Taliesin West
Historic Preservation Plan

Approved April 10, 2008 by the
Historic Preservation Commission

December 2007 photo by Don Meserve, City of Scottsdale

Taliesin West HP Plan

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Acknowledgements: The Taliesin West HP Plan was prepared through a collaborative effort between the City of Scottsdale (COS) Historic Preservation Office in Preservation and the Frank Lloyd Wright Foundation (Foundation or FLWF) that owns the property. Members of the Scottsdale Historic Preservation Commission and its Taliesin West HP Plan Committee were active participants in this process and contributed to the product. The names of all the people who contributed to this plan are too numerous to list individually.

Chapter 1. Introduction

Taliesin West and the Historic Preservation Plan

One of the available tools whereby local preservation goals can be carried out is to list properties on the Scottsdale Historic Register. In 2005, the Historic Significance and Integrity Assessment Report concluded that Taliesin West is historically significant and should be zoned HP (Historic Property overlay zoning) and listed on the Scottsdale Historic Register. Local recognition efforts culminated on April 4, 2006 when the Scottsdale City Council unanimously approved the historic preservation overlay on the historic core of Taliesin West (the "HP Area").

After a property is listed on the Scottsdale Historic Register, the Scottsdale Historic Preservation Ordinance (Scottsdale Revised Code Section 6.120 et seq.) is used as a tool to protect and preserve those properties officially recognized on the Register. One of the ordinance mechanisms used to accomplish preservation goals is the development of a Historic Preservation (HP) Plan for each designated property or district. This HP Plan for Taliesin West sets forth the objectives for the preservation of this important historic resource and identifies the standards which shall be used by Scottsdale Historic Preservation Commission (HPC) and the staff of the City's Historic Preservation Office to review applications for the Certificate of No Effect or Certificate of Appropriateness.

Policy Basis and Purpose of Design Guidelines

An important component of the HP Plan is the design guidelines set forth in Section 6.122 of the HP Ordinance. Section 6.122 represents the review process that is necessary to achieve the preservation objectives of this HP Plan. This regulation is not intended to prohibit alterations to the existing buildings or other historic resources within the HP Area, nor to prohibit new development or construction within the designated HP Area. Instead it is intended to:

- Provide guidelines for the work that is done so that it does not adversely affect the visual appearance of the historic characteristics that distinguish Taliesin West.

- Recognize the evolutionary and experimental nature of Taliesin West.

The City acknowledges the guidelines issued by the Secretary of the Interior through its Standards for Rehabilitation and Guidelines for Rehabilitating Historic Buildings. The City intends for the design guidelines in this HP Plan to provide guidance for planning and undertaking improvements to the buildings and other resources located within the HP Area of Taliesin West. These design guidelines also apply to the design of new buildings or relocated buildings within the HP Area. In the event of a conflict between the Secretary of the Interior's guidelines and this HP Plan, the provisions of this HP Plan shall control.

The design guidelines will be used by Scottsdale's Historic Preservation Commission (HPC) and the staff of the City's Historic Preservation Office when making decisions about issuing a Certificate of No Effect or a Certificate of Appropriateness. The City requires these approvals for all exterior work requiring a building permit that is undertaken within a designated historic district. This document will also be used in evaluating the appropriateness of any City public works projects or capital expenditures within and adjacent to the historic district.

Design guidelines for the HP Plan have been prepared by the City and the Foundation to provide for the long-term viability and success of the HP Area. These design guidelines are in keeping with the generally accepted historic preservation standards about the best way to approach making alterations and additions to properties, as well as new buildings and site work in designated historic districts. These historic design guidelines do not dictate design solutions. Rather, they define a range of appropriate

responses to various specific design issues within the context of historic resources.

Role of the Foundation in the Implementation of the HP Plan

The Frank Lloyd Wright Foundation (Foundation) is the original organization bearing the name of its Founder. The Foundation is dedicated to conserving the work of Frank Lloyd Wright, and, through the integration of education, architecture and scholarship, advances design by applying the essence of Wright's genius to present-day problems, many of which are associated with rapid urban growth and social change. The stewardship of the Foundation is clearly evident by the fact that Taliesin West is currently the number one candidate on the UNESCO World Heritage Center's 30 USA properties for inclusion in that organizations prominent international system of recognition. The Foundation's mission is to utilize the campus as the forum to discuss the built environment and as an educational tool.

Basic Principles for Historic Preservation

Based on the Secretary of the Interior's Standards, key concerns are:

- Identify and Preserve…the form and detailing of those architectural materials and features that are important in defining the historic character.

- Protect and Maintain…with minimal intervention, whenever possible.

- Repair…with the least degree of intervention. Substitute material is acceptable if the form and design as well as the substitute material itself convey the visual appearance of the remaining parts of the feature and finish.

- Replace…with new material because the level of deterioration or damage of materials precludes repair. The practice of experimentation for appropriate materials will continue when choosing replacement material. The original material's performance will be evaluated before considering the use of a compatible substitute material.

- Design for Missing Historic Features…is acceptable when documentation exists to allow them to be accurately recovered in form and detailing. At Taliesin West, this is very possible due to the extensive archives available, including original construction drawings.

How Taliesin West HP Plan is Organized

The approach used for the Taliesin West HP Plan is more detailed and more comprehensive than the HP Plans for other locally designated properties. There are several reasons why this plan differs:

- The City and the Foundation have jointly prepared this HP Plan.

- The Foundation has conducted a great deal of research on the architectural evolution of the buildings as part of the complex's development and this information is available for incorporation in the HP plan.

- The Foundation and the City both regard the buildings at Taliesin West built during Frank Lloyd Wright's lifetime, 1937-1959, as having greater significance than later additions or alterations in the historic core.

- Although designated as a HP Area, the plan does not just focus on the character-defining features of collection but also includes guidelines for each individual building to assist in prioritizing future work for repair, restoration or other projects.

- The HP Plan provides more detailed information about the intent of the recommended treatment to provide long term guidance for decision-making by the Foundation and the HPC.

- In accordance with the Foundation's "Affirmation of Principles", which is incorporated by reference into the Foundation's bylaws, the Foundation places the maintenance of historic view sheds as a top priority in the planning, development and interpretation of the Frank Lloyd Wright legacy and will be included in any master planning of the entire Taliesin West Property.

Review Procedures for Taliesin West

Applications for exterior work at Taliesin West within the HP Area that require a building permit shall follow a review process by both the Foundation and City procedures. This dual review process is unique to Taliesin West and is based on the City and the Foundation both wanting to take full advantage of the architectural and design expertise readily available to the applicant.

Review Procedures by the Foundation: The Foundation will set up an internal process to review projects in the HP area before they are submitted to the City. The Foundation will select the decision-making individuals it deems appropriate. All communication to and from the Foundation will be through the CEO of the Foundation, or his designee.

After the internal review process is complete, the Foundation, as the owner and applicant for Taliesin West, shall submit its application to the City. Given the Foundation's unique role in preserving the vision and legacy of Frank Lloyd Wright, the findings determined through the Foundation's internal review process shall be given consideration throughout the City's Historic Preservation Review Process.

Steps in the City's Historic Preservation Review Process

Step 1. Building Permit Referred to Preservation: When a building permit is sought to do exterior work within the designated portion of Taliesin West, the Foundation's CEO will refer the request to the City's HP Officer (HPO) to determine if the work requires a Certificate of No Effect or Certificate of Appropriateness. The City will not issue a building permit for a historic property until Preservation staff and/or the Historic Preservation Commission have approved the plans. Ordinary maintenance or repair of any structure that does not alter or modify the historic character of that structure, under Section 6.121 of the HP Ordinance, does not require a Certificate of No Effect or Certificate of Appropriateness, except for work on the exterior of a structure that requires a building permit.

Step 2. Application Checked for Completeness: Preservation staff will promptly determine whether the application is complete enough to be reviewed as submitted or if additional information is needed.

Step 3. Staff Decides on Suitable Process: Based on the requirements of the HP Ordinance, Preservation staff will determine what type of review is warranted based upon what is shown on the plans. If minor work is being undertaken a Certificate of No Effect may be issued within 1-7 days of the application submittal. For more substantial changes, a Certificate of "Appropriateness" is required which takes about 4-6 weeks for approval.

Step 4. Staff Review and Approval of a Certificate of No Effect: By ordinance, the review process for a Certificate of No Effect will be done within seven days. However, it can be completed in as little as a couple of hours for the most minor projects that clearly meet the guidelines. The Historic Preservation Commission shall determine the criteria for when the HPO can approve and sign a Certificate of No Effect for minor work. Criteria for a Certificate of

No Effect for Taliesin West include, but are not limited to, the following:

1. It is determined the proposed work is minor and clearly within the adopted Historic Preservation Plan.
2. Any modifications to the proposed work requested by the Historic Preservation Officer are agreed to by the Foundation's CEO.
3. The proposed work will not diminish, eliminate, or adversely affect the visual appearance of the historic character of the subject property.

Step 5. Certificate of Appropriateness Required: When Preservation staff determines that the proposed work and the visual impacts of the work are considered major, the application is referred to the City Historic Preservation Officer for review and preparation is made for a public hearing before the Historic Preservation Commission (HPC).

