INTERSTITIAL:

SIXTY YEARS AT RUSH CREEK VILLAGE

DARREN M. KELLY, ARCHITECT

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To Theodore van Fossen, *generous teacher and good friend;*

to Martha Wakefield, *kindred spirit;*

to Richard Wakefield, *master craftsman;*

and to the Members of Rush Creek Village past, present and future.

ACKNOWLEDGMENTS

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Tom Hogan was a resident of the Orcutt House and president of the Rush Creek Village Association for many years; his photographs are brilliant and speak to an understanding of van Fossen's work that requires immersion in a subject, both physically and intellectually. His stewardship of the Orcutt House returned it to its appropriate primary status as the central planning reference for the Western Neighborhood.

Tom's wife, Dorothy Hogan, conducted extensive interviews with Martha Wakefield and Theodore van Fossen while she and Tom lived at Rush Creek and has generously shared the transcripts of those interviews for this book.

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Martha Wakefield and Theodore van Fossen contributed a great deal of time and attention to this book in their final years. Martha's passion for design was a shared one and in every conversation we found ourselves competing in our outrage at the bankruptcy of Modernity's (and post-Modernity's) design ideals. The Wakefield family, especially Cris Andersen and Pam (Wakefield) Andersen, has kindly permitted access to the family's archives of photographs and drawings, without which, the telling of this story would have been much more difficult if not outright impossible.

Finding Theodore van Fossen was vital both to this work and my own development as a design professional. Growing up in Worthington not far from Rush Creek Village, I would bicycle over and see van Fossen's name on the marker there on E. South Street and wonder who was this man that could have designed the houses around me that piqued my curiosity; I was drawn back countless

times by the unique character of the homes and the subtle electricity between them. Living in seclusion in rural Western Pennsylvania, Ted van Fossen had long since turned away from a world that had settled for mediocrity. He was the last of a generation of great artists and thinkers that included his friends Tony Smith, Lee Krasner, and Max Earnst. By the time I located the old Master, he was alone in fragile health and in humble surroundings appropriate for a Bodishattva. Throughout his life, he had eschewed the large, profitable commissions that were offered in exchange for his principles and remained in this world, it seemed, just long enough to tell his story and impart his wisdom one last time. I will always be grateful for his inspiration, his friendship, and his lessons. This book fulfills my promise to him that I would pass on what I have learned.

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I should also gratefully mention those who threatened this endeavor by their efforts to capitalize on it for their own benefit. Their opposition revealed the path forward.

Finally and most of all, this adventure was possible for the past fourteen years because of the patience, sacrifice, and support of my family: Sara, Makoyi, Alex and Maya (and Joey). I am very fortunate.

Darren M. Kelly, Architect
Lafayette, California

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The influence of relativity, and quantum theory when it comes, will shift the emphasis in human affairs from the observed to the observer, from the objective to the subjective, from the natural to the human. Each human being exists at the center of his or her experienced universe and knows its truths from a unique point of view. If this point of view can be shared with others, then a modern community can be formed—modern in the sense that it begins with the experience of each individual and not with dogmatic "truths" imposed by any one individual on others. This recognition will lead to new types of architecture and urban form, which will establish new centers for individual living and new networks of centers that become the city.

Lebbeus Woods
The New City


E NEW ENGLAND AVE
Old Worthington
PLYMOUTH ST
McCOY AVE
Rush Run
IGELSRUD
TYE
Harding Hospital
WAKEFIELD 3
YURICH
WAKEFIELD
KASWAN
AUSTIN
WAKEFIELD 2
FREEMAN
SMILACK
TYUS
EVANS
WEISS
KRIEGER
WILDER
COE
BAKER
WHITE OAK PL
SHINGLEDECKER
E SOUTH ST
RAAB
TODD
TURNER
HOFFMAN
MCGRAIL
ORCUTT
COOPER
ROTTER
EVERGREEN CIR
PINCHERRY LN
PEPINSKY
ELLIOTT
JOHNSON
GIBBONS
KYTLE
MCDOUGLE
FISCHER
TEITELBAUM
WU 2
RUBIN
GIGANTE
STEVENS
FOSTER AVE
HARDY WAY
WILLIAMS
EASTERN NEIGHBORHOOD
DENDRA LN
STANGER
CANZANI
WU 1
WESTERN NEIGHBORHOOD
Colonial Hills Elementary
Colonial Hills

