A CLEARING IN THE WOODS
Self & City in Frank Lloyd Wright's Organic Communities

by

John Michael Desmond

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Signature of Author

Certified by

Accepted by

Stanford Anderson
Head, Department of Architecture
Dissertation Supervisor

David Friedman
Chairman, Departmental Committee on Graduate Studies
It is nowhere except everywhere - the city that is a Nation.

Frank Lloyd Wright

spatium et urbis et orbis idem

Ralph Waldo Emerson
Deus est sphaera cujus centrum ubique
This dissertation undertakes a comparative and developmental analysis of Frank Lloyd Wright’s community scale planning projects executed in the wake of Broadacre City during the decade of the Second World War (1938 - 1948). These include the Sun-Top Homes built in Ardmore Pennsylvania, the Usonia I project for East Lansing Michigan, the Pittsfield Worker Housing project designed for western Massachusetts, the master plan for Circle Pines summer camp in central Wisconsin, and three partially built circular lot subdivisions, Galesburg Country Homes near Galesburg Michigan, Parkwyn Village in Kalamazoo Michigan, and Usonia Homes in Pleasantville New York. Through this study of seven planning projects Wright's thinking can be seen moving from a tradition of viewing the settlement as a 'constructed whole' to a design philosophy that approached nature as an a-priori, all embracing context. In these works he explored the relationship of the natural to the man-made by inventing patterns which allow neither the site nor the geometry of the plan to assume cognitive priority. One’s perception of the relationship between the individual and the group comes to be crossed with one’s perception of the character of the landscape in ways that extend an American hermeneutical tradition of self and landscape into the modern era. Building on the method of Emerson, and especially on the explorations of Thoreau and Whitman, Wright sought to redefine the ever-present tension between the individual and the democratic group in terms of a symbolic interaction of self and landscape that lies at the heart of the American myth of nature. His involvement with self, with nature, and with perceptions of community as indicated here suggests an alternative to traditional American suburban models, as well as to the European inspired housing ideas coming into this country in the post-war period.

Biographical Note

John Michael Desmond is a licensed architect holding a Bachelor of Architecture from Louisiana State University (1979) and a Master of Architecture in Urban Design from the Graduate School of Design at Harvard University (1986). He has practiced in Louisiana, Massachusetts and New York and has taught history, architecture and urban design at Harvard, the Rhode Island School of Design, the University of Massachusetts, the Boston Architectural Center, Tulane University and Louisiana State University. The author’s area of research includes the study of relationships between built form and cultural mythology in America, especially as this pertains to the emergence of the modern world. This research is grounded in the study of cultural anthropology and contemporary social theory and is built upon a background in American literary, urban and cultural history.
ANECDOTE OF THE JAR

I placed a jar in Tennessee,
And round it was, upon a hill.
It made the slovenly wilderness
Surround that hill.

The wilderness rose up to it,
And sprawled around, no longer wild.
The jar was round upon the ground
And tall and of a port in air.

It took dominion everywhere,
The jar was gray and bare.
It did not give of bird or bush,
Like nothing else in Tennessee.

Wallace Stevens 1919, 1923
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Mormon town plan, c. 1835 (page 6)

Mosaic in San Clemente, Rome (page 562)
Ancient Mediterranean symbols for city (page 562)
I once visited Frank Lloyd Wright's Palmer House in Ann Arbor, Michigan. This is one of the spectacular late houses built to a triangular module. In plan it presented a pattern very foreign to my eyes, raised as I was on the somewhat more orthogonal geometries of European Modernism. My experience of the house was a complete surprise, one from which I have never quite recovered. The feeling of being suspended in an apparently flowing field of comforting forms remains to this day as one of my primary architectural inspirations. Certain spatial experiences stand out for me as exemplary in a similar way: the metaphysical blending of concrete and light one finds in Louis Kahn's Rochester Unitarian Church; the overwhelming presence of the void in Mies' Chicago Center Post Office, and the way this organizes one's perception of the city; the heroic, even heavenly, connection of footstep, rib and void in the Cathedral of Chartres; the unexpected role of the distant mountains at the Athens Acropolis, and many others. But this is not a cathedral, it is not even a public structure. It is an unassuming little house which raises the lives of its inhabitants above that which the rest of us live.

The Palmer House sits back from the road in a way that is characteristic of Wright's houses after Fallingwater. One hardly gets a glimpse of it through the trees. The inner space of the house is achieved by means of a series of twists and turns which includes a rather tortuous little stairway. That inner space itself reaches outward in the further direction to blend with a small hilltop garden. One gains this blending by degrees. Walking in that little garden I felt somewhat as delightful about being in the natural world as I ever have. The effect was simply magical.
PREFACE

During this visit questions kept running through my mind: What was it Wright had done to create this feeling, notwithstanding, of course, the work of Mrs. Palmer over the years as the gardener? I have since spent many hours studying these later houses, their composition and their manner of relating to landscapes. But that is not what this dissertation is about. There is technique there, genius certainly, but demonstrable technique. The thing which troubled me that day was a question of a different sort. The Palmer House sits alone, or so it seems. Alone in the woods. One doesn’t see even the nearest neighbor. The experience of nature I found there was a very personal one, and that by design. What kind of a city could this be, I’ve wondered, where the inhabitants are all sequestered in nature, each apart from the next? Each alone with their own thoughts and their own lives. I have long had the conviction that every architect holds an image of the city in the back of the mind as a kind of grounding mechanism. Some architects, such as Wright, are more determined than others to make the assumptions and goals of their architecture explicit by articulating their vision of the city. But, what kind of a Broadacres is this in which individuals and their families sit in houses alone? Why would Wright abandon the city in favor of this exclusivity? And a very personal exclusivity it is at that. This is the question lurking between the lines in the pages that follow.

This study has taken me toward the roots of certain American assumptions about identity and community. It has taken me, in other words, toward the intersection of German Idealism, Romanticism and American Protestantism in the thought of Ralph Waldo Emerson. In his work one finds an ultimate end of the road, one conclusion to the rebellion from centralized religious authority begun in the Reformation. Instead of defining the individual as a product of the group, this began a process of inversion, the consequences of which we face today. Speaking of the Reformation idea that interpretation of the revealed word of scripture, and not the hierarchical institution of the Church, stood between the believer and God, Leo Marx remarked in a lecture given at Grinnell College in the Spring of 1980 that: “When Perry Miller, who is arguably the most important American historian of New England thought, used to talk about Emerson, he would go back and read some of the sages of the Counter Reformation who were saying to the Protestants, “When you go down this road and you break with Rome and you get rid of Bishops and you get rid of the ritual, you are on a slide and you are going to end up with a congregation of one.”” In Marx’s description, Perry Miller continued with, “And here it is: ‘Whoso would be a man must be a nonconformist’ a la Ralph Waldo Emerson.” In other words, Marx went on to observe, “Protestantism finally led to the Emersonian notion that each human being has a potential in him or herself, a kind of non-individuated potential for self-fulfillment . . . .” In the Emersonian universe, and in Wright’s, self-fulfillment stands as the primary foundation of community. In the plans that follow the guarantee of privacy in the heart of nature is built on this objective. That
such an assumption was built into Wright's planning forms was noted in the comments of a
member of Parkwyn Village made in a promotional radio broadcast during the summer of 1947
describing the strength of the design for the new community: "We will have maximum privacy since
the circular lots will not touch each other." Wright's great strength is that he translated these kinds
of broad historical objectives into very specific forms which serve very specific needs.

The circles I have occupied in the pursuit of this Ph.D. dissertation, however, have often
overlapped with many others. Perhaps the most refreshing help came from several families who
lived in the projects I have studied. Residents who contacted Wright in the first place to design
their communities. Of these, Roland Reisley in the West Chester County community of Usonia
Homes stands out for his generosity and his encouragement. Helen and Ward McCartney of
Parkwyn Village in Kalamazoo were also generous. I owe a special debt of thanks to Helen for
her collection of materials on Wright and their community. The McCartney daughters, both of
whom now live near Boston, were also helpful: Jennifer Rumbough and Daphne McCartney.
Jennifer once told me in recollecting her childhood experience growing up in Parkwyn, "We were
safe, we were in our circle." Eric and Anne Brown just down the street gave me a home away
from home while I was in their midst. For this I thank them as well. Across the county at "The
Acres" Mrs. Lillian Meyer deserves thanks for a discussion one languid summer afternoon. Nana
Mae of the Circle Pines Center was kind enough to provide me with help at a crucial juncture.
Don Shall, of Ann Arbor, shared his knowledge of this pivotal project as well.

While in Arizona I have had the great fortune to come to know Lucielle Kinter, who now
lives in Wright's Bloomer House in Paradise Valley. Lucielle has given me help in so many ways,
from her knowledge of Emerson to the example of her life. In her, more than in any other person
I have come across in my work on this project, I find Wright's vision of self-fulfillment as a guide
to community alive in a tangible way. While in the beautiful Arizona desert Roger Schluntz and
family took me in while Jeffery Cook entertained my questions about the desert.

In my studies of the development of the projects which follow I have tried to be
comprehensive, rather than conclusive. I have not undertaken an exhaustive study which would
have included seven complete developmental chronologies. Rather I have sketched these in each
case as a prelude to analysis of the forms involved. This has necessitated a review of large
numbers of drawings and letters, etc. I have had access to more that I can count. Bruce Brooks
Pfieffer and the staff of the Frank Lloyd Wright Archives at Taliesin West deserve the most
sincere thanks for their help. Margo Stipe, Indira Bernstrom, Penny Fowler and especially Oscar
Munoz were always eager to assist my work there. It has been one of the greatest joys to make
such friends along the way. The Index to Taliesin Correspondence was an important aid, as was the
Special Collections staff at The Getty Center for the History of Art and the Humanities.
In Cambridge of course one finds too many circles of refuge to acknowledge them all. But several stand out as definitive. My intellectual debt to Sacvan Bercovitch at Harvard must be acknowledged. Stanford Anderson of the Massachusetts Institute of Technology supported my questioning from the beginning and has consistently made the best available. Leo Marx, also at MIT, has given me much more than I can acknowledge in words. His example and insight ring in my ears with as much force and delicacy as the lines of Whitman. I hope they always will. One finds no greater teachers in life than this. Neil Levine of the Harvard Fine Arts Department deserves a debt too large to be fully acknowledged. His indomitable spirit and courage are sometimes masked by an exemplary devotion to scholarship and by a remarkable enthusiasm for possibility. More than anyone else his efforts confirm for me something Frank Lloyd Wright wrote long ago; "Nature has made creatures only, art has made men." He deserves, at the very least, my sincerest thanks.

I benefited greatly from long and formative discussions with James O'Gorman of Wellesley College and Rejean Legault, my colleague at MIT. Here at Louisiana State University I have had the benefit of conversation and other assistance from Chris Theis and especially Nicholas Musso. Michael Daugherty, the Associate Dean in the College of Design, has been exceedingly generous with his time and expertise in the use of Macintosh production equipment. Robert Leighninger of the School of Social Work edited a draft of this dissertation of his own good will. Endless inspiration and grounding have come from my father, John J. Desmond. In my work I hope to carry on the tradition of viewing the land he has long since begun. I find his tracks about me everywhere as I cross these fields alone. My proclivity to study art history however comes from my mother, Blanche Batson, and I want to thank her deeply for everything she has done for me over the years.

Most of all, I owe a special debt to my wife, Marsha Cuddeback. She has put up with uncounted hours these last several years and given freely of herself at every juncture. Not only am I deeply grateful, but I quite simply could not have accomplished this without her help and support. This dissertation is dedicated with gratitude and affection to her.

Baton Rouge
October 1995
INTRODUCTION, A Metaphor and a Method

It is a surprising and memorable, as well as valuable experience, to be lost in the woods any time. Often in a snow-storm, even by day, one will come out upon a well-known road and yet find it impossible to tell which way leads to the village. Though he knows that he has traveled it a thousand times, he cannot recognize a feature in it, but it is as strange to him as if it were a road in Siberia. By night, of course, the perplexity is infinitely greater. In our most trivial walks, we are constantly, though unconsciously, steering like pilots by certain well-known beacons and headlands, and if we go beyond our usual course we still carry in our minds the bearing of some neighboring cape; and not till we are completely lost or turned round, - for a man needs only to be turned round once with his eyes shut in this world to be lost, - do we appreciate the vastness and strangeness of nature. Every man has to learn the points of the compass again as often as he awakes, whether from sleep or any abstraction. Not till we are lost, in other words, not till we have lost the world, do we begin to find ourselves, and realize where we are and the infinite extent of our relations.

Walden: or, Life in the Woods.

In the 1840 essay "Circles," the poet and philosopher Ralph Waldo Emerson explored a tension between individual self-fulfillment and conformity that has been crucial to American life. "The eye is the first circle; the horizon which it forms is the second," he wrote, "...and throughout nature this primary figure is repeated without end." 1 In this essay Emerson provides a metaphor and a method that have deep affinity with a representational strategy adopted by the architect Frank Lloyd Wright a century later. In pursuit of this affinity, the immediate objective of this dissertation is the study of Wright's increasing use of circular forms through a series of neighborhood scale designs executed in the remarkable decade following Fallingwater and the Johnson Wax Administration Building, 1938-1948. It is a study of seven planning projects executed by Frank Lloyd Wright over the decade of the Second World War. In these projects Wright moved from the square-based planning geometry he had used for decades to a more fluid one based on the use of circles. In this evolution we will see a deepening concern for issues of perception and representation.

1 Emerson, "Circles," page 263. All references to the works of Emerson found herein will be to the volume entitled The Selected Works of Emerson, edited by Donald McQuade and published in New York by Random House, the Modern Library, 1981.
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My broader objective has been an exploration of Wright's development of the Metaphor of Organic Form as the basis of an interactive and multivalent symbolism that addresses certain fundamental conditions of modernity within the American context. The period 1938-1948 is bracketed by two issues of the Architectural Forum devoted entirely to Wright's work. In the first of these, published in January 1938, the architect intermingled the presentation of his buildings with passages drawn largely from American transcendentalist writers. Wright's turn back to Emerson, and the literature that developed around him in the mid 19th century, provides an insight into the remarkable invention of form languages that marks the start of this decade. In the architectural explorations of Wright, and in the writings of Emerson one hundred years earlier, we find a concern with form and perception assembled under the metaphor of organic form.

I am suggesting that Wright used this metaphor to question the roots of architectural representation in a way that acknowledges the 'symbolic transformation' crucial to the development of any formal language. In doing this he was building on the theory of representation implicit in the section on language in Emerson's “Nature”: “It is not words only that are emblematic; it is things which are emblematic. Every natural fact is a symbol of some spiritual fact. Every appearance in nature corresponds to some state of the mind, and that state of the mind can only be described by presenting that natural appearance as its picture.”

The 1930's saw the advent of a philosophy of the symbolic action of language that responds to the concerns expressed by Emerson. Not surprisingly, these years were also witness to a revival of interest in Emerson and his literary heirs. This dimension of 20th century thought provides the foundation for my approach to Wright’s second career. In contrast to the symbolic complexity of European modernism as suggested by Jordy, I see the Emersonian context of Wright's work as cultivating the ground of an American symbolism involved with integrating perceptions of self and landscape. "The eye is the first circle," Emerson wrote, "the horizon which it forms is the second..." suggesting a reciprocal, even interactive, definition which nears the seeds of American thought. This matures in Wright's explorations of the relation of house and community to the landscape in ways thickly layered with implications for an American modernism. Wright's vision differed fundamentally from American planning traditions and the new models provided by the Europeans.

While Wright's planning evolved from the square-based Quadruple Block [1901] designs of the first years of the century to the remarkably fluid circles of the Greater Baghdad Plan

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2 Herein I have used the term 'modernity' to describe a state of affairs resulting from application of industrial practices and abstractions to society and consciousness. Such a sense contrasts with 'modernism' which suggests an ideological component, and is the result of intentionality. This view of modernity is derived from Max Weber via, primarily, the phenomenological sociology of Peter Berger as developed in The Social Construction of Reality, The Sacared Canopy and The Homeless Mind.
executed just before his death, critical changes in the geometric foundation he drew upon can be seen developing through seven projects designed just before and just after the Second World War. The projects I have studied are: (1) the partially built ARDMORE EXPERIMENT in suburban Philadelphia; (2) the unbuilt USONIA I subdivision that provided the first full context for Wright's vision of the usonian house; (3) the unbuilt Pittsfield, Massachusetts DEFENSE WORKER'S HOUSING complex known as "Cloverleaf," designed over the winter of 1941-42; (4) an unbuilt Michigan summer lake resort known as CIRCLE PINES and, a series of three partially completed cooperative residential subdivisions; (5) the community outside of Kalamazoo, Michigan designed for the GALESBURG COUNTRY HOMES Association; (6) the PARKWYN VILLAGE subdivision in Kalamazoo; and, (7) the virtually intact Westchester County community of USONIA HOMES north of New York City.

These subdivisions are of course not the only, nor even the best known, of Wright's circular designs. Although Wright first experimented with circular forms in the Olive Hill Community Playhouse project known as the "little dipper" and the Gordon Strong Automobile Objective and Planetarium of the 1920's, it was not until after the watershed of the mid 1930's that he began to propose circular motifs broadly. Such projects as the Ralph Jester House and the Florida Southern Campus, both 1938, mark the beginning of his foray into the field of circular forms. Within the next ten years he proposed such fantastic circular projects as the Huntington Hartford Play Resort for Hollywood Hills, the Point Park Community Center for Pittsburgh, and the initial versions of the Guggenheim Museum in New York. A number of private house designs appeared by 1947 which utilized circular planning motifs as well: the Lloyd Burlingham House, the V. C. Morris House, and the Stuart Haldorn House. These set the stage for such later projects as the "How to Live in the Southwest" House, later built for his son David Wright, and the Raul Bailleres House project. This increasing pre-occupation with circular themes culminated in the plan for Greater Baghdad of 1957-58 and the Marin County Civic Center also planned in 1957-58.

This period witnessed an unprecedented surge of creativity. The sheer range of designs and the differences in formal languages he developed during this decade remain unparalleled. The idea and formal repertoire of the Usonian House were invented during this period, with the designs for the Hanna House (1936), the Jacobs House (1936), the Pope House (1939) and the Lloyd Lewis House (1939). Wright began work on Taliesin West (1938) and designed the Pauson House (1939) as very different interpretations of the desert environment. The Johnson House "Wingspread" (1937) and the remarkable plan for the Jester House (1938) were conceived one upon the other. The design for the Stevens House known as "Auldbrass" (1939) was also designed at this point. The Master Plan for Florida Southern College (1938) in Lakeland and the Monona Terrace Civic Center for Madison (1938) date from this moment. His design for the
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Crystal Heights Hotel, Apartments and Shops (1939) originated in this period as well. All of these designs investigate very different, in some cases strikingly different, formal languages. To greater or lesser degrees each is a response to a particular environment.

Through this study of seven planning projects designed during this remarkable decade, Wright's thinking can be seen moving from a tradition of viewing the settlement as a 'constructed whole' to a design philosophy that approached nature as an a-priori, all embracing context. In these works he explored the relationship of the natural to the man-made by inventing patterns which allow neither the site nor the geometry of the plan to assume cognitive priority. One's perception of the relationship between the individual and the group comes to be crossed with one's perception of the character of the landscape in ways that extend an American hermeneutical tradition of self and landscape into the modern era. Building on the method of Emerson, and especially on the explorations of Thoreau and Whitman, Wright sought to redefine the ever-present tension between the individual and the democratic group in terms of a symbolic interaction of self and landscape that lies at the heart of the American myth of nature. His involvement with the self, with nature, and with perceptions of community as indicated here suggests an alternative to traditional American suburban models, as well as to the European inspired housing ideas coming into this country in the post-war period.

The body of this dissertation is made up of four Parts. The first three contain analyses of the seven projects mentioned above, the final one explores the transcendentalist roots of the change in representational strategies found there. In PART ONE the ARDMORE EXPERIMENT and the USONIA I subdivision are juxtaposed. These projects were underway at the same time and represent explorations of opposing formal strategies. PART TWO contains analyses of the Pittsfield, Massachusetts Defense Worker's Housing Project - CLOVERLEAF, and the CIRCLE PINES RESORT. These two designs continue the simultaneous development of opposing formal strategies several years later adding new layers of complexity and conviction. PART THREE documents the resolution of these opposing strategies in three circular lot subdivisions, GALESBURG COUNTRY HOMES, PARKWYN VILLAGE, and USONIA HOMES. The final section, PART FOUR, draws upon the Kantian background of the metaphor of organic form as well as on the method and position of Emerson in American culture to suggest something of the representational scope of Wright's planning inventions.

The underlying premises explored in PART FOUR are that Kant's concept of "transcendental Reason" suggested the role of the mind in giving structure to perceptions of nature. Emerson's notion of "correspondence" saw this Reason as pre-existing in the world of Nature which he described as both externally perfect and internally created. Nature became
for him both the model and the product of human thought. In the period I am studying Wright
designed so as to "foreground" this Nature as a way of interacting with mind or Reason by
orienting each "organic" structure around apparently given perceptions of the natural world. As
such a work of "organic architecture" seeks to embed itself within a fundamental aspect of
thought. In doing so Wright was also constructing formal languages with an intent parallel, not
only to that found in Emerson's prose writings, but also to the philosophies of language and
symbolism emerging in the 1920's and 30's.

In this work I have developed a reading of the tensions between the individual and the
whole, and between the city and nature, which articulates the contributions of the American
transcendentalist movement. Specifically, the critical literature surrounding Emerson's essays
"Nature" (1836) and "Circles" (1840) provides a way of delimiting the broader social and
epistemological context of Wright's thought. Wright expressed an avid interest in Emerson,
Whitman, and Thoreau throughout much of his career. His use of the organic metaphor derives
directly from these sources.

Over the last generation a rich discipline of American Studies has developed in the fields of
Literature and History. Such authors as F. O. Matthiessen, Henry Nash Smith, Perry Miller,
Bernard Bailyn, Daniel Boorstin, Leo Marx, Richard Slotkin, Sacvan Bercovitch and a host of
others have explored the foundations of American national and cultural identity in ways
replete with implications and invitations to the study of architecture and community. Many if
not all of these studies have been built upon broad comparative analyses of American
literature. In discussing his ambitious study of the foundations of American cultural mythology
Richard Slotkin suggests that as members of a culture founded during the age of printing, the
colonists:

... turned readily to the printed word for expression and the resolution of doubts, of
problems of faith, of anxiety and aspiration, literature became the primary vehicle for
the communication of mythic material, with the briefest gaps between the inception of
oral legend and its being fixed in the public print....On the whole, the development of
narrative literature in the first two hundred and fifty years of American history is one
of the best guides to the process by which the problems and preoccupations of the
colonists became transformed into "visions which compel belief" in a civilization
called America.3

More recently a series of urban studies have related the tradition of classic American
literature and its analysts to studies of the evolution of urban form. Thomas Bender, Sylvia
Fires, Kenneth Jackson, David Schuyler, James Machor, and John Stilgoe have begun to explore

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the relationships between various aspects of urban form and the perceptions expressed in classic American literature.

In a recent essay Leo Marx, one of the early pioneers of this effort, sums up the underlying relationship between such urban studies and the literary material many of them build upon in saying, "What we have then, in our classic American literature, is not a single, fixed attitude to the city, but rather a kind of semantic, or ideological, field in which a range of attitudes, some of them diametrically opposed, is generated. The field is bounded on one side by representations of the status quo, which is to say, by various embodiments of the dominant culture of industrial capitalism... On the other side, however, the field is bounded by the distinctly intense demands and expectations of a restless, journeying American self impelled by pastoral visions of possibility." 4

There has also been over the last generation a broadly based re-evaluation of the theoretical underpinnings of modern architecture. One of the perhaps inevitable outcomes of this in America has been a renewed interest in the work of Frank Lloyd Wright. Many of the Wright studies generated over the last ten years or so have tended to focus on his "second career." As this is the period in which he was creating architectural forms and imagery most at odds with the Europeans and their apologists who dominated architectural culture in the United States it is not surprising that such a re-evaluation of this work is occurring now.

Studies such as those by N. K. Smith, Richard Adams, and James O'Gorman have focused on the historical and cultural influences on Wright. Others such as H. Allen Brooks, Richard McCormac, and Kevin Nute have begun investigations into the formal operations through which his architecture developed. The work published thus far by Neil Levine has extended this analysis to include an even broader view of Wright, his planning strategy, and the basis of architectural representation in the modern era. As a part of this body of work there has even been a steady stream of evaluations of Wright's BROADACRE CITY visions beginning with Lionel March and N. K. Smith, continuing through Georgio Ciucci and George Collins, up to the more recent work by Narciso Menocal.

Yet in their otherwise excellent studies of Wright and his architecture very few of these authors have drawn on the fundamental observations on self and community in America articulated in this growing body of scholarship. 5 This is rather remarkable as the architecture, urbanism and writings of Wright provide a complex and compelling synthesis of many recurrent themes in American culture as a whole. This is demonstrated in his work on community perhaps more than anywhere else. The adoption of Puritan and Biblical

5 With the possible exception of Narciso Menocal's article "Frank Lloyd Wright's Concept of Democracy: An American Architectural Jeremiad," 1988. This is an article however which I find to be lacking any appreciative involvement with the body of American Studies literature cited above.
typological models for the series of square based planning schemes presents a striking example of formal congruency that calls for careful and interpretive analysis. This becomes especially clear when his work is seen against those studies of American culture and literature that have traced the impact of the Puritan experience on the American mind.6

The position of Emerson again is unique here in that he is the key figure in adapting the idealist perspective of German and English Romanticism to the Puritan traditions central to the cultural identity of this country. He did this by developing the metaphor of organic form he found in Coleridge and Goethe, and by using it to cast a vision of nature over the confrontations of self and community he found in the 19th century. Donald Egbert wrote an essay just after the War on the common threads in organic theory shared by Wright and Walter Gropius.7 It is an excellent piece that remains the most exhaustive study of the character and roots of this expression in the thought of these two men. In this study, however, Egbert does not delve into the complex reflexive method of Emerson, nor the extent of his influence in American culture as so many others have since. It is true, as Egbert so skillfully points out, that the idea of organic form has its modern roots in German idealism. What is also true however is that Wright's use of its expressive potentials shares more with Emerson' reformulations than it does with any European examples.

In a seminal essay, "The Symbolic Essence of Modern European Architecture of the Twenties and Its Continuing Influence," William Jordy described a process of "symbolic objectivity" as the essence of the representational strategy of early European Modern architecture. In Jordy's view this involves a multi-layered symbolism that seeks to embody in tangible form a representation of the conditions of modern experience. The process Jordy describes is similar in scope and method to that developed by Wright over the period I have studied, but there are crucial differences. In the case of the Europeans this is a strategy that begins with objects drawn from the emerging technologies affecting everyday life and treats them as emblems of the promise of social progress made possible by the Machine Age. Such 'purified' objects, as Jordy calls them, are juxtaposed in a cubist spatial conception so as to create a sense of a 'field of force' out of the spatial continuity suggested by placing them in asymmetrical equilibrium. Mies van der Rohe's simple steel sections, LeCorbusier's brute concrete, and Walter Gropius' industrial windows are examples of materials used as objects in this way. As Jordy says, "Things which started as compliant servants so flatly factual as to have been all but invisible.

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6 See especially Miller, Slotkin, and Bercovitch.
suddenly erupt into positive assertion."8 The function of this is the way in which it "brings disparate aspects of practical, aesthetic, psychic and metaphysic experience to focus in works of art."9

This process relies on expressions of the 'primal facts of technology' framed by an 'aesthetic of elemental shapes in tense configurations' so as to present a 'metaphysic of modern reality'. Such spaces were conceived, Jordy suggests, to provide, "the milieu for the tacit, laconic, informal, energetic quality of modern life, with its clarity, order and optimism."10

From fact to inmost essence, which nevertheless holds on to the factual starting point: The tense ambiguous existence of what is at once within the work of art yet remains a fact outside it is the psychological and metaphysical equivalent of a visual system dependent on a tensional rather than a gravity organization.11

This double condition of the brute thing, belligerently and mysteriously within its extra-human realm, yet, simultaneously grasped by human consciousness as an artifact of willed order and focused associations, evokes the condition of modern man.12

In Jordy's description such a process of "symbolic objectivity" has as its unifying principle a comprehensiveness whose essence is "mythic" and which was drawn from European attitudes about the role of the machine in society in a modern world. In Wright's case both the mythic foundation and the method of its excavation are very different. Whereas architects such as Gropius, Mies and LeCorbusier sought to express, or glorify, the machine as the symbol of social progress, Wright denied a central position to the machine so as to subordinate it to the very American belief in the centrality of the presence of nature. He was directed by Emerson and other transcendentalist writers, and American myth, to the landscape. "Nature," wrote Emerson, "is the remedy for whatever is false and fantastic in our culture."

The early European modernists were influenced by the abstractions of the cubists "in which the literal details of the everyday world are largely eliminated" in the creation of a "field of force" which juxtaposed mechanistic objects in tense configurations. By contrast, Wright developed a view of a priori forces in the natural world which he sought to articulate and foreground as a foundation for culture.13

Their focus on the materials and techniques of the Machine Age and upon the abstract forms of cubism devalues local or regional conditions in favor of what was seen by some as an 'international style' and that became an emblem of their modernity. Wright by contrast

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9 ibid., p 181.
10 ibid., p 180.
11 ibid., p 186.
12 ibid., p 186.
13 This was derived from a theory of abstraction first articulated in The Japanese Print and directed him to "natural facts."
developed a representational strategy that responded to the unique characteristics of each natural landscape in such a way so that we can say the uniqueness of his imagery should be taken as an emblem of his modernity (esp. the period 1937-38).

What I am suggesting is that Wright's 'organic architecture,' while not as involved with the role of the machine in mass civilization as was that of his European contemporaries, was directed at a more fundamental re-evaluation of the epistemology of nature than has been heretofore acknowledged. And that in this American context, Wright's view of nature is one thickly layered with myth and cultural traditions coming forth from the first European footfalls in New England. His development of the metaphor of organic form encompassed an investigation of the relationship of individual to community which, on the one hand builds upon American traditions, and on the other hand explores a multi-layered symbolism replete with suggestions for the future.

I am reminded here of the painter George Braque's description of the inspiration for the cubist point of view he and Pablo Picasso were developing in Paris during Wright's prairie years in and around Chicago wherein, "... the relationships between things (is) more important than the things themselves." It is a point of reference that has much similarity with the relation of self and city to nature in the work of Frank Lloyd Wright over this tumultuous decade. In his London lectures given on the eve of War in 1939, Wright explained his concept of the role of modern architecture by saying, "I do not wish to 'disperse' any city; decentralization is not dispersal - that is wrong... it is reintegration." In these lectures he described his vision of Broadacre City as what amounts to a kind of cubism of the American landscape in which, "We are talking about the countryside itself developing into a type of building..." It is a countryside, a cultural landscape, reconnected in terms of a vision of "this new city that is to be everywhere and nowhere."  

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PART ONE / Chapter One

CHAPTER ONE - THE ARDMORE EXPERIMENT

1 - Chronology & Development

In PART I of this study we will juxtapose two very different planning projects by Wright, both executed in 1938-39. These two projects show Wright’s approach to sites of greatly differing natural character and demonstrate two radically different, but I think complementary, approaches to planning which form the basis of a powerful redefinition of the scope of his “organicism.” The first of these, known as the Ardmore Experiment, was designed for a flat and restricted site in suburban Philadelphia. The neighborhood was dominated by conventional wood frame single family dwellings. The specific plat which Wright was given to work upon was bounded on two sides by busy streets. Here he developed a self-referential and strongly geometric plan in lieu of one which responded to natural features. In the second Chapter we will investigate Wright’s ground-breaking design for the Usonia I subdivision for East Lansing, Michigan. That unbuilt project was intended for an extensive and beautiful natural site, and as such became the focus of a very different planning endeavor.

Initial Description of the Built Unit for Orientation

The Ardmore Experiment involved one completed four-apartment structure of a contemplated group of four such buildings for Otto T. Mallery of Philadelphia (Figure 1.1). While Wright had designed rental units as far back as the Francisco Terrace Apartments for Chicago in the 19th century, these buildings were meant to be ground-breaking in their day. In the midst of a long-standing housing crisis with its roots in the depression, the Architectural Forum suggested that the Ardmore Project embodied “. . . more new design and construction ideas than have come to light in a decade of apartment building.”1 Under the heading ‘Space’ the author wrote:

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1 Architectural Forum, August 1939, pp. 142.
Called Suntop Homes, this project features little that is traditional. In the first place, (the) plan of the building cuts a four-leaf clover pattern subdivided by cross-shaped party walls. Each 90° wedge harbors a novel arrangement of six rooms, storage space and a carport.

On the ground floor is a one-car garage without doors (a carport in the Wright parlance), and behind it, a long narrow storeroom without windows. Only other room on this level is a good-sized living room, two walls of which are made up largely of glass doors, moveable glass windows and fixed glass. Equivalent in area to 20 average windows, this glass is shielded from sky-glare by an overhanging balcony. Height of the living room is 13ft. except in the interior, fireplace corner where projection of a mezzanine floor reduces it to 6 1/2 ft.

Situated midway between the ground floor and the roof deck, this mezzanine provides space for three rooms and a bath, most important of which is a large combination kitchen and dining room. In the conventional house or apartment, the kitchen usually occupies the least desirable space, but in Suntop Homes it is the control room, the focal point of the design, and is therefore given a more favorable location. About half of it juts out as a balcony into the living room. While in the kitchen the housewife may watch children at play in the living room, may speak through a tube with those who ring the door bell (either refusing admission or releasing the door latch from the kitchen), and she may enjoy the garden view through the spacious living room windows.

But there are still other control features of the kitchen. Part of the room extends above the roof deck, and through a transom the housewife may watch the children at play on this deck. Their bathing and eating may likewise be supervised from this room. Also on the mezzanine floor is a small master bedroom one wall of which is of glass and opens upon a large sleeping deck. Adjacent to it is a small boudoir which, due to its interior location is lighted and ventilated by a clerestory (series of transoms) similar to that of the kitchen.

On the roof of each clover leaf unit is a small penthouse containing two additional rooms, a stair well and a 5 ft. square shaft for ventilating the bathroom below. Balance of the roof is finished with a wearing surface permitting its use for recreation, clothes drying and gardening. It is shielded from the street by a 5 ft. parapet and, part of it, from the view of neighbors by an 11 ft. extension of the party walls.

Under the heading 'Planes' the description continued:

Surface treatment in Suntop Homes, like its unique room arrangement, follows closely the principles of "Organic Architecture" originated by Mr. Wright and typified by his terse precepts: "Five lines where three are enough is stupidity; nine pounds where three are sufficient is obesity." Aside from the large area of living room glass, only two materials are seen from the street - vertical panels of red brick and horizontal parapets of common cypress. The facade's only ornamentation comes from the materials themselves, the cantilevered terraces and the shadows they cast.

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2 ibid. pp. 142-3. (Wright's most systematic presentation of the usonian house idea was The Natural House, pub. 1954. In that book he presented the Jacobs House in a chapter entitled "The Usonian House I." The chapter also included pictures of the Sturgis House. Immediately following, in a Chapter entitled "The Usonian House II" he presented the Goetsch-Winckler House, the Ardmore Suntop building, the "Cloverleaf" design for Pittsfield and the Rosenbaum House. This organization sets the Ardmore building squarely within the frame of reference of the usonian house idea.)

3 ibid. pp. 142-3.
Chronology of the Project from the Correspondence Record

Wright apparently first met Otto Mallery at the Jokake Inn in Paradise Valley near Taliesin West over the winter of 1937-8. This was where Wright stayed while Taliesin West was being constructed. Mallery had been an investment banker who had served "under all the Presidents since Wilson." He had been Chief Economist in the United States Department of Commerce and held an abiding interest in the housing problem then facing the nation. He believed that "in the prevailing monetary situation" investment in rental similar in design to houses such as those designed by Wright was "a better and safer investment than the highest grade corporation bond on the market . . . ."

While Roosevelt II's original public works policy (1932-35) was exactly what Mr. Mallery had been preaching for years, in 1935 he decided that no matter what Government might do, full business recovery was not probable without large scale private investment in durable goods. After considering various industries as possible avenues to such investment, he selected Building. Reason: he considered it "the most backward industry . . . a jumble of anarchy and convention" and therefore believed that Building offered the most room for technological improvements.

To familiarize himself with the scope and character of Wright's architecture Mallery visited two key Wright projects in February 1938. He found himself "delighted" by the recently completed Herbert Jacobs House in Madison, Wisconsin. Mr. and Mrs. Jacobs, he noted, treated

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4 This fact was conveyed to me by Indira Berndtson of the Taliesin West staff. There is a tremendous amount of correspondence back and forth between Mallery and Wright over the period 1938 to 1941. The majority of these are Mallery's notes and letters to Wright concerning the process of designing, financing, building and repairing the first Ardmore building. Sometimes there are as many as three letters a day. As on June 8, 1938. This fact has to be taken into account when referring to the dates given to specific correspondence in this text.

5 Mallery was also appointed to the President's National Resources Planning Board in late summer of 1939. Mallery to Wright, 9/4/39. See also Mallery to Wright, 11/4/40 for a letterhead from the INTERDEPENDENCE COUNCIL, noting its mission "to develop an increasing sense of interdependence among all peoples." Mallery appears as the chairman of this organization. The letterhead includes a very Wrightian graphic design of interpenetrating squares and diamonds inscribed within a circle (this was probably designed by one of the Taliesin apprentices as there is a record of what appears to be two separate such transactions in the correspondence - one for the Suntops logo and one perhaps for this letterhead. This letterhead also lists Mallery as the author of Economic Union and Durable Peace. There is a one page transcript from Mallery dated 12/10/40 in the Taliesin Archives marked 'Confidential' and entitled "Economic Basis for an Enduring Peace" - See Mallery to Wright, 1/6/40 to tie these two together. The shorter one is a summary of the longer. Also, Mallery was constantly on the lookout for opportunities for himself and for Wright. One of the more interesting contacts he established was with Henry I. Harriman of Boston who was planning to construct an apartment house overlooking the Boston Harbor. Mallery encouraged Harriman to consider Frank Lloyd Wright and eventually arranged for the two to meet to discuss the possibilities. Harriman however was not to be convinced of the financial viability of Wright's St. Mark's style housing idea for his site. Mallery to Wright, 2/19/38 and various other correspondence to be listed herein: Mallery to Wright 2/26/38, Harriman to Mallery after a meeting with Wright 3/24/38. Throughout their relationship Mallery was on the lookout constantly for ways to expand Wright's opportunities. References, sometimes fleeting, appear throughout his correspondence to Wright. There were at one time or another ideas for projects in Boston (see above), West Nyack [this was his own development with which Wright was never involved] (3/27/38), Strathmore (3/27/38), Carson College (6/7/39), etc. Harriman was to be connected to the U.S. Department of Labor as indicated by the stationary he used in a letter to Mallery 7/1/38. See also comments on Mallery in "Usonia Comes to Ardmore," in Architectural Forum, August 1939 pp. 142-3. "Usonia comes to Ardmore when Frank Lloyd Wright invents a four-family house with kitchens as control rooms, floors as radiators."

6 Architectural Forum, August 1939, pp. 142-3. At least he felt that way in August of 1939 as his new Suntop Homes were being completed.

7 ibid. pp. 142-3.
him like "a long lost brother." By comparison he liked the interior of the Malcolm Willey House in Minneapolis even better.  

The building which Wright completed for Mallery was referred to by both architect and client as the "Ardmore Experiment." The word experiment here has two connotations: first it refers to the fact that Mallery decided to build only one of the four buildings initially planned for Suntop as a test of the design's economy; and second, it refers more importantly to Mallery's dream of addressing the dire housing problem then facing the nation through the use of Wright's design.

There are several versions of this design. The first scheme, which Mallery would come to call Model A, was initially laid out as four "quartet" buildings running along Sutton Road (Figure 1.2). After the first SunTop unit was constructed, Wright revised the plans as Model B in an attempt to reduce the cost. This second design included concrete crossing walls instead of brick. The revised model was never constructed.

Although the revised scheme was executed in response to the cost of the first built structure, it was also a response to a conflict with the established zoning ordinance in Ardmore that was discovered by Mallery. There was an unsuccessful appeal of the more restrictive of the two relevant zoning designations involved. In response to this Wright reconstructed a layout utilizing a second site parcel across the street. In this plan there would have been two buildings on either side of Sutton Road all facing Spring Avenue by virtue of a staggered plan arrangement. This, also, would have placed all the units within the more liberal zoning category.  

Mallery's first $500 payment to Wright "as retainer . . . in connection with the Ardmore property" was sent March 22, 1938 with the stipulation that, "It is understood that only in case the plans are accepted and the work is executed will a further payment be due you." He also noted at this point that the topographic information Wright had requested was to be forthcoming from a third party. Unlike many of the other sites we will be investigating in this study, this site is very nearly flat and such 'topographic' information here would have primarily concerned property lines, setbacks and other zoning code restrictions. In what would turn out to be a prophetic note, Mallery also mentioned in this letter that he did not believe Wright's cost estimate for the Ardmore houses could be met.

Perhaps on reviewing the topographic material prepared for Wright, Mallery became aware of a conflict with the local zoning ordinance by March 25, 1938 and wrote to Wright:

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8 Postcard from Mallery to Wright, 2/16/38; and letter written on the train, 2/18/38. Mallery adds that he did not like the outside of the Willey House as well. This last includes the interesting remark "Hope you get those 1000 houses in Los Angeles." This must be the All Steel Houses project Wright was working on in 1938 - See Monograph #6, pp 98-9.

9 The August 1939 Architectural Forum article shows the second site plan covering the two part site on both sides of Sutton Road. There is a site plan drawing of this second scheme dated 11/25/38.

10 Mallery to Wright, 3/22/38: The survey information was to be supplied by a Milton Yerkes of Bryn Mawr, PA. This information was apparently mailed to Wright by 3/27/38, postcard from Mallery to Wright of that date.
The Ardmore Property is zoned in a way to prevent the solution you proposed. The property lies in two zones, one less restricted that the other. It is conceivable that after a hearing before the Township Commission it might all be placed in the less restricted zone, namely D.

The restrictions are as follows. Detached or multiple buildings are allowed to cover forty per cent of the lot area. The front yard must be 20 feet in depth from the curb. If a twin house is built the yard must be 9 feet wide to the next lot, which would make the total distance between houses 18 feet. If an apartment house is built it must have two side yards, the width of which varies with the width of the building. If the apartment is 40 feet high the side yards must be at least 12 feet wide.

The part of the lot which is in this zone, D, is only the corner part, one side of which is on Spring Avenue facing the Italian settlements and the total frontage os [sic] which is 100 feet on Sutton Road. The remaining 265 feet fronting on Sutton Road are in Zone B.

In Zone B the buildings must be detached and may occupy only 30 per cent of the lot area. The front yard must be at least 30 feet from the curb. There must be a side yard each side of the building aggregating 20 feet between buildings.

Mr. Murphy, who accompanied us, suggests that we take our plans to the township authorities and ask for a change in zoning. This by law they would have to refuse but it would then go before the Township Commission. It is very difficult to have such changes made. Hearings take place, neighboring property holders may object, etc. In any case it would be necessary for you to be present to help persuade them. I suggest that you try to draw your plans so that they will conform with the Zone D as it would be almost impossible to have them waive all zoning restrictions.11

There is a long and ambitious letter to Wright from Mallery dated April 29, 1938 in which the client makes suggestions for other, and more extensive housing projects by Wright’s hand. This letter begins,

I have prayed for a long time that I might help to find a solution to the housing problem. I feel that the prayers have been answered and that you are to have the ideas and I am to be a link in the chain of carrying them out.12

He describes what he sees as the seed of another opportunity to initiate something like Wright’s Broadacre City scheme, and ties this ambition to a program for national housing, saying, "Such a program can only go forward if technological advances take place in the design and method of construction. You are on your record the man to do this. The Universal Mind is working through you as His Instrument. The Ardmore design is an important step in this direction but others are necessary."13 Mallery ends this rather personal letter with the admonition, "Don’t get distracted by Florida or any minor objectives."14

He was genuinely interested in addressing the nation’s housing problem and followed stories in the current literature. The May edition of Fortune ran an article entitled "House not so

11 Mallery to Wright, 3/25/38.
12 Mallery to Wright, 4/29/38.
13 ibid.
14 ibid.
Beautiful" which Mallery referred Wright to, saying, "This is what we are aiming at!" 15 A letter of April 19 inquired about the previous publication of Wright's Broadacre City idea. 16

Wright's secretary, Eugene Masselink sent notice to Mallery upon their leaving the desert for Wisconsin that Wright's 'sketches" for Ardmore had been sent (Figures 1.3, 1.4, 1.5, 1.6 & 1.7). 17 Mallery responded a few days later after seeing Wright's design for the Ardmore buildings, apparently for the first time:

Congratulations! You have something. The plan appears to be a far-reaching innovation in housing, as important a contribution to building technology as the gas engine was to traction technology.

Your quartet house is to the suburban villa what the Diesel engine is to the steam locomotive... 18

Mallery was interested in all aspects of the design and critical of many technical points. His primary interests concerned initial cost and wearability. 19 He was vitally interested in overall costs throughout the project's duration. There is an undated piece of correspondence from Wright to Mallery that estimates the overall costs for sixteen houses as $70,000, including major furniture, roads, planting, and Wright's customary ten percent fee (Figure 1.8). 20 This total would have given Mallery's investors a cost of some $4,375 per individual rental unit. By the end of April Mallery was satisfied with Wright's initial estimates and telegraphed him,

IF ESTIMATE CORRECT ARDMORE HOUSES WILL BE BUILT. WHAT VOLUME NECESSARY IN LATTER OPERATION TO REDUCE COST SUBSTANTIALLY CAN I HOLD OUT TO HARRIMAN OF 3500 DOLLAR HOUSES IN QUANTITY PRODUCTION. THIS IS OBJECTIVE WHICH WILL UNLOCK LARGE CAPITAL AND EXPLODE BUILDING JAM ...

Throughout the process Mallery maintained an active interest in the specifics of the design, both in terms of planning and detailing considerations. As early as April 23 Mallery had asked questions concerning specifics.

15 Mallery to Wright, 4/24/38.
16 Mallery to Wright, 4/19/38. This letter includes "There are schemes afoot to create a community of 250 houses costing $4,000 each... near Philadelphia..." He qualified his interest by writing, "I could hand your ideas to a few people: Such schemes are too big for me as I will not borrow money." See Masselink's reply to Mallery 4/25/38 which mentions the Broadacre articles in the Architectural Record (April 1935) and the American Architect (1935). This is probably that for Carson College Mallery mentions in a letter to Wright 6/7/39. Mallery to Wright, 10/30/39.
17 Masselink to Mallery, 4/14/38.
18 Mallery to Wright, 4/20/38. (Note the technological references here as the basis of Mallery's admiration!) In this letter he also mentions his desire to patent Wright's ideas, in the architect's name, with rights for use and/or franchise ascribed to his Tod Company. 'Tod' was Otto T. Mallery's middle name.
19 The first of many such letters from Mallery to Wright suggested the possibility of revising details as Wright began to look at correcting the site planning for zoning considerations, 4/23/38.
20 This appears to be the draft of a telegram probably sent from Wright to Mallery before the latter's response on 4/28/38. Wright notes that he was to leave for Colorado in a few days and that he had to be in Florida by the ninth of the next month, presumably for work on the Florida Southern College campus.
21 Mallery to Wright, 4/28/38.
After his first extended meeting with potential investors Harriman and Wasserman he wrote with several questions and suggestions. In this letter he also asked Wright if he would mind building one fourplex first so as to test the design, gauge the cost, and work out any unforeseen difficulties before proceeding with the entire scheme. Mallery saw this building as the prototype for many more than the sixteen he was planning at the time.22

Mallery mentions investors several times. By April 21 Wasserman agreed to go along for one half the cost.23 A letter from Mallery after a meeting with potential investors in the project:

I spent many hours with Harriman and Wasserman over the week-end. Harriman will go along with us on the Ardmore experiment for a thousand dollars or two. He raises a number of minor objections and hasn’t enough background as to your past record to grasp the inner significance of this design . . . .24

Harriman was already investing in cinder block (a new technology) houses of about $2900 each, $4000 with land, roads and equipment: “He admits they are ugly and mere boxes . . . .” Wasserman asked Robert Davison of the Pearce Foundation, who was working toward $2900 plywood houses, to come and speak to them: “Several of his designs for the prefabricated house in plywood were modernistic and after your early designs. He paid you a high compliment and said any building you designed would have a market on its beauty above what anyone else’s house would have. He was surprised to learn that you were interested in low-cost housing.”25

Mallery also included a few questions about Wright’s Suntop design:

1. Is the mezzanine idea cheaper than extending that floor to the size of the living room? If so is it materially cheaper and is it an essential element of your design? 2. Would the kitchen get any daylight? Is the kitchen planned as the most important room in the house, as it probably should be for a large family house? I know your Jacobs and Wiley kitchens are ideal and I am sure you have given this subject more thought than is observable from your plans. Mrs. Harriman sticks on the kitchen. 3. Could we rig up a pulley and tackle to hoist the wet laundry in a basket to the roof? Several women think it is a deterrent to carry this heavy weight upstairs . . . .26

He asked if Wright intended to build a model and noted that the design seemed to conform to the zoning ordinance criteria for district “D”: “I am perfectly delighted to find that your layout seems to conform with all the zoning ordinance for Zone D. It is a miracle that it should do so and is the most economical use of land that anyone has ever conceived.” But, acknowledging that a portion of the site lay in another zoning designation, Zone B, Mallery noted, “I intend to go before the Zoning Board for a preliminary request to shift the whole property into Zone D . . . .” 27

In closing he suggested phasing the construction:

22 Mallery to Wright, 5/2/38.
23 Mallery to Wright, 4/21/38.
24 Mallery to Wright, 5/2/38.
25 ibid.
26 ibid.
27 ibid.
If it has your consent I would like to build one unit first and see if we want to make any changes before starting the rest. I suppose that it may send the cost up five hundred to a thousand dollars per house but it may be cheaper in the long run. In any case the first unit would cost more because the workmen would not know how the thing is to be done and the proper sequence. I shall be ready to start the first unit whenever you are, the sooner the better.26

Wright was wary of involvement with investors and with their 'experts,' saying of Harriman, that, "... while he is a fine type of man - his background and training all cut him off from any constructive act not dated way behind."

He replied to Mallery's specific concern with the design layout by adding,

"The mezzanine (or kitchen) is the milk in the cocoanut [sic], having sunlight and air direct and its access up to the enclosed roof area about the same as down the steps to the average back yard. This roof cleans up the neighborhood and keeps it clean." And he added, "We will build one group of four first if you say so, but it will cost more than half again as much for a single group to do this. Models always come high. ... The chief objection to building the one unit first is of course the advance publicity we would receive because they are going to close in on us rapidly you may be sure. The field is so empty that practically anything goes until something really creative as a solution occurs and then everything will rush to that and do it to death. Of course this vertical concentration is the cheapest thing on earth and as it is designed in "the Ardmore", charming as well.

You have seen many of its advantages but I am eager to show you many more I see you do not get yet. 30

Mallery met with resistance from the town zoning authorities who were afraid that the neighbors would protest multiple unit structures. 31 On May 18th Mallery pursued the zoning re-designation:

I met some resistance yesterday in asking for a change of zoning at Ardmore. The chap, who amounts to a township manager, could not get the idea at all. He also thought the neighbors would resist the application on the ground of multiple zoning. The next man to see is the Secretary of the Planning Commission, who is charged with the duty of drawing a new zoning ordinance. This might well include the zone specifically describing what we have in mind.

With the present tools I have in hand I am reluctant to tackle him. This photostatic copy, which is out of scale, is not a good thing to show anybody. I will wait until I get from you a blueprint showing the exact distances of the houses from one another and from the streets... 32

28 ibid.
29 Wright to Mallery, 5/4/38.
30 Wright to Mallery, 5/2/38. This letter opens with the passage, "Have just returned from the Colorado Springs Conference. Got caught, perhaps did some good but won't go to conferences except under duress. I cause too much confusion."
31 As in fact they did. See letter from Neighbors' Committee Chairman, Esposito in the Architectural Forum, December 1939. Mallery to Wright, 5/19/38.
32 Mallery to Wright, May 19, 1938. This letter also continues: "It occurred to me to suggest a new kind of zone, Zone BB, which would provide for an acre or two of ground to be used for a specific housing development with the following qualifications: 1. The construction of the houses must be equal or better than the average prevailing houses within a certain radius. 2. The proposed development must
Mallery concluded this letter with a telling comment on Wright's preoccupations; "I don't suppose you know enough or care enough about zoning to bother with this idea but there may be something in it." 33 (Mallery to Wright May 19, 1938)

Following this he 'toyed' with the idea of building fewer units or using another of several possible sites. One of these was a 17 acre site further out of town on which he might build one fourplex unit, "plus a layout of a community, plus one or 2 Jacobs type houses." 34 He went on to suggest that the first unit could be rented to a teacher from a local private school, the Chestnut Hill Academy, so as to "fix the type of tenant and define the community." 35

Mallery eventually applied for a patent on some of the ideas in Wright's design for the Sun-Top houses. 36 His summary of what he thought of as the patentable features was entitled "Memorandum as to patentable features of the Frank Lloyd Wright design for Ardmore" was sent to Spring Green on June 7, 1938. 37 It read as follows:

This design for a dwelling unit constructed upon a horizontal and vertical unit system of measurement differs from all existing types such as single family house, twin houses, apartments, flats, multiple houses, etc. It differs in outward design and in inner design from any existing type because the interior features make the exterior forms. The name of this new design for a dwelling unit is the Skytop Dwelling, copyright applied for.

Each dwelling unit is composed of four structures within a single rectangular block in which each dwelling unit is completely independent of the others. These four separate structures are called Ardmore Houses, copyright applied for. The interior design of each Ardmore Home differs from all existing designs of structures heretofore built for dwelling purposes and a patent is asked for this unique design as a whole.

Patent is asked on the design for the arrangement of one or more of these Skytop Dwelling units on a plot of ground. The exterior design has as one of its essential purposes certain relationships, later to be described, the inter relationship of each unit to other similar dwelling units.

Patent is also asked for certain details on the integral features of design as follows:

A design which results in a degree of vertical concentration within free horizontal expansion heretofore never obtained. All ducts, pipes, vents, plumbing, lighting, ventilators and chimneys are directly applicable where needed without being built into the structure itself.

The design results in great economy of outer wall area as compared to usable space and the wall area is less in proportion to the total cubic contents than any heretofore existing structure.

A feature of the design results in the four bathrooms in Four Ardmore Homes being served by one vertical drain, one water supply, and one light conduit.

33 ibid.
34 Mallery to Wright, 5/20/38.
35 ibid.
36 Notwithstanding Wright's Broadacre City decree for the free exchange of ideas.
37 Mallery to Wright, 6/7/38.
Another feature of the design results in the ventilation of each entire house through the roof through interior bathroom shafts.

An important feature of the design is the location of the kitchen, interior but sunlit at the center of domestic operation and supervision so that the occupant of the kitchen by vision and voice commands within easy reach all the usual activities on whatever floor conducted. In the design as shown these activities occur on three floors of which the kitchen floor is in the middle. A feature of this design is that the occupant of the kitchen while commanding the above activities on three floors also sees into the terrace-garden midway and into the neighborhood below.

A feature of the design is the use of materials in a way that completes the building in one operation. Floors and roofs are cantilever slabs of laminated wood.

A feature of the Skytop Dwelling unit is the device of arranging four Ardmore Homes so that no window or door looks out into a window or door of the same dwellings in the same unit. Each dwelling is unaware of the presence of the other in the same unit.

A feature of the design is that the occupant of the kitchen while commanding the above activities on three floors also sees into the terrace-garden midway and into the neighborhood below.

A feature of the design is the use of materials in a way that completes the building in one operation. Floors and roofs are cantilever slabs of laminated wood.

A feature of the Skytop Dwelling unit is the device of arranging four Ardmore Homes so that no window or door looks out into a window or door of the same dwellings in the same unit. Each dwelling is unaware of the presence of the other in the same unit.

A feature of the design is the arranging of 2, 3, or 4 Skytop Dwelling units on a given lot so that equal privacy is obtained for 6, 8, or 10 out of 8, 12, or 16 Ardmore Homes as though all 16 were isolated structures with no relationship to each other.

A feature of the design is the arrangement of 16 Ardmore Homes and 16 garages on a two-acre lot so that with a total [unreadable word] floor area of 12,560 sq ft the usable garden and lot area is 83.6 percent of the two acres. Each of the 16 Ardmore Homes has more garden space than has been the case with any previous arrangement of 16 homes with the same total ground area. The design which is applicable to 16 houses is applicable to more than 16 homes with the same proportionate results of areas of other sizes and automatically keeps the neighborhood sightly and decent.

A device incorporated in the design is a certain heating system without valves or radiators, installed in the gravel underbed of a concrete floor, the floor itself becoming the permeator or radiator.

Another element of the design is the servicing of a house of three floors with no water or sewer pipes under any floor or over any floor or within the structure itself.

Another feature is the design for electric wiring independent of floor structure or wall structure, the wiring being carried either resting upon fireproof material or when invisible inserted only in concrete or other fireproof material and itself becoming the light fixtures of the dwelling.

A feature of the design is the method by which a vermin proof and fireproof ground floor and vermin proof structure and fire resistant second floor (the balcony) is obtained including the elimination of paint, plaster, and wood other than of solid thickness and hence not only fire resistant but requiring the one operation of installation. Prefabrication made easy and economical.

A part of the design is the room arrangement by which a greater economy is obtained in the use of building material in proportion to the total cubage of rooms.

An element of the design is the simplification of structure by means of which each structural wall and floor is of a single material inside and outside or above and below.

An element of the design is the method by which four complete and separate fireproof houses are obtained with less than three walls to a house.

An element of the design is the arrangement of extending certain rooms above the roof enabling windows to be built by means of which the kitchen, bathroom, and bedroom is sunlit and in the [unreadable words] commanding observation of the activities upon the roof, the midway floor in which the kitchen is, and the ground floor below.

A feature of the design is that by which a greater amount of interior light, convenience and privacy for all is obtained for 16 houses than has heretofore been obtained in the same area or by any other arrangement.
A feature of the design is a roof arrangement or interior terrace by which complete privacy is obtained for drying clothes, sun bathing, and other domestic indulgences requiring privacy. The arrangement consists of:

- Making chimneys into firewalls and the firewalls into sound proof and fireproof screens between the four houses of each unit.
- Developing a new form and design of screen walls for the sides not facing the home part of the same unit. A patent is asked on this screen first as an exterior decoration and part of the essential pattern of the house; and second, for the design by which it sheds rain away from the base of the walls of the home and away from each structural piece of screen in descending waters.

A copyright is asked on the words "Skytop" and "Ardmore" in connection with any dwelling unit homes, or houses which contain any of the features above described.38

Mallery asked for Wright's comments on the Memorandum for the patent process. Wright's reply was short: "Concerning a scheme as elemental as this it is hard for me to say just what features or parts are patentable. I haven't been thinking in that strain and find it difficult to do it now. Seems to me you have stated the case better than I could."39 By the end of August Mallery's attorneys had completed the patent application.40

During this period Mallery kept up his efforts to find outside investors for large numbers of SunTop units to be built by franchise. The main target for his advances was the Equitable Life Insurance Company. He met with their representatives for an initial look over the plans on June 13. The Equitable concluded that Wright's building would cost too much to satisfy their requirements as low-cost housing. Mallery's investor were also to be influenced by this decision. Wright however was undetered and responded by telegram saying:

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38 There is no date on the type-written copy of this memorandum in the Taliesin Archives files. A letter from Mallery to Wright June 7, 1938 however refers to such a memo, asking for Wright's comments.
39 Wright to Mallery, 6/8/38. On October 16, 1938 Mallery sent to Wright a summary of the patent literature he had composed. This list was intended for marketing the design more broadly as was entitled, "FEATURES OF THE TECHNOLOGICAL ADVANCES AND INVENTIONS INHERENT IN THE FRANK LLOYD WRIGHT SUN-TOP HOMES" which reads as follows: "1. By building four houses back to back the structural wall area is reduced by about 16 [?] less than twin houses. 2. When sixteen houses (four units of four houses each) are arranged adjacent (sic) they leave more usable land, conform to standard zoning regulations, and give more privacy than do half the number of single detached houses on the same ar [sic] There are no backyards, only gardens and grass plots. 3. Far reaching economies are obtained by the elimination of chimneys, paint, plaster, and of parts of the foundations. Elimination is the keynote in the economies of the entire structure. 4. Further economies are obtained using cantilever floors and roofs and b (sic) using single materials in place of the usual combinations of material for floor and walls, etc. 5. The design permits saving in the costs of heat installation and plumbing. 6. The living-room, 30 x 16 feet and 17 feet high, is so commodious and so daylighted as to present a new design for living for homes of this price rang [sic]. 7. The Sun-Top roof offers privacy for sun bathing, summer evening dancing, etc., and two pent house bedrooms, heretofore a housing luxury. 8. The building is brick, glass and concrete, partly fireproof and partly fi (sic) resistant, with an extremely low insurance and maintenance rate. 9. Capable of mass production and standardization. 10. The company owning the patents will license their use for less than it wo [sic] cost the owner to employ an architect."40

Wright agreed to sign 49% interest in any patents developed out of the Ardmore buildings over to Mallery's Tod Company while keeping 51% himself. He also agreed to transfer of his interest to a company to be developed to license the design for construction by others at an unspecified later date.40
SAME OLD STORY. NOT THE COST OF BUILDING THAT KEEPS GOOD HOUSES OUT OF THE LIVES OF OUR PEOPLE BUT IT IS THE RAKEOFFS IN BETWEEN.41

Mallery met with the neighbors on June 13 to explain the project to them in anticipation of their vote at a zoning change hearing. Nineteen out of twenty expressed disfavor with the design, and voted against a zoning change: "The Chairman read the word "Experiment" on the plan and said "we want no experiment" - I suppose you are used to these rebuffs"42

The Lower Merion Township Board of Commissioners refused to consider Mallery's application for rezoning the Ardmore property.43 As he noted this made it impossible to continue with the scheme for four buildings along Sutton Road.

I have now had two months experience trying to explain the drawings. Only the most intelligent people can understand them. No group of people can get them therefore it is absolutely necessary for me to have a small portable model of the house before I can make any further progress...44

Mallery suggests in this letter that he is thinking of having four models made so that they can be placed in the correct relationships to one another and thereby demonstrate that these sixteen houses will "take up less space than eight and that a single family detached dwelling affords less privacy than the new sun top conception of apartment house."45 This letter however is prefaced by a note which describes Mallery's discouragement: "I have gotten myself over tired and have gone to bed for a rest cure for a few days. I shall refuse to receive callers or telephone messages."46

Wright responded:

We have been greatly worried about you. I hope the enthusiasm with which we started a better way of building on the road is hardening into determination. I realize the nature of the opposition. It is many sided but fundamentally weak because it is dead wrong. I am not discouraged at all by what has transpired and do not want you to be. ... We will make another approach (there are so many) as soon as you are on your feet again.

Unimaginative beyond the money matter and timid as sheep - these people with millions to invest you have not. No wonder our country is stalemate, stuck for lack of ideas. Not only has money (capital) no constructive ideas but I am afraid would not know one when it comes along to save their day and them too. That probably is true - but it is not the last word. There is always our tomorrow here with us today. We will

41 Wright to Mallery, 6/15/38. Mallery continued to pursue the Equitable for the next several years. His efforts to further the cause of Wright's contribution to affordable housing ranged broadly. There is one letter dated 3/22/43 from an acquaintance (name is unreadable) in England which Mallery had approached sometime earlier.
42 Mallery to Wright, 6/13/38.
43 Mallery to Wright, 6/19/38.
44 ibid. In this letter Mallery suggests a perceptual situation here in which an individual, with the aid of plans, etc. can understand the layout, but that it is beyond the perceptions of those in groups who cannot be addressed with the same attention.
45 ibid.
46 ibid.
find it and work with it and when we do succeed the results will be all the more gratifying... let's be philosophers having a good time with ideas and with life.\textsuperscript{47}

In another letter to Mallery a few days later Wright continued: "I know well, too, that the conditions of such perplexity, disillusionment and disappointment, on meeting their source calm down and build into deeper understanding and confidence in one's own health. ... You see, Otto Mallery is losing his old moorings where they were superficial and fixed to join in the work of a new and better world. The fact that it must be a different world isn't so easy to bear at first."\textsuperscript{48}

Mallery also received a letter from Henry Harriman at this juncture. Harriman had been appointed by the President to a Commission to study industrial relations. This effort took him to London from where he wrote the following:

I sincerely want to see Mr. Wright's type of building constructed, because I believe it is one of those interesting attempts that may point a way to better housing. ... As you know, I have been somewhat critical, but I hope only in a constructive way.\textsuperscript{49}

By the middle of August Mallery was in action again and requested that Wright hurry up fixing the model and complete the project specifications.\textsuperscript{50} "To make a real contribution in lowering the cost of housing," Mallery wrote to Wright, "you will have to put your mind continuously on the subject. It is the quest of the hour. Are you willing to do it?"\textsuperscript{51} By the last week in August Mallery was again getting ready to begin the first Ardmore building. He began pushing Wright to complete a model of one building so that he could show it to investors - or in Wright's terminology, "capitalists" (Figure 1.9). He was planning a first meeting in Boston right after Labor day. In his letter of August 22 he mentions the newly formed Bemis Foundation at MIT:

The Albert Farwell Bemis Foundation has just been created as a part of the Massachusetts Institute of Technology. Its purpose is to be helpful to the building industry with research. I am in communication with the director, John Ely Burchard, who is one of those willing to examine the model at that time in Boston. He says: "It would certainly be helpful to us to know about any contribution that so well known a man as Frank Lloyd Wright has made."\textsuperscript{52}

\textsuperscript{47} Wright to Mallery, 6/27/38. As a later, and humorous, response to Wright's ravings about capital and capitalists Mallery sent him a published list of companies he acquired while visiting Havana as a delegate to a Pan-American labor meeting the next year and wrote, "Nemesis has found you! You are a vile capitalist like me! You are a Director of the Tod Co. - The Tod Co. keeps company with the N. Eng. Telephone Co. & U. S. Steel, as you will see on enclosed. It actually ranks in position and capitalistic sin the U. S. Steel Corp.!! - Alas! Woe! Woe to Wright!" Mallery to Wright, 11/22/39.

\textsuperscript{48} Wright to Mallery, 7/8/38. The Malleries plans to visit Wright at Taliesin were canceled as a result of this infirmity. The Wrights and the Malleries had become good friends. In this string of notes back and forth Wright expresses his concerned with Mallery's condition.

\textsuperscript{49} Harriman to Mallery, 7/1/38.

\textsuperscript{50} Mallery to Wright, 8/14/38. In this letter Mallery also mentions to Wright that Claude Bragdon's biography "says some nice things about you."

\textsuperscript{51} ibid.

\textsuperscript{52} Mallery to Wright 8/22/38.
Wright apparently brought the model himself to New York in mid September.\footnote{See transcripts of telegraphs in Archive collection: Wright to Mallery, 9/9/38, and Mallery to Wright 9/10/38.} John Hayward, the patent attorney Mallery had engaged to work on the Ardmore case, saw it and wrote to Mallery "with great enthusiasm."\footnote{Mallery to Wright, 9/17/38. Mallery ends this letter with a note on his improved condition: "We have had a splendid summer and all are now in the pink of condition. My only regret is that we have not yet seen the Taj Mahal, MT. Everest, or Taliesin." See also Mallery's first mention of Hayward - Mallery to Wright 4/20/38.} Hayward photographed this model while it was in New York for the patent application package.\footnote{Mallery to Wright, 10/2/38. The New York patent lawyer John Hayward was Mallery's brother in law.} It is a model which Masselink would later describe as the best Taliesin had ever constructed.\footnote{Masselink to Mallery 1/7/39.}

Mallery was anxious to receive the full building specifications so as to begin a process of estimating the cost of building one structure. Wright was concerned that they would not get reliable cost estimates from local sources "on a thing as new as the Quadruple" and suggested that he send someone to Philadelphia to help Mallery's team with proper estimates.\footnote{Wright to Mallery, 9/26/38.} Wright even at this point suggests that he could provide Mallery with a builder. By the first of October Mallery was willing to proceed should his estimates correspond with Wright's, but was getting concerned about the upcoming winter months hampering the building schedule.\footnote{Mallery to Wright, 10/2/38.} He had located a local builder who was interested in the project, a Mr. Finkboner.

By the first week in October Mallery finally saw the SunTop model himself while Finkboner was beginning to collect estimates on materials.\footnote{Mallery to Wright, 10/6/38 and 10/8/38.} By the middle of the month they were filling out the application forms for the building permit.\footnote{Mallery to Wright, 10/15/38.} Due to the fact that Wright's initial site plan had not conformed to the more restrictive zoning area, and to the refusal of the township to grant them a change in zoning - the neighbors protest vote, etc. - it was necessary to restudy the siting of the buildings. Mallery noted that he was mailing to Wright a "pencil tracing of the proposed location of two houses on Ardmore plot which complies with zoning rules."\footnote{ibid.} This revised site plan was needed as a part of the building permit application.

Mallery was concerned with their preliminary estimates for the Ardmore buildings, fearing that the units could not be rented profitably for less that $60 per month, a figure too much above his $55 goal.\footnote{Mallery to Wright, 10/30/38. Harriman had recently built 50 small "workers houses" for some $3,000 a piece and sold them for only $31 per month, a figure Mallery considered excellent. Harriman admitted that these buildings were "ugly and mere boxes." Also see Mallery to Wright, 5/2/38.} His investor Harriman suggested estimating the new material cinder blocks, in lieu of brick as a way of bringing the cost down.\footnote{Mallery to Wright, 10/20/38.} Harold Turner's preliminary estimates were not much different from Finkboner's, both were higher than the estimate originally provided by
The initial estimates had been $70,000 for sixteen units, or $4,375 per unit. This would have given a cost of approximately $17,500 per quartet building.

Mallery worked with both Turner and Finkboner to determine in advance the cost of a single quartet building. His first letter to Wright detailing this process also listed a number of suggestions for reducing the cost of the building (11/8/38). The estimate they developed was for $23,537.16. To this preliminary figure Mallery added $5,000 for land, architect’s fees, roads and planting to create a total of $28,537. This would be a single unit cost of $7159.25 for each of the four units. He wrote that they must find ways to reduce this cost by some $3,500 per unit before going ahead with construction. Throughout the entire project Mallery’s aim was to build a low cost housing unit that could be rented for less than $55.00 per month. This would require a construction cost of not more than $5000 per unit or $20,000 for a quartet building. On the first he was willing to spend more than this as an investment, thinking that further cost reductions could be gained once the first one was tested.65

Mallery’s letter to Wright (11/8/38) suggested what he thought were many cost reducing changes in the design and construction. These ranged from slight rearrangements in plan and design to construction specifics such as ventilation and glass sizes.66

In a summation of the situation to date Mallery wrote to Wright:

You have conceived a beautiful design and a most livable but not a low-cost one. Hundreds of attractive houses are being built here and offered for sale at between $6000 and $7000. There are not enough people able to pay this sum, or the rent on it, to make a good market for a large number of these. At present estimates we would be competing for that market which is already well taken care of. The bull’s eye will be struck only when an excellent house can be built for $5000, which is what you originally thought these could be built for on a large scale. I believe that by altering your specifications and design there is still a chance that you could do what you set out to do. In that case I would be able to command capital and enthusiasm to make the contribution to the solution of the house problem that you, and perhaps you alone, are capable of making. And in that case the patents would have some value.67

Wright called Turner back to Taliesin to go over the estimates with him personally and by November 14 he responded to Mallery.68

The figures have gone far enough so there is no reasonable doubt that Suntops can be built in groups of 16 or more for $4500.00 and built well. I remember telling you a single

64 Mallery to Wright, 11/4/38. Mallery notes he was still waiting for the revised site plan study from Wright. In a letter dated 11/5/38 Mallery mentions seeing movies of the Ardmore model.
65 Mallery to Wright, 11/8/38.
66 ibid.
67 Mallery to Wright, 11/9/38. A breakdown of Finkboner’s estimate is included in the archival collection, dated 11/10/38.
68 Masselink to Mallery, 11/10/38 and Wright to Mallery 11/14/38.
model could not be built for less than 30% more - perhaps more than 30%. And that is what has happened.\textsuperscript{69}

Wright and Turner thought that quite a bit could be shaved off of these estimates, some by economies in labor and some by making the minor changes Mallery had suggested in his letter 11/8/38. Mallery agreed to build one unit if the cost could be kept to $21,000, not including land and fees, etc.\textsuperscript{70}

By November 26 Wright had returned a plot plan which conformed to the existing zoning rules (Figures 1.10 & 1.11).\textsuperscript{71} The building plans were eventually filed with the town of Ardmore on December 28, 1938.\textsuperscript{72}

The model of the SunTops project arrived at the Bemis Foundation of MIT just before the end of November 1938 in a very broken condition.\textsuperscript{73} Mallery asked the Bemis Foundation to support the Ardmore building experiment, and especially Wright's work, in the interests of housing research.\textsuperscript{74} Along these lines Mallery was also interested in establishing a housing materials cooperative buying organization among Wright's clients.\textsuperscript{75}

\begin{footnotes}
\item[69] Wright to Mallery, 11/14/38. In a short follow-up note, Mallery says "I am proud of your "Williamsburg" letter to "Tribune" - it is gentle, eloquent and persuasive." Mallery to Wright, 11/14/38.
\item[70] Mallery to Wright, 11/17/38.
\item[71] Mallery to Wright, 11/26/38.
\item[72] Mallery to Wright, 12/28/38. There is a discrepancy in the correspondence record: The first correspondence available is dated 1/7/38, from Mallery to Wright. This however suggests by several particulars that the design of the project was well underway: "Miss Helen Ceons, editor of Good Housekeeping, is a friend of mine. I have not told her about the Sun-Top design. Do you see any reason why I shouldn't? She might take it over bodily for her magazine and push it. I feel some obligations to Howard Meyers of the Forum if he wants it . . . ."
\item[73] Burchard to Mallery, 11/28/38. "The model arrived Saturday afternoon but I must say in very unsatisfactory condition. It seems to have been almost completely shattered." In a follow-up letter Mallery says that the model had been in very poor condition when it was shipped from Philadelphia. Mallery to Burchard, 11/30/38. Mallery had the model shipped directly to Taliesin on December 1 for repairs. Mallery to Wright, 11/30/38 and 12/15/38. A note from Mallery to Wright dated 12/29/38 puts the shipping date as 12/5/38. On 1/18/39 Mallery had the last word on the model, writing to Masselink to ask him not to attempt to rebuild the model, say that the photos they had of it would suffice: "It was an exquisite production and it is pitiable that a thing of such beauty should have been demolished."
\item[74] Mallery to Wright, 12/2/38. "Their object is research in housing and you could do more research for them in a week than they are likely to do in a year."
\item[75] There is an incomplete letter to Mallery responding to an inquiry about cooperatives in the Taliesin microfiche file. This letter was forwarded to Wright and is filed as Mallery to Wright, 12/5/38. It is interesting enough to pursue and mentions a man called "Jack" who was apparently a friend and who was about to publish a chapter on Scandinavian cooperative housing experiences in a forthcoming book. Mallery's articles of cooperation are recorded in the Taliesin Archives as well as undated. He suggests that the cooperative would be involved with saving money by joint purchasing of materials for at least 25 Frank Lloyd Wright houses.
\end{footnotes}
PART ONE / Chapter One

A misunderstanding developed between Mallery and Wright over the issues of fees, schedule, and extent of construction intended. On December 10th Wright sent an extended schedule of fees to Mallery based on plans to construct a group of sixteen units. Mallery wrote back saying that he was prepared to pay further only for what was being constructed at any specific time, beginning with the first quartet building when it got under way. Wright responded in a surprised note. He had maintained all along that Mallery commissioned him to design sixteen units and that the design for these had been approved and plans ordered. He again asked for the next installment of his fee, this time a bit more forcefully. Mallery returned:

There has been a misunderstanding between us. I have never decided to go ahead with the group of four Sun-Top units for sixteen families. I was exploring the possibilities of four units and also of one hundred units, but I will not build or recommend the building of more than one unit until we have found out how much one costs and what the public acceptance is...you are an artist and it is a desert well that is talking to you.\textsuperscript{76}

Mallery however included with this letter a promissory note for Wright to sign as a guarantee of repayment for $1,600 he agreed to send in advance anyway: “I think you are a fine fellow and a great man but I am not happy over this incident.”\textsuperscript{77}

In a letter meant to clear the air between himself and Wright, Mallery wrote:

Your conception of a modern house made available, by reason of new ideas in design and construction, to families of moderate means, appeals to me strongly. I am interested from a social as well as from a pecuniary point of view. My approach to the subject led me to regard us as engaged jointly in an experiment in a building operation having distinct social values as well as financial possibilities. It is none the less, an experiment. I believe that it will be successful, and that it will warrant expansion. I believe also that the test of experiment should precede definite commitment to expansion. Meanwhile I have persuaded others to believe in the necessity for this experiment.

It is quite reasonable, such having been my approach to the subject and to your participation in it, that I should not have undertaken to commit myself, definitely, to the construction of a group of four units, or of any number of units. It was, and is, my aim, if experimentation with one units indicates its availability, to precede with the construction of further units; and to that end I have been reorganizing and refinancing the Tod Company, through which the construction program is being handled \ldots \textsuperscript{78}

Mallery went on to recall their discussions concerning schedule and commitment, all the while trying to reassure Wright that he intended to build at least four quartet structures. For investment and for cost reduction reasons he, however, held fast to the goal of building one first to test for problems and further efficiencies.\textsuperscript{79} But he continued:

\textsuperscript{76} Mallery to Wright 12/19/38; See also Wright to Mallery 12/10/38; Mallery to Wright 12/12/38; Wright to Mallery 12/16/38.
\textsuperscript{77} Mallery to Wright, 12/19/38.
\textsuperscript{78} Mallery to Wright, 1/18/39.
\textsuperscript{79} This letter is one of many in which Mallery recounts his record of paying Wright's fees ahead of schedule and beyond what he understood as his strict contractual commitments.
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I hope to be in Arizona the first week in February, when we may be able, in personal conversation, to restore the harmonious relations that I have thoroughly enjoyed. But it is important that there be no delay in starting construction of the first unit at Ardmore. A recent federal appointment of some importance will shortly require much of my time and may send me abroad. I must see that the Ardmore project is initiated before other duties occupy my attention. . . .

You and I ought to make a good team. You have originality and genius. I have a social point of view and have demonstrated my ability to explain your idea to investors and to raise money for it. It would be a great pity for us to part company. I assure you of my regret that any misunderstanding has occurred and of my desire to adjust the question in dispute and of my hope that we may continue to cooperate in a program which I believe to be of great merit.

Wright took the blame for this misunderstanding and things again moved along. Before the end of January 1939 the Zoning Adjustment Board at Ardmore approved the Sun-Top design for construction of the first quartet building. The Building Department still, however, had several questions before it would grant approvals. As Mallery and family took a winter vacation at the Jokake Inn outside Phoenix, a Philadelphia law firm handled the correspondence in his absence. The Superintendent of Building Inspection raised a number of objections based on building code violations when the larger Committee met on February 8th. The Committee was responsive and interested but unwilling to “grant a blanket permit to proceed subject to construction tests to be made during the progress of the work.” This would have extended the kind of arrangement Wright managed to convince the building inspectors to approve in connection to the structural design of certain aspects of the Johnson Wax Administration Building nearing completion in Wisconsin. But in this case the Committee “stated that such an arrangement would in effect be authorizing a construction which violated their building code and their responsibility did not permit them to take such action.”

They expressed appreciation of the eminence of Frank Lloyd Wright as an architect and inventor, but they insisted on being shown, in advance, that the construction was adequate rather than await demonstration during the performance of the work.

80 ibid.
81 ibid. Wright wrote to Ludd Spivey, President of Florida Southern College, the next day saying: “There is a situation here. 40 people spread around in the cactus without a suitable home yet. Something like Brigham Young and his Mormons I guess. But we will change all that soon.” This letter was signed by Wright with the title Rockledge - they had not yet settled on the name Taliesin West.
82 Wright to Mallery, 1/20/39: “MISUNDERSTANDING PROBABLY MINE SO WILL ACCEPT TERMS OF YOUR LETTER OF 1/18/39 KINDLY MAIL CHECK . . .”
83 Mallery to Wright, 1/30/39.
84 Mallery to Wright, 2/1/39.
85 Yocum to Mallery, 2/9/39.
86 See Frank Lloyd Wright and the Johnson Wax Buildings, by Jonathon Lipman. Rizzoli, 1986. In that case Wright built and pre-tested a structural column for strength before their actual use in the building. Here he wanted to proceed with the building itself.
87 Yocum to Mallery, 2/9/39.
88 ibid.
These objections included enlarging the size of some of the bedrooms to meet health code recommendations, increasing the foundations from 12" wide broken stone to concrete or masonry, enlarging vent protection, thickening certain floor slabs, increasing the thickness of the wooden floor on the mezzanine, and replacing "usonian" plywood based partitions with conventional stud walls.89 The attorneys noted that many of these changes could perhaps be avoided if clear explanation was given to the Committee. But, they also observed that since the Ardmore building code was rather typical, such objections would probably be raised wherever Wright and Mallery attempted to build similar structures.90

One month later, after Mallery's personal interventions, the Ardmore Building Committee suspended the requirements of their building code entirely on the grounds that, "This design has no relation to any existing code."91 Mallery conveyed Turner's opinion that the group was "far more intelligent and progressive than the Great Neck authorities" (referring to the Rebhuhn House) and added his own ray of hope, "So you see Philadelphia is stepping away from the Liberty Bell toward the Future."92

Turner intended to start construction by mid-April 1939, before Wright left for England to give a series of lectures later published as An Organic Architecture: The Architecture of Democracy.93 By the first week of May the foundations were in the ground and Mallery was able to announce that the United States Patent Office had, through his efforts, granted Wright a patent on the SunTops design, saying that this was, "...the highest recognition an architect has ever possibly received. In what would be a prophetic note Mallery also added that "Turner thinks the heating plan is the most important of all patentable features."94

With the successful beginning of construction and the great interest that the project began to generate, Mallery was optimistic and related this in a letter to Wright while he was in England.

89 ibid.
90 ibid.
92 ibid. Wright sailed to England on the Queen Mary April 21, 1939: Masselink to Mallery, 4/1/39. [See Architectural Forum, 71 December 1939 for letter from J. V. Esposito (Chair, Neighbor's Committee), p 26 and from Vernon Harrison, November 1939, p 82. Architectural Forum January 1948, pp. 80-81, Architectural Forum, 71, August 1939, "Usonia Comes to Ardmore," pp. 36, 142-3, From Frank Lloyd Wright Versus America, D. L. Johnson, pp. 400 - the title of this book is a play on Talbot Wegg's article about Pittsfield in the AIA Journal, February 1970, "Frank Lloyd Wright versus the U. S. A." ]
94 Mallery to Wright, 5/5/39. I have not been able to locate this patent in the U. S. Government record. Mallery pursued a second patent on Wright design of an under floor heating system but ran into a statute which required that such an application be made before an invention was in use for two years. Apparently the use of this system in the Jacobs House in Madison over two years earlier precluded its patenting. (This is not conclusive, but suggested by correspondence and by the lack of any final action. See Mallery to Masselink, 5/23/39 & Masselink to Mallery, 5/25/39.) There is however record of another patent granted to Wright for certain aspects of the design of the Johnson Wax Building. This one is dated July 26, 1938: #2,124,809 With regards to the Ardmore patents, Wright took a back seat as is indicated by Mallery's spearheading the application process, and by his interest in licensing others to build these units. Responding to Mallery's concern that publication of details will enable other builders to circumvent the licensing process, Wright wrote on 8/8/39, "I don't know how far we will need to go to defend our patents. I think only as far as threats."
Mr. Turner has completely won the confidence of the Building Board and everything is running smoothly. Turner is an extraordinarily fine character and convinces everyone of his sincerity and trustworthiness.

