FRANK LOYD WRIGHT NEWSLETTER VOLUME 5 NUMBER 2 SECOND QUARTER 1982

FURNISHING OUR FRANK LLOYD WRIGHT HOME

by Paul R. and Jean S. Hanna

closets and cupboards, sound chambers for organ and stereo music, and alcoves and niches for displaying sculpture.

The built-in furniture had the same obtuse, 120° angles of the floor grids. This feature of the furniture design permitted traffic to flow more smoothly and brought visual harmony to the dwelling.

As construction of the building progressed, Mr. Wright answered our calls for designs of movable furniture: chairs, ottomans, floor cushions, side tables, etc.—all reflecting the hexagon grid system.

With Mr. Wright's built-ins and the few odd pieces we brought with us when we moved in the autumn of 1937, we man-

Paul Hanna is a former professor at Stanford University and is presently a Senior Research Fellow at the Hoover Institution. Mr. Hanna was an editor for the World Book Encyclopedia for many years. Jean Hanna, Paul's wife, also is a former professor. Their book on the Hanna-Honeycomb House was published earlier this year my MIT/Press.

A house designed by Frank Lloyd Wright should reflect in its furnishing the major theme he used in planning that particular dwelling.

This concept of unity and reinforcement between a building and its furnishings is reflected in our Hanna-Honeycomb House (1936), located on the Stanford University campus, Palo Alto, California. Here, for the first time, Mr. Wright designed and built with the hexagonal grid as the underlying geometric theme, literally from the ground up. The concrete floor, indoors and out, consists of a hexagon grid forming a pattern similar to a cross section of bees' honeycomb.

Soon after the original hexagonal grid floor plan had been refined by Mr. Wright and accepted by us, he submitted designs for built-in furniture. We approved detailed drawings for bookcases and shelves for every room, counters for several rooms, couches, fireside seating, beds, aged to live for several months within the partially-furnished shell.

A cabinet shop in San Francisco completed our movable furniture, and we happily arranged and rearranged our two large easy chairs, three hassocks, three floor cushions, and eight dining chairs.

We had a heavy, hexagonal, redwood table made for the playroom. This did double duty as the children's playroom table and as dining table for our family of five.

In 1947, Paul was on U.S. Department of State duty in the Panama Canal Zone. While there, he purchased a pile of discarded hardwood planks and shipped them home. Paul's senses had not betrayed him. The old planks, when planed, proved to be beautiful Honduras mahogany. We hired a cabinetmaker to make a banquet table. The table, designed by Paul and approved by Mr. Wright, follows the hexagonal pattern. With the addition or subtraction of table leaves, we could seat from six to thirty-six people.

Floor plan of the Hanna-Honeycomb House. From House Beautiful January 1963.

Our eight original dining chairs looked very lonely at our new banquet table. We considered adding more of these original chairs. They were beautiful, and we loved them, but they were unsteady and easily tipped over. When we finally found a "perfect chair" in Denmark, we obtained Mr. Wright's approval and acquired 24. The teak chairs blended well with the mahogany table and redwood walls. These Danish chairs, naturally, did not repeat the hexagon pattern.

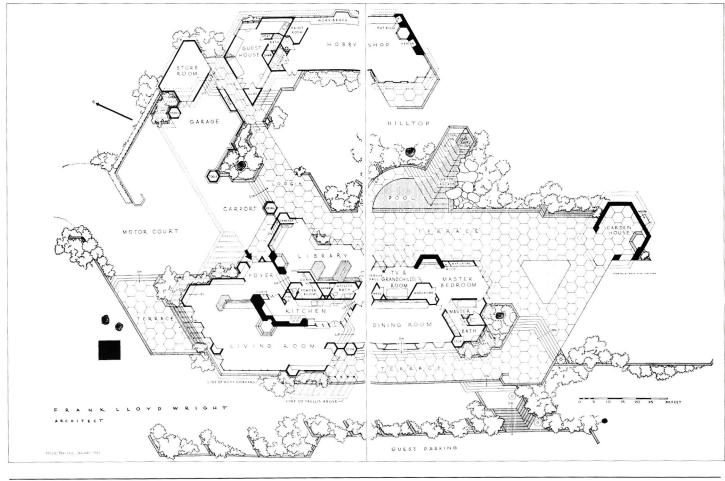
Mr. Wright's eight original chairs were not burned in the fireplace, as he once suggested! One of Mr. Wright's former apprentices had built a house for himself and expressed a wistful desire to have some chairs like ours. We gave him six. The seventh was broken, and we kept the eighth as a souvenir. It still sits proudly in the living room.

What did Mr. Wright think about his furniture? He was disappointed. He was forever trying to get us to discard the two big reading chairs. Once he said, "I have been in this business 60 years, and I still can't design a piece of furniture. I don't understand my problem. I suppose I think too much in terms of a building, and I wind up with that!" He then poked the side of an easy chair with his cane. Mr. Wright once wrote that he was black and blue from sitting on his own furniture.

After we remodeled the main house in 1957, we asked Mr. Wright to design some low chairs for our living room, chairs suitable for short-legged people. We suggested that he modify the round chair he had designed for his son David's house, using the hexagon geometry instead of the circle. He did and we think these chairs are handsome and comfortable for tall folk as well as for short!

The goldenrod-colored carpet was designed by Mr. Wright to cover the center area of the room and allow the hexagon and half-hexagon floor designs to show around the edges. Triangles of blue carpet were inlaid according to Mr. Wright's plan to accent specific areas, such as the space in front of the living room fireplace.

We quickly found that the hexagonshaped, pivoting metal grate for the living room fireplace is not only a sculptured work of art, but a functional accessory as well. The day we moved in, a violent storm cut off our electrical power. With no elec-





Living room looking north. Photo courtesy Paul Hanna.

tricity for heat or light, we built a fire in the living room fireplace and barbecued steaks, heated cocoa, and toasted bread on the swinging grate.

In niches, alcoves, and on the decks of our home, we displayed sculptured pieces which Mr. Wright produced or which had a Wright connection. In 1936, Mr. Wright gave us a pair of terra-cotta sculpturesthe Indian chief Nakoma, glazed in black and 17 inches tall, and his squaw, Nakomis, glazed in red and 12 inches tall. These were the models Mr. Wright created for the gate of a Wisconsin golf course. (See article in Newsletter, Vol. 5, No. 1, p. 17, "Sculptures Installed at Johnson Wax.") The larger-than-life-size figures were never cast in bronze for the golf course. This pair of miniature figures stood on a deck of our home. Unfortunately, Nakomis was broken in an earthquake, the only artifact ever destroyed by a tremor during the 40 years we lived in Hanna-Honeycomb.

In 1892, when Mr. Wright, then a young draftsman, joined the firm of Adler and Sullivan in Chicago, the Garrick Theater was under construction. There is evidence that one of Mr. Wright's early assignments was to complete Sullivan's sunburst design for the great proscenium arch surround-

ing the stage of the theater. In 1961, the theater was torn down, and our friend, Mr. Bailey Howard, bought the arch from the demolition company. He had the arch cut into squares, each containing a sunburst motif, and fastened each square onto a plywood backing. He gave these gilded plaster-of-Paris squares, each $27\frac{1}{2} \times 27\frac{1}{2}$ inches, to art departments of colleges and universities throughout the nation. We

Hexagonal chair designed by Wright. Photo courtesy News and Publications Service, Stanford University.



were given three of these medallions, one of which hangs on a wall of Hanna-Honeycomb.

The hexagon theme inspired us to design other furnishings for our home. For instance, we visited a famous glass factory in Venice and ordered 12 place settings of glassware for our dining table. The glass salad plates, water glasses, wine glasses, and dessert dishes were all of a deep ruby color and hexagonally shaped.