If a Certificate of Appropriateness is required and when the Development Review Board approval is also necessary, the HP Officer and the Zoning Administrator, or their designees, will confer to determine whether the historic aspects or the development review aspects of the proposed project dominates. In making this determination the following factors, and others the HPC may set, will be considered:

Do the HP Design Guidelines for the HP Area specifically address:

1. the work proposed; and/or
2. the additional amount of lot coverage resulting from the proposed project; and/or
3. the percentage of building square footage being added; and/or
4. the percentage of the existing building foot print that is affected by the proposed work?

Step 6. Preparation for a Commission Hearing: A hearing date is set for the HPC to review the plans and their conformance with the preservation guidelines for the HP Area. The property is posted with a hearing notice sign at least 10 days prior to the hearing date and the owner is notified about the time, date and location for the hearing. It is anticipated that the Foundation will meet with the Preservation staff to discuss the planned work. After the Preservation staff reviews the plans and meets with the Foundation a staff report is prepared for the HPC with a recommendation as to whether the plans meet the Preservation Guidelines. The staff report will address the recommendations of the Foundation and its review committee as part of the narrative. The staff report will be provided to the Foundation for the Foundation to provide its comments to Preservation staff before the report is forwarded to the HP Commission for review. The Foundation will promptly provide such comments to HP staff.

Step 7. Historic Preservation Commission Conducts a Hearing: The Historic Preservation Commission (HPC) will make their decisions of appropriateness of the planned work according to the policies and design guidelines in this HP plan. The Commission will compare the work proposed to the guidelines for each specific component. The Foundation or its representatives, neighbors and interested citizens can comment on the application at the hearing.

For those cases reviewed by the Historic Preservation Commission, the decisions of appropriateness will be made based on an understanding of the general features and character-defining features of Taliesin West identified in Chapter 3 and consideration of the applicable guidelines in Chapters 4 and 5.

Step 8. HPC Takes Action on Certificate of Appropriateness: Following the close of the public testimony, the Commission deliberates on whether the application meets the HP Plan design guidelines for Taliesin West. The Foundation may be asked to respond to questions from the Commission during their deliberations. The HPC has several options on the action they can take on an application including:

1. Approve as submitted with reference to how the project meets the HP Plan guidelines.
2. Approve selected elements (components), deny others, referencing relevant preservation guidelines for decision.
3. Approve with stipulations on what needs to be modified in the plans.
4. Continue case to allow time for additional work or information to be provided.
5. Deny application as submitted with reference to how the project does NOT meet the HP Plan guidelines.
6. If the Commission proposes any modifications or stipulations, the owner or their representative will be asked if they accept the recommended changes. The Commission will vote on the plans and the request for a Certificate of Appropriateness. If approved, the Historic Preservation Officer will sign the certificate.

December 2007 view from entrance drive towards HP Area with McDowell Mountains in the background

Photo by Don Meserve, COS

Chapter 2. History, Significance and Chronology

This chapter includes the location of Taliesin West, a brief history, the significance of the complex and the period of significance. The later sections of this chapter list the site chronology of the improvements at Taliesin West during Mr. Wright's residency, from 1937 to 1959, followed by descriptions of each building, portion of a building, or outdoor space. Construction that occurred within the historic core after 1959 is listed at the end of the chapter.

Location of Taliesin West and HP Designation on the Property

Taliesin West is located just north of the intersection of Frank Lloyd Wright Boulevard and Cactus Road in Scottsdale, Arizona at the foot of the southwest slope of the McDowell Mountains in the Sonoran Desert. The Frank Lloyd Wright Foundation is the original and current owner of the complex. Its mission is to preserve, restore and educate about the 491 acres of land in eleven contiguous parcels of gently sloping to mountainous native desert landscape. The City's HP designation covers the "Historic Core" in the central area of the Foundation's property. The Historic Core encompasses the concentration of historic buildings constructed between 1937 and 1959 at Taliesin West during Mr. Wright's lifetime. The HP Area consists of 10.5886 acres, roughly 2% of the Foundation's property, containing the buildings and open spaces and views that are historically and architecturally significant to the complex.

Map showing Historic Core "HP Area", with the entrance drive from the traffic signal at Cactus Road and Frank Lloyd Wright Boulevard
Map by COS

Map of HP Area of 10.6+/- acres of land zoned HP overlay in 2006
Map by COS

A Brief History of Taliesin West

Arizona Precedents:
Frank Lloyd Wright, a native of Wisconsin, first experienced Arizona's mild winter climate in 1927, when he collaborated with Albert Chase MacArthur (a former apprentice at Wright's Oak Park office) on the design of the Arizona Biltmore Hotel in Phoenix. During this time, the Wright family rented a house in Phoenix where they lived for two winters. In 1928 Frank Lloyd Wright and his apprentices built a desert compound and studio near Chandler, Arizona, called Ocotillo Camp that would allow him to be close to projects he was working on in Chandler. However, the stock market crash in October 1929 and the depression ended his Chandler commissions and the canvas-roofed Ocotillo Camp in the desert was only used for a short period.

The Beginning of Taliesin West:
A near fatal bout of pneumonia and the advice of doctors encouraged Wright to spend his winters away from the severe Wisconsin winters, and to return to Arizona. In 1936, Wright ventured to look for property on which to build his winter quarters. After a great deal of searching and financial negotiation, he decided to purchase 640 acres of rock-strewn desert at the foothills on the south end of the McDowell Mountain Range.

The following winter, that of 1937-1938, marks the beginning of Taliesin West as a winter headquarters for the Fellowship. Bruce Brooks Pfeiffer states that in addition to helping Wright's physical need to spend the winters in a more hospitable climate, the Fellowship also gained from the mild winter climate of Arizona. Pfeiffer recalls that:

> …Mr. and Mrs. Wright decided that living in Wisconsin during the winter months was cramping the style of the group of people who were learning not only by following and participating in the work of a great master, but were also learning the art and craft of architecture by actually constructing buildings. (Bruce Brooks Pfeiffer, *Frank Lloyd Wright Selected Houses 3: Taliesin West*, 1989, page 8)

The Wisconsin winters were extremely cold and severely limited the prospects of undertaking construction and related building maintenance projects. Instead, the apprentices' time was spent pursuing activities for keeping warm, such as felling trees and cutting wood. The creation of Taliesin West provided a unique opportunity for the Fellows to witness not only building a building from the ground up – its conception, its construction, its daily function and its alternations – but also to witness the creative process of a great artist, Frank Lloyd Wright.

Frank Lloyd Wright in the Drafting Studio at Taliesin West in 1957
Photo courtesy of the FLWF Archives

Two Decades as Wright's Winter Headquarters:
The land Wright purchased in 1937 in the Sonoran Desert became the winter quarters of his office and his Taliesin Fellowship of apprentices formed in 1932. Taliesin in Spring Green, Wisconsin, would still serve as the group's summer headquarters. Constructed beginning in 1937 and 1938, Taliesin West represents one of Wrights' masterworks during what Grant Carpenter Manson, a noted architectural historian who wrote about Frank Lloyd Wright, describes as Wright's "Second Golden Age," which began in 1936 after his initial success with his "Prairie Houses" in the Chicago area and a period of relative inactivity. From the beginning, Taliesin was envisioned as a practical working and living space that would embody all of Wright's architectural principals: interior and exterior harmony with the environment, human scale, and incorporation of intimate spaces.

Over the next two decades, Wright and his family came to spend increasing amounts of time at his western encampment, and he and his students constantly experimented with different techniques and materials. According to the National Register Nomination completed in 1974, Wright "did not conceive of the place as ever becoming a museum complex, but rather as a continuing architectural laboratory." After his death in 1959, Wright's apprentices continued their master's constant experimentation at the site under the supervision of Wright's widow, Olgivanna Wright, and later William Wesley Peters.

Significance

The Taliesin complex is significant as an example of a masterwork of architecture, and as the winter residence, school, and office of the highly influential architect Frank Lloyd Wright. The site also speaks to larger themes associated with the development of art and architecture in Scottsdale and the region. The site meets three criteria for being on the National Register of Historic Places as well as the Scottsdale Historic Register: Criterion A. Association with a Significant Event; Criterion B. Association with a Significant Person, and Criterion C. Work of a Master. Taliesin West was listed on the National Register of Historic Places in 1974 and became a National Landmark in 1982. It was placed on the Scottsdale Historic Register in April 2006.

Taliesin West as the Wrights' Home:
Initially, the Wrights lived in a temporary "cabin" on the Taliesin site called the "Suntrap." This building was expanded in 1948 and is now called the "Sun Cottage." The Wright's apartment in the main complex, the Living Quarters, was first occupied in 1941. The Wrights generally divided their time between Arizona and Wisconsin, with the exception of when Mr. Wright supervised major commissions in person as in the case of the Guggenheim Museum in New York City. Mrs. Wright continued to live at Taliesin West after her husband's death in 1959 until her own in 1985.

Taliesin West as an Arts and Architecture Community:
Taliesin West and Taliesin Wisconsin both served as laboratory communities for Wright's ideas about architecture, education, and society in general. While these concepts only relate broadly to city planning and architecture, they were none-the-less central to Wright's design efforts and are incorporated into Taliesin West. To Wright, architecture was both reflective of society's ills and a cause of them, which he felt could be solved through intelligent and harmonious design and interdependent living. Wright conceived Taliesin West as a miniature of his "Usonian community," or self-sufficient living city. Apprentices were expected to not only learn the principles of design, but also to build and experiment with their own buildings. Likewise, they were to contribute to the community by performing manual labor such as cooking and cleaning. Wright also welcomed a variety of artistic and aesthetic endeavors including music, painting, sculpture, drama, and philosophy, which are seen by his provision of spaces at Taliesin for these activities. This holistic approach to society, design, and the arts is continued today through the Frank Lloyd Wright Foundation and the Frank Lloyd Wright School of Architecture.

