathroom block, the larger pyramidal roof visually defined the entire volume. The vertical axis was magnified by a metal fireplace, which extended through a skylight, and was poised above an open platform hearth. The bathroom wall, defining one edge of the hearth and facing the living room, was enriched with a geometric mural of mirror tile to reflect the fire. The James Nicol House, in Kansas City, Missouri, was conceptually similar with a centralized octagonal space surrounded on all sides by small octagons accommodating the more intimate activities of everyday living. Like the Hyde House, it too had a special feature that animated the vertical axis, one that combined sky, fire, and water in a composition of extraordinary delicacy.

In 1965 Goff also continued to develop variations on composite geometry. For the Roland Jacquart family in the small Kansas town of Sublette, he designed a house that combined rectangular and circular forms. Organized around an atrium, at the request of his client, the asymmetrically placed atrium with a familiar pool of water beneath a large skylight was the visual focal point for the surrounding spaces. In the Hugh Duncan House, near Cobden, Illinois, he developed a linear scheme of interlocking cylindrical elements. Duncan, a professor of sociology at Southern Illinois University, was probably one of Goff's most informed clients. He knew much about architecture and his own research revealed his view that building reflected social order.[57] Duncan also had a particular admiration for Sullivan, Wright, and the Prairie School architects and had a collection of fragments from their buildings. Built on a large rural acreage that was heavily-wooded and hilly, Goff specified only fieldstone, gathered from the remote site, glass and wood as building materials. With curvilinear walls of stone, both outside and inside, and only the architectural fragments from Duncan's collection placed in the walls as decorative embellishments, the design had enormous continuity. A composition of smaller cylinders within larger half-cylinders connected with circular openings defined a circulation path that was spatially rich and varied with a great sense of mystery.

During the latter years of the 1960s, Goff built little and none of the buildings produced, with one exception, were distinguished. In 1966 he designed a modest house for Paul Searing in Kansas City, Kansas. The triangular plan, with a fireplace at the center, was divided into separate zones with alcoves extended from the three corners. A 1967 design for the Mercedes-Benz agency in Atlanta had its plan derived from an arrangement of

circular pavilions in a diamond configuration. Two other houses, both designed in 1968 with plan configurations of rectangular geometry, were similarly uninspired. The Glen Mitchell House in Dodge City, Kansas with a monochromatic cladding of wood shakes lacked both delicacy and the visual contrast that characterized much of his work. A design for the Karl Youngstrom family in Lake Quivera, Kansas, also had very few pattern characteristics. In fact, there is little that is unique in the design except for curved wall elements that project beyond the beveled corners of glass. But it was the third of a series of three designs for the Youngstroms. Ironically, both the initial and second design were as imaginative as anything he had ever designed, but apparently he lost interest and enthusiasm.

His best design of 1966 was an addition to the Price House in Bartlesville to accommodate a growing collection of Japanese art, especially those of the Edo Period painter Jakuchu Itó. Price also needed additional facilities for sleeping, cooking and dining since he had recently married. Goff modified the carport and entry by adding a wing for a kitchen and dining area that also provided passage to the new addition. The museum, later called by Price "Shin'enKan" meaning "house of the far away heart," was another composition of centroidal geometry with a dominant vertical axis. And it was one of his best designs. Defined in plan as an equilateral triangle with clipped corners, much like the configuration of the 1941 Bartman House, Goff related the exterior to the original house with use of the same materials. But the interior was very different and greatly subdued so it would not compete visually with the colorful Japanese paintings. The really distinguishing feature of the museum addition though, was the array of elements that both defined and animated the vertical axis. Set in the floor at the center of the space was a large hexagonal-shaped glass prism that doubled as a pool for goldfish and as a means of introducing natural light into a richly-ornamented Japanese bath on the level below. Terminating this linear array of elements was a prismatic skylight at the apex of the hipped roof of the museum. With design of these specific features Goff not only made direct reference to the world of nature, but also created a startling and original composition.

In 1967, with few commissions, Goff accepted Joe Price's invitation to travel to the Orient and for nearly two months in the spring of that year they toured Japan, Bali, Thailand and Singapore. Upon return to Kansas City he worked sporadically on two book manuscripts, lectured and accepted short teaching assignments at several schools. In the fall of 1969 he had opportunities to travel to Europe for a series of lectures and exhibits. On that trip he visited some of his favorite buildings including the Palais Stoclet in Brussels, the Maison de Verre in Paris and buildings by Gaudi in Barcelona.[58]

In 1970, Goff designed houses in the corn belt of southern Minnesota for a father and son. For the Glen Harder family, turkey farmers near the small town of Mountain Lake, he developed a linear rectangular scheme of multiple

levels set into the side of a gently sloping hill. All the major spaces were oriented with a view toward the landscape falling away from the house. And the view was worth looking at -- immense fields of corn that stretched to the horizon. In fact, Goff simply cut a wide swath through one of the corn fields and seeded it with prairie grass to establish specific location. Seen from a section line road several hundred feet away, the house seems to arise from an ocean of corn. Goff made references to the landscape in other ways as well. With the public spaces of the house on an upper level, and bedrooms below, a balcony cantilevered the entire length of the upper floor to provide outdoor access and shade the spaces below. The balcony was enclosed with a continuous spandrel clad in taffy-colored shingles and curved outward and downward at the ends. Given its own independent expression, the balcony spandrel created a strong shadow line and appeared to float in space. Moreover, the curved ends and color emulated the form and color of the tassels of the growing corn plants. Goff magnified the illusion of hovering forms with a hipped roof with very deep overhanging eaves. The roof was elaborated by tapering the roof plane to a knife-edge to meet the soffit, thus eliminating the fascia. The profile of the roof edge also was given a distinctive form by rhythmically scalloping the edge, and projecting the ends to visually reinforce the illusion of a tent-like form suspended in space. Goff wrapped the entire roof, including the soffit, in bright orange outdoor carpet. The choice of color was significant, and again, made specific reference to the landscape. Orange is a secondary color on the color-wheel and is the opposite of green. Goff thus sought to establish a harmonious color relationship with the dark green leaves of the corn plants. Contrasting with this ensemble of floating forms were three fireplaces with massive chimneys built of glaciated boulders. Tapering from a broad base at the bottom as they curve upward, they appear to anchor the composition to the earth. The boulders of the chimneys made further reference to a specific place as they are common in the area. Pushed to the surface by freeze-thaw cycles, local farmers joke that their first crop is rocks.

The notion of specificity, in response to clients as individuals and sites with tangible characteristics, was central to Goff's ideas about architecture. Both of these factors strongly affected design decisions and is further illustrated by a house for the parents, Jacob and Anna Harder. For their son Glen he had designed a house in the country that both accommodated a large family and reflected the expansiveness of the landscape. For the parents, a retired couple, he designed a compact, circular house with a central atrium in the town of Mountain Lake that related in scale to the neighborhood. Clad in light-green scalloped fancy-butt shingles, the cylindrical form was modulated with projecting cylindrical closets and half-spherical bay windows. Circular stairs, clad in brick, contrasted with but joined together the split-level scheme with a square form at the back containing a garage below and sewing room above. The two designs, for father and son, were very different.

Although both share common characteristics, collectively they inform us of the importance of individual expression in Goff's design philosophy.

In late 1970 Goff moved to Tyler, Texas at the invitation of Bruce Plunkett. Plunkett had been a student of Goff's during the early 1950s at OU and later became a successful developer. He wanted Goff to design both houses and community facilities for a new venture located at a nearby lake and appropriately called Lake Village. In accepting his offer some degree of financial stability in Goff's life was assured. Plunkett, who had been a loyal friend for three decades, thus became a patron for Goff much like Joe Price. Yet most of the work Goff did for him was speculative and the designs tended to be rather restrained and conservative. A notable exception was the design for Plunkett's own family done before Goff left Kansas City. The plan for the two-story house combined two rectilinear wings at right angles inset with a quarter-circle that functioned as a recreation room on the lower floor and a screened porch on the floor above. The circular motif was extended with both semi-circular windows on the first floor facade combined with panels of shingles laid in a radial pattern on the second floor. The roof, with deep overhanging eaves and curved profile with a thin edge, had direct reference to the Glen Harder House. Goff modified the roof in the Plunkett design though with a proposed onion dome, but that exotic element was never built.

While Goff continued his work for Plunkett, he also had other clients. In 1974 he designed a second house for Celestine Barby in Tucson, Arizona. With a linear plan bent at an oblique angle, the design was developed as an open space with interior ramps leading to a studio and sleeping area on an upper level at each end. The configuration of elements defining both ends illustrates a design aspect that was of fundamental importance to Goff -- one of visual termination. It was an idea directly analogous to musical composition. In the Barby design he dramatized, and terminated the linear form with angled cantilevered roof corners, cantilevered beams at the level of the upper floor, and by extending and stepping the walls at the lower level to echo the reverse batter of the wall above. It was a composition of not only great visual excitement but one that effectively fulfilled his imperative of termination of a continuum of planes and lines.

Two other designs of 1974 were also built, a third house for the Bruce Plunkett family and another addition for the Price House in Bartlesville. The Plunkett design was a linear rectangular composition of massive battered brick walls with alternating courses of light and dark brick. Developed as a series of interlocking forms, the symmetrical design had three distinct levels with enclosing hipped roofs. In appearance the house has a strong affinity with Prairie School architecture, abandoned by Goff fifty years earlier. If the Plunkett design can be considered conservative, then the second addition for Joe Price was a design of exuberance and imagination. Developed as a tower, the addition was intended to accommodate bedroom space for the Price's two

children and as a private retreat on a third floor. Bart Prince, who had apprenticed with Goff earlier and became one of his best friends, recalled Goff expressing the idea that "..the composition (of the Price House) needed a vertical element to make it complete."[59] His comment underscores the importance of purely visual relationships in Goff's design philosophy.

Spatially the second floor bedrooms were prosaic, but the third floor retreat was opulent. With a diamond-shaped plan the geometry extended the theme of prismatic forms evident in the original house and museum addition. But the vertical axis, as a defining element of a centriodal plan, was rotated horizontally to visually embrace the rolling hills of the landscape. And Goff buffered the vistas with transparent art-glass murals to enrich the space contained within.

During the mid-1970s Goff continued to work on individual residences and an elaborate community center for the small town of Mineola, Texas. The latter project, a curvilinear scheme with a roof supported by a series of tall spires with attached suspension cables, was well-received by the community but contractors were unwilling to submit fixed bids and the project, as were several houses, was abandoned. During this period Goff began working on another project for Joe Price, a new museum to house his growing collection of Japanese art. It was a project that consumed Goff's attention for the remainder of his life, and in fact, was not constructed until after his death. Both Price and Goff developed a conceptual strategy for display of the art that was to figure prominently in the design of the museum space. Central to their strategy was the notion that the painting's were originally done at a time when they would have been displayed as the only artwork within a space, and hence, in a museum setting they should be visually isolated. The paintings were originally seen under conditions of natural lighting filtered through shoji screens and therefore artificial lighting was to be avoided. Moreover, it was essential to protect the paintings, but conventional glass display cases would reflect light and obscure vision. Thus they did not want any artificial barriers between viewer and artifact. Joe Price, commenting on the evolution of design parameters, wrote: "We worked backward from the ordinary process and designated a new type of client -- the art itself."[60]

For the next eighteen months, while Price considered several locations for the museum, Goff developed eight different schemes, each a variation on the same theme.[61] Fundamental to them all was the idea of displaying the works individually in tokonomas, or alcoves, with a ramp connecting to viewing platforms positioned in front of, but separated from, each tokonoma. Goff visualized this continuum of ramp, platforms and tokonomas contained within a larger, curvilinear volume with translucent walls and a water garden below. Although the curved interior ramp has a superficial resemblance to Wright's Guggenhiem Museum, it is in reality an extension of ideas explored several decades earlier in the Gillis, Bavinger and the first Garvey design.

By early 1982 Price had resolved the question of location. It was to be designated as the Pavilion for Japanese Art at the Los Angeles County Museum of Art. Modifications were made in consultation with Bart Prince, who had assisted with preliminary design from the outset and whom Goff entrusted to see the project through to completion. Possibly Goff knew he would not live to see it built, for his health was failing. Nonetheless, he continued to work. He again had an appointment at the University of Oklahoma as a Distinguished Visiting Professor and would spend several days there at regular intervals. Construction had just begun on what proved to be his last residential design, a four-story cylindrical tower for Al Struckus in Woodland Hills, California. But his health worsened during the summer and on August 4, 1982 he died of kidney disease.[62]

(B) AN INTERPRETATION OF ORGANIC ARCHITECTURE

A passionate prose-poem by Bruce Goff titled "About Absolute Art," written in 1932, is significant in defining not only his own aesthetic ideals, but is also a direct extension of aspects of the philosophy of Louis Sullivan and Frank Lloyd Wright. In the prelude to his prose-poem Goff wrote:

> We no longer need imitate Nature to show our love for it
> Rather should we assimilate its essence into ourselves
> Then what we do will be tribute to it
> organic with it
> harmonious...
>
> It is time to recognize our natural human-divinity
> to shape from and with this
> organically
> our lives
> our work
> It is time to be free
> naturally natural
> CREATE ABSOLUTE ART[63]

Frank Lloyd Wright, in his Princeton lectures of 1931, illuminated the concept of organic expression by implying that ultimate reality is within nature itself as a single unifying organism when Wright defined "organic" as applying "...to living structure -- a structure or concept wherein features or parts are so organized in form and substance as to be, applied to purpose, integral. Everything that lives is therefore organic."[64] Goff, in his prose-poem written the following year, embraced Wright's idea of a building that was an "integral" living organism in harmony with nature. Moreover, he suggested that one's life and one's work were inextricably intertwined just as nature

and art, to the organicist, are fundamentally one. These ideas, too, form the core of the philosophy of both Sullivan and Wright. Yet the origins of organic expression can be traced through Emerson, Whitman and Darwin to the German romantic philosophers.

The concept of "organism," and hence organic expression, developed in the nineteenth century as a reflection of the fusion of two ideas, romanticism and functionalism. In the former, humankind -- as a creature of emotions and intuition -- could achieve meaningful existence only by living in harmony with nature. In the latter, nature was viewed as an evolutionary organism developing according to its own laws. The romantic view, philosophically, was a pantheistic view of the universe where God, as well as man and all his works, were subordinated as part of nature. The functionalist encompassed a scientific view that embraced nature, and all expressions of humankind including art forms, as an organism with a life of its own that was characterized by change, growth and development.