In Hong Kong, we commissioned George Zee to make a teak, hexagonal coffee table and six equilateral-triangle stools to fit under the table. When the stools were taken from under the table and fitted together, they were intended to form a smaller hexagonal table. Much to our dismay, when the freight arrived and was unpacked, we found six isosceles, rather than equilateral, stools! These work well as seats, but when assembled to form a table, they do not form a hexagon.

We also had Philippine craftsmen weave 24 hexagonal, fiber-filled mats to spread on the terrace or lawn or on the floor inside for extra seating. These mats, each 20 inches in diameter, complimented the hexagonal grid.

From Taipei and Hong Kong we brought back Chinese, hexagonal ceramic garden seats; red-lacquered, hexagonal vases to be converted into table lamps and slender Chinese, hexagonal ceramic lamps.



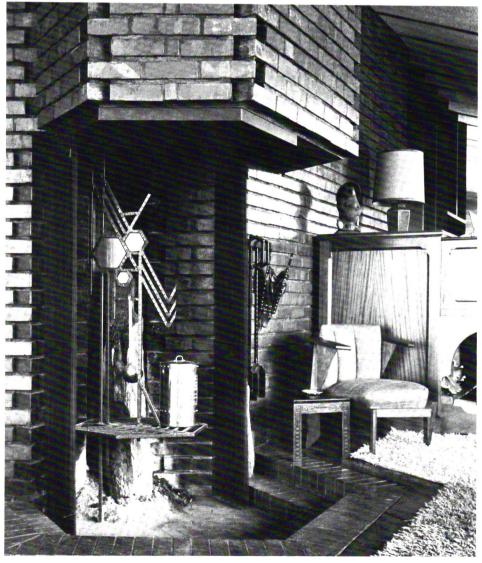
Barrel chair designed by Wright. Photo courtesy News and Publications Service, Stanford University.

Fireplace with iron grate and tools designed by Wright. Photo courtesy Y. Futagawa.

In Europe, we found such hexagonal items as silver bowls, ceramic ashtrays, flowerpots, and vases with silver inlaid designs.

In Tokyo, we admired Japanese stone snow lanterns with their hexagonal hats. We commissioned a stone cutter to make us six lanterns to light the gardens at night.

One of the most exciting pieces sculpted by Mr. Wright stands in the garden of Hanna-Honeycomb House. The two-ton stone urn was designed for the Imperial Hotel of Tokyo. Paul was staying at the hotel when wreckers swung the metal ball to commence its demolition. Paul asked the owners—our friends, the Inumarus if we could have one of Mr. Wright's sculptured stone pieces. They graciously gave us one of the stone urns from the *porte cochere*. It cost us a small fortune to get the heavy urn down from high on





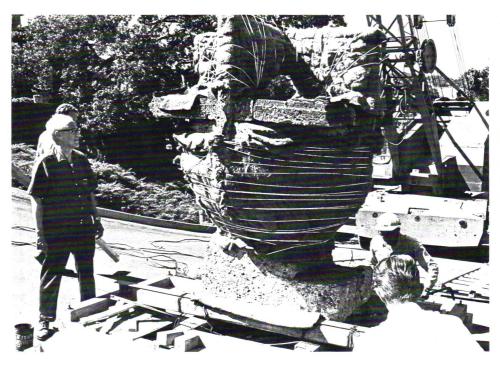
Sunburst panel from the Garrick Theatre, Chicago, designed by Adler and Sullivan. Photo courtesy Paul Hanna.

the facade, then wrapped and crated for sea shipment. At Stanford, a crane hoisted the urn onto a cement pedestal Paul had constructed on a garden site selected by Deans Robert Sears and Virgil Whitaker. The urn is lighted with floods at night. The surface of the Oya-lava stone is not very stable, and we are concerned about its preservation as the weather continues to attack the porous surface. But the urn reminds us that Mr. Wright valued the arts of the Japanese culture.

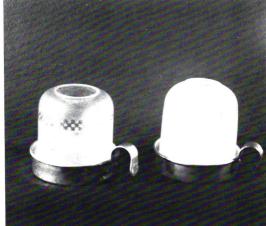
Mr. Wright often said, "Give me the luxuries, and I'll get along without the necessities." We also indulged in the luxuries—art pieces, textiles, books and, of course, music.

Mr. Wright designed Hanna-Honeycomb with music in mind. A pianist and organist himself, he was *simpatico* with our cherished hope to own an organ. Mr. Wright, always thinking big, thought about a pipe organ. Although we would have preferred a pipe organ, there were two negatives: original cost and upkeep. In spite of our reservations, we approved of Mr. Wright's plans for banks of organ pipes and sound chambers. We put off the decision to buy an organ for a number of years and made do with our upright piano.

Finally came the day when we felt we had to have an organ, even if it were to be a small one. Jean was studying organ and needed an instrument for practice. Paul is passionately fond of organ music and, as he proclaims, is among the world's best listeners. We had two different, small, electric organs, but we were not totally happy with them and kept searching. In



Paul Hanna (left) supervising the placement of the Oya stone urn from the Imperial Hotel. Photo courtesy News and Publication Service, Stanford University.



Candle lights from the Imperial Hotel. Gift of the Imperial Hotel to the Hannas. Photo courtesy Paul Hanna.

our research on electric organs, we discovered the Saville organ, made in Illinois. We visited the factory and studied the specifications, talked with the men in research and in charge of construction, listened to several Saville instruments in Chicago-area churches, and decided we had found what we wanted. The designers came to Stanford and studied the acoustics of the Hanna-Honeycomb House and determined the necessary amplification. The lofts Mr. Wright had provided for organ pipes proved ideal for installing equipment and speakers. We wound up with 120 twelve-inch speakers located in chambers throughout the house.

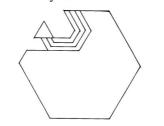
Somehow, our upright piano was no match for the Saville organ so we purchased a grand piano. This combination of instruments was most felicitous and provided many hours of pleasure and satisfaction for the family and our musical friends.

In 1969, a graduate student asked us to comment about Frank Lloyd Wright and his interests and accomplishments in music and poetry. In part we replied:

We have sat by the hour while he recited from memory some of the world's great literature. There is no doubt in our minds that both music and poetry were reflected in his architectural creations. Throughout the house, most night lighting is provided by floodlights in the decks or ceiling lights behind Czechoslovakian, glass-covered, recessed metal boxes with 120°-angled wooden frames. At locations where reading light must supplement deck of recessed ceiling light, floor or end table lamps were used.

The library provides areas for reading, desk work, conversation, eating, or viewing the fireplace or gardens. Two Swan chairs from Denmark offer seating for viewing the garden pool and cascade or for reading. Two Egg chairs, also from Denmark, together with the cushioned couch and a large Wright-designed easy chair, form a semicircle for conversation by the fire or for television viewing.

Mr. Wright designed a logo or monogram for us. We had an embossing stamp made and impressed this hexagon design onto our books and important papers. We had the same design fashioned into a branding iron and we burned the design into wood and leather objects.



In addition to the usual garden furniture – tables with sun umbrellas and lounging chairs— we bought 30 aluminum stacking chairs for use at our sit-down affairs. The outdoor redwood tables were made in our hobby shop.

We acquired a ton of ceramic tiles from an abandoned tile factory in San Jose. Among the collection were hundreds of two-inch square tiles, some black and some white. We made ten chess tables with these tiles. We thought we might generate some enthusiasm for the game among our friends if we provided chess tables on the garden terrace. Each table consisted of a square metal frame. The top was made of 64 small tiles set in concrete. A 28-inch long, ³/₄-inch water pipe served as a leg for the table. These one-legged tables were screwed into recessed cups in the concrete terrace.

The chess tables suggested an idea for accommodating large numbers of guests at a sit-down barbecue. We made tenfoot long tables, each 20 inches wide, out of $\frac{1}{2}$ -inch marine plywood. Each rests firmly on two chess tables. Twelve people can be seated around each table. We never did succeed in generating chess tournaments, but the five plywood banquet tables worked out very successfully and added a colorful touch to the garden when they were set for a party.