Taliesin West as an Architectural Masterwork:
Taliesin West has been recognized as one of America's and Wright's greatest masterworks during his Second Golden Age by academia, the press, and the public. The complex is honored not only by placement on the State of Arizona Historic Register and the federal National Register of Historic Places, but it has also been declared a National Landmark, a designation achieved by less that 10% of the sites and buildings placed on the National Register. This distinction marks Frank Lloyd Wright's Taliesin West as a place with national significance to American architecture, culture, and art.

Period of Significance – 1937 to 1959

The period of time from 1937 when Frank Lloyd Wright first purchased the land at the base of the McDowell Mountains, through the time when he designed and directed the siting and construction of the buildings and landscape features, until his death in 1959 is considered the most significant period for the complex of buildings and related open spaces in the historic core. Defining a period of significance can aid in restoration and interpretation efforts by the Foundation.

It should also be recognized that the layout of buildings, construction techniques, and materials used at Taliesin evolved during Mr. Wright's lifetime, and that he employed an experimental philosophy towards the complex. As Mr. Wright was constantly changing the buildings of Taliesin West; it was a living laboratory. The changing and experimental nature of the complex was a part of apprentices' education and it continues today. Because of the changing and experimental nature of the complex, determining which year within the 1937 to 1959 period of significance to use as a measure for determining the contribution of any construction within the HP Area will require an understanding of the vision and legacy of Mr. Wright. Because of the Foundation's unique role in preserving such vision and legacy, the Foundation will determine, as part of the Foundation's internal review process, the standard within the period of significance to be used for evaluating any work proposed within the HP Area.

Application of Period of Significance to Post-Wright Buildings and Improvements Outside the Historic Core

The greatest importance is attached to buildings and features at Taliesin West with the direct involvement of Mr. Wright. Additions or alterations to buildings in the historic core after his lifetime (Post-Wright) may be described in this plan in terms of being consistent with Mr. Wright's philosophy, and therefore having some significance. Defining 1937 to 1959 as the period of significance does not mean that any and all construction post-Wright is automatically defined as non-contributing. The Foundation and the City may also identify some construction, buildings or features in this HP Plan as non-contributing which, although outside of the scope of this HP Plan, will be reviewed as part of the Foundation's role in managing the Taliesin West Property consistent with Mr. Wright's philosophy.

The Foundation already has measures in place to carefully research, analyze, and define any restoration work prior to its implementation. Consideration is given to significance and philosophy and any impact any change would have. To that end, such measures now used by the Foundation are not exclusive to the historic core, but encompass the entire campus and all its acreage. The apprentice shelters in the desert are as important to the overall philosophies established by Mr. Wright as the historic core. Thus, the measures that the Foundation chooses to use to implement restoration work or interpretation efforts are not limited to merely the historic core but are applied to the entire property. With this in mind the Foundation and the Foundation School of Architecture have the academic credentials to take the lead on historic restoration, adaptive re-use, and continuation of the "laboratory" envisioned at Taliesin West. The HPC supports the Foundation's role in applying Mr. Wright's philosophy to all future plans or improvements to the entire Taliesin West property.

Site Chronology

This section sets forth the site chronology of the buildings and projects at Taliesin West during Mr. Wright's residency, from 1937 to 1959, followed in the next section by a description of each building or a portion of a building, landscape feature, or other improvement. The Foundation has prepared this documentation for each building and the changes that have taken place over time.

Taliesin West has developed from 1937 to 1959, the period of significance, in the following stages:

Site Chronology:

1937	Land purchased
1938	Sun Trap, roadwork, excavation
1939	Wright's office, Light Tower, Studio, Sunset Terrace, the Kitchen and the Kiva, Pergola, Bell Tower, Shops, Loggia/Apprentice Dining room, Private Dining Room
1940	Mr. and Mrs. Wright's Living Quarters
1941	Apprentice court and apartments, Fellowship Quarters, Guest Quarters
1946	Water Tower
1949-51	Cabaret Theater
1948-49	Sun Trap renovated to Sun Cottage
1951	Electrical service to the site
1952	Women's Locker Room
1953	Men's Locker Room
1954-56	Music Pavilion
1958	Entrance drive redesigned, Citrus Grove, Flowers and Quinces planted
1937-59	Apprentice Structures (the desert structures)

Detailed Descriptions of Buildings or Portions of Buildings Constructed During Frank Lloyd Wright's Lifetime

Sun Trap (1938)
The Wright's first lived at Taliesin West in a freestanding structure a short walk through the desert to the east of other buildings in the complex. The original 1938 temporary "cabin" lived in by the Wright's was expanded to the south in 1948 and renamed the "Sun Cottage."

Frank Lloyd Wright's Office/Light Tower (1939)
From the parking lot, the first building encountered after passing the large concrete and stone tower near the entry is Wright's Office. Built of battered concrete and stone walls and covered with a translucent roof supported by exposed wood and steel beams, this building served as Wright's business office, reception room, and part-time drafting studio. As one of the first buildings constructed, the office served as the "dominant architectural theme for the complex," and embodies many of the character-defining features of the site. The tower is constructed of "desert masonry" with sloping walls. It has attached ornamental metal work and a light pole, and it also has an attached metal entrance gate. The light tower is roughly 100 feet to the northwest of Wright's office.

Wright's 1939 Office in September 2005
Photo by Don Meserve, COS

Drafting studio viewed from terrace on south in March 2007
Photo by Don Meserve, COS

Drafting Studio (1939)
The Drafting Studio, Kitchen and Kitchen Annex, and Dining Room form a group of interconnected buildings, and serve as the core of the complex. The Studio features a similar roof to that of Wright's Office and is rectilinear in shape, 96x30. A fireplace is placed at one end, while a stone and concrete vault is placed at the other, helping to anchor the structure. The Studio floor plan and its roof are divided into sixteen-foot units.

The original canvas 'sails' on the roof of the Studio were replaced with other translucent materials so visitors today must use their imagination to see the "ship in the desert."

Pergola (1939)
From the office, a broad concrete terrace extends from the northwest to southeast to form the central axis of the complex. The walk is divided into sixteen-foot units, covered by a wooden Pergola, and further divided into smaller geometrical patterns.

Pergola in September 2005 looking northwest
The Pergola was significantly modified in the 1960s.
Photo by Don Meserve, COS

Apprentice Dining Room (left) and Bell Tower (right) in September 2005

Photo by Don Meserve, COS

Kitchen, Loggia/Apprentice Dining Room, Bell Tower (1939)
Behind the fireplace of the Studio is the central kitchen, which is connected to the Dining Room, as well as a pantry and breezeway. Initially constructed as an open space, Wright enclosed the Dining Room to form the current 40x28 foot space. The original wooden dining tables were replaced later with newer tables and chairs designed by Wright.

A prominent 1939 Bell Tower separates the dining area from the studio along the northeast façade of these interconnected spaces. The roughly 2-story tower is constructed of desert masonry topped with angled wooden beams to support a metal bell.

Kitchen Annex, Private Dining Room (1939)
An annex was later added to the kitchen and a Private Dining Room was constructed to the southwest and abuts the kitchen. The Private Dining Room has desert masonry walls and a flat wooden roof. Ornamental Wooden icicles hang from the edge of the roof. It is now called the Board Room.

Sunset Terrace, Breezeway (1939)
The Sunset Terrace is a formal triangular outdoor space adjacent to the central buildings and central axis for the site plan. The two sides of the terrace come together at a right angle at a point to the southwest. This end of the triangle represents the prow of a ship in the desert and illustrates the meaning of the Welsh name for the complex, ‘shining brow’. People can view the desert valley below from this point and, turning around, can view the main interconnected building complex with the McDowell Mountains in

the background. Visitors can also walk south from the entrance court along the west side of the triangle to get to the viewpoint at the end of this terrace.

A covered breezeway to the southeast separates these more public or community spaces from the more private living spaces in other areas of the complex to the east and southeast. The open breezeway through the middle of the main building provides one approach to the Sunset Terrace.

Sunset Terrace with steps leading through Breezeway in September 2005

Photo by Don Meserve, COS

The Kiva (1939)
The Kiva or Hogan Theater lies in a separate building adjacent to the central axis of the complex and forms one side of the Apprentice's Court. It has a simple kiva-like rectangular door. The building is constructed of desert masonry walls that support a desert stone roof, and features only one small window and a fireplace. The space has served a variety of functions including as a theater, concert hall, apprentice lounge, library, storage, and currently as a classroom and conference room. A concrete stone bridge connects the Kiva to the second-story apartments above the dining room and adjacent to the water tower.

The Shops (1939)
The Shops was located at the western end of the camp and features a simple square plan with roofed areas opening into a sunlit yard. The Shops area is located behind the Light Tower and entrance gate for the complex. The 1939 plan for this area contains a laundry room, shop area, pottery shop, electrical, and storage. The desert masonry walls are vertical with narrow vertical openings for ventilation using wooden louvers. The southern wall of the shop area forms one side of the entrance court that visitors first encounter when coming in the realigned 1958 drive from the south. A fountain is located at the east end of this wall. One of the storage rooms eventually became part of the current visitor's center, which is a demonstration of Mr. Wright's emphasis on the tradition of adaptive re-use.