Although the romantic movement was well-established at the onset of the nineteenth century, it gained momentum with the transcendental idealism of German romantic philosophers. Immanuel Kant was a major contributor to the doctrine of organic expression and influenced both other philosophers and Emerson. Kant was among the first to equate beauty in art to nature with an implied concept of organism and the notion of continuous development. Similarly, Johann Wolfgang von Goethe contributed to the organic conception of nature and art. Opposed to the artificiality of French rationalism early in his career, Goethe came to regard naturalness and simplicity as the prime virtue of all art. Admired by both Emerson and Wright, Goethe believed a knowledge of organic nature was necessary for an artist to develop. Goethe maintained that art mediates between nature and freedom, since it is produced by the artist according to principles that operate in nature as well. Johann Gottfried von Herder, often quoted by Wright, was both a student of Kant and friend of Goethe, and was an important source for the doctrine of organic expression in art with his theories on the development of human civilization. In his view the cultural evolution of humankind was part of the evolution of nature rather than being a manifestation of man's rational free will. Herder challenged the notion of a uniform standard of beauty that was acceptable to all people at all times. Art, to Herder, was a product of specific context of time and place. Similarly, Friedreich Wilhelm Joseph von Schelling conceived nature and humanity as a single, unified organism and defined beauty in art as an expression of a spirit of nature. Even though the artist may never fully understand his own work, Schelling believed the ultimate purpose of art was beauty and it was the aesthetic intelligence of the artist who created the world. He was among the first to suggest that art would be diminished by form forced upon it that was not true to its purpose. It is no wonder then that both Sullivan and Wright despised the resurgence of classicism in American architecture. But it was Friedreich von Schlegel though who first applied the

word "romantic" to characterize modern art. For Schlegel held the view that art, to achieve a sense of vitality, should seek an enlargement of its boundaries and a progression towards a remote ideal rather than returning to a simpler and primitive state of nature. Moreover, Schlegel articulated the notion that a condition of organic expression in art was that it must reflect the spirit of a nation or even a region. It was a forward-looking philosophy, one that acknowledged cultural differences but also one of progress and hence optimism. It resembled closely the views of Sullivan and Wright, especially with their insistence that the essence of the American spirit was to be found in their own region, the midwest.[65]

In America, Ralph Waldo Emerson, inspired by the German romantic philosophers, extended the concept of organic expression. Emerson, in the American Scholar, attacked the use of revival styles in architecture with the statement "...if the American artist will study with hope and love the precise thing to be done by him, considering the climate, the soil, the length of the day, the wants of the people, the habit and form of the government, he will create a house in which all there will find themselves fitted..."[66] Emerson, however, was also influenced by his friend Horatio Greenough who clearly articulated the idea of organic expression and a functionalist doctrine of subordination of the parts to the whole. In a letter to Emerson he said, "Here is my theory of structure: A scientific arrangement of spaces and forms to functions and to site; an emphasis of features proportioned to the gradiated importance in function; color and ornament to be decided and arranged and varied by strictly organic laws..."[67] The ideas of both Emerson and Greenough and the importance they placed on adaptation to environmental circumstances shaped the ideas of other organicists, particularly Sullivan and Wright, who insisted that our architecture must express the characteristic democratic spirit of the American people. But it was Walt Whitman, who glorified nature, science, democracy and the common man, who most inspired Sullivan and Wright. Whitman felt that his own poetry, and the larger concept of organic expression, reflected both a specific time and environment. It could have occurred only, believed Whitman, in democratic America in the latter half of the nineteenth century. Furthermore, Whitman's functionalist posture was clearly related to the concept embraced by Wright with his belief of evolution and his view that art emerges from circumstances and anything which "distorts honest shapes ...is a nuisance and revolt..."[68] For both Sullivan and Wright these ideas became the foundation for their own philosophy of life and art.

The concept of change, as revealed in scientific theories of evolution, with an implicit belief in progress served to strengthen the optimistic doctrine of organic expression of Sullivan and Wright. In his book The Autobiography of an Idea, Sullivan acknowledged the influence of both Charles Darwin and Herbert Spencer.[69] Sullivan applied the Darwinian doctrine of natural selection to architecture with a conviction that not only was function the key to change but that architectural styles of the past were outmoded, and hence

unfit to survive. Furthermore, the idea of progress towards heterogeneity, revealed in the writings of Spencer, appealed to both architects. Spencer's theory stressed change as the most characteristic feature of all living matter and that such change was for the better. Moreover, Spencer maintained that evil would result from an organism's non-adaptation to environmental conditions. From this doctrine it was an easy enough extrapolation for Sullivan and Wright to suggest that only poor architecture would result when a building was not responsive to specific aspects of an environment. It was Spencer who also developed the idea that society itself was a social organism.[70] It was a concept embraced by Wright with his belief of equating organic architecture with organic society.

It was this glorification of science, together with the general philosophic and artistic movement of romanticism, that provided the intellectual framework for the philosophy of organic architecture of Sullivan and Wright. For them organic expression included both a romantic approach to architecture with form organized in harmony with nature for emotional purposes and a functionalist approach, derived from a scientific view, of form organized to accommodate the function.[71] In the writings of both architects there are three general themes that expand this doctrine: architecture is concerned with the process of change; architecture must address the specific conditions of an environment; and the creation of architecture is a supreme act of individuality.

The concept of change in architecture, reflecting a naturalistic and evolutionary thesis, is one constantly reiterated by Sullivan and Wright, for both tended to glorify the present and disregard the past. Sullivan, who rebelled at his classic training at the Ecole des Beaux-Arts in Paris, had nothing but contempt for the past. He castigated the French architectural educational system as continuing "...to cram their confiding pupils full of trashy notions concerning the classic and utterly ignore their own land and people." [72] Architecture, Sullivan believed, must reflect contemporary American society. It was an idea of continuous progress and is implicit in his comment that "the past is dead, and has been buried by a past that is dead..."[73] The same theme of evolution was echoed by Wright when he said "we cannot have an organic architecture unless we achieve an organic society."[74] For Wright, architecture must express society, and must therefore, change over time.

The notion of architectural design addressing the specific issues of an environment is another theme in the literature of Sullivan and Wright. Organic expression as a reflection of theories of evolution is revealed in Sullivan's often-quoted axiom of "form follows function." Derived from both Darwin and Spencer, the meaning of Sullivan's statement is that architecture must develop its visual expression from the specific attributes of function and site. The conditions of the specific problem -- physical, social, environmental -- should therefore determine the design. Sullivan expanded

this concept with the statement that the architect "must cause a building to grow naturally, logically, and practically out of its conditions."[75] Similarly Wright reflected the same evolutionary perspective with his insistence that "form changes with changing conditions."[76] That Wright responded to variations of site, climate and purpose, as determinants of design, is clearly illustrated by the differences in his suburban prairie houses in Oak Park, with a pervasive protecting roof and a dominant horizontal composition, contrasted with his combination studio-living quarters at Taliesin West, which is characterized by a sense of expansiveness and reflects the colors of the desert landscape. Wright's concern, revealed more so in Taliesin West than in the Oak Park houses, was that a building might seem to grow organically out of its own particular environment. This, then, is the meaning of his analogy "An organic form grows its structure out of conditions as a plant grows out of soil."[77]

The third theme revealed in the extensive writings of Sullivan and Wright on their philosophy is that the creation of architecture is a supreme act of individuality. The concept of individuality, as it relates to creating organic architecture, represents a fusion of several ideas that include theories of evolution, a general tendency of romanticism to glorify the individual and a belief in the importance of democracy. Evolutionary theories led to a concept of equating a building to a living organism wherein both the individual parts and the work as a whole result from a set of specific conditions. And since the conditions of any one building will differ from others, and will hardly ever recur in exactly the same form, architecture then becomes a unique event. In the view of Sullivan and Wright this sense of uniqueness should therefore be expressed.[78] This belief provided the rationale for personal and individual interpretation of organic design. Moreover, a glorification of the individual arose from the romantic notion that humankind is a creature of feelings, intuition and imagination. And these impulses were "natural" and appropriate. Therefore, the works of art which arose from this view might then display great variation of expression. Finally, the sense of freedom of self-expression that is implied is the essence of American democracy. This is the meaning of Wright's statement, "Our ideal is democracy, the highest possible expression of the individual."[79]

Bruce Goff embraced the ideals of organic expression and was inspired by both the writings and buildings of Louis Sullivan and especially Frank Lloyd Wright. In a latter section of his 1932 prose-poem he pays homage to Wright with the phrase:

> One has shown the way for architecture organic with life
> organic with materials
> organic with Nature
> organic with human-divinity

Frank Lloyd Wright
He has shown us how architecture may be absolute[80]

In a passage quoted earlier in his prelude to "About Absolute Art" Goff said, "We no longer need to imitate Nature...Rather we should assimilate its essence into ourselves."[81] With this statement Goff not only proclaims his reverence for nature, and his commitment to organic expression, but also implicitly accepts the concept of evolutionary change with continuous progress. In fact, his statement is very similar to Wright when he said, "Creation never imitates, creation assimilates..."[82]

Goff's 1932 prose-poem is significant in another respect for in it he alludes to other individuals who shaped his aesthetic ideals: Claude Debussy and Gertrude Stein.[83] Both of them -- composer and writer -- in separate but complimentary ways magnified many of the ideas of Sullivan and Wright. In the Impressionist music of Debussy the sense of impermanence and indefinite quality to the composition inspired Goff to ultimately draw parallels between music and architecture. His recognition of the use of unresolved harmonic passages which eliminated a formal beginning and ending would later be assimilated into his ideas about architectural composition. In 1948 Goff commented on Debussy's La Mer as being "interspatial" when he said "...[it] has so much freedom that people didn't think it had discipline when they first heard it...actually it has the finest order of discipline. The construction is there, but it is not obvious. It is finer, freer and more complex than the old masters."[84] In another reference to Debussy, Goff again recognized the imperative of evolutionary change when he said, "I find myself obliged to invent new forms. Discipline must be sought in freedom, and not within the formulas of an outworn philosophy."[85]

Goff's discovery of the writings of Gertrude Stein was significant for they not only paralleled ideas of both Wright and Debussy, with their insistence on change, but it also stimulated a search for expressions of space in a "continuous present." The idea of a "continuous present" was derived from his reading of Stein's 1926 essay "Composition as Explanation." She said,

> There is singularly nothing that makes a difference...in the beginning and in the middle and in ending except that each generation has something different at which they are looking...
> ...Everything is the same except composition and as the composition is different and always going to be different everything is not the same. So then I as a contemporary creating the composition in the beginning was groping toward a continuous present, a using everything a beginning again and again...[86]

For Goff the concept of a "continuous present" seems to have had two meanings, one concerned with actual buildings and the other reflecting a process of

design. In the former Goff postulated a building that did not have a traditional beginning, middle or end. Such a building, like Debussy's "La Mer," would be impossible to comprehend immediately. It would be an interspatial composition of multiple parts, each forming and contributing to a unified composition. In 1948 Goff cited Wright's Taliesin West as "...a design in the continuous present ... a much more complex organism. It is one of the most advanced compositions ever built."[87] Later he expanded upon this idea in describing the Bavinger House:

> I wanted to do something that had no beginning and no ending. Gertrude Stein says we begin again and again; this house begins again and again. She talks about the sense of not being in the past, present, or future tense, but in the "continuous present." I was thinking in those terms.[88]

The other meaning of the continuous present seems to be more related to Goff's ideas on the process of organic expression:

> Any genuine work of art is necessarily original. It is the first and last, of its kind, in the order of its existence. It had not been copied from anything and is produced for the first time with freshness and authority. We soon tire of novelty if it lacks depth and meaning. A truly original work has these qualities and many more; it is the result of a natural growth of ordered ideas; there is no beginning, for no one knows, even its creator the many sources that nurtured it, and no one can know its ultimate effect, so it has no ending. It has emerged in the ever-continuous-present as a unique and valuable contribution to all men by man's own creative spirit; if it has value it will be timely and timeless, and it will also be both personal and impersonal with its creator.[89]

Thus his statement conveys multiple underlying themes of originality, growth and of the absence of a beginning or ending, all of which reflect a very personal interpretation of both Stein and Debussy. And his statement echoes Wright's optimism and belief in continuous change when he said, "The law of organic change is the only thing that mankind can know as beneficial or as actual; we can only know that all things are in process of flowing into some continuous state of becoming."[90] That Goff had very clear ideas of the visual opportunities for diversity and the unexpected in design that evolutionary change might offer is apparent in another statement:

> Change is part of a scheme of time thought of as the continuous present, and no matter how excellent or well-established things may seem to be, creative artists are always restless and forever seeking new expressions. If they are innovators and extend the horizon of their art, they are usually branded as revolutionaries or radicals by their contemporaries,

> who fail to realize that what seems to be revolution may only be evolution made apparent. Change brings with it the unexpected and it is this quality of surprise which engages our attention in a work of art; but since we cannot continue to be surprised by the same thing, the quality of mystery becomes necessary to sustain our interest. Mystery, however, defies analysis; no matter how well we come to know a work possessing it, such a work, like Nature, never gives up its secrets.[91]

A second theme repeated in the writings of Sullivan and Wright is that the architect's solution must arise from the specific issues of an environment. Goff, too, mirrored this belief that great architecture must evolve organically out of the specific architectural problem to be solved, especially in the relationship of a building to its site and the needs of a client. Paraphrasing Sullivan, Goff wrote,

> "The solution is within the problem," so if we are to have a beautiful result we must find beauty in the problem itself. We most recognize its potential in all of the requirements, in the nature of the site, materials, structure, etc., and through all of our aesthetic interpretations and solutions. Thus there can be no remembering of other solutions nor following of styles. Each thing we do will have its own style...[92]
>
> Each time we do a building, it should be the first and the last. We must "begin again and again" if we are to solve our problems because all problems are different from each other, even if they may seem similar.[93]

Goff expanded the idea of the uniqueness of each problem and the role of the client in generating individual creations:

> The architect who considers the client a part of architecture is therefore less "a prima donna,"...than his accusers. We are blamed for "striving for effect," to which we plead guilty, because effects which are not striven for are not worth having. Certainly the effects of all the <u>great</u> architecture are earned and certainly architecture must have effect. The client can no more be satisfied with a house in which "structure is everything," than he could by sleeping with the beautiful skeleton of his wife. He should be so pleased with his building that he would not want to trade it for any other. It is the architects's obligation to his client not only to solve his problems and to satisfy him but to do more than this so the client will have an environment which has not only meaning to him today, but in which he can also continue to grow. The client is entitled to a building which is Architecture, rather than some architect's abstract exercise.