Frank Lloyd Wright at the Hanna House in 1938. Photograph courtesy Esther Born.

Like most travelers, we accumulated our share of collectibles. We were fortunate that Mr. Wright provided ideal spaces in Hanna-Honeycomb to place our treasures. We displayed them in such a manner that we could look at them daily and be reminded of friendly people and joyous experiences associated with collecting these artifacts.

One of our two most-cherished art pieces is *Marko on Sarac*, by the Yugoslav sculptor, Ivan Mestrovic. Marko, a great leader of the people of Yugoslavia, was the grandfather of Olgivana, Mr. Wright's last wife. We found this bronze in 1977, in a San Francisco gallery, and the knowledge of the family relationship between Mr. Wright and the subject of this sculpture meant that we simply had to have this piece in our collection.

We kept certain basic principles in mind to guide us in selecting, placing, and using furniture and furnishings. We believe our home should:

- •Permit efficient housekeeping.
- •Accommodate harmonious and comfortable furniture.
- •Unobtrusively accept pottery, sculpture, textiles, and other *objects d'art*.
- •Contain books and plants.
- •Provide work stations that are quiet and restful to the senses.
- •Indoors, bathe the eyes with warm and harmonious color; through the glass walls, please the eyes with the beauty of hills, trees, clouds, sun, moon, stars, and storm.

- •Soothe the ears with sound—music, or voice that is clear yet soft, free from distortion or unwanted echos.
- •Immerse the body and the spirit in a warm and comfortable sense of wellbeing.

Our friends often commented on the homeyness of the Honeycomb House. We believe this quality is due to the compatibility of the variety of furniture and art objects with the house itself. This house does not demand that only Mr. Wright's designs be included. The Danish dining chairs and easy chairs, and the Chinese carved chests, screens, tables and ceramic pieces are quite at home with the Wright chairs and their 120° angles. American Indian rugs and tapestries hang on brick walls. In the fover, the 1789 grandfather clock, a prized family heirloom, stands sedately against the tall, brick wall.

In furnishing our home, we learned that one is never finished with furniture and furnishings. Textiles fade, furniture wears out, or more pleasing pieces become available. New technical advances produce better lighting, heating, plumbing, acoustics, or housekeeping conveniences. Hence, the furnishings change.

But not all is change! Many possessions are ageless, and nothing can render them obsolete or valueless. The basic design of the Hanna-Honeycomb House and the Wright-designed furnishings are priceless. Nothing should be done to destroy the harmony and unity of the organic design Mr. Wright created in this house.

FRANK LLOYD WRIGHT IN THE BITTER ROOT VALLEY OF MONTANA

by Delton Ludwig

The Wasmuth portfolio of 1910 contained 100 plates illustrating 72 projects by Frank Lloyd Wright. Four projects rated four plates each; the Dana and Coonley houses, Unity Temple, and Como Orchards. The first three are well known. but information about Como Orchards has been scarce. The text in the portfolio reads, "Designed to give accommodation to a group of University men owning adjoining orchards and wishing to be near in the summertime. An arrangement of simple wooden cabins with a central clubhouse, where all go for meals, and transients may also be accommodated with rooms." This was apparently all that Mr. Wright wrote about the project, although he did include the drawings in

The correct name of the project is University Heights. The client was the Como Orchards Land Company.¹ This was one of two projects by Mr. Wright in the Bitter Root Valley of westen Montana at the time. University Heights was located at the southern end of the valley, near the town of Darby. The other project was the town of Bitter Root, at the northern end of the valley, for the Bitter Root Valley Irrigation Company (BRVIC).

The Bitter Root Valley is about 100 miles from north to south nestled between the Coeur d' Alene and Hellgate mountain ranges. Because of the mountains, the climate is relatively mild and the annual rainfall is only about 12 inches.

The historic events that resulted in Frank Lloyd Wright's involvement in the valley started with Marcus Daly, the copper king. In 1887, Daly acquired an estate and built a home in the valley. He enlarged and extended existing ditches, and built a canal from the river to reclaim thousands of acres of barren land. Plans for further irrigation projects were abandoned after his death in November, 1900.²

The next major promoter of irrigation for the valley was Samuel Dinsmore. In

Delton Ludwig is an architect and was a Taliesin apprentice. He has helped set up exhibitions on Frank Lloyd Wright and Bruce Goff in the Billings, Montana, area where he currently resides. 1904, his own resources running low, he went to Chicago to look for capital. He was able to interest W. I. Moody in the potential of the Bitter Root Valley. After a visit to the area in June and July of 1905, Moody returned to Chicago and enlisted the aid of Frederick D. Nichols, F. H. Bailey, S. H. Lord, A. C. Walbridge and W. M. Noble. Moody and Nichols were the principal leaders in the subsequent developments. These men formed the Dinsmore Irrigation and Development Company.³

In 1906, capitalization of the company was \$3,000,000. The name was changed to the Bitter Root District Irrigation Company, The purpose of the company was to build an irrigation system, and to develop apple orchards throughout the valley, which should be sold to eastern investors.⁴

During the next two years, the engineering of a dam, the layout of the canal, and the securing of the necessary control of land to make the project feasible all proceeded. The work on a 55-foot high dam at Lake Como, in the mountains near Darby, was started. The dam would increase the lake to four times its former size.

In 1908, with work on the dam continuing and 17 miles of the hardest part of the canal completed, the financing for the project was assumed by the Assets Realization Company of Chicago. The name of the company developing the project was now changed to the Bitter Root Valley Irrigation Company (BRVIC), with Chicago alderman, Frank L. Bennett as president.⁵

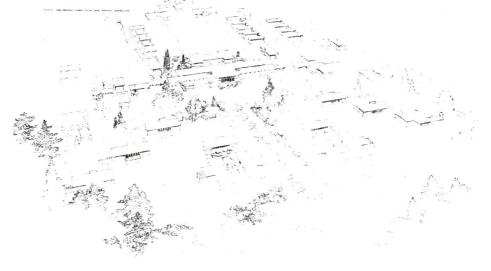
When the project was completed in 1910, the canal was 80 miles long and capable of delivering 700-second feet of water. This is the equivalent of a stream 42 feet wide and 6 feet deep. The dam had storage capacity to irrigate 45,000 acres of land.⁶ Total cost of the project has been estimated at more than \$6,000,000.⁷ At University Heights, 1600 acres of orchards

¹Drawings for the project. Frank Lloyd Wright Foundation Archives. *Western News* (Hamilton, MT), April 22, 1908.

Ravalli Republican (Hamilton, MT), April 24, 1908.
Western News, May 6, 1908 (reprint of an article from The Chicago Tribune, April 26, 1908.)
²Western News, Supplement, 1910.
Ravalli Republican, November 27, 1905.

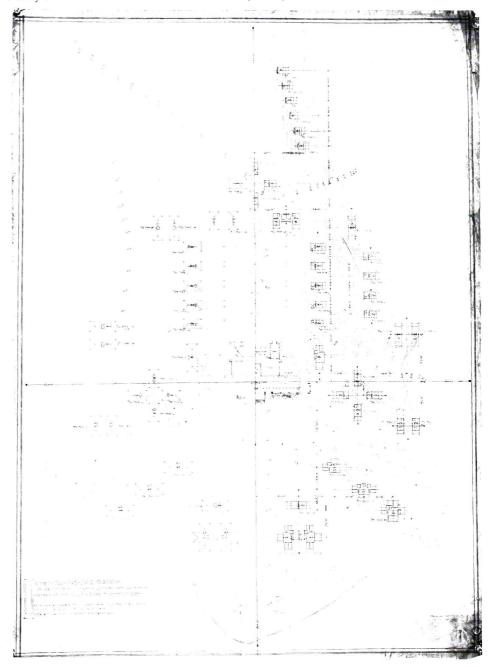
- ³Western News, Supplement, 1910.
- ⁴Western News, Supplement, 1910.
- ⁵Western News, May 19, 1909.
- ⁶Western News, Supplement, 1910. ⁷"Bitter Root Project History," pamphlet found at the