We are all proud of the honors that are being paid you in England. From the hard knocks I have received on a tiny scale in this one enterprise I realize how much courage and endurance is required from you to carry through all of your inventions. Americans are a more conservative people than we know ourselves [sic] to be.95

By the middle of June, Mallery could write that building was on schedule: "Everybody admires them. You have performed a miracle of economy and simplicity. As one stands in the kitchen and looks out the living room window one realizes that a new design for living has been born".96

Mallery was interested in having Wright design “a distinctive symbol or emblem” for each of the four units. So that, he suggests, “residents would not have to refer to a number only.” One reason for this request was the realization that not all of the entrances would be visible, or understandable, from the street. He thought that such an emblem might help give each occupant a unique and recognizable identity.97

By the 19th, Henry Wright of the Forum had visited the projects and was in the process of composing an article.98 By this time Mallery had also signed tenants for the four units: a man who worked for the Philadelphia Museum of Art, a high school teacher, an archeologist, and either a planner or a university professor who was a friend of Herbert Jacobs.99 The rent was set at $55 per month, the figure Mallery had aimed at from the start.

Mallery noted in a later letter that Joseph Hazen Jr. of the Architectural Forum was also preparing an article on Suntops and that he had submitted a long questionnaire to Mallery in connection with this article. He asked Wright’s opinion of publishing the project at this early date. Wright returned by asking him to keep it out of print for as long as possible.100 Later correspondence from Mallery to Architectural Forum editor Howard Meyers requested that the magazine honor Wright’s request to postpone this article.101

Mallery was excited when the first structure was finally completed as indicated in his letter to Wright:

95 Mallery to Wright, 5/18/39. There is a “heartening letter” from Wright to Mallery upon Wright’s return from England to which Mallery refers on 6/10/39.
96 Mallery to Wright, 6/16/39.
97 ibid.
98 This is not the same Henry Wright who worked with Clarence Stein; that planner died in 1936.
99 Mallery to Wright, 6/19/39. Mallery notes in this letter that he has taken about 250' of color movies of the construction process. (Indira Berndtson has informed me that Mallery’s daughter has recently given Taliesin some color movie footage on the Ardmore buildings and that they are in the process of having this restored as of May 30, 1994).
100 Wright to Mallery, 7/4/39.
101 Mallery to Meyers, 7/7/39. But it was published with photos in the Architectural Forum, August 1939.
The Suntops are beautiful! I am delighted. Such grace, simplicity and order! Congratulations.
This is one of your greatest art achievements. Even the dumb-bell neighbors who tried to prevent their erection appreciate them now. Mr. Rahn, the old superintendent of Building for Lower Merion Township, who delayed them for months, is now enthusiastic....
The ventilation works splendidly. With a temperature of 87 degrees outside, it was positively cool on the mezzanine and a rising air current was felt.102

In this letter Mallery expresses his interest in licensing the Suntop design to be built as low-cost housing elsewhere by others. He wanted to make money by doing a service to the country as well and asked Wright: "Some of the best minds in the country are engaged in the problem of low cost housing with so far unimportant results. Can you succeed where others have failed?"103

The first structure cost about $21,500. With additions for land, architect's fee, road, appliances, etc., the total cost was closer to $28,000.104

This is quite a bit more than the initial estimate provided by Wright of $70,000 for all four Suntop buildings, or some $4375 per unit. His later justification of a 30% increase due to construction of a single unit would account for no more than a $5800 unit cost. But Mallery was satisfied and the units rented for his $55.00 per month figure.

Mallery suggested to Wright that while he was in Philadelphia to discuss the building of the next three Suntop buildings with the Tod Company Board of Directors, he meet with the Ardmore Commissioners at the site, "...as we still have some favors to ask of them." He continued saying,

They are now most enthusiastic and are patting themselves on the back for their aggressiveness. The two tenants already in possession will delight you. They are as happy as pigs in clover. Benson, Director of Education of the Philadelphia Museum of Art, is a follower of yours; Barnes, a teacher in the local high school, had not known of you. They get the real feeling out of the house that you intended and are able to put it into words.105

102 Mallery to Wright, 7/28/39. On the opinion of the neighbors, the Chairman of the neighbor's Committee wrote to the Architectural Forum in protest of their August 1939 article "Usonia Comes to Ardmore," saying: "... My neighbors' objections, and my own as Chairman, are a matter of public record. It will be found that no approval was given at the hearing and that none has been given since. / Our disapproval, for the information of all concerned, will again be voiced most vigorously at a public hearing which is to be held by the Commissioners for the purpose of considering proposed changes in the existing zoning ordinance which have been applied for so that, if approved, they could build more of those "Desert" homes. / This, I believe, should be conclusive proof as to the neighbors feelings in the matter ...." Letter to the Editor written by J. V. Esposito, Chairman, Neighbors' Committee and published in the Architectural Forum, December 1939, p 26.

103 ibid.
104 ibid.
105 Mallery to Wright, 8/12/39. By this point Mallery had changed the stationary to reflect the patents: "Suntop Homes," it read, "The Tod Company - Owner, Builder and Licensee under Frank Lloyd Wright Patents."
Wright’s meeting with Mallery’s Board of Directors went very well according to Mallery’s follow-up letter. Wright suggested that they build not three but ten more Suntop buildings based on the success of the first one. He told the group that he thought it possible to reduce the cost to nearly $15,000 per quartet building when built in groups of ten.

Responding to Mallery’s enthusiasm, Wright noted in early September (9/2/39) that he was "going over the plans" with the intent of finding ways to reduce the costs further.

We are prepared to guarantee to produce ten units first class in every respect - at an outside cost to owner - key in profit - for $16,700.00 complete. Grading, seeding, gravel, drives, and a certain amount of planting is included.

"Harold will send you a formal bid whenever you want it." 107

Mallery pressed Wright for more exact figures on further Ardmore units. A few days later Wright wrote to Mallery again concerning the idea of selling or licensing the Suntop design: "The total cost of the units will be $16,750.00. Included in that sum are the architect’s and builder’s fees. And there should be added to that $1000.00 for the Tod Company making a total cost to the owner $17,750.00 per unit on a basis of ten at a time." 108

At this point Mallery intended to complete the three units they originally planned and was interested in Wright’s thoughts about a further group of ten. But he continued to express some concern over the cost of the Suntop units as built. He asked Turner to confirm Wright’s estimate with itemized details and wrote to Wright,

I know you are working hard on the Model B Suntop and hope you will get another brilliant new idea.

The Model A is not nearly as inexpensive as we hoped. Not many of them will be built if the rental price is to be $55 per month. As you know, the national market would be for something which rented for very much less. It would seem that the Jacobs house is a less expensive house in every way except as to the use of land. It has of course not as many sleeping rooms, etc. However it is nearer to the national need than the Suntop Model A, whereas Model A is a much more desirable design for living . . .

There are very few weeks this season for you to do the new inventing necessary, for Turner to estimate its cost, and for me to persuade others that both of you are right. Please put on your thinking cap. It may be now or never. 110

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106 The Board of Directors of the Tod Company included at one time or another in the process of dealing with Suntops Henry Harriman, Sterling Rockefeller who also owned land next to Taliesin West and whom Wright had met in Phoenix with the Mallerys, Horrocks and Yocum (Yocum to Mallery, 2/9/39), and Crosby (identify - Mallery to Directors, including Wright, 3/5/40), and Wright. (See "cc" note on Mallery to Wright, 10/27/39) There was a wider variety of stockholders involved with the Tod Company. These included Mallery’s family, Mr. Harriman, a Mr. Camp who was head of the Chestnut Hill Academy, and Mr. Fels who was president of Fels Naphtha Soap Company and a well known progressive industrialist: Mallery to Wright, 1/7/38.

107 Wright to Mallery, 9/2/39.
110 Mallery to Wright, 9/15/39. See Mallery to Wright, 11/8/38 for an earlier use of the $55.00 per month figure.
At the same time Wright was addressing his side of the problem, “I have been taking Ardmore apart and putting it together again.” He also suggested that they consider building more units further west, near Chicago or Milwaukee (Wright country, as in “American begins west of Buffalo”) as both he and Turner thought that the East was too expensive. “If Eastern Capital is still shy of the project,” Wright suggested, “I am confident we can find plenty of cooperation Mid-west.” In this letter he also noted that he was altering the method of construction so as to “allow the process of standardization to work as originally planned.”

Later in the month Mallery was still interested and wrote:

When I first grasped your Suntop design I saw in it an invention of the first order, a technological advance of far-reaching possibilities. So far they have not been realized. If you can realize them by further study and inspiration you will rank with Edison.

On October 6, 1939 Wright informed Mallery that he was “unwilling to build another one like A . . . .” due to the changes he was making in the design leading up to model B:

I find that the Jacobs House has only one hundred and twenty feet less enclosed floor area than Ardmore, is all on the ground and exposed on four sides. It cost $4.25 per square foot of enclosed space. Ardmore $4.75. If Jacobs is fair at $4.25, Ardmore should cost $3.75. But square foot figures are a rough approximation. I was aware of the waste we would incur in constructing a model - of course. But there are excess costs because my ideas miscarried. No one’s fault so much as the circumstances . . . .

I thin [sic] a young couple wanting to get married and seeing on [sic] available at rent they would have to pay for relatively unattractive unfurnished quarters would get married and move in.

I do not think Ardmore is within slum clearance possibility but is in line against making more of them by affording young people earning small wages to have a superior way of life where now there is really nothing. Let us say that Ardmore is addressed to the upper lower “brackets” in our life. That would include those with champagne appetites and beer incomes which are the real mass of such a capitalism as ours.

Now as I have remarked - I do not think Philadelphia or the belt I call a little one-horse England is so fertile a ground for the growth of the Experiment as the Middle West - West and South. “Conservatism” there is three parts fear, one part materialism. The “Ideal” is already established.
So I am getting figures for some near Milwaukee and Chicago. I took the plans and the new type Jacobs Houses we are building down to Washington to FHA and sat with their engineers and control men.

All seemed sympathetic and inclined to be helpful but I have nothing official yet on an eighty to ninety percent loan under which any one with ground - his architect cooperating could build an Ardmore.\textsuperscript{115}

On October 10 Wright sent his “revised figures” to Mallery saying,

We could build the quads anywhere in the U. S. A. for about 10\% less than in Philadelphia. I would cheerfully undertake to get them up near Milwaukee and Chicago for $3800.00 per dwelling or $14,000.00 per quad - and what a superior building fabric it would be technically.\textsuperscript{116}

By October 17th Mallery had received the revised plans for model B and was dutifully impressed with the changes and with Wright’s responses to his specific queries - “You have got something. The new plans have a number of valuable innovations worthy of your cranium” (Figures 1.13, 1.14 & 1.15).\textsuperscript{117} Mallery organized a meeting of his Board of Directors who studied the plans and agreed to build the three remaining Suntops pending a number of changes they suggested.\textsuperscript{118} Mallery listed these in a letter to Wright on October 27th:

The Directors have studied your plans and are very much pleased with the estimates. There are certain changes in the plans and specifications which we have agreed upon here, and we desire you to incorporate them in amended plans, which we all ask you to prepare at your earliest convenience so that we can submit the plans to contractors for bids at once. As some of them are not clear in abbreviation, I will ask Mr. Turner to discuss them with you in detail. None of them have to do with design or outward appearance, or, if they have will be modified to secure your complete approval. You are the master of design and nothing that does not suit your excellent taste in design is desired.

1. Move penthouse wall, changing ceiling heights.
2. Different wall material for each of the three units, including cinder blocks, concrete, and possibly sand tile.
3. Change floor specifications.
4. Move front door to opposite stair.
5. Eliminate jag in living-room.
6. One coal heating plant for each unit; sink heating plant 7 feet.
7. Provide coal bin under one garage.
8. Insulate underneath the master bedroom.
9. Eliminate wall between water closet and tub.
10. Reduce size of living-room glass, use rolled glass in smaller panes.
11. Enlarge storeroom at expense of living room.
12. Eliminate ponderosa pine, using cypress or other material.

\textsuperscript{115} ibid.
\textsuperscript{116} Wright to Mallery, 10/11/39.
\textsuperscript{117} Mallery to Wright, 10/17/39. This letter contains many suggestions for further cost reductions by Mallery.
\textsuperscript{118} The issue of zoning area “B” and the rest of the Sutton Avenue site has not yet come up clearly in the correspondence. Where they intending to build two units across the street at this time?
We have concluded to build three units at Ardmore, Pa. if permits can be obtained and if satisfactory bids, reasonably close to your estimates, are obtained. . . . 119

"Thank you for the ____ [unreadable word]. But my 'design' does not mean quite what your directors seem to imagine," Wright responded, "... judging from the peremptory [sic] demands for changes which are all against the nature of the design."120 "I respect fully submit," he continued:

1. The ceiling heights requiring much study to fix can not now be changed without detriment to the 'design'.
2. There should be only one material for the proposed three units and the material should be the one which has been woven in with the vertical breaks of the design to secure integral effect. That material is coursed concrete for which only brick may be substituted in courses.
3. The floor specifications as they stand are essential to the design.
4. Can not move the front door without detriment to the design.
5. Jog in Living Room can not be eliminated for the same good reason.
6. Would like more intelligent consideration given to the case for the combined heating unit. The proposed coal burning unit will be hopelessly 'out' within three or four years.
7. 8. Already provided for.
9. Do not advise this for many reasons, all good.
10. This is inadvisable cheese-paring.
11. This is an error in judgment.
12. Cypress is already available at no extra cost . . . .

These requests for changes show the folly of sitting in judgement [sic] upon a difficult and intricate piece of architecture without your architect. It is for the first time in my experience. And I am, of course, unwilling to proceed with the building of the three units without provision for a clerk of the works as specified in all our endeavors.121

Wright was in Philadelphia at the beginning of November and met with Mallery to discuss both the list of questions and their respective roles in the process. Both of the men recorded their thoughts in follow-up letters to one another. Mallery wrote:

No one understands another man completely. You and I understand one another better than most people do and shall be able to work together all the more smoothly because of the frank talk we had last night . . .

Of the twelve suggested changes in Suntops, after our conference Mr. Horrocks and I withdrew nearly all . . .

It is certainly true that we laymen are not capable of sitting in judgment upon an intricate piece of architecture without your presence to explain the why and wherefor [sic]. So in future we hope you will tuck your plans under your arm and come to us, thus avoiding useless lucubration [sic] on our part. . . . 122

Wright's response was similarly, and perhaps uncharacteristically, apologetic.

119 Mallery to Wright, 10/27/39.
120 Wright to Mallery, 10/30/39.
121 ibid.
122 Mallery to Wright, 11/3/39.
I really feel very sorry. I came away from Philadelphia realizing something I had not before realized concerning what you have been through with me. As I look at you in this new light I see what I might have done to make things easier for you and did not do so.

This last appeal to you now seen in that light was an unwarranted abuse. I do not forgive myself. For I understand now how far you really came with me and what it must have cost you to come so far.

For that reason you may count upon me not to make it more difficult for you than is absolutely necessary and to try from now on the [sic] compensate as I may from my side.

I am sending along several prints which are precious enough to be good entertainment. I hope you will accept them in the spirit in which they are sent.123

Mallery was touched by this letter and responded:

From reading your biography and from my own experience with trying to get new ideas accepted, both yours and those of other people, I know what courage, self-confidence, and patience are necessary on your part in dealing with your clients. All the time I am standing between you and a group of diverse minds. It is my job to absorb the shocks from both sides and bring about a resultant force which spells progress. Your letter is a great hearted and loving one and we will both try to continue in the spirit it eminates [sic].124

He also asked for a "fancy propaganda drawing of the four Suntop units on one side of the street" to exhibit at an upcoming zoning hearing. The Suntop housewarming held on November 4th had been a "great success."125

Mallery later acknowledged that the Japanese prints Wright had given him as a way of apology were things of beauty saying "When I paint I shall try to imitate their color scheme. They are treasures, so peaceful and poised."126 "I am enjoying the Jap. prints immensely" he wrote in a later letter, "They are among your finest. Such color harmony! And elimination!"127

In the meantime Mallery had been trying to parlay Wright's ideas into further building projects. He asked for Wright's plans for the houses associated with the Usonia I subdivision in East Lansing Michigan to show them to the Trustees of Carson College as an option for their next building project.128 Mallery received a subsequent correspondence from Arthur Binns, who was associated with the College, in which Binns reiterated some of the things they had apparently discussed. Binns thought that it would be inappropriate for the College to invest in $5,000 to $6,000 houses, but conveyed some interesting thoughts concerning another type of development:

123 Wright to Mallery, 11/4/39. By "prints" here Wright is referring to Japanese woodblock prints from his personal collection.
124 Mallery to Wright, 11/6/39.
125 ibid. Also see Mallery to Wright 10/30/39.
126 Mallery to Wright, 11/9/30.
127 Mallery to Wright 11/13/39. Note the use of the word "elimination" by Mallery here.
128 Mallery to Wright, 10/30/39. In this short letter Mallery also asks for the (rebuilt ?) model of Ardmore to be sent to him and offers to forward it to the Museum of Modern Art in New York which had requested it for their permanent collection.
The thing that is running through my mind is a recommendation like this - that we build on circular roads surrounded by beautiful plantings, trees and architectural details, a little cottage. This cottage ought to be without basement, constructed of stone or cinder blocks and composed of two bedrooms and bath, living room and a combination kitchen-dinette and with a shelter type garage, to have a total cubage of around ten thousand cubic feet and to cost for construction not over $2,000.00 per house. These houses to be rented at $25.00 per month under a permanent management basis.\cite{129}

I imagine few things more delightful . . . than have [sic] the privilege of working with Mr. Frank Lloyd Wright in the work-out of such a plan. If I could prepare a plan for instance, work out the topography and then have Mr. Wright give us a layout with his great skill and cleverness to achieve this end, I believe that we might do an outstanding piece of work in Philadelphia and at the same time provide an extremely sound and safe income for Carson College at a comparatively small investment. I am extremely enthusiastic about this possibility.\cite{130}

Given the long ongoing discussion between Mallery, Harriman and Wright over the cost of Suntops, Binns seems to misunderstand the abilities of the construction industry in suggesting this kind of building at these rates.

The Franklin Institute in Philadelphia expressed some interest in the project, and at one point inquired about the possibilities of constructing an example of the Suntop building for public display and education "... in order to acquaint the public generally with what they can have today for their convenience as a result of science."\cite{131}

Wright's perspective drawing of the four completed Ardmore units strung together along Sutton Avenue (3906.002) was sent to Mallery by November 13th, at which point Masselink also informed him that the model was in such bad shape that it would not be possible for Taliesin to have it reconstructed for the zoning meeting to be held Tuesday night (Figure 1.1).\cite{132} At this point they still intended to reconstruct the model.

Mallery spent the last two weeks of November in Cuba as a delegate of the U.S. Government to the Pan-American Meeting of the International Labor Office.\cite{133} By the time he returned it was becoming clear that there was a problem with the heating of the four units in the built Suntop structure. After trying several unsuccessful on-the-spot remedies, Mallery appealed to Wright himself:

\begin{verbatim}
129 Binns to Mallery, 11/20/39 (copy to Wright). Arthur Binns was named Architectural Forum, "man of the month" during 1939 (See Mallery to Wright, 4/3/40).
130 ibid. Note the somewhat prophetic reference to "circular roads" here.
132 Masselink to Mallery, 11/13/39. See also Mallery to Wright, 11/9/39 for reference to meeting date.
133 Mallery to Wright, 11/13/39. On this date Wright also wrote to Mallery concerning his efforts to borrow money from his neighbor in Arizona, Sterling Rockefeller. Rockefeller was a friend of Mallery's and was a member of the Tod Company Board of Directors. When Wright appealed to Mallery for an advance on his fees, Mallery suggested that Rockefeller might be in a better position to assist him. As Rockefeller refused, explaining that he tried not to get into financial arrangements with his friends, Wright wrote to Mallery saying, "I shall never understand money I see that..." Wright to Mallery, 11/13/39.
\end{verbatim}
There is something fundamentally wrong with the circulation of the air within the house so that cold air drafts dominate the rising warm air and the cold air settles in certain parts of the house and is not displaced by the warm air.

I don't think this is going to be remedied without your making a personal visit and study.134

The next day he wrote again to Wright,

It is quite a shock to me to learn that you are on your way to Arizona before you could unravel the heating tangle or complete the plans for Suntop....

I know that your thoughts in Arizona are on many other things and that the probability of your boning [sic] down to the details necessary before we will go ahead with the Suntops is not very good.

I also doubt whether we shall be able to cure the heating troubles without your help and I know that you can't cure them by correspondence. We are going to try to keep visitors out of the house for the present as it would be a black eye for the whole project if the truth should get around. In the beginning the enthusiasm of the tenants was one of our strongest assets.135

Wright responded with the following telegram:

UNDERSTOOD FROM TURNER NOTHING INTENDED BUT SHOPPING THIS WINTER. LEFT EARLY NOT WELL. WOULD YOU SEE PERFECT HEATING SAME CONDITION SUNTOPS SEE REBHUNHS. MEZZANINE USING PROPER FUEL NATURALLY WARMEST PLACE IN HOUSE. SIDE OF HOUSE MUST BE OUT OR SOMETHING. SUGGEST TURNER INSPECT...136

Mallery again appealed to Wright with a more detailed explanation of the condition experienced in the units:

When the oil heaters are not in operation the cold air comes down from above, making cold drafts down the stairs into the livingroom. The floor of the livingroom also has cold drafts towards the fireplace. One tenant, who is using a piece of Celotex in the chimney, demands that a damper be put in. Please telegraph whether you recommend a damper with instructions regarding it; also whether there is any way to catch this hot air after it has started up the chimney and to get it into some other part of the house. When the fireplace is going the living room is more comfortable.137

He told Wright that they intended to get the construction of the other three buildings going as soon as possible and were only waiting on him to revise the plans.

134 Mallery to Wright, 12/7/39.
135 Mallery to Wright, 12/8/39.
136 Wright to Mallery/Turner, 12/13/39. Wright also sent Turner a telegram on the matter the same day: "... MALLERY EXCITED ABOUT FAILURE TO HEAT MEZZANINE. DON'T UNDERSTAND WHY FAILURE AS REBHUGHN BALCONY SAME CONDITION IS PERFECT. BETTER GO AND SEE WHAT'S UP. NONE TOO WELL MYSELF. TRY IF YOU CAN SHUT THEM UP. MAYBE SOME ULTERIOR MOTIVE AT WORK." Wright to Mallery/Turner, 12/13/39. These two telegraph transcripts are typed on a single sheet.
137 Mallery to Wright, 12/14/39.
In an effort to fix the heating problem and to avoid similar situations in the next buildings Mallery wrote:

I have a telegram today from Turner saying you had asked him to come and fix the heating matter and that he would start January 2nd. . . . Of course we are going to have great trouble in holding our tenants in the meantime so possibly Turner can telegraph us some suggestions.138

Mallery was also interested in avoiding this kind of situation again and suggested that Wright

. . . . put some [sic] your young men to scrutinize the plans for missing points in order to complete the job. It is entirely right that the original mind should not have to labor over all these minor matters that are within the power of the average architect. It is a weakness of your organization that none of your young men are put onto these details; if they were you would not have the difficulty you now have which prevents your building in most of your twenty-six states. In the present Suntop there were a great many things not described at all which Turner had to invent. There were a number of things not thought of at all, such as the grill in the bathroom floor, the storeroom, hardware for the transoms, lighting which is still without any consideration and is not good, etc. etc.139

At this point Mallery still expected to file plans for the next three Ardmore buildings the next week.140

From Wright:

Your latest received. Perhaps it is time to get a few facts concerning our work for Ardmore cleared up, if I can, because you seem to be getting further beside the mark everytime you write.

Fault one: Acting in committee without your architect present.
Fault two: Were you to put a matter of state up to F. D. R. in writing and you mailed a copy of your letter to the department in the case how far do you think you would get with F. D. R.?
Fault three to seventeen: No. I did not ask Turner to "fix" the Ardmore heating. I only asked him to find out what "boner" had been pulled in construction and installation and let me know so I could do the fixing myself. I do not trust your diagnosis nor him to fix anything connected with one of my buildings.

Normally the Mezzanine would be the warmest place in the house! Something abnormal has occurred. What? Attempts to find it, as I hear about them, seem to me those of the average expert or of the unusual expert amateur. So I called on Turner.

Now it may be as well for the committee to understand that no improvising in construction from Mr. Turner has been or will be advised or tolerated. What you refer to as of that character in the making of the one now standing has already thrown things out of equilibrium and was due to his failure to comprehend points perfectly clear in the drawings but points with which he confessed himself unfamiliar.

It is quite likely that the fan on the mezzanine is harmful as well as helpful - and the register in the bathroom floor equally bad, etc, etc. Turner is still a novice where my work is concerned. But, I am trying to be patient with him because he is not young like

138 Mallery to Wright, 12/15/39.
139 ibid.
140 Mallery to Wright, 12/16/39.
most of my boys but he is a volunteer and (I) believe, eranest [sic] and honest and wants to be helpful to me, believing in my work. But he is ambitious and too intolerant of the Fellowship members, I have learned. He has probably unwittingly communicated to you some of the notions concerning our work here which I note (with regret) in your letters. These are probably due more to his ignorance than to anything else.

And, judging from attitudes I have noticed in your letters, you (probably your committee too) have had bad relations previously only with the usual architect-designer who does not and could not (and would not do for you if he could) what I've been trying so hard to do for you. Maybe that is why you are yourself a little askew when you sit on the fence as I see you sit. Ask anyone I've ever built a building for and you'll find them quick to say I know "my stuff" - at least. And you are at the moment concerned with "my stuff". You will only mess it up if you go on trying to do it your way. Better try my way and see how well you will come off - finally.

I have done the only direct sensible, practical thing for you already when I took Turner back and educated him point by point, last summer, trying to get the drawings into his mind clearly and the figures down to where they were when you got them - for all the extra work you should be thankful. Fairly cleared up now I think he could go through with the building as revised were the work subsequently checked up by myself as it proceeded or by one of the older apprentices and the outcome be satisfactory to all concerned. My fee is not paying me for such service. So far as I can see it - it seems wasted.

Now I thought (and still think) that this direct education of Turner was more useful to you than trying to catalogue the items and processes for outside bidders because you can get no reliable bids within thirty percent of the prices we succeeded in working out for you last summer and if you got one down nearer or as low you would still have to pay a superintendent (either a Turner or his equivalent) $50.00 per week, at least, to keep track of the novice contractor during the construction of the building. So why all the fuss and feathers?

If you are suspicious of those figures because the first model costs so much more than the one now proposed (although the new one is in every respect superior) - why don't you refer your contractors to the model already built? And ask them how much they will duplicate that one for on the dotted line? You need no drawings nor any specifications at all for that check up! The revised Ardmore unit now under consideration is a thoroughbred: cypress throughout, 4' floors, carport ceiling insulated, better roof, better plumbing, better heating, etc, etc. By adding 10% for this improvement to any bids you get you would know where you are without trying to work your horse to death for no purpose orther [sic] than an attempt to alter your own dubiety.

May I say, with due respect to you all - that the conventional "business-man" attitude of your committee demoralizes any special advantages represented by myself and what I do (a high specialty at least). And your attempt to put it on the curb can only end in mutual disappointment. Yes, my dear sir exactly that or worse.

Now why not take Turner now when you can get him and build these buildings sensibly if you are really intending to build. Because I can assure you, now, that I shall send him to other waiting work - there is plenty - if you have to continue shopping for something you can't buy to advantage that way. If you lack the necessary confidence you can - as suggested before - check up sufficiently by getting prices on the executed unit and then adding 10% for the superior qualities and materials of the one now proposed.

You are lined up to lose the advantages of Turner's training with me and the experience you paid for in his building the first Ardmore Experiment. Lose it for what and because why? Is all the hesitation, meticulous looking the gift horse in the teeth and other items of ostentatious ignorance of true values "higher up" good business? My own patience has a bottom not so far away, I am afraid. So I hope it will dawn on you all soon that the direct way is the best way with constructive things - the only right time is always now, not tomorrow. The matter in hand is good and ready. Only you are not ready.
The problem of heating is not serious. It may, in this first instance only, require a door installed at the bottom of the stair going up from the Mezzanine. Perhaps another door at the head of the stairs going down - both to be removed in the summer. But unless your reports of trouble are not exaggerated - something is wrong with the heating system as installed (unreadable word) - that is sure.

I wired for all plans and drawings to be returned to me because I want none of them anywhere outside my office. I want only those we actually use in building outside it anywhere. And then only in proper hands, not on the town.

I did not understand clearly from Turner what you were intending to do or else . . . well, had I been present at the committee meeting when all this fol de rol originated I should have said no at once. I am saying it a little late but that is what I am saying now.

Faithfully (yes all too faithfully) yours. 141

Apparently not understanding the seriousness of Wright's view of the infractions which had occurred Mallery responded, "I think you must have been disturbed by matters not concerned with Suntops when you wrote your letter of December 19th." 142 He went on to address what he saw as Wright's misunderstanding of how investment capital, and capitalists, worked. He was also somewhat put off by Wright's refusal to provide plans for competitive bids and suggested forthrightly that such action would put a stop to his involvement with Wright's building ideas.

From Wright to Mallery a few days later:

Concerning the extraordinary heating problem which I can only attribute to some freak accident of misconstruction or the cutting off of air circulation by improvements not intended by myself: I've a letter from Turner sizing up the situation all wrong. It was his diagnosis on the spot I wanted - but he starts to prescribe makeshifts.

Evidently you have all lost sight of the principle upon which the building was designed and that worked so well in summer. I refer to the ventilating shaft two stories high that is also called the bathroom.

"The doors to this shaft were to have been cut off at the bottom an inch to allow air to pass beneath and to have louvers in them if it proved necessary but probably would not as the doors could stand partially open except when in use.

This is also the backbone of the heating as well as the ventilating of the building. I put a vent flue in this space and one back of the W. C. to take air out when the windows at the top of the shaft are necessarily closed. The windows should be easily opened and closed however as conditions change outside or inside.

The fan Turner put above the stove (unnecessary if this shaft was kept in in [sic] operation) upsets the equilibrium of this scheme. It should be taken out and put into the end of one of the top most windows of the shaft with a a [sic] switch convenient to its operation below on the mezzanine. Then such as forced draft as was needed by the shaft could properly and sensibly augment this natural feature of the design. . . .

And all opinions to the contrary - the conditions at Ardmore is [sic] very like that at the Rebhuhn house. The closing off of part of it makes no difference.

Now by his suggestion as to the trouble I see Harold Turner has not taken this feature of the design of Suntops - a very vital feature - into account at all. And I see you have not either for you suggested cutting the shaft off by another bathroom in the upper part of it. . . .

141 Wright to Mallery 12/19/39. This is a letter Wright took the time to write, have typed and then edit again before sending.
142 Mallery to Wright, 12/22/39.
Apparently the lifeline of heating and ventilating Suntops - one of the prime features of its design - the vent shaft - got lost in the shuffle of improvements.\textsuperscript{143}

Mallery informed Wright just before the end of the year that his instructions regarding the heating problems were going to be carried out "... exactly as to one dwelling."\textsuperscript{144} He also noted that he had visited the Rebhuhn house and was told that radiators similar to the ones Wright mentioned had been a part of the dwelling from the beginning.

The issue of the bathrooms had come up briefly in an earlier letter in which Mallery relayed the tenants complaints about the "... coldness of the bathroom and its relative unattractiveness." He realized at this point that the bathroom was a part of a "shaft" involved with cooling each entire house.\textsuperscript{145}

And again Wright to Mallery:

My dear Mr. Mallery: Your recent letter has almost driven me to self-pity. No - in no way was my letter animated by anything or any feelings whatever except a sense of the dumb waster of my potentialities by "business".

And it doesn't help me now to see that not one point I tried to make ever got over. I realize the incompatibility of business and ideas - except making money out of them which is fair enough, only no old school methods can make money out of such ideas as happen to be mine.\textsuperscript{146}

In this brief letter Wright conveyed his wish not to get involved with investment schemes such as those Mallery was pursuing with Equitable or with 'Carleton' (sic, Carson) College as both would involve committees which he feels negatively impact his work. He went on to say,

I will work shoulder to shoulder only with one of my peers - one who sees, feels, and thinks as I do and whose complete confidence is mine ....

So there will never by [sic] very many of my buildings. All will be models for future exploitation in which I choose to take no hand ....

I realize that 'capital' will sneak up behind a good fat idea, pinch it in the behind and run. I do appreciate more than I can say your desire to cooperate with me and give a larger field to what I am trying to do ....

Now whether you build more Ardmore units is entirely up to you. I will go along so long as the production of them is such that I have confidence in it. I have no confidence in the contract system and decline to waste my time upon it ....\textsuperscript{147}

\textsuperscript{143} Wright to Mallery 12/25/39. Mallery visited the Rebhuhn House in Great Neck Estates, New York and wrote to Wright saying, "The Rebhuhn house is a masterpiece - beautiful." Mallery to Wright, 10/30/38. The August 1939 Architectural Forum article on Suntops describes the heating system as having been conceived to work without the radiators Wright describes in the bedrooms, saying "All the hot air required for heating the rest of the house rises from the living room - its circulation controlled by kitchen exhaust fans and by opening and closing the bathroom ventilator shaft and bedroom transoms," and, "One wrought iron heating coil (in the living room floor), prefabricated in one piece, takes the place of many radiators and risers."

\textsuperscript{144} Mallery to Wright, 12/30/39.

\textsuperscript{145} Mallery to Wright, 11/3/39.

\textsuperscript{146} Wright to Mallery, 12/29/39.

\textsuperscript{147} ibid.
Saying that he would be coming east in late January and would come to Philadelphia if their minds were made up to build, "I shall throw no more good time away to convince you or anyone else of anything connected with SunTops. You should know and if you don't I am out." 148

By the first of the year relations between Mallery and Wright had again become difficult. This is Wright's first letter of the new year in which he explains his concept of the heating system in detail for the first time:

I learn that during my absence in England Turner did not communicate in any way with Taliesin and that the heating and plumbing are of his own devising... 149

Much to Wright's surprise it turned out that there had been no radiators installed in the first building. Upon finding this out he felt compelled to explain the heating concept fully for the first time in print:

Now the heating plan was a riser to the top floor bedroom, running up from the boiler, through the bath in the corner next to the small bedrooms, a take off and return under the bunk in that room to a small radiator on that same wall by the window in the parent's bedroom. Radiators were to be set in the upper bedrooms one next the riser and connections to warm the bathroom sufficiently and cross pipes to warm the small bedroom.

I counted on the vent shaft to draw inwards and upwards from the Living Room enough heat to keep the Mezzanine comfortable and free of odors from cooking.

Essential feature of the SunTop Mezzanine design was and always will be this vent shaft.

Now in all discussion since arising over the failure of heating I have assumed this radiation to be in place as a matter of course. And my references apply to the unaccountable failure of the heating of the Mezzanine and Bath - owing to my omission of radiators from these features. These two are the only omissions I made or dreamed of making. So of course no discussion applies now if these radiators are really absent - which I still find it hard to believe.

I told Turner when working on the revised unit last summer that I believed I could heat the entire unit by exaggerating the main floor coil and cutting off the bottoms and tops of all bedroom doors.

But the present coil in SunTops is barely enough for the L. R. - as the coil was cut down to allow for the protection afforded each apartment by the other in the quadrant arrangement. If you figure the actual radiating surface in the floor coil now you will not find half as much radiation as a heating engineer would prescribe for the Living Room tall windows alone.

In the floor it is more effective of course and if your tenants have been able to stay in the building with only this coil in operation then at least my assumption that the whole place could be heated from the living room floor-coil alone, is good enough.

But the assumption is ridiculous applied to the present unit. How it came to be applied will be a matter of explaining and dispute - no doubt. But it all shows the folly of

148 ibid. In the midst of this flurry of correspondence Mallery was approached by the publishers of the magazine Survey Graphic for material on Ardmore for an upcoming issue concerning housing and community planning. Kellogg to Mallery, 12/27/39 & Mallery to Kellogg, 12/28/39. Mallery deferred to Wright's wishes in these matters of publication and consistently sent him all copies of such correspondence.

149 Wright to Mallery, 1/3/40.
not keeping in touch with headquarters on the part of any builder or superintendent whatever - no matter how good he is. . . .

His suggestions are sometimes good but they should never come as a surprise party party [sic] given in honor of the Architect.

It is a simple matter to install these three small radiators - and when installed let me know how the Mezzanine gets along on the vent shaft.150

Wright also sent a telegraph the same day:

DO YOU MEAN NO RADIATION BEDROOMS AS PLANNED? IF SO RIDICULOUS.
INTENDED OMISSION ONLY MEZZANINE AND BATH RELYING ON VENTSFAFT.
SUGGESTED TURNER POSSIBLE HEAT SECOND EDITION ENTIRELY MAIN FLOOR COIL
PROPER ADDITIONS. PRESENT FLOOR COIL DESIGNED FOR LIVINGROOM AND
MEZZANINE ONLY. SEE AIR MAIL. WONDERS NEVER CEASE.151

Before he had received Wright's letter of January 3, Mallery wrote again in an attempt to clear the air. This letter details the terms of their professional and financial relationship. This time the letter is six pages long:

Our business relations are severely strained, but this does not diminish my affection for you and my admiration for you as a man.

Strained business relations cannot usually be repaired by correspondence. Correspondence often has the opposite effect. However, I am going to clear the atmosphere by a full statement.152

The letter went on to address a series of topics under the headings Heating, General Objectives, My Judgment as to Suntops, Major Disagreements, Equitable Life Insurance Company, Contracts, Team Work, Committee Work, Your Building Organization, Capitalism and Investment, Completion of the Ardmore Project, Terms of Continuance, and Conclusion:

**Heating** - Three of the Suntops were vacated last night by their tenants. They are not habitable in cold weather . . . .

I visited the Rebhuhm [sic] house the other day. The heating is a complete success and is economical. It does not resemble the present system installed in the Suntops . . . .

**General Objectives** - When our alliance began two years ago I had the following broad objectives in mind:

1. To use your inventive skill and experience to produce a technological advance in housing and to lower costs of home building.
2. To find an avenue for safe, permanent investment of funds on a large scale - safe against the risks present in conventional housing of the old style and safe against inflation.
3. To enjoy myself in economic pioneering as I have done before in fields other than housing.

150 ibid.
151 Wright to Mallery, 1/3/40 - telegraph.
152 Mallery to Wright, 1/4/40.
These three objectives have failed.

My Judgment as to Suntops - Suntops are incomplete in three ways:
1. In design.
2. In execution.
3. In inspection.

The incompleteness of design, the omission of a number of essentials are quite excusable in such an experiment, especially as you were in Europe just before and while they were being built.

Incompleteness in execution of design was due to the fact that the plans did not tell Mr. Turner exactly what to do and he had to guess at it and also try to supply some of the omissions in the plan.

These incompletenesses of design and of execution might have been remedied by careful inspection by you after they were completed. This was not done and there are still a large number of things to be done to seal the homes and to make them habitable.

Major Disagreements - You and I have had the following major disagreements:
1. Whether to build initially one unit or four.
2. Whether to pay you part of your fee on four at the time the decision to build one, only, was made.
3. Your failure to remedy the heating system.
4. Your refusal to agree to make detailed plans covering minutely every possible point in the proposed three units, such plans to be of the kind that every general contractor could understand and bid on.

Equitable Life Insurance Company - You asked, in your recent letter, why the Equitable Life Insurance Company could not be persuaded to build Suntops on their own account which would be exact duplicates to what the Tod Company built, and this without the detailed plans that you have refused. The answer to this is double: First, the relations with the Equitable Company in such a case are wholly within the sphere of the President of the Tod Company and it is entirely up to me to decide what proposition to make them. My decision is to make them none.

Secondly, such a far-flung organization, if it builds at all, will build in a great many parts of the country and would use a number of contractors who would require the kind of detailed plans they can use.

Contracts - It has never been my intention to depend upon a general contractor for the actual execution of your modified Suntop plans. What I required was a plan that they could understand and would have every minor point plainly written into it. I then intended to compare the bid of the general contractor with the actual cost under Turner's estimates.

Team Work - On the basis of your biography, your team work record with your business partners was not happy. I had read the biography before I made the arrangements with you and faced the risk. I have been the head of several organizations which contained solo performers, like yourself, who had never been willing to remain in one chorus very long. My record for persuading conflicting elements to work together gave me the temerity to take on one of the most noted solo performers in the United States.

Committee Work - You have often said that a committee or Board of Directors could not go along with you because of the originality and radicalness of your ideas. There is a great deal of force in this. Consequently, I have sought to arrange it so that if you and I
agreed, the committee would follow my leadership without your being obliged to convince them or deal with them. . . . We have failed to work together.

Your Building Organization - You need certain kinds of people in your organization in order to make it possible for you to deal with the large numbers of problems and the large amount of business that comes to you. You need such people, but it would appear that you do not want them . . . .

Capitalism and Investment - Your rebellion against features of capitalistic system has been constantly expressed. In a large degree I sympathize with you. However, money is needed for building. . . .

Completion of the Ardmore Project - . . . I am going to build something, with or without you.

Terms of Continuance - From all the above it does not look hopeful that you and I can agree on any terms to continue. Have you any suggestions? I refuse to go on under the old terms in which I have no freedom of decision in financial matters, etc.153

In conclusion Mallery adds, “All of this is written more in disillusionment than in sorrow and more in sorrow than in anger. You have done the best you could and I have done the best I could. It was not good enough. Can we do better?” The letter continues:

I suggest that you do not answer this letter for a week or two. Maybe it is better not to answer it at all, and when we get together see if we can find any left-over planks out of which to build a platform we can both stand on.

I know you have many anxieties beside the Tod Company and I sincerely hope that some of them will vanish. In any case, I hope you will enjoy your great conception in Arizona, which, being a one-man affair entirely untrammeled by the necessities of team work or economies, will be a great and memorable achievement.154

Wright's quick response to the January 4th letter:

Dear Otto Mallery: Its Sunday Morning. I've just read your entirely clear and reasonable exposition of our relations to date. Confession is good for the soul - good for mine at least. So let me say with no more ifs or buts I have not done what I should have done with you and for you in looking after SunTops. . . .155

Wright apologizes for misunderstanding the situation and for drawing the wrong conclusions. He mentions some of the difficulties he has had with Turner being so close to his clients and in effect circumventing his own involvement in the process. He describes briefly the process he followed in attempting to correct the problems of the first unit, including the design of a revised version, and suggests that any owner must stay close to his intentions if one of his

153 ibid.
154 ibid. There was apparently a letter from Wright to Mallery 1/2/40 which answers Mallery’s questions concerning the possibility of the MOMA show traveling. There is no record of this letter in the Taliesin microfiche collection index. It is possible that Wright wrote on a train, or in transit, when he did this he typically did not keep his customary copies for the files.
155 Wright to Mallery, 1/7/40.
projects is to turn out correctly. "The result," he writes, "is this fantastic heating fiasco, the most ridiculous ring around a rosie I ever saw or heard about either."\textsuperscript{156}

Now there is great advantage in the one man concentration represented by me and my work - if you know how to get that advantage. From much experience I think it lies in keeping in constant touch with me at every step in any building process I devise. This trying to get by me or get me by proxy will never be much good. Therefore so long as I can last I can make no money as money-making goes. But I can do remarkable and superior work and have done much of it.\textsuperscript{157}

Radiators were installed before Mallery received Wright's letter of January 3rd and were not put in exactly as the architect wished.\textsuperscript{158}

I hope that you are correct in your statement that radiators were specified in your original plans. You have all the plans; therefore, it could never be proved to the contrary in a court of law. I suggest that you look at the plans but do not inform me the result.\textsuperscript{159}

Mallery's response brought this reaction from Wright:

My dear Mr. Mallery: You infer from your letter that I am lying when I say radiators were contemplated and indicated to Turner in the original design for SunTops.\ldots\textsuperscript{160}

Wright went on to explain that while the systems were not specified in detail in the original drawings he had certain things in mind and expected to work out the details with Turner as the work progressed. He admitted that he should have been more attentive to the lack of contact with Turner during construction:

It went by default. The fault being distinctly mine. I am old enough to know better than to believe in Santa Claus where the execution of one of my works goes - and to deserve whatever comes. Fact is, you had two architects instead of one and there was an open space between them in which you could sit down.\textsuperscript{161}

On January 12 Mallery wrote to Wright: "I am heartened by your letter of January 7th\ldots I know that we can let bygones be bygones and forget the mistakes of the past.\ldots"\textsuperscript{162} He went on to write,

Now I am convinced that you are conducting buildings in so many places that you can not keep in constant touch in every step in every building process you devise. For your own health and peace of mind I don't think you ought to try to do so to the same extent as you have in the past.\ldots

\textsuperscript{156} ibid.
\textsuperscript{157} ibid.
\textsuperscript{158} Mallery to Wright, 1/8/40.
\textsuperscript{159} ibid.
\textsuperscript{160} Wright to Mallery, 1/11/40.
\textsuperscript{161} ibid.
\textsuperscript{162} Mallery to Wright, 1/12/40.
Gaze out on the great expanses. Let the Sawara [sic] Cactus tell you its secrets. Give birth to the most far-reaching technological idea of all time.163

The next day Mallery responded to Wright's January 11th letter:

... I am perfectly willing to "laugh off" the heating incident. It is all very funny now that everything is working alright [sic] and the tenants are happy again.

He continues to say,

I didn't infer anything in my letter. I never knew you to tell a lie... I haven't the slightest doubt that you contemplated radiators.164

Mallery added in pen at the bottom of this otherwise typewritten letter, "Also you are a gentleman, a scholar and a good judge of wine, but not whiskey! So don't cast me into outer darkness, but admit me once more to the sunshine of your genial presence."165

Following the installation of the radiators the tenants moved back into the Suntop units by January 16th.166 Wright visited Ardmore before the end of the month while he was east to lecture in Boston.167 After this visit Mallery worked out a detailed schedule of respective responsibilities in order to avoid the kinds of confusion about roles they had experienced in the past. The full text of this agreement, which is entitled UNDERSTANDING BETWEEN FRANK LLOYD WRIGHT AND THE TOD COMPANY, is as follows:

Wright undertakes to supply plans for Edition Two of Suntops under which a quad fully furnished can be built in Philadelphia for not exceeding $18,000 including cost of the clerk of the works, contractors' compensation, and everything except the land and the architect's fee. The over-all cost including land and architect's fee would then be less than $22,000, or between $5,500 and $6,000 per home including everything. If the Wright detailed estimates confirmed by a Philadelphia contractor come within $18,000 per quad, Mallery agrees to recommend to the Directors and Stockholders of the Tod Company the construction of three quads and will do his best to sell the necessary stock. Mallery specifically states that he personally does not have the money to build these quads and that the enterprise is a cooperative one dependent upon the wholehearted interest of many.

When Wright's' estimates have been confirmed by a Philadelphia contractor and work authorized and the necessary funds raised, the architect's fee will be due. These fees are as originally agreed upon, ten per cent of the estimated cost less amounts already paid.

Wright agrees to prepare detailed plans capable of being read by an intelligent contractor and to supply detailed specifications including heating, lighting, hardware and everything else.

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163 ibid.
164 Mallery to Wright, 1/13/40.
165 ibid.
166 Mallery to Wright, 1/16/40.
167 Wright was to give three lectures associated with the Institute of Modern Art, 270 Dartmouth Street, on the 23rd, 24th and 25th of January. Masselink to Mallery, 1/15/40 & 1/18/40. See also Mallery to Wright 2/1/40.
Wright assumes responsibility for the execution of the work in accordance with said plans and specifications. To this end Wright agrees to have his agent of the site, who will be responsible entirely to him, the expenses of said agent to be a part of the estimated cost of construction. Wright agrees to inspect and check the work personally while it is in progress and to give it his personal attention and interest throughout the period of construction.

It is the intention of Wright to complete the plans at the earliest possible moment in order that the work may be begun this spring. If for any reason work can not be begun this spring it is Mallery's intention not to build at all.168

Wright and Mallery both signed the agreement. Mallery included with this text a detailed schedule of the major points of construction.169 Wright agreed to the points developed by writing, "Thanks for the refreshed set up. I will do my best. I enjoyed my visit and understand the set up much better."170

It appears however that the tenants were not all satisfied at this point. There is a letter from Gertrude Benson dated February 12, 1940 which lists several uncorrected faults with the unit they inhabited. The most relevant of these again concerns the heating: "On a cold windy evening our living room is still neither habitable nor workable. We cannot continue to work or entertain in overcoats."171

Wright mailed the plans for the revised Suntops units on February 16 and the specifications on February 18. Mallery received plans for the redesigned Model B by February 19, 1940, just a few days behind their agreed-upon schedule. This delay was compounded so that they were not able to receive bids before Mallery left for Florida on March 5th. This did not create a problem however as Mallery was still enthusiastic.172 At this juncture Wright appeared to be somewhat more conciliatory about answering questions concerning details of the design.173 Before leaving for Florida, Mallery once again assembled a detailed list of complaints and problems in the existing Suntop building.174 Among other things these included air movement in the bathrooms and lingering cold in the living rooms.

While Mallery and his agents were seeking out bids for the new design in Philadelphia, Wright located a contractor in the Phoenix area who was interested in building the three model B

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168 Mallery to Wright, 2/1/40.
169 Ibid. This list laid out the dates as follows. PROPOSED TIME SCHEDULE FOR SUNTOPS: February 5, 1940 - Wright to start getting bids and to mail detailed plans to Philadelphia, to be followed a few days later by a complete set of specifications for heating, lighting, hardware, etc. 2/15 - Plans to arrive in Philadelphia. 2/19 - Mallery finds contractor in Philadelphia and out plans in his hands. 2/27 - Wright completes getting detailed bids for completed unit at Ardmore. 2/29 - Mallery completes getting bids in Philadelphia through a Philadelphia contractor. 2/31 - Wright compares all bids and recommends which should be accepted. 2/23 to 3/4 - If bids are within Wright's estimate of $18,000 furnished, Mallery agrees to recommend to The Tod Company the authorization of contracts for three units and to try to sell the necessary stock. 3/4 - First subcontracts awarded. 3/4 - Payment of fee to Wright provided three units have been authorized and the full amount of stock needed has been subscribed. Mallery then leaving for Florida for three weeks or more.

170 Wright to Mallery, 2/4/40.
171 Gertrude Benson to Mallery, 2/12/40 (copy to Wright).
172 Mallery to Wright, 3/5/40.
173 Wright to Mallery, 3/1/40.
174 Mallery to Wright, 3/5/40 - "Memorandum for Mr. Wright."
Suntop units in Ardmore. With Wright's approval George Ellis submitted a bid to Mallery to construct the three Ardmore Suntop units of four dwellings each for $52,686.00. This figure allows $17,562 per building or, $4,390 per individual unit. Ellis also states that he was prepared to place a performance bond for this amount as a guarantee if required. Wright was understandably positive with regard to this bid and wired Mallery:

RELIABLE BID ON THREE UNITS SUNTOP HOUSES COMPLETE WITH FURNITURE SEVENTEEN THOUSAND SEVEN HUNDRED DOLLARS SUPERINTENDENT INCLUDED BUT NOT ARCHITECT'S FEES. RELIABLE BOND WILL BE FURNISHED. WHEN DO WE START?

This bid included curtains and shades for the living room windows, two easy chairs in each living room, bed frames, double decker beds, dining table and twelve hassocks, an ice box and a gas stove. "All a young couple would need to move in," Wright added, "would be bedding, cooking utensils and tableware."

In what must have been a very disappointing reply Mallery indicated that he was not inclined to hire a contractor from outside the Philadelphia region.

Aside from the fact that Ellis can not be familiar with labor union conditions prevailing to this locality, I do not want to find myself in the same position as after the completion of the first unit. There was a great deal of unexpected work necessary to make the houses habitable after the builder had left and the tenants moved in, and there was no one here to take responsibility for the changes. If the Tod Company is to make a success of this enterprise it must have a local contractor whose reputation is involved and who will have a personal interest in seeing it through to a successful conclusion.

Mallery had retained the services of Arthur Binns, who ran a real estate managing firm, to assist him in gathering the bids locally. While he noted in correspondence with the Tod Company Directors that Ellis' bid represented a saving of one third of the cost of the original unit, he also advised that, "There may be disadvantages in employing a contractor not familiar with Philadelphia conditions and practices . . . ."

Referring to his disdain for the process of taking bids from local contractors, Wright wrote to Mallery:

What would you think of a man who sticks his neck into the hangman's noose just to see how it feels when the hangman pulls it? Well, I deliberately stuck my neck out something like that when I signed your proviso regarding "the estimates of a Philadelphia contractor". But I wanted to see what might happen.
I should think by now you really could and would see the folly of trying to get more bad work out of Philadelphia. . . . 182

Wright was insistent that no good can come of such a process due to the potential of a local contractors disinterest and unfamiliarity with his work.

Can't you realize that only as the architect has his own responsibility unimpaired by the owner's interference - or a contractor's either - no matter how well meant, can anything satisfactory be done with the high technical specialty a novel building must be - and my buildings are that way. So I am unwilling to go through this little hell to educate anyone totally unfamiliar with what the work means by some experience in detail. Life is too short now. No Philadelphia contractor is going to stick his neck out for less than a stiff protective profit on such work as mine and that profit it is absolutely necessary to save to come under the low wire we have put together.

So what - my dear sir - so what. . . .

Most of the good building as I've got it now comes in on the rails. And better than good.

Anyway if you have a surety bond for performance why should you be so shy?

Unless it is more the contractor you rely upon than the architect? If that is really so, that would explain a great deal past and present . . . .

I hoped you would have learned all that I am saying by now. . . . 183

The failure of the bidding process is recorded by Mallery's letter to Wright: "At the meeting of the Tod Company directors yesterday all bids were declined." 184 And Wright's response: "The bids were amusing in the usual way." Wright emphasizes the common practice of establishing multiple fees to cover profit on the part of the broker, Binns, the contractor, and each of the subcontractors. 185

Your Binns bid of $26,000 without architect's fee and ground (with or without furniture I do not know) is about right if our Ellis and Turner bids of approx $18,300.00 were right. You see your bids had to take care of your broker Binns -- Binns had to take care of his contractor and the contractor had to take care of the subs. Usually this takes about 30% of the building cost which is just about what happened . . . . 186

He reiterated his efforts through Ellis and Turner to assist in establishing a competent contractor for the continuance of the project by writing,

The Ellis bid included only a small profit of 6% as he is really interested in the work and takes pride in doing the better thing in the better way. His bid is bona-fide, would be backed with a bond and under our direct superintendence . . . would give you perfected units profiting by the original experiment.

Thus I feel I have discharged my moral obligation to you such as it was and fulfilled the spirit of your letter of agreement -- which I signed ignoring your fantastic

182 Wright to Mallery, 4/15/40.
183 Wright to Mallery, 4/15/40.
184 Mallery to Wright, 4/26/40.
185 Wright to Mallery, 4/29/40.
186 ibid.
technicality. We will now withdraw from the Philadelphia field in favor of less complicated fields and clients less loaded with baggage.

You have given me some good advice which I hope to profit by someday. Would you take some from me? Don’t try to build buildings. You make it all too ingrown and complex. You have far too many angles reflecting light at cross purposes into your eyes.

Your mind, my dear sir, is a fine one and I am the better for having known you. But for me I have had enough. And by this time I would think you had too unless you are a glutton for punishment.

Nevertheless and Notwithstanding --

Faithfully Yours, Frank Lloyd Wright

The same day Mallery wrote to Wright a more extensive letter regarding the details of the directors meeting,

The lowest bid of a Philadelphia general contractor, based on brick, was $28,000.00. The lowest bid of a general contractor based on cement was by Brown of Pittsburgh, $26,500.00. . . . The Portland Cement Association and the Warner Company recommended several Philadelphia subcontractors accustomed to cement but none would bid and they claimed that according to the plans cement would cost more than brick . . . .

The process which Mallery and Binns went through was a thorough one that included taking independent bids from many subcontractors and compiling these themselves. Wright apprentice Peter Berndtson participated in this process in Philadelphia with Binns. The lowest number they could assemble in this way was $22,380.00, and they figured that some $2,400 must be added to bring this up to a level of service comparable to that bid by the general contractors. This comes to $24,780. Mallery writes that when all these costs are added to land and architect’s fees the total cost comes in around $29,000.00, which would give a monthly rental figure above the $55.00 they were all aiming toward.

He explains that the bid by George Ellis was rejected for several reasons:

Assuming that he would be able to get a bond from a bonding company assuring completion, it was the sense of the meeting that reliance on a bonding company was to be avoided because of unsatisfactory experience here and the possibility of law suits with the bonding company and long delay. We believe that Ellis, after he arrived in Philadelphia would have had to pay substantially the same prices for most of the items as the lowest bid by Philadelphia subcontractors on our list and we believe that his chief saving would have been on concrete but that this alone would not have been sufficient to bring his costs within his estimate of $17,602.00 . . . .

I deeply regret the momentary failure to realize our joint hopes, for I believe the structure is in many ways superior to existing types. Because of my belief in the Suntop design & my confidence in you and in your work I shall give our problem further study and after a few months we may have something to suggest.

187 ibid.
188 Mallery to Wright, 4/29/40). Mallery notes in this letter that Harriman was not able to attend the Directors meeting and that (Sterling) Rockefeller was “greatly disappointed.”
I am glad that you are busy with other work for you have originality and imagination that no other living architect has.\textsuperscript{189}

As a summary of the difficulties of the winter and the state of affairs, Mallery wrote to Wright in mid-summer:

Three out of the four original Suntop tenants have left. The only remaining one being two bachelors. We therefore have no satisfied family occupant, who will boost Suntops and make the securing of tenants for future construction easy. From this point of view it is fortunate that we do not have three new units approaching construction now. The Benson family have not told me why they are leaving. They have been continuously discontented about the livableness [sic] as to heat of certain parts of the living room. The Barnes family are leaving because of the high cost of heating and of utilities. They were promised, by Turner, about six tons of coal per year and the first year will run nearer twenty tons.

I still do not know what the heating troubles are and whether they can be remedied. The high cost may have been due in part to the forcing of the furnaces when there were no radiators; in part to air leakage around the transoms and imperfect caulking; in part to inexperienced handling of a new type of stoker; in part to lack of insulation in the outside walls, etc. It may be inherent in the present structure and design of Suntop, but I hope not. The Suntops are now under the management of an experienced firm who own a hundred or more apartments themselves and have had every kind of heating experience.

The net result of the heating situation is that we cannot offer people a house the cost of operation of which is low. Therefore, there is no use trying for people who can only pay a low rent. The fuel situation amounts to a super charge of say \$5 a month or more above that necessary in the ordinary type of house now being sold for \$5000.

The far-reaching innovations in your plan are, contrary to the expectation of the conservative, completely successful, and liked by the occupants. There is tremendous resistance to the idea of a mezzanine kitchen, of the brick interior living room, etc., on the part of the casual inspector, but the occupants like them. In these respects you have made a real advance. These features will become permanent in American life.

None of my stockholders are enthusiastic over the possibilities that Suntop can be made to compete in cost with what is being built today. Mr. Fels will not go any farther. He says Suntop is too complete a break with tradition to make it probable that people will fall for it rapidly. He never was interested in a home in this price range, but always in something which could be sold around three thousand dollars in quantity. None of the real estate developers who have seen Suntops have approached me with any request for the costs or given any indication of wanting to imitate Suntop. What inquiries have you had along these lines?

In spite of the lack of interest of such people, the Tod Company has continued to pay out money to obtain an additional patent in your name. Its patent costs to date are over \$500.

I am not in a position to ask the Equitable Life Insurance Company to inspect our experience with a view to becoming our licensees and building on their own account. The vacating by our original tenants is a black eye to me when I want to be a salesman.

In spite of the fact that our immediate public acceptance is weak and that the experimental unit still has serious flaws, I believe in the possibility of success of our original conception. However, I don’t consider myself to be the only far-seeing person with respect to the potentialities of your construction in the United States. I am a highly theoretical person with almost no experience and not much business judgment. I am

\textsuperscript{189} ibid.
therefore waiting for someone with business judgment to push me rather than to charge alone like Saint George at all the surrounding dragons.

I hope that you have plenty of new ideas to keep you happy and that you and your entourage are living above the battle.190

During August, Mallery was informed of a pending real estate deal affecting Isaac Sutton, the owner of many vacant lots along Sutton Road. He wrote Wright along with all the Tod Company stockholders:

A builder has offered to buy from the owner, Isaac C. Sutton, all the vacant lots on Sutton Road, Ardmore for immediate development. If the Tod Company would like to sell, Mr. Sutton can probably include in the deal the three vacant lots we own that are zoned against multiple dwellings. As an alternative Mr. Sutton would be willing to take these three lots in exchange for an equivalent frontage directly across the street and on the corner opposite our completed construction, zoned for multiple dwellings. This would fill Sutton Road with buildings with the exception of our corner lot next to our present Suntops. Under no circumstances would we be willing to sell this corner lot because it is essential to our present structure that it eventually be built on sympathetically, presumably by the Tod Company.191

Mallery kept alive his hopes for completing the original scope of the project and for extending the design through licensing to a broad range of other parties. In October he wrote to Wright:

Suntops are looking up. Tenants are in the three vacated homes. One of them is making a show place it it [sic] with a modern garden and with flowers and trees growing on the roof and everywhere else. . . .

The experiment has been carried far enough so that I now feel warranted in bringing it to the attention of the Equitable Life Assurance people, from whom I have kept away during the last year when we were full of trouble. . . .192

Mallery was still computing future successes based on the patent rights he had obtained for Wright.

You may not be willing to give me a blank check in my negotiations with Equitable Life but I should like to have you write me a letter as president of The Tod Company, a letter which will be equivalent to a contract to deliver your services to the Equitable and to The Tod Company on certain terms for a certain period, say two years. If I get such a letter from you I will go after the Equitable people.193

The next week, still waiting to hear from Wright on this approach, he wrote again asking, "Have you had any nibbles for Suntops from other sources?" He mentioned another possibility of franchising the units and asked, "I am hoping to hear from you in regard to my letter of a week

190 Mallery to Wright, 7/11/40.
191 Mallery to Wright & Tod Company Stockholders, 9/1/40. As Mallery later wrote to Wright concerning putting Jacobs type houses on these lots, it seems safe to assume they did not make this land swap at this time.
192 Mallery to Wright, 10/17/40.
193 Mallery to Wright, 10/17/40.
ago . . . " in which he had again brought up the possibility of approaching the Equitable Life Insurance Company as an investor for a large scale Suntops project.\textsuperscript{194}

Mallery did not lose the hope of completing the project as originally defined, nor of building more Wright designed housing structures. He also inquired of Wright’s thought about the possibility of building houses similar to the Jacobs house speculatively on the three lots along Sutton Road.\textsuperscript{195}

Wright responded to this last request in brief: "My dear Mr. Mallery: Feeling that the basis on which the Suntops is placed and proposed is quite wrong, I have long had it in mind to sit down to a pen to pen elucidation of the affair but have been so pressed by work that I couldn’t do it and can’t do it just yet as I want to. I will soon."\textsuperscript{196} He never did. Wright and Otto Mallery remained friends and continued to correspond for many years in spite of the fact that the last three Suntop units were never built.\textsuperscript{197}

\textsuperscript{194} Mallery to Wright, 10/26/40. Mallery continued this endeavor, see Mallery to Wright, 11/27/40; 12/1/40; 12/11/40.

\textsuperscript{195} Mallery to Wright, 10/26/40. "I could judge," Mallory wrote, whether or not such a plan could be adapted to the site configuration along Sutton Road, "if you would lend me the floor plans showing dimensions of any house similar to the Jacobs house that you may have built, for instance those professors’ houses proposed for Michigan."

\textsuperscript{196} Wright to Mallery, 10/28/40. Mallery and Wright remained friends and their correspondence concerning Suntops and other matters continued for some time. An interesting example is a letter from Mallery on 11/20/40 in which he informs Wright that he has been lobbying on his behalf with Mrs. Edison Hughes (formerly Mrs. Thomas A. Edison), who intended to build a library in Fort Meyers, Florida. He writes, "I told her you are the Edison of architecture and she should employ you." Their correspondence on other matters continued until Wright’s death.

\textsuperscript{197} Mallery read Wright’s, Sullivan’s and Bragdon’s biographies during this process, and he was interested in Mumford as well. On 2/26/38 Mallery notes that he had just received Wright’s biography and was looking forward to "pleasant hours with it." Mallery read Louis Sullivan’s biography and wrote to Wright, saying: "I read Sullivan’s biography as an act of devotion to you. Although it contains much gold it was deeply buried."
2 - Analysis of the Building & Master Plan

The site which was the object of this long process of design and negotiation was an oblong plot running along Sutton Road from Spring Avenue in Ardmore, PA, approximately 400' by some 160' to 180.\textsuperscript{198} Four buildings were to have been evenly spread along the longer dimension running up Sutton Road. The nearest one to the corner of Spring Avenue was given an orientation parallel with Spring Avenue, the larger artery, giving it an angled relationship to the longer street. The second building in line was to be twisted 30° in relation to the first giving it an even more angular relationship to Sutton Road. The third and fourth buildings repeated the orientation of the first and second respectively.

This pin-wheeling configuration was to be extended onto the ground by casting out driveways to the boundary roads. On the two back sides Wright extended gravel drives most of the way along the property lines to engage these spin off driveways. Each of the four units in a building had its own drive, its own entry and its own yard. On the site plan (Figure 1.16 - #3906.007) Wright indicated tree planting along three of the four site boundaries, but nowhere in the interior. Gravel drives with a rubble walk were also called for. The initial site plan of the late Spring of 1938 is one of great simplicity and invention in its geometry, but it is one which would have created an effect of more picturesque randomness once the variegated planting had taken hold.

Further along the way an alternative scheme was studied to accommodate a different site possibility. The new plan was laid out over one half of the original plot, the half nearest Spring Avenue. To this was now added a piece of similar size directly across Sutton Road and also on Spring Avenue. Wright responded to this change in a most telling manner. The project still indicates four buildings as before, two on each plat. But now the geometric shifts are simplified. In this revised plan all four buildings are parallel to Spring Avenue following the orientation of the first building in the earlier scheme. The driveways, still gravel (though now a metal edging was called for) reinforce the conformity of the new orientation while introducing a lesser bit of complexity through the use of small turns meant to allow greater yard spaces and avoid intersecting adjacent buildings (Figure 1.11 - #3906.014).

Significantly, Wright indicated "low shrubs" as the planting along Spring and Sutton with "tall planting" reserved for the two outermost corners only. These two rear areas are cordoned off as angular wedges between the gravel drives and the property boundaries, almost like book-ends or framing elements. This planting configuration of low in front at the intersection and high in

\textsuperscript{198} Mallory has a longer history of contact with Wright than this one project would allow. He operated a building materials purchasing cooperative for hopeful owners of Wright houses through the 1940's.
back along with the now uniform orientation of all buildings helps to create the sense of a unified planning field. Sutton Road runs through this field, and by its angular position has minimal impact on the cohesion of the overall group.

What Wright was able to achieve on the first site by the use of alternating geometries and tree planting on the edges he achieved here through different means. One gets the sense that there is a very deliberate attempt in both cases to create a sense of the overriding unity of all buildings.

Description of master plan 'T'

Figures 1.13 and 1.17 seem to depict the initial conceptual design study (Figures 1.13 & 1.17). These two sheets also demonstrate a foreground/background planning process in their use of small paper building plans positioned and pasted onto a larger site plan sheet. It appears possible that this project did not begin with the characteristic crossing masonry walls but rather with the figure of four units assembled in a block. The two earliest site and building plan studies show clusters of four units with each tucked into the reentrant corner created by two crossing walls (Figures 1.13 & 1.17). These walls appear to have the solidity of masonry only between the living room of one unit and the carport of the adjacent unit. They are not continuous. This aspect can be seen most clearly on the first and third building plan sketches from the left on the second site study (Figure 1.13). On both of these sketches the thickness of the masonry wall is shown without the dark poché used in virtually all of the other plans and studies. The fireplace can be clearly seen at the inner end of the thickened section of the wall. From this point to the center the crossing walls are drawn in the same manner as the wall separating the living room from its own carport, for example. This living room/carport wall remained wood in all further versions of the design, while the extension of the crossing wall to the center became masonry.

Neither of these two drawings is dated, but judging from the subject matter and its place in the developmental chronology as given in the correspondence record they must have been worked on during February and March 1938. They are both drawn at an architectural scale of $1/16" = 1' - 0"$. Interestingly I have been able to locate only one indication of north orientation on any of the Ardmore site plans in the Taliesin collection. This is on a sketch plan of the second site plan layout. When viewed with Sutton Avenue along the bottom of the sheet, north is to the upper right at an angle of close to 60° from the horizontal datum.

On what appears to be the earlier of the two initial site plan studies Wright proceeded by drawing very rough sketch plans of building design ideas on small pieces of paper which were

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199 Lacking conclusive chronological dating, I have assumed that these two studies were done in quick succession with 3906.020 recording decisions made through the drawing and realignment of cut-out plans shown in 3906.005, and the these two are the earliest existing studies of this project. Note that there is no apparent consideration of solar orientation in any of these Ardmore building or site plans.
then cut out and positioned in various alignments on the site plan sheet. In the Taliesin Archive collection there are four of these small unattached building plan sketches which appear to have been used with this site plan study (Figure 1.17). These small sketches depict a more loosely conceived building than the similar four cut-outs still glued to the other site plan (Figure 13), and they have a few significant differences. The rendering of building plan elements is more precise in this second site plan study (Figure 1.13), suggesting a higher degree of resolution.

On the earlier of these two site plan studies (Figure 1.17) the situation is slightly different. The thickened or masonry portion of the crossing walls is not continuous to the center as in the final version. But here the first floor plan appears to be different, so that this thicker part lies not in the living room but adjacent to a first floor kitchen. Three of the small cut-out plans depict a first floor plan consisting of three spaces and a stair. Two of these are similar in showing a carport against the crossing walls flanked by a larger volume for the living room which extends out into the landscape. In these two plan studies the volume of the living room is indicated only by a very loosely dotted line. The small kitchen then is tucked into the inner corner of this volume against the crossing wall and the carport. The third sketch is a similar mirror image showing a clockwise rotational character. The fourth small cut-out plan is a more complicated drawing which studied the upper floors as well.

The small cut-out plans which are glued to the second site plan study (Figure 1.13) all show a design in which the kitchen has been removed and this area has become an open area under a mezzanine next to the fireplace as in the final built version. From this it appears that the concept of masonry walls may have begun as a kind of utility core adjacent to each kitchen and quickly evolved to become first a thickened masonry wall in the living room containing a fireplace, and then was extended to become the crossing masonry wall which today characterizes the project. The kitchen was initially on the ground floor.

At least two of these small cut-out plans also show extensions of the crossing walls beyond the living room volume and into the landscape. These appear to depict low walls adjacent to the driveways of each unit similar to that built in the Goetsch-Winckler House in Okemos, Michigan. These walls extend outward from the living room a distance roughly equal to the distance from the corner of that room back to the center of the group building, half inside and half outside in plan. The end of each of these low extending walls turns to its driveway, to the right, trailing in a way which gently suggests a clockwise pinwheel effect.

This first site and building plan study (Figure 1.17) laid down a design idea which included utility cores, receiving spaces for automobiles, stairways and large living room volumes lightly

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200 There is a letter "K" drawn in each of these little rectangular areas on these small cut-out plans.
201 The second site plan study (3906.020) shows at least two different locations for internal unit stairs.
202 Also compare this with the quadrant idea seen in the early quadruple plans and in the design for Broadacre City.
drawn and all coordinated by a scant set of two axes establishing a Cartesian grid as the primary referent for order. The utility cores were placed so that they protruded from the side of the central wall opposite to the kitchen they were meant to serve. They were not centered on these walls. This single aspect of these small plan drawings establishes the first suggestion of rotation in plan. This rotational suggestion is maintained in the second site and building plan study (Figure 1.13) with the enlarged masonry wall containing a fireplace. Here too, these enlargements protrude into the driveway areas of the unit adjacent to the one served by the fireplace in the wall. In the later and final built versions of the plan, after the crossing walls have all been enlarged to become masonry, the rotational character is established by the juxtaposition of the open and closed spaces of the carport and living room (Figure 1.16). The thickening of these central walls was evened out somewhat, but the rotational character remained a crucial part of the expression. In fact, one can see the continuance of this early utility core in the thickened walls which enclosed the various utility flues shown in the plans of model “A” as built.

While it is possible to say that the direction of rotation was firmed up and clarified during these early studies - some seem to rotate one way, others the other - there is one part of the site plan study which seems to indicate a starting point. This first site study (Figure 1.17) was conducted by use of the small cut-out plans as we have discussed. There is however one set of crossing axes drawn directly onto the background sheet itself. This occurs under what would become Group building B, the second from the left. Here Wright has very lightly traced on elements of the building plan, and the utility cores stand out firmly. One sees the axes and the blocks for these cores alone. These jut out in a manner which establishes the counterclockwise direction. Later additions such as the slight turn on the end of the driveway walls suggest a spin in the opposite direction. In this first design the direction of suggested rotation remains inconclusive and contradictory.

The site plan study labeled 3906.005 appears to be the earliest in the Taliesin collection (Figure 1.17). On this sheet the site is given as Bryn Mawr, PA, not Ardmore. The building plans pasted on are simpler, more schematic. They show a kitchen and only a single other ground floor space. The rearmost gravel drive is located right on the property line. In the other (Figure 1.13) and in the final plans this drive was pulled away from the property line to allow a planting bed.

203 This rotational dimension established by juxtaposition of open and closed will be increased even further in the “Cloverleaf” version of the plan. Note the broader significance of the visually implied rotational movement in plan which is common with several other Wright projects such as the Usonian Concrete Block house shown in The Living City, p 70-1; and is strongly implied by the inclusion of the Gordon Strong Automobile Objective at the hilltop vertex of the Broadacre City model. An even more poetic vision might be seen in the second floor, or mezzanine, plan of the Ardmore building where, in the very center Wright has clustered all four bathtubs together with the four drains very near one another to the center. The spiraling motif that these tubs establish when seen in plan reflects the counterclockwise direction of the spiral of water moving down the drains themselves after a bath. Here the pattern of the falling water and the pattern of the building are similar! See especially the mezzanine plan of Model “B” (3906.36).

204 See plan as published in The Natural House (p. 106) and in the Monograph #6, figure 131 on page 94.
The pasted plans here (Figure 1.17) show both clockwise and counterclockwise versions of the scheme. The leftmost sketch pinned by the Taliesin staff shows all four plan levels as a study.

The effect of rotation in plan is complicated by one’s reading of mass versus volume in these early plan studies. Here (Figure 1.17) the room volumes are only hinted at while the mass of the hearth/kitchen utility core is drawn with a solid poché. On this sheet at the site of what will become building “B”, the second one in from the left, a set of two axes are drawn directly onto the background site plan with these cores projecting, or trailing, to the right - suggesting a clockwise rotation. The small plan study pinned second from the left shows this also. The effect is enhanced by the twist of the drives on the small sketch pinned third from the left. On the plan sketches drawn directly on the background sheet the end of the driveway walls turn to the right as mentioned above. There is one small sketch pinned in the lower right corner which uses these same elements to suggest an alternate, or counterclockwise, rotation. But in general the effect of a clockwise rotation given by the masses is strong.

On the second study sheet (Figure 1.13) the building plans and room volumes are drawn more carefully. The poché does not dominate so that a reading of mass and volume is more balanced. The kitchens have been moved from the ground floor, and the unit plans begin to resemble the final version. Wright has abandoned the tightly twisted drives suggested on one of the previous pasted plans. All this taken together leaves an ambiguity to the directional rotation suggested.

By the time the final building plans were completed and rendered on a background site sheet several changes occurred which affect this reading (Figure 1.2). The hearth/utility cores have been lengthened to include virtually the entire crossing wall segment. One gets a sense of a clockwise rotation only when looking at the small center of each building. Otherwise the inclusion of a gridded ground texture in the carport area, and the more complex “L” shape of the living room work together to give a counterclockwise effect. One reads the volume of the living room as trailing the spinning arms. This reading dominates all the later plan drawings.

On later versions of this plan (3906.003 & 3906.007) Wright labeled the quartet buildings and the units in a very interesting manner (Figures 1.2 & 1.16). When the site plan drawings are viewed with Sutton Avenue at the bottom of the sheet (the way in which they were drawn judging from the written labels on each) the quartet building on the far left, nearest to Spring Avenue is "GROUP A." The other three quartet buildings then proceed to the right as Groups B, C and D. This is straightforward enough. But, the labeling given to each individual unit with these four groups proceeds reciprocally, in the opposite direction. The individual unit which is furthest to the right, that is, the rightmost unit in GROUP D, is labeled number 1. Numbers 2, 3 and 4 proceed counterclockwise around the quartet group building. This suggestion of a
counterclockwise rotation is also, by the way, the same as that given by the overall spinning character of each quartet building plan.

The labeling of the remainder of the individual units then proceeds in similar fashion. Individual unit number 5 is the rightmost one in the next GROUP C. Numbers 6, 7 and 8 proceed counter clockwise around that group building and so on through the master plan. In this way each unit has a reference number. The interesting thing about this numbering system is that while Wright used the two systems, numbers and letters referring to individuals and sub-groups, he used the two systems in reverse order, one proceeding left to right and the other proceeding right to left. One numbering system moves smoothly to the right while the other tumbles back to right to left.

On the first site plan study (Figure 1.17) the entire parcel has been divided into four slices roughly the same size. The rear, or upper, property edge is labeled as 403' - 8". Each of the four divisions is about 100' along this rear edge. These divisions are made with lines parallel to the Spring Avenue edge. Since the opposite, or rightmost, property line does not run parallel to Spring avenue the fourth site division so indicated is somewhat smaller along Sutton Road than the other three.

The first building in from Spring Avenue is oriented with one side parallel to that property line. The angular orientation of the second building is shifted 30° counterclockwise. The third building parallels the first and the fourth follows the second at 30° to the Spring Avenue boundary. 205

This site plan study (Figure 1.17) also indicates the elevations of three of the four corners of the property as "datum 340" at the corner of Spring and Sutton, "datum 348.2" at the far corner on Spring Avenue, and "datum 353" (or "datum 358"). This suggests that there is no more that 13' elevation change across the longest diagonal site dimension. The site planning treats the site as though it is roughly level.

On this and on the second study (Figure 1.13) the driveways for each individual unit spin out from the group buildings in various ways. The drives are 12' - 0" wide and most run into their unit parallel to the carport walls. 206 Four of the driveways however reach into their carports at angles. Drives for at least six units gather and run into Sutton Road. Wright has located a collector drive along the upper property line which serves five of the drives. One unit is accessed directly from Spring Avenue, and the two on the far opposite side of the tract share one shorter collector. On the first site study (Figure 1.16) the large collector is immediately against the upper property edge. On the second site study sheet (Figure 1.13) Wright moved this collector down to allow for a planting band between it and the adjacent properties. There are no sidewalks

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205 Taken from notes on sheet 3906.007.
206 Taken from notes on sheet 3906.007.
indicated within the property boundary. Pedestrian access to each unit would be along these driveways.

Wright has sketched tree locations on this first site study (Figure 1.16) only in one place along the upper property boundary at the end of the upper collector. On the second study he added more trees loosely in a row in the new planting area along the upper boundary as well as in two loose groups along Sutton Road. In neither plan are trees shown within the confines of the collector drives, or in what we could call the inner site area.

On the first study (Figure 1.17) Wright has sketched the plan of a more conventional housing layout showing only six detached single family houses in parallel lots covering the entire site. This could serve as a quick demonstration of the relative efficiency of his innovative plan. He has also scribbled the note "16 Houses, standard (all alike)" on the far right of the sheet.

There are two other, more complete, site plan drawings of this first layout (Figures 1.2 & 1.16). One of these (Figure 1.16) appears to be a superseded version, sheet one of the first working drawing set. The other is a virtually identical presentation plan probably made first. These two plans are also drawn at 1/16" = 1' - 0".

The building plans as drawn on these two more finished sheets (Figures 1.2 & 1.16) show the outer corner of each living room cut back to allow a reentrant angle as in the final built version. The plans on the two earlier sketch site plan studies did not have this feature, rather the two exterior living room glass walls came to a corner which was to open outward with two french-type glass doors as in the Jacobs House living room.

Trees are rendered here by drawing in the trunks with a solid and roughly circular hand drawn line as though they are cut in horizontal section, and by indicating the canopy's overhang with a perfectly circular and carefully dotted line. The tree locations are very similar to that on the last plan (Figure 1.13) with the addition of one lone tree along Spring Avenue.

Here the yards left by the network of driveways are labeled and attached to individual units. The adjacencies are not handled as separately as one might hope for in a situation like this. For example, unit 4 in building Group D has a living room with windows on two sides, one side looks into a yard assigned to #4 while the other side looks into a yard assigned to #1. Unit 10 has a very large and clear yard by comparison to unit 1, for example. Wright has indicated by straight dashed lines how these yards should be divided up. He has usually also suggested supporting such divisions by masses of low shrub plantings, as between the yards assigned to 1 and 4.

The presentation site plan differs from the working drawing site plan in the way that plantings are used to reinforce yard designations. On the first plan (Figure 1.2) Wright has shown low masses of shrubs along almost every dashed line indicating yard separations. These plantings would have helped to define the yard for each unit as a perceivable pool of open space.
adjacent to the living room in most cases. Wright did not indicate what these plantings are to be on these drawings; but it is clear that, taking the geometry of the overall building layout as a given, he has attempted to tie each living room to its own exterior lawn plane/space as defined by the driveways and these low shrub masses. Around the entire ensemble of sixteen units in four buildings he located trees as the highest and most enclosing landscape element. The horizontal plane of the lawns attached to each individual unit lie in multiple centers, while the vertical lines of the trees surrounding the entire group form a common outermost boundary reference. There is no other strong sense of order to what is seen from within each unit except as it looks out into a pool of lawn surrounded by low plantings with trees in the background.

In the second drawing (Figure 1.16) the plantings do not always follow the dashed lines as closely, however. Although the low interior plantings are much more loosely indicated here, they appear not to follow as coherent an idea of order as the earlier plan. They do not always reinforce yard divisions. Notice that yards 12 and 9 in building Group B has planting which runs into #12 significantly. It doesn't appear that these yard designations would have been equitable or even successful. Unit 9, for example, mostly looks into yard 7, while its own yard is dominated by unit 12. What Wright has done here is to let the driveway side of each unit take first claim on owning the adjacent yard. Notice unit 10 and yard 10 overlap perfectly as do unit 16 and yard 16. There are extreme cases, like yard 3 is separated from unit 3 by unit 2 to which it is adjacent, etc. The drawing calls for rounded curb lights at certain places.207

The cover sheet of the working drawing set for the first building Mallery constructed exhibits the following notes:

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**Dwellings in Quadruple Concentration on 10,000 Square Feet of Ground.** Each family an independent unit with enclosed general purpose sun-deck private playspace, drying clothes, etc, etc, interior not visible to neighbors. Based on one motor car per family - spacious carport and workshop. Basement, carport and ground floor fireproof - balance fire resistant. Domestic arrangement centered and concentrated in mezzanine. Planned for family of from two to eleven. Nine children provided for in one trundle bed and four vertical twin beds, built in. In case of no children - studio apartment (top floor studio) floor heating - incinerator - rubbish drop - ventilated clothes chute - houses stack ventilated.

Designed to provide compact modern living conditions so concentrated as to need no outbuildings and prevent general squalor characterizing the usual low-cost housing - - - the economy of centralized verticality at work to clean

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207 These are similar in design to those suggested for the Pittsfield project.
UP A NEIGHBORHOOD AND KEEP IT CLEAN. SMALL GARDENS AVAILABLE ON THE GROUND IF
WANTED.

ALL ASPECTS AS WELL AS PROSPECTS ATTRACTIVE AND COMPLETE. INTERIORS DESIGNED
TO PLEASE THE SENSIBILITIES OF ANY TRUE PHILADELPHIAN.208

Description of building Model "A"

While the initial building concept shown in the small loose cut-outs on the first site plan
study (Figure 1.17) is really a quite simple one, spatially and architectonically this became a very
complex design internally as it was refined. The clearances in three dimensions were very tightly
considered with little room for movement in any direction. The layout of the design is governed
by a 2' - 9" square module in plan.