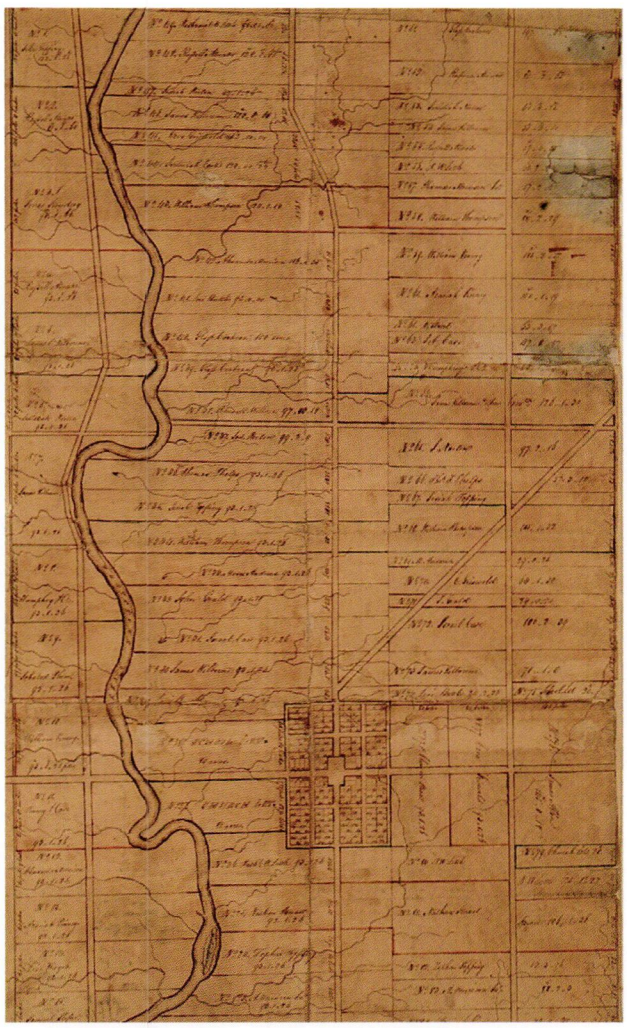
THE HOUSES OF RUSH CREEK VILLAGE

Original owner's name	Date of initial completion
Wakefield	1955
Igelsrud	1956
Tye	1956
Shingledecker	1956
Williams	1957
Evans	1957
Wilder	1957
Wiess	1958
Canzani	1958
Hoffman	1958
McGrail	1958
Orcutt	1958
Rotter	1958
Pepinsky	1958
Stevens	1958
Freeman	1958
Teitelbaum	1958
Baker	1959
Elliot	1959
Stanger	1959
Johnson	1959
Rubin	1960
Smilak	1960
Cooper	1961
Fischer	1961
Gibbons	1961
Todd	1961
Kytle	1962
Raab	1962
McDougle	1966
Turner	1966
Wu 1	1966
Gigante	1968
Wakefield 2	1968
Kaswan	1969
Wu 2	1969
Austin	1970
Coe	1972
Krieger	1972
Yurich	1973
Wakefield 3	1974
Tyus	1976

1 MODERNITY

The voice of him that crieth in the wilderness, Prepare ye the way of the LORD, make straight in the desert a highway for our God.

Isaiah 40:3



Original plat of Worthington, Ohio, 1804. Rush Run can be seen at lower right.

CONTEXT

If the term *Modern* is understood according to its original 16th Century Enlightenment description of the separation between the ancient and the new, then Worthington, Ohio is as representative of the Modern Project as any place on Earth.

When James Kilbourne and Nathaniel Little arrived to the newly-designated U.S. Military Lands of the Northwest Territory in 1803, they established the center of what would become Worthington on the high ground along the eastern edge of the Olentangy River Valley. In April of that year, Kilbourne, an explorer, merchant, and ordained minister, led an advance party representing the Scioto Company from the cobblestone streets of Granby, Connecticut into the area to clear land and survey parcels to make way for the new regime, where reason and practical faith might displace an "archaic and stable past" to prevail over the incomprehensible and frightening wilds.[1] By July, temporary structures were clustered along the Village Green anticipating the first settlers who would arrive by oxcart in September to redeem the promise of compensation for having participated in the revolution that had established a republic in the New World founded on those very same Enlightenment principles. [2]

Men like Kilbourne and Little had transported the values of the Enlightenment from London to Boston and into the interior of a

continent they believed to require their intervention on behalf of a deistic god, largely uninterested in directly intervening in the affairs of men. This left much to be done by the faithful: lands to subdue, species to catalog, and the application of reason to dispel the unruly mysteries of nature; most importantly, this mission was to be executed with a clinical detachment and an eye toward commercial opportunity.