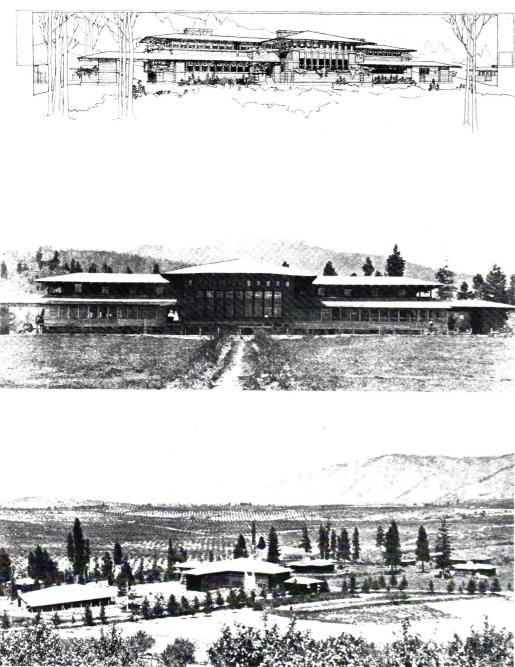
Bitter Root Valley Historical Society.



Aerial perspective of Como Orchards from the Wasmuth portfolio.

Plan of Como Orchards. Photo @1981 The Frank Lloyd Wright Foundation.





Top. Perspective of clubhouse. Photo ©1981 The Frank Lloyd Wright Foundation. **Middle.** Photo of front elevation of the clubhouse.

Bottom. Photo from the hill above the back of the clubhouse.

were already producing fruit. Near the town of Biiter Root, another 2500 acres, to be known as Sunset Orchards, were being planted.⁸ In addition, water was sold to other orchards in the valley.

During these years, Moody and Nichols traveled extensively between their homes in Illinois and the Bitter Root Valley in Montana. They were active in community affairs in the valley, including the organization of a baseball club for which Nichols was second baseman.⁹ There is speculation that Frederick Nichols may have been the Frederick Nicholas for whom Mr. Wright designed a house in Flossmor, Illinois, in 1906.¹⁰ One history of the valley does spell his name "Nicholas."¹¹ Whether or not he is the same man, Nichols was in charge of the planning for the valley developments and as such would have been the person to contact Mr. Wright.

The BRVIC had an office in the First National Bank Building in Chicago.¹²

From there it conducted an advertising campaign in the midwestern and eastern states, printed brochures extolling the virtues of life in the valley and the opportunities there, and coordinated exhibits held at fairs and expositions.

The advertisements were tempting. For only \$400 an acre, \$50 down and 10 years to pay, the investors would receive a quick return on their investment. The ads pointed out that the climate and soil in the valley were ideal for growing apples and other crops. Insect problems and disease were nil. The orchards required minimal care, so there would be plenty of free time for hunting, fishing, mountain climbing and other activities of the region.¹³ Not all of these claims were true. Prospective buyers were brought to the valley on special excursion trains at the company's expense.

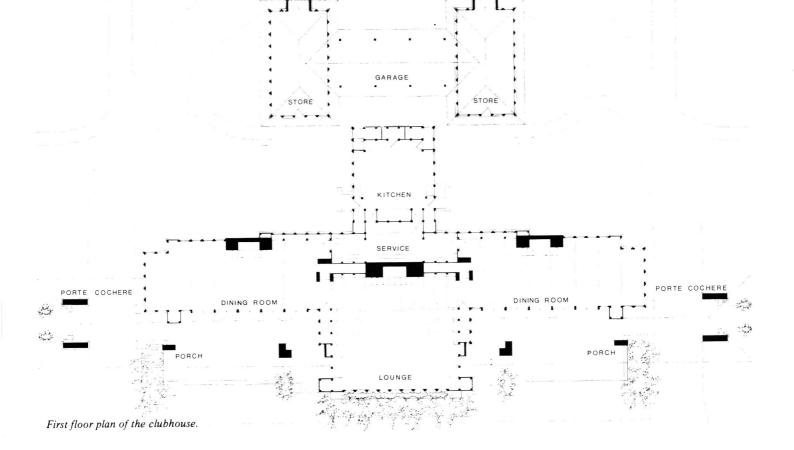
In April of 1908, newspapers headlined the announcement of University Heights, saying"...members of university faculties, famous authors and other noted men of effete east to have club house near Lake Como."14 Nichols was in charge of the project, which was proposed to include a central clubhouse with numerous cabins to be used as summer homes. Mentioned in one article was a pamphlet which pictured the cabins in a semicircle divided by the clubhouse. An irrigation ditch with rustic bridges was in the foreground.15 One division already had been purchased by professors and instructors of Wisconsin, Minnesota, and Northwestern Universities who had been invited to share in the movement initiated by the University of Chicago. Professors who already had purchased land and were expected to visit the valley shortly were Dr. Joseph Raycroft. Prof. Warren Salisbury, Prof. Robert Morse Lovett, Prof. Ferdinand Schwill, Prof. F. J. Miller, Prof. Glen Hobbs, Prof. Henry Gale, Clarance A. Torrey, Miss Caroline M. Pierce, and Miss Frances Angus.16

*Western News, Supplement, 1910.

⁹Ravalli Republican, June 8, 1907.

⁰Letter from Bruce Brooks Pfieffer, Director of Archives, Frank Lloyd Wright Foundation, to Delton D. Ludwig, August 23, 1973.

- ¹¹Bitter Root Project History.
- ¹²Bitter Root Valley: The Aristocrat of Irrigated Projects. Chicago: Bitter Root Valley Irrigation Company, 1911.
- ¹³Bitter Root Valley: The Aristocrat of Irrigated Projects.
- ¹⁴Western News, April 22, 1908.
- ¹⁵Ravalli Republican, April 24, 1908.
- ¹⁶ Western News, May 6, 1908 (reprint of an article from The Chicago Tribune, April 26, 1908.)



In November 1908 the list was expanded to include Harry Pratt Jordan, president of the University of Chicago, Prof. F. A. Blackburn of the University of Chicago, Prof. Edwin H. Lewis of the Lewis Institute, James R. Walker of Chicago,

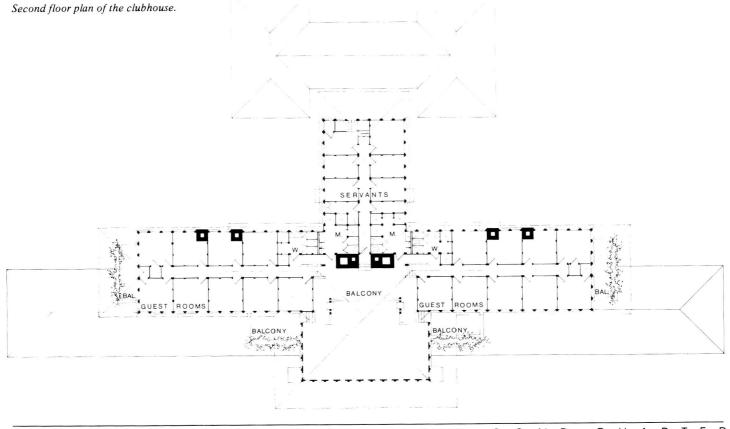
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President Cyrus Northup of the University of Minnesota, Professors Victor Coffin and L. S. Smith of the University of Wisconsin, Prof. P. V. N. Meyer of the University of Cincinnati, Heffelfinger, the noted football player, and Walter Camp.¹⁷

Moody and Nichols were in Chicago during December 1908 and January 1909.