The main spatial arrangement of shared family rooms consists of a variety of tightly
controlled yet overlapping volumes stacked in two and three dimensions. The ground floor
contains an open exterior space tight against the shared masonry wall and the largest enclosed
volume which is the living room. The open space is designated as a carport with a workshop
pushed back into the reentrant corner.209 Each unit has a small basement reached from a
stairway from this workshop.210 The living room is an oblong volume some eight and one half
modules long by five modules wide (roughly 23' - 5" by 13' - 9"). The front door opens to a small
closeable vestibule containing the stairway up to the mezzanine. As with many of Wright's
Usonian house designs, one's first steps into the house bring you out from under a low ceiling
and past the stairway to the more private family areas and in toward the living room proper. A
little more than half of the living room wall opposite the entry is glazed from floor to the 13' high
ceiling. The far corner is enclosed by a brick wall which wraps around and out from the crossing
masonry wall, enclosing bookshelves and a built-in seat concluded by a small table. In the corner
back to your left upon entry there is a fireplace located under a projecting balcony. In a feature
characteristic of Wright's Usonians, the bookshelves continue under this balcony to abut the
fireplace itself. The ceiling in this recessed area is only 6' - 8" high. There are closets and cases
along the wall to your left adjacent to the entry between the stair and the volume of the living
room. Although the floor area of this living room is no more than 325 square feet, it has been
given a great diversity of definition. On some plans Wright has shown a carpet which describes a

208 Text on the cover sheet to the working drawing set for Model "A," the first Ardmore Suntop building.
209 Wright indicated a set of 'lifting blinds' be installed in the carport 16' - 6" from the far end or about 4' in
from the front door. These would have provided some security but not much space for the automobile
of the day.
210 It should be noted that an a typical automobile of the 1930's would have to be pulled up with its front
well into the 'workshop' or it not to block access to the front door! Wright acknowledges this in the
building section on drawing 3906.004.
rectangle on the floor uniting the glazed, the enclosed and the covered portions of this complexly formed volume in one definition.

The volume of the living room is enclosed in its back corner toward the center of the fourplex and open in the opposite direction toward the site. The outermost corner of the glass-enclosed volume is relieved by the removal of one module's worth of floor area in which the tall glass walls turn inward like the solid masonry crossing walls themselves. In effect the corner of this room has been removed.\textsuperscript{211} The room has a diagonal organization in which the most closed corner is juxtaposed with the most open. The seat under the balcony by the fire lies diagonally across from the high glazed corner. This structure is crossed by the opposite diagonal which leads from the upright stance of the human frame at the entry to the horizontal line of the built-in seat in the opposite corner.

On the rendering Wright made of two of these buildings (Figure 1.8) and on the building sections in the working drawings the glass walls are shown as continuous sheets from top to bottom. In the built project, however, these expanses are broken by the addition of two horizontal mullions at the top and bottom of the projecting balconies.\textsuperscript{212} The perspective rendering also indicates that the glass doors at each end of the glass corner would operate from the floor to ceiling opening out onto a concrete mat. In the built project these were changed to more conventional height doors. Wright has also indicated a built-in planting bed in this mat a few inches above grade just outside these living room windows.

The mezzanine holds the kitchen, dining area, bath and two bedrooms. In contrast to the openness of the lower level, this is a tightly packed area with little room to spare. The projecting edge of the balcony is fully occupied by a built-in seat which wraps halfway around the dining table. Wright indicated the construction of four moveable chairs for the other side of this table as a part of the building contract. All of the kitchen appliances and a very small amount of counter workspace are lined up along the adjacent masonry wall with cabinets overhead. A linen closet, toilet and bathtub are also lined up along this wall toward the center of the building.\textsuperscript{213} Wright devised a remarkable, if somewhat tortuous transom in the ceiling above the dining area which allows a vista onto the roof deck while providing a vent for kitchen odors, etc. A very small children's bedroom and the master bedroom with an ample wardrobe closet complete the interior floor area of the mezzanine. While the master bedroom has large windows and a balcony along

\textsuperscript{211} In the earliest versions of this plan the glass corner is not removed in this way but left to open outward as in the Jacobs House living room.
\textsuperscript{212} See photographs in The Natural House, p 107-8.
\textsuperscript{213} An even more poetic vision might be seen in the second floor, or mezzanine, plan of the Ardmore building where, in the very center Wright has clustered all four bathtubs together with the four drains very near one another to the center. The spiraling motif that these tubs establish when seen in plan reflects the counterclockwise direction of the spiral of water moving down the drains themselves after a bath. Here the pattern of the falling water and the pattern of the building are similar! See especially the mezzanine plan of Model "B" (3906.36).
one side overlooking the entry drive, the children's bedroom is an internal room with no windows.

A stairway of even tighter dimensions that the first leads from the mezzanine up to a third level called the penthouse containing two more children's bedrooms. This third level is two steps above the roof of the living room and master bedroom to allow space for the kitchen transoms. The roof terrace is completely enclosed by a five foot high wooden parapet along its outer two edges and an eleven foot extension of the masonry walls to the rear.

From the exterior, any single facade is shared by two adjacent units. One sees a rich visual interplay of brick, glass and wood planes suspended in space. Any elevation is broken in the center by the end of the crossing wall which does not quite reach the outermost plane of the building. To the left there is the rather simple mass of the wooden parapet wall resting almost equally on a plane of glass and a contiguous one of brick. To the left, a balcony projects over the open space of the carport, while the body of the building steps back some five to six feet. This wooden balcony carries the same plane of the parapet wall on the opposite side over into the domain of the next family unit. The wooden parapet wall of the unit of the left is held back with the body of this unit some five or six feet from the outer face of the building. The wooden parapet wall opposite, and the balcony of the leftmost unit, both project out far enough from the vertical planes to cast strong shadows. The wooden parapet wall of the unit on the left, the unit which actually shares the balcony on this face, is held flush with the wall underneath so that no such shadow is cast. This absence of shadow allows the other two wooden projections to share a positive presence. This arrangement of planes on a facade Wright has created an ambiguity of reading which will become characteristic of the projects reviewed herein. It becomes somewhat difficult to establish a clear or simple definition of which planes belong to which unit. One's reading of the masses and of the assignment of units to families is enriched by this complexity.

This building then is defined by a series of planes, volumes and masses floating at right angles to one another and tucked into the crossing masonry walls. This is not unlike the arrangement of the volumes and projecting terraces at Fallingwater. The main body of each unit is the most dominant of these. When faced from the driveway it extends out to the right. The dominant enclosed volume, that of the living room, is aligned with a vector moving at right angles to that of the overall unit mass. In other words the volume experienced in the living room occupies a space parallel to the driveway. This is at $90^\circ$ to the body of the unit. But, whereas one might see the driveway as following an inward moving vector, the volume of the living room moves from closed to open in the opposite direction, outward from the rear wall with the hearth toward the entry. This volume is intersected by the mass of the balcony which projects into it again at a right angle, parallel to the main body of the unit. Even though their directional thrusts are at right angles, this balcony is continuous with the one extending outward over the driveway.
from the master bedroom. In the rendering of two units (Figure 1.8) Wright has indicated the visual continuity of this balcony structure as seen just inside the living room. So that while from the living room it appears to jut to the right of the original axial direction, into the volume of the living room, from this exterior perspective it can be seen as primarily moving in the other direction, back out over the driveway. The shape of this mezzanine suggests in its form the action of entering the unit and having one's attention turned to the right toward the vista outside. It contains the more private shared kitchen, dining and bathing functions as well as the master bedroom. This mezzanine holds the core of the family's experience of the building.

The space inhabited by the family then is defined by two intersecting volumes on two levels. One of these is the living room and the other is the mezzanine. As in many of Wright's Usonian-era houses, the spatial experience of the family is organized against a wall-like datum, projecting outward toward the vista. Here the space of the mezzanine half projects into the living room in the direction of the vista, while half of it is shielded by the mass of the stairway tower. In three dimensions this situation is even more rich in that the half of the mezzanine which lies toward the interior of the unit has a somewhat higher ceiling which allows the housewife to view her children playing on the roof deck while admitting natural light directly into the kitchen. In contrast to the rich interweaving of volumes in this part of the house, the more private bedrooms are all tightly tucked away against the enfolding arms of the crossing masonry walls. This forms a virtual diagram of the family structure.

Description of the way Model "B" differs from Model "A"

In the second version which Mallery called Model "B," Wright created a more elegant and somewhat more complex variant of the one built. He replaced the brick of the crossing central walls with cast-in-place concrete. They were to be lined horizontally in increments giving the whole a strongly unified character. While in general terms the plan remained much as it had before, there were some significant changes made to the first floor level. The basements were done away with and a single heating system provided for all four units. This was to be located in a central room on the ground floor level under the center of the crossing walls and would have been reached through the end of one carport. There was a small storage closet next to this central utility room off of each unit's carport. The 'workshop' was removed, as was the need for a

214 Note the similarity between this and Wright's observations on the result of the half interior and half glazed Coonley House living room as "the vista within, and the vista without."

215 One is of course reminded here of Norris Kelly Smith's analysis of the centripetal versus centrifugal organization of the Willits House of 1902 as a model of the nuclear family. While this Ardmore model is not as complex in presenting a double structure, it does resolve two definitions more integrally into a single unit.
stairway down from there. The floor of this carport was indicated as gravel with a perimeter concrete mat in lieu of the overall concrete mat provided originally.

In spite of the additions of the utility room, the removal of the workshop allowed the living room to be enlarged slightly so that Wright was able to tuck another line of built-in seating under the stair next to the fireplace along the carport wall. The orientation and shape of the fireplace was changed so that it was shallower and now ran along the concrete wall almost to the edge of the overhead balcony. The closeable vestibule at the entry was abandoned as the closet next to the stairway got smaller so as to expose more of the stair run to the view of the living room. Otherwise the living room and its dynamic spatial structuring remained much as it was in the built version, Model "A."

The only noticeable change to the mezzanine level plan was a relocation of appliances along the kitchen wall so as to provide a more protected space for the refrigerator. In the first design this had been located at the end of the dining table, actually on the cantilevered part of the balcony. As noted in the above discussion Wright also here included small radiators on the exterior walls of the master bedrooms. The overall height of the crossing concrete walls above the roof deck was lowered some 3' 0" as well. The make-up of some of the internal wooden walls and partitions changed, and Wright provided a built-in lantern at the edge of the projecting dining balcony above the entry. In general the details were tightened up throughout the project making Model "B" a more efficient design in every case.

**Description of the Similarities between "II" & "T"**

Wright studied the possibility of using a parcel of land across Sutton Road instead of the initial site which extended along this street. This action was unrelated to the replanning of Model B but both represent significant reconceptualizations of the original architectural and planning idea. Mallery became aware of a violation of existing zoning regulations and wrote to Wright, as we have seen, on March 25, 1938. The part of the initial site which would allow the multiple unit structures Wright designed faced Spring Avenue and continued for only the first 100' up Sutton Road.

There is a sketch map (Figure 1.10) in the Taliesin Archives collection which records a study of the parameters of the Ardmore zoning designation "D". This sheet studies two similar schemes for locating one additional Suntop building to the east of the first planned along Spring Avenue. One of these sketches lays out the second building as it was intended in the initial site master plan, that is at an angle of 30° relative to the axis of the first building which was parallel to Spring

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216 In either case this kitchen design is inexcusably tight, with almost no counter space for meal preparation.
Avenue. The other sketch rotates the second building so that it is very nearly parallel to the first. Both of the plan sketches on this sheet record the 20' front yard setback and the 18' between building clearance of the zone "D" designation. These two drawings position the first building differently with respect to its distance from Sutton Avenue. The first shows the first building set back approximately 12' from the 20' required set back along Sutton Avenue. The other drawing pushes the building away from the street approx. 30' back from this required set back so that it begins to crowd the rear property line. In fact the second scheme pushes this building back to the limit allowed by setback requirements along the rear site edge.

These buildings present a discrepancy from the written record in that while Mallery's letter of 3/25/38 specifies a 100' limit to the zone "D" area along Sutton Road, these plan studies indicate a 150' limit. They also indicate the necessity of a 50' extension in this direction to allow two Suntop buildings. The second of these sketches also indicates the location of driveways for the two buildings. There is the slightest indication of a Suntop unit considered across Sutton avenue.

There is a revised master plan dated November 25, 1938 which records the first building pushed as far to the rear of the site as the zoning would allow, as in the second of the two planning sketches mentioned above. The second Suntop building is located parallel to the first one with the facing facades only some 25' apart. In this site plan the third and fourth buildings are relocated across Sutton Road on a different parcel of land adjacent to Spring Avenue. These two form something of a mirror image of the first two and in doing so suggest a very different experience of the group. All of the buildings in this scheme would have been parallel to one another and to Spring Avenue. Sutton Road would have run through the group at an angle.

The buildings here are labeled in a much simpler manner than before. All sixteen units are given a letter as a designation. Unlike the first example, here the group buildings received no other competing designation. These letters begin with the unit in the lower left in the first building along Spring Avenue to the north and proceed clockwise around the quartet from A to D. The second building on this side of Sutton Road receives the letters E, F, G & H in a similar fashion. Across the street the building closest to this and farthest from Spring avenue is labeled I, J, K & L. The final building in the set is labeled M, N, O & P in the same fashion.

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217 This appears to be the one that was followed in the layout of the built structure.
218 This extension was never granted - there is no mention of it in the correspondence either.
219 These drawings are not by Wright's hand and may have been sent to Taliesin from Mallery in Philadelphia.
220 It seems possible that this represents Wright sketching over a drawing prepared by others and sent to Taliesin in the Spring of 1938. It is also possible that these drawings were prepared in accord with the application for a building permit in mid-October 1938 at which point it appears Wright took up a serious study of this site limitation.
221 This second site master plan is the one published in the Architectural Forum, August 1939.
222 The plans shown on these drawings have been turned so that Spring Avenue is now at the bottom of the sheets.
As in the case of the earlier master plan, here Wright indicated a planting scheme which would have been low in the front and high toward the rear property lines. This second plan calls for 'tall planting' in the rear corners of both site parcels and 'low planting' along Spring Avenue in the front. About half of the carports would have been reached by use of collector drives which run along the rear edges of each parcel.

**Summary of the Formal Analysis**

The first master plan study (Figure 1.2) as indicated in the group perspective (Figure 1.1) used a 30° shift in orientation to obscure relationships between different buildings. Even though the third building would have been parallel to the first, this relationship would have been largely obscured by the presence of the intervening second building. The same thing would have held true for the second and fourth buildings in the originally planned ensemble. The way in which that plan spun off driveways across the site from the four buildings would have also acted to interfere with one's reading of the geometric structure of the group. While the first building of this group was to parallel Spring Avenue, this relationship would have been diminished in terms of its importance for the ensemble by these other geometric aspects. In the second site plan however, the uniformity of the group would have been immediately evident and would have contrasted strongly with the implied reference datum provided by Sutton Road running angularly through what would have appeared as a single site due to this arrangement of buildings.

In the first plan Wright created a group of buildings with a planning structure that makes it difficult to perceive any specific overall order. Each unit is 'isolated' within a planning field created through the use of plant materials and strong geometry. The isolating effect created by the constant shifting of buildings, is heightened by the suggestion of rotation this shifting carries and by the organization of mass and plane of each building's facades.

In contrast, the visual complexity of the side of any single building is built upon the relatively even but unbalanced status given to the two units visible on any side. The resulting ambiguity of perception in this 'field' provides a background for the location of each unit. While each individual unit is attached, a conventional, or classically derived, hierarchical structure is not given. Rather, each is given a kind of independent, autonomous, or equal status. The visual structure of the relationship of each individual to the group intentionally remains obscure as a result of these formal inventions.

When a unit is experienced from within, each family is given a richly woven, if small and tightly controlled, observation point organized around the kitchen as the control center.
The second site plan brings all four Suntop buildings together into a coherent and unified structure. In this plan, while each unit would clearly have been seen as subservient to the perceivable structure of the whole, there would have been no noticeable or dominant hierarchy of parts. Each unit still stands on an equal footing, even if a larger unity is recognizable. In this site plan, rotation and orthogonality are contrasted so as to create a variety of perceptions of order. At this level the design is all about order and hierarchy in cognitive structuring.

Rotation provides a basis for differentiating between the individual and the group in these plans. In the first site plan the shifting (or rotation) of each successive building works to obscure not only the relationship of the building to the formation of a larger whole, but also to obscure one's sense of the structure of units within a single Suntop building. This successive shifting works in this way, not simply by avoiding the perception of geometric order, but by providing too many competing orders. Rather than offering random perceptual orientations, this plan offers two competing geometric orientations which, while repeating, intervene on one another in a way which makes it impossible to collapse or simplify in one's mind. This overactive geometry is placed in a natural frame so that it appears to be in harmony with the natural surroundings. The two geometric systems might be seen as metric and sequential, each identifiable as viable in itself. But the appearance of rotation changes this in that the angular momentum of a rotating body owes no allegiance to any outside force. Such motion is entirely self-referential. Here we see both of these dimensions - the strong field and the independent body.

In the second plan, Wright has created a simpler design of great power. He has united all four buildings within a single field embraced by natural forms - low in the center and high along the rear edges. The unity or coherence of this field is challenged by the angular position of Sutton Road, traversing the whole, and oblivious to its already stated order. The presence of two simultaneous and competing systems is suggested, again without allowing a hierarchy in the positioning of individual units to emerge.

In the first site plan the units achieve an autonomous, non-hierarchical position by the presence of multiple, competing organizational systems that do not allow a sense of overall order to condense in one's perception. The whole is placed in a planting scheme meant to represent a natural context. In the second site plan one is given a clear sense of the unity of the whole field and its naturalness while each individual unit retains its autonomy.
Illustrations: The “Ardmore Experiment” (3906)

FIGURE 1.1 “air view,” perspective of all four units - #3906.002

FIGURE 1.2 site plan, presentation quality - #3906.003 (labeled sheet 7) [unreadable date]

FIGURE 1.3 presentation plan of single building

FIGURE 1.4 detail of working drawing plan, scheme "A" - #3906.004

FIGURE 1.5 detail of working drawing plan, scheme "A" - #3906.004

FIGURE 1.6 detail of Figure 1.4 - #3906.004

FIGURE 1.7 study elevation - #3906.008

FIGURE 1.8 exterior perspective view - #3906.056

FIGURE 1.9 model photograph

FIGURE 1.10 site plan zoning study - #3906.016

FIGURE 1.11 revised plot plan - #3906.014

FIGURE 1.12 building photograph

FIGURE 1.13 site plan study - #3906.020

FIGURE 1.14 working drawing ground floor plan - #3906.036 [dated 9/39]

FIGURE 1.15 detail of working drawing floor plan - #3906.036

FIGURE 1.16 first working drawing site plan - #3906.007 (labeled "void")

FIGURE 1.17 early site plan study - #3906.005 (cut and paste plan)

FIGURE 1.18 detail of early site plan study - #3906.005

FIGURE 1.19 detail of early site plan study - #3906.005
FIGURE 1.1
"air view" perspective drawing of all four Ardmore Suntop buildings
(3906.002)
FIGURE 1.2
presentation site plan
(3906.003)
PART ONE / Chapter One
FIGURE 1.3
publication floor plan of one building showing four units
FIGURE 1.4

detail of working drawing floor plan of first building in scheme "A"

(3906.004)
FIGURE 1.5

detail of working drawing section of first building in scheme "A"
(3906.004)
PART ONE / Chapter One
FIGURE 1.6
detail of Figure 1.4
(3906.004)
PART ONE / Chapter One
FIGURE 1.7
study elevation
(3906.008)
FIGURE 1.8
perspective drawing of two adjacent buildings, scheme "A"
(3906.056)
FIGURE 1.9
model of Ardmore Suntop Building scheme "A"
made by Taliesin staff
FIGURE 1.10
site plan zoning study
(3906.016)
FIGURE 1.11
revised plot plan, scheme "B"
(3906.014)
FIGURE 1.12
building photograph, c. 1940
FIGURE 1.13
site plan study, scheme "B"
(3906.020)
FIGURE 1.14

detail of working drawing floor plan, scheme "B"
(3906.036)
FIGURE 1.15
detail of working drawing elevation, scheme "B"
(3906.036)
FIGURE 1.16
first working drawing site plan
(3906.007)
FIGURE 1.18
early site plan study (cut & paste)
(3906.005)
FIGURE 1.19
early site plan study (cut & paste)
(3906.005)
PART ONE / Chapter One
CHAPTER TWO - USONIA I

1 - Chronology & Development

At virtually the same time as the Ardmore Experiment, Wright was involved with another planning project which explores what can be seen as a complementary approach. The Usonia I subdivision project, as it came to be known, was different in both scope and intent. It was the first of many cooperative ventures for which Wright would be asked to provide master plans. It involved houses for seven individuals and a common service building. And, significantly, it was intended for a large, semi-rural, naturally beautiful site.

In July of 1938 Sidney Newman, of the Department of Philosophy and Psychology at Michigan State University in East Lansing, Michigan, wrote to Wright informing him that he, and several other faculty members, were in the act of purchasing some 40 acres of rural land and wanted help in laying out a plan of subdivision and designing houses.

A small group of Michigan State College instructors are combining to purchase a forty-acre tract of land about one mile beyond the city limits of East Lansing. We wish to build homes on this land, maintaining the rural qualities of the surroundings, rather than subdividing the acreage into city lots.\(^{223}\)

In order to decide upon the type of architecture that might best fit into the surroundings as well as the places at which building sites might be most advantageously placed, we feel the need of professional aid. The forty acres contain several varieties of land, including rolling ground in the front and a creek banked by wooded hills.\(^{224}\)

The plat lay to the southeast of East Lansing, just beyond the university which itself defined the southern edge of the town's settlement. Within this plat there was a small rise through which

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\(^{223}\) Newman to Wright, July 5, 1938.

\(^{224}\) ibid. The resulting master plan vision which Wright produced drew heavily on the individual house designs and on the process Wright followed. Therefore in this section I will analyze the design of these seven houses before going on to a study of the master plan itself.
a creek flowed northward to the lowlands around the Red Cedar River. Newman's description called the architect's attention to a rolling knoll in the southeastern corner which overlooked both the creek and the lowlands to the north (Figure 2.1).225

As we will see, Michigan was fertile ground for the cooperative movement. Newman and Harold Fields, an instructor in history at the college, took an option on forty acres of land near the southeast corner of the campus just outside the town line. This involved a number of other members of the college faculty who had been imagining the possibility of some kind of communal housing endeavor as a way of saving money on the cost of buying a house.226

It appears that Alma Goetsch and Katherine Winckler had already approached Wright on their own by this time, asking him for advice in designing a house for them. He had suggested they look for something rural, with at least one acre of land.227 At some time after their initial contact they became aware of the efforts by Newman and Fields to obtain a larger piece of land for the purposes of subdividing for housing. Goetsch and Winckler got involved with this group and were apparently influential in getting them to approach Wright with the larger project. In effect, they brought Wright in with them.

In the introduction to Affordable Dreams, Susan Brandes draws on an interview with Harold Fields, who had been involved with the project from its inception. Fields recollected that their group purchased forty acres which they originally called "Herron Acres" following the name of the small creek that ran across the site. This group was initially composed of the Newmans, Fields, Goetsch and Winckler, and Milton Muelder, who also taught history at the college. Fields recolled that although all of these original members contributed funds toward the purchase of the land, only he and Newman signed the deeds so as to simplify the legal processes.228

A high section of the southeastern most corner of the larger plot was allocated for immediate use by the group. This smaller section of some seventeen acres was roughly parcelled out among the members of the group in lots ranging from two to four acres. Fields himself took a plot slightly apart from the others, on the other side of Herron Creek, as he wasn't as sure that he would build a house immediately, or that he would ask Wright to design one for him if he did.

Fields had taken a leave of absence from the college as of that June to pursue a doctorate at the University of Chicago. He had in fact already relocated to Chicago when he and Newman made their first visit to Taliesin on July 23. The two men toured the Usonian house Wright had designed for Herbert Jacobs in Madison, Wisconsin on their return from this trip.229 Fields came into conflict with Wright early on about the use of a garage versus the carport that was to become

225 This site has since been developed by others with a loop road and houses along the bluff very much as suggested by the plan Wright developed.
226 See discussions by Brandes, Senkevitch and Tepfer in Affordable Dreams, p xiv.
227 Ibid. p 24 (see footnote #34)
228 Ibid. p xvii, (see footnote #3) Senkevitch reports that the group got together and formed a cooperative expressly to buy land, but he doesn't provide any documentation of this, however.
229 Ibid. p xiv
typical of the Usonian house and soon backed out completely. Muelder also had only a
tangential relationship with the final result as he began a year-long sabbatical leave in June, just
as the process was getting under way, and soon pulled out himself as well. By November 1938
both Muelder and Fields had sold their shares back to the other members of the group. They
were replaced by the Garrisons in April and the Panshins in July of 1939. J. J. Garrison
interviewed for a teaching position in art history at Michigan State in the spring of 1939 and
discovered the Usonia project at that time. He and his wife quickly joined the other members.230
Soon Erling Brauner, who also taught in the Art Department, C. D. Hause from Physics, C. R. Van
Dusen from the College Speech Clinic and Alexis Panshin, a Russian born forestry professor, also
joined the cooperative effort.231

Wright was scheduled to give a lecture in Chicago on October 19, 1938 and made plans to
visit the East Lansing site while on this trip. The group had in their possession at that time a map,
an aerial photo and other photographs of its general character which were sent to Taliesin on
August 26th.232 There was apparently at least one meeting between some of the group and
Wright in September in which the architect asked for another copy of the site map. Wright
visited the site during his Detroit drive sometime before October 25, 1938.

In the way of a contract for his services Wright asked his standard fee of 10% of the total cost
of buildings, with nothing over that for site planning.233 The first week of November, Newman
sent further information on roads, well possibilities, gas lines, etc. and asked if he could come
and visit Taliesin over Thanksgiving. By the third week of the month the group had roughly laid
out some lots on their own and sent Wright a print of the overall site with these lines lightly
marked (Figure 2.2). This map and a following letter indicated that four members of the group
were ready to proceed with building: the Hauses, the Van Dusens, Misses Goetsch and Winckler,
and Newman himself. While the map indicates rough locations for the Hause and Van Dusen
buildings, Newman’s letter told Wright that they would welcome his suggestions concerning
their sites.234

His own house site and that for Goetsch and Winckler had not been determined. Everyone
mentioned, however, had agreed upon the lot layout that had tentatively been effected. A 66’
right-of-way for the road was allowed in this tentative layout. This letter indicates that a
topographical map on tracing paper had already been sent to Taliesin before the “white print”
topo map just sent. Their surveyor also indicated the location of the creek by a pencil line on the
map just sent. Newman also indicates the “everyone” had written to Wright by this point with

230 ibid. p xiv
231 See microfiche B065C05 (6/14/39).
232 The aerial photo has not been located, but this letter indicates that such material was available to
Wright as he was planning this project.
233 Affordable Dreams, p 24, (see footnote #37), correspondence 7/8/38.
234 Newman to Wright, 11/16/38.
their own housing concerns. He noted that Goetsch and Winckler were planning to go to Taliesin over Thanksgiving and added that he still hoped he could make it then as well.

By Thanksgiving 1938 the planning discussions began in earnest. Their is no further correspondence between Newman and Taliesin until the end of March the next year when Newman wrote asking to see plans for the project. Eugene Masselink, Wright's secretary, wrote back saying that the plans were almost done and that they would be sent as soon as Wright returned from Florida. Newman visited Wright in Wisconsin between April 8 and April 17 and must have seen some layout of the scheme at that time. Wright was enroute from Taliesin West to England by the 21st of the month for his London lectures. By the first week of June Newman could report to Masselink that their well was going in. But a month later he was still waiting for final lot decisions so that the members of the group could proceed with financing arrangements.

Newman refers to the project as Usonia II, a title that Wright must have given the members in discussions with them. Herbert Jacobs reports that Wright called his Usonian house in Madison Usonia I, but there is evidence that Wright also called Taliesin in Wisconsin Usonia I as well. In either case, by naming a house first and then the larger planning project in the same sequence, Wright suggested an association between these projects. In his letter of November 20, 1939 Newman asked for any final changes in the house locations that would effect the lot layouts in order to allow members to proceed with loan arrangements. At this point it seems clear that the final scheme had not been determined. He was also concerned about specifics of the road placement and wanted to know how closely they should adhere to Wright's suggested location. Plans for the houses for Hause, Newman, Van Dusen and the Goetsch-Winckler Houses were ready by early April of 1939. By late summer Garrison, Brauner and Panshin had received plans for their houses bringing the total to seven. The dates suggest that not only had the individual houses been considered initially but that each was substantially complete before a master plan was firmed up.

By the end of July Taliesin sent cost estimates of the first four houses in the group, those for the remaining original members (Figures 2.3 & 2.4). The Newman house was estimated at $8,128.61, the Hause house at $7,258.99, the Van Dusen house at $6,788.22, and the house for the "Misses" at $6,811.55. The Hause had originally stated a budget of $6,000, while Goetsch and Winckler's original budget was only $5,000. Although Wright says elsewhere that they had suggested a figure of $6,600.

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235 Newman to Wright, 3/22/39.
236 Newman to Wright, 7/3/39.
237 See Affordable Dreams, p 21 (footnote #3 on Wright's 1939 London Lectures). This project is referred to in Wright's published writings and letters variously as Usonia I and Usonia II due to this naming situation. Eventually however it took teh name Usonia I as its record title.
238 See correspondence from Goetsch-Winckler, 10/25/38.
In the first week of August, the Newmans and the Hauses, along with Goetsch and Winckler visited Taliesin to meet with Harold Turner, an experienced builder of Wright's Usonian houses, suggested by Wright himself, who went on to become the builder of the Ardmore building.

There are eight letters from Wright to Newman over the eight weeks between 7/11 and 9/2, 1939. It is Newman's reply to this string of correspondence on 11/20 which first mentions in print the possibility of an internal difficulty. In an earlier letter of August 9th Newman indicated to Wright the possibility of internal differences between members saying, "one un-cooperative family in Usonia Two could render the whole project rather disagreeable." By November 20th the Panshins had abandoned the project due to concerns about construction methods and the possibility of cost overruns.

By September 4, 1939 expected private sources of funding for the houses had fallen through leaving Federal Housing Administration loan guarantees as their only hope of obtaining money to build. The F. H. A. subsequently rejected the project, however, for a variety of reasons mostly having to do with Wright's Usonian system of building. A letter to the Newmans from R. M. Foley, the F. H. A. State Director on December 11, 1939 listed some seven major areas of concern:

1. F. H. A. Property Standards, as well as the State Housing Code, required a minimum ceiling height of 8'-0."
2. There was an unacceptable lack of separation between the kitchen and other living areas in the house.
3. The design provided no laundry or interior drying space for periods of inclement weather.
4. The design did not call for painting or other adequate protection of interior and exterior wood surfaces.
5. There was inadequate steel reinforcing in the concrete slab, especially under point loads.
6. The board, batten and plywood wall system was deemed inadequate and subject to a high possibility of failure in time.

In saying this last Foley refered to the Jacobs house in Madison, Wisconsin and noted that, "Field inspection of an existing house of generally similar construction, which has been completed for about one year, bears out questions raised regarding structural soundness and durability, including conditions at the sill where non-uniform bearing and excessive exposure to moisture indicates the development of stuctural [sic] defects."

7. The roof framing of built-up 2 x 4's was considered to be "overstressed for indicated spans.

239 Newman to Wright, 8/9/39.
Here he also noted that on the Jacobs house “the contractor evidently decided to use 2x12 solid members instead.”

In addition Foley listed several other more minor considerations as lack of adequate electrical outlets, a “shut-in feeling” in the kitchen, insufficient light and air in bathrooms, “experimental” heating system and lack of insulation in roofing and walls. He also questioned the structural capacity of the “narrow wood mullions in the glass walls,” and pondered over the cantilevered carport roof, saying, “It appears that a required column has been eliminated.” As he indicated to Otto Mallery in October of 1939, Wright traveled to Washington to intervene personally on the behalf of Usonia I, but to no avail.

By the end of March, the following year, both the Newmans and Goetsch and Winckler had obtained independent financing from private sources and asked to go ahead with the construction of their respective houses. Newman wrote to Wright March 29th stating that he had $6,000 from a friend to build his house and that this reduced amount would require cutting perhaps two bedrooms and a bath from the original design. He also recommended revising construction details to reduce cost.

In this letter Newman reiterated his faith in Harold Turner’s capacities as a builder, trusting his sense and experience over that of “the young men who prepared the blue prints . . . .” A post script to this letter adds in closing, “The best way I know to get money for these people is to redevelop these houses in line with the F. H. A. requirements.” On April 2, 1939 Masselink wrote to Newman and the others asking for the return of all plans. Subsequently each of the others straightened up with Wright after his disagreement with Newman and intended to continue.

The houses designed initially for the four members of the original group were located to the northern edge of the 17 acre hill, furthest from Mt. Hope Road (Figure 2.5). The houses for Hause and Van Dusen ride the ridge along Herron Creek to the west. The Newman and Goetsch-Winckler houses apparently originally faced each other above the pond. The orientation of the Goetsch-Winckler house was switched 90°, giving it a view to the southwest along the hillside sloping down to the pond.

On the master plan there is a suppressed coordinating grid, or at least, a suppressed grid that coordinates the orientations of the seven houses and the two orchards (Figure 2.5). This grid is

240 Foley to Newman, 12/11/39. (fiche # NO26B10-11)
241 Wright to Mallery, 10/6/39.
242 There are two letters from the Usonia I group written during this period to Otto Mallery of SunTop Homes concerning financing possibilities. These are from Jesse Garrison and Sydney Newman and are reprinted in the Appendix on pages 579 - 581 (Jesse Garrison to Otto Mallery 9/2/39 and Sydney Newman to Mallery 9/11/39).
In a letter of his own to Otto Mallery, Wright mentions the financial plight of the Usonian subdivision by asking: "Can't you interest somebody in Lansing? It is a great value and a good risk: more of the same sort of needed construction at a level always solid as a rock.
"A hunch from" "Frank Lloyd Wright"242 (Wright to Mallery 9/6/39)
oriented some $36^\circ$ off of the east-west datum. The driveways approaching the Hause and Garrison projects, for example, run $36^\circ$ west of north as they head up to the dwellings from the internal loop road. The primary axis of the Goetsch-Winckler House follows this same orientation $36^\circ$ west of north. The Goetsch-Winckler living room then faces $54^\circ$ west of south$^{243}$ The large 50' planning grid of the Hause, Van Dusen, Newman and Goetsch-Winckler projects very nearly follows this orientation. There is as much as $1^\circ$ of variation across the site study drawings for these individual projects. On the Hause and Van Dusen study sketches the paper is oriented parallel to the large 50' planning grid (Figures 2.6 & 2.7). This orientation means that 'project north' is $36^\circ$ above the horizontal to the right. Actual north is located $90^\circ$ above, that is, perpendicular to Mount Hope Road.

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$^{243}$ Neil Levine has noted in personal correspondence that this is very near the orientation of the Taliesin West drafting room as well.
Hause House

It appears from a comparison of #3912.006 with #3912.002 and #3912.003 that the Hause design originally had an orientation different from its final one in the Usonia I master plan (Figures 2.3, 2.5 & 2.6). Drawing #3912.006 shows the design in very nearly the same location but oriented with its living room windows and hearth facing northwest instead of southwest as finally drawn on #3912.002. There are several aspects of the drawing which confirm this observation. Firstly, the original site study of the orientation and planning of this house shows the orientation regulated by a large square planning grid of some 50 feet. Within the planning field for the house itself this large grid is broken into a more detailed or intimate grid of 2' x 4' modules. These are oriented so that the long side is roughly parallel to Herron Creek to the northwest. This drawing also has an elevation drawn below the floor plan showing the east facade with the side of the carport on the left extending with a low brick wall out to the left as a claw, anchoring the house to the site. Another double line to the right, extending northeast, seems to indicate a wall on this side as well. This one is picked up and continues in the corresponding sketch plan for the Van Dusen house (Figure 2.7).

This drawing also shows a cut out segment which has been reoriented and glued back in place just as with the Goetsch-Winckler sketch plan (Figure 2.12). Here the 2' x 4' planning grid can be seen as having been shifted 90° as was also the case with the Goetsch-Winckler plan. The final orientation on the master plan shows the Hause dwelling turned 90° so that it faces southwest along the slope, very much like the final orientation of the Goetsch-Winckler house. This orientation means that the 2' x 4' modules in the floor plan no longer ran parallel to the contours, but rather, like the final terrace of this house, they jut out over the slope.

On the master plan Wright indicated two low brick walls extending out along the ridge as they had previously, but now intersecting the building at different points. Along the carport he kept one of the original walls, now reaching along the drive to the southeast to end in a "J" suggesting enclosure or protection.

In the Van Dusen, Newman and original Goetsch-Winckler house orientations, the 2' x 4' modules all run parallel to the creek, that is southwest to northeast. In the Hause project as finalized and in the relocated Goetsch-Winckler orientation this module was turned 90°. Considering all these original site orientations for the Hause, Goetsch-Winckler and Garrison

244 My purpose here is to develop just as much detail of the individual house planning processes as will support a study of the overall master planning of the project.
houses, the hearths would have in each case not only paralleled the 2’ x 4’ grid, but in doing so run parallel to the ridge so that the living room of each house would have projected out from the hearth as a kind of wall. On the summary sheet Wright drew the Hause plan with the 2’ x 4’ planning modules parallel to those of the Van Dusen house, reflecting its original orientation with respect to its sister design (Figure 2.3).

In contrast to Wright’s Prairie Houses, these houses would have put the kitchen/fireplace between the carport and the vista. In the Prairie Houses generally the relationship of the car or garage is not an issue, as personal automobiles were not in wide use. In those dwellings the living room invariably reached out from the hearth to face the street with the kitchen hovering somewhere behind. In the Usonian Houses designed for this project, the kitchens and fireplaces are generally joined together to form a densely built core. The entry from a carport would bring one into the house in the immediate proximity of this core structure. From the entry point one would then typically be drawn outward into the living space by the view beyond. In this sense the kitchen/fireplace core forms a kind of wall separating the car from the idealized view of the natural setting. This has to be taken as one of the hallmarks of Wright’s Usonian system.

The orientation of the Hause project was altered before the master plan was studied (Figure 2.16). This was the case with the Goetsch-Winckler house as well and perhaps with the Garrison design also. All of this suggests that Wright’s master plan study must have been done well after the houses were designed and presented to their clients (Figure 2.16). This indicates that the houses were studied and designed first, their orientation regulated or coordinated only by a common attitude toward the siting and the abstraction of the large 50’ planning grid. The grid on the Hause study is labeled 1, 2, 3, 4, & 5 from top to bottom and A through F from left to right (Figure 2.6). The Van Dusen sketch plan picks up and continues this grid labeling from D through I (Figure 2.7).245

**Van Dusen House**

The Van Dusen design also shows signs of site study. This house was not turned 90° as was the Hause; rather it was studied in mirror image versions in at least three places on the site. The final site location as given in the master plan was somewhat different from the two shown on the sketch study (Figure 2.7).

As Newman’s letter of November 16, 1939 would suggest, the Hause and Van Dusen designs were sited early on, their locations coordinated by the large grid. Since this large grid labeling begins with “A” on the Hause drawings we can assume this was the south most edge of Wright’s

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245 On sheet #3912.006 Wright has included a north arrow which is wrong in orientation - this, taken with the several other north arrow mistakes indicates that the original topo map he was working with was miss-marked, leading him to try an original solar orientation which later had to be changed?
original use of this planning grid. The Newman project to the north continues this grid labeling from I through N. The Hause orientation, although turned, maintained its position on a small protruding knoll above the creek.

The property line between the Hause and Van Dusen plots is in the same location on all four of the relevant drawings (Figures 2.16, 2.5, 2.6 & 2.7). The property line between the Van Dusen and Newman plots however varies between the Van Dusen sketch plan and the final (Figures 2.5 & 2.7). No property line is indicated on the Newman sketch plan (Figure 2.8).

The Van Dusen design was apparently initially sited on a small protruding knoll just as the Hause design. The initial plan sketch on .011 shows a low wall connecting the Hause and Van Dusen houses (Figure 2.7). This sketch however has a large roughly drawn oval around it. The living room in this sketch plan also shows a large “X” marked over the full extent of the rectangle of the living room, which either crosses-out this drawing or at the least shows a rather simply defined space.

This location is reinforced by the inclusion of an elevation of the lower or entry side of the house in this location on the sheet. The initial, or leftmost, sketch is roughly worked in a way which also suggests the exploratory process of initial design. The mirror image sketch plan to its right is much more cleanly and finally drawn by comparison.

The presentation plan of the Van Dusen house (Figure 2.16) shows the second, or mirror image, plan. This drawing is dated April 4 (presumably 1939) by Wright in the red square in the lower left corner. It includes a bedroom with a separate entry as Van Dusen originally requested.246

This design was then reversed and moved further along the sloping ridge and somewhat higher up the hill, a bit further back from the creek. The final location shown in the master plan is between these two, not on the knoll at all. There were a number of specimen trees noted on both the Hause and Van Dusen sketch plans (Figures 2.6 & 2.7) which do show up as a small group on the master plan. On each of the Hause, Van Dusen and Newman drawings Wright has penciled in the client’s specific requirements, listing number of bedrooms, bathrooms and any other individual requirements.

In the Van Dusen design the protruding terrace began as an extension of the space of the living room directly out from the hearth. It has this character in both initial sketches and in the presentation plan (Figures 2.16 & 2.7). On the master plan and on the summary sheet the terrace has taken a more diagonal relation to the space of the living room, moving off to the west toward the protruding knoll the house originally held (Figure 2.3).

246 Affordable Dreams, p 66 and p 12. See Van Dusen to Wright, 11/12/38.
Clarence Van Dusen’s original letter to Wright requested a bachelor apartment, which he could use himself initially, renting the full dwelling to a larger family. On July 4, 1939 Van Dusen wrote to Wright informing him about his upcoming marriage and asking Wright to go ahead with a studio, perhaps the hexagonal object on the master plan.

The final design is much more dynamic in character, with a more complexly layered spatial sequence from carport to entry to terrace vista. In the final scheme the Usonian system describes three rather discreet, if partial, brick enclosures, one for the two bathrooms, one for the kitchen, and one defining an extended alcove-like area around the dining table. Of these, the kitchen is the most complete. This final version presents the use of brick supporting masses along a central zone of the plan, separating carport/entry and living room/vista (Figure 2.3). Around the brick masses, segments of “L” shaped wood wall elements act to spin out the complete plan. The brick gathers into the three more or less distinct boxes to define specific programmatic functions from most utilitarian (baths) to least (dining). Of these, the box containing the kitchen and hearth unit is the most completely described.

In the three earlier plan sketches (two on #3912.011 and one on #3902.001) the use of brick has a less conclusive character Figures 2.7 & 2.16). In the presentation drawing the brick extends fully around one end of the living room, reaching the outermost elevation and thereby not limited to the final central zone (Figure 2.16). Brick also is shown on the opposite side, the southeast wall of the smaller bedroom, extending beyond the central zone of the plan. In short, the final Van Dusen plan presents a considered articulation of brick and composite wood wall. These become elements of a language with broader implications than the planing of a house alone foretells. Other house designs in Usonia I carry out this schematization to greater or less degrees: Garrison, Hause, Brauner, Panshin and Goetsch-Winckler.

The Van Dusen presentation plan shows a built-in “L” shaped seat extending along the brick wall from the carport the terrace. This element is also found on the sketch plan in the second or mirror plan image. The rear wall of this alcove along the carport shows a continuation of the shelving or cabinetry of the kitchen. This presents a set of overlapping elements, each defining a part of the space.

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247 Van Dusen to Wright, 11/12/38.
248 See Senkevitch’s essay in Affordable Dreams.
249 The drawing numbering system of the Taliesin is well worked out and very helpful. Occasionally some of the drawings cataloged early on will bear a number with only two digits after the decimal such as #3902.01. The numbering system was eventually expanded to a three digit base so that this drawing should be known as #3902.001.
250 This extends the Quadruple Block coordination of individual houses in a master plan into the planning of the interior and to architectonic language of the house itself!
Newman House

While the orientation of the Hause and Van Dusen designs seems to indicate a coincidence between the large scale planning grid Wright used and the line of the ridge above Herron Creek, the same cannot be said of the project for Sydney Newman. The orientation of this house is clearly regulated primarily by the grid. This planning grid, more than specific site features, established its parallel relation to the two earlier designs. If the grid was used to assist in coordinating the Hause and Van Dusen designs with the micro condition of their sites, here it has become a governing figure in its own right, even leading Wright to ignore small problems rather than deviate from the order he established. This order suggests that the Hause and Van Dusen designs were begun before Newman’s and set the tone of those that followed.

The first study sketch of the Newman project in the Taliesin collection is very similar in character to those of the Hause and van Dusen projects (Figure 2.8). This sketch plan is a topographic map with the large grid extending to the northeast from the Van Dusen site along Herron Creek. The plan of the house has been drawn on another sheet of tracing paper and pasted onto this as a base map. This house plan utilizes the 2’ x 4’ planning modules of the earlier designs, and here these are also parallel to the creek, running southwest to northeast as in the initial stages of those other projects.

The plan is sketchy, but close to the final one drawn on the summary presentation sheet (Figure 2.5). The entry sequence changes between this early sketch and the final one. The final plan exhibits a walkway of brick pavers running across the open end of the living room, parallel to the hearth. This runs clear through the house and is not on the original sketch plan. It repeats the brick paving begun at the front door of the final design, another feature unlike the other houses in the group.

There are several reasons to conclude that this was not the first orientation of the house. Beneath the pasted floor plan there are still traces of an earlier plan which has been erased. These erasure traces still have some labeling intact. A “DRIVEWAY” location is noted in pencil to the south of the house, not the west as in the case of the final design position. The erasures place an earlier siting study some 40’ - 50’ to the east of the location of the pasted sketch. This would have put the house significantly further down the sloping hill, some 6’ - 10’ lower in elevation. The location suggested by the pasted sketch is further up the slope, with the rear bedroom wing extending over to the ridge to the other slope above Herron Creek. Wright has also written “DRIVE” along this western slope as well on the base map, perhaps relating to the pasted sketch but more likely relating to something below it on the base map. He has sketched in two arching lines along the top of the west facing slope which suggest a driveway.
This location puts the house astride a very slight knoll suggested on the topo map (Figure 2.15) and on the site study (Figure 2.8), with Newman's study off of the living room riding this crest. The final location of this house as suggested by both (Figure 2.16) and (Figure 2.5) is some 50' further along the large grid to the southeast. This pulls the bedroom wing away from the northwest slope above the creek. This moves the house well off of the slight knoll above the pond, further down this south slope. The final location is also some 40' further along the large grid to the southwest so that the original knoll is now visible from the windows of the farthest two bedrooms. The reasons for this final change in site location are not clear and no written record exists in the Taliesin collection.

By looking at the contours on the initial site plan study (Figure 2.16) and on my overlaid composite map (Figure 2.17) map we can easily see that while the low brick wall which escorts this walk outward to the southwest traverses a spot of almost level ground, the wall which extends to the northeast invites problems. This is indicated on the summary sheet (Figure 2.4) and on the master plan (Figure 2.5). On the master plan it can be seen ending in a "J" which reaches back around to the left. As a glance at the contours on the site study (Figure 2.16) reveals, this wall either is moving down the hill as it runs out from the house, or requiring quite a large amount of fill to level the brick walk it escorts. The model shows fill in this location with a planter occupying the end of the wall. If the wall was meant to run down the hill, then the turn brings it back up the slope in such a way as to create a substantial water trap.

One effect of the final location is that it frees the rather more level top of the ridge. A great part of the level area is occupied by the final location of the driveway which is now held well back from the slope above Herron Creek. The existing stand of trees along the slope from the immediate left of the final driveway location around to the northeast corner of the house would provide an enclosed pool of space rather separated from the overall space of the development experienced from the loop road. The house would finalize that sense of enclosure. The drive would take one along the only ridge with hills sloping away on both sides, to the enclosed pool of space which it opens to as it turns toward the house. In the master plan the low shrubbery indicated on either side of the drive is deleted at this northernmost edge, opening the experience to the open pool of space bounded by the trees beyond. This movement of opening serves as an introduction to the house itself. As one enters the house the point of view, or vista, would have steadily compressed from this reference to the point of release experienced in the living room. From there one's vista would have been dramatically enlarged to include the framed vista of the valley above the pond. The existing trees to the northeast of the house providing a frame for the one open side of this view, giving it a specific definition.

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251 This experience of compression and release upon entry is common to virtually all of Wright's houses from the early years of the century to this point. Here, however, it is coordinated with the landscape in a new way.
By virtue of the drive and the low shrub planting, the house would have been anchored to the communal forms, located at the farthest reach of this armature, looking out from there on its own. In this way the Newman house would have extended the siting strategy of the Hause and Van Dusen projects, adding several more layers to the experience.

The low wall along the brick walk which extends through the living room would have provided a counterpart to the walls which were to run along the slope between, and out from, the Hause and Van Dusen projects. All of these exemplify a design strategy with roots in Wright's Quadruple Block design of 1901.

Several of the members had disagreements with Wright over specifics in the design of their houses. On August 20, 1939 Newman wrote to Wright articulating some of his concerns. He expressed a clear frustration with what he felt was Wright's lack of responsiveness in certain areas, saying, "Your last letter was somewhat illusory. You spoke of granting all my requests but a few -- and then proceeded to refuse most of them!" 252

He begins his critique with a rather straightforward comparison of heating capacity in the bedroom areas of the various houses Wright had designed for this project. He notes that the number of under-slab heating pipes in the "very long corridor, bedroom and bathroom area" of his house had been given considerably less capacity than smaller rooms in the other houses.

Newman protests that he is unable to understand why his bedrooms have been given ceilings only 6'-10" high, when others in the group range from 7'-2" to 8'-9 & 3/4." He notes with trepidation that the 7'-2" ceilings in the bedrooms of the Jacobs house in Madison felt "oppressive and cell-like." Newman asks for a second ceiling level running through the bedroom and bathroom wing as in the Garrison, Panshin and Brauner designs. This would relieve his feeling of oppression in the bedrooms while providing more light and ventilation in the bathrooms as well.

Newman and his wife were also concerned with the plan of the living room as given. This room would have had in essence two parts. One of these is determined by the location and orientation of the hearth on the easternmost end of the room. The other, western end, contained built-in seating in an alcove. They were concerned that the seating in the alcove was not only too far from the fireplace to take advantage of its warmth, but also that the relative configurations would not even allow the fire to be seen from this seating area. Of the other house designs Wright provided for this project, three included built-in seating in the living room. In each of these other cases the seating was in direct proximity with the hearth, establishing a unit as is found in so many Wright designs from the Winslow House onward. (See the plans for the Brauner, Hause and Goetsch-Winckler designs.) The Newmans were also concerned that the location of the alcove seating would, moreover, unhappily expose the kitchen workspace. Again,

252 Newman to Wright, 8/20/39.
this did not occur in the other three house designs mentioned just above. Newman asked for a wooden screen to “cut off” the view of the kitchen from this seating alcove.

He observes that a large amount of the living room ceiling (6' x 34') was to be under 6'-6" in height and suggested that raising the ceilings 6" in the bedrooms could also benefit the living area. In line with this Newman also noted that standardizing doors and windows in all the houses would require raising his ceilings, and some of the others.

Perhaps the single largest criticism coming from Newman, however, had to do with the lack of insulation in the Usonian plywood walls. While Wright had suggested that they have a scientific laboratory test of the built-up wall system for resistance to heat transmission, they had apparently acquired some figures for comparison on their own. These indicated that Wright’s Usonian wall provided just about as much insulating value as an “ordinary un-insulated wall in a frame dwelling.” Newman observes that, “It seems a shame, in this modern age, not to insulate such a wall . . . .” and suggests adding a 3/4” fiberboard to the wall assembly. The letter concludes:

I’m sorry if I seem obstreporous [sic] to you, but I don’t want any of these things to crop up after I move in. If there are changes needed, I want to have them made now. Changes made on paper are a heck of a lot easier than changes made after construction is under way or over. These matters are serious to me, or I would not bother you with them. Prior to this little period of our relationship I haven’t been much of a bother to you. In fact, I fancy that I’ve been something of an aid and ally. Now, however, I want to have all these matters settled before construction is under way. Don’t you agree that now is the best time to do it?

I am not in the least worried about wrecking our scheme as long as all of us remain open-minded and flexible in our thinking. It is possible for anyone to be incorrect, and if I am shown the error of my ways, I will be the first to admit such error.

You know, you and I have no basic disagreements. I’m as much in love with Usonian design as ever, and I can’t see how any of these requirements affect the basic design. I’ve given a year or more to fighting for our project so there’s no wonder that I’d like to see all these details attended to and clarified.

I am looking forward to your reply with great interest.253

Wright scribbled his response on Newman’s letter to be typed by his secretary as was his practice, “Dear Sidney, I suppose a man’s sense of himself requires some consideration in his own home.” He goes on to agree to add 4’ to the height of the bedrooms etc., noting that it will cost more to build the extra height. Extra heating pipe would cost some 53 cents a running foot, and

253 ibid.
could be added at will. Wright notes that, contrary to Newman’s observations, all door and window heights in all houses are the same. Concerning the planning considerations however, Wright adds, “You have no occasion to worry about your L R. Kindly leave that to me together with other matters strictly architectus.”

Goetsch-Winckler House

(Analysis of this house is held until last in the sequence even though its proper place in the chronology is with the original group.)

Garrison House

In spite of a lack of conclusive evidence, there are several reasons to believe that, as with so many of the other Usonia I houses, this one was designed in response to one orientation and then shifted some 90°. At least this condition is also plausible in the case of the Garrison House. On the summary sheet the plan was oriented so that the 2’ x 4’ planning modules were parallel to the other plans assembled together (Figure 2.4). Such an orientation stresses the continuity and underlying unity of Wright’s Usonian system in this project. Clearly this was one of the objectives in presenting these two drawings (Figures 2.3 & 2.4) in this way. When reviewing the adjacent Hause design and siting sheets, as well as those for the Van Dusen and Newman projects, we noticed that the planning process was governed by a large 50’ planning grid which was broken into fields of 2’ x 4’ planning modules at the spot where each house was to be placed. In the three initial house designs, along with the Goetsch-Winckler House design, these 2’ x 4’ modules were placed parallel with one another, roughly following the contour lines of the slope to Herron Creek. Even though the Newman and Goetsch-Winckler designs were not sited above the creek they held the same orientation, in their original planning at least. This worked well with the Goetsch-Winckler site but gave the Newman house a skewed position relative to the slope it occupied, as we have noticed.

In the Garrison study plan the house is sketched over a similar 2’ x 4’ grid. No compass orientation is noted on this sheet (Figure 2.9). If however the planning modules had originally

254 ibid.
255 The Taliesin drawing #3912.008 is indexed as a plan of the Garrison House, but this appears to be incorrect. While the house plan shown is very roughly similar in organization and size, it also differs significantly from the Garrison House as well. None of the Usonia I houses have tight fitting, internally referential plantings as shown in this plan. The house extends outward along four axes more than the Garrison House plan does in any other evidence. The carport has a different orientation and the division of rooms in the bedroom wing is also different. While the Garrison plan is based on the Jacobs house done the year before, and the Rosenbaum House being done at about the same time, this other plan (3912.008) has a much more dynamic quality which results from its extension along the four axes. It spins out into the landscape more than any of the other Usonia I designs.
been conceived in the same orientation as the adjacent Hause design, this would have given the Garrison project quite a different position on its site than that indicated in the final master plan. On the master plan the "L" shaped plan is oriented such that the bedroom wing runs to the southeast along the gravel drive (Figure 2.5). The living room projects out from the pivotal hearth/workspace to the southwest, parallel to the contours of the hill it crests. But like the Jacobs and Rosenbaum Houses this living room opens through French doors toward the bedroom wing, in this case to the southeast, not to the view. In this final suggested orientation the 2' x 4' planning modules would have run perpendicular to those of the Hause design, et al.

If however the house had been designed originally so that these modules were parallel to those others, then the orientation would have been somewhat more satisfying. The bedroom wing would have crested the slope above Herron Creek, giving those rooms a view out over the slope not unlike that at the Eric Brown House designed for Parkwyn Village some years later. The living room would have moved out toward the slope with its windows facing southwest along the hillside above the creek rather than inwardly. The slight return of the window wall around the built-in seat at the end of the living room opposite the hearth would have provided a dramatic view in both directions along the hillside up and down the creek.

Moreover, such an orientation would have given the carport a direct relation to the drive coming into it from the loop road. The vector of the driveway would have been transformed at the carport and continued by means of the outward thrust of the living room beyond the hearth. This is a different orientation than that taken by the Jacobs and Rosenbaum Houses, but here the attached carport differs from those designs as well in that it is parallel to the projecting living room. In the Jacobs and Rosenbaum houses, both built on rather limited suburban lots with no outstanding natural feature, the living room wings act to shelter the house from the street by presenting, as it were, a closed wall. This intention can clearly be read in the presentation perspective Wright drew for the Jacobs House. It can also be quite clearly seen in the study for the unbuilt Lusk House project of 1937, the most immediate precursor of the Usonian house idea.

But in the Garrison house just the opposite is the case, the house shuns not the street, but the more rewarding natural view. In the initial orientation this would not have happened.

As was finally the case, the carport has an awkward orientation with respect to the drive coming into it. A car would have had to turn 90° at the last minute to pull under the carport at all. Further, the guest room Wright added in response to Mrs. Garrison's requests projected fully out into the gravel driveway, its corner windows looking, not to the suggested planting toward the southeast (because of a closet along that side) but rather out across a sea of gravel instead.

There appears to be at least the suggestion of three contour lines on the Garrison study layout (Figure 2.9) which support this assumption of re-orientation in that they follow those shown on the topographical map (Figure 2.15) and on the assembled composite site plan (Figure 2.17).
There are several other slight changes which might support a change in orientation. The final version of the plan shows an opening in the carport wall leading to a set of steps proceeding out from the house and down the hill toward the creek. On the summary plan these open at 90° to the carport/living room vector mentioned earlier (Figure 2.4). On the initial plan study an opening at this location allowed movement along this vector directly out to the slope above the creek (Figure 2.9).

**Brauner House**

The Brauner House design and its siting strategy is recorded on a similar site study layout drawing (Figure 2.10). This is a large scale site topography map similar to those used for the Hause, Van Dusen, Newman and Goetsch-Winckler Houses. Here the treatment is a bit different from all of these previous cases. Perhaps since this was among the last designed, Wright had by this time established the significant parameters of a design process.256 The large 50' square planning grid does not appear on this drawing. The plan of the house is very carefully drawn along with a 72' x 78' grid made up of 2' x 4' planning modules. This rectangular plot is drawn with a red color. The topographic contour lines do not go through this gridded area. This suggests that the drawing was traced, the topo lines traced after the house plan was drawn. Since the house plan shows no sign of study here, we must assume that there was an earlier study plan of some sort which is not available today. These facts alone suggest that the process of designing and siting this house differed from the first four in the group.

This drawing shows a design and orientation somewhat different than that finally recorded (Figure 2.10). When compared to the floor plan on the summary sheet (Figure 2.3), the design here is smaller and less complex, if the overall concept is similar. The footprint shown on the publication site plan (Figure 2.5) corresponds to the plan given in the summary sheet (Figure 2.3), with the exception that the rear projecting bedroom wing is shown much too narrow on the master plan. The plan has two bedrooms in a wing extending back from the kitchen/fireplace datum (Figure 2.10). The farthest of these is a master bedroom 14' wide and 10' deep with 10 linear feet of closet space along the wall shared with the other, smaller, bedroom. In the final version this has increased to a 14' by 12' room with the closet moving to the opposite corner of the room, now 8' long and protruding into the rectangle of the room.

The smaller bedroom was originally 10' wide and only 8' deep with no closets indicated in this drawing at all (Figure 2.10). It was enlarged to almost 12' wide and 12' deep. This not only added to the length of the bedroom wing but narrowed the hall from 4' to just over 2' in width.

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256 In fact I think that he was impatient with the project by this time and that the presentation master plan (3912.002) was perhaps completed as much for publication as for anything else.
The upper right corner of the living room, beyond the dining table (as it appears in Figure 2.3) includes a “studio alcove” which is not on the original study sketch (Figure 2.10). The rear wall of the living room was extended some 6’ farther out onto the rear terrace to accommodate this studio. The dining table, originally almost 7’ long, is only 5’ in the final version.

Most significantly, a guest room and exterior tool closet were added opposite the bath creating another wing extending out from the core at 90° to the bedrooms. The concrete mat of the carport was also enlarged some 4’ x 32’ beyond the brick wall supporting the cantilevered roof.

This study sketch also shows an orientation of the entire house plan some 90° from the final master plans (Figure 2.10). In this drawing, the house and its 2’ x 4’ grid of planning modules are located with the living room and hearth running along a line 36° west of north, the determining orientation in this overall Usonia I planning project. The final master plan (Figure 2.5) shows an orientation in which the living room extends out to the northeast instead of to the southeast, with the hearth running at 90° from its initial position as determined both by the indicated north notation and by the contours on the study sketch (Figure 2.10). Unlike the other houses, the location of the Brauner house on the initial site study (Figure 2.16) is not the same as it is on the final plan (Figure 2.5), even if the orientation is similar in those two master plan drawings.

The living room, originally facing down a slope to the south-southwest, a favorite orientation of Wright for his Usonian living rooms when possible, on the final version faces much more level ground into the trees along the site boundary to the southeast.

The drive which would have encountered the carport directly by climbing up the slope, as indicated in the presentation drawings for this house published in the Monograph #6 (p 226, #332), now is achieved by a rather awkward loop. This loop engages the carport in a way which does not acknowledge the direction established by the brick supporting wall shown in the final published plan (Figure 2.3). The Goetsch-Winckler House above all others in this project exhibited a coordination of entry drive location and carport directionality as an introduction to the house and as a translation of the motion of the automobile into the language of the house and its interaction with the natural site. In fact, the exact location of the Brauner House (Figure 2.16) is some 14’ to 16’ further along the grid orientation to the northwest than it appears in the published master plan (Figure 2.5). There is no loop drive on the initial study of the master plan (Figure 2.16 rather a straight drive as with the original sketch (Figure 2.10) is shown here. This drive has been moved approximately 60’ to the south toward Mt. Hope Road in the final version.

In spite of relocating this drive further to the south, by keeping it parallel to its initial orientation when rotating the house and carport 90°, the situation shown here (Figure 2.16) would have created an awkward junction of carport and drive, not unlike that of the Garrison House after its reorientation.
The loop drive on the final master plan solves this problem, although it is not clear why the entire drive wasn’t reoriented along the easternmost extent of the final loop drive design. The original orientation, by coming into the house from the southwest appears somewhat superfluous in the final version. It does serve the purpose however of creating, with the low planting mass in the center of the loop drive, a more substantial anchor between this house and the larger armature created by the internal loop road. All of the other six houses are successfully anchored by a tight coordination between this armature and their own specific knoll or other site feature. The placement of the Brauner House alone seems rather weak in this regard.

The long line of low shrub planting which engages the other side of the house coming off of the study alcove to the east also anchors this house to its precise location. The problem however with this shrub mass is that, unlike virtually all of the other ones in the master plan, it does not reiterate or parallel or interpret an existing contour of the site. It stands somewhat alone. Wright eventually built a cast cement block house for the Brauners in Okemos (1948).

**Panshin House**

The design and siting process of the Panshin House also shows at least one reorientation. The plan shown on the summary sheet (Figure 2.4) does not fit on the master plan as suggested on the final site plan (Figure 2.5) due to carport and drive irregularities. The design and site study (published as #312 on page 218 in Monograph #6) shows an orientation very different from the one finally indicated on the summary sheet (Figure 2.4). The plan is in fact a mirror image of that final version.257

On the final it is located at the bottom of a shallow depression forming something of a natural bowl in the southwest corner of the 17 acre hillock. The hexagonal living room faces inward toward the depression. The final master plan also shows a three part planting mass which rims this natural bowl, parallel to the walls of the living room. The hearth faces northeast into the shallow depression.

In the first plan (#321) the house is a mirror image, with the hexagonal living room in roughly the same location - only some 36’ to 40’ further south - but facing to the west. The hearth had a location at the end of the “U” shaped masonry wall enclosing the kitchen, the end closest to the bedroom wing, putting it far from the center of the living room hexagon.

The bedroom wing ran off to the northeast with the bedrooms all facing northwest toward Herron Creek. The living room itself would have looked out toward existing trees to the west with the creek beyond. In this general orientation the 2’ x 4’ planning modules used to coordinate the plan of this house do not parallel those in any of the other house studies for

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257 A version of this house was built in 1951 in Canton, Ohio for Nathan Rubin.
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Usonia I. The large 50’ square planning grid is not referred to and not shown. Unlike the Brauner House case, this does appear to be a working study. Wright has sketched and erased a variety of low brick wall locations reaching out from the house.

With these terraces the house would have taken on the general aspect of a kind of Renaissance gateway and steps leading down the hill as found at Taliesin in Wisconsin - collecting the space of the bowl on one side and projecting out over the slope on the other. The drive and entry would have brought one into this bowl as a part of the entry sequence. Only after entering the house would one perceive its complement in the westward projecting terrace beyond. This drawing also shows an indication of fill or driveway location in the use of a dotted pair of lines tracing over the contours to the east of the house. The floor plan included in the working drawing set shows the plan of the house reversed so that it resembles the final one shown on the summary sheet (Figure 2.4).

The Panshins withdrew from the project over a dispute with Wright concerning unpainted exterior wood siding. Panshin was a forestry teacher at Michigan State and felt very strongly that unpainted wood was problematic in this northern region.258

Goetsch-Winckler House

... the enveloping volume is articulated and stabilized by the integral spatial continuity of floating planes.259

As mentioned in the beginning of this section, Goetsch and Winckler had originally contacted Wright before the others involved with this cooperative land ownership project. The first members of the group were Harold Fields, Milton Muelder, Sydney Newman and his wife, Alma Goetsch, Katherine Winckler, and Clarence Hause and his wife. Fields and Newman visited Taliesin in July, 1938. They picked up Katherine Winckler who was in Madison at the time and together visited the Herbert Jacobs house.260

In the first version of the Goetsch-Winckler design there were three distinct roof levels. One over the alcove, one over the living room and another over the gallery. The first design also showed a short hallway at the entry with a closet to one side and a bathroom entered from the gallery to the other. This was removed in the final version to create the characteristic long line of

258 See Affordable Dreams, pp. xsviii, footnote #15. The Panshins noted in a later letter that they had visited Taliesin in 1934 and 1935 as expressions of an early interest in Wright. They later contracted George Keck to design a house for them between two Wright Houses - Affordable Dreams, pp. 25-6, footnote #47.


260 Mentioned by Brandes in ibid. pp. xiv with no supporting reference.
french doors. The final version also has only two roof levels, one over the living room and another lower one over the alcove and gallery/bedroom areas.

There appear to be erased contour lines on the initial site study layout (Figure 2.12) which run at 90° to the ones as finally drawn. These suggest that the initial siting of the house was 90° to the final one shown on the master plan. The rectangular planning grid also is drawn at 90° to the other houses along Herron Creek. This shift also suggests an original orientation 90° to the final one. One fundamental difference between the two schemes is that the first one arranges what Louis Kahn would call "service spaces" along a brick entry wall, enlarging its thickness. Also the lettering on this cut and pasted plan (Figure 2.12) is oriented in the same way as the title lettering on the sheet if this piece had been turned 90°.

The house design shown here (Figure 2.12) is the same as that shown on the rendered presentation plan (Figure 2.16) with only a few differences. The plan in the house study (Figure 2.12) has been cut and extended in two places. There is a 2' extension in the bedroom and gallery wing, and a 4' extension through the studio. The smaller extension made the first bedroom some 16' wide. The second bedroom, here labeled "Miss Winkler [sic]," is shown as 12', or three 4' planning modules, wide.

There is some discrepancy in the record of development of the four different versions of the floor plan. This drawing (Figure 2.12) seems to show the first design sketch of the plan. This drawing is consistent with those done for Hause, Van Dusen and Newman, the other original Usonia owners, in that it studies the house plan in relation to a large 50' coordinating grid drawn approximately 36° off of north. This large grid is drawn here in the same orientation and size as those for the houses we have just studied. There is no date on this drawing and I have not been able to determine its exact placement in the chronology from the correspondence record. It must however have been done during the late spring of 1939.

The second drawing appears to be the color pencil presentation plan and perspective (Figure 2.13). This plan includes the extended bedroom and studio areas shown in the cut and paste study (Figure 2.12) cut-out. This drawing is signed by Wright and dated 1939. The month written over the red square is unclear and no day is given. Judging however from the April 4, 1939 date given on similar drawings sent to Hause and Van Dusen this drawing must have also been produced in early April 1939. It seems most probable that the study (Figure 2.12) preceded the presentation drawing (Figure 2.13) which was the drawing sent to the clients for their initial review.

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261 Brandes suggests that this cut out plan shows a change of floor level between the gallery and the studio. Based on available evidence, however, this seems erroneous.
The site study (Figure 2.12) was reworked sometime later. The house plan was cut out, reoriented 90° and pasted back in. The pasted version includes the two extensions (2' & 4') mentioned above as well.

The first letter of response from Katherine Winckler to Wright is however dated July 23, 1939. This follows by a few days the date on the first set of existing working drawings of this house dated July 14, 1939. In this letter Winckler expressed concern for both the orientation of the house and for the unsightly pig feeding area just beyond their property line to the southeast. It was probably in response to this letter that Wright cut and pasted the original site study so as to reflect a change in orientation from a northwest facing studio to the southwest facing one shown on the final Usonia I master plan (Figure 2.5). This change in orientation would have moved the entry view away from the pigs to the southeast to the northeast.

The next version of the plan is that shown on the working drawing. This plan shows the bathroom relocated between the two bedrooms and away from the entry/gallery area. The coat closet and stairs to the basement remain in the same positions as they were in the previous plans. With the insertion of the bathroom between the bedrooms their widths are again equalized to 12' each. On the working drawing plan as on many of the other early Usonia I house plans Wright first laid out a 2' by 4' grid of planning modules governed by the larger 50' square planning grid (as on Figure 2.12). This combination of a large overall square grid broken down into rectangular modules forms the geometric basis for his Broadacre City plan as Donald Leslie Johnson has noted.262

The final version of the Goetsch-Winckler plan (Figure 2.14) did away with the basement and relocated the heating unit in the kitchen behind the hearth. Brandes surmises that Wright has ignored requests from Goetsch and Winckler for more kitchen storage space and that they and Harold Turner decided on their own to relocate the heating unit is a small basement reached from an access panel outside the studio.263 An elevation drawing shows a small square panel sketched on the building in the place of the one Turner added (#3907.008). This relocation also effectively enlarged the kitchen area as shown in photographs of the interior. Turner also rearranged the location of kitchen appliances and added additional cabinets in line with the clients wishes. He added a root cellar as well.

"I grew up in Madison and I love hills and water," wrote Winckler in her initial letter to Wright, "The knoll on our land seems to be the nearest thing to a hill that can be found hereabouts."264 This line appears to make a reference to the small circular rise of land along the eastern property line which eventually became the site intended for the Brauner House.

263 *Affordable Dreams*, p xvi.
264 Katherine Winckler to Wright, 10/25/38 in her original letter introducing their "idiosyncrasies."
house was initially sited between this rise and the "pond" below looking out over the water to the northwest. At this spot it would have been located in the middle of the greatest single change in elevation found in any one spot on the 17 acre tract. "The longer we pour [sic] over the blue prints, the clearer comes the vision." Winckler responded, "We are entranced beyond words." 265

There is a discrepancy in the record pertaining to the siting of this house and its chronology of design. According to Senkevitch, Winckler notes in the letter dated July 23, 1939 that, "We had understood that the studio would face southwest, rather than northeast as the blue print indicates . . . ." 266 From all the available drawings and correspondence it appears that these directional references must not be entirely correct. The house never faced to the southeast, that is the studio never did. The line of french doors at the entry appears to have been originally oriented in this direction before being turned to the northeast. This would have made the pig feeding area prominently visible from the front door entry, not the studio windows however.

"Our neighbor's barn is southeast of us and his pigs play all along that edge of our land." 267 Winckler noted that Wright had even suggested that this view be planted out, so they were confused when it turned up as a major focus. It turned out that those pigs were being fed on garbage trucked from the city of East Lansing and this, along with the failed financing of the group, eventually played a role in their abandoning the Usonia I project. 268

The only chronology that makes sense at this point is that the cut and paste study (Figure 2.12) was first studied before April 1939 with the house oriented to face the northwest (erroneously called northeast by Winckler). The presentation drawing (Figure 2.13) was drawn with this orientation in mind and sent in early April. The first set of working drawings dated July 14, 1939 which begins with the site plan does not designate an orientation. In response to the letter of July 23, 1939 Wright apparently went back to the cut and paste plan Figure 2.12) and at that time cut, reoriented and pasted the house plan at 90° to its initial location. The retaining wall must have been added to this drawing at this time as it would have not made sense relative to the first orientation. Then Wright returned to the presentation plan (Figure 2.13) and added the retaining wall and "lot line" note to this drawing. The manner in which the far edge of the gravel drive is drawn off into the distance could be taken to refer to the initial location ringing the knoll along the eastern property line. 269

One would enter through this enlarged wall to the open space of the living room facing the landscape beyond. In the final version these service elements have been relocated so that one enters somewhat more directly into the enlarged space of the living room. The house itself becomes the wall in this version and a two stage experience focuses on the relationship of the

266 ibid. pp. 15.
267 ibid. pp. 15.
268 ibid. pp. 15.
269 This scenario seems somewhat improbable however.
enlarged living room space to that of the landscape beyond. This is more powerful than the three stage experience of the initial version which would have had a strong connection between entry hall and living at the expense of the later connection between the space of the house and the space of the landscape.

"Principles" of Usonian House Design

Wright began his Usonian House series with the Herbert Jacobs House in Madison, Wisconsin. One of the immediately striking aspects of the design of that building is that it so consciously turns its back to the street. In the design of the Goetsch-Winckler House Wright created a building with no public face whatsoever. It presents an image that is all but incomprehensible from the point of view of traditional housing standards. The design expresses an extreme horizontality and an extreme simplicity. The roof line floats even more that did the design of the Robie House, one is dimly aware that it is pinned down by masonry piers. There are virtually no concessions to conventional notions of structure, the use of horizontal and vertical elements seems to have a logic of its own. All in all the design presents a thoroughly abstract composition in a new language. It is a language based upon formal relationships codified from the design of Fallingwater several years before.

On the interior, symmetry is rigorously avoided, even similar rooms are made different. The same thing never happens twice. The design doesn't make an issue of this however by being insistent, it happens quietly. Perhaps the most significant aspect of the interior organization of this house is its refusal to specify a center. In this it shows itself to be a radically different kind of design from even his Prairie Houses. In those one gets the feeling that Wright always designed from the central hearth outward, it was a key element in the organization of all the Prairie House plans. Here, not only is the hearth displaced, there is no objective center at all. It is different from even Fallingwater in this regard. The attention is on the space of the house itself rather than on the make up of the enclosure. (This is a strategy of subjectivity on the inside. What incomprehensibility is to the outside, the displaced center is to the interior organization.) Instead of giving you a steady and one-dimensional frame of orientation, Wright denies the kind of cognitive stability conventional planning relies upon in favor of a space composed of multiple and overlapping frames of reference. The displaced center is one of the primary facets of this technique. This is complemented by the use of trim, built-in elements and multiple ceiling levels, so that instead of feeling that the building you are in has been cast in stone, so to speak, you get the sense that it is literally woven about you, and almost moving.270 The resulting feeling is no

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less secure than one would have in a classically composed building, in fact in some ways it feels more secure. The owners of these houses almost universally speak of the sense of "repose" the houses give them.271

The open spaciousness is focused outward toward the most beautiful feature of the site through the subtle device of compression at entry and expansion at the living room.

The hearth and kitchen are combined as at the Jacobs house but differently. Here the dining table is attached to the masonry structure between the fireplace and the kitchen suggesting some deep association between eating, cooking and fire that has replaced the ritualistic constructions of the Prairie years. The bedrooms are isolated but not disconnected from the life of the house. The open plan, along with the displaced center and the use of diagonals invites and encourages movement.

The compositional pattern of these Usonian Houses can be described by the following set of statements:

**Interior organization** - A). An underlying grid makes up for the lack of classical rules of composition by the use of: 1. underlying planning grid; 2. symmetry rigorously avoided; and 3. diagonal planning. B). There is a displaced center, instead of a central hearth so that the focus is on the space: 4. displaced center; 5. hearth and kitchen combined at heart between street and view; and 6. bedrooms isolated but still tied to flow. C). Space unified in a continuous flowing interior environment: 7. open plan invites movement; 8. multiple, overlapping frames of reference; and 9. built-in elements, trim, ceiling level changes, etc. D). Nature is the focal reference, the individual is encouraged to this primary association: 10. compression at entry, release at living; and 11. front facing nature.

**Exterior compositional aspects** - E). The house has no face as a refusal to let the city dictate proper form: 1. asymmetrical; and 2. turns its back on the street. F). The house defers to and works with the natural character of the site: 3. dominant horizontality; 4. incomprehensible from any one point (well outside traditional norms); and 5. "set" in natural environment as the primary reference, focused on a primary natural feature. G). There is an incompleteness characteristic of the quest for "subjectivity": 6. roof line floats and dominates the composition; 7. no concessions to conventional structural notions; and 8. abstract composition - new language where the experience of space is primary.

3 - Analysis of the Usonia I Master Plan

There are four existent drawings which relate directly to the Usonia I master plan. These are a topographic map showing 1' contours (Figure 2.15), a very light blue line print of a survey showing boundaries and a few trees with some initial thoughts about site subdivision (Figure 2.2), the first serious study executed in color pencil (Figure 2.16), and a final black and white inked version of the master plan dated September 1, 1939, which has been widely published (Figure 2.5). Only the last of these drawings is dated by Wright and so their exact chronology and role in the development of the master plan idea must be reconstructed.

Apparently, the earliest study of the subdivision of this site is that recorded on the print (Figure 2.2). This is a drawing of the smaller 17 acre part of the Herron Acres parcel to the south and east of Heron Creek. The plan is drawn at 1" = 50' scale and has no topographic lines to indicate contours. There are two sets of pencil lines drawn onto this print. The lighter of the two describes five peripheral divisions along the bluff overlooking the creek and a central section reaching to the eastern property line and Mount Hope road to the south. This appears to be the print sent to Wright in mid-November 1938 by Newman. As Newman's letter of November 16, 1939 indicates, this "white print" map shows a rough layout suggested by the group. This light pencil drawing also suggests tentative locations for the Hause and Van Dusen dwellings.

At some time after receiving this print someone, perhaps Wright, redrew the lot lines establishing six individual lots. His scheme very closely follows the original specified by the group but with more regularity and purpose. He also added the suggestion of a loop roadway to and from Mount Hope Road. The house sites in the overlay plan are numbered 1-6 beginning with #1 being the third house site up along the creek from the road clockwise to #4 at the Goetsch-Winckler lot and then #5 and #6 counterclockwise from the starting point back down to the road. According to this numbering #6 is the location that would be the Panshin's, #5 the Garrison's, #1 the Hause's, #2 the Van Dusen's, #3 the Newman's and #4 Goetsch and Winckler. The site for the Brauner House is not represented on this drawing. The Hause, Van Dusen, Newman and Goetsch-Winckler sites are named as well.

The initial division into six lots show an irregular set of lines which connect a largely orthogonal datum derived from the NS/EW orientation of Mount Hope Road and the easternmost property boundary to the random, natural line of the creek. The overlay abandons the stricter orthogonality of the client's sketch, allowing most of the property division lines to take their orientation from the creek in a more direct way. Only to the northern end of this hillock where the Newman and Goetsch-Winckler sites surround a draw above the pond do the
heavier lines again return to the EW orientation supplied by Mount Hope Road and the eastern site boundary.

There is also a small quick sketch on the lower portion of this "white print" sheet which seems to depict a hill on top of which a rectilinear building-like shape has been drawn, only to be scratched out and redrawn along the brow of the hill - as if Wright were explaining the Taliesin siting idea to someone.

Sometime later, after each of the seven houses had been sited and planned on their own terms (Figures 2.6, 2.8, 2.7, 2.12, & 2.16), Wright returned to the scale of the subdivision master plan in drawing #3912.001. It is an exquisitely beautiful, if very freely executed, color pencil drawing of many layers drawn over a complete brown ink topo map on tracing paper. Virtually all of the elements shown in the final black and white master plan (3912.002) appear on this drawing in color sketch form. This drawing is done at 1" = 50'.

This drawing records Wright's initial study of the Usonia I subdivision planning idea in its entirety. It is the first to show a fully developed concept of the site. This master planning idea was first studied (Figure 2.16) by Wright after the Goetsch-Winckler House was relocated to the final orientation shown on the final published plan (Figure 2.5). This means that this initial color pencil study (Figure 2.16) could not have been begun before late July 1939. It appears that it was only in response to Katherine Winckler's letter of July 23, 1939 that Wright reoriented this house to the location shown in this master plan study (Figure 2.16). July 3, 1939 Newman wrote to Wright telling him that the well had been completed and that they wanted to set lot lines firmly. This also suggests that the master plan at least had not been sent to the members of the group by this time. Figure 2.16 was probably done in August 1939.

In this drawing Wright has added orchards, common garden areas and a caretaker's "farm unit." There is a pond shown in a natural depression toward the front of the property near Mount Hope Road. This pond is almost completely surrounded by two kinds of planting masses. Along the westernmost branch of the loop roadway there is a thick line of low dense shrub masses planted with an angular character. There is a wide stair leading down perpendicularly from the gravel roadway to the open space around the pond. The other planting masses around the pond are more irregular in shape and show spots of color indicating flowering plants. This second type of irregular masses covers two distinct areas along the eastern gravel branch. There is a smaller stairway leading down to the pond at an angle between these two from the roadway.

Dark green is used to indicate low planting in dense masses along the loop roadway. A lighter green is used to indicate orchard and garden areas, some grassy natural slopes and "lawn" areas. Trees are shaded in olive green. The gravel roadway is rendered in a tan color. The footprints of all buildings are shown in orange. This graphic language, which is translated to
black and white (Figure 2.5), will be carried through most of the later projects investigated in this dissertation.

The footprint of the Garrison House appears to have been worked on this drawing more than the others. Although it is difficult to make out with any exactness, the erasures are consistent with an initial orientation 90° to the final one shown. As discussed in the above section on the Garrison House, this previous location would have projected the living room out over the creek to the northwest. Wright has also drawn and numbered a square planning grid with the Garrison house plan. These aspects suggest more of a struggle with its orientation that with the others, which seem to have slid easily into place from their individual planning work sheets.

There is also a small triangular structure shown near the Brauner House drive which may have referred to a well head or some other expression of the common need.

The easternmost branch of the gravel roadway shows traces of erased lines of a much narrower roadway at the farthest eastern edge of its final location. This earlier roadway would have led up from Mount Hope Road to the NW at 60°. The left curb in from Mount Hope Road was rounded as the right side traced a direct path up to a sharp turn to the northeast. The area removed in the final version within the rounded curb also shows a continuation of the yellowish flowering planting beds around the pond. The words "(rental?) space" have been erased in this area as though a filling station or some other publicly oriented feature was intended. The left most edge of this narrower roadway branch would have continued the right edge of the path shown extending down through the orchards inside the center of the loop.

There are other erasures at the westernmost site entry as well. The story these tell is more difficult to piece together. It appears that this branch first lead up from Mount Hope Road in a gentle sweeping arc evidenced by a line segment remaining in front of the wide stair up from the pond. On the other side it appears that the drive to the Panshin House was studied in a position coming directly up from Mount Hope Road with a rounded curb area leading from that drive to the left roadway edge. This rounded area is held back from Mount Hope creating a shared indentation larger than the one on the eastern branch. Perhaps this alternative driveway study is consistent with the study of orientation for the Panshin House suggested above. The immediate site area around the Panshin House also exhibits a gridded network of numbered lines running NS and EW.

There appears to be a study of a long retaining wall running SW to NE along the ridge above the Newman House. This map also indicates locations of very many existing trees shown as small circles representing the trunks in plan and showing no indication of canopy size. The tree locations shown here are largely consistent with those shown in the final black and white rendered master plan (Figure 2.5). The westernmost planting rows in the center island run along the gravel roadway from the pond to the overlook above the larger pond beneath the Newman
and Goetsch-Winckler Houses. One could have walked between the cultivated rows from one water feature to the other.

In spite of the lack of an obvious controlling geometry, this is a complex and strongly structured plan which has intentionally been made to look otherwise. It is a plan in which angular and geometric elements contrast with more naturally curvilinear forms. Gone are the classically determined hierarchical axes of Wright's earlier career. In this plan he has created a set of structuring ideas derived from, or at least related to, the natural geometry of the site. This is the first large scale, multiple building design of Wright's to accomplish this. The relation of the hilltop to the flowing line of the creek provides the first guide to the elaborate structuring of the plan.