The third major theme in the writings of Sullivan and Wright is one of individuality. By disregarding tradition and experiencing only the present, the design of a building became an intense and personal act of creativity. Wright said, "I stand before you preaching organic architecture; declaring organic architecture to be the modern ideal..., holding no traditions essential to the great TRADITION."[94] With this statement Wright not only revealed his contempt for classic and Renaissance ideals but also expressed his belief in the creative artist as a unique individual. This notion is an essential element of the romantic doctrine of individuality -- of the artist as " an intuitive mystic seer"[95] -- who values intuition and imagination. Wright embraced this fundamental axiom of organic expression completely when he said," Individuality is sacred."[96] Similarly, Sullivan expressed the same belief, "And why is he [the architect] a genius? Because he is a child of Nature..."[97] and "to create is an absolutely natural process."[98]

Goff, in the same way, shared their view of the architect as a creative spirit when he said,

> ...organic solutions can be arrived at along many paths: there is never just one solution. The creative artist works intuitively and instinctively with the one he feels best with: it is a matter of choice from among many possible solutions. Our most spontaneous choice is usually best because it is more direct.[99]

and,

> Beauty bursts forth when it must because the Artist feels the drive within himself to produce it and no amount of discouragement can stop him. It does so through necessity because each of us has the human right to participate in this universal creative renewal.
>
> The craving for Beauty has existed in all mankind in all times and continues to do so. He is fated to continue his search for it so long as he exists and his finding it for himself has made his existence more worthwhile.
>
> This Fatal Force drives the Artist to seek Beauty in unexpected places and he can find it in anything if he can only understand it so. What this force is a secret, the mystery of which he is ever endeavoring to discover.[100]

That Goff believed in the supremacy of the individual as a dimension of organic expression is also revealed in his 1932 prose-poem "About Absolute Art."

> It is time to recognize our natural human-divinity
> to shape from and with this

organically
our lives
our work
It is time to be free
naturally natural
CREATE ABSOLUTE ART[101]

Moreover, the document in its totality is highly significant because it sets forth major aspects of his philosophy of architecture at age twenty-eight, nearly a decade before realization of the Bartman house and other major buildings that followed. And "About Absolute Art" identifies the major sources of influence: Sullivan, Wright, Debussy and Stein. Although Goff never really clarified what he meant by "absolute art" in his 1932 writings, there are a few lines in "Notes on Architecture," written twenty-five years later, which suggest an architecture without function similar to Bruno Taut's 1914 Werkbund Pavilion. Goff characterized it as "...possible and soon will become necessary to have architecture as something completely separate from utilitarian and symbolic functions. We might call it 'pure architecture' in the same sense that we now have 'pure music.' We call these arts 'pure' when they are no longer obligated to serve the utilitarian function to which they were enslaved."[102] Although he never realized any such conception, he had a profound sense of his own destiny and his role in twentieth-century architecture. Goff said,

> In the ever-changing, continuous present, there are always those who are part of the cultural lag -- those who resent change and are inclined to ridicule what they do not bother to understand. Debussy observed: "One must not forget that a work of art or an effort to produce beauty is always regarded by some people as a personal affront." and: "A beautiful idea in embryo has in it something absurd for fools." Such people accuse the great artist of "going too far" without having the least idea of how far "too far" is. What real artist ever went too far, when judged from the perspective of later years? We usually wish that they had gone further.[103]

(C) A COMPOSITIONAL PATTERN

Since his death in 1982, Bruce Goff has increasingly received critical attention as an important contributor to twentieth-century architecture. His work is generally viewed as an extension of the precepts of American Organic architecture established earlier by Louis Sullivan and Frank Lloyd Wright. Analysis of the buildings of Goff, especially the residential work since World War II, reveals a conceptualization of architecture that embraces a philosophic design trinity derivative from both Sullivan and Wright: architecture is an organic art with reference to the natural world;

architecture is concerned with solving the particular problems of client and site; and architecture is a supremely individual act of creativity and one must begin anew with each project. Within this framework, Goff developed a design pattern that was not only extraordinarily rich, but one that allowed great latitudes and permitted variety of expression.

Although his designs are notable for the sense of diversity, there are common characteristics in his work. There is a clear sense of geometry that orders the plan organization. Major spaces are arranged in an open plan with visual extensions into contiguous spaces. Many of the houses are defined by a split-level arrangement. Spatial hierarchies are further revealed by modulation of the ceiling/roof plane. Major spaces usually feature built-in seating, often with a sunken conversation area. The major congregate space is frequently dominated by the presence of a fireplace. Natural light is introduced by skylights, high windows or clerestories, and views from the interior to exterior, especially on the front facade, are often restricted. There is a clear sense of structural expression in the buildings. The roof is a dominant element of the composition and usually features deep overhanging eaves. Water, in the form of reflecting pools, is an element of many designs. Facades are highly articulated, and there is a powerful sense of orchestration of materials that is rich in pattern, texture and color.

Collectively, these twelve characteristics comprise Goff's compositional pattern. Each of these characteristics are not present in all of the houses. But with the exception of a few minor designs, nine of the twelve characteristics are found in all of the houses built during the last four decades of his career. Many of his finest designs, in fact, feature all twelve of these compositional characteristics. Moreover, many of the characteristics are also present in his institutional and commercial work. Although Goff built only six non-residential projects after 1929, all of these buildings display many of the same concerns. Thus, the presence of these characteristics, with all the permutations possible, inform us of Goff's definition of architecture -- of those essential elements necessary for an imaginative and humane environment.

It is apparent that Goff's compositional pattern evolved over a period of time and required a long process of learning and assimilation. That Goff placed great importance on intuition is well-established in both his writings and teaching. His views on the process of design, embracing intuition coupled with a paramount emphasis on creativity, may seem antithetical to aspects of continuity in his work for Goff believed that no two solutions were alike. To suggest affinity might have been difficult for him to accept. His fear would have been the innuendo of an "identifiable style" in his work, an idea abhorrent to Goff. But to speculate on Goff's acknowledgement of a pattern in his own work, however generalized, is ultimately futile. We will never know. And certainly the development of a stylistic paradigm is not the purpose of

illuminating the compositional pattern. Nonetheless there are generalized thematic ideas that relate the buildings together. The sense of diversity that characterizes the post-World War II buildings is accompanied by a parallel sense of continuity. Thus the pattern should be viewed as underlying principles of design that, in part, informs us of his ideals and visions.

GEOMETRY AS A PLAN DETERMINANT

There is a powerful sense of geometry that permeates his architecture from the earliest projects in Tulsa to the last projects in California. Goff's propensity to rely on abstract geometry as the generator of conceptual ideas is best revealed in plan organization. Although there were many variations that ranged from a crystalline geometry to repeating elements of modules to linear and radial designs, there are three major modes of plan conceptualization that define his work. These include rectilinear, centroidal and composite plans. Although Goff produced several designs that might be classified as "free-form", such as the Dewlen House in Amarillo, Texas (1956), none of these were built. Thus, the characterization of these three modes of plan geometry -- rectilinear, centroidal and composite -- is a device that not only informs us of his process, but of the importance of geometry in his architectural expression. As a device it illuminates the diversity of conceptualizations that were possible for Goff, but also the limitations.

Rectilinear Plans

This mode of plan geometry is an arrangement where all of the components are parallel and perpendicular to one another. Although Goff used this mode of conceptualization throughout his career, this particular configuration dominates his early work, and all of the buildings constructed through 1939, with the exception of the Boston Avenue Methodist Church, Tulsa, Oklahoma (1926), were designed with rectilinear plan relationships. This group comprises the largest number of designs of the three modes of plan organization including many of the least-known buildings that have been seldom published. It also includes one of his most prominent buildings, the Wilson House of Pensecola, Florida (1951). There is considerable plan variation among this group ranging from simple L-shaped plans such as the Bennett House of Bartlesville, Oklahoma (1959), to the very irregular linear plan of the Rudd House of Portola Valley, California (1962). Moreover, there is also considerable diversity with respect to symmetry. About half of these designs are asymmetrical in plan; some are symmetrical about a single axis; and a few incorporate diagonal symmetry.

Centroidal Plans

Centroidal plans refer to a series of designs with a plan arrangement derived from a primary geometric form that dominates the composition. In this conceptual mode of design Goff used a variety of geometries to define the primary form. These include plans that are triangular, diamond, square, hexagonal, octagonal, dodecahedonal, and circular. In many of these centroidal designs the primary geometry is visualized on both the exterior and interior by pitching the roof to the locus of the symmetrical form with the converging interior volume defining a vertical axis.

The origins of this mode of design appear very early in Goff's career and established major themes later explored. In the Graves House, designed for a site in Los Angeles in 1919 when Goff was only fifteen years old, he developed a symmetrical square plan with a central core of multiple fireplaces clustered around the kitchen. The principal functions of a living room, bedrooms and dining area were organized around this core in an open-plan with a continuous flow of space.[104] In a hypothetical design for a house in 1922 Goff reversed the relationship. In this circular plan the major space, with a pool of water, is at the very center of the composition.

These variations of spatial organization are significant because they provided a mode of conceptualization Goff developed into a major theme during his career. Although the geometric configurations Goff used were numerous, they all rely on an underlying principle of a prismatic volume defining a vertical axis. Yet curiously, Goff did not pursue these ideas for nearly two decades. They reappeared in 1941 in his design for Irma Bartman at Fern Creek, Kentucky -- the so-called "Triaero House." Based on a triangular plan with clipped corners, the kitchen, bath, and fireplace were all located at the center of the tiny crystalline composition. In organization the plan echoes the Graves House of 1919 with living space and a sleeping area layered around two sides of the core. The concept of free and continuous circulation was compromised though by inclusion of a garage on the third side of the triangular plan.

Goff apparently recognized the limitations of locating a service core at the center because it precluded opportunities of creating a dramatic interior space. In fact, Goff pursued this concept of a centralized core in only one other residence, the McCullough House in Wichita Falls, Texas (1956). In this twelve-sided structure, a bathroom and mechanical equipment room are surrounded by an undifferentiated layer of living room - playroom - recreation room, which, in turn, are surrounded by a perimeter layer of bedrooms, other service functions and a reflecting pool.

In this group of centroidal plans there are two houses that combine aspects of both modes of design; i.e., the centralized service core versus a centralized prismatic volume. Both of these houses, the Ford House in Aurora, Illinois

(1948), and the Maginnis House in Norman, Oklahoma (1950), represent a variation of the centralized open space defined by a vertical axis. In both houses Goff created multiple levels on the interior and placed an open platform on top of service elements. In the Ford House a circular platform, functioning as a painting studio for Ruth Ford, was placed at an intermediate level above a sunken circular area containing an open kitchen, dining space, and conversation area with built-in seating. Similarly, in the Maginnis House, Goff defined a secondary open space above the centralized bathroom and mechanical equipment room.

The clearest example of centrodial plans based on a dominate geometric form with an open interior volume and vertical axis is the Hopewell Baptist Church in Edmond, Oklahoma (1948). This twelve-sided (dodecahedonal) plan converges to a central skylight over sixty feet above the main sanctuary. The monumental scale, and sense of drama, of the interior is achieved through the direct correspondence between form and space. The interior is a reflection of the exterior, and the simplicity and directness of this relationship establishes remarkable visual unity.

Composite Plans

This mode of plan organization relies on more than one type of geometry in a single composition. In this mode Goff would often combine a rectilinear geometry with an angular or circular geometry. Some of the plans in this group are symmetrical, while others are asymmetrical compositions of enormous complexity.

The only building from the early phase of his career that relies on a composite plan geometry is the Boston Avenue Methodist Church. In this design there are three components: a square tower; a rectilinear block of offices and education functions; and a semi-circular sanctuary. The exterior of all three components are clad in cut limestone and both the rectilinear block and the sanctuary have a common cornice height. The relationship of these two geometries is thus quite subdued and lacking in the contrast Goff favored in later projects.

The Unseth House in Park Ridge, Illinois (1940), represents a marked departure from earlier rectilinear plans. It was also a significant accomplishment for Goff in a synthesis of two different geometries. Sited on a small lot in a Chicago suburb, the bedrooms, studio and kitchen all open to a triangular living room. Throughout the rest of his career, Goff produced a number of buildings based on a fusion of different geometries, and some phases of his practice are marked by an intense interest in this mode of design. His experiments with composite geometry expanded enormously from 1955 to 1960. During these years, with his practice located in Bartlesville, Oklahoma, he completed three houses based on radial designs, six houses combining

rectilinear and angular geometry, and two houses with a hybrid, curved geometry that are almost zoomorphic in character. Thus, even within the fabric of designs based on a composite geometry there seem to be several separate and identifiable strands of conceptualization.

OPEN PLANS

Frank Lloyd Wright is generally credited with development of the open-plan. This characteristic evolved fairly early in Wright's houses in Oak Park, Illinois. Initially Wright conceived of the idea of providing vistas from a major space into a contiguous space. This evolved quickly into a pattern of clustering major rooms adjacent to one another with only a suggestion of boundaries. In the Cheney House (1903), in Oak Park, the large alcove containing the fireplace, dining room, and library extend three sides of the living room. In most of the residential work during the rest his career, Wright used a design strategy of grouping major spaces without precise functional differentiation.

Goff was profoundly influenced by Wright and embraced the concept of the open-plan in his earliest work. In the Graves House, the living room, dining room and two bedrooms form one continuous space wrapping around a solid core of multiple fireplaces and the kitchen. The bedrooms, on opposite sides of the core, featured folding or Murphy beds in their own alcoves. Closure to the living room for privacy was possible by sliding a curtain attached to a beam overhead. But during the day, with the curtain pulled back and the beds folded up, the entire perimeter could be used as living space. The Graves House is important because it establishes a major characteristic of Goff's compositional pattern. All of his residential work, with the exception of a few early houses in Tulsa, feature an open-plan, in greater or lesser degrees. In those houses where the open-plan is minimized, the living and dining areas form one single space. This relationship is evident in the Cox House, Boise City, Oklahoma (1949). At the other end of the open-plan spectrum is the Bavinger House, Norman, Oklahoma (1950), with one spiraling continuous space wrapping around subsidiary functions juxtaposed in that space. All of the other houses feature an open-plan somewhere between the spatial relationships of the Cox and Bavinger houses.

The device Goff used to alternately open spaces for views and ease of circulation or close spaces for privacy was an extension of an idea developed in the Graves House. In that design the bedrooms could be secluded by simply drawing a curtain of fabric. In subsequent designs, beginning in the 1940s, the curtain became a folding wood screen. This device first appears in the Unseth House (1940) to open or close the two bedrooms and studio to the living room. Thereafter the folding wood screen appears in nearly eighty percent of the houses, with Goff using this strategy to attain flexibility in several

ways. In the L-shaped plan of the Corsaw House, Norman, Oklahoma (1952), circulation for the bedroom wing is along a glass wall facing a wooded back yard. Walls separating two of the bedrooms from the corridor are folding wood screens that can be opened for light and views or closed for privacy. In the Jacob Harder House, Mountain Lake, Minnesota, (1970), the circular atrium is formed by alternating solid walls, enclosing the kitchen and bath, with folding wood screens that define a dining room on one side of the centroidal plan and a bedroom on the opposite side. In other designs the wood screens might form different configurations, but the principle of using folding partitions to extend or enclose space was the same.