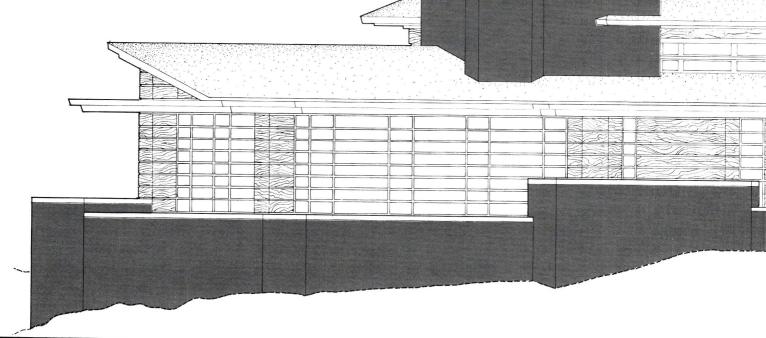
¹⁷Ravalli Republican, November 27, 1908 (reprint of an article from *Chicago Record-Herald.*)

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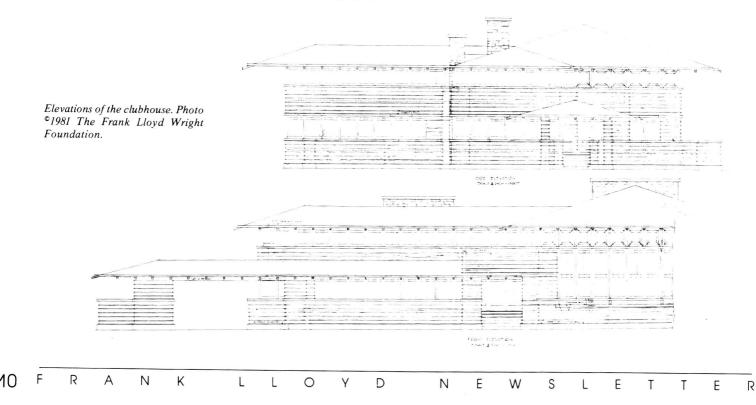
SCALE DRAWING

Southwest elevation of the Hanna-Honeycomb House. Drawn by Wendy A. Coleman.





-A.* DEAD ELEVATION DEALER INCOMENDATION



They returned to the Montana valley on February 15th accompanied by Frank Lloyd Wright, Draper C. Bartlett of Oak Park, who was to act as land agent, W. P. Schuchardt of New York and Dr. Lester W. Day of Milwaukee, Wisconsin.¹⁸ Contrary to speculation by some historians, Mr. Wright was familiar with the area and the site. How long Mr. Wright remained in the valley, or what his activities were there, was not reported.

In March, 40 land-seekers arrived from Chicago on two chartered Pullman cars. They were accompanied by John Magee, eastern representative of the BRVIC.¹⁹

On May 1, 1909, construction started on the central clubhouse at University Heights. The site was the gently eastward sloping Como beach, about 200 feet above the valley floor, with the Bitter Root Mountains rising in the background. Approximately 100 men were at work on the clubhouse. Construction was to start on the cabins soon afterwards.²⁰ Work must have started from partial plans, since the drawings are dated May 18, 1909.

A few days later Frank L. Bennettt, president of the BRVIC, arrived from Chicago to announce that water was now in the canal and that a townsite to be known as Bitter Root had been platted.²¹

The archives of the Frank Lloyd Wright Foundation contain 40 drawings for these two projects. In addition to the Wasmuth drawings, there are eight sheets of working drawings for the University Heights project, two plan studies for a railway station, two plans and a prospective for the town of Bitter Root, plan and elevation studies for a work camp including a stable, a bunk house and a mess hall, four sheets of working drawings for a tworoom office building for the BRVIC, eight sheets of drawings for a house, three sheets of working drawings for the Bitter Root Inn, and a variation of the University Heights cabins for the town of Bitter Root.

The site plan for Univesity Heights shows a central clubhouse with the cabins located around it in a basically symmetrical pattern. The deviations from symmetry were dictated by the site conditions. The cabins are located by dimensions off the axes of the clubhouse. Cabin types and floor elevations are given on the plan. There were three basic cabin types, with variations in plan for each.

Cabin Type 1 had one room with a fireplace and a porch. The variation consisted of two cabins connected at the

fireplace.

Cabin Type 2 had a living room with a fireplace, a bedroom, a bath, and a porch. The variation consisted of two parallel cabins linked by two additional bedrooms.

Cabin Type 3 had a basic plan with four variations. The living room and fireplace formed the core, with bedrooms, kitchen and dining rooms, studies, porches, and terraces radiating out in four directions.

In addition to plan variations, there were variations in elevations to adapt the cabins to various slopes.

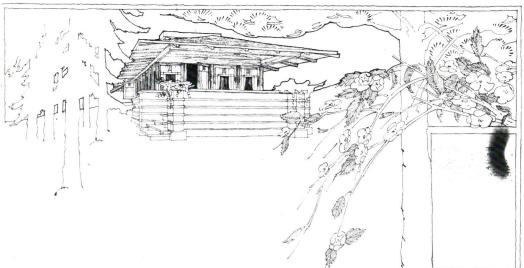
Step by step instructions were given for the construction of the cabins and the clubhouse.

The drawings show hipped roofs resting on a bank of casement windows and French doors, horizontal board and batten siding, and field stone fireplaces. The stone was to be laid in a projecting, craggy fashion with deep mortar joints. The windows and doors were to have a simple rectangular pattern.

¹⁸Ravalli Republican, February 19, 1909.
¹⁹Ravalli Republican, March 19, 1909.

²⁰Ravalli Republican, May 7, 1909.

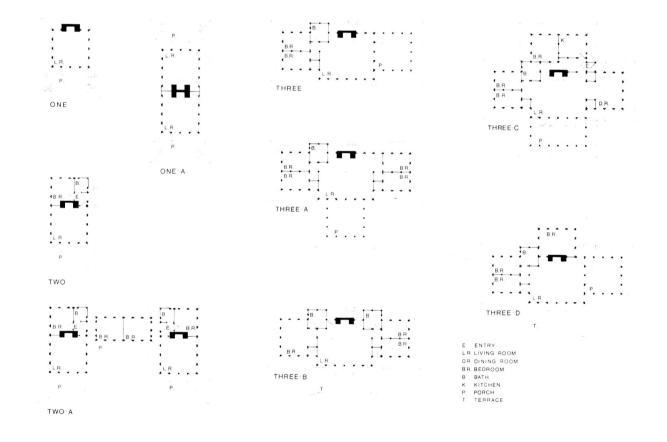
²¹Western News, May 19, 1909.



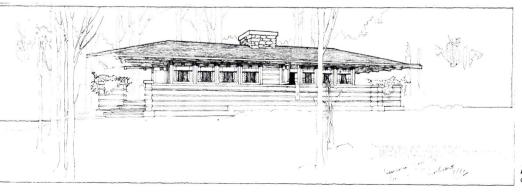
Perspective of front of cabin Types 1 and 2. Photo ^o1981 The Frank Lloyd Wright Foundation.

The site plan shows six cabins of Type 1, nine of 1-A, 30 of Type 2, two of 2-A, two of Type 3, two of 3-A, one of 3-B, three of 3-C, and four of 3-D. This is a total of 59 cabins, and 70 living units.

Most of the cabins were planned without kitchens. The people would have their meals at the clubhouse, where they would be served by servants.



Above. Plans of various cabin types.



Perspective of side of cabin Type I doubled. Photo ©1981 The Frank Lloyd Wright Foundation.

its center, with a serving pantry behind the fireplace. The kitchen was located behind the pantry. To either side of the lounge were dining rooms. Each dining room had a fireplace on the back wall, near the center of the room. The dining rooms opened to a porch through French doors. At each end was a porte cochere. Above the dining rooms were the bedrooms for transient guests. Bedrooms for the servants were located over the kitchen.

Like the cabins, the clubhouse had a hip roof that rested on a band of windows. This, along with the long, covered porches, the planters, and the horizontal siding, gave the building the feeling of repose and shelter that typified Mr. Wright's work.