Wright has identified a language of planting elements including lawn, low irregular planting beds with flowers, gardens closely associated with and running out from each building, dense and angular shrub masses, orchards and picturesque groupings of trees. Some of the trees shown were naturally occurring and others added. The eastern boundary is shown heavily planted with trees presumably to shield the view of the neighbor's pigs and barn mentioned in Winckler's letter of July 23, 1939. The western edge of the property between the Panshin's House and Mount Hope Road is also shown with trees for similar reasons.

There are three distinct layers of geometry here. One is established by the lines dividing the individual home lots which take their directional reference from the gently curving ridge above the creek. The second is the common orientation of the houses given by the large 50' planning grid of the individual house studies which is oriented 36° from the boundary road and property line. The final and most unexpected layer is provided by the loop road and is augmented by sidewalks and the dense shrub masses. One might add to this list the loosely enclosing pattern of the tree groupings which encircle the site. These establish a loose outer boundary to the field defined by the lower shrub masses and orchards in the center of the site in the same manner we have seen in the Ardmore project. These several layers taken in this, the correct chronological order of their development, establish a framing mechanism by which each of the houses is located in reference both to the group and to a articulated conception of the site.

Take the Van Dusen house site as an example. This house is situated midway between the gravel roadway and the creek. It is protected from the roadway by a steady linear mass of dense low shrubs, broken at an angle only for the driveway. The floor of the house is several feet below the roadway. In the zone between the roadway and house Wright suggested a private garden

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272 The plan of Florida Southern College in Lakeland Florida, was being done just months before this one, while angular, complex and non-orthogonal in a new way not derived from the natural geometry of the site in the same manner. Rather, it represents an imposed geometry no matter how much it appears to differ from earlier orthogonal schemes. These two projects differ from such earlier designs as those for A. M. Johnson in Death Valley, and Wright's own Ocatilla camp and Taliesin West designs in that they involve a larger number of buildings which reach out further across the landscape.
oriented so as to coordinate with the house and not the road. Beyond the house we find loosely
grouped tree masses through which the interior living space looks to the creek. This progression
is repeated differently for all seven houses in this master plan. It is a progression from dense to
open, from angular geometrically controlled shapes to round and random tree canopies floating
above the hillside along the creek.273

The multiplication of quick, random angles and elements serves to obfuscate the controlling
geometry. The 36° planning grid by which the house and orchard orientations are coordinated is
pushed into the background by Wright's refusal to extend this geometry to the other elements
and by his derivation of a structuring idea from the creek-hilltop form of the site. The houses rest
along the brow of the hill like an expanded Taliesin facing out from a common central area. The
backgrounded grid coordinates all the houses while allowing each to search its own site for
specific intimate relationships. The individual units have what appears to be complete freedom
which doesn't interfere with their role as members in a group. Rather the manner in which the
individual house designs exercise this freedom reinforces their attachment to the whole in a
remarkable way. Each house was planned on its own terms with unity coming from certain
assumptions about the relation of house to site rather than from specific geometric parameters.

Wright's vision of an organic architecture in which “organic means part to whole as whole is
to part” is extended to the scale of the group in this project.274 Here the individual houses not
only ride the edge of the hill, they inhabit the edges of a shared structure. As the occupants move
out to and through their individual dwellings, the houses act as walls, through which they pass
as the living spaces project out into nature, each on its own terms. The individual houses are tied
to natural features, not obviously to some hierarchically conceived overall ordering device
brought to the site in its entirety. The houses are still in step with the repressed grid. A different
unity is found at the periphery than at the center.

The 36° shift is used here to break the continuity and power of the NS/EW orientation of Mt.
Hope Road and the eastern site boundary. Wright accomplished two things by this shift. First
the cognitive datum of the city/county road is abandoned in favor of an orientation that can be
seen as contingent upon the site itself. By establishing such an alternate geometric datum Wright
makes much out of his breaking with the city and refocusing on natural forms. This technique is
one that he will make extensive use of it in the following decade. He develops it through many

273 Note the configuration of both of the designs for Malcolm Willey as earlier examples of house as wall.
274 Frank Lloyd Wright, The Future of Architecture, pp. 347. Also: “One thing instead of many things; a great
thing instead of a collection of smaller ones.” FLW from the “Sovereignty of the Individual,” 1910, quoted
in Frank Lloyd Wright On Architecture, by Gutheim, p 76. “. . . the whole is to the part as the part is to the
whole and where the nature of the materials, the nature of the purpose, the nature of the entire performance
becomes clear as a necessity. Out of that nature comes what character in any particular situation you can give to
examples from the earlier Willey and Marcus House designs to an example as complex as that of the Anthony House in Benton Harbor, Michigan almost ten years later.275

In the presentation plan drawn for the Edwards House in Okemos, Michigan, built the same year, we can see this siting strategy diagrammed in a most revealing way (Figure 2.21).276 The floor plan is adapted to the contours of the site and utilizes two planning grids shifted 30° from one another. One of these is tied to the carport and immediate driveway and acts to receive the automobile and its occupants. When entering the house itself after abandoning the car one is jostled into the second grid orientation as one enters the living room which juts out above the hillside. In this particular drawing Wright has added two perspectives of the house as explanations of the significance of this technique. The perspective drawing in the lower part of the sheet depicts the house from the driveway side and is a view taken from above looking down at the house. In the other drawing at the top of the sheet, Wright has shifted the point of view so that one sees the house from below in a commanding position on the hillock.

The importance of the Usonia I master plan in this context is that here we can see the alternate planning grid tied to a specific site feature - the ridge above Herron Creek. While it does provide objectivity to the break with the orientation of the north/south urban grid dictated by the property boundaries, it does this in a way that substitutes a new subjectivity of the site.

Speaking in London during this period on his vision for the "... new city that is to be everywhere and nowhere..." Wright explained: "I do not wish to 'disperse' any city; decentralization is not dispersal - that is wrong... it is reintegration."277 It is such "reintegration" we can see achieved in the multi-layered plan of Usonia I.


276 See the Edwards House plan and perspective drawing as published in the Monograph # 7, pp. 246-7, and in color in Frank Lloyd Wright: Three Quarters of a Century of Drawings, fig. 174.

277 FLW An Organic Architecture, The Architecture of Democracy, 1939 p. 36. (Also - "You must not think the kind of buildings we have now are going to remain, or that community needs as they are now will remain as they are now. They are all going to change as a new and finer type of building in a freer community we do not yet foresee except that it will be more of the country, is growing up. The more of such buildings we have in the country the more beautiful community life will become and the less you will be aware of the fact that buildings are there at all as an intrusion." p 34.)
The Usonia I plan builds upon the planning inventions of the Ardmore Experiment, but from a different point of reference. In the Ardmore plans the whole group is given a sense of unity without creating a hierarchical structure which would differentiate between individual units by virtue of their position. In the first Ardmore plan a 'field' is established through the use of strong geometry and minimal plantings used as representations of the natural environment. The perceptual unity created relies primarily on geometry and only secondarily on representations of the natural context. Wright repeatedly uses a 30° shift in plan orientation to obscure the relationship between buildings and the surrounding urban fabric so that no overall or hierarchical structure is apparent. Each individual unit is given an equal and autonomous status within the group. In fact we can say that in the first Ardmore plan there is little in the way of a perception of a unified whole developed. Rather it would perhaps be better to say that the buildings are simultaneously present. In the second Ardmore plan, a concept of the whole is given which still allows the individual units autonomy. The use of an angular shift helps to create the impression of group coherence. In both of the Ardmore plans, planting materials are used to complement the dominant geometric structures which are repeated somewhat mechanically. The site is closely hemmed in by conventional development and is characterless and largely flat.

In the case of the Usonia I project, however, the site was a quite beautiful one. Here Wright developed a technique by which its features could become the basis of a master plan with many of the same objectives. Here he developed a three-layered planning process in which existing natural forms were enhanced so as to complement the introduction of geometric structures. This plan articulates certain specific site features as the basis of a master plan which is non-hierarchical and non-classical. First, the initial site divisions are charged with interpretation and expressive intent. Second, a coherent orthogonal planning grid is utilized to freely develop the specifics of each house in line with the assumptions already made about the character of the larger site. Finally, plantings and further site development are laid in so as to unite and articulate a whole. Here, unlike in Ardmore, this whole is given a dynamic quality which builds upon the picturesque tradition by being composed of both man-made and articulated natural forms. The suggestion of angular momentum created by the 30° rotation of building plans at Ardmore does not appear in the Michigan project at all. Rather than bring such obvious external geometry to the site, Wright interprets the existing context as the basis for the development of a sense of unity. A planning grid shifted from the surrounding datum is used to develop a sense of the internal
coherence of the group, but here it is closely related to aspects of the site itself - the ridge above Herron Creek.

In both of these master plans, perceptions of relationships between individual and group are studied. The building design and the master planning concepts are closely related. Indeed, these two traditionally different scales of design thinking are merged here in singular conceptions. While it may be possible to conceive the manner of building involved in different and independent locations, the integrity of the master plan is, in each of these cases, wholly dependent upon the architectural ideas.

In the Ardmore Experiment, Wright developed the use of a strongly apparent geometry as a planning tool in lieu of a good natural site. Natural plant materials were subjected to the discipline of the geometry. The geometric 'planning field' became a substitute (and later an extending vehicle) for his interests in developing the organic context for his work. An appearance of 'rotation' (or angular momentum) provided a dynamic element by which he could explore a network of non-hierarchical relationships in plan while encouraging a condition of perceptual subjectivity in three dimensions.

The active geometry of the fourplexes in the first Ardmore scheme exhibits a continuous deflection off center which suggests rotation. The cruciform wall ends are exposed and the drives clearly defer to the right. Moreover, the unit on the left of each facade projects forward while the facing unit associated with the drive on the right recedes. These characteristics along with the actual counter-clockwise rotation of orientation from one fourplex to the next proceeding along, even following, Sutton Drive establish a dynamic and active formal character for the entire group. In the first scheme, but especially in the second, plantings are used to define the field of operation in such a way as to allow the entire group to be perceived also as a unit. Along with this, the many gravel drives break up the ground plane so as to overcome any overall reading, or a-priori reading, of a powerful natural character - what I have called a response to a 'bad' site.

In contrast, on the more naturally beautiful East Lansing site, Wright's geometry, while every bit as active, was suppressed and worked to enhance one's perception of the character of a 'good' natural site. The entire ensemble is held together by a variety of features which enhance the position of the houses along the edges of the common hill: as at Ardmore, plantings in the central area are dense and lower than the tree groupings which ride along the hillside just beyond the zone in which the houses are placed; the loop road, while gravel, was given ample width and continuity by these dense angular planting masses; the orientation of most of the houses, shared as it is with the orchards, helps to establish a sense of continuity even as each is intimately related to the specifics of its own location.
The fact that each house is (in this first mature presentation of the Usonian system) so uniquely shaped in plan while so similar in overall visual character helps to enhance a tension between the single unit and the group. This occurs in the Usonia I plan with the opposite emphasis as that of the Ardmore plans. In both cases however, this tension is in effect heightened even if opposite valences are provided.

Here Wright develops a three layer planning process tying house and master plan design to existing natural features of the site. First, a loose structure is derived from the landforms and the views. Second, independent square planning grids are coordinated as the basis for the design of each building. Finally, master plan forms are developed which obscure any perception of the underlying geometric structure in favor of a turn to the place. This process allows both a great amount of flexibility and a great amount of control. One crucial tenet of Wright’s organicism was always the search for useful structuring devices capable of being hidden. In this planning process, natural planting materials are used in formal layers which run from the picturesque to the completely regularized. Banks of low shrub-like planting materials are sculpted in geometric layers’ as a middle ground. This multi-layered structuring results in a blurring of distinctions between natural and man made forms in both the structuring of the master plan and in the choice of formal articulations.

In Usonia I, individualism is stressed while angular geometries work under the surface with natural forms to maintain or suggest overall unity. At Ardmore the opposite is true. The strong overall geometry and the use of identical fourplexes, unresponsive to natural features, intensifies the sense of the whole each unit has to define itself in terms of. There is a good site/bad site response. There is a heightening of the tension of individual to whole. There are powerful relationships between a priori natural features and man-made geometry. All three of these issues are brought into play in a dynamic set of formal experiments in these two related, if contrasting, projects.
Illustrations: Usonia I (3912)

FIGURE 2.1  site photograph (Affordable Dreams)
FIGURE 2.2  early site layout study on print - #3912.017
FIGURE 2.3  Brauner, Hause & Van Dusen House plans - #3912-003
FIGURE 2.4  Garrison, Newman & Panshin House plans - #3912.004
FIGURE 2.5  publication site plan - #3912.002
FIGURE 2.6  Hause site & layout study - #3912.006
FIGURE 2.7  Van Dusen site & layout study - #3912.011
FIGURE 2.8  Newman site & layout study - #3912.009
FIGURE 2.9  Garrison layout study - #3912.007
FIGURE 2.10  Brauner site & layout study - #3912.012
FIGURE 2.11  Panshin layout study - #3916.001
FIGURE 2.12  Goestch-Winkler site & layout study - #3907
FIGURE 2.13  Goestch-Winkler presentation plan & rendering - #3907-001
FIGURE 2.14  Goestch-Winkler final floor plan, publication version - #3907.015
FIGURE 2.15  topographic contour map - #3912.005
FIGURE 2.16  initial site plan - #3912.001
FIGURE 2.17  composite map of Usonia I project assembled from #3912.005 & #3912.005
FIGURE 2.18  model of Usonia I project
FIGURE 2.19  model of Usonia I project
FIGURE 2.20  USGS map of East Lansing, Michigan showing site area
FIGURE 2.21  Edwards House presentation plan - #4904.003
FIGURE 2.1
photo of southeastern corner of site
(taken circa 1939)
PART ONE / Chapter Two
FIGURE 2.2
early site plan study on print
(3912.017)
FIGURE 2.3
Brauner, Hause & Van Dusen House plans
(3912.003)
PART ONE / Chapter Two
FIGURE 2.4
Garrison, Newman & Panshin House plans
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Garrison site & layout study
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PART ONE / Chapter Two
FIGURE 2.10
Brauner site & layout study
(3912.012)
FIGURE 2.11
Panshin site & layout study
(#3916.001)
PART ONE / Chapter Two
FIGURE 2.12
Goetsch-Winkler site & layout study
(3907.003)
PART ONE / Chapter Two
FIGURE 2.13
Goetsch-Winkler presentation plan and rendering
(3907.001)
FIGURE 2.14
Goetsch-Winkler publication floor plan
(3907.015)
FIGURE 2.15

topographic contour map
(3912.005)
FIGURE 2.16
initial site plan study
(3912.001)
FIGURE 2.17
composite map
(assembled by the author from
#3912.002 & #3912.005)
FIGURE 2.18
Usonia I model
FIGURE 2.19
Usonia I model
FIGURE 2.20
USGS map of site area
FIGURE 2.21
Edwards House presentation plan
(#4904.003)
PART ONE / Chapter Two
PART II. CLOVERLEAF / CIRCLE PINES

CHAPTER THREE - Pittsfield Defense Worker's Housing
- Chronology & Development
- Description & Analysis of Changes to the “Cloverleaf” Building
- Description & Analysis of the Master Plan
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CHAPTER FOUR - The Circle Pines Center
- Chronology & Development
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CHAPTER THREE - THE "CLOVERLEAF" PROJECT:

PITTSFIELD DEFENSE WORKER'S HOUSING

1 - Chronology & Development

In the late summer of 1941 Wright was asked by the Defense Housing Division of the Federal Works Agency to design a project for some one hundred defense workers in Pittsfield, Massachusetts. This design builds upon and further develops the broader possibilities of the Ardmore Experiment. The project was summarily canceled before Wright completed the planning stage but it remains a crucial link between his earlier rectilinear neighborhood plans and the later circle based plans such as Galesburg, Parkwyn Village and Usonia Homes.

The architect was interviewed in Washington by the Federal Works Agency's director of the Division of Defense Housing, Dr. Clark Foreman in August 1941. After brief introductions, the Chief of the Planning Section, Talbot Wegg, who was at the meeting, recalls Wright asking, "What is it you wish of me, Dr. Foreman? I am 74 years old and do not have much time left. I have much to do and no time to waste." Foreman was interested in extending his Division's mission beyond the simple provision of defense housing to the level of an architectural contribution to the housing problem then facing the nation as a whole. He told Wright that several other noteworthy modern architects had already been commissioned for such work and that he was hopeful that by giving the nation's foremost architect's "maximum freedom within cost limitations" that such a goal could be accomplished.

Wegg's immediate supervisor, Clark Foreman, set the stage for Wright's independent design solution to the project in a letter dated October 24, 1941. Foreman suggested to Wright that there were very few hard government limitations on the kind of design they could build, and reminded the architect, "Not only in this country but in the democratic countries of Europe before the War, outstanding architects have exercised considerable influence over Government

1 See article by Talbot Wegg in the AIA Journal, February 1970, "FLLW versus the USA," pp. 48-52.
2 ibid.
3 ibid.
housing policies." And later in the same letter he also said, "I feel strongly that this is a grand opportunity for the forward-looking architects of the country to make their contribution to a more sensible solution for our housing problems. We should be pleased to have you participate in this work...." The text of this letter from Foreman to Wright reads:

... I think that it is necessary to consider defense housing in a different light from that of the slum clearance program which has hitherto been the principle housing activity of the Federal Government. As far as defense housing is concerned, I am unaware of any political restrictions that have been imposed....

I can say with assurance that the Federal Works Administrator, Mr. Carmody, does not wish to build either "cracker-boxes" or "skyscrapers laid on their side.... You will be interested to know, however, that the Federal Works Agency is trying in several places to demonstrate the possibility of mutual ownership of homes whereby the tenants share the ownership through a mutual corporation, and are thereby given more protection against temporary lost of work.

I feel strongly that this is a good opportunity for the forward looking architects of the country to make their contribution to a more sensible solution for our housing problems. We should be most pleased to have you participate in this work, and aside from the limitations imposed by the Act, the unavailability of critical materials and the speed required by the emergency itself, you would not be hampered by Government interference....

The Government agency had four sites in mind as possibilities for this project, all of them in or near Pittsfield Massachusetts. As New England fall colors were blazing in western Massachusetts, Wright met Wegg for a tour of these sites. They were joined by local dignitaries excited by Wright's promise to "confer national distinction on Pittsfield." Wright visited two prospective sites in Pittsfield sometime between October 24 and November 6 in 1941.

The first, generally level and verdant, had once been farmed and the open fields would insure a pleasant environment as well as reasonable development costs. FLLW was not impressed. While the troupe examined it on foot, he remained in the car, restlessly....

The second site was on rough ground with great rocky outcroppings and not a sign of a tree. The moment he saw it, FLLW's eyes lit up. "Stop!" he cried and fairly leaped from the car. Moving with the grace and vigor of a youth, he roamed the hills and dales, clearly captured by the austere crags....

"This is it," he exclaimed. "This is it; this is New England." The group never made it to the other two possible sites due to Wright's determination to work with this "austere" and rocky place.

Wegg was enthusiastic about the possibility of working with Wright and yet cautious of Government procedures. He wrote to Wright shortly after this trip to Pittsfield:

5 Foreman to Wright, 10/24/41.
6 ibid.
7 ibid.
9 ibid. pp. 48-52.
I returned to Washington from our day in Pittsfield somewhat [sic] tired but with a
great sense of stimulation which I can only attribute to the privilege of having spent the
day in your company. As I contemplate our association on the Pittsfield project I realize both you and we have assumed a considerable responsibility.

So far as we are concerned we have taken an action highly unconventional for an
agency of the Federal Government and one which, oddly enough, is being regarded as
courageous. Both Clark Foreman and I are delighted with the prospect of working with
you and I can assure you that we for our part will leave no stone unturned to make it a
satisfactory relationship.10

After Wright's reaction to the possible sites for the project, Wegg was concerned over what
he saw as the very real possibility of conflict between Wright's working habits and the strict,
generally uncompromising, regulations imposed by the various Government agencies which
would eventually have to be involved. Wegg mentions in an article which he published much
later in the Journal of the American Institute of Architects that he "numbly reckoned with the
stark realities of justifying the site selection and costs to a hard-boiled General Accounting
Office."11 In his letter of November 16th to Wright following the visit to Pittsfield he went
on to express in a very tender way, these concerns:

Insofar as your relation to us is concerned, I hope that you will appreciate the
restrictions placed by lawyers and budget officers and a Comptroller General upon the
activity of any Government agency. I suspect there may be times when we shall not be
able to accede to some thoroughly logical requests you may make of us simply because
rules and regulations will not permit. I can assure you with complete sincerity that we
shall give you every freedom possible within legal and financial limitations which
are beyond our control.12

After his visit with Talbot Wegg to Pittsfield, Wright received a second correspondence
from Foreman advising him that the first of the two sites he had seen would prove too
expensive because the rate of soil absorption was low and effective sewerage disposal
necessitated exorbitant lengths of drain tile.13

Following your visit to Pittsfield we had seepage tests of the preferred site made by
an engineer for the State Health Department and found to out great regret that the soil
has very little absorption value. It is estimated that we should have to have at least
200 feet of tile drain per dwelling unit to handle sewage disposal which is out of the
question as to cost. Thus, we have had, reluctantly, to turn to the second site choice
which is now being surveyed. Although it does not have the value of trees and rocks, I
understand that it is a rolling site with beautiful views and susceptible to attractive
development. We are now having ownership traced and a specific area surveyed so
that we may determine the feasibility of obtaining options. As soon as this phase of
the project development has been determined we shall be able to inform you whether

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10 Wegg to Wright, 11/6/41.
12 Wegg to Wright, 11/6/41.
13 Foreman to Wright, 11/19/41.
we can enter into a contract immediately or whether we must wait Congressional action.\textsuperscript{14}

Foreman also spelled out the political realities to which his Agency - and Wright's project - was subject.

As you may know, we do not have funds to build this project until such time as additional appropriations are authorized by Congress. Meanwhile, we have adopted the following policy in order to gain time pending availability of future options on a desired site, in order to forestall its possible sale during the waiting period, we are authorized to enter into a contract with an architect to design the project. Such a contract, of course, obligates the Federal Works Agency to compensate the architect for his work. If we cannot obtain options we should not be justified in signing the contract since it might be possible for the owner to sell the site and to have some construction undertaken which would either increase the price substantially or make the site unusable for our purposes.

Members of Congress have stated their opinion that the bill authorizing additional appropriations may be passed within the near future and I want you to feel that we regard our relationship with you at present as a moral obligation to retain you as architect, regardless of whether we may enter into a contract immediately.\textsuperscript{15}

In his letter Foreman said surveys would be forthcoming but that he would be anxious to see any sketches Wright might produce before that time.

Meanwhile, I enclose copies of the Standards which govern our operations. I believe that a small community building in line with the Standards for a project of 100 dwelling units and a management and maintenance space should be included in the project . . . .\textsuperscript{16}

Wright responded to Foreman on December 1, 1941, "I have thought much about the Pittsfield project but it is my habit to draw nothing until I have the topography of the site definitely in hand as the basis of the work."\textsuperscript{17} In this correspondence Wright expresses a preference for the second site he had seen in Pittsfield, "...as all the (land)scaping needed is already there to perfection."\textsuperscript{18} He continued to describe the general outlines of the building type he was considering: "A type of group building is needed," he wrote, "...that automatically keeps the neighborhood tidy and free of objectionable features."\textsuperscript{19} The text of this letter reads as follows:

I understand the situation as you explain it. I accept the commission in good faith hoping the necessary entanglement of property interest may soon be effected and the money to build be in hand.

\textsuperscript{14} ibid. The "second site choice" referred to in this letter is the first one that the group had visited with Wright. It is not the rocky one Wright had wanted so badly.
\textsuperscript{15} ibid.
\textsuperscript{16} ibid.
\textsuperscript{17} Wright to Foreman, 12/1/41. Note that this letter is six days before the Pearl Harbor attack.
\textsuperscript{18} ibid.
\textsuperscript{19} ibid.
I have thought much about the Pittsfield project but it is my habit to draw nothing until I have the topography of the site definitely in hand as the basis for the work. I saw the site No. 2, which you recommend, when I was in Pittsfield and it truly is a fine site for development -- but the landscaping necessary to harmonize it would cost more than the additional cost of sewerage on Site No. 1 especially as the plan I have in mind needs but one sewer to four units and Site No. is very cold. So if you find difficulty in acquiring No. 2 you may go back safely enough to No. 1 if that already perfected site can be more easily had. We need not disturb the ground there in any particular as all the scaping [sic] needed is already there in perfection.

The group housing we intend certainly needs a kindergarten [sic] and little community house about the equivalent of a group of four units costing, say, $12,000.00

I regard the units themselves as, primarily, little breeding stables to be made decent and convenient for the purpose up to seven children. After that the family should extend the building or seek other quarters. All children should be separately slept as to sex and age. The house-wife is the captain of this ship and things should be on ball-bearings for her - in every way.

Also her brood should not be loose in the street or the neighborhood. She should be able to control the youngest three at least - all the time without too much bother.

A type of group building is needed that automatically keeps the neighborhood tidy and free of objectionable features. I have in mind such a plan. The garage should be a rendezvous [sic] for father and the boys as a kind of shop and loafing place -- etc.

"Mame" should see her beau in nice circumstances so the breeding can begin all over again - in due time. This means a pleasant independent Living room with a fireplace where the work of the household should not interfere or be interfered with meanwhile, etc, etc.

The whole aspect of each dwelling should be enhanced by those adjoining not injured by them. Privacy is the luxury we are all willing to pay more for and in the scheme I have in mind it is there to a remarkable extent.

I do not think $3,500.00 for the actual construction cost of each unit is an unsurmountable [sic] barrier to an agreeable well-built dwelling.

If all this does not scare you I could go on with more description but think we had better wait until I can present it in concrete terms as your architect by way of drawings. Otherwise you might think me at least "dippy" or over sanguine or something. Each house should have its own garden-lot. An acre to the house as ground is cheap.20

"Almost without reading it," Wegg recalls, Wright

... signed a contract which bound him to practices and behavior completely foreign to his customary professional operations .... He had a contract with the United States of America; his country had, at last, seen fit to recognize him, and he was on his way.21

Talbot Wegg recalled that Wright visited Washington with "a dozen mounted sketches" of his ideas for the Pittsfield project shortly after the December 7 attack on Pearl Harbor (Figure 3.1). In spite of their reservations about the differences between Wright's working method and that required by Government procedures, Wegg has written that "One look at these drawings

20 ibid.
was enough to affirm that FLLW was ever young, fresh, inventive and skillful enough to design dwellings which resembled no housing project of record. 22

This schedule indicates that the final weeks of December must have been very busy ones for Wright. Even though the building design Wright would submit for this project was based on the ones built and studied for the Ardmore Experiment, he altered that design radically and laid out a very different and very aggressive site plan.

As Foreman had mentioned to Wright in his letter of November 19th, the continuance of the Pittsfield project depended to large extent on the passing of another phase of a housing bill then being worked through Congress. There were great storms brewing in Congress at the very same time that none of these men apparently knew of in advance and which would bring about the eventual cancellation of Wright's work on the project. Clark Foreman was contacted directly by the Majority Leader of the House, John W. McCormack, a Democrat from Massachusetts. McCormack was concerned that the hiring practices of Foreman and Nathan Straus, the Administrator of the United States Housing Authority, had not favored his constituents back home in Massachusetts. Wegg recalls McCormack asking Foreman about Wright's Wisconsin practice specifically during a phone call in mid-December. 23 "What's more," Wegg recalls the phone call to have specified, McCormack went on to say, "... you've been hiring New Jersey architects for Connecticut projects and New York architects for Pennsylvania projects and Republican architects all over the country. The House is likely to take a pretty hard look at your operations before we appropriate any more money for defense housing." 24

As Wegg explains in his 1970 AIA Journal article, "FLLW vs the USA":

Appropriations for housing, schools, utilities and other public facilities made necessary by the proliferating defense program were generated in a House Committee dominated by Southern Democrats; chairman was Fritz Lanham of Texas and vice-chairman, Frank Boykin of Alabama. The interests of committee members in social and design aspects of the housing program had seemed to Foreman and his associates less marked than their interest in the selection of specific sites and the employment of specific individuals as surveyors, appraisers, housing managers, etc. 25

The Housing act was passed but with the apparent behind-the-scenes requirements that both Foreman and Straus be replaced. On the record the act required that the Public Buildings Administration, not the United States Housing Authority, be responsible for the design and construction of any future defense housing. The immediate logic was that this agency had a large staff of architects and engineers in house and would not have to go outside of the

22 ibid.
23 ibid.
24 ibid.
25 ibid.
Government for architectural services. The act also required that the United States Housing Authority and the Division of Defense Housing, as agencies which routinely hired private architects, receive no further projects.\textsuperscript{26}

This situation had been to large extent promoted by the action of a delegation of Massachusetts architects who were angered over the use of Wright, an out-of-state architect, for the project in Pittsfield. This delegation had protested to Congress and had managed to get the lawmakers to require that only local architects be considered for such government work, especially in the depressed wartime building conditions. The national offices of the AIA (in Washington) went along with this insistence on local architects as well.

It was clear by the 10th of January that the conditions under which Wright had been hired had changed significantly. Clark Foreman resigned under pressure from Congress and was replaced with a man less interested in radical adventures. Talbot Wegg was not far behind. Wegg wrote to Wright explaining these changes and suggesting that it might still be possible to complete the project if they could "...handle the thing as quietly and with as little fuss as possible."\textsuperscript{27} Wegg at this point did not know much about the real cause of cancellation. With the Agency faced with the problem of constructing some 70,000 demountable housing units, Wegg thought it possible that Wright might "...sneak through without much fanfare."\textsuperscript{28}

He asked Wright to address all further correspondence to him marked personal and added, "This will be our Swan Song to be sure and I want it to be good and to be sung."\textsuperscript{29} Before he could mail the letter however, he was fired. The text of this letter reads:

Clark Foreman resigned his jobs [sic] on Thursday and the Defense Housing Division has been effectively dismembered in two days.

Briefly the story is this. The Senate passed the new housing bill in satisfactory form. The House dominated by reactionary Southern Democrat stuffed shirts passed it in a form which would have given all construction to PBA (Public Buildings Administration). The housing need is critical; the bill has been kicked around for six months and unless House and Senate can arrive at a satisfactory compromise bill it may kick around another six months.

The House members agreed to accept the Senate version of the bill on the following conditions (imposed, of course, off the record):
1. Clark Foreman must be removed as a dangerous radical.
2. All future projects must be "conventional" in character, i.e., Cape Cod cottage type on a 25 foot lot, gridiron block, etc. etc.
3. Each agency developing housing must be left alone to work out its destiny, i. e. no attempt to make PBA do a decent job.
4. Rufe Newman is head man on all housing development and construction . . . .

I am writing this letter with a very definite purpose. You may gather from what I have written that your (and our) ideals are in grave jeopardy. Fortunately your contract is signed and the government has full obligations to go through with it.

\textsuperscript{26} ibid.
\textsuperscript{27} Wegg to Wright, 1/10/42.
\textsuperscript{28} ibid.
\textsuperscript{29} ibid. (Wegg's underline).
However it is possible - quite possible - that, unless we play this thing shrewdly and carefully, someone might decide to pay you off for your work done to date and start over on a "conventional" basis.

What is still vital to me is that your project be built. (I imagine you can appreciate it will be the only one you will be asked to do). I am ready to resort to any necessary subterfuge to achieve that end. Yesterday, before he left, Clark and I discussed the project and agreed that the best way to achieve our ends was to handle the thing as quietly and with as little fuss as possible. We are faced with a gigantic program of 70,000 demountable houses which, in the size and general confusion of reorganization will naturally monopolize attention of most of those not in sympathy. 100 houses in Pittsfield may well sneak through without much fanfare.

I think it very wise to expedite the work as much as possible. We haven't heard the culmination of the topo negotiations or whether anything has started in Pittsfield. I think further that it might be wise for you to address any communications including preliminary plans to me and mark them clearly "Personal". In that case they will get to me directly and will not be sidetracked . . . This will be our Swan Song and I want it to be good and to be sung. If we proceed quietly I hope we may pull through - although my - out - position is shaky enough that I cannot guarantee it. However, at worst it will take some time - if I leave - to dispose of me and meanwhile we may get your project into construction . . . .

But this subterfuge by Wegg didn't succeed. He added as a Post Script at the end of the letter quoted above:

I was about to mail this letter when I learned indirectly but firmly that Brother Newman would have no use for my services and I can therefore be fo [sic] no help to you . . . .

Within a few days Wright received a telegram from Foreman’s replacement as the new Chief of the Construction Division, Rufe Newman. It reads:

WISH TO ADVISE THAT DEFENSE HOUSING PROJECT PITTSFIELD MASSACHUSETTS HAS BEEN CHANGED BY COORDINATOR'S OFFICE TO DEMOUNTABLE HOUSING PROJECT. IN VIEW OF THIS SITUATION PLEASE IMMEDIATELY STOP ALL WORK DONE UNDER YOUR EXISTING CONTRACT. ADMINISTRATOR HAS INSTRUCTED ME TO ADVISE YOU HE HOPES YOU WILL DO A PERMANENT PROJECT WHEN ONE IS AUTHORIZED IN VICINITY OF YOUR OFFICE. PLEASE SUBMIT TO THIS OFFICE AT EARLIEST CONVENIENCE SCHEDULE OF WORK PERFORMED TO DATE AND COST THEREOF IN ACCORDANCE WITH TERMS OF YOUR CONTRACT.

In characteristic manner Wright, not to be so easily deterred, fired back a telegram of his own:

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30 ibid.
31 ibid.
32 Rufe Newman to Wright, 1/15/42.
PLANS PITTSFIELD PROJECT PAST SKETCH STAGE. ALL WELL FORWARD WITH SIXTEEN SHEETS SCALE DRAWINGS. DON'T YOU THINK BETTER TO EXAMINE BEFORE DECIDING TO ABANDON A SCHEME WHEREIN ECONOMY IS EXTRAORDINARY AND THE DESIGN A RAPID SHORT-CUT TO SCIENTIFIC BUILDING. COMPLETE PREFABRICATION FOR ASSEMBLY NOT INTERRUPTED BY WHETHER CONDITIONS AND BUILT PROBABLY AS QUICKLY AS YOUR DEMOUNTABLES. SO MAJOR PART OF CONTRACT ALREADY PERFORMED. HAVE IDEAS ON DEFENSE HOUSING THAT MIGHT PROVE VALUABLE SHOULD YOU CARE TO CONVERT CONTRACT. WHEN YOUR ADMINISTRATOR PROMISES WORK IN VICINITY OF MY OFFICE DOES HE MEAN WISCONSIN OR ARIZONA?  

Wright also wrote back to Talbot Wegg the same day:

As I said at the meeting over Clark Foreman's office table I have not proceeded in the order specified in the contract keeping my own necessary order of creative work of the kind deducing the site-plan so called from the developed plan of the buildings. I was told to do the thing my way and have so proceeded.
Also, I found a general scheme of building so flexible that it was unnecessary to wait for a topographic survey . . . .

Wegg kept up his efforts behind the scenes and wrote again to Wright upon receiving the architect's letter:

Yesterday I talked to Howard Meyers of the Arch Forum at some length about the matter. He is pretty incensed & promised to go to bat.
Today I talked to Tom Eliot (grandson of the old (unreadable word) of Harvard) now a Congressman from Massachusetts. He is incensed & going to bat.
I shall start other fires burning. This must be done from the outside. The dope is this - the bright boys of the House Committee who got Foreman have demanded that only "local" architects be employed & further no radicals like you. In other words the switch from permanent to demountable houses is merely a neat device for disposing of you. I don't think Newman (or the Coordinator's office for that matter) were doing any more than following orders . . . .

Wright's reply was as follows:

The plans as promised for January 31st were practically complete plete [sic] before we received the telegram asking us to stop work. The first two items of our contract were therefore performed in one as I said they would be. When you see the plans you will see why no "site-plan", so called, could be made until the complete unit had been developed.
I asked son Robert Llewellyn to contact Rufe Newman.
Hearing nothing I again wire Newman as follows:

33 Wright to Rufe Newman, 1/17/42.
34 Wright to Wegg, 1/17/42. There is also a short telegram from Wright to Wegg on January 17, 1942 which outlines the points in this letter.
35 Wegg to Wright, 1/19/42
Practically completed plans authorized by Government for Pittsfield project awaiting appropriate action by the administration. Would appreciate courtesy of reply to my former telegram. Would appreciate also authorization to travel to Washington to present plans myself.

Frank Lloyd Wright

I suppose no reply will be forthcoming. So the next steps will be mine. I shall be advised by Llewellyn who will consult with you and Foreman - no doubt. There would be little point in trying to go on with my kind of work without sympathetic cooperation of officials in charge.

So the best thing is to settle up and get off the wire. $12,000.00 is due the architect-engineer in the circumstances . . .36

Considering Wright's working habits and especially after his experiences with Otto Mallery and the Tod Company Board of Directors, one can easily see how Wright would not be eager to risk having his work missaligned, misunderstood or misconstructed by unsympathetic administrators and their agents.

Before the end of the month Wright's son Llewellyn - who was a lawyer then living in the Washington area - looked into the circumstances first hand and was able to explain more fully what had happened.37

Have talked to Newman, Coordinator's office and Deputy Administrator. Fleming Administrator is sick. Here is the straight story.

1. The coordinators office did not order the project changed from permanent [sic] to demountable - it is still designated as permanent project by them and they do not contemplate a change to demountable.

2. Baird Snyder Deputy Administrator is the only one who is responsible for the cancellatio[n] [sic]. Pressure was put on him and Coordinator by delegation of Massachusetts architects accompanied by congressmen and Senators. This project must be built from funds appropriated by new act, now awaiting signature at White House. Congress would not pass the act until assured that funds would only be used for projects where local architects [sic] were employed. Hence [sic] Snyder could not resist the pressure without jeopardizing passage of act. He says A. I. A. officials have also insisted on allotment of projects to local architects.

3. Newman is primarily interested in demountable housing and was of course anxious to kill the project and convert to demountable. However, Snyder is the man who (h)as the final say and has to be convinced.

4. Snyder tells me he has now instructed Newman to wire you to complete plans and bring them here and they will pay for finished plans. Says he will write you and assure you that these plans will be used somewhere or you will be given other projects to do. However, chances are very slim that you can persuade him to let you continue at Pittsfield no matter how good the plans may look . . .38

An Acting administrator in the Federal Works Agency wrote to Wright on January 23 informing him that, "...it is our intention to have you complete the plans which you undertook

36 Wright to Wegg, 1/22/42
37 Llewellyn Wright to his father Frank Lloyd Wright, 1/22/42.
38 ibid.
and to pay you a proper fee for them." But he added, "The architectural profession has represented to us that under the present circumstances it is our duty to see that architectural and engineering work incident to the building of defense homes shall go to local firms. The representation has also been made to us by members of the Congress. It was for this reason that we decided to have a Pittsfield architect, or in the absence of sufficient talent in Pittsfield at least a Massachusetts architect, to do the work on the Pittsfield Project." 39 He promised to give Wright another project "...at such a point that you may fall within the local category." 40

The text of this letter reads:

Your son called me last evening and said that he thought you would like to come to Washington and talk to me. In the event that that is what you want to do, I would be very happy indeed, in the absence of General Fleming, to see you.

It is our intention to have you complete the plans which you undertook and to pay you a proper fee for them.

Everyone here is a great admirer of your works and quite aware of your well-earned reputation.

The architectural profession has represented to us that under the present conditions it is our duty to see that architectural and engineering work incident to the building of defense homes shall go to local firms. This representation has also been made to us by members of the Congress. It was for this reason that we decided to have a Pittsfield architect, or in the absence of sufficient talent in Pittsfield at least a Massachusetts architect, to do the work on the Pittsfield project.

I can assure you we intend to avail ourselves of your services in the near future at a point such that you may fall within the "local" category. Although we are well aware that your talents are worldwide, the wide world is in such condition, and particularly the architectural profession, that the word "local" has a rather more narrow connotation that it had before. I am sure, therefore, that you will understand our position and bear with us in trying to do the right thing with this program. 41

In April an Executive order from the White House restored the United States Housing Authority and permanently dissolved the Division of Defense Housing. 42 The task of overseeing of Wright's involvement was transferred eventually to A. C. Shire, director of the U. S. Housing Authority's technical division. 43 Wright was never again involved with the demountable housing program as suggested by Snyder. Wright managed to complete the preliminary drawings for the entire project before being paid off and released. He wrote to Wegg a personal summary letter, saying: "My guess is that Shire should not have quoted 'Wright is hard to get along with' but should have said, more truly, 'Wright is hard to go along with.'" 44

39 Snyder to Wright, 1/23/42.
40 ibid.
41 ibid.
42 See article by Talbot Wegg in the AIA Journal, February 1970, "FLLW versus the USA".
43 ibid.
Wright's Pittsfield design was based on the use of what he called a "Cloverleaf." This was a four sided group building very similar to those first imagined for the Ardmore Experiment several years before (Figure 3.2). Here Wright altered the plan somewhat. As at Ardmore, the buildings here contained four identical but separate units each tucked within the reentrant corners created by two large crossing walls. In a series of changes which enhanced the rotational character of the earlier buildings, the apartments were pulled away from the masonry walls on the left side of each quadrant and extended along them on the right in such a manner as to increase the sense of movement or rotational bias (Figure 3.3). More strongly than before, the inward vector of motion established by the driveway on the left of each unit was complemented by the outward thrust of the living room to the right (Figures 3.4, 3.5 & 3.6).

These buildings of four units were to be broadcast in a pattern about the site giving each unit a maximum of privacy with, as he said, "...single entrance only visible on one side of each Cloverleaf." Wright altered the Suntop building design here much more extensively than he had in the second model for the Ardmore project. In the case of Model "B" he had tightened up the planning of the first building and adjusted the design to a variety of cost saving ideas, such as the substitution of concrete for brick masonry in the central crossing walls. The "Cloverleaf" version is by contrast a much more dramatically rethought solution. The name Wright gave to this design, "Cloverleaf," had been at least suggested in the August 1939 Architectural Forum article on the built Suntop building.

The most dramatic change was accomplished by sliding the individual units outward, or to the right, along the crossing walls so that they did not gather together in the center as they had before. Wright added a play yard at ground level against the innermost corner of the central crossing walls. These were to be open through all three levels to the sky. The driveway was moved by this addition some four modules away from the wall to allow for this play yard. The planning module remained a 2' - 9" square as it had been in both of the Ardmore versions. This move created a very different massing profile. As one unit slid to the right along the wall, the adjacent one to its left slid outward toward the entry direction of the right unit. This meant

45 The name "cloverleaf" is mentioned in the Architectural Forum article of August, 1939 on Ardmore as D. L. Johnson has noted. But also note that the Ardmore buildings did not have attached yards as an integral part of the design - this is what gives the Pittsfield designs the stronger appearance of cloverleaves.
46 This is a note on the Pittsfield working drawing set cover sheet, TW archives drawing #4203.045.
47 D. L. Johnson has noted this connection in his FLW Versus America.
that rather than cluster together as similar forms, any two adjacent units in one quartet building appeared differently to the view of any one side of the Cloverleaf building. The suggestion of rotation in plan was greatly enhanced by this change so that in the Cloverleaf version one senses a counterclockwise movement even more clearly than in the Ardmore plans.

In terms of other specific changes Wright kept the built-in seat under the mezzanine in the living room of the Ardmore Model "B" and relocated the stairway so that the entry sequence was substantially different (Figures 3.7, 3.8 & 3.18). The stair was pulled off the driveway wall to project out through the entry face. This allowed the front door to be placed between the stair and the driveway wall, and it allowed Wright to shift the orientation of the door 90° so that it directly faced the path of movement up the drive. This new front door location brought one into a small vestibule-like space with a coat closet which gave way to either the living room to the right or to a new utility room on the ground floor straight ahead.

This arrangement placed the laundry on the ground next to clotheslines in the play yard for drying. As with those on the roof terrace of the Ardmore Suntops, these would have been shielded from neighbor's view, as the play yard was to be completely enclosed.

Whereas the living room in Model "A" had occupied a space roughly nine modules by five (24' - 9" by 13' - 9"), in the Cloverleaf building it occupied a space less than eight by five (22' - 0" by 13' - 9"). The living room expanded beyond these limits into the built-in alcove seating under the mezzanine next to the fireplace, as it had in Model "B", but here it was not as wide. A built-in credenza also intruded on this slightly smaller room from the wall adjacent to the relocated stairs. The fireplace held roughly the same location against the crossing wall, but it too was made smaller than in the Model "B" design. Now the fireplace appeared as one 2' - 9" square planning module inscribed directly into the floor. The total enclosed square footage of the ground floor increased significantly with the addition of the utility room and entry vestibule from nearly 400 sq. ft. in Model "A" to just over 582 sq. ft. in the Cloverleaf version, even if the living room itself was smaller.

The glazed corner which had been taken out in both the Ardmore designs was replaced here. A strongly projecting horizontal trellis was added so as to wrap around the glazed living room walls at the level of the mezzanine floor.

The mezzanine design remained largely as it had been previously, with the single exception of the altered location of the stairway. While this stair had been a party to a reconception of the ground floor entry sequence, the effect was such that here it merely slid a single module further back from the kitchen and dining space. This small shift conflicted with what had been space for a wardrobe in the master bedroom. The rear wall of the enclosed space was moved one module further back, giving the bedrooms on the mezzanine more floor space. In the master bedroom, however, this additional floor space was negated by the necessity of
adding wardrobe-type storage. There was still an exterior balcony off the master bedroom, but now, rather than projecting outward over the driveway, it was the sole part of the unit which reached back to grab the crossing wall adjacent to the next unit and enclose the play yard. This exterior balcony was only slightly smaller in floor area than it had been before, but the configuration rendered it much less usable. It became something of a token figure in plan.

Due to the play yard below, the bathroom and children's bedroom on the mezzanine now were given windows opening directly to the outside. The much addressed ventilation shaft of Ardmore was no longer needed. The transoms found in this small children's bedroom in the Suntop design was removed in this version as well. The transoms over the balcony which projected into the upper living room and which allowed the housewife to view the roof terrace above remained a central feature, however. These, now labeled clerestory, were moved further out over the living room proper, thereby increasing the ceiling height over the dining table and its built-in seating.

The narrowing of the living room volume and the pushing out of the stairs affected the design of the roof terrace and penthouse on the third level significantly. The open exterior play space of the roof terrace no longer reached around the corner but was contained as a single rectangle in plan, now wholly over the living room. Most significantly, Wright added a bathroom to the third floor penthouse where the ventshaft had been previously and blocked in a large space for storage. The bathroom was to be located directly over the one below and would have been reached only through either of the bedrooms. These bedrooms increased in size slightly in this design.

In elevation one immediately sees the very different appearance this scheme presents when compared to the Ardmore building. It had been a very tight and dense mass closely held to the crossing walls. Here the design opens up dramatically as it expands out to a width of 99 feet versus the 69 feet (36 versus 25 modules) of the earlier version. Space opens up at the center of the cruciform with the play yards while the Living room volumes now projected well beyond the ends of the crossing walls. Significantly, Wright did not extend these party walls out from their original lengths, he has allowed the Living room to reached beyond them. In terms of the visual organization of any one facade, while the overall complexity of the quartet building increased, one's ability to distinguish one unit from another in a single building would have perhaps been positively effected by the introduction of the open space of the play yards.

Each building was to be adjusted to the topography by the use of a raised circular platform, or as Wright called it a "rock-ballast stylobate 90'-0' diameter and flush with the ground at the top-level."48 This circular leveling of the site was to be made up of broken stone passed

48 Note on Pittsfield Sheet one, TW archives drawing #4203.017 The drawings for the second design for Ardmore, Model "B", indicated that the concrete mat be 4 & 1/2' above the surrounding grade and that this grade slope away from this mat, creating in essence a stylobate without its own form. This term
through a 4" sieve, and would have provided a level platform on which to place the four-sided building. This is an invention which allowed Wright to proceed without the specific topo map by ignoring the gradual contours he had seen on the site. On the "outer slopes grade falls away" at 45° and was to be "covered with dirt and green ground cover" suggesting that Wright intended these circular stylobates to be seen not as separate from, but of a piece with, the natural environment - blurring the distinction between the natural and the manmade. He continued, "...otherwise all natural grades kept without change."

There was a precedent for this 'stylobate' in Wright's domestic work. It appeared in the presentation plan drawn for the first house Wright designed for Herbert Jacobs in Madison Wisconsin in 1936. As the first built Usonian house, that design stands as a seminal one in Wright's career. The floor plan drawing is one in which Wright began to explore a graphic language for representing the basic concepts of the Usonian house idea (Figures 3.22, 3.23 & 3.24). Here one sees a few darkened masonry masses staking out the locus of the house and surrounded by a light web of lines representing the thin wood partition walls which made up the majority of the enclosure. These walls follow upon the lines of a rectangularly gridded concrete mat which made up the actual floor of the house. The plan is organized into two wings projecting out from a shared kitchen and utility area largely made up of masonry construction. Wright has drawn further projections of level lawn areas outward from these wings along their lines of extension. The projecting lawn of the living room ends in a half circle. On this drawing Wright suggested the use of this form as a way of accommodating the house to the slightly sloping topography of the site. The sides of this projecting lawn would fall away to meet the existing grade at whatever point resulted. As in the Cloverleaf plan, here too Wright suggested that the sides of this figure be covered with a ground cover, different from the shaven lawn of the level top of the projection. One can see a similar if partial figure projecting out from the bedroom wing of the Jacobs House plan as well.

These forms should be read as extensions of the form and figure of the house outward into the landscape. They act to blur the distinction between house and landscape in a way that can only be seen as tentative in light of Wright's later work. Significantly, as the projecting lawn of the living room comes to an end in the sloping, circular ground-covered bank, it reaches under the canopies of several trees which run along the property line. These trees are rendered

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was used by Wright to describe the WINSLOW HOUSE in the 1908 article, "In The Cause of Architecture."


50 Wright had conceived the foundations of the Usonian type in the design of an unbuilt house for Robert Lusk in the same year. See Monograph #5, pp. 243. Another version of this idea can be found in the original presentation plan done for the Loren Pope House, in Falls Church Virginia in 1940. See The Natural House, pp. 144.

51 In this sense these platforms perhaps have a distant precedent in the extending walls of the Martin House design in Buffalo of 1904.
here with their canopies represented by complete dotted circles. The trunks are shown in poché as hand drawn and roughly circular forms. The canopies, by contrast, have been mechanically laid out as perfect circles. As the design impetus of the house moves out into the landscape, it is met, or merges with, the naturally occurring forms of nature. The tree, perhaps not coincidentally, is most commonly used as the primary symbol of an organic form.52

In this drawing we find a graphic language which spans the range of forms from the strong, dark, angular masonry masses at the center of the house through a full range of graphic effects to the light, tentative, delicate, pure form of the circle representing something that does not even appear in the drawing, but whose presence is merely represented, the canopy of the trees at the site's edge. It is a graphic language which reaches from solid black, rising from the ground to ephemeral dotted circles in the air.53

As a circular leveling device, the stylobate provided a self-referential platform on which to center the two crossing masonry walls. Some twenty-four complete Cloverleaf buildings and two partially incomplete ones were to be distributed more or less evenly across the entire site with gravel roadways separating buildings.

Extending from the ‘stylobates’, Wright included another layer of circles to demarcate the territory of each individual family. These were to be marked directly on the ground by plantings. The addition of this second layer of circular Cloverleaf ‘petals’ as individual yards identified specific zones of privacy, isolated from one another by asymmetrical masses of low shrubs and all sequestered within an ocean of gravel roadbed.54 These Cloverleaf petals provided garden space for the tenants and allowed, as Wright added on the project’s site plan, “as many patterns for gardens as individuals."55 He went on to include that, "...should certain

52 “Restless through the night, he arose at twilight, made ready quickly, and passed up the road leading to the great ash tree whose companionship he ever sought on high occasions. Here, under the wondrous tree . . . the child, sole witness beneath his great ash tree, his wonder-guardian and firm friend sharing with him in its stately way as indeed did all the land and sky and living things of the open - the militant splendor of sunrise - the breaking of night’s dam - the torrent and foam of far-spreading day - surely this child that went forth every day became part of sunrise even as this sunrise became part of him.” Louis Sullivan’s, Autobiography of an Idea.

53 This graphic idea can be seen in a wide array of Wright’s floor and site plans in this period. See for example the beautiful colored plan of the Jester House project in which the solidity of the fireplace is finally contrasted by the ephemeral delicacy of the circular pool of water expanding out from the house published in Frank Lloyd Wright Drawings, 1990, pp. 49. Wright went on to develop a simpler version of this graphic language which could be reproduced in print more easily. See the plan of the Loren Pope House “publication plan” published in the Monograph #5, pp. 162 as figure 232 (#4013.23), and the site plan and the ground floor plan of the Johnson House, "Wingspread," published in the Monograph #5, pp. 2-3, as figures 3 (#3703.14) and 4 (#3703.23). There are very many examples of this in these and the following years, the published plans of the Usonia I subdivision, for example, were drawn in this language (3912.002, 3912.003 & 3912.004).

54 The spinning vision of Wright's Sugarloaf "Automobile Objective" is fulfilled by the unity of automobile and ground suggested in this plan. In earlier years Wright had written of his use of the circular spiral in pursuit of this objective: "... the very quality of its (the spiral’s) movement, rising and adapting itself to the uninterrupted movement of people sitting comfortably in their own cars in a novel circumstance with the whole landscape revolving about them, as exposed to view as though they were in an aeroplane." Wright to Strong, October 20, 1925 as noted in Mark Reinberger’s Cornell University Master Thesis, "The Sugarloaf Mountain Automobile Objective and Frank Lloyd Wright’s Middle Years," 1982.

55 Note on Pittsfield Cover Sheet, Taliesin West Archives drawing #4203.045.
individual householders not be inclined or educated to plant and cultivate the ground it may be sowed with red-top [a low flowering shrub], interspersed with poppies, daisies or chicory.\textsuperscript{56} “Shaven lawns,” he noted, were “not contemplated . . . ,” and all other planting was to be “. . . native shrubs and trees from [the] surroundings.”\textsuperscript{57}

\textsuperscript{56} Drawing #4203.045
\textsuperscript{57} Note on Pittsfield Sheet One, Taliesin West Archives drawing #4203.017
There is a wealth of drawings in the Taliesin West Archives related to this project. Very many of these are production drawings, as Wright had the Taliesin apprentices complete two sets of working drawings. But there are several revealing early site planning studies as well. The first study of importance was executed on the heavy brown "butcher" paper used during the early years in Arizona. This drawing carries the date Jan. 5, 1942 but must have been done almost a month earlier by Wright, during the first week of December, 1941.\(^58\) It is in this study that Wright apparently first laid out the stylobate and Cloverleaf pattern that characterizes all of the other plan drawings of this project (Figure 3.9). The paper is torn smoothly on two edges and roughly on the other two into an approximate rectangle. The sheet is labeled "FOUR-LEAF CLOVER LAYOUT." It is a working sketch which has been reworked and vigorously erased in places.

The sheet contains many sketches in varying degrees of completion. The most significant drawing on the sheet is a large Cloverleaf plan study which utilizes the kind of small cut and paste method Wright used in the earliest plan studies of the Ardmore project (Figure 1.17).\(^59\) The Cloverleaf concept appears here full blown, with a revised quartet building located at the center of an encompassing square some 208' to a side.\(^60\) Centered inside this square there is a lightly scribed circle of the same diameter. Wright has drawn a smaller, inner circle 104' in diameter to represent the stylobate upon which the crossing walls of the quartet building have been placed. This dimension of 104' diameter (52' radius) will turn up again soon. The written notes "gravel drive" and "broken stone stylobate" occur in conjunction with this form. A north compass orientation is indicated by a long line at approximately 30° to the center cruciform. This is drawn twice at very slightly different angles with one of these lines passing directly through the vertex of the cruciform at the center of the diagram. The four units are placed within the reentrant angles of the crossing walls as they had been at Ardmore. They are pulled away from these walls as they will be in the final Cloverleaf design. The four individual units are clearly labeled here A, B, C and D in a counterclockwise direction. This is the same

\(^{58}\) In Wright's letter to Foreman 12/1/41 he says that he had not begun to draw the project and Wegg recalls seeing the first presentation shortly after the Pearl Harbor attack on December 7.

\(^{59}\) A few of the Usonia I house study plans utilized this method as well.

\(^{60}\) One side of this large square is labeled 208' - 0", and another side is labeled 208' - 8." As the drawing is done at an architectural scale of \(1" = 16'\); it is impossible to differentiate by measurement which one of these the actual drawing conforms with. The drawing is made in a casual manner with heavy pencil which would not allow this kind of exactness in measurement at this scale in any case. The dimension is derived from the size of a square acre. An acre constitutes 43,514 square feet. A square of 208' - 7.2" to a side is a full acre in size. Wright apparently rounded this 7.2" off to 8' and then dropped it entirely as it makes the further dimensions down the scale too cumbersome.
labeling pattern with which numbers were used to describe individual units within a single building in the early Ardmore site plan studies.

The next layer of circles which form the 'petals' of the Cloverleaf design are set inexactly into each of the four quarters of the original large square. These circles are also drawn with diameters of about 104', the same as the central stylobate. Along the edges of these outer circular petals Wright has sketched various low shrubs masses as articulations of the geometry which would also define privacy. Some of these masses follow the edges of the inscribed squares while some reinforce the circular geometry of the petals themselves, as in the final plans. Wright has also drawn in slight suggestions of planting lines within each petal to indicate vegetable gardens, etc. These are very sketchy here but serve to emphasize the directional vector of the entry drives before breaking off to define the field of the petal with a larger variety of patterns.

All in all this is a very powerful conceptual drawing which studies details of an already strongly asserted planning concept. This diagram is an interesting one in which a large square is quartered and a circle whose diameter is consistent with one of these quarters (i.e. one-half that of the side of the initial square) is set at the center of the initial square.61

Along with the large Cloverleaf plan study there are at least two other relevant sketches of planning concepts on this sheet. The lesser of these is a loose drawing of a quartered rectangle dimensioned as 850' by 1281'. These dimensions give the rectangle a size of approximately 25 acres. Wright has written over the diagram in a very loose handwriting what appears to be the word "section".62 This small sketch also has two circles drawn in the left side of the lower left quadrant and one in the upper left corner of the upper left quadrant. There appears to be what could be interpreted as a roadway running down the center of the two leftmost quadrants. This little sketch then would appear to explore a possibility of a layout for groups of the Cloverleaf buildings.

This little sketch then appears to provide a view of Wright's underlying planning concept in the layout of the Cloverleaf buildings on an ideal site. Significantly, the geometry he uses here parallels that of the Broadacre City scheme, and reflects a pattern of land division he used from the Quadruple Block designs of the turn of the century onward.

61 This diagram also forms the geometrical basis of the plan of Broadacre City which Wright first published in "Broadacre City: A New Community Plan," Architectural Record 77 (April 1935), pp 243-54, and then again in When Democracy Builds. Chicago: University of Chicago Press, 1945. In that plan the entire assembly is quartered and a square whose size is consistent with one of these quarters is set into the exact center of the whole. In the Broadacre City plan it is this inner square which acts as the heart of the plan by containing the Usonian type houses and their one acre gardens.

62 This reference to the term "section" is an interesting one as it seems to refer to the terminology developed by the Land Ordinance of 1785, except that the dimensions do not conform to that scheme. See the D. L. Johnson article: "Broadacre's Geometry: 1934-35," Journal of Architectural and Planning Research 5:1 (1988). The 850/1281 ratio is approximately that of 2/3.
This geometry however was abandoned, as the other small sketch on this sheet also depicts an area of approximately 25 acres (Figure 3.10). This one is a square instead of a rectangle and is labeled 1043 feet to a side. A square enclosing 25 acres of ground would measure 1043' to a side. The words "25 acres" are written to the side of this little drawing. This square is also divided into quadrants. In the quadrants themselves Wright has suggested the placement of five quartet-type Cloverleaf buildings. One of these would be located in the center of a typical quadrant, with four placed in the reentrant corners of the quadrant. He has also shown what appear to be four unlabeled 'greenswards' as well. Five quartet buildings in each of the four quadrants would give a total number of 20 Cloverleaf buildings on a square site of 25 acres.

If the large sketch here depicts a single Cloverleaf building on a one acre square, then the placement of 20 such buildings on a 25 acre square would mean that 5 of those acres are available for circulation of common spaces. This is not a very efficient diagram in terms of site usage. Looking at a single quadrant, if each of the single Cloverleaf buildings took up 208' of the outer edge then a swath of some 106 feet would be left in the center of each quadrant for automobile access, etc. (208' x 2 = 416', and 1043'/2 - 416' = 106').

On this second little sketch one can also make out another roughly sketched square the size of one of the quadrants drawn so as to locate it at the center of the larger square. This also reflects the geometry of the Broadacre City plan as D. L. Johnson has described it. This gives Wright's rendering of this little planning diagram the same kind of multi-layered and expanding, or hierophanous, quality found in his use of the 104' circles in the large Cloverleaf plan on this sheet. This little sketch then appears to provide a view of Wright's underlying planning concept in the layout of the Cloverleaf buildings on an ideal site. Significantly, the geometry he uses here parallels that of the Broadacre City scheme, and reflects a pattern of land division he used from the Quadruple Block designs of the turn of the century onward.

The three sketches on this sheet provide a view of the conceptual beginnings of Wright's layout for the Pittsfield project which tie this project firmly into a larger sequence of planning projects in his work.

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63 ibid.
64 Note also Wright's use of (8 by 5) rectangles to divide up the system of larger squares in Broadacre City plans as discussed by D. L. Johnson in his early article.
65 Mercia Eliade, the scholar of comparative religions, suggested this term in several of his works. In his usage it refers to a point in space at which the sacred makes itself known. I have utilized this term specifically to refer to the process of extending this order outward in rippling circles, as it were, to establish humanly ordered space: "In the homogeneous and infinite expanse, in which no point of reference is possible and hence no orientation can be established, the hierophany reveals an absolute fixed point, a center." (The Sacred and the Profane, Harcourt, Brace & World, Inc.: New York, 1957. pp. 21) or, "The discovery or projection of a fixed point - the center - is equivalent to the creation of the world . . . . " (The Sacred and the Profane, pp. 22) and, "Religious man's desire to live in the sacred is in fact equivalent to his desire to take up his abode in objective reality, not to let himself be paralyzed by the never-ceasing relativity of purely subjective experiences, to live in a real and effective world, and not an illusion." (The Sacred and the Profane, pp. 28) See Appendix following.
66 Not only this, but it gives us a new view of the hierophanous geometric complexity of the Broadacre plan as Mark Reinberger has also suggested.
Following this brown paper study there are two large scale site plan studies which record the task of adapting the ideal geometry of the diagram here to the specific contingencies of the chosen Pittsfield site. It would appear that the first of these is a remarkable unnumbered site plan titled "USONIAN HOUSES FOR THE U. S. A. PITTSFIELD MASS" (Figure 3.11). This is a meticulously worked out plan for 20 Cloverleaf buildings on a square site of 25 acres which follows exactly the arrangement shown in the second, square, little sketch (4203.006) discussed just above. The drafting here is very carefully done and all dimensional measurements in this rather complex layout are handled with great precision.\(^\text{67}\) The overall 25 acre square here is dimensioned as 1043' - 6" on a side just as was indicated on the small sketch.\(^\text{68}\) Also as in the little sketch, the large square is quartered and here each of the secondary squares are dimensioned as 521' - 9 1/4" on a side (1043' - 6" / 2 = 521' - 9"). These four squares are 6.25 acres in area. Each one of these squares is then divided in both directions into three strips or planning zones which are dimensioned 208' - 8.4" and 104' - 4.5" and 208' - 8.4" again. Except for the inches included on each of these measurements, these strips can be evenly divided into four and two by a measure of 52'. This means that one of the squares quartered from the original 25 acre plot has been divided into ten smaller units of 52'. Four of these make the 208' strip, two of these make the 104' strip, etc. The 52' dimension is significant here because of its use in the first Cloverleaf planning drawing drawn on brown paper we discussed above. There a dimension of 52' was used to describe the radius of the stylobate, the Cloverleaf petals and the quarter of the largest square into which one of the Cloverleaf buildings was set. This congruency means that the entire 25 acre site described on this site plan has been broken into a pattern governed by the module of the initial conceptual diagram. It is a very complex and carefully conceived plan, even if there is some unresolved effort put into making the inches work out smoothly.

Following the idea of placing five Cloverleafs in each quadrant, a single quartet building has been placed in the center of each of the smaller corner squares made up of four 52' modules. In this way a fifth Cloverleaf building is suspended in the center of each of the quarters. Gravel roadway is indicated around each of these 20 Cloverleaf buildings and the yards described within their petals. Open green spaces have been added between gravel roadways in the space described by the two central 52' modules in each of the quadrants. Eight of these come in from the periphery of the 25 acre site and four of these are internal to the large square site.

While all four quadrants in this master plan diagram have a Cloverleaf building located precisely in their center, these are not handled in the same way throughout. In the lower left and upper right quadrants the central Cloverleaf buildings are held to an orientation which keep them parallel to the edges of the main square as are the majority. In the upper left and

\(^{67}\) It is safe to assume that this drawing, unlike the one just discussed, was not done directly by Wright himself but rather by one of the apprentices working with him.

\(^{68}\) The 6' here is not required by the squaring of 25 acres, and cannot be explained.
lower right quadrants however the central Cloverleaf buildings have been rotated 45° so that they have a new orientation with respect to the overall diagram. The individual yards of the rotated Cloverleaf building are allowed their full extent so that these units are not treated differently from the majority. In the other two parallel center buildings however, the geometry necessitates that the yards be sliced off to allow the encircling roads room to pass.

The circles drawn for yards into the Cloverleaf petals are dimensioned as 49'-2" instead of the 52' governing measurement. This slight reduction gives much greater flexibility in laying out drives and shrub masses for individual units and allows for the provision of gravel roads surrounding each Cloverleaf. Only a few of the yards in this drawing have planting patterns indicated to any degree. The stylobate is shown at a smaller dimension, closer to its final 90'-0" diameter.

The plan also indicates a precise network of underground utility lines serving all quartet buildings drawn in brown ink. This network too has the configuration of an ideal diagram even though it represents a somewhat more mundane subject.

Throughout this entire plan layout study for a 25 acre ensemble the primary planning module is a square of one acre, or 208' on a side. Even though it is worked out and drawn in such detail, it appears that this is nevertheless something of an ideal diagram not meant to describe an actual site under consideration.69 There are roads drawn around this 25 acre square but these are not labeled and reflect the kind of even, repetitive, geometrically ideal site planning Wright explored in his earlier Quadruple Block schemes.

The second large site plan study is a very careful, if incomplete, one which appears to address the actual site chosen for the project (Figure 3.12 - this drawing is also unnumbered). This drawing lays the foundation for adapting the ideal diagram of the previous drawing to actual existing measurements and conditions. This drawing is laid out at a scale of 1" = 50'-0".

The site plan drawing is composed of large circles drawn lightly in pencil across the entire site. These are numbered from one to twenty-four beginning in the lower right. These represent the positioning of Cloverleaf buildings on the site. Each of these circles are of a size to fit into an acre square exactly as were the first, or outer, circles lightly drawn in the brown paper Cloverleaf study mentioned above. There are two partial circles along Benedict Road at the bottom of the drawing which are not numbered. There are no indications of topographic information to establish the site elevations and the contour of the land on any of these drawings.

The plan investigation sketched here reveals a different approach at the top of the sheet than at the bottom. Along the top edge of the site, when oriented so that Benedict Road runs

69 The 49'-2" dimension is repeated in the overall dimensions of the Cloverleaf buildings themselves as well - to the outside of the balcony overhangs.
across the bottom, there are five of these Cloverleaf circles. This is the first site drawing to name Benedict Road which runs roughly in a north-south direction, with the top of this site, when drawn in this manner, lying to the west. A Cloverleaf is placed in each of the top corners of the site and a group of three contiguous ones are placed together in the center along the upper boundary line. This arrangement leaves two open areas which were designated as roadways, or eventually, greensward areas. On this drawing the uppermost row of Cloverleaf buildings has been drawn in plan with building footprints in red pencil poché. As in the ideal diagram discussed above, independent Cloverleaf buildings were suspended in the roadway spaces in what corresponds to the center of each quadrant. One of these is drawn parallel to the dominant property boundaries while one is rotated 45°, just as in the previous ideal site study. This arrangement of five buildings across the 911.65' upper site boundary did not leave enough space between buildings for the Cloverleaf petals to clear the intervening roadways around the greenswards. Some of the yards located in the petals of these two suspended buildings are sliced dramatically. It appears that this arrangement was abandoned, as along the lower site boundary along Benedict Road there are only four Cloverleaf circles drawn. This, the easternmost site boundary, is not perpendicular to the sides, nor parallel to the rear boundaries. The Cloverleaf circles drawn here follow the orientation of the other three site boundaries and so step progressively away from the public road. A Cloverleaf is located along each opposite site edge and here only two are clustered together at the center. This arrangement of four instead of five left much larger spaces open for the roadways and their associated greenswards. In both this trial and the line of five along the top, the resultant width of the greenswards are used to take up the difference between the width of the Cloverleaf clusters and the actual site width. In the lower case, by inserting only four Cloverleafs and thereby widening the greenswards running east to west through the site, the planners were able then to keep the width of the greenswards which were then inserted in the north-south direction to a minimum width and still maintain sufficient roadway clearance without impinging on the yards in either direction.\textsuperscript{70}

This sets the stage for the first complete Pittsfield master plan (Figure 3.13). This is found on a sheet originally intended to be sheet one of a working drawing set. It is dated Jan. 15, 1942 and has a schematic drawing of the Cloverleaf building along with a few details of a curb light, as well as the overall master plan.\textsuperscript{71} The master plan is drawn at a scale of 1" = 50' - 0" as it was in the study plans discussed above. It shows the final layout of twenty-four complete Cloverleaf buildings and two partial ones for a total of 101 individual units. One of these was meant to serve as a caretakers unit and manager's office so that there would have been 100

\textsuperscript{70} The 'ideal' plan diagram provided for the greenswards to be the same width in both directions.

\textsuperscript{71} This is the date of the first telegram Wright received from the newly installed director, Rufe Newman.
The configuration follows the ideal diagram in a general way but makes several subtle adjustments to compensate for the contingency of the site. The four quartered scheme is roughly followed as a guide to the layout. One of the center suspended Cloverleaf buildings has been left out of the lower left part of the plan. An entire extra row of four Cloverleaf buildings has been inserted between the quarters running north-south through the middle of the site.

The strict modular character of the earlier planning studies is kept in this final plan layout, even as it is adapted to the site. Site dimensions were carefully tallied across the entire site. The basic modular unit is the square describing each Cloverleaf building. These are dimensioned as 170'-0" here. This dimension is measured from the centerline of roadway to roadway and so includes 6' on either side of each building to allow at least a 12' for the roadway. This dimension holds true in both directions and across the entire master plan excepting the open spaces of greenswards. Given the 12' allowance taken out of the 170'-0" overall modular dimension the Cloverleaf petals measure only some 79'-0" in diameter however. This radius of 39'-6" is quite a bit reduced in size from the initial 52'-0" specified on the brown paper study plan. This reduction in Cloverleaf size while keeping the overall layout the same as before allowed greater flexibility in laying out adjacent buildings in the configuration of a site plan. The crossing concrete walls are each 71'-6" in length and sit on the raised earthen stylobate.

The central crossing walls shown for each Cloverleaf are drawn thickly in black ink. They are the heaviest element in the graphic scheme of the site plan drawing. The footprint of each unit is shaded in light red colored pencil. Within each shaded footprint there are diagonal lines used to give the footprint a slightly stronger texture. These diagonal lines all are oriented in the same direction regardless of the orientation of the Cloverleaf. Fine black ink lines are used for a wide variety of individual garden planting layout suggestions which give the overall drawing a great vitality. These garden patterns, more than any other element, break up the monotony of the geometric pattern.

It is this site plan drawing which most firmly establishes the rotational suggestion created by the geometry of the Cloverleaf plan. The effect of spinning seen here is powerful. One is tempted to see fan blades or mechanical rotors of some kind in the two dimensional representational scheme. Such rotation portrays an angular momentum governing each Cloverleaf building, and perhaps more than any other single facet, prevents one from being able to attach the individual units to one another in one's perception. Each Cloverleaf building is

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72 There is however no development of this building in the working drawings of the project.
73 The Pittsfield site for which this plan was intended measured 911.65' along the rear or western edge, 988.06' along the northern edge, and 1195.87' along the southern edge.
therefore given a stronger autonomy here than were the Suntop units in the first Ardmore plan.\textsuperscript{74}

The patterns of garden plot plantings shown in each individual yard form an important part of this suggestion of rotational. Wright has taken some effort not to duplicate patterns so that virtually all are unique. But, even so, they almost all are drawn in such a way as to accent the suggestion of a counterclockwise rotation. The direction of the lines used to suggest planing rows are in sync with the angular flow of the implied centrifugal force. These appear to have spun off of the rotating central fan unit. The circular yard petals follow the rectangular unit plans as they are pulled around by the central crossing walls. Each of these three elements are rendered in a progressively lighter manner, from black crossing walls through lined and poched floor plans to variegated, and sometimes open, patterns in the yards.\textsuperscript{75}

One might say that the use of the square grid here as a planning tool and representational device has something of this same multivalent or progressive character. The enlarged 1" = 16' - 0" Cloverleaf building floor plan on this sheet shows a firmly gridded area only within the enclosed space of each first floor area. These are colored in the same red here that they are in the adjacent site plan. As gridded planes they reinforce the orthogonality of the central crossing walls at a lesser scale. The grid in the floor plan areas is clearer, but doesn't have the power or conviction of the crossing walls. In this direction of interpretation, if we proceed upward in scale to the site plan, we can see how the overall placement of Cloverleaf buildings on the site suggests a somewhat more loosely conceived grid. Continuing the interpretation, this suggests that from the strong conviction of the crossing walls through the clarity reinforced by the gridded floor plans, the concept of the grid opens up to merge with a concept of the land being shaped.\textsuperscript{76}

The common areas provided by the roads and greenswards are drawn in a manner consistent with this graphic spectrum. The greenswards are shown with shrub masses only outlined in ink roughly around their perimeters. The extensive network of gravel roadway is left completely open to appear only as the color of the paper, in other words as background entirely.

Moreover, the way in which the role of the roadways is conceived here also suggests a background position. The Cloverleaf buildings are conceived and placed as positive objects, irrespective of particular site conditions. The autonomy of each Cloverleaf building is

\textsuperscript{74} Wright's phrase, "picturesque standardization" refers to this dimension perhaps more than any other.

\textsuperscript{75} The patterns of lines used here to indicate garden plantings is very similar to those used in the Usonia I subdivision model.

\textsuperscript{76} One is reminded here of Rudolph Schindler's description of Wright's use of colored and leaded glass in his Prairie Houses: "Wright not only has a sense of gardens but his houses are always a piece of developed and refined environmental space - not imaginable without plants, sky, and earth. This should explain to you his windows. They are not wall holes but a dissolution of the building material into a grid - leaded glass - as the ground dissolves and becomes lost in the tree branches." This passage is quoted in Joseph Connors' \textit{The Robie House of Frank Lloyd Wright}. Chicago, IL: University of Chicago Press, 1984.
guaranteed not only by the centrality of its form, and by the strong suggestion of angular momentum (again a self-referential aspect), but also by the simple fact that a hierarchical pattern of road relationships is denied in this manner of placement. By allowing the edge of the Cloverleaf petals to determine the extent of the roadway, Wright has given the buildings a ‘foregrounded’ stance. The roadway network is treated as though it were nothing other than a blank table top upon which these buildings have been placed. The use of gravel in this roadway network also works to deny it a cognitive presence as a positive element. One might say that in order of conceptual placement, the gravel represents the unconditioned surface of the earth, over which lawn areas have been laid to form greenswards with plantings, and upon which the Cloverleaf buildings have been placed. This placement on the site reinforces, again, a multivalent and layered system.

The rest of the drawing is executed in black ink and graphite pencil, except for the utility lines for the Public Service Corporation (PSC) which are indicated lightly in brown ink. A light-weight, pale yellow tracing paper was used.

There is a second version of this plan (Figure 3.14) which is similar in terms of the information it portrays. The site plan drawing is virtually identical to the previous one, and in fact the absence of compass point holes in the center of the circles on this sheet make it appear as though this one were traced from the previous. The major difference between the two sheets has to do with the quality of ink line work in the drawing here. The lines here are more carefully drawn and considered with a vibrant, if somewhat more delicate, quality throughout. There is one difference in the way in which the color red is used in the plan representations. Here the interior of the cruciform walls of each Cloverleaf are poched darkly in red pencil, while the floor plans are much the same as in the earlier drawing. Also, many of the yards and common play areas have received a very light coloring with the same red pencil. This establishes, again, a spectrum of coloration from solid masonry to landscape forms. The first version is labeled “void” and must have been replaced by this one. A list of sheets included in the working drawing set has been added to this drawing as well.

The most descriptive drawings of the Pittsfield project are the aerial perspectives. There are two of these, both dated Jan. 15, 1942, and they are very similar (Figures 3.1 & 3.15). The earlier of these is largely done in pencil and is lightly and very beautifully colored in a variety of greens and browns (Figure 3.1). A dark green was used in some cases to render the trees and low shrub masses with lighter greens used for the ground and lawn textures. This drawing was painstakingly laid out with great care applied to the difficult problem of

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77 This drawing (4203.023) was dated Jan. 1942, and had the day blurred, or blotted over, or otherwise changed.
accurately constructing circles in perspective. The yards here are each given a unique planting pattern as was the case with the site plan drawings discussed above. While the patterns here are not the same ones in the same places as in those drawings, the overall effect is identical.

A most interesting deletion of an entire NS row of Cloverleaf buildings through the exact middle of the project creates the strong impression of a diagonal line of associated Cloverleaf buildings moving from road in the lower right to the forest in the rear at the upper left across the entire drawing. This deletion allows the drawing to portray a somewhat more regular arrangement of buildings in more easily identifiable groups of four than the actual project site plan. It also gives the entire ensemble a more cohesive and centered appearance that is governed by two large triangles which appear to organize the buildings on the site. The perspective portrays a scheme closer to the ideal one.

To the rear of the site the drawing shows a heavily wooded forest. By including mature trees along several of the shorter greenswards as they intrude into the site along the back edges of the site it appears as though the forest extends onto the site boundaries by means of these open planted areas. This effect is continued by showing trees along all of the greenswards reaching across the site. There are very few, smaller trees indicated in any of the individual yards themselves. This planting strategy reflects that of the Ardmore site plans where we saw low plantings in the yards and in front toward the public street complemented with higher trees along the rear edges framing the entire geometric field. In the Ardmore site plans such a planting arrangement appeared to be part of a strategy to combine man-made and natural forms in the definition of the group. The same is true here. The major difference is that by the use of the greenswards, the scale has been broken down into subgroups of four as illustrated on this aerial perspective of the site.

As in so many of Wright's renderings, here a partial upper boundary line has been used with great effect. The forest shown to the rear of the project site is tightened and entirely constrained with some energy by this upper boundary line. One feels as though the project's site has slipped, or been projected, forth from the forest toward the street. There is a radio antenna of some kind shown emerging from the roof of the caretakers complex in the lower left. This vertical accent helps to establish a sense of openness as it extends up into the space opened up above the project site by virtue of its having been released from the pressure suggested by the forest/boundary line.

The second version of this drawing was apparently traced from the previous one (Figure 3.15). This second perspective is identical in terms of the area shown and the angle of projection,

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78 It appears that each of these circles was laid out by first positioning a square in perspective and then progressively diminishing its perimeter by the use of multiple tangents to form a circle. This would have been a very labor-intensive process, and has been carried out beautifully.
etc. It has none of the erasures, layout marks and lines which could be identified beneath the surface rendering of the previous drawing. This second drawing is executed fully in black ink, and again very carefully drawn. The paper used here is more yellow and of a lighter weight than the earlier perspective.\(^7\)\(^9\) This drawing has been cut so that the perspective juts out beyond the edge of the sheet to the lower left. The earlier perspective had been extended in this place by taping another small piece of paper to the initial sheet.

There are also a number of colored perspective renderings of individual and small groups of Cloverleaf buildings drawn from eye level points of view (some of these are included here as Figures 3.5, 3.16, 3.18 & 3.6).

\(^7\)\(^9\) The difference in paper here is the same as that between the two site master plan drawings (4203.017 & 4203.023). This suggests that these second drawings were done at about the same time and perhaps for the same purposes.
Wright’s use of strong and clear geometry grew more intense here than it had been in the Ardmore project.\textsuperscript{80} For the first time in his work circular forms were used equally with squares in an active perceptual field.\textsuperscript{81} The two geometric systems were juxtaposed to create a pattern whose "... general effect is," as he wrote, "never stultified or stiff .... Rhythms are all natural and complementary."\textsuperscript{82} The shimmering effect of this multi-layered pattern is shown best in his aerial perspective. It depicts a suggestive whirling diagram whose effect is greatly enhanced by the varied planting patterns drawn in the individual petals of each Cloverleaf and by the three buildings turned at 45°. The overall arrangement suggests a continual flowing movement around each fourplex which helps reinforce what Wright called a "picturesque standardization" shared by all the units.\textsuperscript{83} "In this scheme ..." he wrote, "standardization is no barrier to the quality of infinite variety in nature."\textsuperscript{84}

These spinning clusters were organized along a rectilinear grid over the entire site. The grid shown in dotted lines on the site plan included on Sheet One was based on a square of a certain size (85-0\textquotedbl{}). Four Cloverleaf buildings were gathered together to form a larger module with 85-0\textquotedbl{} per quad of each or 170-0\textquotedbl{} between Cloverleaf vertices. The six such quads in the center of the site have this relationship. Around this core group Wright provided a wide greensward with a double gravel roadway. This was to be wider and longer in the E-W direction than in the N-S direction. At three of the four corners on this central group Wright pivoted a Cloverleaf. The 170-0\textquotedbl{} module here establishes a diagonal dimension of some 240-
0" between the second and third row of Cloverleafs in from the street. This was repeated again before the last row to the rear of the site to the west. But this diagonal dimension was not used to set the N-S relationship between the rows of Cloverleafs. Rather Wright widened these an additional 50' to 60' to provide for an extension over the entire available site. This also provided for the enlarged greenswards leading into the site from the road. These subtle geometric adjustments are typical of Wright and show his ability to keep the appearance of regularity while adjusting to fit specific contingencies.

While the greenswards provided do act to open the site to the street, in the rear where they are closed off to the forest they perform no such function. On the aerial drawing - and to a lesser extent in the site plan - Wright takes advantage of these open spaces to invite fingers of the forest into the site. One can see the forest beginning to invade the more regular pattern of the settlement along these pathways.

Surrounding each Cloverleaf he intended to provide a gravel drive, or should we say a wealth of gravel drive. Each Cloverleaf becomes in fact an island of settlement floating in a sea of gravel roadbed. This gravel network is as little as 12' wide in some places (some of them crucial for mass circulation as around the foremost diagonal Cloverleaf to the NE corner) while as wide as 40' to 50' at others.

A condition of perceptual indeterminacy is created by the use of strongly orthogonal forms contrasted with the adirectionality of multiple circles. The plan introduces several layers of possible readings which seem to contradict one another. Wright has broken up any determinant reading of the pre-existing natural character of the ground plane by the dynamic geometry and the continuous gravel roadway partly as a reaction to what his correspondence indicates he thought of as a poor site. By means of the layering of circle and square forms he has suspended each family in an active geometrical field which displaces any a priori definition of the natural character of the site. A perception of identical status is given to each member as a result of one's inability to determine the overall structure of the whole from the automobile. The Cloverleaf buildings are read as objects in a dynamic geometric field.

The indeterminacy developed by the overlapping of geometric systems takes us to another, more surprising, association of units facing each other diagonally across fourplex boundaries. Any four contiguous Cloverleaf buildings define an alternate sub-group of four inward facing units among the total of sixteen. The aerial perspective calls attention to such a sub-group along the street by the way the plantings are drawn in the Cloverleaf petals to suggest a square common to the four inward facing units (Figures 3.19 & 3.20). The high masonry walls, when seen from this point of view, suggest an enclosure continuous from one fourplex to the next as your eye moves around the boundaries of the sub-group. The inhabitants in each of these pools of stability would, for example, see the driveways, automobiles, and children playing in the
yards of each other's units more readily than those of the other families in their own Cloverleaf building.