Garden Room in September 2005 viewed from Living Quarters
Photo by Don Meserve, COS

Interior of Garden Room in 2007
Photo courtesy of FLWF

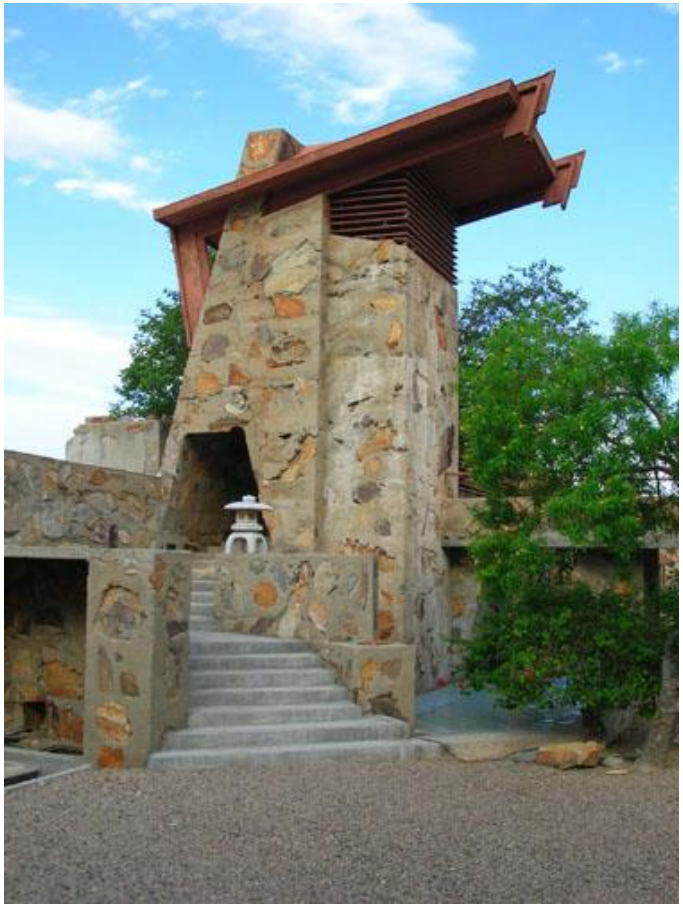
Mr. and Mrs. Wright's Living Quarters, Garden Room (1940)
The Garden Room is considered to be a showpiece of Taliesin West. Wright designed, built, and continually remodeled this space during his lifetime. The 56x34 room is a spacious and well-lit space with a low ceiling. The room in adjacent to the breezeway and overlooks a garden on the east and to the horizon on the south. A large fireplace dominates one end of the room, and a 10x12 foot patio is placed at the opposite end forming a small alcove. Beyond the alcove are a small bar, restrooms, pantry, and kitchen. A suite of rooms, including the Wright's Living Quarters, arranged in a 114' x 20' foot wing, adjoins this space. The Wright's Living Quarters were recently restored by the Foundation to their original 1959 condition. A garden area abuts the living areas and is enclosed by a desert masonry wall. The open space is identified as Green Garden on the 1959 plans and it is one of the few areas at Taliesin West that is currently planted with grass.

Apprentice's Court and Apartments (1941)
Briefly before WWII, Wright's apprentices moved from tents to a grouping of small rooms around a courtyard to the east of the main buildings called the Apprentice's Court. Each small room featured a fireplace and canvas flaps that opened to the desert. The courtyard is intact but adjacent living areas have been altered or added onto by the residents of Apprentice Court over time and the original canvas has been replaced with more durable materials. The courtyard has desert landscaping.

Fellowship Rooms/Terrace (1941)
Just to the southeast of the Private Dining Room, now the Board Room, and adjacent to the dining room are three rooms for Taliesin Fellows opening onto a narrow terrace that connects to the Sunset Terrace. The 1959 floor plan identifies the rooms as the Fellowship Quarters as being occupied by Wes Peters, Brandoch Peters and Gene Massilink.

Guest Quarters (1941)
Guest Quarters were constructed on the second floor in 1941 above the kitchen and dining areas.

Water Tower (1946)
A prominent Water Tower is adjacent to the central axis of the complex and sits to the northeast of the Garden Room and Mr. And Mrs. Wright's Living Quarters. Wright redesigned the roof of the water tower in 1959. This tower is one of the three prominent "desert masonry" towers on site.



Water Tower in September 2005

Photo by Don Meserve, COS

Sun Cottage, Atrium (1948-49)
The Sun Cottage is located where the Wrights first lived at Taliesin West. When the area was expanded as a residence for Olgivanna in 1948, it was still called "Sun Trap." In 1961, the entire building was demolished and rebuilt in more permanent materials, and then named "Sun Cottage." It was during this expansion that the atrium was added, and also the building to the east as senior apprentice residence known as "The East Wing." The structure is freestanding and is located at a short walk through the desert to the east of the main complex of buildings.

Cabaret Theater (1949-51)
The half-sunken Cabaret Theater extends from Wright's Office into the desert, and was originally called the "Stone Gallery." The building's walls, ceiling, and interior benches are of reinforced concrete and desert stone. Removable wooden flaps at the entrance gallery may be positioned to open the room to an enclosed garden. At the far end of the building is a large fireplace and projection booth. The sunken position of the Cabaret Theater results in the building exhibiting a comparably lower profile to that of the other structures of Taliesin West.

View of Cabaret Theater roof in September 2005
Photo by Don Meserve, COS

Locker Rooms (1952-1953)
Men and women's locker rooms were originally built in the early '50s for apprentices. The men's locker room was built next to the Shops but was added onto in 1959. The women's locker room was built in 1952 adjacent to the Apprentice Court.

Music Pavilion (1954-56)
The Music Pavilion is notable in that Wright varied from the 16 foot unit he used throughout the complex in order to accommodate seating in the hall. When constructed, Wright attempted to keep the Music Pavilion low enough so that the mountain backdrop could be seen from the main drive. The original Music Pavilion burned down and a new building in the same location was constructed in 1964, with steel beams supporting the roof instead of wooden beams and other changes.

Citrus Grove, Entrance Drive (1958)
The Citrus Grove, located on a broad patio between the Music Pavilion and the Kiva Theatre, was part of Wright's site plan for the complex and was one of the last parts of his plan to be improved. The Entrance Drive was realigned to include a vertical stone monolith and a landscaped median dividing the drive. The 1958 Citrus Grove and Realigned Entrance Drive were the final Taliesin West improvements overseen by Wright during his lifetime.

Stone monolith at beginning of median in 1958 entrance drive looking towards McDowell Mountains in December 2007
Photo by Don Meserve, COS

Construction After Frank Lloyd Wright's Lifetime

1959 Additions to Men's Locker Room

1962 Enclosure of Atrium
The area was enclosed in 1962 to form what is now a studio for apprentices.

1962 East Wing Additions to Sun Cottage/Atrium
An East Wing of apartments was added to the Atrium in 1962.

1964 Music Pavilion
The structure was rebuilt in 1964 after a fire. The reconstruction is a steel-reinforced building with a roof of rigid-steel frames and translucent plastic. The Pavilion hosts a wide variety of meetings, performances, and exhibitions.

1964 Additions to Shops and Storage Rooms

1964 and 1976 Planning Library

Multiple Dates Apprentices, Fellows and Staff have made additions and/or alterations to their apartment units over the last few decades.

Multiple Dates Student Shelters/Structures
The shelters are all outside the HP boundary and are therefore beyond the scope of this HP Plan and the authority of the HPC. However, the Foundation may decide to evaluate the significance of each structure and whether they consider each structure contributing or non-contributing since the structures are within the National Register and National Landmark boundaries.

1970 Fellowship Quarters and adjacent terrace enclosed

1972 Infirmary

1980 Student Lounge

1962 Apprentice Swimming Pool by Apprentice Court

2005 Expansion of Visitor's Center/Bookstore

1970 and 1972 Staff Apartments to East of Wright's Quarters
Additional living spaces, staff apartments and offices were added to this southeast wing of the main complex after Wright's death 1959.

March 2007 view of the Music Pavilion reconstructed in 1964
Photo by Don Meserve, COS

Chapter 3. Character-Defining Features and Related Design Guidelines

There are many identifiable characteristics of Taliesin West and signature details of the architectural style of Frank Lloyd Wright evident in this complex. Wright's architectural philosophy is evident in the way he designed and executed Taliesin West. The numerous character-defining features of the property are described because the purpose of the HP Plan is to preserve those features that are significant and characteristic of the site.

The character defining features of the HP Area are divided into A. General Features and B. Specific Features. The General Features are further divided into the following items:

A.1. Desert Setting
A.2. Site Plan and Arrangement of Buildings
A.3. Evolution and Experimentation at Taliesin West

The Specific Features are further divided into the following items:

B.1. Scale, Form, Massing and Arrangement of Buildings
B.2. Building Materials and Construction Methods
B.3. Architectural Features
B.4. Building Detailing and Trim
B.5. Landscape and Exterior Site Features
B.6. Art, Sculpture, Fountains and Boulders

The applicable Design Guidelines are listed after the General Features and the Specific Features.