The buildings were all planned with a 3'-6" square grid unit system. Since they were intended for summer occupancy. the construction was light. Foundations consisted of flat rocks, set level and tamped solid. Studs for the exterior walls were set on the rocks at each grid. The studs for the clubhouse were 5×5 's and for the cabin, 3×3 's. The walls were horizontal board and batten applied to the outside face of the studs. The roof beams and rafters also were left exposed.

By 1910, the clubhouse and 12 cabins had been built.22 More cabins were to be built the next year, but it is not known if any were.

Photographs of the clubhouse show a number of deviations from the original drawings. Instead of a continuous band of windows on the second floor, there is a window in every third unit. The balconies on either side of the lounge were eliminated. The roof on the porch was extended forward rather than continued in a straight line from the porte cochere. The porch was enclosed. Flower boxes and wooden piers were eliminated. The horizontal battens were terminated by vertical trim at the corners instead of wrapping the corners as was intended. The elimination of a verge piece on the roof eventually necessitated the addition of knee braces to hold up the corners of the lounge roof.

Similar changes can be seen on the cabins. The drawings call for casement windows. On one of the remaining cabins, the win-

The clubhouse had a two-story lounge at dows are single hung with the top onethird fixed and the lower portion the operating sash. The other remaining cabin has windows that drop through the sill into the wall. Both of these cabins have been altered and added to in such a way that it is difficult to see what the original building was like.

> The site for the town of Bitter Root had a pine covered ridge, wooded ravines, good drainage and views of the mountain.23 The site was located next to the Sunnyside Orchards.

> The first scheme for the town of Bitter Root shows a business district on a gently sloping site at the foot of a hill. There were to be 13 large, square blocks, each with a central courtyard. This area was divided by a subway in one direction and a boulevard in another. At the intersection of the subway and the boulevard was the location for the railway station. At the end of the boulevard was the site for the hotel, the focal point of the community. The residential area was located on the hillslopes at the edge of town.

The second scheme for the same location is much smaller. The main part of the business district is contained in one large, rectangular block, the stores all opening onto a courtyard or mall. A smaller, adjacent area had several stores, an opera house and a courtyard. Between the business district and the hotel is a park and a large pond. The bridge crossing the pond is in three sections which separate pedestrian and vehicular traffic. A school and church are located near the pond and park area. There is another park between the business district and the railway station. The residential areas have narrow, deep lots, typical of the time, rather than the free arrangement of the first scheme. The hotel again is the focal point for the community, although its chief function was to house prospective investors in the valley.

The town was platted, an electric plant sufficient for a town of 1000 people was purchased, and a water system was installed.²⁴ The Bitter Root Inn was the first building to be built.

The drawings for the inn show a T-shaped plan with a porch extending across the front, an office in the center, a dining

room on the left, and a reception room on the right. The dining and reception rooms open onto porches at each end. A kitchen is located behind the office area. in the stem of the T. Behind the kitchen are two bedrooms and a bath. Traces of erased lines on the drawings indicate that originally there were to be wings to the front of the dining room and the reception room. The second floor contained 20 bedrooms. There were balconies at each end of the second floor. The building was symmetrical, with a gable roof above a band of leaded glass windows that projected out at each end, creating a strong horizontal expression.

The hotel was completed and ready for guests the first week in October 1909.25 Photographs show a building that was well constructed. The only apparent deviation from the drawings are braces at each end supporting the roof overhang.

In 1910, a special edition of one of the valley newspapers had several articles on the BRVIC, University Heights, and the town of Bitter Root. One article on Bitter Root stated, "A competent architect, who also designed the 'University Heights' on the Lake Como beach, was employed to lay out the town and to plan buildings best suited to this mountain valley. Plans of several types of houses are available at the company office so that the purchaser may secure the benefit of wise architectural suggestions without excessive cost."26 The drawings are similar to one of the houses Mr. Wright designed for Edward C. Waller in River Forest in 1909.27 The drawings are for a two-story house with horizontal siding and a gable roof. The first floor plan had an entry porch to one side, and a living room across the front of the house. The kitchen and dining rooms were to the back. The second floor had a large bedroom above the living room, a bath and two bedrooms to the back. The only differences between the Waller drawings and those for the BRVIC are in the location of the dining room windows, the detail of the cabinet between the kitchen and the dining room, and the slight prow

²² Western News, Supplement, 1910.

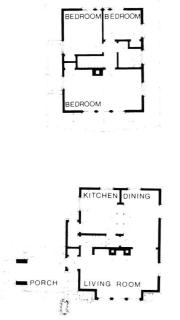
²³ Western News, Supplement, 1910. 24 Western News, Supplement, 1910.

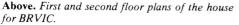
²⁵ North West Tribune (Stevensville, MT), October 1, 1909.

²⁶Western News, Supplement, 1910.

²⁷ Wright, Frank Lloyd, Buildings, Plans, and Designs.

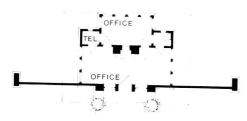
New York: Horizon Press, 1963, Plates 91 and 92.





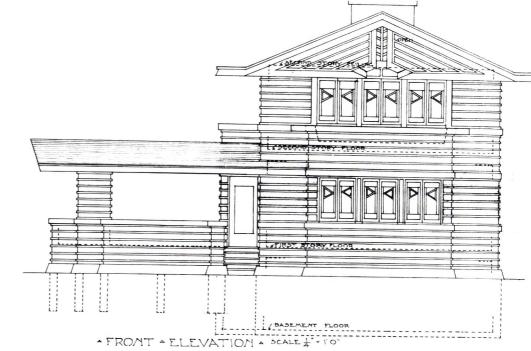
Above right. Front elevation of house for BRVIC. Photo ©1981 The Frank Lloyd Wright Foundation.

Below. Plan of the BRVIC office.



Elevation of the E. W. Cummings real estate office, River Forest, Illinois 1905. Photo ©1981 The Frank Lloyd Wright Foundation.

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on the roof of the BRVIC plans. There is also one sheet of drawings for an adaptation of cabins 1 and 2 with gable roofs, for the town of Bitter Root. The pattern for the doors and windows was to be similar to the pattern of the inn. If any houses were built from this plan, they are no longer in the area.

The office building for the BRVIC was similar to the E. W. Cummings Real Estate Office in River Forest, Illinois, built in 1905. The BRVIC office building was not built, and at one time its offices were located in the Bitter Root Inn.

The work camp buildings also were not built. The town of Bitter Root eventually did include, in addition to the inn, a brick powerhouse, a garage, a store, a dentist's office, a church, several houses, and a golf course.²⁸

The BRVIC purchased a fleet of red Locomobiles used to show potential investors around the valley.²⁹ The guests of the company had free lodging at the inn, their choice of meals, free drinks in the bar, and golf³⁰ at a course prepared by an expert brought from London.³¹

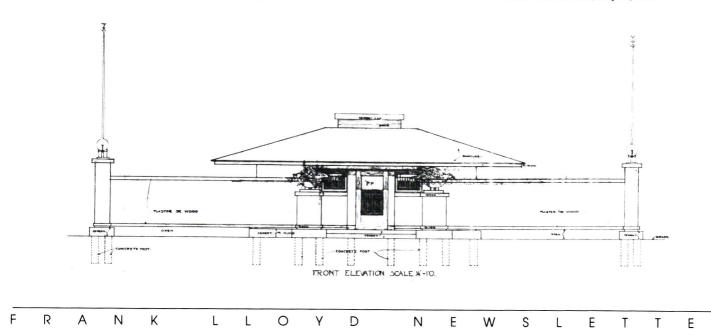
For awhile things looked promising. There was an article in the *Saturday Evening Post* about the valley, and the response to the advertisements in eastern newspapers brought more prospective buyers to the valley. Newspapers were replete with stories of easterners visiting

- Ravalli Republic, Focus 77.
- 29 Western News, April 27, 1910.
- ³⁰Montana Genesis, The Stevensville Historic Society, Missoula, MT Press, 1971.