The reversal of perception experienced in this shift from object to space reflects a cognitive difference of definition resulting from the changing of one's point of view from that initially had in an automobile spinning around the gravel roadbed to the view looking outward from within each unit. When seen from the automobile, the massive crossing walls and the circular Cloverleaf petals foreground a layered, man-made geometry by establishing a self-referential field of visual movement in which each quartet building is highlighted. The constant visual motion of rotation and tangentiality would have isolated the buildings as objects within a relatively even background of natural plant materials. This combined with the dynamic overlapping of cruciform and circle would act to prevent the condensation of any sense of the overall structure of the group. The introduction of even, raised stylobates covered by grasses is one of a number of aspects which would have heightened the tension in one's sense of man-made versus natural, and engaged this division in any perceptual determination of the individual's dependence on the group.

Once within a unit, however, one's reading of the circle and square would reverse to suggest a very different communal order based on feelings of enclosure. The view from within over a pattern of circles sliding outward underfoot, would have been constrained finally by the four enclosing walls defining the sub-group. From this point of view the geometry works to re-structure one's perception of the individual to group relationship. In the first reading the individual is defined by the group. Here we have gone beyond that; the group is achieved by virtue of individual definition. Not only has Wright invented a graphic language for describing the ideas in this plan, the plan forms themselves are part of a broader visual language.

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85 A circle, when seen simply as a geometric form, has two primary aspects. There is the constantly curving arc of the circumference which deflects advances from the outside, and which contrasts with the stability of the implied center. In this design for Pittsfield Wright has taken each of these aspects as a representation of a possibility of the relation of self to group.

86 This represents a brilliant inversion of the Quadruple Block schemes of Wright's Prairie years.

87 The cruciform as an object is an emblem of a group. A cross must be drawn before its arms are filled with units. The positive space of the enclosing square is achieved only after one attains a unit.
Illustrations: Cloverleaf (4203)

FIGURE 3.1  aerial perspective of entire project - #4203.007
FIGURE 3.2  perspective of one Cloverleaf building - #4203.002
FIGURE 3.3  publication floor plan - #4203.046 (?)
FIGURE 3.4  working drawing elevations and section - #4203.027
FIGURE 3.5  perspective of side of one building - #4203.011
FIGURE 3.6  aerial perspective of one building - #4203.018
FIGURE 3.7  cut-away rendering of living room - #4203.013
FIGURE 3.8  cut-away rendering of kitchen on mezzanine level - #4203.014
FIGURE 3.9  initial layout study - #4203.006 ("brown paper plan")
FIGURE 3.10  detail of brown paper plan studies - #4203.006
FIGURE 3.11  ideal site layout scheme, "USONIAN HOUSES FOR THE USA"
FIGURE 3.12  layout study using actual Pittsfield site configurations
FIGURE 3.13  initial working drawing site plan layout - #4203.017 (labeled "void")
FIGURE 3.14  subsequent working drawing site plan layout - #4203.023
FIGURE 3.15  aerial perspective of entire site layout - #4203.016 (ink drawing)
FIGURE 3.16  perspective of building entirely in concrete - #4203.012
FIGURE 3.17  perspective of two adjacent Cloverleaf buildings - #4203.015
FIGURE 3.18  partial working drawing section of Cloverleaf building - #4203.028
FIGURE 3.19  detail of Figure 1 - #4203.007
FIGURE 3.20  detail of Figure 15 - #4203.016
FIGURE 3.21  USGS map of Pittsfield, Massachusetts showing site area
FIGURE 3.22  presentation plan for first Herbert Jacobs House, Madison, Wisconsin
FIGURE 3.23  presentation plan for Loren Pope House, Falls Church, Virginia
FIGURE 3.24  Johnson House plan, "Wingspread" - #3703.014
FIGURE 3.25  Jester House plan, project - #3807
FIGURE 3.1
aerial perspective of entire project
(4203.007)
FIGURE 3.2
perspective of one Cloverleaf building
(4203.012)
FIGURE 3.3
publication floor plan
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FIGURE 3.4
working drawing elevations and section
(4203.027)
FIGURE 3.5
perspective of side of one building
(4203.011)
FIGURE 3.6
aerial perspective of one building
(4203.002)
FIGURE 3.7
cut-away rendering of living room
(4203.013)
FIGURE 3.8

cut-away rendering of kitchen on mezzanine level
(4203.014)
FIGURE 3.9
initial layout study "(brown paper plan")
(4203.006)
FIGURE 3.10
detail of brown paper plan studies
(4203.006)
FIGURE 3.11
ideal site layout scheme, "USONIAN HOUSES FOR THE USA"
(unnumbered, lower half of original shown)
FIGURE 3.12
layout study using actual Pittsfield site configurations
(unnumbered)
FIGURE 3.13
initial working drawing site plan layout (labeled "void")
(4203.017)
FIGURE 3.14
subsequent working drawing site plan layout
(4203.023)
FIGURE 3.15
aerial perspective of entire site layout
(4203.016)
FIGURE 3.16
perspective of building entirely of concrete
(4203.012)
FIGURE 3.17
perspective of two adjacent Cloverleaf buildings
(4203.015)
FIGURE 3.18
partial working drawing section through Cloverleaf building
(4203.028)
FIGURE 3.19
detail of Figure 3.1
(4203.007)
FIGURE 3.20
detail of Figure 3.15
(4203.016)
FIGURE 3.21
USGS map of Pittsfield, Massachusetts showing site area
FIGURE 3.22
presentation plan for first Jacobs House, Madison, Wisconsin
FIGURE 3.23
presentation plan for Loren Pope House, Falls Church, Virginia
PART TWO / Chapter Three
FIGURE 3.24
Johnson House plan, "Wingspread"
FIGURE 3.25
Jester House plan, project
CHAPTER FOUR - THE CIRCLE PINES CENTER

1 - Chronology & Development

The Circle Pines Group & the Principles of Consumer Cooperatives

The Michigan based Circle Pines Center was established in the late 1930's as a training wing of the central States Division of the Cooperative League. They met at the Danish style Ashland Folk School of Grant, Michigan, which operated from 1882 until 1938. In 1938 local officials, apparently concerned with the close contact with the cooperative movement, closed the Ashland School by having the State Fire Marshal condemn the building which had been used by the folk school. The Cooperative League was founded in 1916 by James P. Warbasse with intentions to "demonstrate cooperative alternatives for economic and social issues and to teach cooperation as a way of life." After the Depression the cooperative movement flourished in this country as an alternative way of establishing economic security. Following the "middle way" of their earlier European counterparts the cooperative movement in the United States plotted a path between socialism and unrestricted capitalism. Throughout the period of Wright's involvement, the Circle Pines Center was a member of the Cooperative League.

In January of 1940 some 25 individuals collectively bought the 283 acre Stewart farm on a deep and beautiful spring-fed Michigan lake of glacial origins some twenty miles north of Kalamazoo in central southwestern Michigan (Figure 4.7). This site lies among the highlands of south central Michigan in Barry County just off of the road from Kalamazoo to Lansing. This property, which became the home of the Circle Pines cooperative effort, had been held by the

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88 "Circle Pines Center" promotional brochure, 1993. The Center has grown to encompass 284 acres and can be found at 8560 Mullen Road in Delton, Michigan. See Emory Bogardus' Dictionary of Cooperation, pp 22, 29. The Cooperative League was at first a "federation of regional and national cooperative societies, rendering yeoman educational service." It was reorganized in 1946 as a "national federation including commodity cooperatives, cooperative housing associations, cooperative hospital and health associations, insurance cooperatives, credit unions, rural electrification cooperatives, student and recreation cooperatives . . . ."

89 From a conversation with Don Shall, July 4, 1994.
Stewart family since the pioneering days of 1838. The area is a glacial moraine with an abundant supply of rounded glacial fieldstones.

Some of the people involved with the Circle Pines Center were David Sonquist, William Rohman, Russell Leavenworth, Aaron Green, Fred Thornthwaite, Ernst Osterreicher, Joseph Euchtman, Louise Strandness, Lewis Gosho and J. L. Smith.

There was an old family farmhouse on the property beyond Mullen Road to the north, barns, an old apple orchard and a working gravel pit. They would soon add a dining hall, a tool shop, plywood and canvas tent houses and a communal garden. During the summer the members picked blackberries, raspberries, blueberries and huckleberries in the surrounding hills and low lands. The hilltop was used for Quaker-style camp meetings during the earliest years of the camp.

Many of the Circle Pines members sought to find a way of life which did not "pigeon-hole" them into factory jobs, or even professions, with narrow definitions of useful skills. They sought, like so many others in revolt from industrial society, to use their hands as well as their minds in cooperative work and play. Along with founders of previous cooperatives, these members idealized what they saw as the self-contained farming communities of historical New England and the ritualized gatherings these early townships organized for social functions. They looked to the history of such communities for examples and felt that, to some extent, industrialization had substituted another set of social relations for the ones which allowed the cooperative existence of such early farming communities.

In a perceptive essay contrasting forms of dancing, Albert and Frances Rose explored the metaphor of colonial group versus modern couple dancing as a way of addressing the isolation of the individual found in industrial societies. A return to such group forms of entertainment would, they suggest, satisfy the "craving for adequate social and recreational life . . . indicative of a deep-seated human need." And, along with the other members of the Circle Pines group, they felt strongly that "Cooperatives not only can restore economic democracy in this age of specialization; they can restore to America's masses a well-rounded satisfying way of living, by furnishing wholesome recreational and social opportunities for all."
As a member of the Cooperative League this group listed its objectives as including open, voluntary membership; democratic control; limited return, if any, on equity capital; net surplus belonging to user-owners; honest business practices; and the ultimate aim of advancing common good, education, and cooperation among cooperatives.95

The symbol used by the Circle Pines group was taken from the Cooperative League and consists of the silhouettes of two pine trees within a circle whose trunks continue downward to merge with the circle (Figure 4.6). A Circle Pines brochure presents its meaning in this way: "The symbol of the cooperative movement in America is two pines, representing cooperation and immortality, whose trunks continue into a circle, an ancient symbol of eternal life and the world which depends on cooperation for its existence."96 The symbol was registered to the Cooperative League and restricted to League members. It was designed in 1922 by James P. Warbasse who described it as follows:

The pine tree is the ancient symbol of endurance, fecundity, and immortality. Those are the qualities that we see in cooperation. In the Egyptian, Persian and Indian mythology, the pine tree and its symbol the pine cone, are found typifying life and the perpetuation of life. The hardy pine symbolizes the enduring quality of cooperation. More than one pine is used to represent the mutual cooperation necessary. The trunks of the pine tree are continued into the roots which form a circle. The circle is another ancient symbol of eternal life. It typifies that which has no end. The circle in this picture represents also the world, the all-embracing cosmos, of which cooperation is a part and which depends for its existence upon cooperation. The color of the two pines and the circle is dark green; this is the color of the chlorophyll which is the life principle in nature. The background within the circle is golden yellow, typifying the sun, the giver of light and life.97

Sonquist and published in the "First Fruits" anthology in 1994: "It is zero at Circle Pines. This is not unusual during the winter; but today everything is different. After a month of enveloping snow, a fluffy top-dressing fell during the night. It frosted every tree, bush and twig with millions of little mirrors. It looks as though myriads of diamonds were lavishly strewn around by some fairy princess. Looking through the kitchen window toward the west I encounter a brilliant scene. There is just enough breeze to rustle the blades of grass and twigs, turning the crystals into twinkling flashlights. One small walnut tree is literally ablaze with light far more dazzling than the most elaborately lighted Christmas tree. The whole hillside sparkles as though an elfin kingdom were on a winter spree. Even the noxious weeds take on new roles as the proud bearers of these magic crystals. As far as the eye can reach, the fields and the trees are sheathed in dancing lights. A more distant row of cherry and maple is sending out intermittent flashes as if relaying some beacon messages from another world where peace still reigns supreme. No one can describe this fairyland, as the sun, preceded by sentinel rays of pastel rose, purple and orange-yellow, majestically rises to clothe all in a mantle of unsurpassed beauty. The shortening shadows, eerie with the frazzled frost crystals hanging from every limb, finally blend together as if focusing into sharper outlines if the heavy branches and trunks of trees.

"Never in the bursting green of spring nor even in the brilliant colorings of autumn does Circle Pines appear in garments of such rare charm. To enter this winter fairyland is indeed a privilege and a delight. One must be here to catch these moments that reveal the secrets of nature. One moment they are here for those who have eyes to see them ... the next moment they are gone. We cannot schedule them nor time them. They form highlights of the experiences which make life so meaningful. Maybe worthwhile living consists largely in ordering our lives that we may be in a position to enjoy the finer things as they come along."94 (David Sonquist - "A Fairyland in Frost")

"Circle Pines Center" promotional brochure, 1993.
J. P. Warbasse, A Short History of the Cooperative League of the U. S. A. (pp. 15, 16) as reprinted in Florence Parker's The First 125 Years, pp. 404-5, nt. 3. See also Emory Bogardus' Dictionary of Cooperation, pp 88. Before the Russian revolution the European cooperative movement had used the hammer and sickle as their emblem to symbolize the cooperation of industry and agriculture.
The history of consumer cooperatives is a long and varied one with roots in the written observations and experiments of the British industrialist Robert Owens (1771 - 1858). An indirect line of influence reaches to this Michigan effort from the early attempts to practice Owens' theories by the Rochdale weavers consumer cooperative started by in England in 1844. They were also influenced by the ideas and writings of Ralph Borsodi and his School of Living experiment in Suffern, New York.

There were many such cooperatives formed in the Untied States during the Great Depression as "... voluntary association(s) of consumers who (would) buy goods and services at wholesale prices and (would) distribute these at standard retail prices to themselves, putting the net earnings into expansion ...."98 While the great many of these were agriculturally based and devoted primarily to group purchasing, there were a number which also involved more specifically social goals.

There had been a famous cooperative enterprise founded just fifty miles south of Phoenix in 1937 known as the Casa Grande Farms. This was just as Wright began returning to the Arizona desert in search of the winter quarters he eventually established at Taliesin West. The cooperative was named for the great prehistoric native American structure in the area and was located very near the site of Wright's San Marcos in the desert project of some years before. It had been founded by the Farm Security Administration on 4200 acres developed by irrigation.99 The goal of the Casa Grande Farms project was to "train small-scale and subsistence farmers to work together in a large-scale way so they could survive in competition with large-scale corporation farming."100

While the cooperative movement was based on group purchases of agricultural produce, it spawned efforts in a wide range of enterprises. At the other end of Wright's seasonal migration, for example, the Crestwood Village cooperative housing project in Madison, Wisconsin completed an initial group of twenty-two cooperatively owned houses in 1939.101

The Rural Resettlement Administration (later the Farm Security Administration) of the United States Government established the pioneering greenbelt towns program in 1937 on the basis of consumer cooperatives. At Greenbelt, Maryland, the government new town planned by Clarence Stein, businesses were operated by a consumer cooperative. These business included a "food store, drugstore, and lunchroom, variety store, barber shop, beauty parlor, valet service,}

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98 See Emory Bogardus' Dictionary of Cooperation, pp 24. The symbolism of the circle suggested by Warbasse's explanation of the twin pines symbol, and the circle pines name, introduces the themes of the following APPENDIX.
100 ibid.
101 ibid. pp 34.
gasoline station and garage, motion picture theater, and bus - all operated on a cooperative basis."\(^{102}\)

The Rochdale Institute had been founded in New York by the Cooperative League as a training school for managers, sales and educational workers in consumer cooperatives.\(^{103}\)

Ralph Borsodi and his wife established several farming homesteads in and around Suffern, New York in the 1930's. Among these, the one on which they lived, the School of Living, was the most well known. This experiment in modern farmstead living was meant to be "a demonstration of a way of living and a set of ideals about industry and family life that could be multiplied widely over this country."\(^{104}\)

Central to Borsodi's concept of a modern agricultural life was the notion that American farmers were being misled into large scale commercial farming. This kind of farming was devoted to specialized production and ignored the rich diversity of nature.\(^{105}\) He felt that this kind of emphasis on farming was regulated by the division of labor central to capitalistic production and took away from the value of the farm as a home for the family and as "an instrument for the production of what the family itself needs and desires." He saw the integrated family farm, following more closely the model of natural diversity, as a metaphor for a kind of wholeness missing in modern life. Several of the members the emerging Circle Pines cooperative met Ralph Borsodi when he visited in 1939.\(^{106}\)

In general Borsodi's work has been characterized as one of many movements, ...

... on foot in the world today to increase the economic security and independence of individuals, families, and groups. That is, the threatening chaos of the times, the wreck of so many old institutions have bred in men's minds a desire to escape from impending turmoil. As a result they want to build themselves little islands of independence where the strange forces at work in the world can't reach them.\(^{107}\)

In the more general and philosophical terms of Borsodi's thought:

The great turmoil of the period of the Reformation also produced those minor Protestant sects which incorporated the values of independent country life into their

\(^{102}\) ibid. pp 46. Along with Greenbelt Maryland there were two other such new towns built, Greendale, Wisconsin and Greenhills, Ohio. There was to have been a fourth, Greenbrook, near Boundbrook New Jersey.

\(^{103}\) ibid. pp 77.

\(^{104}\) See comments by M. L. Wilson on pp. 269-83 in Agriculture and Modern Life, by O. E. Baker, Ralph Borsodi and M. L. Wilson. New York: Harper & Brothers Publishers, 1939. As Giorgio Cucci has noted, this book by Borsodi et al followed Wright's Architecture and Modern Life by two years and it also was put together in a very similar manner with parts by each author and a discussion between them at the end.

\(^{105}\) Borsodi looked for alternatives to conventional 'scientific' notions of modernizing agriculture and was drawn to the 'bio-dynamic' gardening methods pioneered by Ehrenfried Pfeiffer and his colleagues at Rudolf Steiner's Goetheanum in Dornach Switzerland. See Agriculture and Modern Life, pp. 202. Contemporary ideas of "organic" farming also grew out of similar foundations.

\(^{106}\) Louise Strandness and Lewis Gosho: Circle Pines Center: Anthology, 1944. This publication, entitled "First Fruits," was meant in part to celebrate the 100 anniversary of the Rochdale weavers consumer cooperative in England. It is interesting that a movement such as Rochdale which began in the factory environment of 19th century England defined itself in this country by pioneering what has come to be known as "organic" farming practices.

\(^{107}\) M. L. Wilson in Agriculture and Modern Life, pp 283.
religion. Many of these sects persist today. They have been looked upon by many as queer, but it may be that they are well adapted to endure the storms of this age, and of any other. 108

Although many of the members of the Circle Pines group had spent time in large cities, they, like Wright, admired the ideal of an integrated life on a homestead. In an article which argues for the establishment of cooperatives based on not more than twenty-five family homesteads, one member describes a way of life that is very similar in many ways to Wright's descriptions of Broadacre City. In this description the family is seen as the foundation of such an endeavor. 109

There are many similarities between the objectives of this group and Wright's own concept of Broadacre City. While that design was not to be based on the kind of cooperative effort and ownership that characterized the Circle Pines Center, there are other significant similarities. Both Wright and members of the Circle Pines group, for example, believed that "Modern machine civilization with its high degree of specialization has wrought many fundamental changes in the customs and manner of living of all peoples." 110 They felt that only a reintegration of modern life, land and country practices would renew the situation.

The story of Wright's involvement with this project begins at virtually the same time as his contact with the U. S. Government for the Pittsfield "cloverleaf" project. In July of 1940 David Sonquist, the first director of the Circle Pines Center, wrote to Wright asking him if he would be interested in designing a camp for the consumer cooperative. 111

It is our hope that you might see in this project something of challenging interest, and that you might even be willing to come here for several days to breathe in the spirit of our program, and would be willing to consider the designing of the total project. 112

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109 See essay by Louise Strandness Gosho: Circle Pines Center: Anthology, 1944. One can detect in this Anthology a range of visions and attempts to define "Where ought the boundaries be drawn between the individual family and the group or cooperative community?"
110 Albert and Frances Rose, Circle Pines Center: Anthology, 1944. (pp. 25)
111 The history of consumer cooperatives is a long and varied one with roots in the written observations and experiments of the British industrialist Robert Owens. A direct line of influence reaches to this Michigan effort from the early work of the Rochdale weavers through Ralph Borsodi and the School of Living in Suffern, New York.
112 Taken from Sonquist's first letter to Wright, 7/7/40. Sonquist wrote a brochure for the Cooperative League entitled "Cooperation - A Philosophical Interpretation." He had also been previously acted as the director of education and organization for the Wolverine Cooperative Exchange involved in distribution and manufacturing: See Florence Parker's The First 125 Years, pp 407. Chap 16, nt 11.
In characteristic fashion Wright’s secretary Eugene Masselink wrote back to Sonquist asking him and other members of the group to drive to Taliesin for a visit some Sunday.\textsuperscript{113} There was no further correspondence between Taliesin and the group until late in the following spring when Sonquist wrote again to Wright. This time he also introduced what would become the "Cooperative Homesteads" project by stating the similarity of purpose between this group, the "School of Living," and Circle Pines. Sonquist asked for Wright’s services and agreed to pay some fees beforehand.\textsuperscript{114} Masselink again responded, giving the group Wright’s business protocol and stating his busy schedule.

Wright finally met with representatives of the Circle Pines group at David Sonquist’s house and walked the site in late November 1941.\textsuperscript{115} By the 29th of the month they had voted unanimously to have Wright design, plan and supervise their land development project.\textsuperscript{116} Masselink wrote back with the message that they would begin to look at the project just as soon as they got settled in "the camp" at Taliesin West.\textsuperscript{117}

This is concurrent with Wright’s work on the "Cloverleaf" project for Pittsfield. But whereas that project was largely designed by the middle of January, the Circle Pines group had to wait until (March or even) late April to receive any preliminary studies.\textsuperscript{118} Sonquist wrote to Wright just before the new year with word that they were getting started.\textsuperscript{119}

Aaron Green did all the drawings for Circle Pines and for the Cooperative Homesteads project at the same time.\textsuperscript{120} (The two projects involved some of the same people at the same time.) Plans for Circle Pines were received in March 1941.\textsuperscript{121} By December the War put a virtual halt to building operations in this country as many of the members became involved with the war effort.\textsuperscript{122} After the war a contingent began by laying out the foundations for one of the group cabins Wright had designed, but the effort never got beyond this simple beginning.\textsuperscript{123}

The planning of the Circle Pines Center was suspended due to the Second World War and, although the Center is active today, Wright’s design has not been followed through. There was never consensus or complete agreement within the group to follow Wright’s plans. Some

\begin{itemize}
  \item \textsuperscript{113} Masselink to Sonquist, 8/14/40.
  \item \textsuperscript{114} Sonquist to Wright, 5/16/41. During this time Wright also received correspondence from other consumer cooperatives such as the Rochdale Institute in New York city whose Director was J. P. Warbasse. See Warbasse to Wright, 6/23/41.
  \item \textsuperscript{115} This date of 11/41 is probably off by a year. He probably visited the site in November 1940 as plans were delivered by March 1941 according to Don Shall.
  \item \textsuperscript{116} Osterreicher to Wright, 12/1/41 and Sonquist to Wright 12/10/41.
  \item \textsuperscript{117} Masselink to Sonquist, 12/29/41.
  \item \textsuperscript{118} Masselink to Sonquist, 4/21/42.
  \item \textsuperscript{119} Sonquist to Wright, 12/24/42. It was soon after this period of defining an architectural language that involved the juxtaposition of circles and orthogonal grids that Wright was first approached by Hilla Rebay in connection with the Guggenheim Museum. See Hilla Rebay to Wright, June 1, 1943: This correspondence is partially published in The Guggenheim Correspondence.
  \item \textsuperscript{120} From telephone conversation with Don Shall, July 4, 1994.
  \item \textsuperscript{121} ibid.
  \item \textsuperscript{122} ibid.
  \item \textsuperscript{123} ibid.
\end{itemize}
members objected to Wright himself, others objected to the specific plan Wright prepared which would have positioned some buildings so as to be more visible from the lake than they thought necessary.\textsuperscript{124} 

Wright addressed the themes suggested in these cooperative efforts in a radio talk sponsored by the Cooperative League in 1943, saying, "... we at Taliesin have been working for ten years searching for the missing forms within the Democratic form."\textsuperscript{125} 

\begin{flushright}
\textsuperscript{124} ibid.
\textsuperscript{125} Excerpts from Wright's radio talk (#5 "Houses of Tomorrow," in the Cooperative League Series "Here is Tomorrow.") Dated 3/4/43 in the Taliesin microfiche collection (C113D03-7).
\textsuperscript{126} ibid.
\end{flushright}
2 - Analysis of Master Plan

Analysis & Interpretation of Master Plan Drawings

There are three site plan studies of this project in the Taliesin West archival collection along with other schematic drawings of some of the buildings. The one which appears to be the earliest study is drawn directly over a topographic map of this very contoured site (Figure 4.1). This was followed by a tightened version drawn lightly with contours representing only every ten vertical feet (Figure 4.3). The final presentation site plan codified the decisions of the first two and added the cover of the forest (Figure 4.2).

The site which Wright chose for the primary buildings is located along a ridge above the lake. The ridge climbs some 125 feet above the plane of the water's surface before falling about halfway back to give way to rolling meadows. The initial site plan study notes that the ridge was "thickly wooded" with hardwoods, and mentions oak, maple, elm, hickory and birch. There is a short ravine giving into a central plateau from which the western meadows gently rise. There is another smaller hill to the north across the meadow which this drawing describes as having been planted with spruce pine seedlings. This drawing is undated and was drawn at a scale of 1" = 50' - 0'. North is shown as straight up on the sheet, the same orientation as the predominant eastern property line.

This site plan study lays out a master plan which searches for form and order which interact with this strongly featured site in new ways. Wright followed a datum established by the one pre-existing structure on the site; he interpreted the character of the site in establishing the layout; and, he selected architectural forms and types which articulate existing aspects. The primary common structures were located facing the lake just below the end of the wooded ridge, where it gives out to the plateau above the ravine. He established an orthogonal reference datum which is turned 30° from the primary property lines which themselves roughly reflect a north-south compass orientation. This 30° datum governs the orientation of the common buildings just as their positions respond to the perceived geological features of the site.

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127 The spruce pine is perhaps the tree that appears in the Circle Pines logo.
128 Although I cannot say conclusively, my feeling is that with this drawing Wright has worked right over the topographic and descriptive map sent to him from the Circle Pines group. The small hand lettered notes describing existing site features then would have been done by others before the sheet was sent to Taliesin. He appears to have worked on such originals in other projects, such as the initial "white print" supplied for the East Lansing subdivision.
129 Recall that Wright wanted to use the other site in Pittsfield which Wegg describes as having the kind of topographic activity we find here.
130 This is the same 30° turn we found at Usonia I. The plans for the Dining Hall at Circle Pines specify this angle as 30° from the east/west property line orientation (#4205.018 & #4205.021).
There was one existing structure on the site when Wright first walked it late in 1940. This was a bathhouse which had been built by Quaker work camps assigned to the site several years earlier to help with its initial development. The building consisted only of fieldstone walls and had no roof covering at the time. This structure has an orientation approximately 30° off of the east/west line of the adjoining property edge and lies on a level area above the lake just in front of the ravine. Wright was impressed by the rugged quality of this structure with its open top and remarked about it to several of the members with him at the time.

It is also possible to interpret the lower edge of the ridge as it comes down to the slight plateau as conforming to a straight line which runs 30° to the implied east-west direction of the surrounding properties. It appears that Wright used this line as a kind of starting point by developing it as one edge of a large open automobile area with generous space for drives and parking. The directional motion along a relocated entry drive would be terminated here and redirected to the left along the foot of the hill rising to the ridge. This line then becomes a kind of organizational spine of the project. Wright extended this walkway into a boardwalk or pier out over the surface of the water. The ending of this shows vigorous reworking. One of the possible configurations not followed by later plans shows an attempt to turn this structure so that it would run parallel to the edge of the lake just out from a "clean sand beach" which is near a "deep drop off." A delightful small sketch of a fish jumping and being caught on a fly fishing line occurs in the lake just out from one extension of this pier.

By spine, I mean not so much a strict linear controlling device used to establish hierarchically governed relations in plan; rather, Wright has let this line determine both the orientation of the 30° datum grid and the major processional way through the site plan. These conceits are sketched on this drawing with a strong hand. The drawing has been vigorously worked in several places.

A location for a central dining and gathering hall is established at a crucial point along this line of motion toward the water. The dining hall, rising above the hill as it continues to slope down to the water, stands opposite a large circular amphitheater which is sunk into the mouth of the ravine. The level ground along the plateau between these two major gather spaces is labeled as a "court" and fronted by a loggia attached to the dining hall which reinforces the direction of motion toward the water. This dining hall is given a rectangular form which acts to define the end of the meeting of the hillside and the plateau as perpendicular to the line of entry mentioned just above. From this point Wright has explored a line of staff cabins running

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131 From telephone conversation with Don Shall, July 4, 1994.
132 The bathhouse remains uncovered today.
133 From telephone conversation with Don Shall, July 4, 1994.
134 Ibid. Also note that the bathhouse in the lower tight corner of the site plan was existing when Wright visited the site in 1941. It was built in 1938-39 by Quaker work camps assigned to help in the development of this project. This structure is built of fieldstone and still has no roof today. It also established the 30° datum grid.
back perpendicularly along the face of the ridge, overlooking the water. Here the dining hall, a staff dormitory and two lines of small staff cabins are very roughly sketched. There is the outline of an administration or office building facing the lake with its back against the hill as the beginning point of the loggia, which continues along the dining hall. If we take the directional motion of the entry sequence as governing our perceptions of the hill then the dining hall can even be seen as extending the direction of the ridge itself.

The hillside facing the parking area lies roughly perpendicular to the side facing the water. The dining hall was placed on a small level area between this upper hillside which runs at right angles to the entry sequence and the lower part of the hillside which follows the edge of the lake. By utilizing the 30° datum grid here Wright has interpreted this hill as an orthogonal form while taking advantage of its deviation from the lower hillside at the small level area.

There is another dimension here that appears as significant and can be described more fully by referring to the larger scale of the USGS map (Figure 4.7). The hillside behind the dining hall is a part of a longer ridge which not only continues on to the west, but picks up again on the other side of the ravine to the east. From the lake one sees this ridge as a continuous figure broken by the ravine which itself leads to the plateau and meadows beyond. The broader ridge roughly parallels the edge of Stewart Lake and extends beyond it in both directions. The organizational spine described by the steps down to the water and by the boardwalk breaks through this ridge at an angle. This angular relationship to the site is characteristic of Wright's planning during this period as evidenced by his designs for the Willey House, the Marcus House project, Fallingwater, and the Pew House to name only a few relevant examples.\(^\text{135}\)

This then is the immediate significance of this directional thrust I have called a spine. It relates the layout of the camp to the topography by establishing a datum taken from inferences - both natural and man made - found on the site. This directional organization seats the communal buildings on a level area and gives them an oblique relationship to the water's edge.\(^\text{136}\) This positioning would have placed the complex both as an extension of the hillside behind it on the smaller level area and at angles with the larger ridge which continues on beyond in both directions and through which it breaks. The boardwalk would have crossed over into the lake at a very oblique angle.

As mentioned above, Wright placed an amphitheater in the mouth of this ravine opposite the dining hall. This form is more than half of a circle of downward sloping seating, and is


\(^{136}\) The stairway down at this point however would not have been at an inefficient diagonal to the immediate slope as Wright took advantage of another smaller turn in the hillside.
lowered into a spot where the ravine opens enough to allow a tight fit. A pavilion is indicated
at the rear of this amphitheater and a line of seating runs out from this pavilion to overlook
playing fields across the ravine from the automobile parking area. This structure was to have
been entered from underneath the lake side. Significantly, along the rear of this
amphitheater, Wright has cut the circle in a line directly up against a 30 foot bluff which runs
exactly parallel to the line drawn for the line of the pedestrian entry sequence to the lake.
This correlation again helps to establish the appropriateness of the shifted $30^\circ$ datum
planning grid. In other words, the bluff at the rear of the amphitheater, while lower, runs
parallel to the face of the major hill facing the automobile area and entry drive.

By identifying the contingency of this correlation, and by articulating it as the way from
the plateau of the automobile to the lake, Wright took a large step beyond the geometric
formulas of the Ardmore and Pittsfield plans in the planning of this project. Even his master
plan for the Usonia I subdivision did not construct such a strong interpretation of the site.

The dormitory is shown as a large structure extending to the southwest along a line
established by the dining hall and perpendicular to the entry sequence. Up the hill from this
dormitory Wright has located a series of small square staff cabins in two lines parallel to the
dominant axis of the dormitory. While taken as a group these buildings together suggest an
orthogonal grid, the dining hall and the dormitory extend outward from this central field.

At the far end of this complex was to be the well. Beyond this, around the curve of the
hillside, Wright suggested in a much less involved manner a run of connected craft shops which
take advantage of the natural curve of the ridge at that point to turn back to the east-west
orientation of Mullen Road and the dominant property boundaries.

Along the right hand edge of the relocated entry drive Wright indicated a group of shop
and maintenance structures forming a small enclosed court. These buildings would have been
important ones in establishing the relevance of the $30^\circ$ shifted grid as a perceptual datum.
They pick up the dominant line of the relocated entry drive which would have approached the
hill, and therefore the line established for the sequence to the lake.

The line of the drive and the edge of these maintenance buildings, when taken with the
sequence of motion toward the lake, would have traced a large $30^\circ$ - $60^\circ$ triangle with the
easternmost site boundary forming the eastern edge. Although Wright has drawn this as a man
made figure, it is not an irrelevant one. The lower side repeats and interprets the bottom of the
hill, as we have noticed. The left side, defined by the new entry drive, can also be seen as
reflecting or paralleling the form of a smaller rise at the beginning of the entry drive further to
the west. This smaller rise comes to a close at the point at which Wright placed the shops and

137 Such an entry can be seen in the perspective renderings of the site plan and is called out on the rendering
printed on the cover of the Circle Pines Anthology.
their enclosed yard. At this point these structures would also have acted to close off one's view into the rolling meadows to the west and thereby helped to focus attention toward the lake. Although the eastern side of this 30° - 60° figure in plan is formed by the eastern site boundary, the ravine works its way into the center in such a way as to define an edge with a natural boundary for the automobile and parking plateau.

There is another dimension suggested here that is significant. There is a very light pencil line which meanders across the drawing in a revealing manner to establish the edge of the forest and wooded areas. This line follows the water's edge along the lake front and climbs up the hill to allow the dining hall to break free and face out over the lake. The tree edge picks up again behind the administration building and runs along the hill face, past the shops to follow the hill into the meadows beyond. There is another line of forest edge shown moving lightly from the northeast corner of the shop building back up along the entry drive. And there is a third mass of trees indicated in the ravine. This means that here Wright has associated each of these three major building groups with the forest's edge. The subject/object positioning of buildings as man made structures creates a situation in which neither building nor site is foregrounded. Buildings in this plan are either buried within the cover of the forest canopy, or attached to the edge of the canopy. They are not allowed to remain free-standing objects in an open, treeless space.

The three building groups we have discussed - the dining hall and administrative building, the maintenance shops, and the amphitheater - would have been the major built forms experienced as one moved onto the site. As we have seen, they build upon and articulate an interpretation of a particular site in a new way. But they are not the only structures Wright suggested here. There are two other kinds of uses provided for. A handwritten note indicates that Wright intended at this point to locate "studio cabins" within the forested area on the ridge itself. There is a perspective sketch of a possible cabin shown with a projecting terrace drawn on the sheet at this point. He wrote "4 to 6 small bedrooms" here. There are also a few schematic diagrams of floor plan types drawn further down over the blank part of the sheet left to indicate the surface of the lake. These sketches are very slight and do not give much indication of size, materials or number. A short note indicates the existence of the "old foundation 20 x 24" of an earlier structure in the area designated for the studio cabins at the top of the hillside above the water. A rough line appears to connect this foundation with another note, "cabin for transients - (unreadable word) for off season." A note reading "two families at one time" appears in this area of the sheet as well.

There is also one final significant circular form drawn at the edge of the ridge, over the automobile and parking area. Here, Wright has indicated that an opening be cut through the trees leading from the entry plateau up the hillside to this form. The words "vista through
trees” are written lightly. We should note however that the axial approach lies perpendicular to the line of the pedestrian entry sequence which organizes the major communal buildings. Not much information is given here, but from the following plans we know that this is meant to describe a kind of ritual gathering spot. The form is drawn more carefully on later drawings, but its genesis can be seen clearly here. A circle is placed so that approximately half of it lies on the relatively flat top of the hill. The other half extends that flat top outward toward the direction of approach. He has drawn and erased an axial approach up the hill directly in line with the center of this circle. There are crossing lines probably indicating steps drawn and also erased within this approach as well.

The part that overlooks the approach is drawn here with a lightly sketched line which reaches out from one contour to the next indicating a five foot height at its outermost edge. The other side of this circle is indicated with a dotted line only. The dotted line must indicate that Wright is not suggesting walls or seating around the inner edge, perhaps not even a distinct paving. I take this combination of lines to represent a form which is not to be constructed of materials that would look man made. The solid lines on the other side, of course indicate at least the foundation walls required to lift that edge above the sloping hillside. There is also perhaps reason to speculate that some kind of low wall or retainer would have been necessary to prevent a person from falling over this edge.

The significance of this definition of ritual lies in the fact that Wright has selected a strong form that is clearly geometric, not natural, and then used it in such a way as to merge it with the setting. Without any inner edge designation such as paving the completeness of this circle would have not have been something immediately perceived. It would have been implied only. Again, the subject/object positioning is blurred. A figure/ground reversal is suggested.

The center of this circle is occupied in this drawing with another, smaller circle of about a third of the diameter of the initial one. On this drawing it is not possible to get much of an idea what these forms signify.

The next drawing in the development of this master plan is a slight tracing on which someone, perhaps an apprentice, carefully laid out all of the buildings suggested on the previous planning study (Figure 4.2). This drawing has a delicate quality in which the structures are laid in so lightly as to not overpower the patterns of the topo lines. The structures are all measured and drawn in pencil with triangle and t-square. All of the communal structures are tightly aligned with the 30° datum orientation discussed in the first drawing. The pier is simplified and takes its final form with a perpendicular bar mounted on the end of the extended walkway. The walkway is shown with the necessary steps leading down the slope. Individual automobile parking spaces are designated adjacent to the shops building.
Contour lines representing the site elevations are drawn here for only every ten feet, not every five feet as in the previous plan study. The building locations in general follow the suggestions of the earlier drawing.

A well head covering structure is drawn here in the same location as before just off the end of the staff dormitories. It has been clearly pulled off of the 30° datum grid and given an orientation parallel to the craft shops, Mullen Road and the dominant eastern site boundary. It would have served to introduce the shifted orientation of the craft shops from the dormitories. The coincidence of this with Mullen road would have been lost perceptually from the ground. The shifted orientation of this building would be perceived as conforming to the turning hillside at this point rather than anything else. The use of this orientation here however allowed Wright to utilized only two grid orientations without suggesting such simplicity.

The ritual circle atop the hill is shown here with a larger rectangle drawn around it. Asymmetrical retaining walls are shown along the projecting edges. These are asymmetrical because the curve of the hill at this point does not coincide with the axial approach from the parking area below. The dotted edge remains around the inner side on top of the hill.

The primary difference between the scheme indicated here and the one sketched on the previous sheet is that the studio cabins have been located with some precision. The cabins are shown clustered primarily along the south side of the heavily wooded ridge. Seventeen cottages are shown in roof plan only with several sizes and types. Thirteen of these are shown oriented to the 30° datum grid. Four are shown parallel to the craft shop building. Although most of these conform to the orientation of the shifted 30° datum grid, this aspect would not have been perceivable on the ground. The majority of these cottages are located along a hillside which runs roughly east to west, and so they would have appeared to have a much more irregular siting when come upon in the woods. The presence of a few with the other orientation would have served to obscure any geometrical siting bias. These cabins would have had the quality of being discovered within the forest as one moved into the forest and up along the ridge. Light circular lines are drawn around most of these cottages with no direct indication as to what they might mean. A looser line indicates a larger and irregular opening in the cover of the forest canopy around each cottage as well. The use of circles around these cabins must be seen with regard to two aspects. In the first place the circle is a form with a very high degree of autonomy. Its use here suggests such an autonomy for each cabin and its inhabitants, especially when we acknowledge the lack of any perceptual structuring of their orientations.

On the other hand, the circle has been used in this plan in two other places, each with significance. We can look at the distribution of forms as establishing a kind of internal symbolism. Circles are each used as independent figures. Only the amphitheater has other

138 This situation is most clearly described in the late aerial perspective sketch (#4205.008).
forms attached to its design. We might see this another way. The design of the amphitheater uses a circle and attaches to it the pavilion and the bleachers which follow the 30° datum grid. The circle in and of itself neither receives nor suggests any directional intention outside of itself. By using a partial circle for the amphitheater Wright weakens this autonomy. By also attaching to it the orthogonally conforming pavilion and bleachers in a manner which is consistent with this already weakened character, Wright has provided the circle with a specific role in the symbolism of this design. The form appears to have moved onto the site, along the direction established by the bleachers, downward and slightly to the left in plan. The form of the circular amphitheater has become lodged in the ravine, not actually coming into contact with the dining hall and the other associated buildings which articulate the 30° datum grid. The proposed roadway, one notes, also would have followed this orientation as it moved onto the site from Mullen Road.

This can be developed further. The other circle, the one used for the ritual gathering atop the hill, also follows the same pattern. It too is attached to a linear element which follows this orientation. The stepped pathway leading up from the parking area establishes an actual line of motion which ends at this circle. In both of these cases the circle is positioned at the end of a line. We might say that these forms conform to the familiar city-to-nature continuum found as a governing assumption in Wright's work. Following this assumption, these two circles are placed toward the nature end of the continuum, the lines trace their paths of motion from the city. The automobiles, which are left before one can move to the lake, also trace this same path. These forms lead us into the plan from the cognitive realm of the city, and stop just as they reach the natural parts of the site. These two forms differ from the communal buildings which conform, mostly as a group, to the 30° datum grid. The two circles do not actually touch the gridded buildings. The seem to lead us up to a point.

This entire plan then conveys a sense of motion, motion from the upper right to the lower left along a line 30° west of south. The automobile entry road, the amphitheater and the organized gathering it and the bleachers represent, and the ritual circle with its stepped pathway finally leading up the hill into the forest, all make this suggestion. The spine of pedestrian movement which runs perpendicular to this movement onto the site, and which converts the movement by auto from the city into movement by foot toward the lake, acts as a kind of final threshold here. The camp, as it were, occurs beyond this line, after one has left certain aspects of city life behind.

The placement of the studio cabins, and of course the use of circles around them in the drawings, indicates that these structures have escaped the influence of the grid. Each cabin

139 The use of opposites is layered in complexity here, just as it will be in Emerson's work. Circle versus orthogonal grid: circle of amphitheater vs. circle of ritual: one down vs. one up; one solid vs. one ephemeral: one hidden vs. one exposed, etc.
appears to be freely placed along the ridge, each to itself. They are orthogonal in design concept, but they are associated with the circle as a form, and as an ideal, by the use of the circles drawn around them in plan, and by the fact that they are not tied to the grid perceptively, but are freely placed beyond. There are two kinds of thresholds here. One threshold is encountered as you move between the administration/dining complex and the amphitheater toward the water of the lake. Another threshold is encountered when crossing the long 30° datum line which lies at the foot of the hill defining the automobile and parking area and acting as the organizational spine for the major buildings. The first of these involves following an informally laid out path beyond the hill and above the ravine into the common areas of the complex and beyond that down to the water. The other threshold is indicated with a ritual significance and involves a climb up to a pure geometric form. The only other Platonic form shown on this plan is the circle that forms the bottom of the amphitheater.

If we construct a set of two crossing lines parallel to the 30° datum grid: one of these is the pedestrian spine, the other crosses it at 90° between the staff cabins and the studio cabins, just behind the administration office. Then the plan has four quadrants: the first receives the automobiles, the second contains the amphitheater and the organized sports visible from the roadway approach, the second supports the dining hall and other enclosed communal structures, and the fourth is the domain occupied by the studio cabins. Here we have four plan areas laid across an interpretive map of the site: city/nature crossed with lake/hill. Although this plan first appears to be loosely organized, such dualisms pervade the layout. The amphitheater is opposite the crafts shops, both forms slightly awkward: the ritual circle vs. the amphitheater, one high one low, one open one hidden: the studio cabins vs., the staff cabins, etc.

The activities of the individuals within the camp then are divided by this plan into two forms. One the one hand, they are freely placed as individuals within the forest along the ridge in their cabins. On the other hand they gather together informally for dining. In the first place they are surrounded by nature, in the second they are above the lake looking down at nature.

Wright had used circles in his architecture in one way or another from the start of his career. In some of these works, as well as in many of his early furniture designs, he had combined circles with squares to create compositions. In the Circle Pines plan he pulled these two ideal geometric forms apart and used them simultaneously in the same design for the first time. By simultaneously I mean separately, but coincidentally. This is a new independence of circle and square in his planning designs.

140 Note the very early design for the Wolf Lake Amusement Park.
141 The designs for Florida Southern College also suggest something of this developing language.
The third site plan drawing is the final presentation plan (Figure 4.3). This drawing is lightly colored with greens, blue and brown. It follows and further articulates the ideas of the two earlier drawings and is dated March 10, 1942. The ritual circle on the edge of the ridge appears more formalized here. It has what appears to be a circular pile of boulders or field stones at its center. The approaching steps are rendered as though they were not meant to be paved. There are a few objects that appear to be stones or rock outcroppings in this rising stepped pathway. The label “vista through trees” remains. The words “DISKAL LAVA” appear around the pile of boulders within the ritual circle. This refers to a Danish folk song which the Circle Pines group still sings at its gatherings as a kind of anthem. The overall form of this circle still shows the unsymmetrical retaining walls allowing it to project over the edge of the hill top. Here they are more clearly shown as walls than on the other drawing. The inner edge of this circle has been carefully dotted in place. Again there is no other indication of a paving pattern in this circular area. Perhaps the dotted line was meant to represent a ground cover or simple clearing of leaves to indicate the informal completion of the form on the ground.

The studio cabins are labeled “camp cottages” here and have retained their surrounding circles as well. These have been lightly dotted in a precise manner. There are two questions regarding these circles around the camp cottages. First, why have they been shown at all? And, second, why have they been shown in this way? To answer the first question one is tempted to turn to the other circles on the plan. How has this form been used in other places on these drawings? With what apparent associations?

To answer the second question we have to turn to other projects and their drawings in this period. As I mentioned in the discussion of the stylobate of the “Cloverleaf” project and the Jacobs House drawing, the dotted circle was being used by Wright in these years to represent the tree canopy in combined architectural and site plans (Figures 3.2 & 3.22). In those drawings the convention assumed in the graphic language is that the plan drawing represents a horizontal section taken typically between 4 and 6 feet, usually about eye level. As far as architectural plans are concerned, this viewpoint means that the drawing cuts through a building is such a way as to show both door and window openings. In the site plans mentioned, the tree canopies are dotted because they occur above the line of reference. In other words they are relevant to the drawing but out of the picture being drawn. Here the site plan is unusual for Wright in that it shows the camp cabins as embedded in the forest. The drawing is taken from a vantage point above the forest canopy and we are looking down, through this canopy, which

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142 The title ‘diskal lava’ is taken from an old Scandinavian folksong the Circle Pines group uses as an anthem and means “you shall live.”
143 Thanks to Bruce Pfeiffer, Director of the Taliesin West Archives, who suggested in conversation that these dotted circles might refer to a ground cover or clearing of leaves to indicate the form on the ground.
144 See the APPENDIX following CHAPTER Ten, “Further Notes on the Breadth of a Symbolism of Circles.”
we see the tops of directly. The dotted circles which are included here then, can be taken to represent the same kind of information they do on the Jacobs site plan, etc. They must be here for another reason.

This site master plan does not keep this point of view consistent. The dining hall, for example, is shown in plan view, not a roof view as with the cabins. The camp cabins are the only structures shown in this way. This suggests that Wright wanted to say something specific about them. Something that it was not necessary to say about the other structures in this plan.145

The colored presentation site plan was drawn over, presumably by Wright, with a loose hand. The arrangement of staff cabins was apparently not satisfactory and they were repositioned in a fourth plan variant. In 1944 the Circle Pines group published a small Anthology entitled "First Fruits" as mentioned above. This little booklet has another site plan on its cover which is slightly different from the ones we have discussed. It is rendered in simple graphic form and printed in black, light green and orange. This version describes virtually the same plan we have already discussed with the exception of the locations of the staff cabins. Here these staff cabins are shown in plan in a neat order forming small courtyards as they march off along the hill side. The floor plans indicated are those of the final versions described on the final working drawing-like plans. In fact this is the only site plan which illustrates this cabin design. The staff cabins drawn on each of the earlier site master plan studies, while not shown in detail, are square rather than rectangular. Also this site plan indicates more group cabins in the forest than did the earlier plans.

The organizational structure utilized by this plan not only articulates certain naturally occurring aspects of the site as found by Wright, it also works to heighten and direct one's perception of the interrelationship of the man made and the natural forms. The architecture, and with it the institutional use, is integrated into the existing environment with a powerful new forcefulness. Here Wright has established a formal language for interacting with natural structures perceived at a site. And, the architecture he developed in this way serves to enhance our perception of the character, and hence the meaning, of the site. Moreover, this activity is an act of defining our relation to nature as individuals and as groups.

145 It is also important to note that the dotted circles around the camp cottages do not appear in the first plan study; they come in later. Initially the ritual spot and the amphitheater are the only circles. Any interpretation must take this fact fully into account.
Drawings of Specific Structures

There are many other drawings related to this project describing some of the various structures intended. The dining hall appears to have been the most studied, but there are drawings of the staff cabins and of group cabins as well. The members intended to build the structures themselves from field stone, wood, sand and gravel taken from the site. The amphitheater appears never to have been given specific study beyond the master planning level. There are several important things to be learned from these various drawings.

The dining hall was given two basically different forms during the planning process. The first version was shown with a flat roof, typical of Wright's Usonian houses of the period. This is the version which appears in all of the master plan studies we have been reviewing. Sometime after the formal presentation plans were rendered, Wright returned to the dining hall to study and detail another version with a gabled roof. There are other subtle changes in the plans of these two as well. There is a working drawing floor plan of the first version which shows a rectangular building divided roughly into three parts. The design is governed by a square planning grid laid out on the shifted 30° datum. The design is dominated by a large wood-floored space for dancing. This room is laid out between a very big hearth on the westernmost end and a projecting terrace on the easternmost end overlooking Lake Stewart. The space of the room is modulated by field stone piers running along both of the sides and is covered by the single plane of a high flat roof. Along the southernmost side the is another flat roof plane inserted so that it reaches from the inner edge of the stone piers out beyond the extent of the higher roof to the south. This lower roof plane also extends just a bit past the major plane toward the lake to the east so that it is identifiable in the colored presentation perspective of this building. This roof plane extends quite a bit beyond the western end of the major space where it expands to cover an exterior fenced yard adjacent to a kitchen. Along the southern side of the major space, it covers a linear area meant to provide space for at least six large and five small dining tables, which would have been immediately adjacent to the dancing floor under the higher central roof.

Opposite this seating area is another in the plan shown three or four steps up from the floor of the major space. This area is much wider and not as long as the dining area opposite, and it is

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146 See article by Ruth Kurtz Alexander in the Circle Pines Center: Anthology, 1944. (p 20) The group did build at least a few structures before 1944. A bathhouse and a poultry house, illustrated in the 1994 Anthology, did not conform to Wright's designs (pp. 28).

147 In most situations this of course would typically indicate that the amphitheater was considered to be a future building, not an immediate part of the initial building activity.

148 It appears that the three primary color presentation drawings (4205.010, 4205.006 & 4205.023) are all dated March 10, 1942. The first dining hall plan (4205.005) appears to have this date as well, March 10, 1942.

149 While this 30° datum is not specifically called out on this drawing (4205.005) the building plan is oriented that way with respect to the sheet of paper it is drawn on and to the titles lettered along the bottom of the sheet. On the later plan drawings for this building the 30° datum grid is specifically called out (4205.18 & 4205.021).
also covered by a lower flat roof plane. This lower roof plane in fact is the same as the one opposite as they merge over the kitchen. This creates a form that allows the upper roof plane, and the central dancing space of the dining hall along with it, to break away from this lower datum plane. Such a concert of horizontal roof planes overhead would have directed one’s attention not only outward to the open sky above the lake, but would have recalled the horizontal plane of the water’s surface as well. The fact that the wider seating area to the north, or entry, side is raised several steps above the major space, while it is covered by a lower roof, would have created a sense of opening of interior space toward the lake as one moved into the building in this way.

The roof plane over this wider seating area plays a larger role in the project however. It continues along the pedestrian spine that defines the entryway from the administration building. In this position the loggia and its roof plane act as the physical embodiment of the threshold defining the difference between city and nature.

A final significant aspect of this design is the location of a built-in stairway attached to the dining hall at the lake end of this loggia entry spine. As one would have proceeded down this loggia toward the lake along the side of the dining hall, the plane of the fieldstone paving underfoot would have dropped off into a flight of steps just before the last pier. In typical Wrightian fashion, the plane of the roof of this loggia would have continued outward several more feet. From the vantage point at the head of these steps one would have felt the linear space of the loggia projected outward toward the lake. Immediately before and just below lay a small landing from which the steps downward to the lake continued. The side of this landing attached to the dining hall to the right gave way to a flight of steps climbing up to the main floor of the dining hall. In this way Wright would have created the impression of moving along the spine and coming into the presence of the lake before gaining access to the communal space of the dining/dancing hall. From such a vantage point one would have been led to feel far away from the automobile and the cognitive power of the city it implies. Such a separation appears to be a prerequisite to achieving Wright’s architectural space here and in so many other Usonian-era designs.

The colored aerial perspective shows a slightly different treatment of the lake end of the dining halls structure than that details in the other drawings. In the perspective view Wright has removed the fieldstone wall which wraps around the terrace at the end of this structure above the lake. In its place he has drawn a broad set of steps which flow down the hill toward the lake on at least two sides of this terrace. The higher roof plane also seems to project

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150 This effect can be most easily seen in the colored aerial presentation perspective (4205.023).
151 This spatial device is characteristic of virtually all of Wright’s usonian house designs.
152 See the entry sequence in the Pope House leading from the vestibule into the living room as an example of a place where all of the horizontal and vertical planes which define one space leave off at different places as one enters the next room.
somewhat further outward than is indicated in the other drawings, almost out to the edge of
the steps. This treatment would have intensified one's sense of the hovering roof plane as
parallel to the planar surface of the lake. 153

This would have been a simple building in terms of the materials and construction skills
necessary to build it, but in spite of the simplicity it is an efficient design in terms of the spatial
effects gained from a minimum of elements. By spatial effects I am also referring to the
articulation of the site these forms define, and the ways in which this reinforces the agenda of
the master plan we have discussed. 154

The design of this building was eventually changed however. There is a loose floor plan
which appears to be the study for the completed dining hall floor plan just discussed. On this
study Wright returned at a later date to overlay wide gabled roofs in lieu of the flat ones
initially shown. 155 This alters the prospect of the building. He also appears to have added
another line of stone piers to the southern side of the building, extending the space of the
narrow dining area. A covered walkway has been attached to the covered yard in the lower
left corner. By virtue of significant erasures on this plan it appears that he also reworked the
terrace and entry sequence of level changes as well. He added a row of stone piers to the
easternmost end of the large space and lowered the exterior terrace at this end so that it now
was to be reached through these piers and down several steps. This lowered exterior terrace
would have now reached around the upper right corner of the building to connect directly with
what had been the small landing. This landing was reworked on its other side as well so that
it now ended at a stone wall before giving way to a new set of steps to the right. One could no
longer move directly toward the lake along the organizational spine/loggia.

153 Note also that this colored aerial perspective (4205.023) is taken from a viewpoint which allows the
organizational spine to lead diagonally across the page from upper left to lower right. At the extreme
lower right corner of the image Wright has drawn the outlines of the tree canopies climbing up a forest
hillside. There trees, while slightly drawn, display canopies which would indicate a deciduous or leafy
type. As in the famous aerial perspective of the Darwin Martin House published in the Wasmuth
portfolio, such a hill does not exist in this location. It is a device for framing the image and for giving it a
certain character. In this drawing he has added a small pine-like branch at the leftmost and bottom end
of the trees canopies. This little branch projects upward and crosses the horizontal border line
enclosing the surface of the lake. It interrupts this line. Moreover, this little branch is drawn
differently than the adjacent tree canopies. It is not shown in light profile, but is rendered more darkly
in detail. One is reminded of the Magnolia blossom that Marion Mahoney is rumored to have added to
the drawing of the Hardy House in Racine published in the Wasmuth. But the effect is very different
here. In that drawing the blossom seems to represent the spirit of nature to be gained by facing the house
outward over the lake. Here one gets no such reading. Rather the little branch appears to have a much
more utilitarian function. As one looks over this rendering, and studies the hillside spaces of the dining
hall and communal buildings, this little branch constantly intrudes, drawing your attention downward
and out of the picture as it were. In this way is serves to remind one that the hillside spaces occupied by
the buildings are far away, remote and across the lake. As one looks over the rendering, the light tree
canopies in the lower right do not interfere with one's focusing on the color and detail of the central
portion of the drawing. The tree canopies do not have the graphic presence to interfere. The little pine
branch however, does. It serves to constantly pull ones eye down the path of the spine across the water
and up the hillside opposite, from which point one returns to the central section with a renewed sense of
distance.

154 This simple illustration demonstrates how even the simplest of Wright's architectural designs in this
period are typically intimately tied to specific sites and their interpretation.

155 Although I cannot say with any conclusiveness what caused this change, a concern for winter snow
loads prompted this kind of change in other Wright designs in this period.
These changes were developed in two working drawings of this new dining hall (4205.018 & 4205.021). These two sheets describe a building of very different character than before. It is much more conventional in its appearance and interacts with perceptions of the site much less dramatically. These changes altered the interior building plan significantly as well. It is a symmetrical structure of three relatively equal spaces. The central space is now separated from the view of the lake by a closeable room on the eastern side. The inside covers of this little booklet display a similarly rendered version of the second sketch aerial perspective showing the altered dining hall.

When this second set of working drawing floor plans were done, they were complemented by other drawings describing the staff cabins and group cabins in detail. These were to be rather simple structures built of fieldstone walls laid up with concrete poured around them like the stone walls at Taliesin West. Each cabin was organized around a large open space tied to a very large stone hearth and fireplace. Sleeping accommodations were included in various ways for each type and there was a bathroom in each. The primary open space in each was to have windows, while the sleeping areas were given a row of horizontal wooden slats for ventilation. Some portion of the exterior walls were to be constructed of horizontal wood 1" x 12" lumber as lapped siding over a 2x4 stud frame. The staff cabins particularly would have been elegant little structures in which a strong stone wall would have appeared to gather the space into a unit of terrace and interior open space focused on the hearth. This primary aspect would have then been wrapped by the lighter wooded framing in such a way as to suggest an interpenetration of two spatial units, each defined by its own material. A roof structure would have then been placed over the conjunction of these other two. The design is simple yet rich and continues the strategy of opposites established in the plan.
Summary of Circle Pines

To recapitulate the major design ideas found in the Circle Pines master plan: (1) Wright established an orthogonal reference or datum orientation for the communal buildings on the site. This grid is shifted 30° to the southeast from the east / west line established by Mullen Road. This was a convention Wright developed in the previous decade and came to use extensively as a way of differentiating between the gridded disposition typically followed by city or county roads in the areas in which he built and a perspective of the natural characteristics of each particular site. This alternative grid is utilized in the plan to provide contrast between two other kinds of elements - the orientation of the ridge and northern edge of the lake, and the circles.

(2) The communal buildings such as the dining hall, the amphitheater, the staff dormitory and the maintenance shops are all placed against a forest edge so that they would not be perceived as free-standing objects. These buildings are attached both to the pervasive forest cover and to definitive natural topographic structures. The dining hall is placed as the end of the westernmost ridge finger. The amphitheater is lowered into the ravine so as to highlight the sharp bluff. The maintenance shops are placed between two hillsides so as to block the view from plateau to meadows. The open space created, or left, by this plan remained empty. The individual cabins were then located deep within the forest canopy. Along with the ritual circle, the cabins would have been discovered as clearings in the otherwise continuous forest canopy. This situation would have created a subject/object perceptual dilemma in which neither the man made or the natural structures could be perceived as dominant.

(3) Circles are used for the individual cabins and for two outdoor gathering places, the amphitheater and the ritual circle atop the ridge above the parking area. These two exterior spaces are laid out in plan so as to suggest a sense of movement onto the site along the reference grid from the northeast. This movement is contiguous with the motion of automobiles onto the site and stops at significant natural features. The directional thrust of the amphitheater stops just before the central area with its placement in the ravine. The movement suggested by the ritual circle continues delicately further to the hilltop beyond.

156 This view of Wright's use of the 30° grid is introduced by Neil Levine and can readily be seen in a wide variety of Wright's house plans during these years leading up to his turn to circles as a basis for house and site planning. Also note Wright's use of the 30° datum in his extensions to the Hillside Homes School for the Taliesin Fellowship. See the discussion of the Edwards House plan presentation drawings in PART ONE / Chapter Two of this work above.
(4) There are two thresholds established by this plan. One reflects the sense of motion just described and is conveyed in the plan by the organizational 'spine' leading to the boardwalk out over the lake. The other threshold runs perpendicularly to this one and is established by the contingency of the dining hall with its arm of staff cabins and the circular edge of the amphitheater. This threshold would have been crossed on foot and marks one's first view of the lake.

(5) The circle and square are used simultaneously here with discreet roles in the master plan. Wright had used combinations of the circle and square in diagrams and planning projects for years, but this project marks the first time he pulled these two forms apart.157

(6) Lightly dotted circles are introduced around the individual cabins to mark a geometric reference only roughly congruent with the opening in the forest canopy. These marks on the plan do not clearly represent any physical element to be altered at the site. Rather they seem to suggest an interpretation of the positioning of such a cabin in the forest.

(7) With all of these attributes Wright has established a formal language that derives from, and enhances, one's perception of the existing site. This language utilizes both man made and natural forms in an interactive dialogue.

The point here is that Wright has constructed a complex vehicle for exploring the relationship of individual to group within the context of a redefinition of the relationship of city (or man) to nature. And, he has done this by developing our experience of a particular natural place.

Circle Pines compared to / juxtaposed with “Cloverleaf”

In Wright's design of the Cloverleaf project we saw a scheme in which geometry was used to create a perceptually dynamic field that encompassed, as it was made up of, specific individual buildings. Nature, or the perception of natural context, played little part in Wright's adaptation of the Ardmore building idea to a large and generally featureless site. The geometric field created for Pittsfield was composed of multiple partial circles and orthogonal components overlaid and juxtaposed to create a complexly layered composition. A dynamic quality of angular momentum or rotation acted to resist the condensation of an understanding of the plan or the relationship of its parts.

The most fascinating thing however about the Cloverleaf plan is the shift in point of view it encourages. From an initial perception of the buildings as objects isolated in an ocean of gravel roadbed when seen from an automobile one would be led to another, more intimate view

157 Note: these two geometric forms had been used together by Wright from the turn of the century, even before. See his fable designs for the Martin House in 1904 which explore the use of both forms, and see his own early personal insignia from the Oak Park days.
rooted in the experience of living in a unit. From within each living room looking out one would have been embedded in a perception of stability created by the unity of space within the larger square defined by the inward facing crossing walls of four contiguous buildings. Here geometry and architectural mass are used in concert to create a responsive weaving of individual unit and group.

In contrast, the Circle Pines master plan, executed probably immediately after Cloverleaf for a much more varied site, develops a complementary planning strategy. Here Wright has not introduced the rich and complex layering of man made geometries. Rather, he has designed and juxtaposed forms that articulate and comment upon the existing site. More than this however, these forms and their dialogue with the site place and define a human activity by the use of an expressive language of forms that has been at least partially derived from the existing site. The introduction of a governing datum is a primary (and primal) act of placemaking. Here the orthogonal conceit was to be placed not with reference to the county and its legal system, nor with reference to the sun and compass directions, but rather with direct reference to the specific features of the place. It is an act of placement that would work to draw attention to the place rather than suggest extension outward.

The primary buildings were then placed so that they did not stand freely as did the Cloverleaf structures. At Circle Pines the communal buildings were all tied to the forest edge. In this way the open space of the plan, left to appear in a naturally occurring form, became the most positive feature. The subject/object shift of Cloverleaf is not found here. One's attention is never directed to these structures as independent objects. Wright has built upon the existing features of the site by placing man made structures so that they continue and interact with what was already there.

The plan seems to be self-consciously positioned between city and lake, and the forms are disposed so as to suggest a sense of movement onto the site. This suggestion of movement reflects the motion of the automobile onto the site. In contrast to the rotation or angular momentum so crucial to the Cloverleaf plan, the motion suggested here is linear. Whereas the circular motion of Cloverleaf is self-referential, the linear motion suggested here necessitates a vectoral placement, and hence a defined interaction with the specific features of the site.

Not only do the forms assembled here suggest motion, they change in response to that motion in ways which indicate thresholds. These thresholds articulate stages in one's movement from city to nature. The plan prioritizes the lake and the western ridge as destinations.

158 By reflecting the motion of the automobile onto the site, Wright might be thought of here as symbolizing his view of the machine giving access to nature. Not only was this was one of the premises of the Broadacre City idea, it was paralleled in his theory of the role of art as expressed in The Japanese Print: "a material means for us to a spiritual end . . . ."
At Circle Pines we find the first independence of circle and square in Wright's work coupled here with the assigning of symbolic import. Further, each type of form is given a unique role in the plan dynamics based on the definition given by the placement and character of its use. While the lake stands in the plan as its own destination, the ridge becomes the location for the individual cabins. By embedding the cabins in the forest along the ridge they are both hidden and highlighted at the same time. By drawing lightly dotted circles around the cabins, Wright has introduced a figurative dimension of great importance at a crucial location. His use of a circle for the place of performing rituals of gathering on this ridge indicates something of the symbolic dimension in his use of the form. But it is his use of the lightly dotted circles around the individual cabins that is especially interesting.

Taken together these aspects of the Circle Pines plan indicate the existence of a figurative dimension in Wright's planning. This is a dimension in which metaphors, or metaphorical relationships, have become central. In such a metaphor, the elements "... have meaning only by virtue of the whole which they create by their interaction ..."159 In a work describing the use of metaphor and symbol in the early American authors Wright was most attached to, Whitman and Thoreau, Charles Feidelson goes on to explain that "... a metaphor presents parts that do not fully exist until the whole which they themselves produce comes into existence."160

This can be applied to the Circle Pines master plan but not to that for the Cloverleaf project. These two differ in this crucial way. Wright's plan for Pittsfield is an inventive and multi-layered exploration of the relationship of individual to group. It is also the better of the two. But the specifically figurative dimension that Wright introduces to the Circle Pines plan is a powerful one, and it is one which sets the stage for a greater jump in representational explorations over the next few years of his practice.

The Circle Pines plan adds to the figure/ground (subject/object) reversal of the Cloverleaf plan this crucial figurative dimension.

Chapter II plans contrasted with those in Chapter I

Two points stand out as obvious beginning points. The Cloverleaf building and master plan was a development of the experiment in multiple housing begun in Ardmore several years before. And, in my analysis, the four planning projects thus far discussed have been seen in pairs. The Usonia I subdivision and its architecture represents a planning strategy which in many ways contrasts with that demonstrated in the Ardmore Experiment of the same time.

159 Feidelson, p 60-1. 160 ibid.
period. The East Lansing project was designed for a large and beautiful site with significant natural features. The master plan was the result of a process that sought to build upon those features in the creation of a language of forms derived from that specific site. A merging, or meeting, of man-made and natural forms was negotiated in that plan with great success.

In the Ardmore plan Wright was dealing with a much less varied, and much more restricted, site. Moreover, he was under pressure to create a radically inexpensive housing prototype intended for a wide variety of further applications. He developed a rich geometric field as the immediate perceptual foundation for the placement of the buildings. The geometry in this plan largely ignores, or replaces, an insignificant natural context.161

These two projects done at the same time offer us a view of complementary approaches. In the second pairing of the Cloverleaf and Circle Pines projects done a few years later but also synchronously, these two planning approaches can be seen developing in richness and depth - each in its own way.

There are both similarities and differences in these two pairings. A shifted 30° datum or reference grid is used in three of the four projects. All four seem to present non-hierarchical arrangements of living units. The two 'bad' sites, Ardmore and Cloverleaf, develop strongly geometric planning fields as the basis for the placement of the buildings. Both of these project designs utilize the suggestion of rotation in plan to prevent the condensation of an understanding of the overall structuring of the plan. This helps to maintain a perception of equality among the units as all appear to be equally suspended within the planning field. The two 'good' sites by contrast, Usonia I and Circle Pines, develop planning structures that are derived from and interact with the existing natural features of the sites. The Ardmore, Usonia I and Cloverleaf designs at least develop plans that can be seen as layers of natural and man made (geometric) forms.

The Usonia I plan strongly reinforces one's perception of the existing character of the site and substitutes this for the introduction of a preconceived formal armature. Here Wright created specific planting forms to blend the plan with the site in a way which blurs distinctions between natural and man-made. The Circle Pines plan in contrast does introduce a formal armature which is clearly seen as distinct from the natural site, but it does this in a way which suggests an interpretation of the naturally existing place. This plan suggested no added planting to blur natural and man made but rather introduced a figurative quality to its use of geometric forms. To some extent each of these planning processes is the result of Wright's response to the specific programs and the specific sites for these two projects. The focus on individual houses in the Usonia I plan and the focus on communal groupings in the Circle Pines

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161 This is of course the same approach used in the master plan for Florida Southern College as well.
plan is such a dimension. But it is clear that his response goes beyond a simple instrumental logic.

The circle does not show up in either plan of the first pair. In the second pairing the circle is used with strong purpose in each case. In the Cloverleaf plan circles are overlaid with orthogonal grids and walls crossing at 90° to create a complexly layered plan. In the Circle Pines plan Wright pulled the circle and the square, or orthogonal datum, apart in the creation of a figurative language.
In the design of the Defense Worker's housing project for Pittsfield, Massachusetts, Wright's use of geometry grew even more intense. The compositional strategy of the Ardmore project forms the foundation for the use of fourplexes in this much larger design. The rotation suggested in Ardmore by the shifts in building orientation is accomplished here by the introduction of partial circles coordinated with the rotational character suggested by the form of each individual fourplex. That character is itself strongly enhanced by a redesign of the model. The addition of circular “cloverleafs” as individual yards identifies specific zones of privacy - isolated from each other by an ocean of gravel roadbed - in such a way as to suggest both a continual flowing movement around each fourplex and an identical status among each of the over 100 units in the entire group. This perception of identical status is based on one's inability to perceive on the ground the overall structure of the group in view of the whirling intensity provided by the contrast of orthogonal forms with the directionality of the partial circles. But this perceptual interference in terms of the unity of each fourplex is compounded by the implicit association of facing units across fourplex boundaries.

Again the geometry establishes a dynamic set of relationships that suggest perceptions of individual to group relationships. Here for the first time square forms are contrasted with circles in an active perceptual field - even if the activity of the curving forms is governed by, even conceived in support of, the orthogonal frame of reference established by the fourplexes.

In this response to a 'bad site' Wright has again broken up any a priori reading of the ground plane by the dynamic geometry and gravel roadbed. The forms keep to themselves in establishing a self-referential field of visual movement in which each individual unit is highlighted. The introduction of crushed rock 'stylobates' as even, level, and precise circular grass covered planes would have continued the foregrounding of man-made geometry begun by the gravel drives at Ardmore.

The alternate perception of the clusters as square open spaces instead would provide pools of stability, islands of contained visual movement, within the whirling intensity of the overall plan. These are inverted versions of the quadrangle plan fourplexes of 1901 which acknowledge the increased importance of the automobile in the late 1930s. The planning field is expanded beyond the rectilinear frame of reference of the public street to become an ocean of visual activity through which the automobile travels. The non-hierarchical character is kept in this

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162 Pittsfield, Massachusetts was Herman Melville's home for many years.
163 See discussion of the Pittsfield site selection process in PART TWO / Chapter Three above.
great expansion by the 'introduction of circles and circular arcs' which allow each building to float in this visual sea. The circular form is used to deflect and otherwise distribute attempts to comprehend the buildings objectively. Here as well Wright suggested a certain amount of common planting - red clover - which, while hiding lawns and ground plane, would give the whole a softer unity.

One’s first desire to perceive the buildings objectively from behind the steering wheel of an automobile is rewarded only from the view from within each unit. A 'subject/object shift' is accomplished whereby the relative position of circle and square are reversed. Space shared between four buildings becomes the defining positive element rather than the mass of an individual structure.

This dance of subject and object in perception is used to 'restructure conceptions of the dependence of the individual on the group.' At first one sees a building which has been broken into four units to be inhabited by individual families. From the viewpoint gained within each domestic territory the group is defined as the result of coherence of individuals.

At Circle Pines the round versus orthogonal geometries are again both present, but now are pulled apart with an eye to a new clarity of symbolism. The intensity of overlapping and competing geometries is abandoned in favor of an attempt to work more closely with specific natural features. In this project Wright differentiates between the handling of the cabins of members and the other buildings used for common purposes. Virtually all of the common buildings can be found adjacent to open space continuous from parking and entry to the lake. These buildings are placed to the side of this open space, against the wooded hills and the most communal of all, the dining hall, actually projects outward from this datum toward the lake. In clear and obvious contrast, the cabins are located under the cover the forest, distributed about the large hill. Each cabin is not only detached, but surrounded by forest, not directly perceivable from any other in the summer months when the resort would be most used. The isolation of each is indicated by dotted circular lines drawn around the cabins in the plans. These circles are diagrammatic, but suggest that in spite of the geometry of each cabin - and the fact that so many share the alignment of the orthogonal communal buildings - there is to be no directionality implicit or otherwise to interfere with one’s relationship with the existence of the forest. They call attention, in other words, not only to the forest, but to the idea of the forest.

As in the Ardmore/Usonia I pairing, here Wright was also exploring perceptions of relationships between individual and group, between natural and man-made through the use of ever inventive geometries tailored, not only to programmatic differences, but also to sites with or without specific natural features of interest. Sometimes these geometric inventions are
'foregrounded' and sometimes 'back-grounded' to allow perceptions of a priori natural character to shine through.

At Pittsfield the circle and square were overlapped to create a dynamic figure/ground perceptual shift providing pools of stability/privacy within an otherwise visually active complex. At Circle Pines these two forms are used in a more overtly symbolic manner in conjunction with specific landscape experiences or archetypes. The land itself is used to give form to the experience of the place. One's perceptions of the land are engaged not only as one moves into an archetype, but reflectively as well. Forest versus open space, circle versus square orthogonal grid, and isolated form versus built-up groupings are dualisms added to those in the previous two projects.

The concern with subjectivity leads to the separation of the circles, as pure forms, from the grid-like square planning datum. This allows a dialogue in perception between the circle as a self-referential form and the pre-existing natural characteristics of the site. This dialogue serves the appearance of a figurative dimension in Wright's planning by juxtaposing natural and man-made forms in the creation of a broader metaphor. By these means the natural aspects of the site are built upon and articulated as the foundation of the master plan so that a human purpose comes to be interpreted through an articulation of the natural site. Perceptions of the two are intentionally intertwined so that not only does the formal object resist comprehension, but the relationship between that object and nature is taken as a single given.
Illustrations: Circle Pines (4205)

FIGURE 4.1 schematic site layout study - #4205.001
FIGURE 4.2 detailed site layout study - #4205.013
FIGURE 4.3 presentation site plan - #4205.006
FIGURE 4.4 aerial perspective of final plan shown in Figure 4.3 - #4205.023
FIGURE 4.5 Circle Pines Anthology outside cover plates
FIGURE 4.6 Circle Pines Anthology inside cover plates
FIGURE 4.7 USGS map showing site area
FIGURE 4.8 Como Orchards Master Plan
FIGURE 4.9 dining hall - #4205.005
FIGURE 4.10 dining hall perspective - #4205.008
FIGURE 4.11 detail of Figure 4.3, master plan - #4205.006
FIGURE 4.12 detail of Figure 4.3, master plan - #4205.006
FIGURE 4.13 detail of 4.5, Anthology cover plate
FIGURE 4.1
schematic site study layout
(4205.001)
FIGURE 4.2
detailed site study layout
(4205.013)
FIGURE 4.3
presentation site plan
(4205.006)
FIGURE 4.4
aerial perspective of plan shown in Figure 4.3
(4205.023)
FIGURE 4.5

Circle Pines Anthology, outside cover plates
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FIGURE 4.9
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(4205.005)
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dining hall perspective
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PART III. GALESBURG, PARKWYN & USONIA HOMES

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CHAPTER FIVE - GALESBURG COUNTRY HOMES, "THE ACRES"

1 - Chronology & Development

After the War, Wright designed three subdivisions that were based on the use of circular lots extending the example of Circle Pines. Two of these subdivision are located in Kalamazoo, Michigan and one is in Westchester County just north of New York City.

In Kalamazoo, a group of Upjohn employees decided that they would be more able to afford a house in a pleasant neighborhood if they built that neighborhood themselves. As they organized and began to conceptualize a communal project, the initial group soon split over the issue of distance from town. Most of the members wanted to live just beyond the borders of the city while a smaller contingent desired a more rural site. The split was an amicable one that resulted in the construction of two related, if independent, subdivisions, both designed by Wright. Both groups contacted Wright by letter separately, although it is clear that they must have spoken together about him beforehand. Representatives from each group apparently visited Taliesin together in October of 1946. The in-town group bought a site of some 47 acres just at the developed edge of the city and took the name the Parkwyn Village Association. Today this plat falls well within the expanded limits of Kalamazoo. The other group purchased a 71 acre site more than ten miles further out near the smaller community of

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1 There is a split which occurs in the years between 1938 and 1944 concerning Wright's use of circles. On the one hand the subdivision projects show a restraint and a uniformity that is wholly absent in the great cultural centers such as Baghdad and the Huntington Hartford Resort Project. These later 'occult blossomings' of gathering forces concentrate at significant points in the environment. Groups of forms which, although excited and aggressive, draw power from, and take a back seat to, the locations in which they manifest. In doing so they draw out and clarify aspects of their domains, amplifying certain perceptions of the per-existing site. This is even true of the Guggenheim, although its site more than any other certainly lacks the implications of the moving natural force found from Death Valley to Bear Run. The Huntington Hartford project takes advantage of the canyon and peak to extend the mountain-like rise and sense of the triumph of height. The Baghdad ensemble amplifies one's sense of the moving, fluctuating force of the Tigris river as a natural form that has both supported, and threatened, human life for millennia.

2 Chris Weisblat has indicated to Robert Leininger in personal conversation that the two groups initially had their sights on a single piece of property closer to town than the eventual Galesburg tract and further out than the eventual Parkwyn Village tract. This piece was apparently given up because a clear title could not be found for its purchase. The split in the initial group was precipitated by this circumstance.
Galesburg, Michigan and took the name Galesburg Country Homes Association. This area has not changed much since the War years and is still rather rural in character today (Figure 5.16).

Although these two groups proceeded independently, relationships between them were close. The following is the text of an undated joint promotional flyer produced by both groups in concert a few years after they took their separate paths:

The Parkwyn Village Association and the Galesburg County Homes Association are the realization of one common dream...

The opportunity to work out by an individual family it's aims and ideals in a new home - one that is well designed, comfortable and homey and not necessarily expensive - located in an area that is not spacious for maximum privacy, yet, among congenial neighbors with similar ideals who join together when the need arises to work out economically plans and developments to get the most in better living at minimum costs to all.

Both projects have been developing over a period of three years. Originally there was one group, but in the process of studying what had been done by other successful groups all over the county, it soon became apparent that the interests of the members fell into two categories. Some families wanted a suburban life, while others preferred a semi-rural development. The group therefore decided to set up two separate projects working together with one another whenever possible.

Members of each group are varied as to age and occupation, and though originally strangers were drawn together by the common appeal and purpose that seemed to fit in with what they had dreamed about for years. Membership in either group enables a family to have:

- large individual home sites, one-half to one acre in size, at much lower cost than a city lot.
- the advantages of a well planned neighborhood instead of one that grows haphazardly.
- an equal share in making decisions and determining plans regarding the project.
- outstanding architectural planning through group effort, not available to it individually.
- well planned play areas for children close to their homes with sensible placement of roads for maximum safety.
- ample room for gardens, orchards and adult recreation.
- lowest possible cost through large scale buying and building.
- maximum assurance of neighborhood stability tending to increase property values in the years to come.
- and finally; the fun, stimulation, satisfaction, education, and yes - even headaches, experienced in working with others who have similar aims.3

Of these two related groups, the Galesburg one took the initiative and got started right away. Their group was the smaller of the two, and because of the more rural location of their site the Galesburg group had less in the way of bureaucratic red-tape to interfere with the

3 Undated promotional flyer received from Mrs. Helen McCartney. The time frame of this flyer is probably 1949.
development of their land. Also, since they did not actively pursue additional members, they were able to proceed on their own timetable. The group consisted of only five families and wished to limit its ultimate size to no more than fifteen. Their land was purchased for quite a bit less than the in-town Parkwyn site and so they did not feel the need to spread the financial burden as widely. One of the reasons they wanted to move to the country in the first place was to avoid the increasing congestion of suburban living.

Mrs. Curtis Meyer noted to Wright in her letter of October 29, 1946 that the countryside surrounding their acreage was similar to that of Spring Green near Wright's own home. In describing the site she wrote, "The front 20 acres has several hundred very old hardwoods and apples... The hills beyond break and behind there is an old cornfield and alfalfa. At the back is the woods." The entire text of this initial letter follows:

On October 5 I visited Taliesin with Eric Brown and several others from Kalamazoo. I told you about our project and discussed it with you at the same time that they told you of theirs. Our group consists of five families who have purchased 71 acres of rolling land (differential elevation 80 feet) ten miles from downtown Kalamazoo. The surrounding country is similar to yours at Spring Green. We plan to expand eventually to fifteen families.

When we spoke to you about site planning, you said that you would do the site plan for us for nothing if you did the houses. In our group of five families, four would like you to do their houses. The man in the fifth family is trained in architecture and has always dreamed of planning his own house. He is an admirer of your work and has no interest in traditional houses. His plans would probably not conflict seriously with ours. We might group the four houses. Would you be willing to do the site plan and the plans for the four houses under these conditions?

We have been working on a 2 foot contour map of our land for the past three months and it is now ready to be inked on linen and blue printed. If you will do our site plan, we can send you a blue print of the contour map and numerous snapshots, in several weeks. We would like to have the site plan ready by spring so that we may go ahead with planting of more trees and damming of our stream to form a pond. We hope to be able to build in one and a half or two years, depending on the change in building conditions. We would like moderate cost houses.

I am sure that you would enjoy planning houses for this beautiful piece of land. The front 20 acres has several hundred very old hardwoods and apples. It has been used as pasture land for 50 years or more. The hills break and behind this is an old cornfield and alfalfa. At the back is the woods. There is a small stream with a steady flow even in the very dry year. I will include a rough sketch.

I hope that you will be interested in doing our houses and site. We are all enthusiastic and will be keenly disappointed if we can not have Wright houses. I hope we shall hear from you soon.

The land varies in elevation some one hundred feet from two high knolls in the southwestern corner to a low, somewhat marshy area along the northern boundary. There is a topographic map showing contours every foot in the Taliesin Archives (#4828.005).

4 Mrs. Curtis (Lillian) Meyer to Wright, 10/29/46.  
5 ibid.  
6 ibid.  
7 There is a topographic map showing contours every foot in the Taliesin Archives (#4828.005).
long, slow 'ravine' which runs roughly north-south across the site about a third of the way in from the county road. One of the high knolls overlooks this 'ravine' as it flows to the north. In the center of the western boundary along the county road there is a level area which was the spot of an existing entry drive. This was the spot Wright chose for his site entry. From here the land rises to the south and falls to the north along the county road before giving way to the 'ravine' with, "Tall, clean woods along (the) entire road - mostly tulip, dogwood and oak."8 This area included a loose and open spread of existing hardwoods not dense enough to be read as a forest. The central portion of the parcel is dominated by a large slowly rising hill which faces the eastern side of this 'ravine.' The hill slopes broadly to the north toward a "... small stream with a steady flow even in the very dry year."9

The progress of the land over the easternmost third of the site is not indicated on the topographic map (4828.005). This was a portion that lay beyond the edge of an older forest the property owners did not want to disturb. The land drops away to the north so that the site faces into a broad valley which itself eventually gives into the Kalamazoo River lying between this tract and the small town of Galesburg.