SPLIT-LEVEL SPATIAL ORGANIZATION

Goff was especially sensitive to opportunities to create spatial hierarchies through modulation of the floor plane by changing levels. One of the fundamental ways Goff achieved this modulation was with split-level schemes. This strategy allowed the potential for defining major spaces at three different levels - at grade or the entry level, up a half-level and down a half-level. It also created opportunity for a variety of spatial compositions at the intersection of these volumes. The Ledbetter House in Norman, Oklahoma (1947), is a good example. The most dramatic space is the entry with a waterfall, plantings and a curved ramp to the upper level crossing a pool of water.

In a few of the houses there are multiple floor levels, and in several designs the floor of the primary living area is only slightly recessed. Thus, there is some variation in vertical modulation of the floor plane. In some designs it is quite dramatic and in others, subtle. This mode of achieving spatial variation appears in all but six houses Goff designed from 1939 onward, and he used this concept of configuration irrespective of whether the plan geometry was rectilinear, centroidal or composite.

SPATIAL MODULATION

The exuberance of exterior form in Goff buildings is equalled by the sense of spatial drama on the interior. Nearly all of his residential work illustrates a concern for spatial modulation and the establishment of clear hierarchies by differentiating ceiling heights according to function. In the rectilinear and flat-roofed Cox House Goff simply raised the ceiling plane over the living room to create a larger volume. Correspondingly, the ceiling in the bedrooms and kitchen are lower.

In many of the centroidal designs the principal interior space correlates with the primary geometric form. With Goff, a prismatic form can also be defined

as a prismatic volume -- the continuum of form and space are inseparable. The clearest illustration of this concept can be seen in the Garvey House, Urbana, Illinois (1954), with all the living functions contained under a single conical roof. The private functions are set around the perimeter and focus on a central living space that can also accommodate musical performances. The ceiling, which echoes the roof, converges upward to a skylight at the locus of the cone. This open, almost pavilion-like structure is quite logical in its relationship of function to spatial definition. The outer ring of everyday living, smaller and intimate, is sheltered by the lower ceiling while the congregate activities at the center are defined by a larger volume.

The underlying concept that is central to understanding Goff's concern for spatial modulation and hierarchies is two-fold. Goff seemed to have had an intuitive understanding of the importance of secure, protected spaces for intimate activities. He acknowledged this dimension of human psychological needs by spatial definition through modulation of the ceiling plane. But he was also concerned with visual relationships and continuity between form and space. A way of achieving continuity was by establishing the plane of the ceiling and the plane of the roof as one. The ceiling echoes the roof. This, then, is a common theme in Goff designs. There are few attic spaces in his buildings and this concept of correspondence between roof and ceiling is the same whether the plan geometry is rectilinear, centroidal or composite. There is nearly always a logical and predictable relationship between exterior form and interior space.

BUILT-IN FURNITURE

The concept of interior furnishings as an integral part of the architecture is another dimension of Goff's compositional pattern. His ideas on furniture were derived initially from Wright's Oak Park houses with a characteristic englenook of built-in seating associated with the fireplace. Goff, however, was much more flexible and innovative than Wright and did not limit himself just to built-in seating in the primary public areas. True, he used this idea in many of his houses, especially with sunken conversation areas, yet he also questioned the functional role of nearly every piece of furniture commonly used.

His experiments with built-in furnishings first appear in the Graves House with folding beds concealed in alcoves. Although folding beds were commonly used as a space-saving device, their utilization by Goff is indicative of his interest in eliminating a major piece of furniture, especially during the daytime. The device became a way of visually simplifying the space. Like many of the characteristics of Goff's compositional pattern, he did not consistently pursue these ideas, though, for nearly two decades. With design of the Cole House (1939) in the Chicago suburb of Park Ridge, Goff provided

built-in cabinets and simple wooden tables and sofas with angled bases to maintain continuity with the geometry of the house. In projects thereafter Goff included built-in furnishings, in greater or lessor degrees, in nearly all of his houses. Some of his designs also included free-standing furniture, such as the large dining table for the Glen Harder House, Mountain Lake, Minnesota (1970), with a glass top and curved legs made with clusters of concrete reinforcing bars.

In the post-World War II years Goff developed and pursued a concept central to his work -- a conversation area recessed into the floor in the primary living area. The Ford House has a major recessed area with a fireplace defining two separate zones: a kitchen, behind the fireplace, and a large conversation area with a built-in couch facing the fireplace. Goff not only magnified the importance of the hearth as a focal point, but by recessing the floor, also achieved a sense of spatial variety in the design. Goff thus established a major theme in his design pattern, one that he used over and over with many variations. Interior space modulated by a recessed conversation area reached its ultimate fulfillment with design of the Nicol House, Kansas City, Missouri (1970). In this centroidal design Goff defined the entire living room, at the center of an octagonal plan, as a great inverted stepped platform recessed into the floor. The surface in its entirety, including built-in seating, is covered with light green carpet with a reflecting pool with gas jets at the very center beneath an overhead skylight. With this arrangement Goff created a dramatic composition of daring simplicity. Furnishings, except for a place to sit, are completely eliminated. There is no TV, coffee table, vase or pictures on the wall. With this space -- almost as austere as a Zen temple -- Goff challenges us to accept his equation between architecture and life itself. And by implication, one should simplify life to those activities most essential. With Goff it is a space of exclusivity: for interacting with family and friends, for listening to music, or for aesthetic introspection while gazing into the elements of fire and water.

In "Notes on Architecture" written in 1957 Goff illuminated his ideas on furniture and suggested there should be no such thing except in buildings already constructed.

> Instead, seating, sleeping, eating, working, storage and other functions should be accommodated or provided for with arrangements integral and part of the entire architectural scheme. ....If the architect has really worked out his scheme organically, he must have by necessity considered what is usually called "furnishing" as fundamental in his scheme, rather than as something put in afterwards.[105]

His concept of furnishings integral with the architectural expression was best realized with design of the Bavinger House. Here, "rooms" are defined as a

series of platforms or pods suspended within a larger spiraling space. Each of these pods, bulging at the bottom and covered with ochre-colored carpet, is accessible by stairs that wrap around an interior wall of the spiral as it converges to a central mast. The lowest pod, located at the wide part of the spiral, is a visiting area raised slightly above the floor. But instead of recessing it into the floor as he had done in the Ford House, Goff elevated it to maintain continuity of form with the other pods. The next highest pod is a sleeping area with walls of fishnet and sheer curtains and a mattress, with a bedspread of carpet, recessed into the floor. The next two pods, still higher, function as a child's sleeping area and playroom and are similarly defined. The uppermost pod, which extends beyond the primary spiral wall, is enclosed with glass and served as Gene Bavinger's painting studio.

Each of these "rooms" has a copper-covered storage cylinder positioned at the end of each pod. Collectively, this ensemble of elements -- pod and cylinder -- establish a dominant rhythm that, like the enclosing spiraling space, ascends upward. With this arrangement Goff also fulfilled another design imperative, one of abstract forms that appear to float in space. Contrasting with these repetitive geometric elements, the floor below is a collage of fieldstone, irregular planter beds and pools of water with goldfish. Other functional requirements are either carefully concealed or integrated into the asymmetrical composition. The kitchen, containing the necessary refrigerator, cook top and cabinets are all tucked away into the narrow part of the spiral wrapping around the mast. A fan-shaped counter of hand-rubbed walnut establishes the kitchen zone by separating it from the larger space, yet the natural wood maintains an element of color continuity with the rough stone walls. Other components are treated incidently, from the standpoint of composition. The dining area is defined as a revolving circular table with an antique-finished mirror top and a built-in ledge, surrounded by lush plants, for seating. A metal fireplace, repeating the circular theme, is treated as an incidental object and suspended above one of the goldfish pools.

With the design of the Bavinger House, Goff challenged and redefined traditional notions of furnishings and, as such, gave profound meaning to the Sullivan-Wright axiom of integration of all elements into an organic whole. In the Bavinger House, form, space and furnishings become one. Nothing can be taken away, nor can anything be added without compromising the composition. In fact, the integration of these elements is so tightly woven, the presence of a simple plastic chair in front of Gene Bavinger's studio easel, in a 1950s photograph, seems curiously out of place. Clearly it does not belong.

FIREPLACES

All but a few houses feature fireplaces as an element of the living environment. Unlike Wright though, who would locate the fireplace on an

interior wall of the room it served, Goff was much more flexible in placement. In some houses the fireplace is located on the exterior wall of the space served; and in other houses it has an interior location as a centralized component. There is no discernable pattern in placement as it relates to the three types of plan geometry, with one exception. The exterior-wall versus interior location is present in both rectilinear and composite plans, but in the centroidal plans the fireplace is never located on an exterior wall. It is always at the center of the prismatic volume or it has an asymmetrical location and appears as an incidental element of the composition.

In many of his houses the fireplace is a dominant element of the design, irrespective of whether it is located on an exterior wall or the interior. In the Glen Harder House, the multiple fireplaces, all located on exterior walls, are constructed of granite boulders with a massive base and curved profile. They contrast dramatically with the cantilevered roof and balconies and visually anchor the composition. In the Comer House, Dewey, Oklahoma (1957), the fireplace is incorporated into a Y-shaped brick partition at the center of the house dividing three major spaces: a kitchen, living room and recreation room. By extending the walls of the partition above the roof to chimney height, the centrality of the fireplace is magnified.

In some houses the fireplace is a prominent feature often associated with other elements, such as built-in seating or skylights, that enrich the composition. The Frank House, Sapulpa, Oklahoma (1955), illustrates Goff's propensity to compress or link several conceptual ideas together. Located on an exterior wall of an open linear plan, the fireplace serves the living room, which is defined on three sides by built-in seating. The fireplace-chimney ensemble is a tall cone penetrating a large skylight as it emerges through the roof. Natural light is thus introduced into the room; light casting shadows on the fireplace enriches the form, color and texture; the vertical element contrasts dramatically with the linear horizontality of the house; and the symmetrical seating arrangement assures visual focus.

Similarly, Goff fused together several ideas in the fireplace of the Jones House, Bartlesville, Oklahoma (1958). In plan the design is a very irregular composition of octagons and hexagons with a massive fireplace near the center. Some of the major public spaces are organized a half-level below grade surrounding the fireplace on four sides. The octagonal-shaped fireplace serves all of these spaces and is, from a construction standpoint, literally four fireplaces with one central chimney. When one is in the living room -- sitting on the built-in sofa -- one can see <u>through</u> the fireplace into the space opposite. The dominance of the hearth recalls Wright and his imperative of centrality. But it is an echo in principle only and in the Jones House, Goff modified and extended this concept. Instead of serving a single space, it served several spaces, and rather than being an impenetrable mass, it allowed views from one space to another.

NATURAL LIGHT AND VIEWS TO THE EXTERIOR

One of the characteristics of Goff's compositional pattern is a reliance on clerestories, skylights and high windows to introduce natural light into interior spaces. There is a parallel tendency to restrict views from the interior of the house to the exterior. In those houses where there is a significant visual relationship to the landscape, the view tends to be focused on a specific feature or vista.

Goff's reliance on light sources from above was a way of introducing natural light from several directions. The changing position of the sun throughout the day would alter the appearance of interior spaces. By using skylights and clerestories, an interior space might be very bright at one time of the day or quite subdued at another time. This device not only provided an opportunity to modulate an interior space by natural light but also a way of dramatizing a selected feature or focal point. The conical fireplace/chimney of the Frank House is surrounded by a skylight as it penetrates the roof. The importance of the form itself is thus magnified, both visually and subliminally as a powerful symbol, as it passes through a transparent plane. The color and pattern of the fireplace surface is enhanced by sunlight and the form by the chiaroscuro effect.

Goff's use of high windows and clerestories has other architectural implications. Visually it was a way of separating one form from another. Most often it is a roof that is separated from a wall by glass. By cantilevering the roof over a transparent vertical plane, Goff created the illusion that the roof floats in space. In the Motsenbocker House, Bartlesville, Oklahoma (1957) the high windows on the twin towers of the front facade separate the wall below from the overhanging roof above. In the Dace House, Beaver, Oklahoma (1964), a continuous clerestory separates a roof above from a roof below. In both buildings the meaning is the same: natural light is introduced into the interior and the illusion of a plane floating in space is magnified.

Goff's tendency to introduce natural light from above is paralleled by a tendency to restrict views to the exterior. To some extent his architectural expression is inwardly focused, although there is a clear relationship between the mode of plan geometry and the degree of internal focus. In those plans with centroidal geometry, views to the exterior are generally very restricted; in houses with composite plan geometry, views tend to be somewhat restricted; and in houses with rectilinear plans, exterior views are less restricted. Thus, there is a graduation in degree of restriction of views to the exterior that relates to plan geometry: centroidal designs are inwardly focused with little concern for exterior views while rectilinear designs

display a more conventional relationship of views between interior space and exterior environment.

There are, however, exceptions that can nearly all be attributed to either specific site characteristics or client wishes. The Corsaw House, with an L-shaped plan, has opaque walls for privacy facing the street and transparent walls facing a wooded back yard. The Glen Harder House has views focused in a single direction with an opaque-transparent wall dichotomy. But in the Harder House the view is worth looking at. Set on the side of a gently sloping hill, the view is of a cornfield stretching to the horizon. The centroidal Ski Lodge at Crested Butte, Colorado (1965), is another exception. With the cone-shaped form of the house emulating a conifer tree, windows and fixed glass are placed on the surface in a radial pattern. The pattern, though, does not allow the spectacular mountain scenery to be completely revealed, but is seen only in segments. The Jones House, with a composite plan geometry of interlocking octagons and hexagons, provides an example of the way the pattern was modified to accommodate the client. The house has fixed-glass windows on several sides with the sill below eye-level. Projecting outward and away from the wall at forty-five degrees, the sill is also a large shelf for display of a collection of antique glass. These artifacts, sparkling in the sunlight, can be seen and enjoyed juxtaposed against a wooded yard beyond. Some of Goff's other designs have screened porches or exterior balconies accessible by glazed doors, but these elements are integral with the architectural expression and maintain a sense of privacy. There are also examples where the floor plane continues beyond a glazed wall to form an exterior terrace or platform raised above the ground overlooking a secluded garden.