It had been an ambitious 150 years in the West since Descartes had established humankind as a separate objective authority over nature by separating the mind from physiology. Robert Boyle's publication of his vacuum experiments of 1660 and the ensuing public debate with Thomas Hobbes had cemented a specific methodology of understanding nature, fashioning the pursuit of immutable, objective fact uncontaminated by subjective understanding. For explorer merchant ministers and their kind, the world was composed of discoverers and the discovered and whatever means were available to bring resources to the marketplace. Spurred by competition with each other, Modern societies of the West proudly levied their command of industrial processes to support the inevitable conflicts with the non-Moderns they encountered while subduing the unruly remote corners of the world. That mission in North America would continue westward for nearly another century after the oxcarts arrived in Worthington, its noisy and brutal advance disrupting the quiet of other rivers in other valleys, further and further away from



The "Aurora Buttles House" (also known as the Sidney Brown House) in Worthington, built in 1818.



Kilbourne and Little and their small but ambitious venture.

In its sheltered environs of Central Ohio, the village of Worthington grew steadily, auspiciously positioned at the crossroads of regional farmland highways along the outskirts of the state capitol, Columbus. The collection of humble, one-story, wood buildings extending from the Village Green was gradually replaced with more permanent homes and civic institutions rendered in red brick and proper white trim. Evidence of prosperity and divine endorsement of the enterprise, a business district developed along the regional rail line extending north from the capitol. By the time it celebrated its Centennial, Worthington epitomized all of Modernity's aspirations and promises of progress.

Meanwhile, closer to its headwaters, the Modern Project in Europe asserted its principles of emancipation and revolution with new expression. Clean and efficient cities were advanced as the solution for the crowded and polluted urban centers of Europe, where shady alleys and stagnant air were purported to represent the fractured human psyche. 3 Man was to be made anew, and the world he constructed would reflect the bright possibilities. As the 19th Century closed, architects, artists, and planners struggled against the Classical tradition and a new century celebrated new technologies and applications for the built environment.

High Street in Worthington, 1948.

For architecture and design, the industrialization that had fueled the mechanized carnage of World War I was reallocated to the arts with unrivaled zeal in Weimar, Germany. The disciplined rigor of the Bauhaus there presented "a new aspect of architecture corresponding to the technical civilization of the age." [4] But while the tools may have been new and the work assumed new forms, the primary drive remained loyal to Modernity's fundamental priorities: distilling a rationalized and "common intellectual outlook" for standardization of the built environment, inspired as much as it was enabled now by factory processes to enforce an objectively derived truth. Handicraft and the "old aesthetic conception of form" were to be abolished. [5] Unencumbered by and purified from the contaminants of individual responses to the criteria of site, program and budget, this New Architecture constituted the purest manifestation of Modernity.

Le Corbusier's contemporary investigations in Paris similarly sought the universal solution for human habitation. Stark and severe, his Machine for Living was a standard system by which the calculated methodology of automobile and aircraft design might be applied to the prototypical but certainly not personal dwelling. [6]

There persists throughout the rhetoric of the New Architecture the theoretical, idealized abstraction of the human being, perhaps, in response to the irrationality of ethnic division and nationalism that had fomented the Great War. Touring Europe in 1928, Philip



Villas at Weisenhoff Estate by Le Corbusier, 1927
Stuttgart, Germany



Johnson found himself sympathetic to the cause of progress through enforced homogeneity and, appropriately enough, christened this movement the International Style and promoted its universal application to all places and peoples.

Even as this effort established itself firmly among intellectuals and the academic elite, however, other voices advocated for an alternative approach.

Villa Muller by Adolf Loos, 1928
Prague, Czech Republic

OPPOSITION TO MODERNITY: EAST MEETS WEST

The publication of Frank Lloyd Wright's Wasmuth Portfolio in 1910 must have had a substantial (even if unrecognized) effect on the early Modernist designers of Europe. 7 Seductively rendered plans and perspectives are known to have been reviewed by Walter Gropius, Mies van der Rohe, and Le Corbusier, who led the Modernist movement in architecture for the first half of the Twentieth Century.

But within the Modern context of the universal solution, there was no comfortable place for Wright's work, which even at the time seemed so invested in the personal experience. The schism was set when Philip Johnson marginalized Wright's work in his 1932 Museum of Modern Art show in New York. Offended, Wright withdrew his entry.