The Galesburg Country Homes Association asked Wright to provide some common gardening ground and an orchard. They directed his attention to the front, or western, portion of their land and reminded him that they were in Michigan's snow belt and felt the need to be relatively close together so as to minimize roadway expense and problems. With their holdings of "woods, pond and field" they did not think that this last request need give them the effect of city crowding. In terms of individual lots they asked for fifteen of approximately one acre in size.10 But they admitted that it might be easier economically and psychologically if the various lots were at least similar. And they suggested the possibility of common land between the plots. This is not something Wright had ever done before. Four of the original five families asked Wright to design their own houses.11

Partial text of a statement of needs submitted to Wright by the Galesburg Country Homes Association during the planning process:

**Number of Houses:** We plan to have 15 families in the group and would like to plan for that number of building sites now. We have not admitted more than the original five families because we felt it would be easier to work through the formative stages with a small group.

**Placement of Houses:** The front portion of the property presents many lovely building sites. Here large trees are scattered. (Many, but not all are indicated on the map. Small trees are not included) Along the ridge from 5G north, there is a fine view of rolling

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8 Pencil note on dwg. #4828.002.
9 Mrs. Curtis Meyer to Wright, 10/29/46.
10 ibid.
11 ibid.
hills to the north and east. Along the ridge from 5A north there is a shorter view to the southwest. This area, however, is hot in the summer since the woods to the south and those across the road to the west, cut off the westerly breeze.

**Size Plots:** We think that house plots of approximately one acre size would be desirable from several standpoints. We would like the houses fairly close together so that the problems of road construction and snow clearance (We are in Michigan's snow belt.) will be a minimum and in order that a common water supply may be practical. We do not think that we shall feel the crowding of a city since we shall hold over fifty acres together, as woods, pond and field. The plots need not be identical in shape of course. Neither you nor we like a stereotype arrangement. But it would be simpler, financially and psychologically, if they were approximately equal in size. There might be common land between the plots.

**Common garden and orchard:** Most of us are interested in gardening, but have no aspirations to become farmers and no false illusions about what we will accomplish on week ends. Most of us would like small fruits and a fruit tree or two whose produce we would probably share with our neighbors. Since spraying is a frequent problem, we have thought it would be desirable to plant our trees and our gardens in one area. For example the marshy area along 6 and 7 KLM, is fairly dry in summer. It is rich muck land and with a ditch or two would make an excellent garden patch. We will not own cooperatively each peach and apple tree, but we should like to plant them together.

**Common water supply:** If it is economically possible, we should like a common water supply. However most of us would like a sufficient amount to water our gardens. Perhaps it would be possible to plan a unit for part of the houses and then install another unit when the rest of the houses are built. What do you think?

**Pond:** Our stream is small but even during the past summer, when there was no rain on this area during July and August, it continued to flow vigorously. We should like to dam the stream to make a small pond for swimming and skating.

**Prevailing winds:** South west.

**Utilities:** We should like utilities run underground rather than in the air. Electricity is available at the road.

Wright responded by mid-April the next year with a master plan of great conceptual power and flexibility. It is a design that furthers the inventions of the Pittsfield project while simplifying the complex strategy of opposites we found there. The group was excited with Wright's vision for their site and wrote to him saying, "We are overwhelmed with the concept of your proposed development of our land - it is the stuff dreams are made of." The plan he provided shows a range of some forty two possible home sites, each described within a dotted circle just under 3/4 of an acre in size, or some 200' in diameter (Figure 5.1). Wright provided footprints of possible houses within each of these lots to suggest both the scale and possibilities of usage. The sites were strung together by an elaborately twisting maze of roadways carefully curving around each circular lot. These circles, which appear to be rather evenly distributed

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12 Curtis Meyer to Wright, 4/17/47.
across the site, are largely coordinated by a suppressed square planning grid. For the most part these lots are rigidly lined up according to a square planning grid. This grid follows the N-S coordinates of the dominant property boundaries. The lots cluster to the west, or front, and to the south sides of the property.

The roadway takes in serpentine loops, snaking around and between the perimeters of the lots. Apparently in an effort to keep it's path from impinging on the area allotted to each individual, Wright moved many of the circles along, even off, the grid when necessary for clearance so that the relationships of circles to one another are inexact.

In the low areas along the north Wright shows a sequence of dams containing the spring waters in a succession of four ponds. These ponds are enclosed by curving dams each representing a segment of an arc drawn outward and down the hill from a common center point. Along the ponds and between them and the house sites Wright shows a strong linear sweep of a vegetable patch and an orchard in the mouth of the 'ravine.' To the extreme rear Wright let the forest prevail but not without intruding under its canopy with parts of three lots and at least one household.

Within the field of forty-two lots shown on this plan Wright provided for the possibility of selection in a most interesting manner. He suggested the possibility of choice among the large number by tying most of them together into groups of two and three (Figures 5.2 & 5.3). There are seventeen of these conjunctures, suggesting that an owner might pick one or the other thereby providing for a greater amount of privacy than a first look at the site plan might indicate. While the plan portrays an evenly packed array, the final community would have followed a much more freely arranged and open pattern. This would also allow the members to make clusters or small sub-neighborhoods of two to three houses if they wished within the plan. All in all this plan exhibits a great amount of flexibility governed by a strong design hand - a remarkable intellectual achievement (Figures 5.4, 5.5 & 5.6).

Wright described this plan in a letter to the Parkwyn Village group, whose planning was just behind the one for Galesburg on Wright’s schedule:

The Galesburg folk had priority over the Parkwyn people by several months. Their plot employs the same scheme of subdivision as yours - - - only three lots can go as one.

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13 This partial arc dam motif became a common one for Wright - see the Bailleres project, for example. Also note that these dams are counter logical. Structurally they should turn the opposite way, but like the overblown and inefficient hearths of the Prairie houses here he has distorted a familiar form for symbolic reasons.

14 This center point also lay on the planning grid.

15 The trees in the first drawing lie on an enormous subordinate grid of some fifty feet between trees. This is a breakdown grid which conforms to the lesser Parkwyn planning grid.

16 Note the small circles drawn over the meeting of the lots: B2 and D2, for example, or G11 and G13, or the small circle between lots F5, F7 and H6.

17 Wright learned to keep the control offered by the use of strong geometries while suppressing them in favor of an enhanced perception of the natural qualities of the site. This is to say that to some extent one's perception of the natural quality of the site is a created product of this design.
It is the original idea I used for Pittsfield, Massachusetts and I think it is far ahead of the established surveyors' division.

The public domain is characterized by low under-growth planting becoming to the region and on each site productivity is promoted by the character of the topography, placing or building accordingly, etc., etc. I believe many good features appear as a result of no lot line touching each other.

The low planting on the public domain makes a charming pattern over the whole.

Trees should be confined to the building lots and planted according to each building.18

The Galesburg project was described in a joint promotional flyer with the following text:

The Galesburg Country Homes Association, a non-profit corporation, has purchased a land site, "The Acres." This consists of seventy-one acres of high, rolling land with a good distribution of large trees, deciduous and evergreens. The attractiveness of the land is enhanced by a spring-fed stream and fifteen acres of woodland. The surrounding woods and neighboring hills supply many beautiful vistas. The site, bordered on the south by Edgewood Orchards, is located south and slightly west of Galesburg and is a seven minute drive from the shopping center. It is accessible to Kalamazoo by any of three routes and is twenty minutes distant from the downtown district. The development is in the Galesburg Consolidated School district and will be serviced at the entrance by a school bus.

The land-plan has been designed for twenty-one home sites of approximately one-acre, each of great natural beauty. The remaining fifty acres is owned in common by the Association and offers ample opportunity for orchards and gardens. The projected dam for the stream offers facilities for swimming and fishing.

The membership will be limited to twenty-one families and the final approximate cost of the land development, including the individual sites, will be one-thousand dollars per family. . . .19

18 Wright to Robert Levin of Parkwyn Village, 4/10/47.
19 Promotional flyer provided by Mrs. Helen McCartney.
PART THREE / Chapter Five

The First Galesburg plan

Wright’s initial studies for the Galesburg site (4828.002) appear to have been drawn directly onto the topographic map received from a Michigan land surveyor (Figure 5.8). Following his comments to Clark Foreman on the design of the Cloverleaf project this act seems appropriate. Wright had written to Foreman, "... it is my habit to draw nothing until I have the topography of the site definitely in hand as the basis of the work."20 The surveyor’s print upon which the Galesburg idea first took shape carries a date of November 1946. His work on this master plan then was necessarily done after that date. In a fashion typical of their practice the surveyor’s topo map utilized an orthogonal grid of 100’ to organize the surveying of the overall site (Figure 5.8). This grid of 100’ squares was included on the print sent from the surveyor. Wright used this grid as the basis of his layout of the individual house lots. This grid was labeled by the surveyor with numbers in the east-west direction and letters along the north-south county road which forms the easternmost boundary to the site. The drawing is done at a scale of 1" = 50’ - 0”.

The grid line numbering system begins along the southern boundary with line "1" at the easternmost corner and continues every 100’ to the forested portion of the site to the west. The lettered lines also begin in this SW corner with line "A" as the southernmost site boundary and continue every 100’ to line "N" which is less than 100’ from the northern boundary. On this grid Wright has laid out a network of individual circular lots 200’ in diameter using it as a reference. This means that, conceptually, each of his circles occupies a portion of four grid squares and traces, at a larger size, the same diagram found as the basis for the Ardmore “Suntop” and “Cloverleaf” building plans. These 200’ lots are 74% of an acre in size.21

The initial surveyor’s print was drawn with titles to be correctly read when the sheet was oriented lengthwise, with north up. Wright reoriented the sheet when he began to work on it so that the county road which had run along the left-hand side of the surveyor’s drawing would be at the bottom of the sheet. This new vertical format placed the entry to the site from the county road at the bottom with the gravel roadway running climbing up into the drawing. The circular lots are labeled from 1 to 43 in graphite pencil beginning with the lot on the intersection of lines 2/N at the lower left of the site area, or in other words the northwest corner. The numbers given to each lot work their way up to the upper right, the southeast

20 Wright to Foreman, 12/1/41.
21 They enclose some 31,416 square feet versus 43,560 square feet to an acre.
corner. Lot number 5 has been erased to allow for the entry into the site from the county road. The surveyor's topo map indicates a pre-existing entry drive leading into the site from the county road at this point. There is an indication of a squarish sign with fountain and seat at this entry. Wright vigorously colored the area immediately around the entry in a crimson pencil to indicate a low shrub or flowering bush of some kind. The roadbed surface was intended to be gravel.

There are small numbers written on the background area between the lot circles in a red or terra cotta colored pencil which are meant to indicate the possibility of lot selection, where, as Wright explained, "three lots can go as one" (Figure 5.3) Some of the lots, such as 1, 29, 33, 41, 42 and 43, are not included in this selection process. These selection possibilities are numbered 1-15 with no #8 and two #10s. On this drawing these small numbers associate groups of two and three lots for choices. There is a terra cotta pencil number (5 or 6) scribbled over between a group of four lots near the southwest corner, lots 8, 9, 16 and 17. Selection number 5 was re-written between lots 8 & 9, and number 6 between lots 16 & 17. This indicates that in at least this one spot Wright considered a selection among a group of four lots, and that this possibility was reworked as two choices between two lots each.

The gravel roadway twists and winds around the circular lots in a random pattern. In many cases the lot locations have been shifted along grid lines to allow clearance for this roadway. In this way the road would not generally impinge upon the perfect circle allotted to each individual home owner. Most of the centers of the circular lots were drawn precisely at intersections of the surveyor's NS/EW grid lines. This would have made the lots locations rather simple to position in the field. Several of the lots however have been shifted along the grid lines: 14, 28, 29, 36, 38, 39 & 40. Lots 41, 42 & 43 are not centered on lines at all, but rather shift purely in response to the roadway location. The roadway itself is twisted to avoid crossing over an individual's allotment. The roadway is indicated at no more that 12' in width and there is only one double section, perhaps to allow cars to pass one another. There is no indication of a preferred direction of travel along these twisting gravel paths, although it appears that the right side of this central feature would have been used as an "in lane," with the left side as the "exit lane." As it loops and dips around the circular lots, this roadway gathers larger groups of lots into sub-groupings of no apparent significance. Lots 9, 14, 15, 19 & 20 make up such a sub-group. These lots involve two selection possibilities however. Only lots 11, 12 & 13 define a sub-group which is also one of the selection possibilities demarcated by the little terra cotta numbers.22

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22 There are nine to ten of these sub-groups depending on how they are counted. (There is also a series of numbers with small circles drawn around them and with arrows attached. The significance of these is not apparent. They could perhaps indicate good or desired vistas by property owners. These numbers run roughly from 1 through 27 and appear in very loose groups.)
There are three house lots which lie to the north beyond the gravel roadway. One of these is lot #1 at the far northwest corner of the site. It is isolated and is not involved in the selection process. The second lot is #31 which overlooks the lakes and common garden area. This lot is not involved in the selection process either. Unlike Lot #1, this one is placed in a prime location, one might say even ideal location. The house footprint indicated here is one of several which shows the use of a circular stylobate not unlike those in the "Cloverleaf" project. The third lot, #41, is tied by selection to #42.

The individual circular lots are not consistently centered on the same surveyor grid lines (Figure 5.8). Rather, Wright placed one or two on a line and then jumped to another adjacent line so that monotony was avoided while each of the southern and western edges are filled with house lots. This pattern of jumping lines occurs in both the NS and the EW directions so that while the plan would have been relatively easy to lay out it would not have been monotonous.

There is a note written in graphite pencil, perhaps by one of the original property owners, suggesting a "contemplated dam" along the northern edge of the site. Here Wright has shown a sequence of four partial circular dams. These dams are each formed by a part of a circular arc and all share a common center point. Wright has shown an orchard in the mouth of the 'ravine' made up of widely spaced trees shown with a spacing of fifty feet between trees. This orchard is laid out according to the NS/EW orientation of the property lines and county road. The trees were to be planted on the 100' surveyor's grid with additional lines added between these in each direction to give the 50' spacing. There is also a line of cultivated plants indicated in a communal garden running diagonally along the north facing slope above the dammed ponds. This garden feature and the orientation of many of the house footprints mark the only presence of the 30° alternate grid which figured so prominently in some of the earlier projects discussed above.

Wright provided a key to the color scheme used on this study in a note in the lower right corner of the sheet (given his reorientation of 4828.002). This note reads:

Green - Community planting requiring no upkeep.
Red - roads and (entrance ?) feature
Private ownerships uncolored
Lakes - orchards vineyards vegetable gardens allotted as desired or held in common.
Entrance (unreadable word) - low stone walls - seats and fountain.

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23 There is one variation at lot 29 along the southern edge.
24 One should note here that these dams are counter logical. Such a circular form would make an efficient dam form if drawn the other way around so that the force of the enclosed water would act to compress, and hence strengthen, the form. Here just the opposite happens, the force of gravity on the water held by each dam would have acted in tension on the dam itself.
This rough study was redrawn as a presentation quality plan (Figure 5.1). While the rendered version is dated March 27, 1947, correspondence from the group suggests it was not received until mid to late April. This drawing is rendered in light brown ink with a wide variety of colored pencil colors. The edges of the circular lots are indicated with loose and discontinuous lines of light brown ink. This is the same graphic convention used to indicate low shrub masses between lots, and refers to the fact that Wright intended the interstitial spaces to be planted with low native shrubs. The edges of these interstitial shrub masses would then have been the only visible indications of the otherwise perfect geometrical circle of each home owner. The area within each circular lot is left with a white or uncolored background. The lot numbering order is changed slightly from the earlier study, as are the site selection numbers. The concept is the same.

Interstitial areas between circles are rendered with a light green background color and then specific shrub and tree groupings are designated throughout the plan. These vary greatly as they seem to indicate a wide array of planting types ranging from larger shrubs to groupings of small trees. All of these plantings are colored with varying shades of green from a yellowish hue to darker 'forest greens.' In several of the smaller interspaces, lines resembling the planting patterns in the Cloverleaf project 'petals' are shown.

Topographic contour lines drawn in light brown ink meander through this pattern of circles with barely enough continuity to enable one to establish the lay of the land. The shape of the land within each owner's lot can be determined clearly, but any broader view of the larger landforms is difficult to establish from this drawing.

Existing hardwoods are indicated on the westernmost third of the site by the use of even circles just under 50' in diameter. Trunks are shown in ink but not in poché. The tree canopy is again indicated by a dotted circular line. Here the area within this canopy has been colored with a darker shade of green. These trees are shown loosely distributed across the rolling landscape in a way which introduces another layer of pattern in circles to the drama of lot and interstitial area beneath. For the most part the existing trees are shown located within circular lot designations. Where a tree canopy crosses into, or where the entire tree is found within, an interstitial shrub mass, its canopy is colored with an even darker shade of green. This means that while the tree locations are clearly indicated, they never interfere with one's reading of the pattern of the lots on the ground. The edges of an owner's circle are not disrupted.

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25 Site choice possibilities are numbered in this drawing as #1 (4 or 10); #2 (2 or 3); #3 (11 or 12); #4 (5 or 6); #5 (7 or 8); #6 (16 or 17); #7 (9, 14 or 15); #8 (21, 22 or 23); #9 (19 or 20); #10 (18 or 26); #11 (25, 26 or 29); #12 (24 or 30); #13 (32 or 40); #14 (33 or 39); #15 (34 or 35); #16 (36 or 37); #17 (41 or 42). Lots 1, 13, 31 & 38 are not involved in such choices. This appears to have to do with the geometry of the plan and the isolation by road or position in each case.

26 The lines here indicate every two feet elevation change.
The gravel roadway is represented by a smoothly flowing tan line of relatively even width. This roadway meanders through the network of circles holding close to one circle's edge for a while and then letting go only to attach itself to another as it arcs around individual lots. The roadway appears as another layer of pattern in this drawing, one which is dependent on an earlier set of decisions about lot placement. At its entry point onto the site the roadway widens as several branches are pulled together in such a way as to allow a center piece of plantings, fountain and seating. At this entry point the roadway is surrounded by an area of flowering shrubs which act to anchor its otherwise meandering path to the straight line of the county road at the bottom of the sheet.

To this symphony of representational forms Wright has added a variety of orthogonal shapes indicating footprints of individual houses, each turned this way or that to take advantage of the unique features to be found in its own little circle on the land.

The circular form of the four dams remains. Here Wright shows even lines presumably representing concrete retaining walls arcing around enclosed lakes to form a cascading sequence of pools. The flat surface of these pools would have provided a unique formal referent here. The upper pool projects westward down the small valley in a triangular shaped wedge suggesting directionality. The other three pools then expand outward and down from there. Their forms only partially emerging from the hillsides.

The orchard still appears in the bottom end of the 'ravine.' It's regularity provides a comment on the apparent irregularity of the placement of the house lots when viewed from the ground level. A sense of the randomness of the house lots would have only been increased by the lack of consistent vantage or geometric reference one would have experienced along the roadway. The orchard would have been the only feature to scribe the otherwise suppressed orthogonal grid into one's experience of the ground.

An extensive and carefully lettered note in the lower left corner of this presentation sheet (Figure 5.1) reads:

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27 The school bus was to stop at this spot to pick up children waiting to be carried into town each morning.
28 One is reminded here of F. L. Omlstead's plan for Riverside, Ill. which included the railway as the only significant straight line in an otherwise picturesque suburban plan.
29 Not all of these are orthogonal, but this conceit dominates convincingly. The easternmost house footprint has been tucked under the edge of the existing forest canopy. In fact, part of it's footprint lies outside of the extension of the partial circular lot definition. This is the only time a house oversteps the lot definition in any of the Galesburg plans.
30 Note the similarity of this orchard and that in the Usonia I plan in terms of its role in revealing an otherwise suppressed planning grid.
Each and all private holdings the same size and outline but greatly varied in aspect or accent of topography.

Individual sites therefore have extreme individuality without impinging upon or being in contact with other private holdings. Certain restrictions concerning inter-space held in common should be agreed upon by all holders of individual sites. Each site is approximately an acre of ground with continuous and inviolate free space "thrown in."

The scheme of allotment here submitted is democratic in basis in order that great individuality may ensue.

Enriching the whole while preserving individual privacy and freedom.

The sites may be subdivided on the basis of two or three to the individual if as originally desired.  

**Summary of Inventions in First Galesburg Plan**

In the Galesburg plan Wright has again overlaid circles and a square planning grid. These two forms were not used equally, for here the grid was used as a regulating mechanism by which to coordinate the layout of the circular lots across the site. Its use would have greatly facilitated the actual process of locating each circle’s center in the field. Perceptually this grid is 'backgrounded' so that one is not aware of its presence. This occurs not only in the two dimensional plan, but would have been even more the case in the field. In the plan one reads only the dense clustering of circles, even the logic of their positioning is not clear due to the way in which they have been shifted slightly this way and that to accommodate the road. At first glance there seems to be no apparent order. The seemingly random placement of the roadway itself adds to one's inability to perceive regular or geometric order in the plan. An appearance of strict regularity in a plan which so determinedly followed the surveyor's grid was avoided by the apparent accommodation of this roadway. The motion of this roadway helps to develop a sense of the informality of the whole.

Wright's decision to use closely packed circles introduced the network of interspaces as a given result. He chose to emphasize this background layer by a relatively uniform planting strategy which would have given the interspaces a powerful presence. The land contained within this interspace network was to be commonly held. With the possibility of choice among groups of two and three lots, it is not clear who would be responsible for the land occupied by the unchosen lots. Without direct evidence, I assume that this land too would have been commonly held. Such an arrangement would have greatly increased the amount of communal property. The possibility of such choice as was introduced here is not typical of Wright's work.

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31 This note also appears in handwritten form on the study plan (4828.002).
It would have allowed a great amount of flexibility and room for individual participation but would have done so without compromising his design.

The small gravel roadway continuously arcs its way around the edges of the circular lots in a manner which would have seemed even more random on the ground than it does in the master plan drawings. With the possibility of lot selection realized, this roadway would not have twisted around lot edges at every turn; rather many, if not most, of its turns would not have appeared to express any preconceived planning logic. It would seem to hop rather randomly across the land.

The act of tying the orchard to the regulating lines of the house lot pattern suggests some kind of correspondence between these otherwise apparently unrelated forms.

The interspace plantings are shown continuous in a layer across the broad area of the site occupied by the circular lots. Several of these lots are not completely surrounded by this planting layer however. These are all located along the northern edge of the group. Most ride the crest of the hills and face out over the lower ground to the north. At least one such lot, #13, is located in the low ground at the mouth of the 'ravine.' Most of these only partially surrounded lots are wrapped by the thin roadway as it winds in and out along the crest of the central hill. Two lots, #31 and #41, lie to the north of the roadway and are barely held by the interspace planting layer at all. Of these, #31 stands alone as the only lot not defined by shrub masses and not part of one of the selections possibilities. It seems to be featured as a prime site on its own. This #31 also exhibits Wright's suggestion of a stylobate associated with the house footprint he provided.

Here Wright has again combined circle and square as he did in the Cloverleaf and Circle Pines master plans. The two forms are used broadly and they are again superimposed - as they were in the Pittsfield plan. But this superimposition is not apparent here. And further, the two forms are used in such a way that the square planning grid largely determines locations of the circular lots. The grid is entirely suppressed, while the form of each circle is strongly emphasized. In the Cloverleaf plan we saw Wright use the stylobate circles as emblems of subgroup unity, and the petal circles, partial due to their subservience to this stylobate, were used to establish a private exterior space for each individual family. At Circle Pines the circles were used in a clearly symbolic manner, one dotted around each cottage alone in the woods. And, there as well, the circle was distinguished from rectilinear forms as able to stand on its own. The rectangles were merged together in that plan; we only derive or intuit a larger orthogonal reference grid from their repetition. The circles each stand alone, sufficient unto themselves for the most part. The two communal circles at Circle Pines were treated as destinations, or culminations.
Here in this first Galesburg plan Wright's use of the circle has been developed even farther. One circle for one property owner in an otherwise communal grouping. Each circle stands on its own, uncompromised either by its neighbors or by the conditions of its planning and placement. Each is defined only by the layer of native interspace plantings. Each has become the home for a single family dwelling. The rising and the falling of the land is clearly revealed only within each family's circle. Once within each circle, this form would assume priority, especially after the selection process had limited adjacencies. The open space would be read as a positive figure to the edge of the interspace shrub layer. When following the rolling hillsides it would be this interspace layer which dominated one's perception, not as an object as in one's first view of the Cloverleaf buildings, but as a continuous naturally appearing layer of native plant materials. This subject/object shift builds on that of the Cloverleaf project. But it does so in a way that involves a much more subtle alignment of feelings about natural and man-made forms. The symbolism of the Circle Pines plan provides one vehicle for this further step in design richness.

In the plan, circle and square are developed as an armature upon which Wright staked out the relationship of natural to man made, of subject to object in nature, and, significantly, the relationship of individual to group definition.

**Critique of the First plan**

The Galesburg group was enthralled with the ideas suggested in the plan even if they had several quarrels with the specifics. In a letter to Wright, Curtis Meyer reiterated his concern for the length and expense of roadway, asking that these be kept to a minimum. The length of roadway involved in this plan was overly extensive, wrapping around the northern side as it does and winding through the woods, it resembles a camp or hiking trail more than a conventional roadway. Meyer reminded Wright of their desire to limit the project to fifteen families located primarily in the front portion of their site. The individual sites, they had hoped, would be about one acre each in size.

Locating the lots in a cluster to the front of the site, Meyer observed in his letter, would also reduce the cost of utility lines as well. He also noted that the orchard was located in low, even marshy ground. In the interim, the group had received pre-ordered fruit trees and planted them in an area labeled 8.5 -10 x G-I on this plan. This was on the crest of a fine hill overlooking both the ponds and the "ravine."

In this letter Meyer notes that sites 8, 9, 10, 11, and 12 are the "choice plats." These run in the second line in from the western roadway (4B, 4D, 4H, 4J, and 4H). Sites 17 and 18 the third

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32 Curtis Meyer to Wright, 5/17/1947.
and fourth along the southern edge (B6 and B8) are noted as wonderful but for the woods to the south which he suggested might limit air circulation in summer. Those along the edge of the ridge to the north overlooking the ponds would have good views but had no existing trees and were somewhat isolated, requiring much additional roadway. The four lots along the road north of the entry are deemed "too hot" - meaning that the adjacent woods cut off summer breezes.33

Curtis Meyer's letter of response from the group to Wright upon receiving their first site plan reads as follows:

We are overwhelmed with the concept of your proposed development of our land -- it is the stuff dreams are made of.

You will remember that our group consists of five families, four of whom desire Wright homes; that we do not wish to expand beyond ten of fifteen families; that we want our homesites to be about an acre each and that it is desirable for the sites to be located in the front portion of the tract. We note that you have provided for fusion of areas to give 17 large plots but we feel this would not be as satisfactory as the small plots. As far as the rest of our land, aside from common orchard and garden sites we would like it developed as woods and meadows, ponds and stream with provision for possible tennis courts and playground etc. -- a recreational area and spot of natural beauty for ourselves and children -- in short a semi-rural rather than suburban development.

Both by inclination as well as because of financial reasons, we desire to do much of the physical work of the development ourselves and consequently the completion of the entire work will stretch over an indefinite number of years. Indeed, we would like to do as much as possible on the homes ourselves, but realize that the sooner these are located and built, the sooner will we be able to enjoy the full benefits of a cooperative effort on our land.

Roadways are now so terribly expensive that we are forced to ask for a minimum of road commensurate with beauty and utility; also we must keep in mind the problem of snow clearance over an extensive network of roads. We feel that it is desirable to locate the sites in the front portion of the land primarily to minimize the roads and utility wires and also because most of the large trees, excluding the woods, grow in this area.

The idea of the triple pond of varying depths has captured us all. We wonder, however, if our stream can compensate for the enormous evaporation from so large a surface area. In Spring the flow is abundant and although in a dry summer the stream does not dry up since it is spring-fed, still it does shrink to about 12 inches in width and six inches in depth. What would you think of earthen dams with living willows and perhaps logs for a binder?

We are particularly anxious that part of the stream where it enters our land and flows through the woods be retained and one of the ponds be deep enough for swimming and for maintaining fish.

From the standpoint of the present plan the choice plats are 8, 9, 10, 11, 12 and 16. Seventeen and 18 are wonderful spots except for the disadvantage of the woods to the south; these sites are not ruled out, however. The view west through the black oak might be better than from 17's present location.

Twenty-three, 24, and 25 have choice views but require considerable road and have no trees. Two, 3, 4, and 5 are good sites but tend to be hot in summer. 3-E (our map

33 Lot #5 is deleted for entry but seems to have been erased. Could there have been an earlier idea to have two smaller entry roads on either side of #5 before it was taken out. If that is the case then the double entry makes this plan even closer to the Pittsfield project!
coordinates) might be better for 5. Thirteen and 15 are less interesting, being in the depression.

We approve heartily of the circular plots. While we do not feel that we have yet grasped all the subtleties [sic] which have been worked into this design, we do appreciate that advantages that have been taken of the contours and the inter-relationship of the houses with each other, the view and the immediate natural growths and we do not want to lose any of their worth. Still, I at least, feel that with fewer sites, even greater fluidity can be realized and in a few cases better advantage taken of the trees.

Perhaps by an oversight the orchard is located in the marshy lowlands. The danger of damaging frosts in our locality is such as to mitigate against such a location. Inasmuch as our fruit trees have already arrived, we have planted them on the plateau area located on our map as 8.5 - 10 x G - I, as a spot with good drainage and minimum erosion and frost hazard. Also the orchard will be visible from a number of the homesites. If this location does not meet with your approval, we can transplant the trees to some other favorable spot.

In short we would be highly gratified if you should work out the same sort of plan as your present one, confining the projected fifteen sites of one acre each to the front area and developing the rest of the land as suggested in this letter. We deeply regret if any misunderstanding has occurred.34

There is a post script on this letter which reads:

The idea of keeping the group small perhaps should elaborated. We believe we are an exceptionally homogeneous one which would prefer to remain at its present size if we can "swing it" financially. If five more would permit us to have some of the things we want, alright, and if fifteen are necessary, we would go that far, but that is the limit.35

The record of Wright's involvement with the Galesburg site and the individual owners for whom he designed houses is a long one.

34 Curtis Meyer to Wright, 5/17/1947.
35 ibid. After this there are numerous records of correspondence concerning the group and the arrangements of the individual members with Wright. As was the case with Otto Mallery and the Ardmore Experiment, these clients became embroiled in a contract and fee debate with Wright which prompted them to spell out terms for service and payment explicitly. See Lillian Meyer to Wright 8/14/47 and 8/23/47. These disagreement were due in part to a lack of firm contractual agreements from the start.
PART THREE / Chapter Five

3 - Analysis of Master Plan II

The Second Scheme for Galesburg

Wright responded to the concerns expressed in Meyer’s letter by greatly altering the plan. In the second scheme he reduced the number of plots to twenty-one. He did away with the idea of pairs for selection while making the individual lots larger - some 218 feet in diameter, just a bit less than a full acre. These changes greatly simplified the pattern as all of the lots now clung to the western and southern sides of the site (Figure 5.10). The second scheme is much closer in form to the classic American picturesque subdivisions of the late 19th century.

There are two drawings in the Taliesin Archives which describe this second scheme. The most descriptive of these is a rendered presentation site plan (4828.003) dated September 1, 1947 (Figure 5.10). There is also a slight drawing (4828.004) which appears to be an earlier, abandoned, version of this presentation drawing (Figure 5.13). This incomplete drawing does not present any information not contained in the presentation plan of the second scheme.

In this plan Wright has greatly reduced the number of circular lots while increasing the size of each slightly. From the 200’ diameter determined by his use of the surveyor’s grid in the first scheme he has increased the lots to 228’ in diameter. This makes each lot more approximately a full acre in enclosed area. There was to be at least a 3’ clearance between lots in this scheme. This is one aspect of the second plan which does away with the figure/ground shift I have mentioned. The roadway was made a bit wider now and was conceived for two-way traffic. There is a much thinner automobile pathway shown snaking around the big hill to the north giving vehicular access to the ponds, the garden.

The roadway, as before, enters the site on the most level portion. It digs into the cover of vegetation before dipping through the central ravine. After climbing onto the plateau it darts briefly out through the open field before finally reaching a spring just beyond the top of the hill. From here it would have narrowed to the smaller scale of a driveway to reach the two

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36 The analogy of the tree or vine in the last description is even stronger here when viewed with the western edge down. The trunk swelling out of the roadway and cradling the circular lots in its rising branches.
37 This plan drawing also carries the somewhat contradictory note "Revised Aug. 1, 1947."
38 I have not been able to locate any record of study drawings for this second Galesburg scheme.
39 See hand lettered note on drawing #4828.003. (An acre is 43,560 square feet. A circle which enclosed a full acre would have a diameter of 235’ - 6." None of Wright’s lots ever reached this size. The first Galesburg plan with circular lots of 200’ diameter enclosed only 72% of an acre. The second Galesburg scheme with lots of 228 diameter enclosed 94% of an acre, in spite of the fact that Wright wrote of these circles as full acres.)
40 By combining these two dimensions, 218’ + 3’ to get a dimension of 221’ between adjacent lot centers, we get a dimension which is rather irregular and was not used to establish any sort of measured grid, etc.
easternmost house sites in the forest beyond. He has re-drawn the orchard reflecting the position the trees had been planted by the group before receiving any plans.41

The plan shows all of the lots within the cover of vegetation in contrast to the open lands to the center and northern edges. The house lots here reach further back into the eastern woods.

Wright took advantage of the small spring on the site to create a circular water feature—here fed by a natural element.42 The successive dams below remain as they were before. The only change is a realignment of the straight edges of the upper dam to conform to the 30° angle shift established by the garden planting on the hillside above.

This increase in the size of the lots meant that the surveyor's grid was no longer useful in positioning lots on the drawing (Figures 5.11 & 5.12). The locational strategy here is simpler, although not as straightforward to lay out in the field. It appears that lots were strung along the southern site boundary as the first location decision. This row contains eight lots. A partial second row of lots were then positioned between and above the first row. This second row contains seven lots. The exact positioning of these was not regulated by something as orderly as a straight property line. Rather they were located with reference to the lots in the first row while being shifted slightly in various directions to allow for an intervening roadway. There is a third partial row of only three lots loosely located similarly. Three other circular lots were positioned near the county road on the western boundary. These were held back from the property line in a stepped pattern reflecting the positioning of the lots at the western ends of the first two rows. The layout here appears to reflect more of a study of the topography as we will describe below.

The 100' surveyor's grid line reference numbers and letters were included on this presentation plan even though this time they were not used to lay out the plan. The lines themselves are not drawn on the plan.43

The circular lots are drawn on the plan differently than they were in the first drawing (Figures 5.12 & 4.11). Here a uniform light dotted ink line was used to delineate each lot's perimeter, just as was the case with the Circle Pines cottages. Shrubs in the interspaces are shown rendered in color pencil as before, but this time there is no blending of the rendering of lot edge and interspace shrub. Two distinct graphic symbols are used. This simple distinction represents a crucial change in the concept of the plan.

Contour lines are drawn as before with a dotted ink line. Due to the absence of tree canopies in this drawing, the lay of the land these contour lines represent is much easier to understand as a whole than it was in the drawing of the first scheme. Existing tree locations are indicated by

41 As far as I have been able to tell they never did re-locate the trees already planted.
42 The form of this feature is not unlike the circular pool in the exedra at the Barnsdall House in Los Angeles.
43 These lines representing the surveyor's layout grid were not drawn on the first presentation plan either, while the numbered and lettered reference marks were.
small solid circles showing trunk locations but giving no other information. The result of this is that one does not get from this drawing the same sense of multiple layers of graphic information as from the first. 44

The roadway here is noted as 18' in width with a right of way of 40'. The entry area is simplified and gives way to a single large trunk-like feeder drive. There are four smaller branches which turn off of this central trunk to reach groups of individual drives serving single circular lots.

The most obvious difference between this plan and the first one is the number of individual lots offered. There are quite a bit fewer lots here than before. By doing away with the selection possibility he drew a more conventional plan, one which appears finalized in its initial form: twenty-one lots versus the forty-two of the previous scheme. 45 This fact, along with the different manner of locating the lots give this plan a very different visual character than the previous one. Its ordering system is more easily understood from a glance at the plan. It would have also been much more easily understood in the field had the planting strategy been more thoroughly followed through. 46 The lots are clustered along the southern edge of the site on the highest ground. In this way they divide the site into two essential parts. One high containing the house lots and the other low containing the ponds and common plantings of orchard and garden. A note on the presentation plan (4828.003) indicates again that Wright intended to add to the natural planting by adding a layer of interspace shrubs: "Common land to be preserved in natural state, except between lines 9 & 20, where some informal planting may be necessary." 47 Here these were intended to be added especially between site lines 9 and 20. This is the middle third of the site, largely occupied by the central hilltop. It is the area which had no existing tree cover and so it is not surprising that Wright chose to augment the planting in this area.

Here Wright has clearly shown the extent of the interspace planting. It reflects more strongly this idea of a two-part division of the site. The interspace plantings are shown fully across the southern property line from the road in the west to the forest in the east. This layer of interspace planting does not extend uniformly beyond the lots to the north. This means that it does not surround all of the lots. The northernmost lots, those facing the mouth of the ravine and looking out over the central rise toward the ponds, are not surrounded by this planting layer. The interspace plantings only engage the southern sides of these lots. At one crucial spot just as the roadway crosses its highest point on the central hilltop, the interspace planting

44 I have found no record of a site survey giving exact tree locations as a foundation for either of the Galesburg site plans.
45 Why this number is more than the seventeen asked for is not explained.
46 The deviation of the actual planting and maintenance from Wright's intentions should also be explained in more detail.
47 See hand lettered notes on drawing #4828.003.
layer is held back so that the open, unplanted ground of the northern site areas crosses the road. In fact, at this point the central hill rises before the roadway so that it is higher to the north for a brief moment as one drives through. This simple gesture would help to create a sense of a much more richly cast opposition of high/protected to low/exposed in the existing landscape. The plantings enclosing the main roadway would have opened up to reveal the otherwise hidden communal space. At two other spots the road location would have revealed views over this communal area. One of these is just before the spot just described, as the central road takes its first right turn, swinging around lot #8. The other occurs along the first lesser branch to the left as an approach to the only two lots overlooking the orchard.

This distinction between high ground to the south and low ground to the north is reflected by the location of the roadway. This roadway runs west to east. All of the lots to the south are fully surrounded by the interspace plantings. In contrast, virtually all of the lots to the north of the road are not completely surrounded. At least five of these are engaged over less than half of their circumference. This is a strategy providing protected lots along the high ground and lots exposed to views over the lower landscape to the north. Further, there is a thin, automobile-accessible, pathway which loops back around from near the end of the central trunk to near the beginning. This roadway, and the central hilltop it helps to define, work with the orchard, garden and pond locations to suggest a polarized space across the site from north to south.

This second site plan, while not as geometrically layered as the first, responds to the specifics of the existing topography in a much more involved way (Figure 5.10). The thin pathway branches off of the central roadway just at the low spot in the 'ravine.' In the sequence of entering the site one would have been quickly engulfed by the individual and interspace planting along the beginning of the central roadway. At this low spot, an opening in the cover of plantings would have lead off down the heart of the 'ravine' in a way clearly distinct from the main roadway. This little pathway would have soon begun to climb up the face of the central hill to ride the crest above the orchard, gardens and ponds in the wider valley below.

Two of the lots however have been placed squarely within the center of the 'ravine' to the right of the central roadway. These places do not seem as desirable as those which ride a hillside. It appears that while many of the lot locations in the second scheme have been placed so that they take advantage of specific vantage points in the topographic map, there are some which do not. In the case of the two lots in the 'ravine' it appears that Wright merely followed the geometry of his locational strategy, accepting this kind of contingency (Figures 5.13 & 5.14).
It should be noted that in this plan Wright has placed two lots well under the canopy of the eastern forest, beyond the limits covered in the surveyor's topographic map. In actual execution the roadway was not extended this far and stops after climbing out of the 'ravine,' just past the Weisblat house on lot #9.

The central trunk of the roadway ends just before reaching the edge of the forest on the eastern third of the property. Here Wright has located a formal fountain of circular shape at the spot where a pre-existing spring broke through the ground to feed the circularly contained ponds below. This feature resembles the ritual circle of the Circle Pines plan. It is at this fertile spot that the smaller pathway would have begun its journey along the crest of the central hilltop, eventually, leading back to the 'ravine' and the central trunk of the roadway. While the first Galesburg plan contained a square entry fountain, this second one contains a circular fountain at its heart.

The interspace network has more of a presence in this drawing than in the first scheme. In fact it begins to take on a meaningful interaction with the existing characteristics of the site's topography. As a continuous mass of low native shrubs it has become a figure in its own right, marking the high ground along the property's southern edge. The shape and positioning of this shrub mass no longer follows the strategy for locating circles, but makes its own statement.

As in the Circle Pines plan, Wright has introduced the geometric form of a circle as a ceremonial marker at a crucial place in the plan. Here he has gone further than he did in that previous plan by tying the form of the circle to an actual water source.

The roadway, no longer a network of many interlooping strings, here has taken on a hierarchical pattern which, in plan, greatly resembles the outline of a tree with its branches.

In the division of south as high versus north as low Wright has created a plan as an interpretation of an existing natural situation. He has used the elements of the plan to articulate the natural features of the site and to give them meaning. The meaning he has given these features reflects the aims behind the human development of the property. They reflect the human purpose on this land. He has woven the group's expectations and the site's features together to provide a richly interdependent mixture in which neither the natural or the humanly-added can be clearly separated. One's perceptions of natural features are buoyed, articulated and interpreted by the planning of the group's project. One's experience and understanding of the elements of the plan (the aims of the group's project) are defined by associations with existing natural features.

This second plan is more esthetically beautiful even if the first was more intellectually exciting. While there are strong similarities between the first Galesburg plan and that Wright

48 There was also to be a well dug, with a pump house and pressure tank provided at this spot to augment the natural flow of the existing spring.
49 Again, as he did in the Barnsdall plan.
prepared for Pittsfield, this second Galesburg plan draws more on the figurative dimension of the Circle Pines master plan.

Although the Galesburg group advertised for additional members they never succeeded in attracting more than the original five families. At least one member has stated that in hindsight they have been satisfied with the privacy this has given them. Four of the five houses built in the subdivision were designed by Wright. These were houses for the Eppsteins, the Weisblats, the Pratts, and the Meyers.
PART THREE / Chapter Five

4 - Summary of Inventions in the Galesburg plans

The use of circles rather than squares or polygons guarantees that there will be interstitial spaces between each family’s allotment, no matter how densely these are placed. Given this grouping, whatever choice each individual might make, an even cover of natural growth would remain to define the relationship to nature. But, by suppressing the square grid used to govern the layout and by the random, constantly curving roadway, Wright intensified the ‘dislocating’ character of the tangential approach to a circle. At Pittsfield we saw how the circle’s adirectionality was used as a contrast to the strong orthogonal geometries. Here the circle becomes a positive figure. One is given no hint of an overall geometric armature which might be interpreted as mediating between the individual and his or her perception of the site. As a geometric form, a circle refers only to itself. Unless approached rigidly, on a predetermined axis to the center, a circle’s uniformity deflects any incoming vector. Perception of each family’s location would not appear to have been governed by any pre-conception of formal order. In Wright’s usage this dislocation becomes an emblem of the deference of a concept of community to the relationship of the individual to nature. By guaranteeing individual privacy with the interstitial buffer of community land in this way, one reinforces the viability of both.

The manner in which Wright located the road further demonstrates this aspect of the compacted circles. As the road twists and roams along the hills one is brought into more immediate contact with the natural character of the site as the only cognitively reliable construct. This fact is dramatized by his desire to keep this roadway unpaved and small in size. No geometries of commerce dictating here, no Jeffersonian grid, and no trace of any preconceived civic presence to interfere with the closeness of nature. It is a plan that accomplishes many of the primary objectives Wright stated for the Pittsfield project, and it does so with much less obvious effort, one might say, more poetically.

50 In practical fact the Parkwyn Village subdivision was forced to alter their plans, “squaring” it was called (“conforming”), into polygons to get financing. This interstitial space required some form of communal organization for its upkeep. This doesn’t appear to be Wright’s primary aim however - he never really wrote about this aspect for example. He was approached by several advocates of communal society in the 1940’s but never endorsed the notion publicly. The concerns expressed in a design such as this were for a direct connection of individual to land, and if communal ownership of a subdivision allowed a group of people to gain greater control over their holdings and to avoid the intrusion of the real estate speculator and his geometries of commerce, then so be it.

51 From a personal conversation with Roland Reisley. [A circle, when seen simply as a geometric form, has two primary aspects. There is the constantly curving arc of the circumference which deflects advances from the outside, and which contrasts with the stability of the implied center. In the design for Pittsfield, Wright took each of these aspects as a representation of a possibility of the relation of self to group.]

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While the second design was the one which was partially built, it was the first scheme that Wright chose to publish the following January. And in fact, Wright himself suggested the connection between these designs in the descriptive passages he included with this plan when it was first published. Wright wrote in the *Architectural Forum*:

These subdivisions are in line with that proposed for the unexecuted Pittsfield, Mass. housing scheme. The center of each disk of ground once located by survey and diameter given, any house owner can tell where his lot limits are. No lot line touches another wherever the scheme is perfect. All interspaces are to be planted to some native shrub like barberry, or sumach, throwing a network of color in pattern over the entire tract.\(^5\)\(^2\)

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\(^5\)\(^2\) *Architectural Forum*, January 1948 pp. 84.
Illustrations - Galesburg Country Homes (4828)

FIGURE 5.1 presentation plan first scheme - #4828.001
FIGURE 5.2 detail of Figure 5.1 - #4828.001
FIGURE 5.3 detail of Figure 5.1 - #4828.001
FIGURE 5.4 detail of Figure 5.1 / small circles indicating selections - #4828.001
FIGURE 5.5 (alternative "a" of Figure 5.1 after possible selections over - #4828.001)
FIGURE 5.6 (alternative "b" of Figure 5.1 after possible selections over - #4828.001)
FIGURE 5.7 (alternative "c" of Figure 5.1 after possible selections over - #4828.001)
FIGURE 5.8 layout study of first Galesburg scheme - #4828.002
FIGURE 5.9 (Figure 5.8 with layout lines heightened over #4828.002)
FIGURE 5.10 presentation plan of second Galesburg scheme - #4828.003
FIGURE 5.11 details of presentation plan of second scheme - #4828.003
FIGURE 5.12 details of presentation plan of second scheme - #4828.003
FIGURE 5.13 layout study of second Galesburg scheme - #4828.004
FIGURE 5.14 (Figure 5.10 with layout lines heightened over #4828.003)
FIGURE 5.15 Curtis Meyer House & site plan - #5105.006
FIGURE 5.16 USGS map of Galesburg site area
FIGURE 5.1
presentation plan of first Galesburg scheme
(4282.001)
FIGURE 5.2
detail of presentation plan of first Galesburg scheme
(4282.001)
FIGURE 5.3
detail of presentation plan of first Galesburg scheme
(4282.001)
FIGURE 5.4
detail of presentation plan of first Galesburg scheme
(4282.001)
FIGURE 5.5
alternative version "a" of Figure 5.1 after possible selections
(over 4282.001)
FIGURE 5.6
alternative version "b" of Figure 5.1 after possible selections (over 4282.001)
FIGURE 5.7
alternative version "c" of Figure 5.1 after possible selections
(over 4282.001)
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FIGURE 5.8
Wright's layout study of the first Galesburg scheme
(4282..002)
FIGURE 5.9
Figure 5.8 with layout lines heightened & site numbers emphasized
(over #4828.002)
FIGURE 5.10
presentation plan of second Galesburg scheme
(4828.003)
FIGURE 5.11
detail of presentation plan of second Galesburg scheme
(4828.003)
FIGURE 5.12
detail of presentation plan of second Galesburg scheme
(4828.003)
FIGURE 5.13
Wright's layout study of second Galesburg scheme
(4828.004)
FIGURE 5.14
Figure 5.10 with layout lines heightened
(4828.003)
FIGURE 5.15
Curtis Meyer House & site plan
(5105.006)
FIGURE 5.16
USGS map of Galesburg site area
CHAPTER SIX - THE PARKWYN VILLAGE ASSOCIATION

1 - Chronology & Development

We have seen how the second scheme for Galesburg advanced beyond the initial one, but it wasn't the first to do so. Wright's first plan for the other Kalamazoo group, Parkwyn Village, already suggests something of this direction. After their split with the others, the Parkwyn group began their own planning process with a small number of families. They purchased a forty-seven acre site of rolling treeless meadow on the immediate southern outskirts of town over looking a lovely lake (Figure 6.18). The land was located away from factories, main highways or railroad tracks. There was a 40' to 50' bluff along the western side facing the lake below with views out over a series of lakes. They hoped in time to grow much larger and set about attracting new members aggressively. Unlike the Galesburg situation, here the land had been purchased for an appreciable sum (the land cost them $380 per acre, a price which was reasonable for the time) and they needed the financial input of more members to develop their plot. They asked Wright to provide a site plan of one half acre building lots.

The first contact with Wright by the in-town Kalamazoo group came to Taliesin by mail from the attorney Eric Brown, who served as their first president in early September 1946:

We are a group of families in Kalamazoo who for several years have been interested in organizing a cooperative housing project. We have just purchased a forty-seven acre site in the outskirts of Kalamazoo and we contemplate a project from forty to sixty families, with individual ownership of lots. The lots will be about one-half acre in size with homes ranging in price from $5,000 - to $20,000. There will be a community park and recreation areas, playgrounds, picnic areas, gardens and possibly such developments as tennis courts and a swimming pool, etc. We would like to consider the possibility of other cooperative services such as central heating, water softening and sewage disposal, if practical.

The organization of the project is being carried out by means of a non-profit corporation.

53 Transcript of local Kalamazoo radio interview held over the summer of 1947 with several Parkwyn Village members (undated transcript provided by Mrs. Helen McCartney).
54 Ibid.
55 This plan was drawn before the Usonia Homes plan and helped set the lot size for that later project.
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It is our intention to retain an architect to plan and lay out the project. It is possible that the same architect will later be retained by some of the families to plan individual homes.

If you are able to work with us on this project please advise us as to your basis of compensation. Whether or not you are interested in working with us at this time we would be pleased to receive any suggestions and comments on the project . . . .

Along with Lillian Meyer of the Galesburg group and a few other members of both groups, Eric Brown visited Taliesin to speak with Wright on the fifth of October 1946. In the intervening period between his initial letter and the trip to Taliesin, Brown visited the Goetsch-Winckler House Wright had built some years earlier in Okemos.

By mid-January the Parkwyn group was clarifying their objectives and was still involved in firming their relations with Wright as is noted in the following letter from Robert Levin, the group's secretary and designated correspondent:

. . . Our aim is a membership of approximately forty families who would each own from about one-half to one acre with the remainder of the forty six acres under common ownership. We have at present eight members. As soon as possible we should like to attract new people who are genuinely interested in the success of a cooperative enterprise. The availability of a preliminary sketch of the land plan would help us considerably in this respect. Physical development could then start this summer or fall and the building of houses a year from this spring. However, several of the members would be ready to have house plans started now. While we cannot require that each family in the group have a Wright house, a majority of the original members are so inclined. We feel that the example of your houses on the site will strongly influence new members to have contemporary houses designed for them.

In view of our discussion at Taliesin and correspondence to date we believe the following to be a fair statement of our agreements:

1. Your standard contract fee of ten percent on individual homes will prevail.
2. The complete land-plan for the development will be done by you at no additional charge.
3. General furniture plans for the individual homes will be included at no additional charge.
4. The land-plan will be available this spring (so that our membership can be brought to full strength [sic] as soon as possible)
5. You are to have a personal veto on all non-Wright houses to be erected next to those of your design . . .

A topographic survey was prepared by a local civil engineer by the 7th of January and sent on to Wright. The Kalamazoo newspaper published the first of many articles on the Parkwyn

56 Eric Brown to Wright, 9/5/1946.
57 Eric Brown to Wright, 9/17/46; and Lillian Meyer to Wright, 10/29/46.
58 Robert Levin to Wright January 17, 1947. Note also Wright's reluctance to show either group preliminary plans. The first they saw was a fully rendered plan - the complete idea.
Village project on February 3, 1947 announcing that Frank Lloyd Wright had been asked to design a local cooperative subdivision.  

On April 10, 1947 Wright wrote to Robert Levin in response to a query about the progress of work on their plan, as we noted above, saying, "The Galesburg folk had priority over the Parkwyn people by several months." The group received their first look at Wright's master plan for their project soon after, in mid April of 1947. "We will have maximum privacy since the circular lots will not touch each other . . ." a member of the group exclaimed with a few of his fellows over the summer as they expressed their enthusiasm for Wright's design in a local radio interview: "Our home sites will be more attractive than the usual ones as we plan on having all telephone and electrical wiring underground and the over-all low shrubs will give the appearance of a large continuous park . . ." (Figure 6.1).

The group grew rapidly at first, reaching seventeen members by the end of May 1947. The Parkwyn group made attempts to attract a diverse group of people of various ages and professions and their group soon included salesmen, chemists, doctors, engineers, teachers and a lawyer:

We want people who will be interested in this type of cooperative project, not only from the financial point of view, but from the conviction that raising families in a completely democratic set-up is worthwhile. We are not interested in the occupation or income, race or religion of our members, but in their ability to work together for the success of the project.

The Parkwyn Village project was described in a joint promotional flyer as follows:

Parkwyn Village, a non-profit non-discriminatory Association, is located on forty-seven acres of land on the southwest section of Kalamazoo. The site is on high, gently rolling ground overlooking Lorenz Lake. The property is in the Oakwood School District and is about one-half mile from the present Oakland bus line.

We have planned forty home sites from one-half to three-quarters of an acre in size and have set aside seven acres for recreation and community development including

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59 The Kalamazoo Gazette newspaper clipping, "Frank Lloyd Wright, World Famous Architect, to Map Parkwyn Project," February 23, 1947. "Incorporated as a non-profit organization, the association plans to select members who are genuinely interested in an ideal environment for family living and child development. Members are being selected, the association announcement says, without discrimination as to race or religion. Each member shall carry an equal voice."

60 Wright to Robert Levin of Parkwyn Village, 4/10/47.

61 Transcript of local Kalamazoo radio interview held over the summer of 1947 with several Parkwyn Village members (undated transcript provided by Mrs. Helen McCartney).

62 The Kalamazoo Gazette newspaper clipping, "Frank Lloyd Wright Designs Model Community for 40 Local Families," May 25, 1947. The article mentions Dr. Robert Levin, secretary; Ernst Bonjour, head of land plan committee; Margaret Bonjour, editor of monthly Parkwyn newsletter; Mrs. Theodore DeCair, public relations; George Spero, finance; Ward Greiner, and Dr. Frederick Margolis, land development; Wendell Zeluff, liaison with government agencies; Marion Shane, recreation; and, Mrs. Betty Margolis, meetings. Other members mentioned in later articles and Parkwyn memos include Laurence Strong, Arch Spradling, Julius Bellson, Mr. & Mrs. John Ashwood, Mr. & Mrs. William Chatt, Mr. & Mrs. Fred Cooper, Mr. & Mrs. Harold Fountain, Dr. & Mrs. Robert Geindotti, Mr. & Mrs. Arthur Hanze, Mr. & Mrs. F. W. Schmiege, Mr. & Mrs. James Stafford, Mrs. Pauline Taylor, Mr. & Mrs. Robert Winn.

63 Transcript of local Kalamazoo radio interview held over the summer of 1947 with several Parkwyn Village members (undated transcript provided by Mrs. Helen McCartney).
tennis courts, softball diamond, skating rink, picnic area, and many other activities. Our present membership is seventeen.

It is estimated that the average cost of a developed lot will be around $1,000 including roads, city water and utilities...64

Wright first visited Kalamazoo to inspect these project sites over the summer of 1947, after the initial master plans for both Parkwyn Village and the Galesburg project had been developed. By this time members of the Parkwyn group had planted some 1100 new trees on their otherwise bare 46 acre site.65

By the end of July, some three weeks after Wright's first visit to their site, the Parkwyn group responded with requests for a number changes in the master plan they had been given. Among these was a request for the inclusion of a few lots a full acre in size, "to fulfill prior commitments made to several members..."66 They also requested small changes in the road to bring it in line with county standards.

Wright redesigned the Parkwyn master plan twice, providing second and third versions, dated August 1 and October 15, 1947 respectively (Figures 6.6 & 6.9). The evolution of organizing ideas across these three schemes is powerful for its response to their reasonable requests for changes and for its synthesis of these into a final plan of great subtlety and grace.

On a return visit to Kalamazoo in November Wright gave a public lecture at the high school auditorium in which he supported the cooperative idea in principle.67 "The Parkwyn project," Wright told reporters for the local newspaper, "is an example of true democracy in action because it represents a group of people working together to achieve individual freedom."68

64 Promotional flyer provided by Mrs. Helen McCartney.
65 The Kalamazoo Gazette newspaper clipping, "Frank Lloyd Wright Designs Model Community for 40 Local Families," May 25, 1947. According to the newspaper article this included 300 Chinese Elms, 300 Red Pines, 200 Maples, 100 Spruce and 200 Firs. There is no indication in this article nor in the correspondence recorded in the Taliesin Archives that any of these trees were laid out in accordance with the principles of Wright's master plan.
66 Robert Levin to Wright, 7/25/47.
67 The Kalamazoo Gazette newspaper clipping, "F. Wright, Who Changed Design of World's Architecture, Talks Today," November 2, 1947. Wright was introduced by the Mayor, Henry Ford, Jr. (?) Tickets for the Wright lecture were 60¢ at the door and 45¢ in advance. Wright had given an earlier lecture in Kalamazoo in 1937; see The Kalamazoo Gazette, "Famed Architect Frank Lloyd Wright Confers with Planners of 2 Model Villages," November 3 (?), 1947.
68 The Kalamazoo Gazette, "Famed Architect Frank Lloyd Wright Confers with Planners of 2 Model Villages," November 3 (?), 1947. The emphasis on together and individual in this quote is Wright's. Interestingly, this article explains the name of Wright's home in Wisconsin, Taliesin, meant "broken sea wall," and that the house was given this name after the tragic murder of his "wife" Mamah Borthwick and others in the '20's. / See also the newspaper's summary of Wright's ideas on the role of "organic" form in coordinating the relationship between an individual and the group: "The thing that can make a true democracy and sound architecture, both of which he summed up to be "a way of living," must come from within man and his development as an individual, Wright said..." It proceeds "from within the nature of man and becomes the expression of man," he said. Wright calls this "organic" in which the development of a man as an individual from within himself creates those harmonies which in turn develop the harmonies of society and of living... Man by the very nature of himself has potentialities "to develop into a great system of living," he declared... In organic architecture, he said, "the part is to the whole as the whole is to the part," to become a way of living... "We need insurgents and independent thinking," said Wright." The Kalamazoo Gazette, "Frank Lloyd Wright Suggests Universities Close 10 Years," 11/47.
Over the winter they corresponded with Wright concerning other changes and clarifications to the plans he had produced (Figure 6.1). They decided that individual lots would be chosen by the order in which individuals joined the group, with the original members drawing straws to establish the order of their selection. Selection of lots took place on March 21, 1948. The lots ranged in price from $860 for lot #1 to $1360 for lot #16 the first time they were offered for selection.

Road construction began in early June of 1948 and by autumn the group had reached a total of 26 members. With the assistance this larger number provided they completed the layout of the road through the site by the end of October 1948.

Wright's third and final version of the Parkwyn master plan was accepted by the State authorities in the spring of 1949 and construction of houses began soon thereafter. He visited the Parkwyn and Galesburg sites again in the last week of May, 1949 just as the first of the few houses he would design for these two subdivisions was due to begin construction.

The houses that Wright designed for Parkwyn Village utilized a version of his concrete block wall system and were intended to be built by their owners as a part of a cost saving strategy. By October of 1948 the group had completed testing various block mixtures and had a plant set up to mass produce blocks. This effort was run initially by Levin, Margolis and Grenier of the Parkwyn group. They were assisted in this development by Weisblat, Eppstein and Pratt of the Galesburg project. Blocks for houses for all of these members were made at this Parkwyn site. At least two of the Parkwyn houses designed by Wright, the Eric Brown House and the Robert Levin House were occupied by the following winter.

Just as had been the case with the Usonia I subdivision almost ten years earlier, the Parkwyn Village group eventually ran into difficulty with the FHA over the government guarantees on financing. The FHA was not willing to risk getting involved with a project requiring cooperative ownership. The Parkwyn group had been able to begin their project without federal guarantees and several houses were well under way by the time this difficulty grew significant. The government was uncomfortable with how the interspace areas of the Parkwyn plan would be cared for, whose responsibility would maintenance of these areas be?

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69 Marion Shane to Wright, 12/29/47; and to Masselink 2/8/48.
70 *The Kalamazoo Gazette*, "Famed Architect Frank Lloyd Wright Confers with Planners of 2 Model Villages," November 3 (?), 1947. See also the "By-Laws" of the Parkwyn Village Association, Article I, Section 3.
71 An undated memo issued by the group by early summer of 1949 recorded an increase in these prices to the range of $1150 - $1450: Undated Parkwyn Village mimeographed memo entitled, "Parkwyn Village Lot Selection."
72 Marion Shane to Wright, 10/30/48.
73 *The Kalamazoo Gazette*, see articles "Revised Parkwyn . . ." 3/49 (this Gazette article published a simplified version of Wright's final master plan); and, "Start Work in May on First 4 Dwellings in Parkwyn Village," 4/25/49.
75 *ibid.* "Co-operative Groups Manufacture Blocks," 10/1/49.
They were afraid that a lack of responsibility could adversely affect resale prices for these houses in the future. After much negotiation this situation finally was resolved by legally doing away with the circular lots which were the essential characteristic of Wright's design.

The circular lots were converted to random polygons of straight adjoining edges in a process they called “squaring off” (Figure 6.14). As the road and several houses were built by this time the squaring off primarily affected the interspace planting layer of native shrubs.

For the past two years Parkwyn Village Association has been negotiating with the F. H. A. to secure their approval on our land plat. It has become increasingly apparent that such approval is needed in order that some of our members, present and future, get the funds to build houses. Despite pages of correspondence and several visits to the regional office at Grand Rapids and the Washington office, we have, to date, been unsuccessful. From the very first their main objection has been the circular lots. They have told us repeatedly that the only way we can get their approval is by "squaring off" the lots. Our members have been reluctant to change your land plan in any respect. However, if we're to survive, it seems that some compromise with F. H. A. will have to be worked out.

We have recently learned that the Usonia group in Pleasantville, N. Y. met the terms of its financing agent by legally "squaring off" its lots but retaining the circular form by an internal arrangement among its members. We would arrange to do the same. In fact our planting committee is going to be writing to you soon to ask for a planting plan the lack of which has resulted in a lot of haphazard planting this spring and summer.

We would like to be assured however that the position of our members who have plans from you or are contemplating a Wright house at some future date would not be jeopardized by taking such a step.

We hope we have made two things clear - one, that it is only with great reluctance that we make any compromises with F. H. A.; and two, that your land plan will be preserved by an internal agreement among the members. . . .

With the legal removal of this interspace planting layer, the most characteristic aspect of Wright’s unique design for Parkwyn Village was lost. Although the Association members agreed to respect Wright’s concept, in effect the plan was lost. No significant effort appears to have been mounted to re-establish a basis for agreement for planting and maintenance, nor to carry through the application of the idea in the field. Without the circular form of lot there are at least two aspects of the design which fail. First, the circles guaranteed a more or less continuous layer of interstitial planting. Second, the form of a circle deflects one’s gaze, not allowing it to refer to any other geometric frame of reference. Because of this, a drive through this subdivision today is disappointing.

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77 Franklin Richards of the FHA to Wright, 1/9/50.
78 Hermione Stafford, secretary Parkwyn Village Association to Wright 7/3/50.
There are a wealth of drawings concerning this project and its development. The earliest in the records is a topographic map of the site prepared by the Kalamazoo engineer Ralph Hansen dated of January 7, 1947. This is represented in the Taliesin Archives collection by an unnumbered print. The drawing is made up of the property boundaries and topographic contour lines showing the rise and fall of the land across the entire forty-seven acres. It is drawn to an engineering scale of 1" = 100' - 0'. The few existing trees on this tract of land are shown along the property lines to the northwestern corner of the plat. A few trees are shown in the center of the western bluffs overlooking Lorenz Lake. The site is entered through a neck leading in to the south from Winchell Avenue on the northern edge. It opens into a wide rolling plain which gives way to a westward facing bluff overlooking a line of lakes. The largest of these is known as Asylum Lake, named for the State Hospital which rises above it on the side opposite the Parkwyn tract. Lorenz Lake lies just at the foot of the bluff running along the western side of the Parkwyn site.

This print of the engineer’s topographic map has a numbered grid of pencil lines running across the entire site area. These are drawn at a spacing of one-half inch, or 50' apart in scale. The grid lines here are labeled similarly to those found on the engineer’s survey prepared for the Galesburg site. Here we find numbers 1-39 along the eastern side of the site and A-Z along the southern site boundary. This grid has been added here in pencil probably by an apprentice, it was not a part of the original engineer’s drawing. There is a pencil note to the effect that this grid should be made of one and one-half inch increments instead of one-half inch.

The earliest site plan study by Wright (4806.001) has been executed over a handmade enlargement of the previous topographic map (Figure 6.4). This too is gridded and is drawn to an architectural scale of 1" = 32' - 0". This scale is roughly three times that of the unnumbered engineer’s topo map which was gridded by an apprentice. That map was apparently used as a base from which to enlarge this one. The note to enlarge the one-half inch grid to a one and one-half inch grid would have led to a drawing 300% the size of the original. This site plan study sheet is laid out over a grid of approximately one and one-half inch. Such gridding for enlargement has been a common practice in art and architecture for centuries. It appears that this is the way in which the larger 1" = 32' - 0" site plan which became the basis for his studies was established.79 Such a practice however is not reliable for precise measurements and this

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79 The actual measurement of the grid on this larger drawing (4806.001) is 1 and 7.5/16", or 1.46875" instead of the 1.5" called for in note to enlarge. This slight deviation appears across this large sheet as though they attempted to compensate for the fact that a scale of 1" = 32' - 0" was not quite exactly three
site plan study, and some of those which followed it, show slight deviations in property boundary length and configuration when compared to the somewhat more precise character of the engineer's survey.

This site plan study (4806.001) follows the Galesburg layout idea by utilizing circular house lots of roughly 200' diameter loosely aligned to a square planning grid (Figure 6.5). The one and one-half inch grid used to construct this drawing forms the basis for the layout of the circular lots. Rather than the 1" = 100' grid of the first Galesburg plan where Wright used every other line as a reference, here he used every fourth line. A measurement of one and one-half inch at a scale of 1" = 32' equals a 48' planing module. Four such units gave lot diameters as 192' instead of the 200' Wright seems to have intended. There are forty-one lots here, numbered from 1 to 40, with one lot left unnumbered. These were laid out from the entry to the site at Winchell Avenue to the northeast corner. The sheet was oriented with north to the left so that Lorenz lake was located toward the top and the longest site dimension ran lengthwise across the paper. Lot number 1 is in the lower right corner. Lots 39 and 40 are along the bluff at the top of the sheet.

In spite of the several similarities, there are already some significant differences between this plan (4806.001) and the first one for Galesburg (Figures 5.1 & 6.4). As in the first Galesburg plan Wright used the planning grid as a flexible reference in positioning these circular lots. Lots 1, 3, 5, 6, 7, 9 & 10, for example, are each positioned with a grid vertex as their center point. As at Galesburg these lots lay along the site boundary at the bottom of the drawing. The similarities end here however. The forty-seven acre Parkwyn site has a much less regular boundary outline that does the more rectangular Galesburg piece. Given this irregularity Wright could not stay with any simple layout strategy as it would not relate to the various site edges in a formulaic way. He had been able to enjoy the luxury of a relatively even layout in the Galesburg plan, shifting lots only to accommodate the roadway.

Here however, due to the configuration of the site, along with the requirement for a much higher percentage of coverage of the site, the shifting of lots away from the grid increased substantially. This made it impossible to maintain even the regularity of the first Galesburg plan. Given these conditions almost all of the lots are centered on grid lines, most on grid times the engineer's scale of 1" = 100' - 0". If this was the case, by making the larger layout just less than 1" = 32' - 0" they compensated in the wrong direction. They should have made it just slightly more rather than less. The small discrepancies which this introduced however were insignificant as Ralph Hansen, a local engineer, completely refigured the specific measurements when the project was laid out in the field.

Given the fact that this planning grid was actually drawn at a scale less that 1" = 32' the actual lot diameter shown is somewhat smaller than they apparently intended. At 1" = 32' four modules one and one-half inch would have made a diameter of 6' or 192' in scale. Given the smaller scale error the lots drawn here actually measure only 184' in diameter. These irregularities of scale were transferred to the presentation plan (4806.003) when it was traced.

This unnumbered lot is between lots 15, 16, 17, 18 & 32.
vertices due to the density of the planning grid as drawn.\textsuperscript{82} With four lines to a lot diameter instead of the two used at Galesburg there were many more intersections from which to choose. Again, by keeping the lot centers on such a grid Wright was making the practice of laying the lots out in the field much simpler.

In this first Parkwyn Village plan Wright has used many partial circles in the layout for the first time. This feature gave him an even greater flexibility in planning layout, as, for example, the location of lot 12 posed no problem for the positioning of lot 16. He simply cut away a portion of a lot to allow for an adjacent one, or for the roadway clearance.

These two aspects of the plan, more grid lines and the allowance of partial circles, provided a very much more flexible planning method than the one he had pioneered in the first Galesburg plan. That slightly earlier plan appears rather rigid by contrast.

Significantly, the cutting off of portions of circles introduces an appearance of overlapping forms to the plan. This does not seem to interfere with one’s basic reading of the figure/ground shift in the plan. One still reads a continuous interspace network, and one still feels the independence of each individual circle.

The internal site roadway which moves among the lots is drawn very narrow here, and, although not labeled, the increase in width at lot #4 near the entry seems to indicate a one way direction of travel. As in Wright’s first design for Galesburg, this plan depicts an extensive length of roadway which loops around the site in a casual manner, establishing sub-groups such as that composed of lots 17, 18, 19, 20 & 21.

In general, the positioning of lots defers to an open park-like area near the bluff overlooking Lorenz Lake to the west. Only five lots in this plan are in positions to achieve direct views over the Lake below. These are lots 30, 40, 37, 38 & 39. Instead of giving this view to a maximum of individual property owners, Wright has indicated a common park, shielded from Winchell Avenue by the neck in the Parkwyn site and given to the view of the lake. It would have been a semi-private park, for the most part known only to members of the community and intended for their use. This park area occupies the largest level area of the entire forty-seven acres as a common play field.

The plan shows a location for a community house overlooking the bluff along the western site boundary at the far edge of this park. Wright has also shown a “field house” across the roadway immediately adjacent to the park. There is a smaller square structure indicated just south of the “community house” along the bluff as well. All three of these common buildings are aligned with the dominant NS/EW orientation of the site’s boundaries. This is also the

\textsuperscript{82} Lots 17, 2, 4, 15, 19, 21, 22, 23, 24, 33, 32, 34, 36, 38 & 39 are centered on grid lines but not on vertices. Only lots 16, 18, 20 & 35 are centered neither on grid lines nor vertices.
dominant orientation of the public street system of Kalamazoo as evidenced by Winchell Avenue from which one moves onto the site.

As in the Galesburg plans, Wright has included rough typical footprints of houses in each lot. These footprints are much more varied in shape and orientation that they were in either of the Galesburg schemes. Not surprisingly perhaps, many of them mark an orientation 30° off of the dominant NS/EW grid of the county land system and property boundaries.

This Parkwyn site is different from the Galesburg one in that there were virtually no trees of any significance on the forty-seven acre tract when it was purchased. Perhaps in response to this Wright has explored here a planting strategy for the interior of individual lots which is more specific than anything he hinted at in the Galesburg drawings. In lot #9 in the center of the lower, or eastern, edge of the site he has drawn not only a house footprint but various plant materials as well. These include a curving line of trees which arc around the site edge on the side facing the roadway and enclose a pool of space with the house into which the living room would face. He has shown two broad shrub masses as being different in character from the interspace planting layer. There is also a field of flower planting indicated by many dots of his prodigious color pencils. This study drawing was partially rendered overall in a very loose fashion with a variety of colored pencils.83

Given this information, it is not possible at this point to establish the exact chronological sequence of the initial Parkwyn and Galesburg plan studies conclusively. However, as this analysis suggests, the Parkwyn plan builds upon and extends the Galesburg ideas in a direction parallel with that of the second Galesburg scheme. Such a situation hints that Wright’s development of this first Parkwyn study followed his initial work on Galesburg, as in fact he suggested in his letter to Levin of April 10, 1947. This conclusion comes in spite of the reverse order of dates on the two respective presentation plans (Figures 6.4 & 6.1).

The rendered version of this first Parkwyn Village site plan changes only a few details in the development of a beautifully colored master plan drawing (4806.003) dated April 12, 1947. This is a fully rendered color pencil master plan similar in technique to the first Galesburg plan, though perhaps not quite as beautifully executed. This is virtually consistent in details with the study just discussed (Figure 6.4). The inconsistency in site dimensions and overall measurements which developed from the transfer and enlargement procedure affecting the

83 Note that in the presentation version of this plan (4806.003) Wright rendered only two such lots with specific plantings.

84 This study drawing (4806.001) is not dated, but a following presentation version (4806.003) carries the date of April 12, 1947 (Figures 6.4 & 6.1). The Galesburg topographic map is dated November 1946 while the Parkwyn topographic map carries a later date of January 7-10, 1947. The first rendered Galesburg plan is dated April 17, 1947 as you will recall. And, there is Wright’s letter to Robert Levin of April 10, 1947 in which he writes, “The Galesburg folk had priority over the Parkwyn people by several months.”
previous site plan study are carried through into this drawing. The unnumbered lot in the study plan is given #40. The partial lot which carried that number in the northwest corner of the previous site study is deleted in this one. It had been only a small portion of a full circle on rapidly sloping ground and of questionable value to the overall scheme. Otherwise the distribution of circular lots is the same. As was the case with the study plan, there is one lot, #16, which is entirely surrounded by roadway having no contact with the interspace network.

This kind of eccentricity is found on this plan more that it was on the first Galesburg scheme. There it appeared as though each layer of the geometry and planting was more carefully considered in relation to the next and to the site as a whole. An interpretive or figurative dimension could be seen even in the first Galesburg plan, which helped to order the geometry in a new way.

As was the case in the study plan, the large playing field is rendered here with a lined and colored texture which differentiates it from the plantings in the interspace shrub layer. On the Galesburg plans, while it is true that there were open unplanted and undeveloped common areas, they were not rendered with the kind of definite texturing we see in this first Parkwyn master plan. The differences seems to reflect the fact that the Parkwyn group specifically requested playing fields as a positive part of their community plan.

The community house is shown with a rendered shrub frame by which it is anchored to the interspace planting layer which runs throughout the site plan. Here Wright has shown an orthogonally governed footprint which projects outward toward the lake below with a semi-circular bay of some kind. The bulk of the building projects westward toward the lake from what we might think of as a base attached to the interspace planting layer. The shape of this simple footprint reveals one of the strongest conceits of the master plan. As was the case with the Galesburg plans, here Wright has created a spatial field which is polarized along a continuum running from city street to natural feature - the view over the lake. This is the city-to-nature dichotomy we first saw clearly in the Circle Pines master plan. As was the case in so many of Wright’s plans, the circular form is again used in this community house footprint to face the outstanding natural vista, turning its back on the city. Not only was this the case in the rendered site plan drawings of the first Jacobs House discussed in Chapter Three, it represents a conceit we can see in many of Wright’s plans going back as far as the Wolf Lake Amusement Park in the 1890’s (Figure 3.22).

From this point of view we can see this first Parkwyn master plan as a cluster of individual home sites wrapped around an internalized communal park which is attached to the greater open space of nature beyond. This figure is different from anything we found in the Galesburg

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85 These inaccuracies carry all the way through Wright’s plans for Parkwyn and were only corrected by the civil engineer, Ralph Hansen, when he prepared drawings for execution of the project.
schemes. It is an interesting plan which has neither the immediate appeal of the first Galesburg maser plan nor the figurative clarity of the second Galesburg plan.

This initial Parkwyn master plan presents what we might see as many unresolved contingencies. In this scheme, for example, Wright has allowed generous interspaces for common shrub planting along the entry road in a manner which seems inefficient rather than decidedly planned. Four partial lots, 2, 4, 8 & 25 are given no buffer of interspace plantings while all around them the interspace layer reaches its broadest widths. The interspace layer is called out as “public domain low planting of characteristic shrubs,” in a manner akin to the Galesburg plan. There are, however, other examples of this kind of inconsistency; the entry roadway is pushed uncomfortably to one side leaving the lots in that area crowded and jostled; there are wide expanses of interspace planting areas along this entry drive which perform no unique function, or we could say, have no form of their own in plan; the most remote southeast corner of the site plan disintegrates into a hapless jumble of lots as indicated by the uncomfortable manner in which the roadway completely encircles one lot while reaching back to include everyone; the random appearing shape of a lot such as #18 breaks the continuity of the overall pattern for no larger reason; the structure of a common park-like area connected to the vista is not balanced with the density of lots required; the layout of lots does not reflect the fact that the southern half of the site exhibits more topographic variation than the northern parts first approached upon entry. Each of these contingencies points to an unresolved master planning objective and invites a critical analysis of this plan when compared to either of the Galesburg schemes.

The Parkwyn Village Site Plan Committee responded in July by marking their suggestions in pencil on a print of Wright’s rendered site plan. This print is included in the Taliesin Archives under the title “Revisions suggested by site plan committee.” The extensive length of internal roadway fell prey to critique in this plan as well. On the revisions print the committee sketched on an alternate roadway making a single internal loop which connected not only with Winchell Avenue at the north end of the site but also tied into Lorraine Avenue in the southeastern corner. There is a handwritten note which suggests that two cul-de-sac roads, one in from each of the adjacent existing streets, would be sufficient in lieu of the loop shown on the drawing. They increased the width of this roadway from the 12’ range Wright had initially drawn to something more like 15’ to 20’ in width. The committee’s notes make reference to two park areas rather than the large single one Wright had provided. One of

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86 It should perhaps be noted that in this plan Wright was being asked to provide for a wide range of unknown individuals who would be admitted as members of the Parkwyn Village Association following their financial need to fill the site so as to raise sufficient funds for development. In the case of Galesburg he was dealing with a smaller number of individuals who appear not to have ever solicited new members very aggressively.
these still holds to the bluff above Lorenz Lake and the other occupies a depression nearer to the center of the forty-seven acre tract.
3 - *Analysis of Master Plan II*

The Taliesin Archives drawing 4806.004 is the working study for the second scheme Wright provided the Parkwyn Village Association. As was the case with the study for the first Parkwyn scheme, this drawing is gridded in graphite pencil (Figure 6.6). The grid here is drawn with an extremely light hand, however, suggesting its increasing irrelevance in the development of the plans. By contrast with the earlier schemes, here the topographic contour lines have been laid on in bright red ink alerting one to their significance in a new way. In general terms it is a more delicate sketch than either of its predecessors.

There are several significant changes in this second scheme. Wright responded to the request for two smaller parks, placing them virtually in the identical positions suggested by the committee on the “revisions” print. One of these is more formal than the other as it occupies the flat area in the center of the tract and is now completely cut off from a view over the bluff. This open play field included a baseball diamond and a re-conceptualized community house. The baseball diamond marks the 30° orientation we have seen so much of in these plans. There are two tennis courts indicated in the positions suggested by the Parkwyn site plan committee as well.

This plan includes six lots which are significantly larger than the majority, still at the same size as previously drawn. These new larger lots cluster along the northern site boundary with three facing over the bluff above Lorenz Lake. They were necessary in order to "fulfill prior commitments made to several members. . . .", as we noted above.87 More of the lots are in positions to offer views over the lake in this scheme than was the case previously. The "revisions" print had included a cluster of additional lot locations along the bluff in the northwest corner of the site, and again Wright was responding directly to a client request in providing these. The original members of the Association, given priority in the site election process when a final master plan was accepted, for the most part chose lots overlooking the lake along the western edge of the tract.

The community house here has taken an interesting spiraling hexagonal form. The adjacent parking lot now traces a circular arc tying it to the dominant forms of the master plan. This community house in this second scheme lies at the center of the plan by connecting the two arms of the roadway as it winds around the tract connecting the off-site streets Winchell and Lorraine. The structure sits at the center of the plan in a position to observe activity in both the fields and the tennis courts. The tennis courts are shown within a slight, naturally-occurring

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87 Robert Levin to Wright, 7/25/47.
depression, some two or three feet lower than the surrounding area. The community house is placed on a gently sloping bank between these two so that it ties together the depressed tennis courts and the play field into a communally-held recreational structure at the center of the plan.

But it is the disposition of the roadway which seems to be the most important addition which this particular plan makes to the series of inventions we have been tracing. The road plays an important role in the organization of the lots here. It is much wider here than in any of the previous designs, more like a conventional roadway. It has more presence as a positive organizational element. We have seen some of this in the second Galesburg plan, but here the role of the road in organizing the plan is even stronger. The complexly layered structure of the first Galesburg scheme has been replaced in this plan by the action of the roadway as an organic element which gathers each separate element into a collective whole, a whole which is more than the sum of the parts involved. Everything occurs along this roadway as it snakes its way through the master plan.

The eccentric entry situation is corrected as this roadway flows into the site between more equal sized lots now placed on either side. The roadway aligns these lots as it turns to regulate the distribution of the six larger lots before glancing along the bluff to provide all passers-by with a vista over the lake below. The dense mass of lots along the southern edge of the tract seems also to be held in place by this roadway as it reaches deftly back to tie into the city street network at Lorraine. Effortlessly it also enables the communal structures at the heart of the plan by giving them a key role in connecting to the loop on both sides. All in all this site plan is less formulaic than any of the ones we have seen thus far, and more poetic than many.

This plan is very similar in character to the presentation plans we have discussed for the Galesburg and Parkwyn plans thus far. This rendered version of the second plan is represented in the Taliesin Archives by a blueline print which carries the date of the original as August 1, 1947. As was the case with the previous rendered presentation plans for these Kalamazoo subdivisions, there were only a few slight changes made in the final version. The thirty-four small circles were each given a diameter of 180' with at least 3' left as interspace between each lot. A note on the drawing to this effect reads:

All sites (except nos. 19, 28, 29, 30, 31 and 34) have 90 ft. radii, with a minimum spacing of 3 ft. common land between private holdings.
Sites 19, 28, 29, 30, 31 and 34 have 117’ - 6” radius.

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88 Note also that the site is lower along this central roadway location and so that it allows the lots on either side to rise up from the road. In the previous scheme the roadway to one side required that some the lots be set lower, etc.
89 There is a rendered version of this site plan study for a second Parkwyn Village master plan in the Archives of State University of New York in Buffalo.
Main roadway to be 18 ft. wide, centered on 50 ft. right-of-way. Private lanes 12 ft. wide. 90

The presentation drawing of the second scheme records the purchase of an additional triangular sliver of land filling in one of the reentrant corners along the northern site boundary and making the turn of the entry road to the right after entry less abrupt. This purchase was not under consideration when the study for this drawing was made (4806.004) and does not show up there. The drawing also notes two locations for “suggested additional purchase” which would have eased this transition even more, effectively doing away with the thin neck which leads into the site. These two additional purchases were not made.

The second Parkwyn Village master plan provides for a low arcing circular wall with a sign at the entry. The roadway in the study had connected to Winchell by the use of an island which was removed in the final plan. A right-of-way is indicated on the presentation plan by two lines of dots and slightly darker color pencil texturing in the interspace layer along both sides of the road. The layout of lots on this prints corresponds with the study drawing (Figure 6.6). The primary difference between the two is that in the presentation plan the roadway is narrower, back to 18´ in width and has the wider 40´ right-of-way. In the study plan the roadway had been shown as occupying the full 40´ right-of-way width, one of the reasons for it’s increased presence in that drawing. There are pencil lines which appear to study a slightly different location for the roadway, and which reflect the position of the roadway in the third, or final Parkwyn master plan.

The lots are numbered from 1 to 40 beginning in the southeast corner with lot #40 lying just at the entry from Winchell Avenue. This is the only one of all of the Parkwyn master plans and studies that numbered the lots in this direction. The outline and locations of the community house and tennis courts have remained the same.