There are probably several reasons why Goff would restrict views to the exterior and introduce natural light from above. Many of his houses were built on standard-sized lots in rather ordinary suburban neighborhoods. Goff probably felt the views were not worth looking at and the close relationship with neighboring houses would compromise privacy if large expanses of glass were used. Yet Goff also was committed philosophically to bringing nature into a composition. Typically, he would be quite selective in the landscape features included, or meant to be seen, and those excluded. Through the use of high windows, clerestories and skylights one could see clouds floating in the sky and the tops of trees, but never the ground plane. By using a principle of selectivity Goff idealized the natural world. And architecturally, he created opportunities to embrace nature abstractly.

The source of this concept of idealization and abstraction of nature is probably derived from his interest in Japanese art. In Japanese scroll and screen paintings elements of the natural world are often depicted abstractly in an effort to reveal the essence of a mountain, tree or flower. Much is omitted, but by selective focus there is the potential for an intensified aesthetic experience and an invitation to speculate on meaning. Indeed, much

of Japanese art is imbued with a quality of mystery that encourages introspection. Similarly, Japanese gardens invite speculation. At the Zen garden of Ryoan-ji in Kyoto thousands of people from all over the world have sat at its edge quietly gazing at a few stones in a bed of raked gravel. It is a composition of extraordinary restraint with a sense of mystery that is mesmerizing.

Goff was acutely aware of the value of mystery in architecture. This is evident in his writings on the "continuous present" and his attempts to define architecture without beginning or end.[106] This ideal of mystery is also evident in selected features of his buildings, including light sources from above. In the Price Studio, Bartlesville, Oklahoma (1956), Goff introduced natural light into the prismatic volume with a large, central triangular clerestory. The two ceiling surfaces of the planes defining the clerestory are covered with small goosefeathers, each individually glued side-by-side and curved in the same direction to form a continuous textured surface. Suspended from the clerestory into the space below is a plane of translucent plastic strips which gently oscillate from air currents within the house. Looking up toward the light one sees floating white clouds metaphorically transformed into puffy white feathers and a mysterious sheet of cascading rain. It is a garden of the sky rather than a garden of the earth.

STRUCTURAL EXPRESSION

The expression of structure in architecture is another characteristic of Goff's compositional pattern. His interest in visualizing the structural components of a building appears early in his career with the design of the Page Warehouse (1927) in Tulsa. He didn't pursue this visualization consistantly in subsequent projects, though, for nearly fifteen years. Structural expression then reappears as a motif of design in all the buildings from 1941 to 1951. In work constructed thereafter, with one major exception, an expression of structure continues to be evident but it tends to have diminished importance in Goff's compositional pattern.

In the Page Warehouse Goff interwove two patterns to create a rich and expressive facade. One pattern was established by exposing the concrete columns with angled shear heads and the edge of the slab of each floor of the facade. The visualization of these components of typical warehouse construction was a clear expression of the structural system as an element of architecture. The other pattern, and certainly the dominant one, explored the potential of a segmented wall as a decorative screening element. On either side of each column, Goff corbelled multiple vertical bands of buff-colored brick to create a continuous reveal for narrow windows in the middle of each bay. At the top and bottom of the building, the bands were extended horizontally to connect together. The effect of essentially wrapping stacked

windows with a pattern of stepped masonry was to modulate the wall into a series of segments that created a powerful rhythm with a dominant sense of verticality. Goff made the five-story building appear much taller than it actually was. The facade thus became an abstract collage of two elements, a dynamic pattern of undulating brick combined with a static pattern formed by the exposed structural grid.

Although the visualization of structure in the Page Warehouse was a subtle gesture, it does foreshadow a concern Goff later integrated into his architectural vocabulary. This concern for structural expression reappears in the Bartman House. Even though the angled struts at each corner of the triangular plan support the cantilevered trellis are a minor part of the total composition, their presence ushers in a decade-long period in which Goff attached importance to the expression of structure. It was to become a major element of design and there is significant variation in structural systems from one building to another.

Both the Ledbetter and Bavinger houses have prominent elements suspended by cables. In the Ledbetter House, the carport and garden shelter are aluminum discs with exposed trusses that are suspended from vertical steel frames extending above the cornice. In the Bavinger House, the roof and a bridge spanning the creek are supported by cable structures. The Hopewell Baptist Church (1948), with tapered Warren trusses placed on the outside surface of the cone-shaped building, represents a structural expression of enormous clarity. Similarly, the Ford House, with the quonset ribs painted bright red-orange and converging to a central mast, is a powerful synthesis of form and structure.

The Cox House illustrates another dimension of structural visualization, one that was derived from an existing structural system, but in Goff's hands was quite innovative. The roof was constructed of pre-cast concrete units manufactured under the trade name of "Flexicore." Each of these long-span units measured twelve inches by six inches with two cylindrical voids running the length of each unit. The roof was supported by fabricated steel trusses and infilled at the perimeter with glass to form clerestories separating the roof from low masonry masses. By cantilevering the roof, Goff established an illusion of a thin plane hovering in the air with the circular openings in the Flexicore fascia forming a decorative rhythm.

The Wilson House is still another example of structural innovation from this period in his career. With a plan of nine repetitive modules, each module was based on a fourteen foot cube with all of the edges beveled. Constructed of welded pipe that was purposefully exposed, the structural frame sharply defined both the corners and the top and bottom edges of each module. Although there was obvious concern for both structural expression and unity through repetition, it was an expression that also allowed diversity. The

vertical bevels at the outside corners of the modules had louvered windows to provide cross-ventilation, and the overhead bevels were fitted with translucent insulating plastic that both diffused the light and, by contrast, softened the angularity of the pipe frame. The bottom bevels were left open so the modules, raised above the ground, would appear lighter. Sited in a grove of pine trees in an interlocking "L" composition, each module had opaque panels for privacy walls built of redwood laid in a concentric pattern and glass walls for views of the ocean and trees. The logic and precision of the design, with its characteristic repetitive modules coupled with a dominant expression of structure, paradoxically places the Wilson House at the very center of architectural concerns of the 1950s. It is ironic that Goff, viewed by many of his contemporaries as wildly romantic, embraced principal axioms of the Modern Movement in producing a building of striking originality.

In the mid-1950s, Goff's discovery of structural wood decking supported by laminated wood beams, or occasionally steel beams, became the primary mode of spanning distances beyond what was possible with conventional framing. The system allowed Goff to create relatively large open spaces; it permitted an opportunity to cantilever the roof; it allowed a very thin fascia; and it was relatively inexpensive. His preference for this system is probably a reflection of the budget of many of his clients. Although some of the houses Goff built during the rest of his career were framed conventionally, many relied on a post-and-beam system with the roof constructed of structural wood decking.

Goff's interest in unique structural solutions did not really diminish though. There are a number of proposed designs that employ a cable-supported roof. Goff had a particular fascination with the expressive potential of a building element that might be suspended in space by cables. Few of those designs were built, however. A notable exception was the final building of his career, the Japanese Pavilion of the Los Angeles County Art Museum completed several years after his death. In this design, Goff extended the major internal piers far above the roof and tied them together with curved beams. The roof was then anchored to the beams with cables. The expression of a network of structure -- columns, curved beams and cables -- rising into the sky above mitigated the bulk of the walls below. It was the crowning visualization of structure of his career, but he did not live to see it completed.

DOMINANT ROOF

One of the most prominent characteristics of Goff's compositional pattern is the dominance of the roof as an element of design. Most of his houses have an overhanging roof and many have exaggerated eaves with a thin fascia that evokes a quality of lightness. This concept of a dominant roof is derived, in

principle, from Frank Lloyd Wright. Goff was strongly influenced by Wright and some of his earliest designs echo the prairie houses with a distinctive overhanging roof. Goff, like Wright, seems to have had an intuitive recognition that the roof can become a powerful symbol of protection. Goff also had other motives: he recognized the potential of a roof as one element of architectural composition that might be dramatized to create visual excitement. Goff thus assimilated an important principle, one he learned from Wright but ultimately developed into his own highly personal design vocabulary. In Goff's architecture the roof expression was much more varied than Wright's, and he used many different forms to enclose volumes.

Only a few houses from 1939 onward are completely without overhangs, but several designs have a modulated roof with both deep eaves and clipped cornices. Although Goff used a variety of roof types including flat, hip, gable and shed, there is not a strong association of roof type with the mode of plan geometry. There is a tendency, however, for centroidal plans to be roofed with a form that corresponds to and echoes the primary plan geometry. The Crested Butte Ski Lodge, with its circular plan, has a cone-shaped roof, while the Gutman House, Gulfport, Mississippi (1958), has a three-sided hipped roof corresponding to the triangular plan.

There are also several houses that combine roof types, such as a hip or gable roof with a flat roof. The Nicol House has a flat roof over a series of octagonal modules that define the perimeter of the house. The resultant central space, the living room, has an eight-sided sloping roof that converges to a skylight at the apex. The Motsenbocker House, with a segmented radial plan, is enclosed with a rather conventional gable roof. But the appearance is heavily disguised by shed roofs defining the carport and enclosing the towers attached to the front facade. Surprisingly, only three houses that Goff built have a curved roof: the circular Ford House, framed with quonset ribs; the Gryder House, Ocean Springs, Mississippi (1960), with the roof low at the center and curving upward at both ends; and the Bavinger House, with a warped roof plane amplifying the spiral plan geometry. Although many of the houses and buildings Goff designed throughout his career incorporated curved roof elements, few were built.

One of Goff's earliest houses where the roof is an extraordinarily dominant element of the composition is the Bartman House. With a centroidal plan geometry defined by a triangle with clipped corners, the roof of the house is a flat, thin triangular plane extended on all sides by a trellis. Supported by angled struts, the roof has an appearance of floating above the enclosing form. Although the house is quite small, the exaggerated cantilevered roof creates an illusion of tremendous expansiveness and the house appears much larger than it actually is.

This concept of dramatizing the roof was one Goff used repeatedly. Although he developed many variations of form, there is a sense of appropriateness and unity with the roof as it relates to other components of the design. But the roof itself became a major device for generating visual excitement and is indicative of his interest in imparting a quality of lightness in his architectural expression. He seems to have had a paramount concern and fascination with the notion that the roof is an element of a building that might be made to appear to float in space. In many of his post-World War II houses, Goff achieved this illusion primarily with the use of structural wood decking to enclose space. It was an attractive material to Goff because it reduced the number of necessary components. The structural decking could serve as both a sub-strate for the roofing membrane and as a ceiling surface that could be stained or left natural. And it had a cantilever capability with relatively thin edges that could fulfill his interest in creating visual drama.

As an extension of his concerns for dramatizing the roof, Goff would frequently cantilever beams, fascia or scuppers to magnify the illusion of lightness. In the Price Studio this device took the form of gold anodized aluminum pinnacles, matching the roofing material, that thrust upward in pairs from the corners of the triangular plan at an inverse angle to the slope of the roof. When questioned about these elements, Goff said: "I wanted to make an interesting profile against the sky".[107] His comment suggests the way a building joins the sky is of equal importance to the way it meets the earth. In principle his concern is an extension of an idea conceived by Wright, though with Goff it found a variety of expressions. The thin overhanging eaves of Wright became abstracted into a series of components -- of plane and lines -- that might visually sustain the effect of a continuum of forms floating in space.

WATER AS A DESIGN ELEMENT

Many of Goff's buildings feature reflecting pools as a component of the building on either the interior or exterior and occasionally in both locations. Like many of the compositional elements of Goff's designs, this too appears early in his career. A hypothetical design of 1922, the year he graduated from high school, has a circular plan with the primary living space surrounding a circular pool at the center. Although we do not know the specific source for this idea, Goff may have been inspired by Bruno Taut's 1914 Glass Pavilion built for the Cologne Werkbund Exhibition. Goff's design, like the Taut building, was a symmetrical centroidal plan with a vertical axis and both featured an element of water at the locus of the geometry. The Glass Pavilion must have appealed to Goff in other ways as well. The dome of the pavilion incorporated colored glass, and the pool below was actually several connected basins of varying heights that created a series of waterfalls. The

interaction of sunlight on colored glass and water in motion would have produced a reflective and richly animated spatial experience, much like a three-dimensional klaidoscope.

With design of this 1922 project, Goff anticipated a motif that later became central to much of his work. Like many of the other characteristics though, the use of water as an element of design doesn't appear consistently until the 1940s, at about the same time his compositional pattern assumes definition. In the Colmorgan House, Glenview, Illinois (1940), Goff terminated the enclosing shed roof with an exaggerated cantilevered scuppers to funnel rainwater into a lily pool below. When it rained it became a waterfall.

His fascination with water as an element of architecture reached its zenith with the design of the Leidig House in 1946. Although it remained unbuilt, Goff's proposal for this California house rivals C.N. Ledoux's conceptualization of a House at the Source of the River Loue 170 years earlier. In the Ledoux design, with the river flowing through the building and emerging from a circular opening in the facade as a waterfall, the flow of the river was amplified and incorporated as a dynamic and active force of nature. But, with Goff, water was used as a serene and placid element, one that was subdued and reflective. Conceived as a series of circular pavilions built over a naturalistic pool contained on two sides by undulating sandstone walls, the Leidig or so-called "Lily Pad" house, was a secret and hidden place. With the pavilions raised slightly above water level and cantilevered from a central stem, they had a quality of lightness and appeared to float.

Water as a design element appear in two houses constructed not long after the Leidig design. In the Ledbetter House Goff developed an exterior lily pool defining the circular driveway and an interior pool in the foyer. Similarly the Bavinger House is sited next to a small stream dammed to create a pond and also has a large irregular-shaped interior pool recessed into the floor. With "rooms" defined as pods suspended in the spiraling space, the arrangement became a variation on a theme of precise geometric forms floating in space above a naturalistic landscape of water and plants.

Goff had a fascination with the idea of passage over water. Certainly this is evident in the Bavinger House but there are also several houses that feature pools of water at transitional points in the design. In the Ledbetter House access to the bedroom wing, a half-level up from the foyer, is by a curved ramp passing over an interior pool at floor level. In the Gryder House Goff dramatized the entry by creating a processional bridge with a curved canopy over a large circular lily pool that defines the front yard of the house in its entirety. Movement through space and passage over water again became united, like in the Bavinger House, with design of the Japanese Pavilion of the Los Angeles County Art Museum (completed 1987). Circulation in the

exhibition space is defined by a curvilinear ramp overlooking a series of interlocking pools of water below.