In New York, Johnson formally established the taxonomy of the century's architecture and design that, like the larger context of Modernity, would prove to be awkward and ill fitting. The narrative dictated that there was Modernism, progressive and representative of Modernity's values; in opposition to it, antiquated sentimentalism, embodied by Wright's work. It was not entirely accurate, but it was (and remains) a convenient narrative, easy to learn and use as long as the scope and depth of study is necessarily restrained. It was inevitable, too, as Wright's philosophical underpinnings which prioritized personal experience with nature through an integrated



Frederick C. Robie House by Frank Lloyd Wright, 1909
Chicago, Illinois



Danjo Garan Fudo-do, 1197
Koyasan, Wakayama, Japan

architectural environment contradicted the Modern premise of rational, objective segregation from the world.

Wright largely owed those underpinnings, early on at least it appears, to the New England Unitarian Transcendentalists of the 19th Century. Thoreau, Emerson, and their contemporaries had advocated for leaving the Modern world and its concomitants in favor of a simpler life, free of society's constraints and intimately engaged with the natural environment. To the Transcendentalist mind, progress was an illusion; only nature's processes—the change of seasons, the comings and goings of neighbors and loved ones, and thoughtful response to the natural environment—were real. Personal development and achievement of human potential were dignified pursuits, more so than others, and they argued for personal (though nonviolent) action to further an agenda of social justice for the betterment of a society whose conventions they ignored. These sensibilities allude to a more than casual influence by Taoist thought. To wit, Thoreau is alleged to have read one of the first French translations of Lao Tzu's 2500 year old Tao te Ching. 8

The fascination with Eastern mysticism within the intellectual Transcendentalist movement in the United States appealed to many artists who looked to Asia and Wright was certainly among them. 9 Perhaps even more directly was the work of the Boston Orientalists, among them Kakuzo Okakura, author of *The Book of Tea*, and Ernest

Fenollosa, well-published commentator on Japanese aesthetics and first cousin of Joseph Lyman Silbee. It was in Silbee's office that Wright first found employment and from Fenollosa that he obtained his first Japanese screen print. 10 Wright recalled Okakura's work later in life as a touchstone, 11 as it refers to the Tao te Ching:

> We join spokes together in a wheel,
> but it is the center hole
> that makes the wagon move.
>
> We shape clay into a pot,
> but it is the emptiness inside
> that holds whatever we want.
>
> We hammer wood for a house,
> but it is the inner space
> that makes it livable.
>
> We work with being,
> but non-being is what we use.
> *Chapter 11*



Unity Temple (Interior) by Frank Lloyd Wright, 1906
Oak Park, Illinois



Unity Temple, exterior detail

In both his writing and his work, Wright consistently campaigned for direct personal engagement with the natural environment as a means to self-actualization and inclusion of humanity within the larger context of the natural world. Where allowed to develop unhindered by the distractions and standardization of the Modern world, the individual could better discern truth and beauty as an extension of self. In his introduction to his 1910 Wasmuth Portfolio, he professed that "We ourselves are only a product of natural law. We reach for the light spiritually, as the plant does physically, if we are sound of heart and unsophisticated by education." 12 The built environment, sensitive and responsive to these innate human tendencies, could facilitate that relationship.

His linking of the two, especially citing the "spiritual lessons the East has power to teach the West," offers insight into the personal motivations which would be articulated in the Usonian home, his solution for low-cost housing that was in many ways, an American adaptation of the traditional Japanese residential building type. 13

As considerable the influence of Japan on Wright's personal life and work was, his treatment of architectural space as a positive entity was entirely his own innovation. 14 According to Wright, it was Unity Temple, completed in 1906, where this idea would find expression in what he would describe as the destruction of the box being, "the first real expression of the idea that the space within the building is the

reality...the interior space opening to the outside and...the outside coming in." 15

Wright's regard for space as a "continuous flowing substance which could be articulated but should not be artificially confined" 16 can be seen as a reflection of Lao Tzu's meditation on the Tao:

> It flows through all things
> inside and outside, and returns
> to the origin of all things.
> *Chapter 25*

Just as importantly, Wright's interlocking of the programmed spaces of a building create resultant transitional spaces in which the Taoist view of nature as existing in a state of constant flux is articulated. 17

> Being and non-being create each other.
> Difficult and easy support each other.
> Long and short define each other.
> High and low depend on each other.
> Before and after follow each other.
> *Chapter 2*



Marin County Civic Center by Frank Lloyd Wright, 1960
San Rafael, California



These innovations are inseparable from Wright's consistent criticism of mainstream Western architecture as contributing to a "jittery, jealous, envious, mean" society. 18 While he was not the first to explore the psychological affects of the built environment, Wright's body of work can be seen to be largely, if not primarily, motivated to promote a sense of wellness in the building's occupant (and ultimately, society at large) through a deliberate, integrally designed personal relationship with the natural world. Impossible to reconcile within the Modern Critique, Wright's work was and remains dismissed by Modernists as *romantic*.