Design guidelines are important when any rehabilitation work, additions, subtractions, and development might occur in and around an historic property. To that end, the Historic Preservation Officer and the Historic Preservation Commission shall consult and review the Secretary of the Interior's *Standards* in the context of the evolutionary and experimental nature of Taliesin West and its historic role as an architectural laboratory, in addition to the guidelines in this HP Plan, in their review of applications for Certificates of No Effect or Certificates of Appropriateness for the HP Area.

A.1. General Feature - Desert Setting

Desert scenery influenced the built environment at Taliesin West as Wright and resident architects established a style of organic and low profile forms, used indigenous materials, and worked with natural colors. The aesthetic and design of their buildings blended with the desert's features and functioned well in the climate. Wright promoted an "organic architecture" philosophy and used Taliesin West as his laboratory to demonstrate his architectural processes and principles. He talked about building being of the landscape, and not opposed to their surroundings or fighting against their environment. Taliesin West reflects Mr. Wright's belief in unifying the built environment with the landscape. The complex itself is set at the base of a mountain, reflecting the meaning of the facility's Welsh name, "shining brow."

View from the Atrium, looking north towards McDowell Mountains in March 2005

Photo by Don Meserve, COS

The Taliesin complex embodies many of Wright's architectural principles: 1) use of natural light, 2) integration of the structures into the landscape, 3) use of local materials, 4) merged indoor/outdoor spaces, and 5) open interior spaces. Taliesin West is largely constructed from the varicolored volcanic rock native to the site, which gives the appearance that the building is a part of its environment. Paint colors were selected that relate to the patina found on local boulders. Building massing, stair placement, contrasting materials and colors, and the interplay of light and shadow likewise complement the facility's natural surroundings. Decorative elements on the exterior also lend to the organic feel of the site. Fluidity between indoor and outdoor spaces in the original design completes the union between human made artifice and nature - Wright's organic architecture.

The approach to the historic core by road from the south winds through the Sonoran desert landscape. The native vegetation has been left undisturbed for the majority of the Foundation's property and native plants dominant the landscape pallet for the historic core. Grass and citrus trees are also incorporated into the landscaping in very specific locations but native plants are most abundant.

A.2. General Feature - Site Plan and Arrangement of Buildings

Mr. Wright did not establish Taliesin West on a traditional north/south axis. He chose the axis to respond to the climate (based primarily on sun exposure) and the specifics of the site; roughly a northwest/southeast axis. The Studio, the second permanent building constructed, fixed the axis of the entire complex and was the center from which the others grew. Bruce Brooks Pfeiffer recalled Wright's design decisions:

> The site and its relation to the mountain range to the north dictated the orientation of the plan. The axis is derived from this extended view, from the west, looking east to a group of isolated mountains: Black Mountain and Granite Reef Mountain. No building, if Mr. Wright could help it, was ever placed on a direct north-south axis. If it were, the building would always have a permanently hot side (south) and a permanently cold side (north). By tilting the plan off the direct compass points, the sun and shade had their play throughout all the rooms and vistas through the year. (Bruce Brooks Pfeiffer, *Frank Lloyd Wright Selected Houses 3: Taliesin West*, 1989, page 11)

By orienting Taliesin West in this manner, Wright demonstrated his ability and inclination to create organic architecture that is not in opposition to nature, but an integral part of it. The design of the site plan and the way each building was sited on the land shows a great deal of attention to details and to having the improvements fit into the desert.

Taliesin West December 2006 aerial from the City of Scottsdale
Note the distinctive northwest/southeast axis.

As described by the Foundation on their website, “Taliesin West is a free architectural composition over a 16-foot square unit system, rotating at 45 degrees on itself and gently cascading down the slope of the site.” A “unit system” is geometric grid used as a basis for developing a building’s floor plan. The site plan for Taliesin West itself emphasizes strong axes and diagonals, with many significant buildings set at a 45-degree angle to the entrance drive on a northwest-southeast axis. The terraces and a pool to the south and west of the main studio/kitchen/dining building continue the triangular site plan, based on an isosceles triangle with a right angle at the southwestern point of the terrace, and establish a cross axis for the complex.

The curving drive to the historic core ends at a straight entrance drive divided by a landscaped median that was realigned under Wright’s direction in 1958. This final drive is parallel to one side of the triangular site plan for the building complex and begins with a large stone monolith in the median leading to the graveled entrance court, flanked on three sides by walls. Wright’s design echoes the “rugged natural geometry” of the mountain backdrop through the use of a geometric layout with fifteen-degree sloping walls and roofs on the structures that produces a three dimensional perspective. The lack of vertical walls and limited use of straight lines at Taliesin West clearly demonstrates Wright’s oft stated approach of breaking out of the box.

The site plan demonstrates that each structure and the spaces around the structures cannot be looked at in isolation. The arrangement of the buildings and the open spaces between the structures are important to understanding Wright’s architectural philosophy and vision for Taliesin West. The views from drives, walkways, patios, and the windows and doors in each building to the surrounding desert and mountains are critical to how Wright choose to site each building and improvement. The placement of the stone monolith at the beginning of the final 1958 drive is an example of how important these views were to Wright. This stone monolith is clearly visible to a person looking to the southwest from the Sun Terrace, and this view is also at the cross-axis (perpendicular) to the main 45% axis of the isosceles triangle on the site plan. Likewise, the buildings on this main axis are clearly visible to someone from the final entrance drive. The historic core buildings also retain his signature strong horizontal emphasis like the Prairie Home style accredited to Wright.

A.3. General Feature - Evolution and Experimentation at Taliesin West

In addition to the design and construction of new structures, Wright was constantly altering the design, materials and construction techniques for each building. During Wright’s residency, wooden beams and trusses were redesigned or replaced; the design of the roofs changed; and in an extremely limited number of instances glass was inserted into wall openings.

These changes can be attributed to the Fellowship's experimental nature, the need to improve upon design flaws, the changing vision, and the needs of the Fellowship and Foundation. Even after the death of Mr. Wright, the tradition of adaptive re-use was continued.

Taliesin West was not only home and studio to Frank Lloyd Wright, but also an experiment in using materials in new ways and in new forms. Taliesin West is an excellent example of Wright's interest in experimentation and in allowing a complex to evolve over the decades so it continues to be livable and usable. Wright and his Fellowship designed hundreds of projects during their winters at Taliesin West. Many of the ideas for new building materials and new aesthetics for Wright's architecture were first developed and tested at Taliesin West, usually in response to economics and to the "desert aesthetic." The most prominent example was the use of "desert masonry." Wright developed this new form of building material for the permanent elements of the buildings at Taliesin West. It was later incorporated into the design of a number of residential commissions.

Mr. Wright expected Taliesin West to evolve and change, and to be a place of experimentation. While the character of the site has always been maintained, the materials originally used have changed under Mr. Wright's direction or in some cases, due to the lack of availability as decades pass. This change is an important aspect of what Taliesin West was and is all about.

Guidelines for General Features

A. Preserve the entrance drive and landscaped median.

B. Preserve the historic relationship between the buildings and the landscape setting.

C. Preserve important features of the site including established axis of the site plan, important views or visual relationships, and desert character of the site.

D. Maintain the pedestrian character of the historic core by limiting vehicles to the entrance drive and parking areas that are outside and screened from view of the historic core, whenever possible taking into consideration applicable laws and regulations governing access to and within the HP Area.

E. When repairs are needed for deteriorated features or a feature is deteriorated beyond repair, the Foundation may continue the evolving and experimental approach used by Wright at Taliesin West and use new, and/or experimental materials as long as the historic character of the feature is visually maintained.

Character-Defining Features of Specific Components and Elements

B.1. Scale, Form, Massing and Arrangement of Buildings

The scale and massing of the historic core structures are related to their desert and mountain surroundings, as Wright intended for the buildings to be of the landscape and desert rather than in opposition to their surroundings. The buildings and other site features also have a strong horizontal emphasis, punctuated by an occasional vertical tower. Walls are angled and roofs are low-pitched or flat, again relating to the surrounding angles of the natural surroundings. Angles predominate the buildings, and the overall site plan and straight lines are frequently broken or interrupted.

Buildings are arranged on a site plan that is based on an isosceles triangle with an emphasis on the open spaces and views throughout the complex - solids (buildings) and voids (open spaces/courtyards) are both important. Many of the buildings are one-story with some grading on the uphill side and fill on the downhill side (Sunset Terrace) so that the buildings are nestled into the gently sloping desert.

September 2005 photo of the Sunset Terrace shows the use of fill on the downhill side (foreground). It also reflects the use of both low-pitched (left-hand side) and flat (right-hand side) roofs, which highlights the horizontal emphasis of the building. .

Photo by Don Meserve, COS

Heights above the natural grade for inhabited one-story structures vary from a low of about eight feet for Wright's Office to a high of twenty-plus feet for the Music Pavilion and the three towers. Two-story structures are limited and include the Guest Apartments above the dining area and the east end of the staff apartments. The generous use of window openings and the translucent ceilings on some of the buildings results in the interior spaces flowing into the outside space, and visa versa.