There is one more very significant aspect of the print of the second Parkwyn master plan in the Taliesin Archives I have not mentioned yet. It was used by Wright to restudy not only the locations of the circular lots, but the positioning strategy. The fading blue paper of the print is covered with pasted yellow and tan paper circles. Wright used this print as a background upon which to reposition and study lot locations in a manner giving him much more freedom than the previous grids (Figures 6.10 & 6.11). He made all forty lots the same diameter. The locations in which the paper circles are pasted onto this print of the master plan correspond exactly to the locations of the lots in the third master plan Wright prepared for Parkwyn Village. 91 The use of these paper circles represents the complete abandonment of the grid as a planning tool in favor of a new fluidity.

90 The “50” has been drawn over what appears to have originally read “40.”
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4 - Analysis of Master Plan III

The third and final plan Wright produced for Parkwyn Village is dated October 15, 1947. It follows the site organization idea of the second plan in a general way while refining details and furthering the figurative dimension. The rendered presentation plan (4806.002) is the only drawing of this scheme which exists in the Taliesin Archives (Figure 6.9). There is no record of a site study drawing similar to those developed in the other Kalamazoo plans we have been discussing. A close inspection of the presentation plan reveals no compass point holes in the center of the circles drawn to represent each of the individual lots. This suggests that they were traced. This, and the fact that these circles are placed in exactly the same locations as the paper circles pasted onto the blueline print of the second Parkwyn master plan suggests that sheet served as the preliminary study.

The delicate quality of the color pencil rendering found in this drawing is excellent, and is not exceeded by any plan drawing to come out of Wright’s office I have seen. The westernmost part of the site was drawn onto a separate piece of paper which was taped to this larger section as is indicated by adhesive residue. The smaller piece is now lost.

As mentioned just above, the locations of the circles here follow those on the pasted print (Figure 6.10). With such a method of layout it would have been very easy to move the paper circles around freely, seeking both the optimum position for each lot and a larger pattern. The layout of circles on this third Parkwyn master plan expresses such a fluidity of execution.

The road here acts as the primary organizing element as it did in the second plan (Figure 6.6). It enters the site at Winchell Avenue and connects with Lorraine as it did in the second scheme. Instead of making a simple loop from one entry point to the other, in this plan Wright again followed the suggestions of the group and added a connecting segment. It would now be possible to make a single internal circling through the project. This added segment connects to the prior road by the use of two three pronged interchanges, allowing a new smoother motion through the site by automobile in either direction.

The extra triangular piece of site purchased along the northern boundary opens the entry sequence up just enough so that Wright was able to do away with the appearance of a long neck reaching into the center of the site from Winchell Avenue. In this plan the roadway cleaves its way through symmetrical lots in a great sweeping turn so that in the automobile one is not as aware of a drama of entry through the neck and then arrival at the project. Rather, the drama begins gently as soon as one turns onto the site.

This pasted circles plan must have been studied by Wright between August 1 and October 15, 1947.
Wright has not insisted on keeping all of the lots directly accessible from this roadway, but has used short feeder drives serving several lots at least five times. By having these contact the central roadway always at an angle he has not allowed them to detract from one’s sense of the priority of the central loop. In spite of the fact that it does not serve each lot directly, it appears, at a glance, to serve all lots equally. A 50’ right-of-way is provided much less obviously here than in the previous plan. Widened interspace planting areas follow this roadway around its full length creating a rather even, yet informal, layer of planting between the roadway and the individual lots which lay along it.

The two park-like areas remain as before with the central one serving as play fields. Wright has again redesigned the community house and shows it here in plan with a large exterior terrace. In the lower left corner of the master plan drawing, the southeast corner of the site, he has included a pond between partial circular arcs and lowered into the second naturally occurring low spot on the tract. The ball courts are now shown within two smaller circles of their own.

There are two additional site plans of the Parkwyn tract probably drawn by the engineer Ralph Hansen in the Taliesin Archives. One of these is a carefully calculated layout of Wright's final Parkwyn scheme showing an exact location for each circular lot (Figure 6.13). The engineer established a method of triangulation by which to locate each lot in the field precisely. An exact location for the roadway is plotted with great care, each twist and turn described numerically in line with professional practice. The streets within the Parkwyn plan as built were named Parkwyn Drive and Taliesin Drive.

This plan labels four separate park areas which encompass all of the land on the Parkwyn tract not given to individual lots or taken by the roadway. Park area #1 includes all of the land lying outside of individual lots to the south of Lorraine Avenue and west of Taliesin Drive. This includes the bluff overlooking Lorenz Lake as well as the small pond in the small depression near the southeast corner of the tract. Park area #2 includes all of the land except lots lying within the loop formed by the roadway in the center of the tract. Park area #3 includes all of the land except lots lying to the north of Taliesin Drive and to the west of Parkwyn Drive leading up to Winchell Avenue. The division between park area #1 and park area #3 occurs at the "private drive between lots 6 & 7 at the northwestern corner of the tract. Park area #4 includes all of the land except lots lying to the east of Parkwyn Drive. The numbering system used to designate specific lots is different than that appearing on Wright's final presentation plan (Figure 6.9/4806.002). This engineer's drawing is dated February 3, 1948 and was probably used to lay out the roadway locations over the summer of that year.

92 The lot prices listed in the memo on lot selection may refer to the numbering system on this plan instead of the one on Wright's original.
The second drawing from Ralph Hansen's office is undated but records the "squaring off" of the Parkwyn lots to conform to F. H. A. requirements for financing (Figure 6.14). This drawing was probably made over the summer of 1950. Wright had no hand in the extensive revision of the site plan this drawing records. All of the forty lots have been given polygonal shapes with congruent edges. The only curved lines remaining are those formed by the roadway. This roadway is in the same location as it was, only the width has been increased from the other engineer's layout plan. There is great discrepancy in lot size due to this revision. Some lots are nearly twice the size of others. Two parks remain in roughly the same areas of Wright's third Parkwyn plan, although both are isolated from the open space of the road.

The effect of the loss of the interspace planting layer on one's experience of Parkwyn Village can be immediately felt from this drawing. As in a conventional residential suburb the roadway provides the only shared open space. This open space is not dedicated to the communal gathering of the group nor to the spirit of cooperation. It is merely a utilitarian corridor for automobile access by individual property owners. The parks, now isolated from this roadway, have been trivialized. By altering the plan in conformity with the F. H. A. to allow houses to be financed, they lost the unique vision of community Wright produced.

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93 See correspondence related to this process: Hermione Stafford to Wright, 7/3/50.
94 Compare lots #40 and #42 on this second engineer's plan for example.
Wright published Galesburg I and Parkwyn III (Figures 5.1 & 6.9). Because he chose not to show the second Galesburg plan, the one he knew was being implemented, and because he did not take similar liberties with the Parkwyn plans, we can assume that he thought these to be the most significant ones of the various plans he developed for these two Kalamazoo projects.

In the first Parkwyn plan Wright closely duplicated the planning strategy he followed for Galesburg. An appearance of the random placement of circular lots across a treeless landscape helps to hide the use of a suppressed square planning grid. All of the objectives of the first Galesburg plan can be found in this less successful one. He has not succeeded here in establishing the quality of interaction between the natural and the planned characteristics of the site which animate the first Galesburg design. Although the Galesburg tract had more elevation change and involved planning with low marshy areas, the Parkwyn tract had a much more irregular configuration and required a higher percentage of coverage. One of the ways in which Wright dealt with the greater coverage was to use partial circles. Some 25% of the lots in the initial scheme depicts significantly less than a full circle. This introduced an irregularity to the planning method which was not governed by any new concept of order. The suppressed grid did not provide a rationale for such deformations.

In the second scheme Wright prepared for Parkwyn Village the roadway has been given an organic quality, gathering all the lots unto itself as it snakes its way through the landscape. It has a life of its own, a life which has nothing whatsoever to do with the logic of the grid. The concept of the roadway is not derived from one's perception of the natural characteristics of the site. Rather it has been added to coordinate one's experience of the site and the manmade elements. It is this 'figurative' quality of the second Parkwyn plan which emerges as the essential difference between these plans and the ones Wright prepared for Galesburg.

In the final Parkwyn design Wright kept the organic quality of this roadway and refined its relationships with other aspects of the plan. As in the second Galesburg plan the interspace planting layer here is used to articulate a concept of the order of the lots upon the land. A fluid edge is provided along the central park areas. The community house and the ball courts are attached to this layer and project out of it, just as the orthogonaly planned communal buildings in the Circle Pines plan projected out from the continuous cover of the forest. In the second Galesburg plan Wright articulated a bias of high ground for individual settlements versus low ground for common open spaces. Here the major topographic feature supplied by the bluff does not engage enough of the tract to allow such a simple interpretation. Wright has been forced to
be more creative. A similar dichotomy of spatial prejudice is apparent here however. The bluff overlooking Lorenz Lake to the west is the major natural feature. It is largely held open for communal access in this plan. By means of the park-like space which contains the play fields a sense of contact with this natural feature is brought into the heart of the master plan. For the most part the individual lots are arranged so that they appear to cluster around this inward reaching finger of common space.

The shared orthogonal orientation of the three communal structures make them stand out conspicuously among the otherwise wide variety of curves and angular relationships in this plan study. This collusion of communal buildings recalls the Circle Pines strategy, although the effect is not as strong here.

The loop on the roadway adds a gentle ambiguity to the organizational idea expressed in the inward reaching finger of common space. One can see the community organized by the loop of the roadway, with the community house lying in the center. At the same time one can see the master plan expressing a familiar dichotomy of settled versus unsettled land. The second master plan scheme Wright designed for Parkwyn Village explored the first of these two organizational ideas. The initial scheme explored the second of these ideas. The third and final Parkwyn plan combines them into a design of great subtlety and conviction.

There is one other aspect of this final scheme which is significant and new. This is the apparent motion or directionality given to the overlapping circles. In the first Parkwyn plan there was no apparent conceptual order to the use of partial circles. They were cut this way and that by the random twists of the small roadway as it ran around the site in an attempt to service each individual's lot. In the second plan Wright cut fewer of the circles. These were all attached to the roadway. By associating these cuts with the roadway he gave a rationality to the cutting of the lots. This changed again in the final version. He kept the concept of an order to the cutting of circles but did not align them with the roadway. Rather he has created an appearance of a flowing motion into the site and toward the bluff over Lorenz Lake. The cutting of circles here introduces a figurative or narrative quality which allows one to imagine a dialogue between forms in each case of juxtaposition leading to the removal of pieces. The pattern of movement implied expresses the polarization of space found as the underlying operative dichotomy of city versus nature. This dimension is used so successfully here that in spite of the fact that only eight of the forty lots remain as full circles, one reads the plan as the fluid expression of a single site concept.

95 There are several lots in the second plan which are cut off to fit closely into the corners and edges of this irregularly shaped tract. These however seem to have little effect on one's reading of the order of the plan. The ones along the roadway stand out as much more noticeable.

96 In this context, note the discussion of Emerson's essay on "Boston" by James Machor in Pastoral Cities. Madison: University of Wisconsin Press, 1987 (pp 162-167).
One measure of the success of this process is the fact that in the first design only eleven faced the open park area and only three of these overlooked the bluff. In the final plan eleven lots have views over the bluff while eighteen (almost half) have a view into the central open park areas.

One's experience of the open space here would have been such that the roadway would have seemed to have been placed in an otherwise continuous layer of natural plantings through which the lots moved toward the western vista over the Lake.

It must be said that the differences between one's perceptions of the land in the overall Parkwyn site today and those gained from photographs taken just before and just after the first houses were built are immense. The open prairie originally provided a majestic backdrop for this pattern of houses and circles on the land. The interspace layer would have interceded intermittently into one's sense of the great expanse of the land. Today, because they did not follow a general planting plan, because they lost the pattern of circles by “squaring” the lots and also because they allowed trees to fill the land between individual yards, one gets no such greater sense.97

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97 See especially the photographs of the land around the Eric Brown House as it originally stood in the House and Home article “This new house by Frank Lloyd Wright is a rich textbook of the principles he pioneered,” March 1953, pp 106 - 113.
Illustrations: Parkwyn Village Association (4806)

FIGURE 6.1 presentation plan for the first Parkwyn scheme - #4806.003
FIGURE 6.2 detail of Figure 6.1 - #4806.003
FIGURE 6.3 detail of Figure 6.1 - #4806.003
FIGURE 6.4 site layout study for the first Parkwyn scheme - #4806.001
FIGURE 6.5 (Figure 6.4 with layout lines heightened over #4806.001)
FIGURE 6.6 site layout study for second Parkwyn scheme - #4806.004
FIGURE 6.7 (Figure 6.6 with layout lines heightened over #4806.004)
FIGURE 6.8 (Figure 6.6 with roadway configuration heightened over #4806.004)
FIGURE 6.9 presentation plan for the third Parkwyn scheme - #4806.002
FIGURE 6.10 site layout study for third Parkwyn scheme (pasted circles plan)
FIGURE 6.11 detail of pasted circles plan, Figure 6.10
FIGURE 6.12 (Figure 6.9 with layout lines heightened over #4806.002)
FIGURE 6.13 first engineer's site layout map
FIGURE 6.14 second engineer's site layout map with circular lots "squared off"
FIGURE 6.15 Margolis House & site plan - #4714.004
FIGURE 6.16 McCartney House & site plan - #4912.003
FIGURE 6.17 Brown House & site plan - #5003.007
FIGURE 6.18 USGS map of Parkwyn site area in Kalamazoo, Michigan
FIGURE 6.1
presentation plan for first Parkwyn scheme
(4806.003)
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FIGURE 6.2
detail of presentation plan for first Parkwyn scheme
(4806.003)
FIGURE 6.3
detail of presentation plan for first Parkwyn scheme
(4806.003)
FIGURE 6.4
site layout study for first parkwyn Scheme
(4806.001)
FIGURE 6.5
Figure 6.4 with layout lines heightened
(4806.001)
FIGURE 6.6
site layout study for second parkwyn scheme
(4806.004)
FIGURE 6.7
Figure 6.6 with layout lines heightened
(over 4806.004)
FIGURE 6.8
Figure 6 with roadway configuration heightened
(over 4806.004)
FIGURE 6.9
presentation plan for third Parkwyn scheme
(4806.002)
PART THREE / Chapter Six
FIGURE 6.10
study layout for third Parkwyn scheme
(pasted circles plan)
FIGURE 6.11
detail of study layout for third Parkwyn scheme
(pasted circles plan)
FIGURE 6.12
Figure 6.9 with layout lines heightened & site numbers emphasized
(over #4806.002)
FIGURE 6.13
first engineer's site plan
FIGURE 6.14
second engineer's site plan, "squared off" plan
FIGURE 6.15
Margolis House & site plan
(4912.003)
FIGURE 6.16
McCartney House & site plan
(4714.004)
FIGURE 6.17
Brown House & site plan
(5003.007)
FIGURE 6.18
USGS map of Parkwyn site area
The third circular lot subdivision has a different history than the two in Michigan for a variety of reasons. This is due in no small measure to the fact that its first director, David Henken, had lived and worked with Wright at Taliesin. The subdivision is located in Westchester county about an hour by car from New York City. It was conceived and settled mostly by professionals working daily in the city.

Henken approached Wright in 1942 with the hope of becoming an apprentice at Taliesin. He was interested in building a cooperative community and hoped to gain a base of knowledge from which to guide such a project. After two years with Wright he returned to work and live in New York as an engineer during the War. Henken and his wife Priscilla set about attracting other couples for the purpose of establishing a suburban living neighborhood. Economy of scale is one of the main reasons they chose this idea, along with the degree of control and privacy it allows. They understood the historical roots of their cooperative endeavor as the “Utopian communities in England and America,” beginning with the Rochdale pioneers. “Frank Lloyd Wright’s vision of Broadacre City,” Priscilla Henken would later write of their inspiration, “with its emphasis on decentralization”, on a “going forward to more intelligent use of man’s heritage, the ground,” and on the “democratic ideal of freedom of the individual . . . .”

A core group was assembled in New York City and incorporated late in 1944 under the laws of the State of New York as a Rochdale Co-operative. There was a $100 initial membership fee to join the Co-operative. For three years at the start members pooled $50 each per month into a joint savings fund. By the time the group found a suitable tract of land they had

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98 Henken to Wright, 7/17/42.
100 ibid.
101 ibid.
accumulated enough to purchase the tract and begin several "seed" homes. Individuals put up 40% of the cost of their own house and their share of the land before construction of the later houses began.102

The group bought a tract of land in 1947 in Pleasantville, New York, an hour's drive north of New York City (Figure 7.13).103 The site was some 97 acres of woods and hilly countryside, "Surrounded on three sides by a pine watershed that formed a permanent greenbelt, it is hilly, rolling with pleasant little brooks, fine old trees as well as much new growth, stone fences which are remnants of ancient farms, and abundant small wildlife."104

The outline of requirements sent to Taliesin by the Usonia Homes Cooperative asked for approximately one half of the land to be set aside for community purposes and asked Wright for garden, orchard and play areas. The outline stressed their desire to "retain as much of the natural features as possible..." while augmenting these with some planting.105 While they set the limit of their numbers to forty families as was the case in Parkwyn Village, the New York group had twice as much land to work with. The group soon increased their limit to fifty families. The outline includes an extensive description of requirements for a community center which was schematically designed by Wright, but in the end not built by the group.

Because the project was managed by David Henken, who had worked as an apprentice with Wright, the record in this case is different from the two cooperative subdivisions we have just studied. Henken himself personally amended Wright's site plan for Usonia Homes with the master's approval (Figures 7.1 & 7.7). This appears to have been necessary due to the fact that the first plan did not consider the topography sufficiently, or at least not in ways the Co-operative thought appropriate. But, this intervention into the planning process also meant that Wright was not able to refine or re-explore the relationship of the site planning ideas to the specific site and the specific project and its members in the ways he did in the two Michigan plans. Because of this, as we will see, a crucial dimension was lost in the development of the Usonia Homes plan.

The Co-operative discovered that they could finance their houses individually more easily than they could as a group. Therefore the first five houses were built directly from their common fund of cash. In total, eleven houses were built this way before independent funding was established with the Knickerbocker Federal Savings & Loan. The bonds for later dwellings were secured by the commitments of both the designated owner of each house and the

102 This initial 40% included a land cost of $3,000 per member for each individual’s site. See: ibid.
103 There is at least one piece of correspondence to Wright from Henken dated 2/10/47 noting at that time that they had gotten their land. Wright returned a legal contract for his services to the group 2/13/46. This date is also mentioned in ibid.
104 ibid. This tract was available as a tax-delinquent sale for $258 per acre instead of the $1500 then prevailing in Westchester County. See also: "Lots are circular in this 50 house group," House and Garden, February 1951, pp 52 - 55, 100 - 102.
105 Usonia Homes first requirements list, undated.
group as a whole. This method worked well for them, as by February of 1951 there were sixteen houses completed, eleven under way and five others being planned. The group estimated that in the first four years alone more than 3000 students and tourists visited Usonia Homes.

106 "Lots are circular in this 50 house group," House and Garden, February 1951, pp 52 - 55, 100 - 102.
Wright prepared only one scheme (4720.002) for the Usonia Homes group (Figures 7.1, 7.2 & 7.3). The presentation plan for this scheme followed sketches on a large topographic map prepared for the group (Figures 7.4 & 7.5). The initial drawing was reworked, presumably by the Taliesin apprentices (4720.002 also). Henken and others in the cooperative group prepared a second master plan (4720.001) after Wright's first one. This second design followed Wright's in a general way and is the one which was used to lay out the project. The Co-operative discovered that home insurance companies required that the circular lots be "squared-off" before individual properties would be insured. This was done after the project was underway in the field. Unlike the Parkwyn case however, here the polygonal lots resulting from this "squaring-off" process were not made contiguous, common land was left between individual lease-holds. The circles which were being built upon at that time became the basis for the new, roughly hexagonal, plots. Circular lots which were not being used at that time were simply left as unclaimed common ground, to be measured as they were needed. Well after the project was under way, with many homes built, the owners decided to enlarge their lots substantially and there-by do away with the majority of the remaining common land that had originally formed the interspace planting layer. The Usonia Homes project then has been governed by these four separate site plan drawings: Wright's initial master plan with its overlaid reworkings, Henken's revised plan, the "squared-off" plan which produced hexagonal plots, and the final condition of contiguous lot boundaries.

The site survey map was prepared by William A Smith, George H. Martin, Jr. and Mont M. Mathes of Bronxville, NY. and is dated March 27, 1947 (Figures 7.4 & 7.5). Along with the progress of the land, this very thorough survey recorded locations for many large trees identified by species, brooks, low swampy areas and many of the existing old stone walls so common in Connecticut and this part of New York State. The map is drawn to a scale of 1" = 40'-0" and is itself some six feet long. The ninety-seven acre tract is oblong, running north to south from the intersection of Bear Ridge Road and King Street in the north to Nannahagen Road in the south. The tract is of relatively even width with one protruding section in the center of the western side. The surveyor has again utilized a conventional NS/EW grid of 100' squares to

108 Although the circular lots in these subdivisions would have been very easily laid out initially, after houses had been built on the plots, relocating the boundaries of each would have become quite difficult, especially if the exact center of a circle was covered by an owner's house. This potential for future boundary problems may have had something to do with the reluctance of insurance companies.

gauge the progress of the land. This grid was laid over the entire site on the original drawing and appears therefore in all of the prints made for working studies.

The tract is adjacent to the small town of Pleasantville, New York, at the eastern edge of a rolling expanse which ends in the sharply cut Saw Mill River valley to the west. To the east the character of the land immediately becomes very hilly and harbors many small lakes. The Usonia Homes tract is sandwiched between the southern end of Bear Ridge and the northern fingers of Mount Pleasant at the northern end of the Kenisco Reservoir. Bear Ridge establishes the western site boundary by creating a broad eastward facing slope. The Co-operative is surrounded by a permanent watershed owned by the State of New York which forms in effect a permanent greenbelt around the community.110

The initial studies for the Usonia Homes subdivision were made on a very large print of an engineer’s survey of the site (4720.003) which details more specific features of the site. The engineer’s drawing records the active topography of this heavily wooded ninety-seven acre tract. The land ranges from a low point of 82’ to a high point of 290,’ over two hundred feet in elevation difference. These numbers correspond roughly to absolute elevations of 600’ to 400’ above sea level. The lowest land is to be found on the southern end of the site as the land drops toward the Reservoir, and the highest is to the northwest along Bear Ridge. There is a section of densely forested land running roughly through the center of this tract across the northern two thirds. The forest opened up along the western side of the tract to reveal the broad hillside climbing up to the Ridge. The southernmost third was completely forested. There are many places in which large stone outcroppings are noted. It is, in short, a difficult and challenging site on which to lay out a community of any size.

A print of this survey in the Taliesin collection (4720.003) has been used to study various road layouts across the entire tract. Many possible road locations are sketched in various colors and with varying degrees of care. These were probably done at different times, perhaps by different hands. It appears that there was an existing "traveled way" leading in from the south along the eastern boundary which served as one of the entry points for the studies recorded here and for both of the later plans. These road position studies seem to make no reference to lots locations or sizes of any kind. They do however carefully negotiate the rapidly changing contours, at least in the southern third of the tract. The sketched lines in the northern part of the tract are much more schematic and not as cautiously studied. For the most part there is no apparent strategy for locating these roads other than being cautious of the sloping land and stone outcroppings. The longest single impression for a roadway runs roughly through the center of the northern two thirds of the site along the base of the broad western

hillside. This roadway suggestion dips in and out of the forested area and is the single most positive aspect of the various roadway sketches. One section of this line was labeled "primary road", but this was then erased. This site is very hilly and any study of a plan layout would have to take the location of roads as a priority consideration from the start. That is apparently what we see recorded here. But again, there is no indication of a strategy for laying out lots.

The one item which is the most carefully drawn study on this survey print is a series of concentric circles drawn over a very steep hillside at the eastern boundary about a third of the way down from the northern edge of the tract. Here one of the vertices of the 100' grid has been chosen as a center point for three separate circles of various sizes. The smallest of these is labeled "Kalamazoo" and measures just over 4" in diameter. At a scale of 1" = 40' - 0" this would make this a representation of a 160' diameter circle on the site. The largest of the circles drawn at this point measures 6" in diameter and is labeled "one circular acre." The sheet also carries a handwritten note adjacent to these circles recording the size of an acre, "43,560". We also find a note here which represents a calculation to determine the size of a circle a full acre in area, "117.75' -> 117' - 8".\textsuperscript{111}

There is another note on the drawing at this spot which records the division of 117 by 40, where the number 120 is written over the 117 and the division is carried through revealing 3 as the answer. All of this suggests that a radius of 120' was used as an easy way of creating circles approximately an acre in size. This accounts for the 6" circle drawn on the sheet. The other, or intermediate circle is simply inscribed within the four adjacent squares surrounding the center point. This circle has a 200' diameter. This was the diagram, you'll remember, with which Wright began the planning of the Cloverleaf project. Here we see a reference to the Parkwyn Village project as a part of the study of circles on this site. This however appears to be a diagram used only to establish a reference diameter, there are no circular lots drawn anywhere on this topo print and this diagram is not connected to the roadway location studies.

There are other revealing asides sketched onto this print of the top map. One of these is a complex diagram recalling perhaps the foursquare arrangement of Wright's much earlier Quadruple Block planning schemes. It marks a pattern of squares surrounded by lozenges making a pattern of close packing shapes which could be extended in all directions. There is no indication of the meaning of this little diagram.

Wright's hand can also be seen in another diagram which appears to be a drawing of a hillside with two buildings drawn into it. This is very similar to a little sketch we noted on one of the planning drawings for the Usonia I project Wright designed for East Lansing

\textsuperscript{111} Given 43,560 sq. ft. as the area of an acre and the formula for calculating circular areas, as AREA = 3.14159(r^2), we find: that the actual radius should be 117.78'. This translates into 117' - 9.5", not the 117' - 8" recorded on the drawing. (The diameter of a full acre circle would be 235' - 6").
Michigan almost ten years earlier. One of the structures is indicated in a Taliesin-like position at the brow of the hill. The other is positioned further down the slope. There are also indications of several very short curving dams of the type shown in the Galesburg plans pushed into a draw at four or five places where a brook is shown. The sheet also records several studies of "gate" locations along King Road at the northern edge of the tract. There are notes indicating a play field and a pool in the only relatively level area which occurs near the center of the tract.

All of these studies led up to the master plan which Wright prepared for the Usonia Homes Co-operative (Figure 7.1). The master plan drawing itself has been lost and only a black and white print is available in the Taliesin Archives. Wright added his name and a new date of May 22, 1947 to the working print he was given which forms the basis of this original. This is approximately a month later than the initial Michigan master plans. He also added a legend explaining the colors and symbols used in rendering the original. The print (4720.002) records not only Wright's rendered presentation drawing of the master plan, but was also later used as a study for changes in the initial concept, presumably by Wright. We find in the print the same kind of graphic language for representing site and master plan features found in the Michigan presentation plans. Because we have only a black and white print it is not possible to decipher the colors of the original drawing with much precision. Further compromising a thorough analysis is the fact that it is impossible to distinguish conclusively between the marks made as a part of the original rendering and those made as later studies. Therefore our analysis can proceed based only on the material available. At such time as the original drawing is located a more conclusive picture will become possible.

This master plan (4720.002) follows the Galesburg and Parkwyn conceptions in a general way. It is composed of a number of circular lots of approximately 200' diameter, in spite of the notes made on the previous sheet. Unlike those previous layouts however, the circles are arranged to correspond with a triangular close-packing grid. While such a geometry does not completely follow the square grid used by land surveyors it does provide the most efficient, or most closely packed, ratio of circles to interspaces. In the Usonia Homes master plan Wright has established one of the surveyor's NS/EW grid reference lines as a datum upon which to base his layout of the circular lots. This line, identified on the print as the "4800 LINE," runs

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112 From an interview with Roland Reisley of Usonia Homes over the summer of 1991 it appears that the Usonia Homes community has not been able to locate the original presentation master plan drawing either. The engineer's office apparently made a base site plan map which contained the topographic contour lines and limited other information about the tract. Each of the prints of this drawing in the Taliesin archives contains differing amounts of additional information as a part of the print sent to Wright and the Usonia Homes group. This indicates that the engineer probably made several first generation prints, or printable sepias, etc. from an original base map, and added this different info onto each before making a print to send out.
lengthwise through most of this elongated tract. The line chosen is the one line of the
surveyor's square grid which runs through the longest portion of the entire tract. (This may be
the reason it was chosen.) Individual circular house lots are marked off along this starting line
using the surveyor's underlying 100' grid measurements as a reference. Up to sixteen individual
circles were laid out in NS sequence along the full extent of this datum line through the tract.

There are two other reference lines crossing this datum. One of these is the highlighting of
another of the surveyor's grid lines which is perpendicular to the starting one. It crosses the
tract just north of the center point. This perpendicular reference line intersects the western
property boundary just about 100' to the north of the large protruding section of land. It
intersects the eastern property boundary exactly at an angular point. This and the "4800 LINE"
then, form a kind of center of coordinates for gauging the entire ninety-six acre tract, from the
surveyor's point of view. There are numerous other lines drawn very faintly which run
perpendicular to the datum "4800 LINE" and were probably used to lay out lots.

Wright, however, did not follow the surveyor's lead any further in this case. There is
another, more significant, line on the drawing which indicates the direction of his deviation.
This second line intersects the "4800 LINE" datum at a 60° angle and establishes the direction of
reference for laying out the individual lots on this drawing. It crosses the datum in the northern
third of the drawing and runs through the center of five circular lots. In a similar manner a
triangular grid of close packed circles was extended across virtually the entire ninety-six acre
tract. Only a wedge shaped portion along the broadly sloping hillside in the northwestern
corner of the site is not covered by potential lots on this print.

This is where certainty about the specifics of his initial layout leaves off, however. In
David Henken's first letter of response of July 10, 1947 written to Wright in response to seeing
the initial master plan, he recorded the following:

After the initial excitement and thrill of receiving your wonderful preliminary site
plan had abated sufficiently for us to check the land carefully and discuss it with our
members, we are returning your preliminary drawing (with another copy of the survey)
for corrections, refinements, and completion.

Please note the following points:

1. Sites 5, 10, 16, 17, 18, 21 and 22 are either undesirable as home sites, or are
undesired by the members for various reasons including slope toward the north,
bad drainage, swamp, and excessive grading for the roads.

2. We have officially enlarged our membership to fifty (a move which had been
under consideration at the time the site problem was given to you. We have now
thirty-nine sites to choose from. You may remember we asked for a total of from

113 The surveyor's map gave such designations to all of the grid lines. Line N4800 just happened to be the
one chosen by Wright.
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sixty to seventy sites (or at least twenty-one more than we now have available) so that the element of choice would be there even for our last member. Could you please therefore extend your pattern to those unused areas such as C, D, and E (please see tracing attached to the photographs of the site plan), which contain highly desirable building sites as well as very much sought after land.

We can convert areas like F and those parcels unchosen by the members into park areas.

Furthermore, we are contemplating the purchase of fourteen acres at A and eight acres at B in that order. The vineyards can be shifted to the B area in order to be closer to the orchard.

3. As for the community as a whole, we noted the lack of a nursery, playing fields, tennis courts, and special hobby facilities in the community center, as well as a store or shopping facility.

In the community building as such, we feel that the lounge portion could be readily absorbed in the recreation and alcove portion, and that the space thus saved might be utilized for store, office, and hobby facilities. Could you, therefore, proceed with the necessary changes in this building, as well as make suggestions for the nursery and children's playground.

Enclosed is a copy of our requirements as submitted to you at Taliesin West this spring. You will see that among the items requested are those mentioned above.

4. As for the road system, could you please indicate just how you would like the roads built? What lighting is to be used? Which parts should be one way only, and which two way?

5. Also, what types of dams would you like for prevention of erosion by our brooks, and for drainage control?

Based on our original requests, and in view of your preliminary site plan, I think this is a sufficient statement of our desires for the more detailed site plan.

We feel comforted by your assurance to us that since the basic pattern has already been established, the final site plan can be made quickly without too much drain on your time. . . .

Highway exits and off site road conditions in the mid 1940's would suggest that the southernmost entry was to be considered the main one. This would put the community center and the orchard at the farthest point from the public highway and deep within the recesses of the piney woods.

Henken's letter also requests suggestions for dams and for changes in the community building. Wright penciled a note on the original letter, as he frequently did, to the effect that

114 Henken to Wright 7/10/47.
115 There are many other small sketches made on drawing #4720.003 which remain indecipherable until the original can be consulted. However it appears that a large circular form was attempted on the great slope behind the Sol Friedman house site!
The Co-operative also considered purchasing more land at this stage as well - an 18 acre parcel and a 14 acre parcel, both adjacent to the initial site. These were never bought. The July letter also requests more specific information from Wright on size and direction of travel along the internal roadways. Wright responded with 16' roadways, all two-way.

On the print (4720.002) of Wright's initial master plan one can identify at least seventy-nine potential house lots (Figures 7.1, 7.2 & 7.3). Without the original drawing in hand it is not possible to determine conclusively which of these where part of the original version of the plan and which were added at a later date. Without a copy of the tracing mentioned in Henken's letter it is also not possible to determine the location of the areas he labeled C, D & E. What is clear from this, however, is that the initial version of Wright's plan did not cover the full extent of the tract seen on this print.

The specific numbered sites which Henken mentions in this letter (5, 10, 16, 17, 18, 21 & 22) were all to be found along the eastern boundary. All seven were colored over on Wright's original site plan before this b/w print was made, suggesting they were removed from consideration by him in response to Henken's comments. Each of these seven sites lay on steeply sloped ground and would have presented inordinate problems for building. There are at least five other lots dealt with in this manner. This alone indicates that the original was reworked after it was first seen by the members of the Usonia Homes group. The numbering of the lots also indicates such a reworking. Lots on the print are numbered in different hands from 1 to 64 with several duplications and some inconsistencies.

We can detect traces of at least three distinct roadway networks on the print. The darkest roads are the most crudely drawn in what appears to be colored pencil and probably represent the last ones studied. In comparison to the Galesburg and Parkwyn plans, this roadway network does not exhibit any decipherable pattern or purpose other than reaching all lots and keeping an appearance of randomness as it moves across the land. There is an earlier road system indicated by a network of lightly colored tracks. These are frequently bordered by the irregular line Wright used to indicate the edges of low shrub planting in the Michigan drawings. This can be taken to be the roadway system of Wright's first plan. There is a third system of what appear to be roadways drawn with light dashed lines which extends only over the southernmost quarter of the tract. The other two roadway designations extend over the

116  fiche #U053C05-6: 7/10/47
117  It appears from personal conversations with Roland Reisley (August 9, 1994) that the eastern side of Bear Ridge was a parcel added to the original purchase. As all of the existent site plans and surveys include this piece, I have not thought it relevant to this discussion.
118  In fact these were kept up by the commune until rather recently when some were widened and blacktopped - find notes of conversation with Roland Reisley on this topic.
entire tract. This dashed system does not behave like a roadway system in that it appears to run through several houses. Without more information it is impossible to decipher its meaning.

There appears to be an indication of a final area to be covered by a low interspace planting layer on this print as well. This is an extensive area indicated by an irregular border line and filled with a texture of rough dots. This layer covers some circles and does not cover others. If we assume that the circles covered by this layer were ones taken out of the plan, then the uncovered circles will represent the final version of the plan as reworked on this sheet, presumably by Wright. There are fifty-nine to sixty such uncolored circles. All of these are served by the dark and roughly drawn road system, again suggesting a final plan variant. This is in spite of the fact, mentioned above, that this roadway network does not appear to express any ordered pattern on the land other than the fact that it reaches all of the final lots. This roadway system covers a wide range of relationships to the site. It runs along groups of lots, it darts between clusters of lots, it twists and turns to avoid cutting off lots, it cuts other lots, it flows smoothly for long distances, it wraps around lots in quick succession, and it runs squarely into the boundaries of the tract which force it to turn abruptly.

The lots in this final version of the initial plan occupy the lower half of the tract rather fully. Lots were left out to suggest a pattern of hexagons or groups of six around shared park/interspaces. Such a group occupies the protruding portion of the tract on the western side below the end of Bear Ridge, for example. The orchard mentioned by Henken is found on the broad slope of Bear Ridge along the western boundary. The rows of trees indicated run parallel to the property line here and mark no other internal reference. The vineyard has apparently been erased as no trace can be found on this print. The steep and irregular land along the upper eastern boundary is avoided as well. There is one hilled area at the center of the tract left open between roads. In the northern portion of the tract the lots gather into very different groups organized in lines two lots wide. These enclose no shared park areas. I have detected no apparent rationale for this kind of strategy which treats the grouping of circles in the southern and northern ends differently. 119

The lots in this apparent final version are arranged so that none is surrounded by more than four others. Since circles pack in this hexagonal configuration with six around any single lot, this means that at least a third of each individual lot’s perimeter would remain open to the interspace layer. Many of the lots are open to more of the communally held woods than this.

Wright has included footprints of house siting possibilities in each of the circular lots drawn. These vary even more than they did in either of the initial Michigan plans. Wright has also included a community center occupying a hilltop site in the extreme northwestern

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119 See the version of drawing #4720.002 I have colored with green pencil for an illustration of this final plan version.
corner of the site with a series of cabins running out in a line up the hillside above. There is a community pool located just below the center in a vale. Some of the swampy areas in this part of the site are shown reconfigured as small "PONDS". He has indicated a small "gatehouse" at the southern-most site entry within its own circular lot. There is also a Broadacre City style "farm unit" shown at the extreme southwestern corner of the tract on Nannahagen Road.

All in all this is a very different strategy for laying out such a site plan than we have yet seen. In effect, a triangular planning grid supporting locations for close-packed circles has been substituted for the square grid of the previous projects. Conformity with specific site conditions is achieved only by choosing which sites to remove from selection for use as parks or for cover with the interspace layer. Variety results from any combination of such decisions about specifics. After the pattern of lots was adapted to the topography, a roadway network was then laid in which respects the necessary topographic conditions while reaching every site in one way or another. This, in spite of the roadway sketches on the site topo (4720.003) which appear to have been earlier.

The figurative dimension of the Michigan plans is not introduced. We have seen how, especially in the case of the Parkwyn Village master plan, a great richness was the result of a long interactive planning process which was cut short in this case. It is a planning method which efficiently achieves a great amount of privacy and a great amount of picturesque variety. But it does so in what is at heart a formulaic way, and without the kind of overlaid patterning and interpretation of site and program we have seen in the Circle Pines, Galesburg and Parkwyn Village plans. When seen in terms of the representational ambitions of those plans, this one appears as something of a step backwards. Although Wright's direct work on the project stopped here, this plan does not have the level of invention of the first Galesburg plan. And, while it does seem more successful than the first Parkwyn plan, it does not explore the site in ways already begun in Kalamazoo.

Although the circular forms dominate the site plan drawing, one has to realize that because this site was originally wooded and because no family felt driven to clear to the edge of their lot, the circular forms disappeared in actual use. On the ground driving or walking through the project one does not see or think of circles at all. They are merely a vehicle to an end here. That end being the isolation of each house within the forest on its own terms.

\[\text{\footnotesize Neil Levine has noted in personal correspondence that such a triangular planning system also appears in Wright's plans for the Huntington Hartford Resort project being done at approximately the same time.}\]
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3 - Analysis of Master Plan II

The final site master plan (4720.001) which became the basis of the community as it was laid out in the field was drawn not by Wright, but by David Henken and Aaron Resnick of the Usonia Homes Cooperative (Figures 7.7, 7.8 & 7.9).121 A print of the site plan was sent to Wright for his approval before the project began. This drawing was executed on a print of the initial site topographic map as were the others we have been analyzing. A scale of 1' = 80' is indicated, suggesting that the original was reduced by half from the size of the initial topographer's map. The drawing carries the title, "PREPARED BY THE DESIGN PANEL OF USONIA HOMES FROM THE ORIGINAL BY FRANK LLOYD WRIGHT." Henken sent this site plan to Wright on November 4, 1947 with the following comments:

Enclosed are a photostatic copy of your site plan and a copy of the plan with our recommended revisions and changes. Most of the changes, you may note, are either in the roads which were suggested by a careful first hand study of the topography and the resulting problems in grading, and the consequent switching of the sites for community areas and vice versa. This seems to result in a higher percentage of choice sites consistent with the desired dispersal pattern.

Furthermore, we increased the diameter of each site circle from 200 feet to 217 1/2 feet, and we shifted the areas slightly in relation to the grid pattern, not only because of the increased diameters, but to improve as many of the sites as possible. . . .122

The most substantive difference between this final plan and Wright's own work is the increase in lot diameter from 200' to 217' - 6". This one change alone would have made it impossible to follow the original distribution of lots across the site. As far as I can tell Henken made no attempt to do this. Rather, he followed the strategy for laying out lots suggested by Wright's first plan. A north-south oriented datum line was established at an original surveyor's line. This time it was line N4100. Lot diameters were measured off in sequence along this datum. A new grid was then used to position lot centers. This new grid was not made up of squares, but rectangles. The close packing of circles follows a triangular grid of equilateral triangles which can easily each be halved to create the kind of rectangular grid used here. This process allows both the tight and formulaic use of circles demonstrated in Wright's first Usonia Homes plan, and the efficient laying out of such a plan in the field following traditional surveying practices. Following such a rectangular grid every other vertex would become the center of a circle if the pattern was filled in completely, which of course it was not.

121 Personal interview with Roland Reisley of the Usonia Homes Cooperative over the summer of 1991.
122 Henken to Wright, 11/4/47. This print still carries the date of the engineer's original print, 3/22/47.
It is a process which is even more efficient than the square one initially conceived, given the
decision to provide interspaces between individual lots. It is also a process which allows a
great amount of flexibility as well.

There are fifty-five individually numbered lots in this scheme, each with a diameter of
217'-6" as suggested above. The gatehouse remains at the Nannahagen Road entry, near
where the farm unit still appears. One can still detect Wright's community center, cabins and
pool lightly penciled in their original locations on the hill at Bear Ridge. When laying
out the road, Henken and other members of the Co-operative made many trips to the site and
also consulted with Westchester officials and a local road contractor so as to get the most out of
their changes.

This demonstrates how easy it had become to lay out this general scheme, almost a
vernacular process for constructing a small bit of Broadacre City. Wright responded
promptly to David Henken's letter of November 4 which introduced this drawing, saying: "I
approve the changes in the site plan as previously discussed with me in NY and now made by
your committee. . . . My best to you all. . . ."

Although Wright gave up his usually tight control of design in the case of this master plan,
there were things which he insisted on maintaining even long after the members began to think
otherwise. One such example is Wright's insistence that the internal site roadways remain
gravel and not be paved. This single feature would have a great impact on one's perception
of the relationship between house, nature and city, even as the presence of the interspace
planting layer weakened.

Wright designed five houses for this Cooperative, three of which were built. He was
given the authority of design rejection on all others. Many of the others were designed by

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123 This, you will recall, does give a full acre; such a circle would be 235'-6" in diameter. The coincidence
of the numbers involved in these various lot sizes is curious. A circle of 117.5' radius would have a
diameter of 235' and enclose a full acre of 43,560 square feet. Henken however used a number of 217.5'
as the diameter of his lots. Could it be that they intended to obtain a full acre but transposed numbers
accidentally. There is similar confusion in the calculations in the Kalamazoo plans as indicated above.

124 Someone has come back at a later date and highlighted the locations of the houses Wright designed for
this community on the printed version sent to Taliesin. The circles in which these houses were placed
are darkened roughly with the added notes: Friedman Hs - "polygon"; Serlin Hs - "rectangle"; Auerbach
Hs - "triangle." The Miller House is not so noted and the site for Roland Reisley's House is only very
faintly drawn over.

125 See Henken to Wright, 11/4/47: Henken notes that a local officials and gravel road specialists in
Pleasantville had been often consulted. The Usonia Homes Co-operative must have felt more emboldened
than the Michigan groups at least partially due to the fact that not only was Henken a trained
architectural designer, he had a previous relationship with Wright, and the took a role in guiding the
Cooperative from within.

126 Note the Meadow Circles subdivision plan prepared by apprentice Peter Berndtson in Pittsburgh:
Organic Vision: The Architecture of Peter Berndtson, by Donald Miller and Aaron Sheon. The Hexagon
Press, pp 17, 41-43.

127 Wright's comments penciled on the bottom of his original copy of Henken's letter.

128 From a personal interview with Roland Reisley during the summer of 1991. This use of gravel harkens
strongly back to the gravel road plane in Wright's design for the Cloverleaf project.

129 The three built houses designed by Wright are: the Sol Friedman House, 1948; the Edward Serlin House,
1949; and the Roland Reisley House. The Taliesin site plans for the first two of these show the
circular lots with a graphic system not unlike that used for the Pope House described in Chapter II
above. The two unbuilt designs were for Irwin Auerbach, 1949; and, for Sydney Miller 1949.
Henken and other Taliesin apprentices living in the New York area. Wright made as many as 18 visits to the site in these years, to witness the execution of the plan and to supervise the houses he designed there.130

130 David Henken, "Usonia Homes... A Summing Up," (in catalog produced with an exhibit in Westchester County in the 1980s) pp 14-15.

By March 1950, one newspaper report described the progress of the project through the finding of a willing financier. The Kalamazoo Gazette, "Wright Village in East Wins New York Financing:" date not available (note that the description of the project here is somewhat more ambitious than the evidence indicates). "Usonia Homes, Westchester's unique co-operative community of 50 modern homes for which Frank Lloyd Wright, Spring Green, Wis. is serving as supervising architect, has won banking approval, it was revealed with the Knickerbocker Federal Savings and Loan Association of New York has signed mortgage closings on the first group of completed houses.

Plus Eastern Interest / Placement of the mortgage loan which involves an initial commitment of $182,000 of the first 12 units, marks the end of a two-year effort on the part of the co-operative, located two miles east of Pleasantville, to secure financing. Because of the advanced architectural design of its individually styled homes, the pioneering site plan devised by Mr. Wright, and its organization as a non-profit co-operative, the unusual project had stirred the interest of nearly every lending institution in the East as well as becoming a mecca for architect and planning students from many nations.

The terms of the mortgage arrangement provide for separate loans to be made directly to the co-operative on each of the individual homes. Both the co-operative corporation and the member for whom the home is constructed will sign the bond. The loans at 4 3/4 per cent interest, will run from 10 to 20 years in length.

The site of the development is 97 acres of rolling meadow and wooded hillside overlooking the north end of the Kenisco Reservoir. The property runs between Bear Ridge Road on the north and Nannahagen Road on the south and is bounded by King street (route 120) and New York City watershed property.

Recreation Facilities / In the novel site plan devised by Mr. Wright, circular building plots inclosing [sic] approximately an acre of land each have been spotted over the land with large intervening areas and buffer areas near the public roads being reserved for park, playground and other community uses. Because of the difficulty of insuring titles to the circular plots, mortgage loans are being secured by normally shaped plots but the circular lot system is being preserved within the group by internal agreement. Included in the plan are provisions for a large athletic field, community house, a natural swimming pool, a nursery school, ski slope and a miniature farm unit which will be used as a demonstration farm for the children of the community."

Also, an Associated Press dispatch to The Kalamazoo Gazette, 4/18/50 is descriptive: "A new idea of building homes on circular lots is being tried out in the wooded hills of Westchester County, just north of New York City.

"Frank Lloyd Wright, famous dean of modern American architecture, is supervising design of 50 dwellings being erected on the round plots each of which has an area of approximately one acre. "Some of the lots touch only at one point. The intervening land is retained for parks and playgrounds. The development covers 97 acres, but only 50 will become home sites. "This comparatively extravagant use of land is to insure maximum privacy for each home site, to keep all zoning problems under control and to protect against undesirable encroachments. At the same time it underscores the community features of the project.

"The Usoina [sic] project is co-operative. Prospective home builders buy stock, instead of land, and lease their home sites on 99 year terms. Thirty-one families have joined in the enterprise. "Fifteen houses - five of them built from Wright's own plans have been erected so far at costs ranging from $15,000 to $35,000. Various architects are participating, the sponsors of the project having been pupils and understudies of Wright at Spring Green Wis. "Because of the difficulty of insuring titles to circular lots (due to surveying complications), mortgage loans are being based on an abstract rectangular division of the land, but the circular subdivision is maintained by agreement of the co-operative.

"Private financing launched the first homes because of the reluctance of mortgage lenders to participate in unconventional schemes. Recently, however, the co-operative obtained mortgage commitments of 12 houses from the Knickerbocker Federal Savings & Loan Association of New York. The loans, running from 10 to 20 years, were made at 4 3/4 per cent.

"Louis T. Boecher, Knickerbocker president, explained: "Here we have some of the houses designed by Mr. Wright himself, and as usual 20 to 30 years ahead of their time. At the tag end of these loans we will be secured by marketable, contemporary homes instead of dated stereotypes, many of which are obsolete before they are started. We are banking on the future, not the past.

"The homes already built and under construction feature extensive uses of glass, wide roof overhangs, large fireplaces, open planning for interiors, spacious terraces and outdoor living facilities."

See also Priscilla Henken, "A "Broad-Acre" Project," Town and Country Planning, Vol. XXIII (June 1954), pp 294 - 300 which describes the financing arrangement in more detail: "Under the mortgage
4 - Summary of Galesburg, Parkwyn and Usonia Homes Plans

The figure/ground reversal of the first Galesburg plan invites us into a world in which perceptions of form are both strengthened and called into question. The image of the circle on the land, the pattern of circles thrown over a landscape, is given as both a metaphor and a physical fact. The place of the individual in nature is emphasized. The circle is a man-made geometric form which, once given, admits no influence. Any two of the many touch only at a single, fleeting, point. No contact lingers as each secures its perimeter from within.

Between these figures in the field, these drops on a surface, flows an even background layer of native shrubs. Again it appears as both the actual reality of a shared planting layer and as a symbol of the common ground, of nature. As the lots are foregrounded we see them as positive forms, a dense mat of circles brought closely together. They stand upon the ground as objects. In the figure / ground shift, as the plane of the interspace layer emerges the circles fall back.

When one reads the continuity of the low shrub mass as representing the overall continuity of the natural context, each circle is seen peripherally, the mat cannot be held in vision. The eye cannot hold both in focus simultaneously. One must be subject and the other object, and vice versa.

plan, the bank writes a separate mortgage on every house, including those already built and “paid for”. Usonia holds title to the land and the houses; members have ninety-nine year leases renewable for their heirs, and make monthly payments to the co-operative for the principle and interest of their mortgages, maintenance of community properties, and community expenses. The co-operative, in turn, pays the loan association. However, each member family must agree to go on bond on his own leasehold so that if Usonia defaults on the group mortgage, each individual will be responsible for his own house and land. Since Usonia is the owner, when a member leaves he has to turn his house over to the co-operative, which may in turn “sell” it to a new member. If the house is sold at a profit, the withdrawing member will get back his equity in the house plus his share of the profit - a percentage that makes allowances for inflation by using the Bureau of Labor Statistics Index. If it is sold at a loss the owner must stand the loss alone.”

“Over the ninety-seven acre site, Mr. Wright threw a circular geometric pattern. There are fifty circular plots - one for each house - of approximately an acre each. These touch neighboring sites only at contiguous points, and each group of six encircles another circular plot, which is used as a small park. The little triangular wedges that are left between circles remain buffer areas of green. The land not used for home sites is allotted to present or planned-for playgrounds, vegetable gardens, a children’s farm, swimming pool, community house, guest cottages, and ball courts. Winding roads skirt the edges of the sites or cut through community property. The co-operative dug its own well, built a storage tank and pump house, laid out the water and road systems, brought in electricity, and purchased fire-fighting equipment, and heating pipes.

“Of the fifty families on which we planned, a number small enough to make a cohesive community, and large enough to share the financial responsibilities, thirty-three are living here now. They represent a cross-section of religious and political affiliation, and varied occupations; teachers, dentists, a lawyer, a doctor, engineers, architects, advertising executives, salesmen, business owners, chemists, journalists, decorators, and of course, housewives. The ages vary from the middle twenties to the early sixties. The common denominator is the willingness to live co-operatively, and a feeling for modern architecture.”

It is worth noting that this community has a very high rate of original members with many of their children returning to invest in the group (from an interview with Roland Reisley over the summer of 1991).
Any image of the cohesion of the group is gained by suppressing the landscape represented by the continuity of the interspace layer. As we hold the circles together in mind, they squeeze away an image of the landscape. When we reach again for a sense of the presence and continuity of this layer, of nature, we force the circles apart, they, and the group, fall back. Object becomes subject. The eye negotiates this shift in readings of the plan by focusing and releasing. The circle is the perfect form for this. It is most easily held in mind as object, no edges, no corners to comprehend; it is most direct. When pushed together, each resists equally. The circle is completely self-referential, autonomous, and in this characteristic it becomes a perfect candidate to be both object and subject. The relationship of center and circumference already suggest this dance.

The accomplishment of the Galesburg plan is that the alternate perceptions available in Cloverleaf are given here at the same time. The Pittsfield plan gives a view of a building as an object from the automobile and then transcends this by finally prioritizing the point of view from within a unit, from building as object to space as the positive feature. In the Galesburg plan the sequencing of this is collapsed so that both figure and ground readings are everywhere (there) at once. The plan is both and neither. The beauty of this plan is that it is given as both symbol and fact.

There is a mechanical quality in the plan Wright prepared for the Cloverleaf project in Pittsfield, Massachusetts. The first plan for Galesburg is also repetitious, methodical and evenly pressured. By the third master plan for Parkwyn Village, Wright had released this pressure. With the appearance of a figurative quality, narrative (or something like it) is substituted for geometric regularity and predictable regulative structures. In this master plan the force of the idea is made to flow across the landscape, not mimicking the land, but interacting with our perceptions of it. The final Parkwyn plan transcends the tedious and mechanistic geometry of the Ardmore and Pittsfield designs. It introduces another facet into the plan of Usonia I by setting it in motion. The active visual layering of the earlier designs is combined with the overtly symbolic dimension of the Circle Pines master plan in a new manner.

By working to insure maximum privacy through the use of circles and the interspace planting layer, Wright has developed forms which also reinforce the cohesion of the group. Unlike the suburban planning models in common use today, here individual privacy is sought through a plan that does not relax the strength of the group. Just the opposite, perceptions of the group are enhanced as a common purpose is read. The two are given as complementary, each necessary to hold the other.
Illustrations: Usonia Homes (4720)

FIGURE 7.1  Wright's site plan for Usonia Homes - #4720.002

FIGURE 7.2  enlargement of northern half of Figure 7.1 - #4720.002a

FIGURE 7.3  enlargement of southern half of Figure 7.1 - #4720.002b

FIGURE 7.4  initial site layout study on topographic map - #4720.003a

FIGURE 7.5  initial site layout study on topographic map - #4720.003b

FIGURE 7.6  (Figure 7.1 with layout lines heightened over #4720.002)

FIGURE 7.7  second scheme for Usonia Homes - #4720.001

FIGURE 7.8  enlargement of northern half of Figure 7.7 - #4720.002

FIGURE 7.9  enlargement of southern half of Figure 7.7 - #4720.002

FIGURE 7.10  (Figure 7.7 with layout lines heightened over #4720.001)

FIGURE 7.11  (Figure 7.7 with layout lines heightened over #4720.001)

FIGURE 7.12  Friedman House & site plan - #4906.001

FIGURE 7.13  USGS map of Usonia Homes site area
FIGURE 7.1
Wright's site plan for Usonia Homes
(4720.002)
FIGURE 7.2
Wright’s site plan for Usonia Homes, northern half
(4720.002a)
FIGURE 7.3
Wright's site plan for Usonia Homes, southern half
(4720.002b)
FIGURE 7.4
initial site layout study on topographic map, northern half
(4720.003a)
FIGURE 7.5
initial site layout study on topographic map, southern half
(4720.003b)
FIGURE 7.6
Figure 7.1 with layout lines heightened
(4720.002)
FIGURE 7.7
second scheme for Usonia Homes
(4720.001)
FIGURE 7.8
second scheme for Usonia Homes, northern half
(4720.001)
FIGURE 7.9
second scheme for Usonia Homes, southern half
(4720.001)

PART THREE / Chapter Seven
FIGURE 7.10
Figure 7.7 with layout lines heightened
(4720.001)
FIGURE 7.11
Figure 7.7 with layout lines heightened
(4720.001)
FIGURE 7.12
Friedman House & site plan
(4906.001)
FIGURE 7.13
USGS map of Usonia Homes site area
PART THREE / Chapter Seven
PART IV. *On Reciprocity & the Metaphor of Organic Form*
* A philosophical background to Wright's planning languages

An orchard is a forest in a field.
Both perceptions are available simultaneously: being located and being lost - near and far.

CHAPTER EIGHT - German Idealism and the Idea of Organic Form
- Form: the organic metaphor
- Unity: the relationship of part to whole
- Reason: the relationship of means to purpose (ends) in Kant

CHAPTER NINE - Correspondence and the Reflexive Symbol in Emerson's prose
- The basis of Emerson's relevance
- Correspondence and the reflexive symbol

CHAPTER TEN - Emerson, Wright and the Myth of American Nature
- Emerson's centrality
- Puritan vs. Romantic selfhood

CONCLUSION
- Figure/ground reversal
- The circles of Usonia
CHAPTER EIGHT - German Idealism and the Idea of Organic Form

All architecture is what you do when you look upon it.
Walt Whitman

There is no doctrine of forms in our philosophy.
Ralph Waldo Emerson

In this sequence of seven projects Wright changed the terms of his community scale designs. In the Quadruple Block schemes of his Prairie years, in the Como Orchards project, and in the 1913 Non-Competitive plan he used strong geometries to establish a hierarchically governed sense of order among the parts. Geometry alone worked in those designs to provide a cognitive platform which defined the relation of self to community, and of community to nature. The forms, the relations were preconceived. This kind of conception also governed relationships in the Broadacre City plans. In the projects we have been studying, Wright abandoned this static view as he moved toward a conception of ground plan and perception of landscape as reciprocal figures, both involved in the process of establishing spatial reality in a place. Definition of the relation of self to community and of community to nature are engaged in the perceptual process so invoked. One is asked to become involved with just how it is the mind reads form in the first place. Definitions of self, of community, and of nature are not given, rather one is suspended in space by a set of forms which are both positive and contradictory, suggesting alternatives without allowing resolution. This involvement with the process of conceiving form came to Wright from many sources, the most central of which is the organic metaphor.

That Wright was influenced by the idea of 'organic form' goes without saying. He was exposed to this doctrine from many sources and commented upon it widely throughout his career. The Americans Sullivan, Whitman, and Emerson stand out as his most direct influences, but he read Goethe, Herder, Coleridge and Carlyle as well.\footnote{Wright mentions these authors in several places. See for example the final page of the 1943 edition of An Autobiography. Duell, Sloan and Pearce: New York (page 561).} The questions before us now are to what extent, in what ways, and to what ends did Wright’s achievements in the projects just analyzed rely upon the intellectual constructs of this romantic-era doctrine?
In contrast to defining the doctrine of organic form as a metaphor which merely represents a process, I want to analyze it in such a way as to point to aspects which reflect the 20th century interest in the role of symbols in human thinking. To do this I will first sketch the roots of this doctrine in such a way as to highlight its ability to describe the symbolic dimension. Then we will look at parallels between the notion of organic form in Emerson's theory of language and the 20th century philosophy of symbols. Emerson figures strongly as a significant source of Wright's process of form-making in several ways. Wright read Emerson as a child and returned to his works in the period we have been studying. Late in 1937 Wright designed the layout for the entire January 1938 issue of Architectural Forum devoted to his work. He sprinkled transcendentalist passages from Emerson's chief students, Thoreau and Whitman, throughout this issue. Shortly thereafter he began giving apprentices copies of Emerson's essays to read and later included Emerson's essay on farming as an appendix in The Living City. Less directly perhaps, but more significantly, Emerson was chiefly responsible for bringing the organic metaphor across the ocean, and for finding in it more than a theory of artistic form. He found a vision of life which was able to tap into, and reformulate, a strong tradition of using concepts of nature as a background to social and religious agendas in America. Finally, in this context, Emerson's roots in the rhetorical traditions of American Puritanism will be explored. Wright's vision of community relies on this uniquely American foundation just as much as did Emerson's vision of the self. In all of this I want to show that Emerson's theory of organic form as evidenced in his prose gives us a powerful demonstration of the epistemological dimension of the metaphor of organic form. And that, starting from such a place, Wright's development of an organic architecture, predicated as it was on an interest in the symbolic process, parallels the multi-layered "symbolic objectivity" of European modernism as described by William Jordy in his essay on "The Symbolic Essence of European Architecture of the Twenties and Its Continuing Influence," but with different emphasis.

Form: the organic metaphor

The idea of organic form entered into the 20th century architectural debate through the discussion of 'functionalism' so prominent in early descriptions of modern architecture. Louis Sullivan's phrase "Form Follows Function" has, for example, been given canonical status in this regard. My thesis in this chapter is that the ambitions expressed in Wright's use of the doctrine of organic form go beyond those that can be described in terms of a functionalist esthetic.

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2 It is one which I think is implicit in many studies of organic form but is not, so far as I know, directly brought out anywhere.
alone. Such an interpretation of the organic idea is an extremely restricted one which, while attempting to encapsulate the metaphor in ways sympathetic to the machine esthetic, has missed some of its more potent aspects. While it is true that this formulation has been influential and does in fact describe some aspects of Wright’s usage, there is another, broader significance which leads right to the heart of the key representational issues in 20th century art. This broader dimension is suggested by Wright’s reformulation of the Sullivan dictum, “Form follows Function? Yes, but more important now Form and Function are One.”5 This redefinition also suggests affinities with some of the observations of human thinking which form the core of Emerson’s contribution to an American Romanticism. “The thought and the form are equal in the order of time,” Emerson wrote in his essay on the creative process, “but in the order of genesis the thought is prior to the form.”6 Wright put this similarly in saying, “Ideas always precede and configure the facts.”7 In the text that follows I will explore the logic of such a redefinition.

While the idea has ancient roots, the modern development of the doctrine of organic unity began in the late 18th century in the German Idealism of Kant, Herder, and Schelling, among others.8 The idea of organic form has become perhaps the most widely used metaphor in Western civilization since that time. In broad terms it represents a turning point in the central organizing metaphors used in Western culture. It is one which seeks to reconcile the duality of art and nature with which Western man has struggled since the time of Descartes. As such it represents a shift from the mechanistic and vitalist views of the Enlightenment to one which reflects the coming age of biologist and the discoveries of the life sciences.9 Life forms became the basis for a wide ranging family of metaphors describing the unity perceived in objects of art and acts of genius. Such metaphors have been extended to cover all aspects of human personal and social life, from descriptions of poetic thought to organization of the State and the flow of history.10 This shift also reflects a change from Biblical based systems of theology to a natural theology more in line with these emerging life sciences. In the words of the Puritan scholar Sacvan Bercovitch, “As the Bible gradually lost its authority after the Renaissance, sola scriptura became sola natura.”11 The authority of the Bible was displaced as, “...significance and truth [came to] reside primarily in nature, rather than either in man or in a God who is independent of nature and controls it for his own ends.”12

7 Wright from The Living City, 1958, quoted by Kaufmann and Raeburn, p 216.
8 I have referred to Abrams, Read, Adams and others as noted in the writing of this section.
12 Egbert, p 339.
Unity: the relationship of part to whole

The metaphor of organic form is grounded in a conception of the "organic" processes of the natural world. There are many aspects of this metaphor all in some way having to do with unity of natural form and the processes by which it is produced (or as we shall see, the process by which our perceptions of such unity are produced). Perhaps the most famous formulation is Samuel Taylor Coleridge's restatement in English of a passage taken from the German A. W. Schlegel,

The form is mechanic, when on any given material we impress a predetermined form, not necessarily arising out of the properties of the material; - as when to a mass of wet clay we give whatever shape we wish it to retain when hardened. The organic form, on the other hand, is innate; it shapes, as it develops, itself from within, and the fullness of its development is one and the same with the perfection of its outward form. Such as the life is, such is the form. 13

Wright expressed this dimension of the organic metaphor when he wrote in 1914, "By organic I mean an architecture that develops from within outward in harmony with the conditions of its being as distinguished from one that is applied from without." 14

The passage, taken from Coleridge's lecture "Shakespeare, A Poet Generally," suggests the evolutionary root of the metaphor of organic form in processes of organic growth, change and development. 15 It is a formulation which draws on the sense of an organism as a unified and self-determining whole existing objectively in its environment. In the formulation Coleridge is also drawing on the German organologist Wolfgang von Goethe. Goethe is unique among the early theorists of organic form in that he was the only one who had an active interest in both biology and an aesthetic theory.

Coleridge learned to read German specifically to study the works of Kant but was widely influenced by other German idealists writing at the turn of the 19th century. Goethe, Schlegel, Schelling and Herder all seem to have had an influence on his translation of this idealism into an English Romantic theory of poetry. All of these show, among other things, the conviction

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13 Coleridge quoted by Adams, p 47.
14 FLW, "In the Cause of Architecture," Architectural Record, May 1914. Wright rarely credits his sources. I have drawn largely from his writings and published speeches during the 1930's and 1940's.
15 Taken from Adams, p 47. Note also the original passage in A. W. Schlegel's lectures published in 1809-11, On Dramatic Art and Literature, which Coleridge was paraphrasing, "Form is mechanical when it is imparted to any material through an external force, merely as an accidental addition, without reference to its character... Organic form, on the contrary, is innate; it unfolds itself from within, and reaches its determination simultaneously with the fullest development of the seed... In the fine arts, just as in the province of nature - the supreme artist - all genuine forms are organic..." (Schlegel quoted in Abrams, p 213)
that organic processes of growth provided a clue to the unity of form. The notion of growth played a key role in Wright's use of the metaphor as well, "An organic form grows its structure out of conditions as a plant grows out of soil . . . both unfold similarly from within." 16

Perhaps the most fundamental aspect of the definition of an organic form has to do with a sense of organization which is similar to, but not limited by, that implied by the word 'living.' Biologically inspired definitions such as those of Coleridge refer to organisms, while philosophical definitions refer to the relation of the parts to the whole.17 The modern concept of organic unity is a reformulation of an ancient one with roots in Classical thought. In the Phaedrus, Plato discusses the idea that the parts of a work are to be in keeping with each other and with the whole. Aristotle extended this concept in his Poetics by adding that such a work would not allow a change in any one part without corresponding alteration of the whole.18 Wright frequently referred to the relationship of the parts to the whole as a summary of the organic principle: "The word "organic" too, if taken too biologically, is a stumbling block. The word applies to "living" structure - a structure or concept wherein features or parts are so organized as to be, applied to purpose, integral. Everything that "lives" is therefore organic. The inorganic - the "unorganized" - cannot live."19

It remained the task of the German Idealists however to give the idea the formulation that has been so useful in 20th century art. There were many contributors to the development of this idea. Herder, Schelling, Kant and A. W. Schlegel stand out as the most significant originators. The work of art that results from such a process of 'natural' growth has been conceived of as having many attributes which are results of the process of growth. Among these are its uniqueness or individuality, its honesty, its relationship of parts to whole, and its identity of means and ends.20 Of these various descriptions of form historically assembled under the organic metaphor as resulting from a process of growth, it is the last which most interests us here, the identity of means and ends. The formulation of Immanuel Kant is perhaps the most concise for our purposes, and was the most influential. In what he called a

16 FLW quoted by Egbert, p 353.
17 Egbert, p 337
18 Orsini, p 422. This aspect became the basis for Leo Battista Alberti's definition of architectural beauty at the start of the Italian Renaissance: "a harmony of all the parts in whatsoever subject it appears, fitted together with such proportion and connection, that nothing could be added, diminished, or altered, but for the worse." See Rudolf Wittkower's, Architectural Principles in the Age of Humanism. New York: W. W. Norton & Company, 1971 (p 33).
20 Each of these attributes can be referenced back to Abrams, Adams, Egbert, Orsini, et al. The organic metaphor has been used to cover a very broad range of related aspects of formal analysis. These can be grouped generally as aspects which address (i) the concept of a unified whole and those which relate to (ii) processes of growth, change and development. Under the first we find: descriptions of the characteristics of individuality and uniqueness of a form such as the natural character of genius, an emphasis on individuality, and the conditions of origin; descriptions of authenticity such as the inner organic relatedness, an unconscious truthfulness, and primitivism; descriptions of the relationship of the parts to the whole, or of the whole before the parts; descriptions of means and ends such as functionalism, form and content, and means and ends. Under the second we find: descriptions of art and the processes of genius like natural forms; descriptions of the evolutionary metaphor; and, descriptions of forms which shape themselves as they develop from within.
“Copernican revolution” in philosophy, Kant helped shift the focus of attention away from objects to the modes of knowledge by which awareness of objects becomes possible.21 The most influential aspect of this investigation is to be found in Part II of Kant’s Critique of Judgment. His discussion, while precise and meant to be limited to a description of the projection of an apparently teleological end as a requirement of human cognition, provided a suggestive model of human thought that was adapted by both Goethe and Coleridge in their interpretation’s of artistic form.22

**Reason: the relationship of means and ends**

Kant introduced a distinction between the normally observable activities of the mind engaged in interpreting data of sensory perception for use in formulating actions, which he called the ‘Understanding,’ and a deeper underlying *a priori* organization of the premises of human thought which transcended such manipulation of data. This he labeled ‘Reason:’

*Understanding may be regarded as a faculty which secures the unity of appearances by means of rules, and reason as being the faculty which secures the unity of the rules of understanding under principles. Accordingly, reason never applies itself directly to experience or to any object, but to understanding, in order to give to the manifold knowledge of the latter an a priori unity by means of concepts, a unity which may be called the unity of reason, and which is quite different in kind from any unity that can be accomplished by the understanding.*23

This separation of the the normally observable functions of the mind from a more pervasive background of *a priori* givens relating to the “specific lawfulness of cognition” which Kant assembled under the rubric of Reason provided an insight which was to become fundamental in both philosophy and criticism in the 19th century. Specifically it is this distinction between those aspects of thought under direct control and the role of the mind in giving apparent *a priori* form to perceptions before the intervention of the will, that laid a foundation for the explorations of the relationship of form and content assembled under the organic metaphor.

M. H. Abrams suggests in his masterful study of romantic theory and the critical tradition that although Kant’s “basically static and taxonomic approach to questions of art . . .” seems to be at odds with organic theory, there were elements in the Critique of Judgment which

“contributed importantly to the development of such theories by other hands.”

In an influential demonstration, Kant used the image of a tree to illustrate his sense of the ‘unity' given to perception by Reason. In discussing perceptions of this apparently teleological unity he contrasted the tree's ability to produce itself to the mechanistic character of a watch.

An organism, he notes, prepares matter taken from outside of itself for itself - “The plant first prepares the matter that it assimilates and bestows upon it a specifically distinctive quality which the mechanism of nature outside it cannot supply, and it develops itself by means of a material which, it its composite character, is its own product.” Any specific natural plant growth such as a tree also “...generates itself in such a way that the preservation of one part is reciprocally dependent on the preservation of the other parts.”

As an organism, a tree stands “...to itself reciprocally in the relation of cause and effect.” So that “...the first requisite of a thing, considered as a physical end, is that its parts, both as to their existence and form, are only possible by their relation to the whole. For the thing is itself an end, and is, therefore, comprehended under a conception or an idea that must determine a priori all that is to be contained in it.”

The last line provides a concise summary of the crucial objective of the definition of organic form I am developing here, and as such bears repeating: “For the thing is itself an end, and is, therefore, comprehended under a conception or an idea that must determine a priori all that is to be contained in it.”

Kant contrasts this example of apparent “organic unity” with the example of the mechanistic organization of parts in a watch where, “...one part is the instrument by which the movement of the others is effected, but one wheel is not the efficient cause of the production of the other. One part is certainly present for the sake of another, but it does not owe its presence to the agency of that other.”

So that one realizes that “...the producing cause of the watch and its form is not contained in the nature of this material, but lies outside the watch in a being that can act according to ideas of a whole which its causality makes possible..." An organized being is therefore not a machine. For a machine has solely motive power, whereas an organized being possesses inherent formative power, and such, moreover, as it can impart to material devoid of it - material which it organizes.”

When considering a work of art from the point of view of such an “organic unity” Kant noted that one sees it as the product of “...an intelligent cause, distinct from the matter, or parts, of the thing, and of one whose causality, in bringing together and combining the parts, is
determined by its idea of a whole made possible through that idea, and consequently, not by external nature.” 32

Kant also developed his view of the productive genius around the problem of “how the genius is able to form a work of art without rules or conscious method, yet achieve a product from which critics later draw the rules of art.”33 Genius, as described by Kant, “through the operation of ‘nature,’ produced exemplary works which seem to be necessarily in accord with ends, yet without being either aware of those ends or of the means by which to effect them, and without having it in his power either to will or to describe the productive process.”34

From this point of view an organism, and by implication an artistic product of genius qualified to be thought of as an ‘organic form,’ is a thing which can be thought of as, “An organized product of nature . . . in which every part is reciprocally purpose (ends) and means.”35 Kant goes on to add that, “In such a product nothing is in vain, without an end, or to be ascribed to a blind mechanism of nature.” 36

As Abrams observes, this is a view of “. . . a natural organism as immanently but unconsciously teleological, a ‘self-organizing being’ which possesses its own ‘moving power’ and its own ‘formative power,’ develops from the inside out, and in which the relations between the parts and the whole can be restated in terms of an interrelationship of means and end.” 37 While it builds on Kant’s conceptions, Abrams also notes that it goes beyond them:

Kant warns repeatedly that this concept of an organism as a natural purpose is merely a philosophy of as-if; that it is, in his terms, not a ‘constitutive,’ but merely a ‘regulative’ concept for the reflective Judgment, to guide our investigation about objects of this kind by a distant analogy with our own causality according to purposes . . . . But to Goethe and to other aesthetic organologists it proved irresistible to make such a purely internal teleology a constituent element in living nature, and then to go beyond Kant and identify completely the unconscious purposeful process and product of ‘nature’ in the mind of genius with the unconsciously purposeful growth and the complex inter-adaptations of means and ends, in a natural organism.38

This point of view was codified in the summaries of A. W. Schlegel, which were also to prove influential in the development of Coleridge’s theory of romantic art. Unlike those of Kant, Schlegel’s works were devoted, most importantly, to the study of art and its history.39

32 ibid., p 20-1.
33 Abrams p 207
34 ibid., p 207.
35 Kant, p 24. (This passage is also quoted by Abrams, p 208).
36 ibid., p 25.
37 Abrams, p 208.
38 ibid., p 208
39 ibid., pp. 212.
Kant had demonstrated that, in Schlegel's words, any living organism was such that "the whole must be conceived before the parts," as a "product which produces itself," by an "endless reciprocation, in which each effect becomes a cause of its cause." This provided the basis for the organic conception of a work of art, because the artist, as Schlegel continued, "creating autonomously like nature, both organized and organizing, must form living works, which are first set in motion, not only by an outside mechanism like a pendulum, but by an indwelling power like the solar system, and which, when they are completed, turn back on themselves."

This interpretation of Kant was continued by Goethe and Coleridge, and became the basis of the Emersonian transcendentalism which so influenced Wright. In this development the role of Emerson in adapting this pattern of romantic thought to 19th century America cannot be overestimated. His naturalistic adaptations of the romantic interpretations of German Idealism provided the most direct line of influence to Frank Lloyd Wright.

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40 A. W. Schlegel, quoted by Abrams, p 212.
41 ibid. p 212.
43 Emerson received much of his early inspiration on this subject from the English translations by the poets Coleridge and Carlyle.
44 The centrality of Emerson's position and his ability to articulate a technique learned by Whitman, Melville, Poe, etc. has been commented upon by many authors and critics. I have referred esp. to Mumford's The Golden Day (1926), Matthiessen's The American Renaissance (1941), Bercovitch's The Puritan Origins of the American Self (1975), and Feidelson's Symbolism and American Literature (1953).

Wright seems to carry the organic metaphor further than Coleridge when he suggests that nature is better for the organic building, the site and the building working together toward a larger unity, a new whole! In this context it is also interesting to note that there exists in the Taliesin Letter Collection a letter written to Wright by Robert Venturi in his student days. In this letter the young Venturi was responding to Wright's published statement that one's perception of the landscape surrounding the house he designed for Hibbert Johnson, "Wingspread", was altered by the presence of the building in a profound way. Venturi asked to see before and after photographs of the site which Wright's secretary was unable to provide.
CHAPTER NINE - Correspondence and the Reflexive Symbol in Emerson's prose

There was a child went forth every day.  
And the first object he look'd upon, that object he became,  
And that object became part of him for the day or a certain part of the day,  
Or for many years or stretching cycles of years.  

Walt Whitman

In my thought I seem to stand on the bank of a river and watch the endless flow of the stream, floating objects of all shapes, colors and natures; nor can I detain them as they pass, except by running beside them a little way along the bank. But whence they came or whither they go is not told to me. Only I have a suspicion that, as geologists say every river makes its valley, so does this mystic stream. It makes its valley, its banks and perhaps the observer too.  

Ralph Waldo Emerson

Man lives with his objects chiefly - in fact, since his feeling and acting depends on his perceptions, one may say exclusively - as language presents them to him. By the same process whereby he spins language out of his own being, he ensnares himself in it; and each language draws a magic circle round the people to which it belongs, a circle from which there is no escape save by stepping out of it into another.  

Wilhelm von Humbolt

The basis of Emerson's relevance  
That Ralph Waldo Emerson occupied a central position in 19th century American culture has been well established by a variety of authors from Lewis Mumford, Perry Miller, and F. O. Matthiessen, to most recently, Stanley Cavell. There are two specific aspects of Emerson’s work that are immediately relevant to our study however. One of these is brought out in Charles Feidelson’s interpretation of the ‘symbolist’ dimension of Emerson’s thought. The other is developed by Sacvan Bercovitch’s appreciation of Emerson’s role in translating the Myth of America into the terms of Romanticism and German Idealism. Both of these views provide a vital foreground to our understanding of Wright’s accomplishments in the middle of the present century. The following sections will investigate Emerson’s literary method in some detail as a way of demonstrating how it was that he paralleled certain currents of 20th century art and philosophy by his interpretation and use of the organic metaphor.  

If Mumford’s The Golden Day (1926) was among the first works to unite Whitman, Thoreau, Melville and Emerson under the banner of an indigenous flowering of American culture, it was Feidelson’s later study of Symbolism and American Literature (1953) that first explored the character of method shared by these, and other, 19th century American writers in terms which relate their concept of method to trends central to 20th century art. “At a time when English literature was living on the capital of romanticism and increasingly given over to unambiguous
narrative and orthodox meditation," Feidelson suggests, "... American literature had turned toward a new set of problems, growing out of a new awareness of symbolic method." My premise is that Emerson's adaptation of the spirit of Romanticism through the umbrella metaphor of organic form extended the idealism of Kant into the heart of an emerging American literature. In the work of this specific group of mid 19th century American authors, with Emerson at their center, "symbolism is at once technique and theme." Feidelson noted that:

These writers anticipated modern symbolism because they lived in the midst of the same intellectual forces: mid-nineteenth-century America was a proving ground for the issues to which the method of modern literature is an answer. They envisaged the symbolic program to an extent that few of their English contemporaries even thought possible, because the crux of modern thought was oddly accentuated by the provincial culture they inhabited. Thus they stumbled upon many of the literary resources which recent symbolism has developed, and they were forced to contend with similar difficulties.

Mumford's *The Golden Day* is the earliest literary study of American sources to express an interest in Emerson as a symbolist. Moreover, the view of the symbolic dimension of Emerson's thought that this book explores provides "the theoretical underpinnings for Mumford's (own) turn to symbolic form as the medium of social reconstruction." But he was certainly not alone. In the period between the World Wars there was a flowering of interest in the symbolist paradigm both in the United States and in Europe which followed and extended the romantic's response to the "high tide of the Kantian revolution." "The symbolist," when compared to the romantic, "... redefines the whole process of knowing and the status of reality in light of poetic method. He tries to take both poles of perception into account at once, to view the

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46 Charles Feidelson, p 43.
47 ibid., p 75-6. (speaking of Hawthorne, Whitman, Melville, and Poe)
49 "One needs only to look at the titles of some philosophical books that have appeared within the last fifteen or twenty years: *The Meaning of Meaning* (Ogden and Richards, 1923); *Symbolism and Truth* (Eaton, 1925); *Die Philosophie der symbolischen Formen* (Cassirer, 1923, 1924, 1929); *Language, Truth and Logic* (Ayer,1936); *Symbol und Existenz der Wissenschaft* (Noack, 1936); *The Logical Syntax of Language* (Carnap, 1935); *Philosophy and Logical Syntax* (Carnap, 1935); *Meaning and Change of Meaning* (Stern, 1931); *Symbolism: Its Meaning and Effect* (Whitehead, 1927); *Foundations of the Theory of Signs* (Morris, 1938); *Seule als Auserung* (Fielwig, 1936); *La pensee concrete: essai sur le symbolisme intellectuel* (Spaier, 1927); *Zeichen, die Fundamente des Wissens* (Gatschenberger, 1932); and recently, *Language and Reality* (Urban, 1939). The list is not nearly exhaustive. There are many books whose titles do not betray a preoccupation with semantic, for instance Wittgenstein's *Tractatus Logico-Philosophicus* (1922), or Grudin's *A Primer of Aesthetics* (1930). And were we to take an inventory of articles, even on the symbolism of science alone, we would soon have a formidable bibliography." Susanne K. Langer, *Philosophy in a New Key* (1942), p 21-2.
subjective and objective worlds as functions of each other by regarding both as functions of the forms of speech in which they are rendered."\(^{50}\)

The symbolist's concern with the interdependence of "both poles of perception" is a development of the Kantian objectification of "purpose (ends) and means" as reciprocal aspects of the perceived teleological unity of natural forms. Charles Feidelson has suggested that, "Symbolism in modern literature is the symbolistic theory of knowledge put into practice."\(^{51}\)

He has sketched the connection between Emerson and Coleridge in this way:

Seeking to avoid the conception of words as "arbitrary signs," Coleridge proposed that they be regarded as intrinsic to the organic growth of the mind - "parts and germinations of the plant" - while he also "would endeavor to destroy the old antithesis of Words and Things; elevating, as it were, Words into Things and living things, too." In this sort of emphasis on the act of speech as the realization of organic unity one can detect the rudiments of a modern symbolist tradition, carried on not so much by a chain of literary influence as by a growing intellectual need. It is a tradition not only of subject matter or convention but of aesthetic standpoint; not of dogma but of method.\(^{52}\)

That the implications of this Kantian turn should be manifest in America first in terms of poetry and the use of language is a direct result of the influence of Coleridge's presentation of German Idealism as a theory of poetic form.\(^{53}\) Emerson, however, building on Coleridge, and other sources, equated language with the national consciousness in ways which aimed to take advantage of and shape the newness of the American context.\(^{54}\) He felt that the spontaneous generation of words as "signs of natural facts" which underlay the foundation of language was a process much closer to the surface in America than in Europe for very clear reasons. The overwhelming presence of nature as wilderness coupled with a lack of background social and economic institutions provided the American with a possibility, indeed, even a necessity, of experiencing the poetic consciousness first hand. As Emerson described this context when writing of his visit to Britain in "English Traits":

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50 Feidelson, p 56.
51 ibid., p 54.
52 ibid., p 75. (quoting Coleridge, Unpublished Lectures, I p 156)
54 See F. O. Matthiessen for a full discussion of this aspect of the interpretation of the ‘organic metaphor’ in the American context, p 41.
On the way to Winchester, whither our host accompanied us in the afternoon, my friends asked many questions respecting American landscape, forests, houses, - my house, for example. It is not easy to answer these queries well. There, I thought, in America, lies nature sleeping, overgrown, almost conscious, too much by half for man in the picture, and so giving a certain tristesse, like that rank vegetation of swamps and forests seen at night, steeped in dews and rains, which it loves; and on it man seems not able to make much impression. There, in that great sloven continent, in high Allegheny pastures, in the sea-wide sky-skirted prairie, still sleeps and murmurs and hides the great mother, long since driven away from the trim hedge-rows and over-cultivated gardens of England. And, in England, I am quite too sensible of this. Everyone is on his good behavior and must be dressed for dinner at six. So I put off my friends with very inadequate details, as best I could.