Goff's use of water as an element of design reflects several concerns. It was a way of reaffirming his conviction that architecture embraces the world of nature, a world of tranquility and serenity. Water, with its property of reflectivity, was also a way of visualizing his interest in the Symbolist Movement. The characteristic lily pools in his designs also represented his fascination with Japanese art and architecture. Finally, passage through space was a generalized theme Goff explored throughout much of his career. It was the essence of his concept of "absolute architecture" -- a continuum without a beginning or ending. And a sequence of movement that included water reinforced the illusion of floating, of floating in a dream world much like the music of Debussy.

ARTICULATED FACADES

One of the most compelling aspects of Goff's architectural expression is the exuberance of form, with rich facades that are often highly articulated. His buildings from 1939 onward present an array of ideas with an enormous sense of variety from one design to another. Yet there are common underlying principles that determine facade organization, and Goff used three different and separate design strategies to achieve visual excitement. In some buildings only one of these strategies may be present, but in other buildings all three are evident. Variations on these concepts offered many permutations and when coupled with actual building materials the permutations increased exponentially. The three strategies of facade organization Goff used included: establishing hierarchies of form by extending the service or private functions of the house beyond the primary plane defining the facade; creating visual dichotomies through the dominance of contrast; and generating visual interest with the presence of regular rhythms.

The concept of extending service functions beyond the primary facade plane appears very early in Goff's career -- in the Graves House of 1919. On all four sides of the symmetrical plan small alcoves containing either folding beds or a bathroom protrude beyond the exterior walls. Although the alcoves are contained under the deep overhanging roof, and hence seem rather insignificant, their presence marked the beginning of a major theme in his work. It did not reappear until the 1941 Bartman House, but from then onward Goff developed many variations on this basic concept. Moreover, he used this idea in all three plan types, rectilinear, composite or centroidal geometries. In several Oklahoma houses Goff exploited this concept of form hierarchies to achieve a sculptural expression. The Cox House, with a plan based on rectilinear geometry, concealed closets in masonry masses that visually interlock with larger forms defining primary living spaces. In the

Motsenbocker House, Goff located the bathrooms on the front facade and expressed them as towers in a composition of composite geometry. In the original Price Studio he extended the three planes of the triangular centroidal plan to create a pinwheel geometry. Each of these extensions were then articulated as paired, elongated masonry hexagons containing closets, a bathroom and a kitchenette.

Another way Goff generated excitement in facades was by establishing visual dichotomies through contrast. He would often develop an expression that combined light, frail elements contrasted with solid, anchoring elements. Typically this would take the form of a deep roof overhang with a very thin edge or fascia combined with solid masonry masses. This sense of duality, of floating and anchoring elements, would then be further enhanced by differences in the properties of materials such as color or texture. The Price Studio illustrates this principle of the dominance of contrast combined with an expression of service functions. In this design Goff sheathed both roof and wall of the primary crystalline form with gold anodized aluminum. By extending the planes of the hip roof to join a reverse battered wall that canted outward from the foundation Goff gave a radically different meaning to the concept of a wall. The "cornice" or line of juncture between roof and wall simply became a horizontal edge or fold of the same material both above and below.

The design implications of this device are important. The edge separating roof and wall creates a powerful illusion: the surface above -- the roof -- is highly reflective in sunlight, while the wall below is completely is shadow. The effect of sunlight, then, is one of clarifying the crystalline character and imparting a sense of drama to a form that seems to hover above the ground. Juxtaposed against this floating prism are pairs of contrasting masonry forms at each corner -- the service functions -- anchoring the composition to the earth. These masonry forms provide still another dimension of color and textural contrast. The masonry itself is a veneer of anthracite coal decorated with blue-green glass cullets. Collectively, the ensemble is one of extreme contrasts: floating elements versus anchoring elements; reflective surfaces versus dense and opaque surfaces; and a color of gold versus black.

Another mode Goff utilized to generate visual interest in facades was repetition of elements to create a regular rhythm. This principle of a dominant facade rhythm found a variety of expressions with a wide range of scale hierarchies. In the Ledbetter House the sawtooth pattern of fixed glass on the front facade establish a primary rhythm while the glass ashtrays set in the angled wood mullions establish a secondary rhythm. The primary rhythm is horizontal while the secondary rhythm is vertical; one is massive and the other delicate. It is a concept of two simultaneous rhythms, much like counterpoint in music. The scale of the two rhythms are quite different, yet

they are in harmony with one another because the materials of both are made of glass. The Dace House provides still another example of visual excitement generated by the use of regular rhythm coupled with expression of service elements. The cylindrical elements attached to two sides of the house are lazy-susan closets serving a linear arrangement of bedrooms and kitchen.

With design of the Bavinger House Goff visualized a spatial composition of extraordinary complexity by fusing together all three modes of facade articulation. Derived from a logarithmic spiral, the rough-hewn rock wall wraps around a central mast as it ascends upward. The volume is thus one that is constantly changing, and interior walls are indistinguishable from exterior walls. Radiating from the mast at regular intervals are a series of platforms with attached cylindrical storage units. Each ensemble of platform and cylinder echoes the upward thrust of the spiral as they ascend in a repeating rhythm. The pattern, then, is one of geometric elements at a lower level contained within the volume, while at the upper level those same elements have emerged through the spiral wall. The service components -- the copper-covered closets creating a dominant rhythm -- are visualized both on the exterior and interior of the primary enclosing form. They have a quality of lightness and seem to float in the air. The smooth skin of the copper both blends its color with the stone but contrasts in texture. It was a way for Goff to establish design continuity and variety simultaneously. Finally, there is an enormous sense of tension in the composition between the contrasting network of web-like cables in the sky and the rugged stone of the earth below.

ORCHESTRATION OF MATERIALS

The diversity of form in Goff's architecture is matched by the diversity of building materials employed. The facades of houses built after 1939 are often extraordinarily rich in texture, pattern, and color and sometimes incorporate unusual materials, especially reflective materials, or common household objects in the composition. Unlike Wright, who insisted on a strict interpretation of the usage of materials to achieve organic expression, Goff was more flexible and open-minded. He was interested in visual relationships, but he could also be very practical. Even when a project was under construction, he would substitute materials when it was necessary to reduce costs.[108]

Although there are some houses built primarily of only one material, most of them feature two or more facade materials in addition to glass. Goff's propensity for combining multiple materials was one of the ways he achieved a rich and varied expression. Although he was both acclaimed and criticized for using unorthodox materials, the principal materials are most often rather conventional and differ little from those used by other architects. Goff used brick, stone, tile, metal, shingles, wood siding, and stucco as primary

building materials. He did not seem to favor any single material or combinations of materials. Moreover, there is no relationship between the mode of plan geometry and materials usage. A variety of permutations in combining different materials is present whether the plan geometry is rectilinear, centroidal or composite.

In many of Goff's buildings there is a highly tactile quality to the surface. His interest in textured facades begins to appear as a dominant motif in his work in the early 1940s with construction of the Colmorgan House. Built of rough-sawn horizontal siding and brick with weeping mortar joints, the facade is a rich but subtle interplay of two harmonious materials with a prominent surface texture. The buildings of the following decades reveal his interest in highly textured surfaces that frequently incorporated stone or brick as a major element of the facade. But there was the intervening principle of visual contrast that dominated the selection process of materials. He would often create textural dichotomies -- smooth versus rough, natural versus man-made -- to achieve a rich expression. The Ledbetter House illustrates his skill at orchestration of materials in creating textural variety. The texture of the stone, appearing as it might in a quarry, establishes a major theme of visualizing the natural world. The striations of the aluminum siding of the wainscot, with a machined finish, create another texture. The large sections of polished plate glass establish still another texture, one that is smooth and reflective. Collectively, all three interweave with one another in a state of balance and harmony. Although there is great variety to the composition, the three primary textures coexist with a remarkable sense of unity.

Another way Goff created interest in the facades of buildings was through pattern. His interest in a pattern-rich expression emerges early in his career with design of the Riverside Studio in Tulsa (1927). Recalling the Palace Stoclet of the Viennese architect Joseph Hoffman, the front facade of the white stucco building is inset with a geometric design of black tile. But this interest in pattern, as an element of design, does not manifest itself consistently in his buildings until the 1940s. The Bartman House represents a unified expression with a dominant striated pattern of battens on the exterior surface that is repeated thematically on the interior flooring with alternating boards of light and dark wood. In the Wilson House Goff defined the exterior walls of the interlocking cubes as either glass for light and view or wood for privacy. The wood walls were sheathed with redwood siding laid in a concentric pattern which visually reinforced the concept of a series of identical repeating modules. In the Corsaw House Goff created surface interest with a repeating chevron pattern of wood siding that corresponded to the design module. In the Second Plunkett House, Tyler, Texas (1970), with an L-shaped plan like the Corsaw House, Goff created a rhythmic facade through applied pattern and ornament. The lower part of the facade of the two-story house is brick with a series of semicircular, high windows terminated at the

spring line by an overhanging second floor with walls of wood shingles and glass. The facade of the upper floor is an inversion of the pattern below: it is the wood shingles laid in a semicircular pattern in the context of a glass curtain wall that completes the rhythm. The semicircular element below is transparent while the one above, at a larger scale, is opaque. Goff magnified the dominance of the circular motif by placing an exterior light fixture at the center of each component. These fixtures, large plastic globes with a yellow neon corkscrew-shaped filament, became the primary ornament that visually amplifies the facade rhythm. It is like a bullseye in the center of a target.

Another way Goff created visual interest in building facades was with the use of color. His understanding of this aspect of building materials was extraordinary and encompasses a wide range of design responses. The facades of some buildings are muted and subdued in color while others are vibrant and exciting. But when did he use one mode of response compared to another? The key to understanding this dimension of his design vocabulary lies in Goff's commitment to responding to the particular characteristics of a site or the preference of his clients. The important distinction, ultimately, is one of appropriateness, and in his best work it is an architecture of specificity.

The color of materials was often an important design determinant in establishing a relationship of building to site, either blending and contrasting. In the Bavinger House the stone walls of the logarithmic spiral, quarried locally, reflect the colors of the landscape. In the Gryder House the primary building material is a muted lavender-colored stucco that responds to the surrounding dark green pine trees. Similarly, the Nicol House, sited in a magnificent grove of mature oak trees, is an expression of repose and dignity with its skin of silver-grey shingles. But Goff was equally skilled at creating color relationships that contrasted with the site. The Price Studio provides an example of Goff's boldest use of color coupled with a contrasting site relationship. With roof and walls of gold anodized aluminum, the building is treated as an object set upon a green lawn. Goff's interest in a crystalline imagery, with the walls of the house folded under with a reverse batter, was fulfilled by the selection of materials. The geometry is crisp and sharp-edged and the color of the skin bright and reflective. Yet the Price Studio, like the earlier Ledbetter House, has an association of belonging to two realms, one man-made and the other the natural world. The shell of the building is covered with a machined material but the paired piers at each corner of the equilateral triangular plan are built of coal. The two materials form an enormous contrast with one another and with the site. Yet the gold aluminum skin, light and hovering in the air, is firmly anchored by a natural material, an element of the earth. With this design of dualities, an insistent philosophical undercurrent is visualized: architecture, even at a subliminal level, echoes the world of nature.

Goff also used color in architecture as a means of establishing a bonding of feeling between client and house. It was not uncommon for Goff to request knowledge of a client's favorite color. The facade of the Dace House is predominantly stucco painted deep-red because that was the favorite color of Mrs. Dace. The Frank House, provides an earlier and more complex example of color decisions derived from the very livelihood of the client. John Frank, owner of Frankhoma Pottery in Sapulpa, Oklahoma, manufactured earthenware decorated with western themes such as cactus, cattle brands and wagonwheels. In the house Goff designed for them, a radial plan based on a segment of an arc, he sheathed the outer facade facing the street with plain terracotta tile. Walls on the inside of the arc are faced with decorative tile and brick glazed with standard Frankhoma colors. It was a way of differentiating the functions of the two walls: the outer wall, monochromatic and repetitive in pattern, suggesting anonymity, privacy and protection, while the inner wall -- facing an entry courtyard -- is rich in detail and color. And most importantly, it was a way Goff gave specific meaning to the architecture and embraced the life of his client in the composition.

But how did Goff develop a propensity to view common household objects and unusual materials as suitable building components? Certainly he had a sense of curiosity and he was committed to creativity. These factors would seem to be primary in the development of his posture of open-mindedness and receptivity to new ideas. Some of his later work in Chicago reveals a use of non-traditional materials in a search for inventive expression. Goff experimented with the use of found objects by placing glass ashtrays in the front door of the Colmorgan House. Given his predisposition for seeking originality, it is not surprising that he would ultimately consider novel ideas in building materials. By the time Goff came to the University of Oklahoma to teach in 1947 he had very clear notions about the role of surprise and mystery in architecture. In an article in a 1948 issue of Architectural Forum he said: "People who aren't afraid, don't mind being surprised... and they don't mind mysteries which can't be deciphered."[109]

There was a specific experience in his life, though, that was pivotal in the development of his ideas on surpise in architecture, especially in the use of building materials. During World War II, Goff was a Chief Petty Officer in the Seabees, the construction arm of the U.S. Navy. Stationed initially in the Aleutian Islands and later at Camp Parks, California, he designed several facilities for military personnel and, of necessity, had to be inventive because of the scarcity of building materials. These circumstances created an opportunity that ultimately became central in development of his aesthetic. His wartime experiences simply expanded the possibilities for creative expression. In a letter to Charles Jencks on ad hoc architecture, Goff wrote:

> During my three years in that war as one of the U.S. Navy Seabees, I was often called upon to build, in the Aleutians and later in

> California, with whatever materials were available. Thus, in Dutch Harbor, I was faced with the problem of remodelling the officer's club. All plywood was fir, usually stained. To give it more distinction I had it sandblasted which brought out the grain in relief. This was, after the war, later manufactured by a large company as "etched wood." I discovered an entire warehouse full of molded door and window casings, of no use whatever in any of the military buildings being built. I used them to cover poorly executed posts and beams, then in place, placing them about an inch apart in which was inserted an inch strip of copper-plated Sisalkraft paper, usually used for flexible flashings. There was a part roll of this material which had been discarded. I also made use of welded wire, blue glass navy ashtrays and plastic tracing paper for light fixtures. I kept my eyes on scrap piles for possible discarded items which might be usable. I became fascinated with the potential of such "found" materials and still use them when they seem appropriate.
>
> I know that usually ad hoc refers more to using parts of made objects than to materials themselves. However there are certain materials such as glass cullet, hard coal, etc. which are not ordinary building materials, but may be used as such... Quite often I have used glass dishes, ashtrays, plastic cake plates, etc. for decorative accents in doors, windows, light fixtures, etc.[110]

Some of the buildings constructed in the years following World War II are particularly innovative in the palette of materials Goff used. Two buildings, the Hopewell Baptist Church and the Wilson House, are notable for their structural assemblies constructed of recycled materials. In the Hopewell Baptist Church the tapered trusses on the exterior of the cone-shaped building were fabricated from surplus drill stem pipe commonly used in the oil field. In the Wilson House the structural frame defining each of the cubic modules was built from surplus boiler tubing. In both of these designs the expression of structure is a prominent visual element of the composition. Similarly, designs in the post-war years also reveal a utilization of unorthodox materials or manufactured items not intended for architectural uses as building materials. The Ford House is particularly significant with its walls of anthracite coal and glass cullets with white mortar joints decorated with marbles, and the fascia/soffit, rounded to form a continuous curved surface, sheathed with jute rope. In the Garvey House Goff used precast concrete sewer pipe filled with reinforced concrete for columns. In the original Price Studio two triangular sections of a ceiling adjacent to a clerestory are covered with small goose feathers. Goff also had an uncanny ability to recognize the potential for transformation of common household objects into architectural uses. In the Ledbetter House he used glass ashtrays from Woolworth's as ornament in the wood mullions separating large sheets of fixed

glass. In the Hopewell church light fixtures suspended from the apex were made of fluted aluminum cake pans.