Guidelines for Scale, Form, Massing and Arrangement

A. Preserve the historic scale and arrangement of buildings.

B. Maintain the shape and forms that characterize the contributing buildings in the HP Area.

C. Preserve the horizontal emphasis of the HP Area's buildings.

B.2. Building Materials and Construction Methods

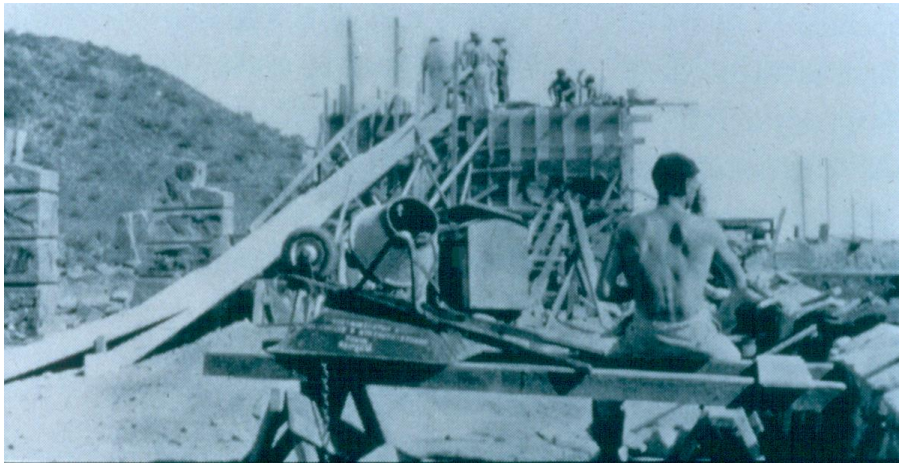
B.2.a. Building Walls

"Desert Masonry" Walls

Wright coined the term "desert masonry" to describe the building material he developed for use at Taliesin West. As mentioned earlier, "desert masonry" is actually a variation of poured-in-place concrete, and consists of large stones, set within a framework and consolidated with concrete. Local stones of various colors, such as burnt red, umber, and black, were collected from the surrounding desert and placed in the framework, with the flat surface pressed against the wooden form. Sand and gravel from nearby desert washes, or dry rivers, was mixed with cement and water and placed between the stones and rubble to create a durable building material.

Desert masonry is an ideal material for the desert. Like adobe, the mixture of stone and concrete is quite thick. As a construction material, this "thermal mass" moderates the effect of sun and temperature on the interior space. The desert masonry walls, because of their mass, tend to warm slowly during the day and

release heat long after the sun sets and the cool evening air settles in. Desert Masonry is porous and similar to a modern concept in architecture called “rain screens”, which is a further example of the importance of Taliesin West’s role in architectural innovation. “Rain screens” are outside walls or other barriers that are not intended to keep out rain.



Apprentices constructing walls using timber forms in late 1930s
Photo courtesy of FLWF Archives

Desert masonry was developed for Taliesin West in response to the need for a construction technology that was inexpensive and simple. Due to financial constraints, Wright made the most of local materials and semi-skilled labor (in the form of his apprentices). Incorporating large rocks collected from the site into a poured-in-place, concrete masonry wall was a technique that Wright may have learned from the barn construction commonly used in the Midwest, his homeland. Sometimes referred to as “farmer’s concrete,” this construction method evolved from the removal of glacial rocks during the plowing and clearing of the farmer’s land in order to grow crops. With such a large quantity of these rocks on hand, the farmers developed an inexpensive form of masonry with which to construct their barns and farmhouses. “Farmer’s concrete” was produced in the same manner as desert masonry; large rocks were placed within wooden forms and the space around them was filled with mortar or concrete.

Bruce Brooks Pfeiffer, Foundation Director of Archives and Licensing, described Wright’s conception of desert masonry and its fabrication:

> The problem was how to build with native stone that could not be tailored or cut, like limestone, granite, sandstone or marble; how to build a strong masonry wall with minimum expense and minimum use of labor. Since most of the available stones had a smooth flat face on one side, the solution presented itself thus: place the smooth surface into a temporary wooden form, the curved boulder-like part of the stone remaining in the center of the wall like “fill,” pour concrete around the stone, moving up the surface of the wall inside the form with more stones, and add more rubble-fill as required. Once set, in a day or so in this dry atmosphere, the form could be stripped, taken apart, and the lumber used over and over again to continue the wall or walls desired. (Bruce Brooks Pfeiffer, *Frank Lloyd Wright Selected Houses 3: Taliesin West*, 1989, page 12-13)

A primary concern with desert masonry was the problem of the wet concrete running over the face of some of the flatter stones. One method to alleviate this problem included the addition of small river stones, referred to by Wright as “goose eggs.” “Goose eggs” were set above the larger stones to prevent the concrete from flowing over the face. However, this solution did not entirely alleviate the problem and portions of concrete still required removal by chiseling the stone faces once the wooden form had been removed. To combat this problem, experimentation continued during the construction of two residential projects. At the Bott residence in Kansas City, Missouri, wet sand was placed between the face of the large stones and the framework to prevent concrete from dripping into the void. At the Austin House in Greenville, South Carolina, this space was stuffed with wet newspaper (which was later removed with the framework).

Curtis Besigner, in his book *Working With Mr. Wright – What It Was Like*, describes the desert masonry construction process in more detail. He describes picking out certain rocks to be used as "face rocks." These rocks, nearly flat on one side and not too thick, were situated so that they would face out when the forms were removed. The other type of stone used was referred to as "rubble." These stones filled the space between the face rocks. A relatively stiff concrete mix was then shoveled – not poured – and tamped into the spaces between the stones and left to harden.

Detail of the Drafting Studio wall in July 2007
Two small "goose eggs" can be seen above the red stone in the middle of the photo.

Photo by Don Meserve, COS

Taliesin Fellow Arnold Roy recalled that a fine sealant comprised of clay (collected from nearby desert washes) and water was applied to the desert masonry immediately after the forms were removed to help alleviate the undesirable green tone in the color of the freshly poured concrete.

Although the amount of steel reinforcement was minimal relative to contemporary concrete construction, the desert masonry found at Taliesin West includes a variety of steel reinforcement shapes in the form of L-sections, channels, miscellaneous steel and reinforcing bars. Early on, steel reinforcement was kept to a minimum throughout Taliesin West because of cost. In documented interviews, Taliesin Senior Fellow William Wesley Peters recalled that the miscellaneous steel sometimes consisted of sections of automobile chassis collected from a local junk yard. The use of salvaged and other inexpensive materials was common during the construction of Taliesin West.

The desert masonry system at Taliesin West has changed little from its original design, with one exception, as Bruce Brooks Pfeiffer described:

> On an outing the Fellowship made to northern Arizona, into one of the canyons which had once been under water, the deep horizontal grooves in the stone canyon's walls caused by water erosion greatly appealed to Mr. Wright. On his return to camp he instructed the apprentices building the walls to insert triangular strips of wood stretching in thin lines on the inside surface of the wooden forms prior to placing stones and pouring concrete. When the forms were removed, the indentation of the horizontal strips; left an impression with the concrete surface of the wall, creating yet another element with which the sun could make deep shadow lines across the mosaic (desert masonry) wall. (Bruce Brooks Pfeiffer, Frank Lloyd Wright Selected Houses 3: Talieisn West, 1989, page 13)

In some sections, these indented L-shaped horizontal sections also served as a convenient method to disguise cold joints, so that the piers could be erected in lifts or sections.

Drafting Studio wall, with triangle indentations called rustication in July 2007

Photo by Don Meserve, COS

Wood-framed Walls

Wood was a commonly used element in the construction of Taliesin West. Wright favored redwood because of its abundance, its low cost and its high tolerance for heat and sun. Occasionally, Douglas Fir would also be used, especially for exposed structural components.

In addition to wooden trusses in the roofing systems, non-masonry exterior and interior walls were built with framing and finishes. Wood often formed the framework for the windows and other openings. It was also used as exterior cladding or as interior partition framing. In Mr. Wright's bedroom, for example, Philippine mahogany wood paneling was placed over the desert masonry. Painted plywood cladding was also used for shading devices.

Wright initially used a great deal of wood, but with the onslaught of the sun and the arid environment, the wood was rarely permanent. The Arizona climate necessitated the repair or replacement of wood every few years. In time, the wooden structural components throughout Taliesin West were replaced by or reinforced with steel. Over time, most door and window sashes have also been converted to steel.

To prolong the life of the wood, a variety of sealants have been used. Over the years at Taliesin West, several experiments in search of the ideal sealant took place with disappointing results. In recent years, latex paints, due to their superior protection against ultraviolet rays, have been used at Taliesin West.

B.2. b. Roof systems

Summary

Wright used a flat wood frame roofing system in some areas of the Taliesin West complex. This roofing system failed and was replaced with insulated urethanes and other materials. The replacement roofing systems also failed, as did most generations of subsequent roofing systems. The continued experimentation of the roofing systems is an example of the historic role of Taliesin West as an architectural laboratory and the continued importance of Taliesin West as a laboratory of experimentation.

Flat Wood Frame Roofing

Wright's initial roofing system in some areas of the Taliesin West complex was constructed on wood framing with tongue and groove sheathing covered with canvas and mopped with asphalt.