The rough vulnerability of thought to experience he found in America provided Emerson with a ready proving ground for idealist concerns with perceptions of a teleology of form first explored by European Romanticism. In this American context, "... genius, like the early man, could again freshly conceptualize and name, fashioning metaphors that were immediate and alive with experience - that realized and added to consciousness. This dissolving of stereotypes in fresh experience (inspiration) and the precipitation of new symbols was, for Emerson, the total process and fulfillment of the mind." The persistent continuity and power of nature in America contrasted with the lack of institutional forms and constraints in ways which he thought allowed a perception of "the instant dependence of form upon the soul" and which brought the individual into immediate contact with the spiritual world as he defined it.

"Language is fossil poetry," wrote Emerson, addressing this symbolist dimension of the spoken word: "Every word was once a poem. Every new relation is a new word." In his magisterial study of 19th century American literature entitled The American Renaissance, F. O. Matthiessen draws attention to the fact that, for Emerson, language, when seen in this way, "was the briefest index to history, packed to the full with the spoils of all man's occupations, his trades and arts and games, and thus a kind of highly charged action in itself." For Matthiessen, as for Mumford, Emerson's idealism was "the starting point for a new symbolic language." From it developed a theory of language which further extended the traditional

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55 Emerson (W,V,288) from English Traits, quoted in Jonathan Bishop, Part Two, pp. 141
56 Paul, p 107.
57 Emerson, "The Poet." p 303, 311.
58 Emerson ("The Poet"), quoted by Matthiessen, p 33.
definition of Romanticism into the epistemological concerns of post-Kantian idealism. As Feidelson puts it, "Whereas the formal innovations of romanticism were a loosening of traditional boundaries, the symbolism of modern literature is a deliberate experiment with alogical structures of multiple meaning, and our latter-day analysis of metaphor and other poetic figures is an effort to define the complex structure of symbolism as distinguished from logic." Emerson's attention to the relationships between experience and thought provided one foundation for this modern symbolist tradition as evidenced in the following passage:

The moment our discourse rises above the ground line of familiar facts and is inflamed with passion or exalted by thought, it clothes itself in images. A man conversing in earnest, if he watch his intellectual processes, will find that a material image more or less luminous arises in his mind, contemporaneous with every thought, which furnishes the vestment of the thought. Hence, good writing and brilliant discourse are perpetual allegories. This imagery is spontaneous. It is the blending of experience with the present action of the mind.

In his experiments with prose form he sought to illuminate this dimension through the use of an interactive thought process meant to bring to the essay something of the integrated quality of words found in poetry. In Symbol and Metaphor in Human Experience, Martin Foss describes the transformative character of poetic metaphor in this way:

In poetry we feel no compulsion to refer outside language itself. A poem delivers a version of the world; it is the world for the moment. And just as the language of a poem is a plastic symbolic medium in which subjective and objective elements are presented as an integral whole, so within the poem each word is potentially a standpoint, a symbolic crossroad, from which the whole poem may be viewed. Whereas "two logical concepts, subsumed under the next higher category, as genus proximum, retain their distinctive characters despite the relationship into which they have been brought," poetic structure depends upon fusion. Two poetic words, brought into metaphoric

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60 Blake, p 221. Also, from Bishop - "A later academic generation of Emersonians, trained in the history of ideas but with an interest in the substance of philosophy as well as its story, has taken a sharper look at Emerson's thinking and discovered in it an analogy to, and in some sense a source for, the set of intellectual discoveries concerning the nature of knowledge that we sum up roughly as "symbolism." Inspired by Cassirer, Susanne Langer, and the achievements of modern critical philosophy, students have found Emerson's work a suggestive inquiry into the epistemological relation between the mind and nature, the knower and the known, the eye and the objects it perceives." Jonathan Bishop, Emerson on the Soul, p 3. (In light of his own analysis however, Bishop is somewhat critical of this trend to symbolism in Emersonian analysis, saying that he feels "it tends to overintellectualize the content of his message. Emerson's master term, after all, is not the "Mind" but the "Soul" . . . .")

61 Feidelson, p 56-7.

62 Emerson from "Nature" (p 17), quoted by Paul, p 61.
relationship, actually lose their distinctive characters in the light of the whole metaphorical meaning. 63

Feidelson generalizes this analysis in contrasting the structure of logic with the poetic aspect of literary form saying:

Logical structure is mechanism: the parts are independent; their relationship is additive; and neither a part nor the relation between parts is retroactively affected by the whole into which they may enter. To say that literary structure, by way of contrast, is “organic” implies that the relationship of part to part involves a relationship of part to whole. The elements of a metaphor have meaning only by virtue of the whole which they create by their interaction; a metaphor presents parts that do not fully exist until the whole which they themselves produce comes into existence. Literary structure, therefore, is logically circular. Any attempt to describe it must end in paradox. 64

There were things about 19th century America which hinted in microcosm at the conditions surrounding the birth of modern art. 65 In his suggestive study, Feidelson has pointed out that Emerson’s theory of language and the literature which developed around it parallel certain aspects of the twentieth century philosophy of symbolism articulated by such diverse philosophical minds as A. N. Whitehead, Ernst Cassirer, Susanne Langer and W. M. Urban. As such, a philosophy of symbolism is based on the observation that, “Language, which . . . is inseparable from thought and knowledge, is not molded on reality. It is rather the mold in which reality as significant is first given.” 66 To take one example of the parallel in particular, Ernst Cassirer has concentrated on the reciprocity between form and experience of the world brought about through the ‘symbolic transformation’ of such structured perception. In his view “myth, art, language, and science appear as symbols; not in the sense of mere figures which refer to some given reality by means of suggestion and allegorical renderings, but in the sense of forces each of which produces and posits a world of its own.” 67

In Cassirer’s terms these ‘symbolic forms,’ myth, art, language, and science, each follow their own “. . . spontaneous law of generation, an original way and tendency of expression, which is more than a mere record of something initially given in fixed categories of real existence.” They each play a role in the developing of experience within the human world. In

63 Feidelson, p 57. (quoting from Martin Foss, Symbol and Metaphor in Human Experience, p 61-2)
64 ibid., p 60-1.
65 ibid., p Also note here the arguments of Peter L. Berger, et al, toward the fracturing of work and private life as a result of the ‘deinstitutionalization’ of American society due to the immigrant situation in The Homeless Mind.
66 Feidelson, p 53. (the quote is taken from Urbans’ Language and Reality)
67 Cassirer, Language and Myth, p6-10, quoted by Feidelson, p 53.
Cassirer’s description, language and myth arise first as complementary aspects of symbolization. As the process of objectifying the world becomes more successful, they each progressively define their own method of action. The action of language formation is described in Cassirer’s work as having a poetic character which bears great resemblance to Emerson’s theory of language:

> When, on the one hand, the entire self is given up to a single impression, is “possessed” by it and, on the other hand, there is the utmost tension between the subject and its object, the outer world; when external reality is not merely viewed and contemplated, but overcomes a man in sheer immediacy, with emotions of fear or hope, terror or wish fulfillment: then the spark jumps somehow across, the tension finds release, as the subjective excitement becomes objectified, and confronts the mind as a god or a daemon...

Here we have the mythico-religious protophenomenon which Usener has sought to fix with the term “momentary god.” “In absolute immediacy,” he says, “the individual phenomenon is deified, without the intervention of even the most rudimentary class concept; that one thing which you see before you, that and nothing else is the god.” To this day, the life of primitive races shows us certain features in which this process is almost tangibly clear.  

This is Emerson’s somewhat more poetic description of the same process as evidenced through a heightened awareness of language:

> The metamorphosis of Nature shows itself in nothing more than this, that there is no word in our language that cannot become typical of us of Nature by giving it emphasis. The world is a Dancer; it is a Rosary; it is a Torrent; it is a Boat; a Mist; a Spider’s Snare, it is what you will; and the metaphor will hold, and it will give the imagination keen pleasure. Swifter than light the world converts itself into that thing you name, and all things find their right place under this new and capricious classification.

In the terms of Emerson’s transcendentalism such a focus on poetic method gave a new immediacy to language, “The basis of poetry is language, which is material only on one side. It is a demi-God.” Ernst Cassirer explains the process of ‘symbolic transformation’ in his 1946

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70 Emerson, quoted by Matthiessen, p 32. Or, in the more general terms of Emerson’s friend and confidant the English theorist and author Carlyle, “In the symbol the Infinite is made to blend itself with the Finite, to stand visible, as it were, attainable there.” Matthiessen, p 42, quoting Carlyle from *Sartor.*
essay entitled *Language and Myth* in terms remarkably similar to those used by Emerson a century before:

> The same function which the image of the god performs, the same tendency to permanent existence, may be ascribed to the uttered sounds of language. The word, like a god or daemon, confronts man not as a creation of his own, but as something existent and significant in its own right, as objective reality. As soon as the spark has jumped across, as soon as the tension and emotion of the moment has found its discharge in the word or the mythical image, a sort of turning point has occurred in human mentality; the inner excitement which was a mere subjective state has vanished and has been resolved into the objective form of myth or of speech. And now an ever-progressive objectification can begin.71

Writing in a different context, but just about the same time, Matthiessen noted a similar pattern of thought in Emerson's belief in the, 'immediate dependence of language upon nature, this conversion of an outward phenomenon into a type of somewhat in human life, never loses its power to effect us. It is this which gives that piquancy to the conversation of a strong-natured farmer or backwoodsman, which all men relish." Following this observation the task of the artist was then to, 'pierce this rotten diction and fasten words again to visible things." Or in other words, as Mathiessen notes, "to release the charge." 72

> In making this association between the poetic method and experience, Emerson is "... identifying poetry with symbolism, symbolism with a mode of perception, and symbolic perception with the vision, first, of a symbolic structure in the real world and, second, of a symbolic relationship between nature and mind." 73

**Correspondence and the reflexive symbol**

Emerson saw in nature however not only the tools for such a symbolic language, he saw its expression as well. The forms and processes of the natural world provided both the models and the realization for his concept of poetic method. He saw in nature a 'correspondence' between the immediate and the infinite, between matter and mind, which confirmed the development toward a natural theology suggested in the mention of the turn to 'biologism' above. The outer sense of forms and processes in the world came to represent in symbolic terms the innermost

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72 Matthiessen, quoting Emerson, p 33.

73 Feidelson, p 120.
thought processes of humankind; "... there is no fact in nature that does not carry the whole sense of nature..." 74

In general terms the word "correspondence" came to be used by Emerson, and those 'transcendentalist' writers surrounding him, as a word which carried much of the burden of the "... shift from the conception of the universe as a mechanism from which God was estranged to that of the universe as an organism in which mind was a unifying necessity." 75 The chief idea of his early essay, "Nature" (1836), "the idea which made correspondence as well as symbolic expression of the Real one of its central proofs as well as ends, was that of nature as use as the mediating agency between man and God." 76 Nature became not only a destination, but an act of self-discovery. From this angle of vision, as he said, "know thyself" and "study nature" became the same maxim. 77 When seen in this light, Emerson's retreat to nature "was an advance on Reason." 78 It constituted "... an account of perception, restoring an intuitive, imaginative faculty to Reason; and a theory of the relation of language to nature, making possible, as the role of the poet, expressions of the Real in the concrete objects of everyday experience." 79

Although Emerson initially took the concept of "correspondence" from Emanuel Swedenborg, he was dissatisfied with the mystic's concept of a fixed symbolic language. "All forms are fluent," Emerson retorted, "the thoughts of God pause but for a moment in any form ... ." 80 He was interested in a secular symbolic language which focused attention of the process of 'symbolic transformation,' not only on the results. The form is "false if fixed;" it must be fluid, sympathetic, not tied to a single result, but an act of process. 81 The act is the object here, not the thing.

Correspondence was redefined as "... the act of intuitive perception that spanned the gap of finite (outer) and infinite (inner) and unified them in the experience of the self ... ." 82 In this sense, then, "the symbol's office was, as vehicle of Reason, to lift the mind above the fact," and direct it toward a living apprehension of the poetic method. 83 The perceptual unity aimed at in this conception of poetic method gave experience an apparently organic wholeness, a relation of means to ends, which satisfied the organic metaphor, as translated by Goethe and Coleridge, in the broadest sense possible. The "correspondence" of the natural and spiritual worlds provided a vehicle for describing this experiential unity. 84 Besides the spiritual

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74 Emerson, "The Poet," p 311.
75 Paul, p 32-3.
76 ibid., p 30.
78 Paul, p 81.
79 ibid., p 28.
80 Emerson (Journals, VII, 117), quoted in ibid., p 111.
81 ibid., p 62.
82 Paul., p 35.
83 ibid., p 136.
84 ibid., p 27-35.
meaning this doctrine of correspondence seems to carry, it also was formed as an answer to the "epistemological gap opened in modern thought by Descartes" and addressed by Kant at the beginning of the Romantic era. When read in this way "organic" becomes a description or a model of consciousness. As Wright observed, "Nature has made creatures only; Art has made men."

This active, moving concept of symbolism was meant to bring the 'present action' of the mind into focus as the vehicle of thought. Emerson, while not a student of Kant directly, brings the German philosopher's terminology to bear in his descriptions of this process:

Space, time, society, labor, climate, food, locomotion, the animals, the mechanical forces, give us the sincerest lessons, day by day, whose meaning is unlimited. They educate both the Understanding and the Reason. Every property of matter is a school for the understanding - its solidity or resistance, its inertia, its extension, its figure, its divisibility. The understanding adds, divides, combines, measures, and finds nutriment and room for its activity in this worthy scene. Meantime, Reason transfers all these lessons into its own world of thought, by perceiving the analogy that marries Matter and Mind.

Emerson developed an 'organic' method of symbolization in his prose which attempted to recreate a realization, or at least the intimation, of the 'correspondence' of the visible and invisible worlds. This strategy relies on the use of complex literary symbols and metaphors which have been described as having the character of "dialectic unity," in that they seem to posit one solution, then reflect it with another which appears at first to be contradictory, and then, by a process of alternations back and forth the realization of the reader is directed to a sense larger than either stated position which reflects the symbolic character of knowledge. This strategy is explored in Jonathon Bishop's insightful study of literary technique, Emerson

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85 "For the philosophy of symbolism, however, this change is doubly important, because the theory of symbolism is really a theory of knowledge. The textbooks all point out that knowledge became a "problem of philosophy" as a result of metaphysical dualism, the Cartesian division of reality into extended and thinking substances. The double consciousness that has dogged our thinking since the seventeenth century divides not only reality but the very act of knowing. In this light, knowing becomes a relation between given ideas and given things, the subject and the object, the conception and the fact, so that the question arises how there can be an integral act of knowledge at all. And the question carries its own answer: there cannot be, as long as we maintain the dualism assumed by the question. Idealism and materialism, each in its own fashion, have proposed remedies, but the starting point of each remains within the inherited framework. As Whitehead says, perhaps too bluntly, the idealists merely "put matter inside the mind," and the materialist "put the mind inside matter." These, in short, are drastic solutions and not total revisions of the problem itself. The philosophy of symbolism (like Whitehead's own philosophy) is an attempt to find a point of departure outside the premises of dualism - not so much an attempt to solve the old "problem of knowledge" as an effort to redefine the process of knowing in such a manner that the problem never arises." Feidelson, p 50.

86 Wright, quoting an unnamed source in the opening line of "In the Cause of Architecture," 1914.

on the Soul. As an example we can take Bishop’s analysis of the strategy of reversal and expansion expressed in this passage from “Nature”:

> We are taught by great actions that the universe is the property of every individual in it. Every rational creature has all nature for his dowry and estate. It is his, if he will. He may divest himself of it; he may creep into a corner, and abdicate his kingdom, as most men do, but he is entitled to the world by his constitution. 88

Bishop suggests that the word “property” is used here with an ambiguous sense that reflects, not only the import of the passage given above, but of the entire essay. “The outer (and inner) world”, he suggests, “can be called the possession of its inhabitants just so far as it provides an arena for the active presence of a master faculty, or ‘property,’ of the mind.”89

Puns play upon the difference between what is and what ought to be, what our mind sees to be so and what our “moral sentiment” would prefer. The meaning you must make out to preserve the direction of the sentence will be the “ought” meaning; for a moment, “ought” replaces “is”; in the reader’s consciousness a world is converted, and intellect and conscience reconciled. Yet, on second thought, it is seen that this is not exactly what has occurred: “ought” only illuminates an unperceived condition of “is.” The redefinition does not so much replace one meaning with another as alter our feeling for what we are saying when we make the ordinary statement, the statement that simply accepts a condition. We are freed to re-encounter the world as it is with more of ourselves.90

Given the complex character of this technique, we might think of this as characterized by the use of reflexive or interactive symbols. Emerson expands his reflexive strategy through a variety of symbols ranging from words to larger and more complex metaphors which insist on an interactive reading, one that mirrors in the mind of the reader a transformation, or ‘metamorphosis,” which resembles the point being made in the text itself, so that, as in his theory of correspondence, something in the outer world reflects, indeed even initiates, the inner processes of thought. This emphasis on the character of symbolization is multivalent, offering meanings which seem apparently contradictory at times. Or in other words, “What one wants, throughout one’s reading of Emerson, is to develop a sensitivity to situations where the “metamorphosis” is going on in words and life together, where facts re-fer.”91

88 Emerson quoted in Bishop, p 110.
89 ibid., p 110. For a fuller discussion, see Bishop’s treatment of the three tiered approach in Emerson’s prose; “Words,” “Rhythm,” and “Metaphor,” pp. 109-128.
90 ibid., p 112.
91 ibid., p 126.
For the world is not painted, or adorned, but is from the beginning beautiful; and God has not made beautiful things, but Beauty is the creator of the universe.92

Really the soul is near things, because it is the center of the universe, so that astronomy and Nature and theology date from where the observer stands.93

Poetry begins, or all becomes poetry, when we look from the center outward, and are using all as if the mind made it94

"A poem, therefore," suggests Feidelson, "instead of referring to a completed act of perception, constitutes the act itself, both in the author and in the reader; instead of describing reality, a poem is a realization."95

To give to others the experience of this perspective Emerson saw as the role of the poet. The use of symbols led readers to share in the realization extended by the poet, so that, "... metaphor, as the product of vision (of the poet), became the apparatus of vision in others, and so a way of extending consciousness."96 This process of 'symbolic transformation' epitomizes being human, and recreating its immediacy was the task of the poet. "The greatest value of any method was its power to set the perceiver's world in motion, to set him thinking ideistically."97 To accomplish this in the form of a prose essay "symbols had to be fluid and their unfolding progressive. ... " if they were to overcome the petrified condition of language.98 The 'objectification' which Cassirer mentions in the passage quoted above from Language and Myth is what this fluidity seeks to overcome.

While the circle was used as a symbol by Emerson from "Nature" (1836) onward, it was an important enough one for him that it received an entire essay. In the essay "Circles" (1841), the symbol appears fully developed.99 I want to concentrate just on the introductory section, the first paragraph:

93 Emerson (Journals, VIII, 22), quoted by Paul, p 78.
94 (W.VIII.41)." Bishop, p 122-3.
95 Feidelson, p 18.
96 Paul, p 61. Matthiessen also discusses this aspect of Emerson, see p 42.
97 ibid., p 112.
98 ibid., p 113. Recall also, "F. Scott Fitzgerald's familiar observation that the mark of a first-rate intelligence is the ability to hold two contradictory ideas in your head without cracking up ..." This line is quoted from an article published in the New York Times, June 21, 1994, entitled 'Feminists And Darwin: Scientists Try Closing the Gap,' by Natalie Angier. pp 87. The original reference from Fitzgerald can be found in his short essay 'The Crack-Up', originally published in Esquire and republished in an anthology entitled The Crack-Up NY: Doubleday, 1956 (p 69).
The eye is the first circle; the horizon which it forms is the second; and throughout nature this primary figure is repeated without end. It is the highest emblem in the cipher of the world. St. Augustine described the nature of God as a circle whose centre was everywhere and its circumference nowhere. We are all our lifetime reading the copious sense of this first of forms.

A detailed line by line analysis of the reciprocating structure of this paragraph will help to describe the possibilities in the kind of symbol the circle became for Emerson. Beginning with the first, "The eye is the first circle; the horizon which it forms is the second; and throughout nature this primary figure is repeated without end." The line suggests that 'circle' stands between 'eye' and 'horizon' as a symbol which makes the latter interpretable. In fact, the order of the three 'primary terms' in this line can be seen to develop a sequence which represents in miniature a demonstration of Emerson's technique as the basic formula (eye - circle - horizon) becomes:

'eye' - 'first' / 'circle' - 'horizon' - (x) - 'second.'


100 Emerson, "Circles," p 263. The line quoted on the frontispiece to this dissertation, Deus est sphaera cuius centrum ubique (God is a sphere of which the center is everywhere and the circumference nowhere), is a famous definition of God which appears in a pseudohermetic manuscript from the 12th century entitled The Book of the Twenty-Four Philosophers (See Poulet referenced below, p xi).

Emerson is not correct in attributing this passage to St. Augustine. Augustine did write extensively about God and used the circle as a metaphor broadly but appears not to have used this particular version. It has however an equally ancient history. From his journals we learn that Emerson read the metaphor in a book by the Englishman John Norris, An Essay Towards the Theory of the Ideal or Intelligible World. 2 vols. London 1701-4. Emerson makes a note of this as he copied it into his Journal (JMN, V, 57) along with other references Norris had made directly to St. Augustine. The metaphor also occurs in this form in St. Bonaventure's Itinerarium Mentis ad Deum (ch. V, para. 8) where it is attributed to a lost treatise of Empedocles. Emerson probably also knew the passage from Brownes' Religio Medici, I, sec. x, who attributes it to Hermes Trismegistus. It appears as well in Coleridge's Aids to Reflection with no attribution. It also appears as a "profound saying" in Lorenz Oken's Elements of Physiophilosophy (London, 1847, p 32) See Georges Poulet's The Metamorphoses of the Circle (Baltimore, 1966, p vii) and the note on page 253 concerning this line in The Collected Works of Ralph Waldo Emerson. Harvard University Press: Cambridge, 1979.

The point here of course is that this line of connections ties Wright's discourse on Broadacre City to a long tradition of religious symbolism which, though with Greek roots, flowered in the Middle Ages. From Wittkower's Architectural Principles in the Age of Humanism. New York: W. W. Norton & Company, 1971 (1962). "The most perfect geometrical figure is the circle and to it was given (in Renaissance religious symbolism) special significance. To understand fully this new emphasis we must turn for a moment to Nicholas of Cusa who had transformed the scholastic hierarchy of static spheres, of spheres immovable related to one centre, the earth, into a universe uniform in substance and without a physical or ideal centre... Cusanus, developing a pseudo-hermetic formula, visualizes Him (God) as the least tangible and at the same time the most perfect geometrical figure, the centre and the circumference of the circle; for in the infinite circle or sphere, centre, diameter and circumference are identical." (pp 27-28) Also: 'The geometrical definition of God through the symbol of the circle or sphere has a pedigree reaching back to the Orphic poets. It was vitalized by Plato and made the central notion of his cosmological myth in the Timaeus; it was given pre-eminence in the works of Plotinus and, dependent on him, in the writing of the pseudo-Dionysius the Areopagite which were followed by the mystical theologians if the Middle Ages.' (pp 28)
The three primary components of the 'symbolic transformation,' eye - circle (as symbol) - horizon, are aligned here, intermixed with the secondary numerical, or positional, references which work with the pacing of words to give the line its particular reflexive rhythm. 'Eye,' the intimate reference to the self given at the beginning, is followed by 'first' which occurs immediately before the next term in the primary triad, 'circle.' Rather than occur in the center of this side of Emerson's representation of the symbolic transformation, 'first' is on the far side of center and immediately adjacent to 'circle' so as to suggest a forward moving sequence balanced toward the continuing direction: "The eye is the first circle . . . ."

Then, while the final primary term 'horizon' follows as the third part of the 'symbolic transformation,' it is itself followed by 'second' in an order which, by overlapping a secondary sequence with the primary sequence, again suggests a progressive balance, or movement onward. Between these last two terms however is a powerful, if slight, reference back to the beginning which is characteristic of Emerson's prose method.

The term 'it', between 'horizon' and 'second,' tugs at the forward movement of the line just before it is completed. The presence of this 'it' here doesn't stop the forward progression (or rhythm) of the sentence, rather this just turns one's attention back to the beginning, so that the thought process incurred when reading this line is itself made circular. This returning on itself is punctuated and given rhythm by words representing the triad of the 'symbolic transformation.' Again, "The eye is the first circle; the horizon which it forms is the second . . . ." The linear structure of the line is turned back on itself in a reflexive manner, so that, not only is the circle the metaphor of choice, but it is also an emblem of the process the reader is invited to follow.

If we recall Emerson's idea of the spiritualized "correspondence" of the natural and spiritual worlds, we could say that the three primary terms of the opening sentence - "eye" - "circle" - "horizon" - lead toward the spiritual side of the equation. The secondary term "first" occurs on our side of the symbol "circle", as it were, while the term "second" occurs beyond the figure of the horizon, reflecting, or polarizing the symbolic equation away from the self, giving this unity a polarization in line with his spiritual aims. Or as Emerson said of the relationship between the perceiver to the two poles of this equation, "From one, he must draw his strength; to the other, he must owe his aim." 101

To repeat the line again with its conclusion in full, "The eye is the first circle; the horizon which it forms is the second; and throughout nature this primary figure is repeated without end." The word 'figure' has a double meaning in the sentence. While the definitions given by Worcester's 1863 Dictionary of the English Language, published in Boston, are many and varied, they are organized as noun and verb. The first of these contains the senses "the form of

anything as determined by the outline," "a mode of speech in which words are changed from their primitive or literal sense; as an allegory, a parable, a metaphor . . ." (rhetoric), and "a type; an emblem; symbol" (theology). All of these refer to a thing, or an emblem of a thing. When 'primary figure' is taken to mean 'circle' as an emblem following the first sense, the line reads: "this circle is repeated without end."

The second group of meanings as a verb contains the senses "to represent by types or emblems," "to image in the mind." These refer to aspects of the process of symbolizing. If the second sense is read, having to do with symbolizing the line then reads, "this symbolizing process is repeated without end." As in the example of Emerson's use of 'property' given above, here neither sense displaces the other for long, both hover in mind, reminding us that the process and the form are present together. The 'primary figure,' then, is not merely the circle, but also the symbolic relation of eye to horizon, of thought to object. In nature, this 'primary figure,' the symbolic transformation, "is repeated without end."

Emerson continues his development of the circle as a symbol in the next sentence by saying, "It is the highest emblem in the cipher of the world. " The word "cipher," here, like "figure", is given various meanings by Worcester; first as "the arithmetical character, 0, - a figure signifying nothing by itself, but which, being placed at the right hand of other figures, increases them tenfold," as "a character or symbol in writing," as "a secret character invented for a special purpose;" and then also as "to compute by figures. . ." The first sense one reads is the latter one given here, "It is the highest emblem in the computing of the world," "in the figuring out of the world." But it could also be taken to read, "It is the highest emblem in the symbol which is the world," or "in the secret character which is the world," or even "in the zero which is the world." Again the ambiguity created by Emerson's choice of terms is profitable. Also it is interesting that 'zero,' itself is typically a small circle. Within this line of the essay then, the small circle of the 'zero,' or cipher, stands in contrast to the large sphericity of the world. Again, the most intimate and the most distant paired.

The definition of the word 'emblem' was given in 1863 as "a real or a painted object representing one thing to the eye and another to the understanding; an allusive figure; symbol . . ." This complexity of involution is just what Emerson wants us to read.

The paragraph continues, "St. Augustine described the nature of God as a circle whose centre was everywhere and its circumference nowhere." One of the two primary characteristics of a circle as a geometric form is the ceaseless uniformity of the encircling line, blending the many parts of enclosure into one aspect. The other characteristic is the total uniformity of concept represented by the simplicity of the single center point. We have noted these two characteristics of the circle in the above discussion of Wright's planning projects, especially in the transition from Pittsfield to the first Galesburg plan. If, as Augustine says, we take the
center to be "everywhere," then this simplicity cannot be separated from the whole of nature. But more than the "NOT ME" only, given Emerson's definitions at the beginning of "Nature," "everywhere" must include the soul. 102 So, the simplicity of the center must permeate creation, unifying perceiver and perceived. Likewise, if the circumference is "nowhere," then nowhere will we find the "ceaseless uniformity" of the encircling line, the many are not to be blended into one but remain apart.

Finally, "We are all our lifetime reading the copious sense of this first of forms." In this conclusion we are reminded that, while following this exegesis, we are reading, and that this process mirrors in some way our being in the world. As the circle becomes a symbol in Emerson's essay "Circles," it encapsulates the process of symbolization developed above. 103

102 This "NOT ME" refers to terminology introduced by Emerson in the introduction of his essay "Nature" (1836).

103 This development of a reflexive or interactive literary method which was constantly returning upon itself, relied on an earlier set of metaphors founded on an analysis of visual perception and the ways in which the eye was involved with integrating thought and experience. In the earlier essay entitled simply "Nature", Emerson outlined the point of view which related organic to symbolist concerns and set the tone of his literary career. The central issue of the essay might be taken as the integrative character of the self, the "I/eye". In its opening section Emerson first develops a description of the eye and the relation of its visual powers to perception and thought. This symbol is a central one in his work, it encompasses the fullest sense of 'correspondence' and role of the poet:

"In the woods we return to reason and faith. There I feel that nothing can befall me in life - no disgrace, no calamity (leaving me my eyes), which nature cannot repair. Standing on the bare ground - my head bathed by the blithe air and uplifted into infinite space - all mean egotism vanishes. I become a transparent eyeball; I am nothing; I see all; the currents of the Universal Being circulate through me; I am part or parcel of God. The name of the nearest friend sounds then foreign and accidental: to be brothers, to be acquaintances, master or servant, is then a trifle and a disturbance. I am the lover of uncontained and immortal beauty. In the wilderness, I find something more dear and connate than in streets or villages." (Emerson, "Nature," p 6-7. This section is partially quoted by Paul, p 71-2.)

In his observation that the eye possess "the faculty of rounding and integrating the most disagreeable parts into a whole . . . ." he is noting that the eye integrates nature into a unified whole in such a way as to provide a model for the poetic method, the process of symbolization. Especially in the distant vision one could find in country settings Emerson "... discovered a state of perception in which he felt a heightened intimacy with the natural process itself." (Paul, p 74) This is a sentiment expressed throughout his life, it takes on a special significance in this first section of "Nature" as well:

"The charming landscape which I saw this morning is indubitably made up of some twenty or thirty farms. Miller owns this field, Locke that, and Manning the woodland beyond. But none of them owns the landscape. There is a property in the horizon which no man has but he whose eye can integrate all the parts, that is, the poet." (Emerson, "Nature, p 5)

In an essay published in 1949 the Spanish philosopher Jose Ortega y Gasset suggested that this "post-Renaissance trend toward subjectivism in epistemology" was based in part on a closer and closer representation of the powers of the eye, as evidenced in the development of a specific range of optical symbolism found broadly in European painting. (Paul, pp 77-8) In speaking of what he saw, in pictorial space in the painting of Velasquez, as the first signs of a coming visual and epistemological revolution, Ortega suggests;

"Until then, the painter's eye had ptolemaically revolved about each object, following a servile orbit. Velasquez despotically resolves to fix the one point of view. The entire picture will be born in a single act of vision, and things will have to contrive as best they may to move into that line of vision. It is a Copernican revolution, comparable to that promoted by Descartes, Hume and Kant in philosophic thought. The eye of the artist is established as the center of the plastic Cosmos, around which revolve the forms of objects. Rigidly, the ocular apparatus casts its ray directly forward, without deviating to one side or the other, without preference for any object. When it lights on something, it does not fix upon it, and, consequently, that something is converted, not into a round body, but into a mere surface that intercepts vision." (Jose y Ortega Gasset, from the Partisan Review, vol. XVI, no. 8, (August 1949), p 831.)

The basis of this observation is derived from Ortega's analysis of the operating powers of vision. These are worth quoting at some length as they provide an interesting parallel both to Emerson's own observations, and to Wright's invention.

"'Near' and "far" are relative, metrically, while to the eye they may have a kind of absolute value. Indeed, the proximate vision and the distant vision of which physiology speaks are not notions that depend chiefly on measurable factors, but are rather two distinct ways of seeing." (ibid., 823-4)

In his development of the contrast between these two modes of vision, Ortega seeks to demonstrate the fact that the structure of the ocular image itself develops along specific lines.
"If we take up an object, an earthen jar, for example, and bring it near enough to the eyes, these converge on it. Then, the field of vision assumes a peculiar structure. In the center there is the favored object, fixed by our gaze; its form seems clear, perfectly defined in all its details. Around the object, as far as the limits of the field of vision, there is a zone we do not look at, but which, nevertheless, we see with an indirect, vague, inattentive vision. Everything within this zone seems to be situated behind the object; this is why we call it the "background." But, moreover, this whole background is blurred, hardly identifiable, without accented form, reduced to confused masses of color. If it is not something to which we are accustomed, we cannot say what it is exactly, that we see in this indirect vision.

The proximate vision, then, organizes the whole field of vision, imposing upon it an optical hierarchy: a privilege central nucleus articulates itself against the surrounding area. The central object is a luminous hero, a protagonist standing out against a "mass," a visual plebs, and surrounded by a cosmic chaos.

Compare this with distant vision. Instead of fixing a proximate object, let the eye, passive but free, prolong its line of vision to the limit of the visual field. What do we find then? The structure of our hierarchialized elements disappears. The ocular field is homogeneous; we do not see one thing clearly and the rest confusedly, for all are submerged in an optical democracy. Nothing possess a sharp profile; everything is background, confused, almost formless. On the other hand, the duality of proximate vision is succeeded by a perfect unity of the whole visual field." (ibid., p 823-4)

Such an analysis of the powers of the eye parallels Emerson's observations on the poetic method in a very sugestive way. But further, it suggests intriguing similarities between the figure/ground reversal of Wright's Cloverleaf and Galesburg plans. On the one hand in the initial perception of these plans one sees the building, or the building lot as an object in the "center", and in a way which suggests a "peculiar structure" among the various parts. The structure and relationship of this object, and the position of the individual it seems to represent, to its neighbors and to the wider world seems "perfectly defined". On the other hand, when one allows the opposite reading to well up this structure of "hierarchialized elements disappears" and the individual is blended into something more akin to "a perfect unity of the whole visual field".
CHAPTER TEN - Emerson, Wright and the Myth of American Nature

Nowhere is the Puritan vision more clearly in evidence than in the hermeneutics of the American landscape...

Sacvan Bercovitch

As the Bible gradually lost its authority after the Renaissance, sola scriptura became sola natura. The Reformers used the Bible to validate the conclusions of natural theology. The Deists claimed that Newton's universe was the mind of God. The Romantics confirmed (or denied) the lessons of scripture by appeal to the imagination in harmony with nature. New England has a distinguished place in this tradition... Emerson's Nature is an important adaptation of natural theology to post-Kantian Romantic thought.

Sacvan Bercovitch

The land is the remedy for whatever is false and fantastic in our culture.

Ralph Waldo Emerson

Emerson's centrality

In this section we will discuss the relationship between Emerson's peculiar involvement with the Romantic ideal of Nature, brought to the foreground in the last Chapter, and the Puritan roots of the Myth of America. Emerson’s translation of the Idealist foundations of Romanticism took place within a natural and cultural context uniquely different from that found in either England or Germany. He interpreted the natural theology of the Reformation along the lines established by the Puritan model of selfhood. The roots of this American hermeneutical tradition of self involved the interpretation of the landscape of the New World within the confines of a process of typological, or ‘figural,’ symbolism. Emerson’s adaptation of the aesthetic implications of Kantian idealism to this historical pattern of American thought gave great interpretive impetus to the Myth of America and helped to extend this cultural tradition into the 20th century to become one basis of Wright’s view of the relation of the individual to community and to nature.

Emerson was an eighth generation Minister in a line extending from the first moments of the Puritan engagement with the forests of the New World. His focus on the experiencing self over a figural definition of self achieved through the application of scriptural patterns as practiced by the Puritan community finally detached Romanticism from the moorings which had brought the Reformation through Puritanism and Unitarianism to the edges of Christian belief.

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104 Various aspects have been studied by many authors, among which several stand out: Henry Nash Smith's *Virgin Land* (1950), Leo Marx's *The Machine and The Garden* (1964), Richard Slotkin's *Regeneration Through Violence* (1973), and the collection entitled *Ideology and Classic American Literature* (1986) edited by Bercovitch and Myra Jehlen.
Puritan scholar Sacvan Bercovitch, addresses the centrality of Emerson's role in American cultural maturation by reason of the "compelling synthesis of abiding national themes" Emerson's work provides.105

**Puritan vs. Romantic selfhood**

The Protestant religious world view was one which placed the Bible between the Reformer and God as an exemplary text. As a Reformer, the Puritan looked to "the created Word of scripture" to find a model for his role in life and in his community. This involved a 'typological' process which defined the self by interpreting life's experiences through the re-enactment of Biblically recorded events. Experiences in the New World, whether corporate or personal, were given meaning to the extent they could be seen in Biblical terms, as re-occurrences of a proven pattern of Christian salvation. The earliest genre of English language writing in North America, the Puritan sermons and narratives of their wars with the Indians, expressed this rhetorical pattern with remarkable consistency. The Puritans "restricted the spiritual meaning of all facts, especially the fact of the self, to the external model of Christ's life and the figural pattern of scripture."106 It is a process through which a figural identity mediated between a worldly, or possessive, self and the model of Christ provided by scripture.

Instead of defining this process as one in which the ego threatens to overcome the soul, as the Reformer's had, the Romantics "redefined" it as having the potential to become "a victory of the soul."107 Bercovitch characterizes it in this way, "Intermediary between the Puritan and God was the created Word of scripture. Intermediary between the Romantic and God was the creating imagination."108 By locating the creative imagination, rather than the text of the scripture, between the self and God, they in effect inverted the Puritan concept of "intermediate identity" on which the process was based. In describing this crucial inversion Bercovitch says:

*Fundamentally, Romantic symbolism differs from Puritan exegesis not because it substitutes nature for the Bible, and not because it treats of secular events. For the Reformer, too, after all, nature was the book of God, and figuralism extended to the full range of human experience. The basic difference in the Romantic outlook is that it reverses the Reformed equation for personal identity. . . . In effect, they freed the

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105 In *The Puritan Origins of the American Self*, Bercovitch explores the terms of Emerson's adaptation of Romanticism to the rhetorical patterns of Puritan influence, noting that his "... fusion of Romantic naturalism and Puritan hermeneutics is significant in the broadest terms. He is the most influential thinker of the period and the crucial figure in the continuity of the culture" (p 163).

106 ibid., p 164.


108 ibid., p 165.
individual to choose (or invent) his identity, and then to impose his own patterns upon experience. . . 109

This forms the crucial distinction between the symbolist method which Emerson explored and the figural tradition of his Puritan forebears. Symbolism, as Bercovitch has noted, looks for significance "... through the interaction of experience and imagination, the figuralist through a sacred design that is prior to, and independent of, the self." 110

The Romantic outlook has roots in the same historical period as the organic metaphor discussed above. The German idealist Schelling, for example claimed that "each truly creative individual must create his mythology for himself." 111 Emerson's place in this inversion involves his identification of the hope for liberation central to both Christianity and to the dream of America with a spiritualized Nature as the foundation for a mythology of the self. He extended this Romantic inversion of the Reformed self so that, "Intermediary between the Transcendentalist and the Oversoul was the text of America, simultaneously an external model of perfection and a product of the symbolic imagination . . . ." 112 As a product of the imagination this "text" of America satisfied the Romantic inversion of the Reformed process of self identity. But when this "text" is seen as an "external model of perfection," it also satisfied the Puritan pattern of typological reference, extending it to a level of self-reflexive symbolic activity.

Through Emerson the Puritan idea of typological determination took on an interactive symbolic dimension as a strategy for interpreting experiences in the New World as, "... a symbolic interaction of perceiver and fact." 113 And, that while, "The Europeans humanized the work of redemption, rendering unto nature what once had belonged to the church. Emerson expanded the principles of colonial hermeneutics by recasting them as the principles of modern symbolism." 114 His adaptation/translation of the rhetorical and mythic traditions coming out of the American Puritan experience into a Romantic model of the self informs a crucial difference between the roots of the organic metaphor in German idealism and the mid-20th century American communities of Frank Lloyd Wright. 115

109 ibid., p 164.
110 ibid., p 161(underline added).
111 ibid., p 165. Also see Bercovitch's discussion of 'intermediate identity' on p 163.
112 ibid., p 165.
113 ibid., p 186.
114 ibid., p 162-3.
115 This is an aspect missed by Donald Drew Egbert's otherwise excellent comparative analysis of Wright and Gropius. It is also a dimension which forms an importata basis for Wright's own theory of esthetics as outlined so succintly in The Japanese Print: An Interpretation, 1912.
figure / ground reversal

The figure/ground reversal found in the design of the three circular lot subdivisions from the mid-1940's rely on variations in one's perception of the relationship of the individual to the group and to the character of the landscape. The power and visual activity generated by or explored in each of the developmental stages change as the designs develop. In the first reading of these plans the circles appear 'foregrounded.' One sees them as positive objects, as a pattern. One's sense of the land, and of the relation of the circles to the character of the land, follows this reading. The landscape is 'backgrounded' as the receptacle of the form representing community.

The alternate reading occurs when one attempts to see the land first, as 'foregrounded' itself. This leads one to see each circle individually. If we try to hold onto a perception of the land, of the unity of the land, the presence of the land, then the unity of the group vanishes. Any 'structuring' relates to the unity of the group.

In the figure/ground reversal which develops through the three late subdivisions Wright focuses on the relationship of the natural to the man-made. Not allowing either the natural or the man-made to dominate by assuming cognitive priority. This attaches one to the landscape in a way that acknowledges its symbolic import as a cognitive influence.116

The circles, even when foregrounded, never allow the perception of a larger, man-made, obvious or formal structure to occur. At best they remain a group of like individuals of some density in the forest.117 They achieve wholeness by virtue of their association and similarity

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116 This process of figure/ground reversal can be demonstrated somewhat more clearly by the study of a drawing from Wright's 1910 Wasmuth Portfolio. Look at the rendering for the unbuilt Elizabeth Stone residence. We can demonstrate a very similar perceptual shift using this drawing. First, while looking at the drawing, imagine that the automobile access lies to the rear of the bedroom wing, leading into an entry hidden from our view. This perspective means that the house faces the forest through the open space of the lawn just before us. The pavilion-like character of this design, with each programmatic unit occupying its own structure, is heightened from this perspective. The living room just in front of us, especially seems to protrude into the open space of the clearing in the forest. The magic of the forest permeates this clearing and enlivens our perception of the house. On the left side, the dining room actually seems to come into contact with the aura of the forest. Now, imagine rather that this little house is instead facing a street, that the open lawn space before us lies between the living room and the public street. From this perspective, then, the front door is approached through the connecting bridge between the living room and the bedroom wing to the right. In this shift one's feeling for the house as an object, and as a place of human abode, varies significantly. The sense developed of the relation of the house to nature is also strongly affected by this reversal of perception, one which seemingly dealt only with the house itself. But in this shift you can feel the forest lose its magic, its unity, its power. It seems impossible to accomplish both perceptions at once.

117 Note Wright's term, "organic reintegration," taken from an essay published in 1946 in a piece of Unitarian literature entitled "Why I Believe in Advancing Unitarianism." It is also found in An Organic Architecture, 1939. I am reminded here of Stanley Cavell's report that Thoreau thought of his task as a writer as one of 'repeopling the woods': p 93, This New Yet Unapproachable America. Albuquerque, 1989.
of position, not by virtue of their adherence to some preconceived formal, or mechanical structuring device.

The circles of Usonia

As a geometric form, the circle is unique in that, once given, a center is assumed. The center moreover, has special significance in a circle. There is an unchanging relation of the center to the location and character of the periphery. What the outer curve is in one arc, it will be in all others. In fact, as Emerson notes, even a part of a circle suggests to us the existence of a center and the completion of the arc. In this way it can be seen as a powerful illustration of the relation of part to whole so important to the idea of organic form.

In Wright’s hands the circle becomes a device by which to regulate or suggest a relationship between the individual and the democratic whole in the context of specific natural sites. The group is defined as a community of individuals who achieve democratic unity by means of their own interaction with American ideas of nature, by sharing in not only the Myth, but perhaps more significantly, in the mythic process.

And the self, as represented by the individual lot, now given a holistic, apparently self determining form, becomes the vehicle for this achievement. The self (I/eye) is placed in the center of the figure/ground reversal. Self becomes the point of interaction between community and nature by virtue of this symbol, or this symbolic (poetic) method.118

It puts the self, the I / eye, at the center of this very American dynamic. The myth of America is reintroduced as a model of self-determination in terms of the symbolist investigations of the 20th century. The Romantic concept of nature standing between man and God is strengthened to support a 20th century view of the self - as the perceiver - giving community access to nature/Nature.119

The Ardmore Experiment and the Pittsfield ‘Cloverleaf’ project fall within the scope of the first reading of the figure/ground reversal described above. Usonia I is more appropriately read through the second, or reversed, perspective. The Circle Pines project splits both of these readings into different programmatic divisions in the overall project. The communal structures are organized according to an orthogonal, or rectilinear, frame of reference. This allows them to be clearly seen as a group. One reads this aspect of the plan first, before visually defining the

118 The Galesburg project develops of an aspect of the form brought out by James Cox in his essay on Emerson’s “Circles,” “Because he (Emerson) sees every self as a circle, two selves can only touch at one point.” 118

119 The tension between individual as a product of community or community as a product of individuals which Egbert sees in Gropian vs. Wrightian organization, is in fact redefined by Wright in terms of nature - with self standing between nature and community.
isolated circles of the cabins in the woods, and significantly, before interpreting or developing a feel for the character of the site. This is not to say that these structures overpower or ignore the particular characteristics of the specific site, rather that they relate to these through an imposed structure. One of the objectives of such a structure, as I've mentioned, is to give the impression of internal unity. The communal buildings in the Circle Pines Master plan achieve this. In contrast, the cabins are allowed the freedom of individual locations, apparently unrelated to one another by means of any a priori structuring device. In fact, here they appear to have no relation to one another at all. This reading corresponds to the second perspective in the figure/ground reversal found in the Galesburg and later projects. These three late subdivisions then unite and merge the two perspectives.

When the Galesburg plan is first seen, before one becomes involved with the intricacies of the layout, the circles are read as positive elements - they come forward. As you continue to look at the plan and realize that these forms have been placed on the ground plane and that this ground is continuous and pre-existing, the circles recede. The continuity of the interstitial network of space emerges to become a figure of its own. As if to increase this presence, Wright intended this interstitial network to be filled with a red ground cover, flowing over the hills under the loose and open canopies of existing hardwoods. In the first reading of the plan the circles appear 'foregrounded.' One sees them as positive objects in a loose pattern. A sense of the land, and of the relation of the circles to the character of that land, is constrained in this reading. The landscape is 'backgrounded' as a receptacle for this group of forms aspiring to community. As the alternate reading occurs one begins to see the land as a positive presence, flowing around and through the circles. If we try to hold onto the perception of the pre-existing character of the land then the implied unity of the group vanishes. We can't achieve both.

All of the richly complex and geometrically cast oppositions of the Pittsfield plan are woven into this simple perceptual dilemma. The given form of the circle first takes precedence over our perception of the character of the site. Then, as we search for that character, the ground plane emerges as an a priori natural world. In the first perception the individual is identified, the group results. In the second perception the unity of the group dissolves in the presence of nature. We are given both of these readings simultaneously, and are in a sense suspended between them.

In the Pittsfield project the oppositions (1) of natural to man-made, and (2) of individual to group, were intertwined. Here the crossing of these definitions has taken on a different dimension. In one’s first reading the circles are given as emblems of individuality. A definition of the group is achieved at the expense of our perception of the natural character of the site. In the second reading a perception of the continuity of the site is given as the context for each individual lot. Any wholeness the group achieves is engendered by the similarity of
experience of each of its members rather than by virtue of their adherence to some preconceived formal structure.

All of this is to say that the organic metaphor, acknowledged by Wright, encompasses a post-Kantian investigation of the relationship of mind and perception to form.\textsuperscript{120} It is an extension of Kant’s observations on the role of mind in structuring perceptions of the natural world. The organic metaphor became the basis of Emerson’s adaptation of Puritan figural hermeneutics to Romanticism and to the natural theology of the Reformation (which was in itself so influential in the development of the Myth of American nature).

Emerson’s representative American self was predicated on a vision of the poetic method which prefigures the epistemological concerns expressed in the philosophy of symbolism in the early 20th century. His interactive symbolism extended the Puritan hermeneutical tradition of self and landscape and became the basis for Wright’s vision of community. Building on the "distinct symbolic mode" as found in the work of Emerson, and especially on its representation in the work of Thoreau and Whitman, Wright redefined the tension between the individual and the democratic group in terms of the symbolic interaction of self and landscape which lies at the heart of the Myth of America.\textsuperscript{121} As with Emerson, for Wright the geometric form of the circle lay at the heart of this accomplishment. But unlike Emerson’s literary references to the circle as a metaphor, for Wright it also became a real, inhabitable figure with formal and geometric characteristics which could be developed metaphorically as representations while at the same time being foregrounded as given, as real.

Wright’s reciprocity of impressions is built upon an appreciation of the processes of conception of form addressed earlier in Kant’s "reciprocity of ends and means". His connection to the Kantian roots of German Romanticism was filtered through the medium of Emerson’s prose. Wright’s articulate blending of perceptions of nature and conceptions of man-made form builds upon the interweaving of symbol and rhythm found in this prose. Wright’s balancing of the dichotomy of individual and community definitions with those for man-made and natural is built upon Emerson’s adaptations of Puritan themes central to the American traditions to conceptions of European inspired Romantic form. Wright’s forms however take this process a


\textsuperscript{121} The opening of the period in Wright’s career we have been investigating is marked by the publication of an issue of the Architectural Forum devoted to his work (January, 1938). This issue was organized by Wright himself and he filled its pages with transcendentalist passages taken from Thoreau and Whitman. Speaking of the work of Hawthorne, Melville, Thoreau and Whitman, Bercovitch is one of many authors who have noted: “What is remarkable, from this perspective, is that all of these very different writers learned from Emerson to make Romantic natural theology an expression of the national dream.” Bercovitch, p 162-3
step further with his ability to develop a form which appears incomprehensible from any ordinary or accessible viewpoint.¹²²

In a brilliant study of "Nature", the literary critic Kenneth Burke has suggested that Emerson developed what he described as a two-part transcendental method.¹²³ In applying Burke's analysis here we can generalize to say that something limited (society or eye) is given as something finite but perceived as unlimited (nature or horizon), then this expansion is built upon to suggest transcendence by taking the larger figure/field to be in fact spiritualized and infinite. So that the first expression propels the imagination toward another inconceivable one - society as nature, but nature as Nature (Mind); and, eye as horizon, but horizon as the result of an interactive process that is self initiated. Or, in the case of Wright's subdivision plans, a perception of self as group is held in front of a presentation of group as landscape.

What I am describing here is a kind of transcendence in which the direct perception of being in nature replaces an imposed geometric or traditionally conceived civic armature as the vehicle for community coherence. Moreover, this 'direct perception of nature' becomes an act of defining the self. The American Myth of Nature, not the social ambition of the machine esthetic, is prioritized as the context of this act of definition. Nature and community are achieved simultaneously by virtue of the self in such a definition. Rather than see the democratic group simply as being made up of independent individuals, community is defined by access to a landscape acknowledged as symbolic, a landscape gained only through the reality of individual perception.

¹²² This character of form can be compared to a similar effect developed by Gropius in the Bauhaus headquarters at Dessau and at other monuments of European modernism. This can be seen as a response to the dissolution of traditional cultural and social unities felt in the 19th and 20th centuries. One might say that the lack of integration (dis-integration) characteristic of American life in the 19th century (as described by Matthiessen and Feidelson) offered a parallel to the disintegration beginning to be felt in Europe (as described by Weber and Berger, et al).

APPENDIX

Further Notes on the Breadth of a Symbolism of Circles
- The “oroboros”
- Extension of consciousness into spatial order
- A psychological process / rites of renewal

Letters to Otto Mallery from Usonia
- from Jesse Garrison
- from Sydney Newman

Bibliography
APPENDIX - Notes on the Universality of Circles

We made these little grey houses of logs that you can see, and they are square. It is a bad way to live, for there can be no power in a square. You have noticed that everything an Indian does is in a circle, and that is because the Power of the World always works in circles, and everything tries to be round. . . . Birds make their nests in circles, for theirs is the same religion as ours. . . . Our tepees were round like the nests of birds, and these were always set in a circle, the nation's hoop, a nest of many nests where the Great Spirit means for us to hatch our children. But the Wasichus have put us in these square boxes. Our power is gone and we are dying. . .

Black Elk

Use of the circle as a symbol has a rich history which goes far beyond Emerson, and yet encapsulates his use of the form. In what follows the general mythological/psychological foundation for a symbolism of the circle is outlined.

The "oroboros" dragon

The circle is a form frequently found in mythological and religious symbolism. It is in fact a "...universal figure in the religious world of 'primitive' people . . . ." It is a form which "...leads back into itself and is consequently a symbol of unity, the absolute, and perfection; it therefore also represents heaven in contrast to earth, or the spiritual in contrast to the material." It is part of a network of symbols in mythologies which identify it as a representation of an "original perfection" preceding the establishment of the duality upon which consciousness depends. This "original perfection " is a concept of pre-conscious existence which in mythology is given the characteristics of wholeness, completeness, perfection, and self-sufficiency. The circle is most commonly chosen as a symbol of this state because it is a form which can readily be seen as complete and self-sufficient, as perfect in that all parts have the same relation to the center - it is the simplest geometric form in this sense.

In accounts of the origins of consciousness the development of symbols is crucial to the objectivity necessary for meaningful association with things in the world;

1 Rykwert, p 172. The passage from Black Elk is also taken from Rykwert, p 172.
2 See "circle" in The Herder Symbol Dictionary, p 40.
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Symbols gather round the thing to be explained, understood, interpreted. The act of becoming conscious consists in the concentric grouping of symbols round the object, all circumscribing and describing the unknown from many sides. Each symbol lays bare another essential side of the object to be grasped, points to another facet of its meaning.³

And in describing the mythological necessity for this interpretive allowance, Erich Neumann notes that, "... a symbol always stands at the beginning, the most striking feature of which is its multiplicity of meanings, its indeterminate and indeterminable character."⁴

Perhaps the most common use of the circle as a symbol of this original state can be found in the dragon, snake, or worm which devours its own tail, the oroboros - self-sufficient unto itself: "It slays, weds, and impregnates itself. It is man and woman, begetting and conceiving, devouring and giving birth, active and passive, above and below at once."⁵ This particular passage was taken from Egyptian sources but similar conceptions are found from Babylon and the Phoenicians to the Navajo Indians, from Africa, India and Mexico to alchemy and to Giotto.⁶

Circlot defines the oroboros (uroboros) as "...symbolic of time and the continuity of life." As the dragon it combines a reference to the clthonian principle represented by the serpent with the celestial principle represented by the bird. And can be seen as a symbol which represents the "...primitive idea of a self-sufficient Nature - a Nature, that is, which, a la Nietzsche, continually returns, within a cyclic pattern, to its own beginning."⁷

This symbol of the circle, or "round," also appears in certain traditions as a "container" with allusions to both the maternal womb and to the concept of the universal cosmic womb in the "original perfection." There is a merging in these symbolic associations of universal as well as personal origins. It "should not be taken concretely," but rather as a symbol which shelters many interrelated concepts and feelings. Or, as Erich Neumann says in The History and Origins of Consciousness,

Anything deep - abyss, valley, ground also the sea, the bottom of the sea, fountains, lakes and pools, the earth, the underworld, the cave, the house and the city - are all parts of this archetype. Anything big and embracing which contains, surrounds, enwraps, shelters, preserves, and nourishes anything small belongs to the primordial matriarchal realm.⁸

³ Neumann, p 8.
⁴ ibid., p 6.
⁵ ibid., p 10.
⁶ ibid., p 10-11.
⁸ Neumann, p 14.
This description is drawn from a great variety of cultural myths of the creation, and more than a little from the childhood experiences of every person. The concept of the beginning as "existence in the round" is in a sense re-enacted by every child in the process of ego development. The circle is used in this capacity as a common symbol of human origins as imagined in a cosmic sense and as experienced in a personal sense.

**extension of consciousness into spatial order**

In many mythological traditions the original perfection is conceived as a unity which is broken by the coming of light into the world, "...in the creation legends of nearly all peoples and religions the process of creation merges with the dawning of light." A common conception is of the earth and sky originally joined together in darkness "with no room between them for people to walk upright." In mythological terms the separation of the earth and the sky represent the fundamental or initial division in the original unity caused by the coming of light. This opposition of light to darkness and the feelings surrounding its articulation become the starting point for the articulation of the sacral order in the world.

This progressive movement from feeling into form by way of myth is founded on the conjunction of the "receptivity to light" and the perception of "sense of place" as "...the most fundamental and deep seated manifestations of human intelligence." One could even go so far as to suggest that "...the progressive view of the difference between day and night, light and darkness, is the inner most nerve of all human cultural development." In these traditions the coming of light, the moment of creation, is represented by the separation of these "World Parents" with the male rising as the sky above the earth as the mother. Ernst Cassirer has suggested that the coming of light molds the spiritual view of the world of virtually all people, and gives character to their conceptions of the progression of dualities into the round of daily existence. Each separate mythological tradition derives a character from their sense of the original mythic division which shapes or orients further conceptions of space and spatial distinctions.

*World-building, city-building, the layout of temples, the Roman military encampment, and the spatial symbolism of the Christian Church are all reflections of*

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9 ibid., p 10-11.
10 Cassirer, p 96.
13 ibid. p 97.
14 Wright occasionally used the terms father sky & mother earth in print.
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the original mythology of space, which, beginning with the opposition between light and darkness, classifies and arranges the world in a continuous series of opposites.\textsuperscript{15}

Cassirer constructs a discussion of the progressive development of complex spatial distinctions according to his theory of the role of symbolic form in cognitive processes:

\ldots all thought and sensory intuition and perception rest on an original foundation of feeling. However subtle and particularized its structure may become, mythical space as a whole remains embedded, or one might say, immersed in this feeling. In this space, specific boundaries and distinctions are thus not arrived at by progressive logical thinking through intellectual analysis and synthesis, they go back to distinctions already made on the basis of such feeling. The zones and directions in space stand out from one another because a different accent of meaning is connected with them, and they are mythically evaluated in different and opposite senses.\textsuperscript{16}

Placemaking, or the first application of this conception to the ordering of space in the world begins as hallowing when, "...a specific zone is detached from space as a whole, when it is distinguished from other zones and one might say, religiously hedged around."\textsuperscript{17} The Greek word templum, from the root "to cut," carries this sense of "religious hallowing manifested concurrently as a spatial delimitation."\textsuperscript{18} From such an initial mythically conceived place all of the further distinctions, "every marked-off piece of land, every bounded field or orchard...." extend outward with reference to the feelings encoded - in Cassirer's terms, made possible - in the original templum.\textsuperscript{19}

Articulation of the four cardinal points of the compass commonly follows as a further division of duality into opposing pairs. The contrast between the four main directions becomes a crucial link in the mythic explanation of the structure of the world.\textsuperscript{20} The Roman tradition provides a relevant example of the application of this process. In the this traditions the

\begin{itemize}
  \item \textsuperscript{15} Neumann, p 107.
  \item \textsuperscript{16} Cassirer, p 95.
  \item \textsuperscript{17} ibid., p 99.
  \item \textsuperscript{18} ibid., p 99.
  \item \textsuperscript{19} ibid., p 100. The word templum is derived by the Roman author Varro from tueri, "to look, gaze, stare, observe...." But modern etymologists tend to think of templum in connection with the Greek word (temnos), a sacred enclosure, in turn derived from (temno), I cut, hew, wound." Rykwert (p 45)
  \item \textsuperscript{20} Cassirer, p 98. Note - Wright's first personal insignia combined the circle and the square along with crossing axes in a very suggestive manner which invokes the themes discussed in this Appendix. He first developed the more simple red square as a personal insignia, perhaps in response to his thoughts on The Japanese Print; but in the period I have been studying he put this red square back into its place in an axial frame - see An Autobiography, 1942.
  \item Also note - "The city, village or house, as they are expressed in religions and mythologies, have been used as an expression of the wholeness of the world that we live in, and it is man's passage from his home in nature to his home that is either created or founded, that is illustrated in the following diagrams. Invariably the marking of these diagrams upon the ground, which is their first expression, is a complete statement involving the coming together of a set of dualities."\textsuperscript{20} (Stewart, The City as an Image of Man)
  \item And, "Extremes are united consciously to create a whole."\textsuperscript{20} (Stewart, The City as an Image of Man)
\end{itemize}
division of heaven into four parts is reflected in the ordering of the earth according to the work of the auger. One of the most important characteristics of the templum was the division into four. "In a place which had an unobstructed view of the neighborhood the augur drew a shape divided into four parts, forward and backward, left and right, divided by lines drawn from east to west, from north to south..... This was circular and quartered."

The East - West line is established as the decumanus by tracing the course of the sun. This is bisected by the cardo from North to South.

\[\ldots\] Boundaries are never drawn without reference to the order of the universe, for the decumani are set in line with the course of the sun, while the cardines follow the axis of the sky.\[22\]

The decumanus was drawn as a cord of the templum circle, while the cardo was drawn at right angles to it by bisection.\[23\]

By the simple act of drawing his cross within a circle, the augur, standing on his hilltop scrying the southern horizon for significant birds, had put himself at the hub of the sacred universe.\[24\]

This "schema of coordinates" became the basis for further transference of the mythical-religious distinctions into every "sector of judicial, social, and political life...."\[25\] This transference "...became more and more precisely and subtly differentiated. It formed the basis for the development of the concept of property and the symbolism by which property was designated and safeguarded as such. "For the fundamental act of "limitation," through which fixed property was first established in the juridical - religious sense, is everywhere related to the sacral order of space."\[26\] In Roman law, only land which had been "enclosed in fixed boundaries, in immutable mathematical lines" relative to this spatial order could be distinguished as private property.\[27\] And, in this way each boundary line scribed in space outward from the original mythic feeling became "an ethical and cultural boundary."\[28\]

The templum was bounded by the words of incantation, by verba concepta which drew a magical net around the landmarks the augur named. It is this naming, and not any

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21 Rykwert (p 46)
22 ibid.(quoting from Hyginus, p 91)
23 ibid.(p 91)
24 ibid.(p 91)
25 Cassirer, p 100.
26 ibid., p 100.
27 ibid., p 100.
28 ibid., p 101.
drawing on the ground with a staff, which actually fixed the boundaries of the templum.\footnote{29}

Once the lines are drawn the space thus hedged about is immediately occupied by a spirit...Not only the city but also the compitum and house, not only the land as a whole but every field and vineyard, not only the house as a whole but every room within it has its own god. The godhead is recognized by its workings and surroundings. Consequently every spirit which is confined "within" a given space gains an individuality, and a specific name by which man can invoke him.\footnote{30}

The structure and plan of the Roman camp presents a perfect analogy, "...for the plan of the camp was drawn up according to that of the city, while the city in turn was constructed according to the general plan of the world and the different spatial zones of the cosmos."

Polybius tells us that when the Roman army entered the site selected for their camp, it was as though citizens, returning to their native city, each sought out his own house. In both cases the local ordering of the different groups was not looked upon as something merely outward and accidental but was required and predetermined by definite sacral notions.\footnote{31}

A similar character has held in many related Western cultures as Rykwert and others have noted:

The rite of the founding of a town touches on one of the great commonplaces of human experience. The construction of any human dwelling or communal building is in some sense always an anamnesis, the recalling of a divine 'instituting' of a centre of the world...\footnote{32}

That is why the place on which it is built cannot arbitrarily or even 'rationally' be chosen by the builders, it must be 'discovered' through the revelations of some divine agency. And once it has been discovered, the permanence of revelation in that place must be assured. The mythical hero of deity attains the centre of the universe or the top of the cosmic mountain by overcoming epic obstacles. The ordinary mortal may find this place anagogically through the agency of ritual. In the case I am considering, through the ritual of orientation.

\footnote{29}Rykwert (p 48)
\footnote{30}Heinrich Nissen, Das Templum, Berlin: 1869 (p 8), quoted by Cassirer, p 101. Also note the passage in An Autobiography where Wright's little daughter says goodnight to god in the space of the Taliesin living room.
\footnote{31}Cassirer, p 103.
\footnote{32}Rykwert, p 90.
It is therefore hardly surprising that Roman augurs, impelled by ritual necessity, divided their templum into four quarters by cardo and decumanus, or that the founders of the town used the same divinations on the town site, and that the Roman surveyors based their seemingly trivial operation of parceling up the land on the same basic diagram, using the same terminology. The three procedures were three modalities of the same ordering of the experience of space . . . .

Similar Practices of the Puritans in New England

Among the first moments of English settlement in the New World we find the record of an experience which records a similar process. In 1634 governor and political leader John Winthrop of the Massachusetts Bay Colony asked a member of his group to prepare a guide to the founding of new towns. Already at this early date Winthrop was concerned with the irregular pattern some of the newly formed outlying communities were taking. Thomas Graves responded with his "Essay on the Ordering of Towns," the first town planning document actually written on what would become American soil.

In this brief essay Graves describes a town six miles square with an inner area of settlement three miles square located at the center. The outer area was to be reserved for pasture, common fields and wood lot resources. The inner square was to contain the buildings of the community. Houses each with enough land a kitchen garden and room for small domestic livestock. The center was to be occupied by a foursquare meeting house. No house was to be located more than a certain specified distance from the meeting house in the center of the community.

The plan as described by Graves can be recognized as drawing on Biblical precedent. The OLD TESTAMENT gives several descriptions of the form of cities and camps that were used as starting points for images drawn to illustrate late 16th century and 17th century Bibles, ones the Puritans would have known and brought along with them to the New World. Images of this sort may have provided inspiration to Graves as they certainly did for the planners of New Haven Connecticut and other, later religious communities in North America.

The New England Puritans in particular saw their adventure in a typological sense. Everything they did was explained in terms of its mirror in Biblical text. The New Haven plan

33 Ibid., p 90.
34 This "Essay on the Ordering of Towns" is republished in the Papers of the Massachusetts Historical Society. The text and its geometry are discussed in Sylvia Fries' The Urban Idea in Colonial America.
35 Review the Graves document carefully and note especially the circle implied by the distance to the center provision. Is there any Biblical precedent for this aspect of the Graves work?
in fact closely follows a certain Biblical passage. Graves plan simplified the geometry to a workable scheme and enunciated the various parts. It was never followed.

That some variant of this process occurs in the most diverse cultures suggests a fundamental human need for cognitive orientation, for correspondence between the inner world of feelings and outer articulations of order in space as a control of social relations. In describing the Zuni Indians in the American Southwest Cassirer says, "Thanks to the sevenfold organization of their space the whole world view of the Zuni's and their whole life and activity are completely systematized, so that, for example, when they occupy a new campsite the position of the different groups and clans is determined in advance."

The great Horse dance carried out by the Sioux however utilized the quartering of the round mentioned in these other traditions - "Right in the middle of the tepee the Grandfather's made a circle in the ground with a little trench, and across this they painted two roads - the red one running north and south, the black one, east to west..." quoted by Rykwert (p 172)

The six powers, whom Black Elk calls the Grandfathers, represent the four directions, the sky and the earth, and the symbolism of the four quarters seems repeated almost obsessively in Sioux ritual and myth.

The purely inward must be objectified, must transform itself into something outward; but on the other hand, all intuition of the outward remains enmeshed in inward determinations. The barriers which man sets himself in his basic feeling of the sacred are the starting point from which he begins his setting of boundaries in space and from which, by a progressive process of organization and articulation, the process spreads over the whole of the physical cosmos.

By this process of spatial differentiation which begins with the symbolism of light breaking the unity of the circle and from here ripples outward into all human affairs, "the worship of light is woven into the whole of human experience."

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37 Check this specifically in Fries and Archer et all.
38 If the square of Thomas Graves was an imposed form representing the unity of the community through the covenant and corporate enterprise, in Usonia, we see an attempt to achieve unity without the subordination of the individual to external governing forms. The unity is not figural, it is a result of a symbolically induced mythic and perceptual accord.
39 Cassirer, p 102.
40 Rykwert (p 172).
41 Cassirer, p 104.
A psychological process / rites of renewal

The totality of the life process represented in the uroboros circle was also articulated in a very different dimension in the symbolism of alchemy by C. G. Jung in the period between 1935 and 1944. In this work he established the fact that "the unconscious undergoes processes which express themselves in alchemical symbolism." And among these images the circle, or "round," is prevalent. It doesn't stand alone but in the company of other symbols.

"In the narrow sense of the word, alchemy is the pretended art of making gold and silver, or transmuting the base metals into the noble ones." The idea probably arose in among the Greeks in Alexandria and can be traced back that far with a "fair continuity." According to Herder: "Alchemy was a high point in symbolic thinking and reveals an intense interpenetration of early natural scientific, religious and psychological ideas; moreover it stood in close association with the astrology and medicine of its time. The alchemists aimed at an ennobling of substances, a mystical union of microcosm and macrocosm, and a purification of the soul."

This can be seen as a more personal set of allegories than the universal symbolism mentioned above, ones which relate similar ideas to the individual more directly.

"Squaring the circle" is a reference to the alchemical process which "breaks down the original unity into four elements and then combines them again in a higher unity." As a philosophical problem it had great significance in medieval Europe: "Out of man and woman make a round circle and extract the quadrangle from this and from the quadrangle the triangle. Make a round circle and you will have the philosopher's stone." This process required a magical elixir known as mercurius represented by quicksilver, which itself represented the spiritus vitae and as such took on the significance of the god Hermes who was also associated with 'roundness' and 'squareness.'

All of these forms, the magic elixir mercurius, Hermes, god of revelation, the square, the circle, and especially the allegorical squaring of the circle are, like quicksilver, symbols of the mysterious transforming substance of alchemy. The use of this substance required not only a particular process but also a special vessel with specific properties. The exact description varied somewhat from author to author:

. . . circulation of spirits or circular distribution, that is, the outside to the inside, the inside to the outside, likewise the lower and the upper; and when they meet together

43 Eliade, p 223. Jung gave his first public lecture on alchemical symbolism in 1935 and published Psychology and Alchemy in 1944.
46 Tractus aureus from Hermes trismegistus, Leipzig: 1610, quoted by Jung, p 122-3. Note also that this repeats the Roman augur's diagram of cardo and decumanus within the cosmic circle within a different context.
47 Jung, p 126.
in one circle, you could no longer recognize what was outside or inside, or lower or upper; but all would be one thing in one circular vessel.48

The process of transmogrification of water or lead into gold required a *vas mirabile*, a Hermetic vessel which, "must be completely round in imitation of the spherical cosmos, so that the influence of the stars may contribute to the success of the operation."49

Our vessel must be such, that in it matter can be influenced by the heavenly bodies. For the invisible celestial influences and impressions of the stars are necessary in the work.50

The significance of this vessel in the outcome of the operation is emphasized over and over again in alchemical texts. But it is important to realize that the concept of this vessel as an object merely is inadequate because as a symbol it represents a more mystical idea circumscribing all of the forms associated with the *mercurius* itself - "The vessel is one."51

The great contribution of Jung's analysis lies in his demonstration that alchemical transfiguration encoded in geometric descriptions of "squaring the circle" represented in symbolic form a psychological process, an attempt to unite the conscious and the unconscious. And, that this set of rites and processes had roots which come forward from pre-history through the religious symbolism of ancient Egypt. In modern terms this process is "one which attempts to abolish the separation between the conscious mind, and the unconscious, the real source of life, and to bring about a reunion of the individual with the native soil of his inherited, instinctive make-up."52

Had these rites of renewal not yielded definite results they would not only have died out in prehistoric times, they would never have arisen in the first place.... even if the conscious mind is miles away from the ancient conception of the rites of renewal, the unconscious still strives to bring them closer....53

49 Quoted by Jung, p 225.
50 *Congeries Paracelsiae*, Ursel: 1602, quoted by Jung, p 227. Also, "The epagyric vessel is to be constructed after the model of the natural vessel. For we see that the whole sky and the elements resemble a spherical body..." from *Physica Trismegisti*, Ursel: 1602, quoted by Jung, p 226.
51 Maier, *Symbola aureae..*, Frankfort: 1617, quoted by Jung, p 225. Also, "One in circle or vessel."
53 ibid., p 130. Also note that Wright's original personal insignia contained a circle and a cross within a square. This was transformed to the cross with displaced square of the 1943 autobiography. Can we say that the circle moved out into the landscape in the projects I have been studying in some way which fulfills the requirements of the medieval process described above? And that this is the reason there are no circles in Taliesin West? The new insignia appeared at about the same time as the Pittsfield/Circle Pines projects and this interpretation reflects an interpretation congruent to that which I have developed for these planning projects. This Jungian material allows a discussion of some of the most interesting symbolic problems in Wright's life and work during the period I have been studying: Taliesin
In the work of Neumann and Jung, among others, we see that this matrix of mythic associations can be given a modern interpretation such that,

...space only came into being when, as the Egyptian myth puts it, the god of the air, Shu, parted the sky from the earth by stepping between them. Only then, as a result of his light-creating and space-creating intervention, was there heaven above and earth below, back and front, left and right - in other words, only then was space organized with reference to an ego.54

In other words,

Consciousness = deliverance: that is the watch word inscribed above all man’s efforts to deliver himself from the embrace of the primordial uroboric dragon. Once the ego sets itself up as center and establishes itself in its own right as ego consciousness, the original situation is forcibly broken down.55

Carl Jung sees in alchemy the attempt to reintroduce wholeness hidden in a highly symbolic language, which focuses on the unity of the circle or sphere, and contrasts this with the geometry of duality represented by the square. This relates to the ego as well.

Neumann continues his elaboration of the symbolism of the circular uroboros by suggesting that this representation of the beginning, of the condition before the ego emerges, "reappears at the end, when ego development is replaced by the development of the self, or individuation."56

When the universal principle of opposites no longer predominates, and devouring, or being devoured by the world has ceased to be of prime importance, the uroboros symbol will reappear as the mandala in the psychology of the adult.... The goal of life now is to make oneself independent of the world, to detach oneself from it and stand by oneself. The autarchic character of the uroboros appears as a positive symbol pointing in a new direction.57

Hence the "perfect" figure of the uroboros, standing as it does at the center of the unconscious world of the primitive and the child, is simultaneously the central symbol.
of the second half of life and the nucleus of the developmental trend we have called self-formation or centroversion. The symbol of the circular stands at the beginning as at the end. In the beginning it takes the mythological form of paradise; in the end, of the Heavenly Jerusalem. 58

Hence the concept of the "Great Round" represented in the use of the circle as the prime symbol of human origins is "traceable in all epochs and cultures," it comes as close as any human symbol can to having a universal significance.59 Neumann summarizes this foundation of the symbolism of circles in writing, "...so long as man shall exist, perfection will continue to appear as the circle, the sphere, the round; and the Primal Deity who is sufficient unto himself, and the self who has gone beyond opposites, will reappear in the image of the round, the mandala."60

The scholar of comparative religions, Mercia Eliade, came to similar conclusion when reviewing Jung's work in his own 1950's study published as The Forge and the Crucible, saying that the significance of "all this seems to show that man can only live in a sacred space, in the "Centre." So central is it that myths and rites depicting "...the construction of a Centre even in a man's own house - (are) found nearly everywhere...," in mythological traditions throughout the world.61

It calls attention to something in the human condition that we may call nostalgia for Paradise. By this we mean the desire to find oneself always and without effort in the Centre of the World, at the heart of reality; and by a short cut and in a natural manner to transcend the human condition - as a Christian would say, the condition before the Fall.62

58 ibid., p 37.
59 ibid., p 37. One is of course also reminded of the suggestive roundness of the sun and the moon as objects in the ancient, and modern, skies.
60 ibid., p 11.
61 Eliade, p 55.
62 ibid., p 55. Doesn't this describe the view from Roland Reisley's hearth?
Letter from Jesse Garrison of Usonia I to Otto Mallery, 9/2/39

I am writing from East Lansing, having just come to assume my new position as associate professor in the art department. You will perhaps recall our meeting when you so kindly entertained me on the occasion of Mr. Wright’s brief visit to Philadelphia last April. At that time the Ardmore project was well under way, and now with publication in the Architectural Forum that bit of art history, if not closed, has gone on the record of Mr. Wright and his clients. A good many people have been asking about it here and in New York before I left. I think you must be proud and happy for this latest flower of Mr. Wright’s genius. It seems to me that his talents are just now at their flood tide. In my study of art I have observed that the greatest epoch makers have frequently exhibited their fullest powers in their late years -- men like Beethoven, Rembrant and Titian come to mind.

Mr. Turner has been in town and has told us about Ardmore. He says further that you had released him for our Usonia Two. He was to begin work at once on our seven houses. The plans are ready, and work was to have begun yesterday. Unfortunately the money we had expected suddenly ran out on us. I needn’t relate to you the extraordinary timidity of banks and conventional lending agencies which Mr. Wright’s clients have to face.

Our project is a housing plan for seven faculty families. We have an exceptionally fine 16 acre plot three miles in the country with every natural advantage of terrain; schools; roads; soil; etc. The plan for Usonia Two is as fine a sight as you will find for small houses. The builders are young -- just entering the fruitful period of their lives and engaged in secure occupations. All we need is some money, about $50,000 at five per cent. I am convinced that there are men with imagination who would gladly put their money to use in this way on the prestige of Mr. Wright as an artist and the basic security of college faculty home-owners, over against a few violations of local or F. H. A. building codes.

I am appealing to you because you are the only man of means I know who has something of Mr. Wright’s own vision in planning for life today. What you have thus far done invites me to address you as a friend and counselor in these matters. We of course would welcome your assistance directly or indirectly. When I met Mr. Rockefeller, Mr. Fels and yourself I thought “here are people who speak Mr. Wright’s language and who are interested in the large implications of his work”. Would it be asking too much to suggest that you bring the matter of our predicament to the attention of your associates? I think you and perhaps they are not indifferent to the fate of an important project of Mr. Wright’s. Mr. Turner stands ready now to realize this plan. If we are held up for a year or two we may lose his services and I think you know how catastrophic that would be. We have hopes of seeing Usonia Two [sic] represented along with Ardmore in the special number of the Architectural Forum for January 1940 which Mr. Wright will edit.

If you or another would like to see plans and data we and Mr. Wright would furnish them.
Letter from Sydney Newman of Usonia I to Otto Mallery, 9/11/39

I am communicating with you at the suggestion of Mr. Wright and Mr. Turner for the purpose of placing the Usonia Two project before you in a more detailed fashion than did Mr. Garrison. Our major hope of beginning our project at this time is that a man of your foresight would be willing to finance us. As I understand it, you might be interested in financing the houses if the prospective owners could put up thirty percent of the value of the property. The majority of us seem to be able to do this. We have our plans which represent approximately ten percent of the value. We own our lots which according to real estate man [sic] with whom I have talked, are usually taken to represent from ten to fifteen percent of the value. We have already installed and paid for a large well which will be satisfactory as a central water system for all the houses in Usonia Two. We already have set aside a fund for the building of the roads and this money is in the bank. In addition to all this outlay which we have already made, we can produce seven hundred and fifty to a thousand dollars in each case.

It seems clear that we have a project which is financially sound and it has been amazing to us that local financial institutions are unwilling to loan us what we need. The reluctance of these institutions is due to their ignorance of Mr. Wright’s architectural and inventive genius. As college teachers with steady incomes, the local institutions have never questioned our credit ratings in any way. They simply label the houses “radical” and refuse to go any further. If we were building conventional houses, we could obtain money immediately. The local institutions fail to see that the utility, beauty, low upkeep cost and timelessness of Mr. Wright’s houses make them a far sounder investment than the traditional type of house.

I think you can understand our love for Mr. Wright’s Usonian design and our eagerness to live in Usonia Two. We hate to give up the project because of the backwardness of local lending agencies. We are willing to try in every way to meet terms which you would consider equitable.

There are one or two of our members who might need an eighty percent loan. Would you consider making such a loan at the interest rate of six percent per annum on the unpaid balance?

The financial backers of such a project as ours would earn the approbation of the world as contributors to the development of the whole field of low and moderate cost housing. This seems to be an (unreadable word) when a sound financial investment also becomes a sound investment in the pulling up of the lives of the (unreadable word) people.

Please let us know the financial details of any plan which you would consider just and fair. If possible, we would like to begin construction while we have Mr. Turner available, and while building prices are still at a normal level.

If you would desire to see me personally to get more details about the prospective home owners or to see the plot plan and house designs which Mr. Wright has prepared for us, I would be delighted to come to see you.

It is probably unnecessary to add that our heartfelt gratitude would certainly be extended to you if you make this project possible.
BIBLIOGRAPHY

Works by Wright on planning projects


"For a Democratic Architecture," *House Beautiful* 95, no. 10 (October 1953), pp. 316-17.


Works by others on Wright's planning projects


*Chicago Tribune* - "Federal Bureau Foils a Plan for Modern Housing: Refuses Loan to Group of Professors," September 8, 1940.


BIBLIOGRAPHY


"Usonian Architect," Time 31 no. 3 (17 January 1938), pp. 29-32.


Books by Frank Lloyd Wright


Magazine Articles by Frank Lloyd Wright


"A Small House with 'Lots of Room in It,"" Ladies Home Journal, 18 (July 1901).


*Architectural Forum*, 68, (January 1938), entire issue devoted to Wright.

*Architectural Forum*, 88, (January 1948), entire issue devoted to Wright.


**Anthologies of Writings and Drawings by Wright**

Alofsin, Anthony - *Taliesin Correspondence,...*


Vol. 1  Monograph, 1887-1901
Vol. 2  Monograph, 1902-1906
Vol. 3  Monograph, 1907-1913
Vol. 4  Monograph, 1914-1923
Vol. 5  Monograph, 1924-1936
Vol. 6  Monograph, 1937-1941
Vol. 7  Monograph, 1942-1947
Vol. 8  Monograph, 1948-1959
Vol. 9  Preliminary Studies, 1889-1916
Vol. 10  Preliminary Studies, 1917-1932
Vol. 11  Preliminary Studies, 1933-1959
Vol. 12  Renderings, 1887-1959


Pfeiffer, Bruce Brooks - *The Guggenheim Correspondence*.


**Books about Frank Lloyd Wright**

BIBLIOGRAPHY

O'Gorman, James F. - Richardson, Sullivan, and Wright. (unpublished manuscript 1990)

Essays & Magazine articles about Frank Lloyd Wright


- "Your Heritage from Frank Lloyd Wright," October 1959.


General References


Architectural Record - "In the Housing Picture," *Architectural Record* (May 1942), pp 63-66.


- "Protestantism in a Nutshell." in The Works of Orestes A. Brownson (Henry F. Brownson ed.).
Carrithers - Mumford, Tate, Eiseley: Watchers in the Night (1991)
Cavell, Stanley - The Senses of Walden.


- The Forge and the Crucible. esp. "C. G. Jung and Alchemy."


Graves, Thomas - "Essay on the Ordering of Towns," ca 1635. attributed. (Reprinted by in the Winthrop Papers by The Massachusetts Historical Society.)

Greenough, Horatio - "Form and Function"


Heimert, Alan - "Puritanism, the Wilderness, and the Frontier," The New England Quarterly, XXVI, no. 3 (September 1953), pp 361-82.


Jung, C. G. - *Psychology and Alchemy*.


Lubove, Roy - "Introduction," to the recent reprint of H. W. S. Cleveland's *Landscape Architecture,* 1873. (Reprint 1965)


- "Lewis Mumford: Prophet of Organicism." (Unpublished lecture, as revised 3/6/89)


- "Primitivism, Pastoralism, and Progressivism...," (Unpublished lecture delivered at The University of Virginia, 1989.)


BIBLIOGRAPHY


Morse, Jedidiah - The American Geography. Elizabethtown: Shepard Kollock, 1789.


Neumann, Erich - The Origins of Consciousness.


Peckham, Morse - "Toward a Theory of Romanticism." *PMLA*, LXVI, 5-23 (March, 1951).


Stein, Leopold - "What is a Symbol Supposed to Be?" *Journal of Analytical Psychology* 2 (1957): pp 73-84.


Walzel, Oscar - German Romanticism. (A. E. Lussky trans.) New York: G. P. Putnam's Sons, 1932


"Welcome to Circle Pines," information fact sheet.


Whitman, Walt - (Leaves of Grass)


Wright, Conrad (ed) - *American Unitariansim, 1805-1865*. Published jointly by the Massachusetts Historical Society and Northeastern University Press, Boston.