With the passage of time, though, Goff's interest in the inclusion of common household objects as ornamental elements in building design began to decline. And to some extent his interest in using common materials in unique ways also diminished. Although there are notable exceptions, such as the Glen Harder House with its roof clad in bright orange outdoor carpeting, one of Goff's primary modes of achieving ornamental richness in subsequent years was through use of materials with a high degree of reflectivity.

His interest in reflective materials, like many of the characteristics of his expression, actually originates in the formative years of his career in Tulsa. Construction of the Riverside Studio in 1928 established a recurring motif in Goff's oeuvre. The facade is dominated by a large circular window with an abstract geometric design of etched glass flanked by a diagonal pattern of windows and reflective black tile inset in white stucco. But it was some years before reflective materials consistently appear, even though his interest was nurtured by his experiences as head of the design department of the glass manufacturer Libbey-Owens-Ford in Chicago during the 1930s. Certainly this experience introduced Goff to a variety of glass products and applications. He was particularly attracted to a striated, translucent glass manufactured as Flutex, for use in locations where both natural light and privacy were desired. His experiences as chief designer probably also influenced his preference for use of polished plate glass. The optical clarity and distortion-free reflections of polished plate assured an intensified contrast with surrounding opaque materials, especially materials rich in pattern or texture.[111]

The wartime experience with found materials that followed simply expanded the possibilities for inclusion of all manner of reflective materials in architecture. Goff's insight into the potential of glass cullets, a byproduct of glass manufacturing, as a masonry material was realized in the Ford House, the Bavinger House, the Price Studio, and the Redeemer Lutheran Church Education Building in Bartlesville, Oklahoma (1959). In the Bavinger House the blue-green cullets were interspersed with the rough stone of the masonry spiral. In both the Ford House and Price Studio they were set in walls of anthracite coal, and the contrast of purple glass in the Ford House and blue-green glass in the Price Studio with the black coal masonry is intense. It was not only the contrasting colors that must have appealed to Goff, but also contrasts of reflectivity. One material sparkled in the sunlight while the other, with its dark matte-finish, absorbed sunlight.

Design of the Price Studio in 1956, with subsequent additions in 1966 and 1976, provided opportunity for Goff to pursue ideas on ornament as an element of architecture. Collectively, the design with its additions is one of his

most significant works, but it is important in another way: since it was built in phases, the house served as illustration of the evolution of his use of reflective materials as ornament over a twenty-year time period. In the original house (1956) Goff designed oversized doors leading to separate functions at each corner of the triangular plan. Built with a mahogany frame, each door is inset with a large panel of plate glass in the shape of an elongated hexagon. The glass panels -- flat and transparent -- provided a surface for an abstract geometric collage of a variety of materials, some transparent, some translucent, and others opaque. Glued to the surface, these elements of colored glass, plastic, tile and sequins comprise compositions of extraordinary delicacy. The design of each of the doors is different, yet all of them, compositionally, are variations on a theme of triangular geometry. Goff, in this way, reinterpreted principles of both Sullivan and Wright with their insistence that ornament must be an integral part of the design. Although the designs are highly original, there is clear continuity with the past.

In the 1967 museum addition, built to accommodate Price's growing collection of Japanese art, Goff included a Japanese bath in the basement with an overhead glass aquarium to visually connect the spaces. Triangular in plan, the walls of the bath are covered with an abstract geometric tile mural that is continued on the floor and ceiling. Elements of the design on one plane -- with a dominant color hierarchy of a patterned field of reflective gold and platinum with linear elements of several shades of green and accents of light blue, red, orange, violet, and yellow -- are continued on the other planes. Goff thus attacked conventional definitions of walls, floors and ceilings as discreet elements and created a space where only the force of gravity gives reference. It is analogous to his concept of "absolute architecture" -- of space without a beginning or ending -- only it is turned upside-down. Though bounded by finite dimensions, by extending the mural of the walls onto both floor and ceiling he gave a completely new meaning to the concept of ornament as architecture. To be sure, it was a space precisely defined, but for Goff it was a quantum leap in design: he created a three-dimensional mural, an ornament that was also a habitable space.

The final addition of the Price House in 1976 reveals Goff's evolution in using reflective materials as ornament. Designed as a tower to accommodate children on the second floor and a private retreat for Price on the third floor, the upper floor extends the idea of ornament as space. Where the design of the Japanese bath had great surface continuity, the retreat has a more conventional definition of walls, floor and ceiling as separate elements. But the space is spectacular in its opulence. It is rich in color with a wide range of reflective materials. Mirrored tile in a variety of colors served his purpose well. He used it lavishly to decorate columns and mullions. But the glass walls at either end of the diamond-shaped plan consumed much of Goff's attention. Conceptually, they are similar to the ornamental doors of

the original studio, but compositionally they are more flamboyant and include a wider range of materials. Colored glass, plastic, and sequins abound, augmented with glass beads, rhinestones, craft store materials and translucent artificial-insemination tubes from his turkey-farmer client in Minnesota. All of these materials are arrayed in unique compositions of color and form sandwiched between sheets of plate glass. At one level of meaning they recall the leaded glass of Wright's Oak Park houses, but in appearance they are far removed form that source; in reality the art-glass murals have more in common with Goff's own paintings.

COLLECTIVE MEANINGS

A major dimension of significance to Goff's architecture was his ability to fuse together discrete ideas to give greater collective meaning to a composition. Certainly his best work represents a skillfull integration of geometry, structure, form, space and materials. The sense of unity, like the best of Sullivan and Wright, is pervasive. But Goff also had unique ability to combine one component with another and transform them, as individual elements, into a new entity. It was not simply the inclusion of a number of separate but specific ideas that gave a quality of originality to a particular building, but rather it was the way he linked ideas together that infused a design with both beauty and imagination.

Goff's recognition of the potential for fusing several disparate ideas into one element parallels development of his compositional pattern. In the Unseth House he related three components together -- the fireplace, the skylight and high windows -- to create a highly original composition. The focal point of the living room is a monumental brick fireplace embraced by a large triangular skylight which turns down the wall to define windows mirroring the shape above. The effect is one of a folded glass prism that is penetrated by a tall masonry form. This prismatic effect is heightened by the absence of a mullion where the glass changes from a horizontal plane to a vertical plane. Conceptually it is derivative from Wright's transparent corner windows, but in the Unseth House the relationships are rotated and altered dramatically.

The Ford House also reveals Goff's ability to visually link numerous elements together to create a powerful focal point. At entry level, the half-spherical perimeter is defined as a gallery-like space for the display of paintings. At the very center is a large recessed circular area surrounding a copper mast that serves several functions. It is the major structural support for the ribs of the dome; it serves as a zoning device between kitchen and conversation area; it is a fireplace; it is the armature for the cantilevered circular studio above; and it is this central mast that becomes the visual magnet. The red-orange structure, as it converges to the intersection, is revealed by the skylight as an explosion of pattern.

The drama created by the fusion of many elements into a focal point in the Ford House can be contrasted with the repose and mystery of the Nicol House. The two centroidal designs are similar in some respects as both identify the central part of the composition as the primary gathering space and both embrace the concept of a linkage of components. Yet they are also very different. The centrality of fused elements in the Ford House generates enormous visual excitement. The central space of the Nicol House, though, is greatly subdued and the linkages are implied. And, to be sure, the design is mysterious and invites speculation into meaning. The central octagonal space, defined by a large sunken conversation pit filling the room with the ceiling sloping to a skylight above, is a space of restrained granduer. Furnishings are completely absent and only the elements of sky, fire and water, in a composition of extraordinary delicacy, animate the vertical axis. Water, pumped to an octagonal tube suspended below the skylight, drips from a linear construction of white string and crystal prisms attached to a pool below. In the middle of this pool, just above water level, is a circular ring of gas jets. And both of these features can be operated simultaneously. The effect, then, is one of a fire in the midst of a pool of water. With this arrangement there is the suggestion, as in other designs with a sunken conversation pit below and skylight above, that architecture is an intermediary between earth and sky. Although Goff may not have consciously sought to make such abstract connections, he was acutely aware of the value of contrast in design. It is a strand of continuity that runs through all of his work. Even though the ensemble -- with its equation of earth and sky, fire and water -- may be perceived as a subliminal reminder of a collective memory from a distant past, Goff surely had an intuitive understanding of the power of attraction of opposites. With the Nicol House, it is a composition that is extraordinarily direct but most subtle in execution.

The museum addition for the Price Studio, built to accomodate a collection of Japanese paintings, represented Goff's finest achievement in assigning multiple meanings to a discrete architectural element. Hexagonal in plan, the prismatic museum had a dominant vertical axis defined by a skylight above and a pool of water below. Set in the floor on a raised platform and mirroring the geometry of the space above, the pool was a glass prism filled with goldfish. But there was something else: beneath the water was an ornamental collage of brillant colors defining another space. Distorted by the motion of water, the space was perceived initially as fragments of color beyond the swimming goldfish. Only gradually was definition apparent for both walls and floor were covered with a continuous geometric tile mural that further obscured the juncture of horizontal and vertical planes. From the perspective below the visual effect was equally astonishing. The aquarium overhead was transformed into a magnificent liquid skylight suspended in space as if by magic and animated by goldfish that mimic the colors of the muraled walls and floor. The view beyond framed fragments of the museum space, colorful

paintings and floating clouds seen through another skylight at the apex of the composition.

But what was this space below, this secret ornament? Was it buried treasure? Or was it an exquisite tomb? The realization that the space was, in fact, a Japanese bath was initially disappointing. For it seems too grand for such a mundane activity as bathing. But ultimately the function was immaterial. It was, above all, an element of beauty and mystery and it begins to approximate Goff's ideal of pure architecture, one that exists only for the sake of aesthetics. In this sense it is analogous to Bruno Taut's statement at the opening of his Glass Pavilion constructed for the 1914 Werkbund Exhibition in Cologne: [it] "has no other purpose than to be beautiful".[112] Moreover, the presence of the ornament/bath provides clear interpretation of one of Goff's favorite expressions that also obliquely echoes Taut: "There's the reason, then there's the real reason". [113] With the Price House the reason for the space below was for bathing and the reason for the aquarium was to provide a humidified environment for the Japanese paintings, but the real reason for this ensemble was to create a beautiful artifact, a three-dimensional ornament. With this arrangement of bath and aquarium Goff also clearly communicates his posture on design: architecture is a fusion of the man-made world with the natural world.

The museum addition, with its vertical axis defined as a continuum of skylight - interior space - aquarium - muraled bath, was a composition of profound ambiguity and mystery. Goff achieved great originality by fusing together separate elements to create multiple meanings. One element magnifies the other and collectively they assume greater importance than they would individually. Like much of his finest work, one idea interacts with and reinforces the other. It is as if the whole were greater than the sum of the parts. His compositional pattern, and ultimately the significance of his work, thus should be viewed as a committment to a set of ideals coupled with a courage of convictions to strive for original and diverse expressions. It would seem that many of his buildings are, indeed, the product of imagination compressed.

THE CONTINUING INFLUENCE OF GOFF

Bruce Goff has continued to receive critical attention as an important contributor to twentieth-century architecture since his death. In 1984 the University of Oklahoma College of Architecture established a distinguished professorship in his name. In 1987 one of his finest buildings, the Bavinger House in Norman, Oklahoma, received the prestigious Twenty-Five Year Award from the American Institute of Architects for a work that has endured the test of time. The following year a major book, titled Bruce Goff: Toward Absolute Architecture by David G. DeLong, was published by the Architectural History

Foundation and MIT Press. In 1988-89 major exhibitions of Goff's work were held at the Los Angeles County Art Museum, the Amon Carter Museum in Ft. Worth and the Museum of Art at the University of Oklahoma. In 1995 another major exhibition was held at the Art Institute of Chicago which coincided with publication of a 125 page catalog.[114] It is anticipated this show will travel to museums in both America and abroad. Still another major publication, edited by Philip Welch and titled Goff on Goff, was published in 1996 by the University of Oklahoma Press. During the past decade, the quarterly journal Friends of Kebyar, edited by Jack Golden, has featured the work of Goff in several issues.

Goff's work -- spanning sixty years -- continues to inspire architects, architectural historians, students of architecture and individuals interested in buildings and artistic expressions of twentieth-century American culture. His influence is also manifest in the works of several architects who have achieved professional prominence, notably Bart Prince, Herb Greene, Donald McDonald and Arthur Dyson. Their work has received critical attention in the form of both publications and exhibitions in recent years. Ultimately it is a remarkable tribute to our culture that a self-taught individual would have such a durable impact on our architecture. As an apostle of individualism, Bruce Goff was an American genius.

Endnotes

1. David G. DeLong, Bruce Goff: Toward Absolute Architecture, New York: The Architectural History Foundation, 1988, p.4.

2. Ibid., p.5.

3. Ibid.

4. Frank Lloyd Wright, "In the Cause of Architecture," Architectural Record, Vol. 23, (March 1908), 155-221.

5. David G. DeLong, The Architecture of Bruce Goff: Buildings and Projects 1916-1974, 2 Vols, New York: Garland Publishing Co., 1977, p. 11-13.