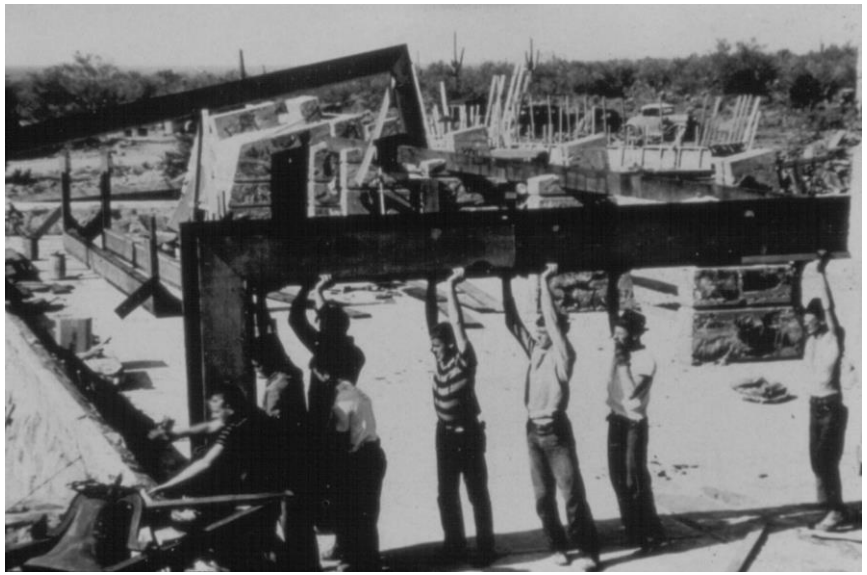
Concrete on Wood Framing
In time, the heat caused the wooden sheathing to dry and crack necessitating a more durable method of framing. A thin slab of concrete (approximately 2 inches) was poured over the wooden sheathing, and then clad in the canvas/asphalt roofing material.

Wooden Trusses with Canvas Panels or Lapped Boards
The roofing system used on the larger roof spans consisted of a series of stepped panels comprised of canvas stretched across thin wooden frames and inserted between the trusses.

Wright chose canvas as a roofing material because it allowed for softly diffused natural light into the structure, while at the same time providing shelter from the wind and rain. This roofing system was originally developed on the Studio at Taliesin West and is also seen on Wright's office and the Garden Room.

The disadvantages of canvas paneling were first realized when the Fellowship returned for their second winter. They discovered that the stored canvas had become damp and moldy and therefore, deteriorated. Other negative aspects of the canvas panel system were later realized. Wright and the Fellows saw the effects of the Arizona heat and sun on the durability of the canvas and wooden trusses. As the availability of inexpensive canvas diminished, the canvas panel system became too expensive to maintain. In addition to the cost, maintenance was quite time consuming because the panels needed replacement every three years.

The original impression of this framing system has been retained although the materials found in today's roof are quite different, and will continue to be focus of experimentation in the future.



Apprentices lifting a wooden truss into place for the studio in 1939
Photo courtesy of FLWF Archives

Reinforced Concrete
Steel reinforced concrete roof slabs, approximately 6-8 inches thick, were sometimes used as seen in the Kiva Theater. Canvas mopped with asphalt was laid on top of the concrete. Sand and/or gravel ballast was sometimes used to stabilize the asphalt.

Constructing the canvas panels for the studio roof in 1939
Photo courtesy of FLWF Archives

Wright's Office in March 2007, with the stepped acrylic panels
Photo by Don Meserve, COS

B.2.c. Foundations

Taliesin Fellows present during construction state that very shallow foundations or in some cases, no foundation at all, were incorporated into the construction of Taliesin West. Wright evidently felt that minimal freezing, the arid climate and the compact desert floor eliminated the need for conventional foundations. In areas where shallow foundations were used, such as the continuous wall along the south side of the Studio, the desert floor was trenched to a depth of approximately 12 inches, and concrete was poured as a leveling course prior to the construction of desert masonry walls. Since many Taliesin West construction drawings can be described as sketches, it is unknown if steel reinforcing was placed in the foundations.

Guidelines for Building Materials and Construction Methods

A. Maintain the appearance of the structures so that it is visually consistent with the original materials, colors, and finishes and textures in place whenever possible.

B. Repair of buildings will be done with similar materials or continue the laboratory/ experimental nature of the site and utilize innovative building construction methods and techniques consistent with the design aesthetic that distinguished Wright's building traditions.

C. If original building materials need to be replaced, they should be replaced with building materials that convey the same visual appearance as the original building materials.

D. Repair damaged sections of concrete or masonry walls by removing damaged sections and carefully patching walls to convey the same visual appearance.

E. Preserve the shape, slope, and functional and decorative features of roofs, including roof trusses that extend above roof surfaces.

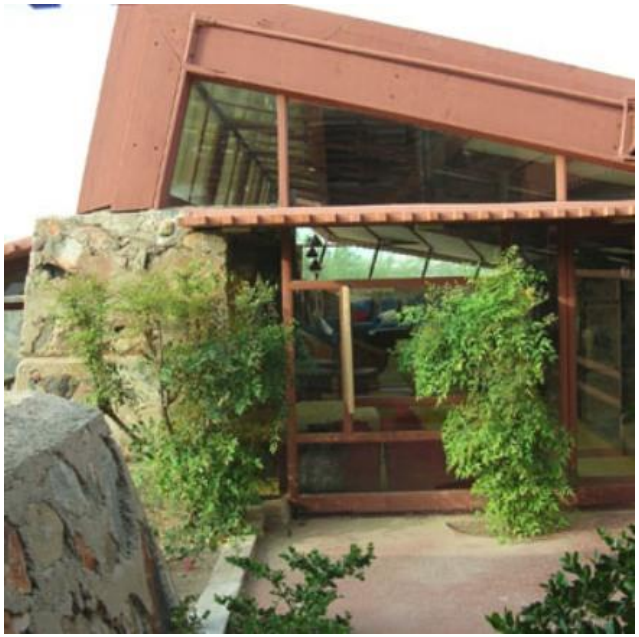
F. Repair or replace roofs or sections of roofs by using the old roof as a model to reproduce the feature, or with materials that convey the same visual appearance.

G. Preserve exposed structural systems such as load bearing walls, trusses, posts, beams, columns, and retaining walls.

B.3. Architectural Features

B.3.a. Doors and Windows

During the Period of Significance, a traditional concept of "windows" and "doors" was not utilized at Taliesin West. Instead, a pattern of openings in wall planes was used to create the visual element of the interior flowing into the exterior. The solid "desert masonry" walls are broken by "cut outs" of tall "window-walls" that eliminate the visual barriers to the outside. The "cut outs" or openings have been over time filled with canvas and then glass and associated frames. The use of different materials to fill the "cut outs" or openings evolved in a different manner and occurred over a different time period for each distinct opening. The Foundation's extensive archives can be utilized to research each distinct opening and the history and progression of materials used to fill it. The only general statement that can be made regarding the use of materials to fill openings is that very little glass was used at Taliesin West before 1959.



The northeast Garden Room wall shows the combination of large and small panels in a window-wall in July 2007
Photo by Don Meserve, COS

B.3.b. Floors

Concrete Floors
The original floors and patios at Taliesin West were composed of wood float finished concrete slabs. The slabs were poured in 4 inch thick, square sections using wooden 2x4 frames set on eight-foot module lines. Once the concrete had set, the frame was removed. The resulting 2" grooves were filled with mortar and "decorative pebbles," approximately one inch or less in diameter, to a level just below the surface of the concrete. These control joints allowed for concrete movement and accentuated the module system that Wright used to plan the buildings.

Wood Floors
Wright also experimented with other types of flooring. For example, Wes Peters mentions that, for a time, the Little Kitchen (Buffet) had "open wood 2x2 redwood floor with cracks in between."

B.3.c. Towers, Chimneys, and Other Vertical Elements

There are three main towers in the historic core that are labeled, from northwest to southeast, as the Light Tower, the Bell Tower and the Water Tower. All three are two-stories plus high so they are visible to a person walking through the complex as well as from a distance. The majority of the building materials for the towers are "desert masonry" with wood added to the tops of the Bell and Water towers. The tops of all three towers are angled, like many of the other structures.

The Light Tower in February 2006
Photo by Don Meserve, COS

Other buildings on the site contain wooden or metal poles extending at an angle into the sky. These small diameter poles serve as a break to horizontal lines of some of the roofs. The Drafting Studio has wooden poles on its northwest elevation and the Private Dining Room has hanging wooden ornaments on its southwest elevation.

Other vertical elements on the site include; the stone monolith at the beginning on the final divided drive into the historic core, the chimney on the Garden Room, and some fountains and sculpture pedestals in the courtyards and open spaces.

Guidelines for Architectural Features

A. Preserve the openings in their original location and the use of openings in wall planes to preserve the visual element of the interior flowing into the exterior.

B. Preserve entrances and doors in their historic location.

B.4. Building Detailing and Trim

The finish used on the "desert masonry" walls, with visible native stone and rough concrete, has been described in the section on wall materials. Likewise, the tradition of Taliesin West as an architectural laboratory and the experimentation with new materials has also been described.

Other details Wright used at Taliesin West include his selection of two specific reddish-brown colors for painting portions of the buildings, mainly the wood and steel. The Foundation has retained the formulas for Wright's paint colors so that they can duplicate his choice when a fresh coat of paint is needed.
The edges of roof beams and joists were often lined with wooden cubes, creating a dotted line along these edges of the roof and other wood elements. These dotted lines are visible on the edges of many of the building roofs.

The edges of both the Bell Tower and Dining Room are lined with wooden cubes in September 2005

Photo by Don Meserve, COS

Guidelines for Detailing and Trim

A. Preserve the visual appearances of the trim elements that were historically found on the building, including the frequent use of wood cubes along the edge of roofs that form a dotted line.