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³¹North West Tribune, May 20, 1910.

³²North West Tribune, May 20, 1910.



²⁸ Western News, April 27, 1910.

The Missoulian, (Missoula, MT) January 7, 1964.

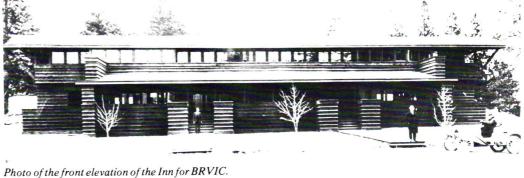
the valley. In May 1910, about 150 people arrived at the inn. Since it was not large enough to accommodate so many guests, tents were set up on the grounds.³² During the years 1908 and 1909, 15,000 acres of land were purchased by investors mostly in tracts of 10 to 20 acres.33 By March 1911, plans were underway for two new lines of railway to supplement the branch line that served the valley.³⁴

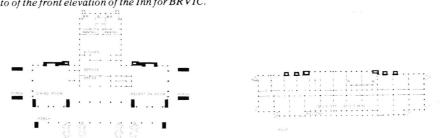
In 1913, misfortune struck the projects in two ways. The orchards were hit with a blight which destroyed much of the crop. The U.S. government brought suit against the officers of the BRVIC, charging them with conspiracy to gain possession of land by securing or inducing entrymen to go upon the land and file claims under an agreement to sell to the company. The company officers eventually were found innocent. When they returned to Hamilton they were greeted by a brass band. However, lawsuits were a continuing problem. Charges of fraud, misrepresentation, breach of contract, etc., along with bad weather and shipping problems, plagued the company.

In January 1916, after a Chicago bank foreclosed on a \$2,000,000 mortgage, they filed for bankruptcy. The suit dragged slowly in the Federal court system until January 1918, when the court ordered the assets of the BRVIC sold. The property of the company, estimated at \$1,500,000, was sold for delinquent taxes to the First National Bank of Missoula.35

In June 1923, there was renewed activity at University Heights. The property was purchased from its most recent owners, the University Heights Orchards and Farmers Company, by a subsidiary of Payton DuPont Securities Corporation. It was renamed MacIntosh Morello Orchards. An early plat of Lake Como Orchards shows one plot was sold to A. I. DuPont and two plots were sold to E. DuPont. The cabins were to be occupied by families of the workers. The clubhouse, which had been neglected, was repaired and painted white. It was used as a bunkhouse, kitchen, dining room, and packing hall.36

In 1924, the MacIntosh Morello Orchards published a brochure titled "Your Opportunity in Montana," which included pictures of the clubhouse and cabins. They listed 1,200 acres in general farming and After the failure of the BRVIC, W. I.

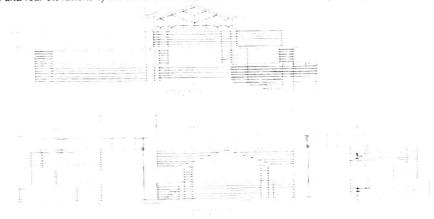






Second floor plan of the Bitter Root Inn.

Side and rear elevations of the Bitter Root Inn. Photo ©1981 The Frank Lloyd Wright Foundation.



pasture land. They offered to divide the land into smaller plots investors could farm. The company would act as a purchasing and marketing organization for the farms.

During the evening of July 26, 1924, the Bitter Root Inn was destroyed by fire. It had not functioned as an inn for several years and had become a roadhouse. It was used mainly for Saturday night dances.37

The promotion of University Heights again failed. Between 1924 and 1930, apples were phased out, and sheep and hogs then were raised on the property. The clubhouse was used to store grain. In 1937, DuPont sold the property to a local rancher.38

In 1945, a portion of the property was sold and the clubhouse was torn down.39 Over a number of years, cabins were torn down for the lumber.

Moody moved to Los Angeles where he died on June 22, 1933.

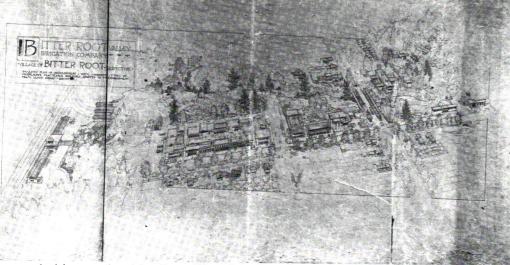
F. D. Nichols moved to Wenatchee, Washington. In 1919, Mr. Wright and Mr. Nichols submitted a sketch for a development of their riverside village. There are no drawings for this at Taliesin. It is possible that Nichols may have used the drawings for the town of Bitter Root.⁴⁰

All that remains of these ventures are the two cabins, the canal (which is still in use), the water system for the town (which is used by the present owners as part of their irrigation system), and many legends regarding Mr. Wright and his work in the valley.

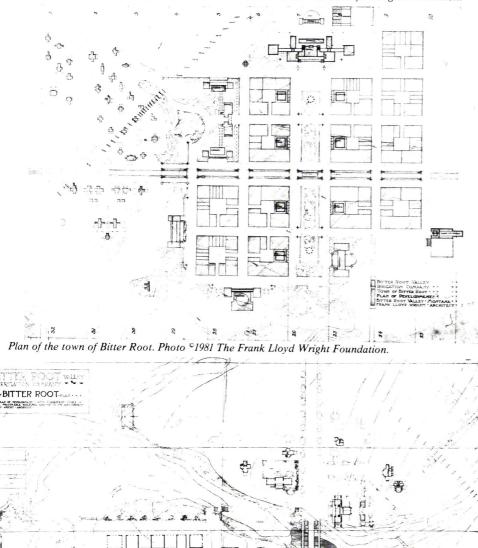
- ³⁴Western News, Supplement, 1910.
- ³⁵Ravalli Republic. Focus 77.
- ³⁶Ravalli Republican, June 1, 1923.
- Western News, June 7, 1923.
- ³⁷North West Tribune, August 1, 1924. ³⁸The Missoulian, May 13, 1973.
- ³⁹The Missoulian, May 13, 1973.

- ⁴⁰Letter from Bruce Brooks Pfeiffer to Delton Ludwig,
- August 23, 1973.

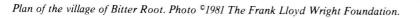
³³Western News, Supplement, 1910.



Aerial perspective of the village of Bitter Root. Photo ©1981 The Frank Lloyd Wright Foundation.



This new column is the place for little bits of information—documented information. Dates, facts, unpublished photographs and important notes are all subjects for this column. It is important that all of these items be documented so as not to promote heresay or folklore. It is a place to begin to clear up all of the misinformation that has accumulated over the years. So let's hear from you.



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EXHIBTION Metropolitan Museum of Art, New York

The great living room from the house Frank Lloyd Wright designed for Francis W. Little in Wayzata, Minnesota, has been installed as a permanent exhibit in The American Wing of The Metropolitan Museum of Art and is open to the public. From now until February 27, 1983, an exhibit of Wright material in the collection, Frank Lloyd Wright at The Metropolitan Musuem of Art, also will be on view. In 1972, the Little House was scheduled for demolition. Edgar Tafel brought this to the attention of the Museum and the house was purchased. Morrison Hechsher was in charge of the dismantling of the building.

The installation of the Wright room and exhibition has been coordinated by R. Craig Miller, Assistant Curator, American Decorative Arts, with the assistance of Amelia Peck, Research Assistant. Thomas A. Heinz was the architect for the reconstruction and Ezra Mills was the contractor in charge of the restoration of the period room. Ann Penner Winston was the designer of the exhibition and the lighting of the room and the exhibit was done by George Sexton and Associates.

There is a color publication, written by Edgar Kaufmann, Jr., is titled *Frank Lloyd* Wright at The Metropolitan Museum of Art and is available for \$4.75.

January 16, 1983, there will be a series of lectures and films on Wright and the room. It a free program with the purchase of admission to the museum.