6. Frank Lloyd Wright, Ausgefuhrte Bauten und Entwurfe von Frank Lloyd Wright, Berlin, Wasmuth, 1910.

7. DeLong (1988), p. 9.

8. Angie Debo, Tulsa: from Creek Town to Oil Capitol, Norman: University of Oklahoma Press, 1943, p.97.

9. DeLong (1977), p. 511.

10. Robert Bowlby. Interview by Arn Henderson, January 1989.

11. Herb Greene. Discussion with Arn Henderson, c. October 1957.

12. Frank Lloyd Wright, "In the Cause of Architecture, Second Paper," Architectural Record, Vol. 35 (May 1914), 405-413.

13. DeLong (1988), p. 9.

14. Ibid.

15. Ibid., p. 14.

16. The Architecture of Bruce Goff., BBC TV Production, 1976.

17. DeLong (1977), p. 23.

18. Ibid.

19. Jack Golden. Discussion with Arn Henderson, c. November 1956.

20. DeLong (1988), p. 13.

21. Ibid., p. 19-27.

22. Ibid., p. 24-26.

23. Ibid., p. 42.

24. Bruce Goff, "A Declaration of Independence", Western Architect, Vol. 39, (January 1930), pp. 17-18.

25. DeLong (1988), p.41.

26. Ibid., p. 51-57.

27. DeLong (1977), p. 40.

28. DeLong (1988), p. 71-71.

29. Designs for the Innis House reveal his search for other forms of geometry. See DeLong (1988) p. 72.

30. "Pride of the Prairie," Architectural Forum, p. 96, March 1948.

31. Ibid.

32. DeLong (1988), p. 72-73.

33. Charles Jenks and Nathan Silver, Adhocism: The Case for Improvisation, Garden City: Anchor Press/Doubleday, 1973, p. 85.

34. DeLong (1988), p. 73.

35. Ibid., p. 75.

36. The Spencer and Cheetham designs of 1941 and 1945 respectively reflect an evolution toward the Gillis project. See DeLong (1988) p. 70 and p. 77.

37. Another source may have been Surrealist painting. Goff especially appreciated the work of Max Ernst.

38. DeLong, (1988), p. 85.

39. Ibid., p. 85-86.

40. Ibid.

41. "The School of Architecture at the University of Oklahoma, 1947-1956," unpublished paper by Bruce Goff, n.d.

42. Ibid.

43. The principal source was an article titled "Pride of the Prairie" which appeared in the March 1948 issue of the Architectural Forum. Buildings by Goff also were published in numerous newspaper articles throughout the United States during his tenure at the University of Oklahoma. In 1948, 1951,and 1955 the Ledbetter, Ford and Bavinger houses, respectively, were the subject of feature articles in LIFE magazine.

44. DeLong (1988), p. 95

45. Robert Overstreet. Interview by Arn Henderson, July 1988.

46. DeLong (1988), p. 101-102.

47. Ibid., p. 110.

48. Ibid., p. 120.

49. Goff, for all his experience in architecture, was always optimistic about building costs, perhaps even naive. In an interview with Harvey Ferrero, April 1993, he indicated that Goff never discussed the budget with assistants.

50. DeLong (1988), p. 129.

51. Ibid., p. 135-137.

52. Ibid., p. 124-128.

53. Robert Faust, Interview by Arn Henderson, June 1987.

54. DeLong (1988), p. 168.

55. Harvey Ferrero, Interview by Arn Henderson, April 1993.

56. DeLong (1988), p. 211.

57. Ibid., p. 222.

58. Ibid., p. 248-249.

59. Bart Prince, Interview by Arn Henderson, April 1992.

60. DeLong (1988), p. 287.

61. Ibid., p. 290.

62. Ibid., p. 298.

63. Bruce Goff, "About Absolute Art," unpublished prose-poem, August 8, 1932. (2 excerpts).

64. Frank Lloyd Wright, "Modern Architecture, Being the Kahn Lectures." in Frank Lloyd Wright Collected Writings, Bruce Brooks Pfeiffer, ed., New York: Rizzoili International Publications, 1992, p. 32.

65. Donald D. Egbert, "The Idea of Organic Expression and American Architecture," Evolutionary Thought in America, Stow Persons, Ed., New Haven: Yale University Press, 1950. pp. 369-372.

66. Ibid., p. 365.

67. Ibid., p. 366.

68. Ibid., p. 365.

69. Louis Sullivan, The Autobiography of an Idea, New York: W.W. Norton, Inc., 1926, pp. 245-255.

70. Egbert, p. 361-363.

71. Ibid., p. 345.

72. Louis Sullivan, Kindergarten Chats, New York: Wittenborn, Schulz, Inc., 1947, p. 169.

73. Ibid., p. 174.

74. Frank Lloyd Wright, An Organic Architecture: The Architecture of Democracy, London: Land Humphries, 1939, p. 4.

75. Sullivan, Kindergarten Chats, p. 114.

76. Wright, Modern Architecture, front flyleaf.

77. Ibid., Front end paper.

78. Egbert, p. 353.

79. Wright, Frank Lloyd, "The Art and Craft of the Machine," 1901

80. Goff, "About Absolute Art," p. 4.

81. Ibid., p. 1.

82. Wright, 1908.

83. Goff, "About Absolute Art," pp. 3-4.

84."Pride of the Prairie," Architectural Forum, March 1948, p.99.

85. Bruce Goff, "Of Debussy: Music and Architecture," unpublished manuscript, 9 pp., c. 1962.

86. Gertrude Stein, "Composition as Explanation," Dial 81, (October 1926), 327-36.

87."Pride of the Prairie," p.99.

88. Quoted in Paul Heyer, Architects in Architecture: New Directions in America, New York: Walker and Company, 1966, p. 71.

89. Quoted in "Originality and Architecture," Takenobu Mohri, Bruce Goff in Architecture, Tokyo: Kenchiku Planning Center, Co., Ltd. 1970, pp. 205-206.

90. Egbert, p. 366.

91. Goff on Goff, Progressive Architecture, December 1962, p. 102.

92. Bruce Goff, "Of Beauty and Architecture," unpublished paper, 13 pp., June 24, 1961., p.2.

93. Bruce Goff, "Notes on Architecture," unpublished paper, 13 pp., June 1957, p.1.

94. Wright, p. 4.

95. Egbert, p. 377.

96. Wright (1992), Back end paper.

97. Sullivan, Kindergarten Chats, p. 198.

98. Ibid., p. 114.

99. Goff, "Notes on Architecture," p.1.

100. Goff, "Of Beauty and Architecture," p.3.

101. Goff, "About Absolute Art," p.1.

102. Goff, "Notes on Architecture," p. 13.

103. "Goff on Goff," p. 102.

104. DeLong (1988), p. 11.

105. Goff, "Notes on Architecture," p. 9-10.

106. "Pride of the Prairie," Architectural Forum, March 1948, p. 99. Also quoted in Paul Heyer, Architects in Architecture: New Directions in America, New York: Walker and Comapny, 1966, p. 71 and "Originality and Architecture," Takenobu Mohri, Bruce Goff in Architecture, Tokyo, Kanchiku Planning Center, Co., Ltd, 1970, p. 205-206.

107. Bruce Goff. Interview by Arn Henderson, February, 1982.

108. Jack Golden. Discussion with Arn Henderson, September 1989.

109. "Pride of the Prairie," p. 190.

110. Charles Jencks and Nathan Silver, Adhocism: The Case for Improvisation, Garden City: Doubleday and Company, Inc. 1973, p. 84-85.

111. Jeffrey Cook, "The Idiosyncratic Skins of Bruce Goff." Journal of the American Institute of Architects. Vol. 70. (October 1981), p. 71. In a discussion with Harvey Ferrero in April 1993, he said that Goff always insisted on using polished plate glass.

112. Dennis Sharp, Modern Architecture and Expressionism, New York: George Braziller, Inc., 1966. p. 87.

113. Goff used this expression frequently in discussions of architecture. Arn Henderson first heard it from Jack Golden in 1956.

114. Pauline Saliga and Mary Woolever, eds. The Architecture of Bruce Goff, 1904-1982: Design for the Continuous Present, Chicago: The Art Institute of Chicago, 1995, 119 pp.

Section F

Associated Property Types: Pre-World War II Buildings (1915-1933)

Description
Bruce Goff designed bui;ldings reflecting an assimilation of a variety of architectural influences, both American and European, between 1915-1933, during the time that he apprenticed and practiced architecture in Tulsa, Oklahoma. The houses are constructed in a variety of materials, but are usually clad in stucco or brick. All the buildings are located in Tulsa. The features of these buildings vary, but typically reflect a synthesis of a variety of styles that Goff studied in his formative years.

Significance
The Riverside Studio built during this period is architecturally significant under Criterion C as an early example of work of the master architect Bruce Goff, and as a useful source for understanding the training and development of the architect during his years of apprenticeship and early practice.

Registration Requirements
To meet registration requirements, the buildings of this period have to maintain a high degree of architectural integrity. Any alterations to the exterior of the building should be carefully evaluated, including any removal of the exterior details. The interiors of the building can be somewhat altered, but they have to maintain the feeling and association with the original design. Alterations are permitted as long as they do not interfere with the design, feeling and association of the original building.

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Section F: Post-World War II Buildings (1947-1982)

Houses

Description
The Bruce Goff designed buildings during this period stylistically reflect his own personal and individual interpretation of Organic architecture. All were constructed between the dates of 1947-1982, during the time he practiced as a architect in various places across the United States including Norman and Bartlesville, Oklahoma. The buildings are built of a variety of materials, including brick, stone, wood, glass, steel, and stucco. The buildings are located throughout the state of Oklahoma, with the majority in Bartlesville and the Norman/Oklahoma City area. The features of these buildings are highly varied, but are representative of the personal and unique expression that Goff developed during his career as an architect.

Significance
The buildings of this type are significant under Criterion C as works of the master architect, Bruce Goff. The buildings display characteristics of a design pattern developed during his career in architecture after World War II. These characteristics include a reliance on primary geometry as a plan deteriminent, split-level arrangement, open plans, etc. as discussed in Section "E". A number of the buildings also are less than 50 years of age, and must meet Criterion Consideration G. They merit inclusion because of their exceptional architectural significance, as works of the master architect, Bruce Goff.

Registration Requirements
To meet registration requirements, the buildings must have a high degree of architectural integrity in regards to the original design and feeling and association with the original site, since the site is frequently important to the design of the building. The exterior of the building must have the original features with a minimum of alterations. Alterations to the building may have an impact on the integrity of the design and must be evaluated before it meets listing requirements. The interior spaces of the building must be intact, since this was an important feature of the design of Bruce Goff houses.

All of the buildings included in this nomination display the characteristics of his compositional pattern -- in greater or lessor degrees -- and there is a strong correlation between the number of characteristics and the significance of the building. Thus, the concept of "exceptional architectural significance" in Goff's work is, in part, a reflection of his development of a compositional pattern which amplifies his philosophical ideals. These ideals represent a fusion of the precepts of American organic architecture, especially those ideals of Sullivan and Wright.

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Section G: Geographical Data

The properties included in this nomination will be found in the State of Oklahoma. The boundaries of the properties are defined on the individual nominations under sections 2 and 10.

Section H: Research Methods

The multiple property National Register nominations for resources in Oklahoma designed by Bruce Goff was initiated in 1992. This project was conducted by Professor Arn Henderson of the College of Architecture, University of Oklahoma. Twenty-one buildings by Goff were identified in the contract for possible nomination and included the following properties:

Barby House, Beaver
Park Play Tower, Bartlesville
Fitchette House, Bartlesville
Way House, Tulsa
Tulsa Club, Tulsa
Corsaw House, Norman
Hopewell Baptist Church, Edmond
Dace House, Beaver
Cox House, Boise City
Education Building of Redeemer Lutheran Church, Bartlesville
Joe Price House, Bartlesville
Boston Avenue Methodist Church, Tulsa
Riverside Studio, Tulsa
Adams House, Vinita
Comer House, Dewey
Motsenbocker House, Bartlesville
Jones House, Bartlesville
Collins House, Bartlesville
Pollock House, Oklahoma City
Bavinger House, Norman
Ledbetter House, Norman

Professor Henderson, who had previous research experience on Goff's architecture, later suggested the inclusion of the following additional properties:

Bennett House, Bartlesville
Frank House, Sapulpa

On the basis of the initial survey by Professor Henderson, five properties were determined not to merit further consideration. The Barby House (Beaver), Park Play Tower (Bartlesville) and the Fitchette House (Bartlesville) are all minor works of Goff and have very few of the defining characteristics of his architectural expression. The Way House (Tulsa) and Tulsa Club (Tulsa) have both been extensively modified over the years with a resulting loss of integrity. Neither building was given further consideration for nomination.

Six other properties were also rejected for nomination because of a loss of integrity. However, nomination forms for these buildings were prepared and discussions regarding inclusion or rejection were held with staff

architectural historians and Professor Henderson. These nomination forms are reposited in the files of the Oklahoma State Historic Preservation Office.

Both the Corsaw House (Norman) and Dace House (Beaver) were not included for nomination because of major modifications in building materials. The Hopewell Baptist Church (Edmond), Cox House (Boise City) and the Education Building of the Redeemer Lutheran Church (Bartlesville) were all rejected because of the presence of non-conforming buildings on the site. The Joe Price House was destroyed by fire in 1997.

The Boston Avenue Methodist Church (Tulsa) was recognized as a National Historic Landmark during the course of this project. Nomination was thus redundant. However, the nomination form prepared by Professor Henderson was reposited in the file of the State Office of Historic Presentation.

The Multiple Property Documentation form and eleven (11) National Register of Historic Places nominations are for the following Oklahoma properties:

Riverside Studio (Tulsa)
Adams House (Vinita)
Comer House (Dewey)
Motsenbocker House (Bartlesville)
Jones House (Bartlesville)
Collins House (Bartlesville)
Pollock House (Oklahoma City)
Bavinger House (Norman)
Ledbetter House (Norman)
Bennett House (Bartlesville)
Frank House (Sapulpa)

Initial surveys were conducted in the summer and fall of 1992 by Professor Henderson. All of the eleven properties nominated -- and six others that were ultimately not included -- were also visited several times, through 1998 by Professor Henderson. Most, but not all, of these buildings were documented through sources written by David DeLong, who is recognized as the leading scholar of Goff's architectural career. The two primary sources written by DeLong are Bruce Goff: Toward Absolute Architecture, New York: The Architectural History Foundation, 1988; and DeLong's published doctoral dissertation entitled The Architecture of Bruce Goff. Other sources used are included in the bibliography.

The post-World War II properties were assessed by Professor Henderson for the purposes of defining the identifying characteristics of his architectural expression. Individual buildings were compared to the characteristics of his compositional pattern in order to assess the importance of the design in respect to all designed works by Goff. These characteristics are explained in detail in Section E, Part C, "A Compositional Pattern."

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