B. Preserve the visual appearances of the colors and finishes historically used on the building trim.

C. Preserve the visual appearance of the patterns materials and elements that distinguish Wright's style

D. The visual appearance of the features or finishes should be preserved according to physical evidence and/or archival documentation.

B.5. Landscape and Exterior Site Features

The historic core has undergone many changes and has many open space features that are outside of the occupied buildings. These include drives, patios, walkways, fountains, landscaping, steps and landscape walls or fences. Retaining walls are typically constructed of desert masonry.

The first is the entrance drive to the historic core. The final portion of this drive on the property includes a stone monolith, a driveway separated by a median with native plants, and an alignment that is parallel on side of the isosceles triangle of the site plan and the Sun Terrace. Next is the walkway from the entry area to Wright's Office and along the main axis of buildings. Wright moves the pedestrian at different angles and up steps so you are not just walking in a straight line but the direction you are walking and the direction you are looking changes as you go.

When you are adjacent to the Drafting Studio the walkway passes under a wooden Pergola open wood trellis that creates a pattern of shadows on the pavement. The pergola is divided into sixteen-foot units like the Drafting Studio building. A low desert masonry retaining wall is along one side of this pergola walkway, dividing a raised garden area from the walkway. After passing the dining area, now enclosed, the pedestrian can turn right and pass through the middle of the building complex through a breezeway leading to the Sun Terrace. All the twists and turns along the walkways and in the spaces between the buildings were intentionally part of Wright's site planning. Residents and visitors are clearly supposed to experience the historic core as they move through the exterior spaces.

The pergola in September 2005, with retaining wall (left) hidden beneath the raised garden

Photo by Don Meserve, COS

In addition to the walkways, patios and other site features at Taliesin West, there are several notable exceptions to the desert landscaping typically found in the historic core. Grass was used

very sparingly and in very specific locations by Wright. The Sunset Terrace is one of the only visible locations with grass. Another landscaped area is the Citrus Grove between the Music Pavilion and the Apprentice Courtyard. The grove was planned by Wright and was one of the last projects at Taliesin West to be completed during his lifetime.

B.6. Art, Sculpture, Fountains and Boulders

Within the Bell Tower, and on the balcony of the Private Dining Room, now called the Board Room, porcelain sculptures were installed in landscape walls or building walls. A fire-breathing metal dragon is located along the main walkway near the Kiva Theatre.

The use of fountains contributes to the impression of being in an oasis in the desert, and contrast with the surrounding desert. The triangle-shaped pool in the Sunset Terrace area has the largest surface area of any of the open water features. This pool reflects the late afternoon sun onto the wall and ceiling on the adjacent Drafting Studio. Allowing sunlight to reflect off water into the interior of a building is a devise that Wright used on other projects.

A granite boulder with ancient petroglyphs pecked into the surface greets visitors near the entrance and four more boulders with petroglyphs on them are prominently displayed in the historic core.

The Triangle Pool at the Sunset Terrace

Photo by Don Meserve, COS

One of the prominently placed boulders containing petroglyphs
Photo by Don Meserve, COS

Guidelines for Exterior Site Features

A. Preserve the following features in their historic locations and visual appearances: (1) the Entrance Drive, (2) the Citrus Grove,(3) the Sunset Terrace, (4) the Apprentice Courtyard, (5) the Triangle Pool, (6) the private garden area adjacent to the Wright's Living Quarters, (7) the fountain adjacent to Wright's 1939 Office, and (8) Boulder's with petroglyphs.

B. Repair site features or replace features that are deteriorated beyond repair with original or visually compatible materials and construction methods.

Chapter 4. Additional Guidelines for Wright Designed/Directed

Definition of Preservation Treatments

The preservation treatment terms used in this HP Plan are defined below to ensure that all parties have a common language in the common goal of preserving Taliesin West.

ADAPTIVE USE/REUSE: The process of converting a building to a use other than that for which it was designed.

ALTERATION: The act or process of changing a building or structure in details, but not substance.

CONSERVATION: The act or process of intervening, on a technical level, to prevent further decay and retain as much of the original as possible.

MAINTENANCE: The act or process of keeping a building or structure in a state of good repair.

PRESERVATION: The act or process of applying measures to sustain the existing form, integrity, and material of a building or structure and the existing form and vegetative cover of a site. It may include initial stabilization work, where necessary, as well as ongoing maintenance of the historic building materials and vegetation.

RECONSTRUCTION: The act or process of reproducing by new construction the exact form and detail of a vanished building or structure, as it appeared at a specific period of time.

REHABILITATION: The act or process of returning a property to a state of utility through repair or alteration which makes possible an efficient contemporary use while preserving those portions or features of the property which are significant to its historical, architectural, and cultural values.

REMODELING: To make over; rebuild. No attempt is made to maintain any historic integrity.

RENOVATION: Questionable modernization of a historic building in which inappropriate alterations are made and important features and details eliminated.

REPLICATION/REPRODUCTION: Making a copy of something still in existence.

RESTORATION: The act or process of accurately recovering the form and details of a property and its setting as it appeared at a particular period of time by means of the removal of later work or by the replacement of missing earlier work.

STABILIZATION: Preservation without maintenance. Freeze with potential subsequent stabilization. OR, the act or process of applying measures designed to reestablish a weather-resistant enclosure and structural stability while maintaining the essential form as it exists at present.

Guidelines for Additions and New Construction in Historic Core

The Foundation has adopted the guideline that <u>no additions or development should occur in the case of Taliesin West's historic core</u>. However, the City and this HP Plan cannot prohibit any additions or new construction in the designated HP area of Taliesin West. Therefore, in the event that the Foundation changes this prohibition in the future, the Foundation should evaluate any future additions or new construction in the historic core in light of the Secretary of the Interior's Standards for historic buildings, as described in the following Guidelines for Additions and New Construction in the HP Area.

Guidelines for Additions and New Construction in the HP Area

A. The historic buildings must be preserved as the key elements of the overall site plan and their visual prominence within the HP Area maintained.

B. Additions to the historic buildings or any new construction shall be designed and sited to preserve the established axis of the site plan, and the characteristic shape and form of the contributing buildings and contributing courtyards within the HP Area.

C. Guideline A of the "Guidelines for Exterior Site Features," set forth in Chapter 3 of this HP Plan shall be followed in the siting of additions to the historic buildings or any new construction.

D. New construction shall be designed to create a visual distinction between the addition and/or new construction and the existing buildings and courtyards. This guideline, however, does not restrict materials, which are consistent with the historic palate of materials used at Taliesin West, from being used in their modern form; nor restrict the colors, finished, or pattern of architectural detailing found on the historic buildings from being incorporated into such new construction.

E. The scale and massing of additions and new construction should correspond to that found on the contributing buildings.

F. The City acknowledges that the view of the McDowell Mountains from the walkway under the Pergola is obstructed and no longer preservable. The view should not be further obstructed by new construction.

Guidelines for Environmentally Sensitive Design and Energy Conservation

The City of Scottsdale encourages energy efficient, healthy, and environmentally responsible building in the Sonoran desert region. It is important to place the preservation objectives for Scottsdale's historic resources in the context of the 21st Century's changing demographics, lifestyles, and technology needs; and the need for energy conservation and sustainability.

The Foundation's public mission is consistent with this goal. Specifically, the Foundation's Affirmation of Principles, incorporated by reference into the Foundation's bylaws, states that the Foundation's public mission is, in part, to "build worldwide awareness of the critical importance of creative and sustainable technologies and policies related to the planning, design, and construction of the built environment." Further, the Foundation's Affirmation of Principles places a fiduciary responsibility for advancing this mission with the Foundation's Board of Trustees (acting through the officers and senior management of the Foundation).

Chapter 5. City Preservation Assistance

City Preservation Assistance

In accordance with the provisions of Section 6.119.A.3 of the HP Ordinance and criteria defined in “Incentives for Historic Preservation” document, the following is the program for public action to supplement the regulation that has been formulated to provide assistance and benefits for properties designated on the Scottsdale Historic Register.

The Historic Preservation Commission believes that a broad array of incentives needs to be made available for the program to be a success and to make a difference in the community. Incentives are provided in four categories: technical, promotional, developmental, and financial.

Technical Assistance

The City, through the Preservation Division or other departments, will provide assistance to the Foundation in their property tax case for their efforts to obtain tax-exempt status with the Maricopa County Assessment office.

Promotional Assistance

The City and the Foundation will work together to increase awareness and appreciation for Taliesin West. This will be done through the various forms of media and tourism mechanisms the City uses to promote itself and its resources.

If Scottsdale is designated as a Preserve America Community, the City will work with the Foundation and the Convention and Visitors Bureau to consider grant opportunities for cultural heritage tourism and promotional activities.

Developmental Assistance

Developmental incentives address the unique situation and needs of Taliesin West relative to the City review processes and building, zoning, and development codes.

Expedited Permit Review and Inspections
The City recognizes from the outset that there will be many challenges in rehabilitating the historic buildings of Taliesin West. All reviews, permit issuances, and inspections will be expedited in accordance with City procedures.

Financial Assistance

Financial incentives are focused on creating a partnership between the City and the Foundation to ensure that Taliesin West is maintained, and to provide assistance for its rehabilitation.