The installation of the room, its accompanying exhibition and this lecture series have been made possible through the generosity of Saul P. Steinberg and the Reliance Group Holdings, Inc.

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BOOK REVIEW

Frank Lloyd Wright's Hanna House, The Client's Report, by Paul R. and Jean S. Hanna. Cambridge, Massachusetts: The Architectural History Foundation/MIT Press Series, 1981, 148 pp., illustrated, \$25.00.

by Karl Kamrath

One of my most memorable architectural experiences is my visit in July 1966 to the Hanna Honeycomb house in Stanford, California. It was then that Paul Hanna told me of his intention to write a report of his and Jean's experiences with the planning and construction of their house. The Hannas had carefully saved all the data pertaining to the project, including records of their many exchanges with Frank Lloyd Wright and Taliesin.

I eagerly awaited their book. When my office staff recently presented me with a copy, I can say only that I was extremely delighted with the publication. I consider it a literary achievement which is most difficult to describe.

The authors have evaluated their application of Mr. Wright's work in the early '30s and have described their many and varied experiences in the planning and construction of this historic house in a most meticulous manner which permits the reader to be an intimate part of finally achieving the extraordinary result. The complete dedication of the Hannas and the encouragement of the Stanford personnel, together with the enthusiasm of Mr. Wright and his Taliesin associates, combined to achieve this eventful project. This book is an excellent account of how it was accomplished.

However, as the Hannas relate, all was not entirely a bed of roses. The many and various difficulties only could have been resolved with the patience, understanding, and intelligence of both the clients and their architect. All this is set out in an orderly manner, taken from the records of the archives and from the owners' personal recall.

Karl Kamrath is a Texas architect presently living in Dallas.

I seriously doubt if a more detailed account of records concerning a building project ever has been retained by clients than those saved by the Hannas. Many of these accounts are noted and recorded in this book. In fact, they are so overwhelming that if I had a criticism to offer, it might be that too much detail is included. I actually had to stop reading for awhile as it left me mentally exhausted. On the other hand, I could not mention an item I would wish to leave out!

The fact that the whole Hanna family assisted in the actual construction is a clue to their immense dedication. I was similarly impressed with the dedication and enthusiasm of Frank Lloyd Wright and his colleagues at Taliesin in achieving this new spirit in organic architecture. The book explains how the house was planned for expansion in several stages. These were eventually accomplished in a way that is a tribute to both architect and client. All this is told in a delightful manner which makes it seem that these additions were not too difficult to accomplish. When the Hanna house is viewed today, the impression is that it has always been as complete, that it has not gone through major alterations and additions.

Positive features of the book include the outstanding photographs, both of exteriors and interiors, by well-known photographers. A good many are printed in excellent color which helps bring the book alive. Other plusses are many plan diagrams showing the various stages of the additions, the drawings of construction details and furniture designs, construction progress photos, reproductions of handwritten correspondence between the Hannas and Mr. Wright, and copies of telegrams sent during construction. Some of Mr. Wright's handwritten memos of instructions during the building period are included, along with his written agreement for his architectural services.

Paul Hanna describes Mr. Wright's several visits to the site and alludes to the architect's unequivocal and enthusiastic approval of the final project after the Hannas moved in.

The future of the house is discussed in the final chapter. The careful and distinctive manner and agreement which was developed between the Hannas and Stanford University is described in detail,

together with arrangements for long-term maintenance through the generosity of Nisson Motor Corporation. Also outlined is the unconditional gift of the house to Stanford by Jean and Paul Hanna in 1974. In 1975, the University decided that the house should be occupied by the provost of Stanford.

Talent and conviction shine through in this story. The cooperative efforts of this house's owners and architect are most unusual and extremely inspiring.

CORRECTION

In "The Prairie Banks of Frank Lloyd Wright" by Craig Zabel (Vol. 5, pp. 3-13), the third paragraph on page 4 should have read that the publication date of Wright's *Ausgeführte Bauten und Entwüfe* was 1910, not 1911 as printed.

Also, several photos with the story were incorrectly labeled, and the following corrections of captions should be noted:

Top photo on page 8: Fig. 8 (right). City National Bank, Wright, 1908-10, Mason City, Iowa. Source: Western Architect, December, 1911.

Top photo on page 9: Fig. 10 (left). City National Bank, Wright, 1908-10, Mason City, Iowa. Source: Western Architect, December, 1911.

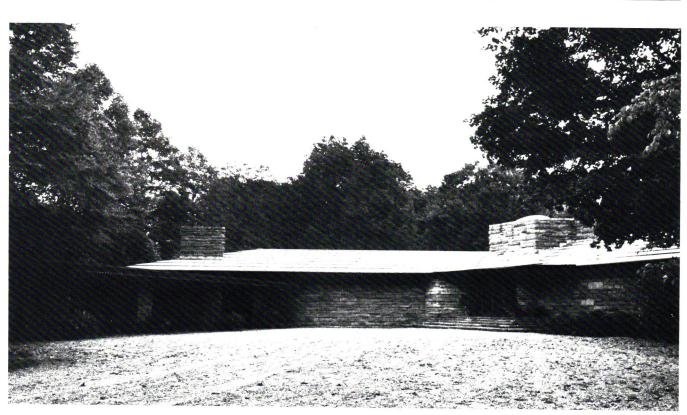
Lower photo on page 9: Fig. 11 (below) First National Bank and the offices of Frank L. Smith, Wright, 1905-6, Dwight, Illinois.

Lower photo on page 10: Fig. 12 (left). Project: First National Bank and the offices of Frank L. Smith, Wright, 1904, Dwight, Illinois. Photo courtesy The Frank Lloyd Wright Memorial Foundation. ©1970, The Frank Lloyd Wright Foundation.

Lower photo on page 11: Fig. 13 (right). Project: State Bank, Wright, 1914, Spring Green, Wisconsin. Photo courtesy The Frank Lloyd Wright Memorial Foundation. [©]1962, The Frank Lloyd Wright Foundation.

The editors reget the errors and apologize to Mr. Zabel for any embarrassment they may have caused.

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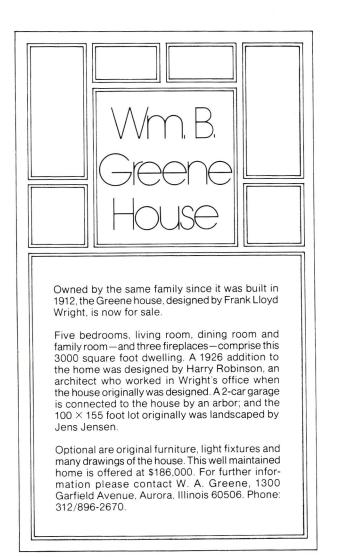
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in Frank Lloyd Wright's "Galesburg Country Acres" 11036 Hawthorne, Galesburg, Michigan

Designed by Wright in 1949 and built in the early 50's, this house includes an open plan living/dining room, kitchen, 3 bedrooms, 2 baths, private den with fireplace, and attached but separate studio. Detached carport houses storage area and a powered workshop.

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The honesty and simplicity of the home's design is due to Mr. Wright's desire to meet his clients' needs for a more informal family life. He meshed interior and exterior environments, creating an atmosphere to encourage family togetherness as well as appreciation for and involvement with nature.

This unique property is being offered for \$89,900. For further information, contact: William H. Reed, William Reed & Company, Inc., Realtors, 2618 Portage Street, Kalamazoo, Michigan 49001. Phone (616) 344-1188.

Thomas A. Heinz, Editor: Thea Grendahl, Assistant Editor: Jean Hanna, Proofreader

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Notice to authors: Manuscripts submitted for consideration will no longer be returned unless accompanied by a stamped, self-addressed ennvelope. When submitting manuscripts, please also include all illustrations and their captions.

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International Standard Serial Number (ISSN)0160-7375

MASTHEAD DESIGN BY THOMAS A. HEINZ



Photograph courtesy Esther Born, 1938.