To the present day, scholarly analyses struggle to comfortably and consistently place Wright within the larger context of 20th Century Modernist architecture. These efforts prove difficult, if not superficial and flat, simply because Wright's motivations and body of work do not exist within the context of the larger Modern Project.

Marin County Civic Center, interior planter

MID-CENTURY'S EXPERIMENTS WITH AFFECTIVE ARCHITECTURE

Regardless of present day difficulties metabolizing his work, Wright's fascination with the potential for architecture to provide an affective environment did not go unnoticed at the time. As a student in Vienna, Richard Neutra had seen the Wasmuth Portfolio and was obviously intrigued. Neutra had been for a while keenly interested in psychology, was a classmate of Sigmund Freud's son, and found himself on more than one occasion a captivated guest in Freud's home. 19 Seeking an audience with Wright, Neutra called upon Rudolf Schindler, a friend and former Taliesin fellow, to petition the U.S. Government for permission to immigrate from Austria.

Neutra found Wright and apprenticed at Taliesin in 1924 and 1925 before leaving to launch a practice with Schindler in Los Angeles. Being a product of two seemingly irreconcilable philosophies (according to Johnson's binary taxonomy, at least), Neutra's body of work, not entirely unlike Schindler's, represents an application of the Bauhaus-influenced minimal Modernist formal language to Wright's fascination with the natural world and his encouragement of interaction with it.

What Neutra found in Wright was a shared belief in the affective potential of design on human psychology and his 1954 *Survival Through Design* remains a 384-page manifesto calling for an



Kaufmann Desert House by Richard Neutra, 1946
Palm Springs, California

"organically-oriented design" to better serve humanity. 20 While the organic design theme echoes Wright, Nuetra's tone was very much the product of his own highly-psychologized era, demanding that the study of "physiology must direct and check the technical advance in constructed environment." 21 To Neutra, this meant that the Modern Project's duality between beauty and function should be a unified approach of clean structural expression unencumbered by ornament where human activity might continue unimpeded by excessive construction. Clinical research on the direct effects of the man-made environment on the brain, he argued, would provide the means of objectively evaluating the success of functional design to aid in the very survival of the human organism.

In spite of its evidence-based foundation, however, Neutra's influence on American design was chiefly aesthetic. His refined application of the International Style became representative of the New Architecture in the United States, especially in California, where the post-WWII housing boom provided ample opportunity to test new theory, materials, and methodologies.

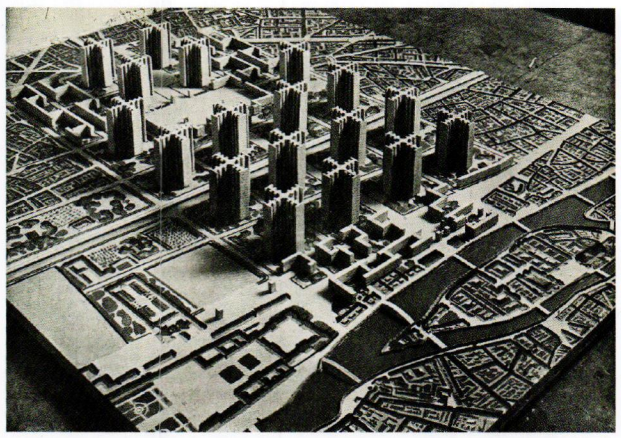
One of the first such tests was the Mutual Housing Association (MHA) in Los Angeles. Encouraged by the new postwar availability of construction materials and inspired by Wright's numerous manifestos, progressive designers and artists purchased 800 acres in the Crestwood Hills area in 1946 for a cooperative development with the goal of bringing quality modern design to homeowners of middle-class means. 22 Architects Douglas Honnold, John Lautner, Whitney R. Smith, A. Quincy Jones and others produced 28 Modernist designs that were executed to construct 160 homes, sited to provide maximum exposure to vistas of the Santa Monica Mountains and retain privacy for individual residences along winding suburban streets. Unable to maintain the financial burden of holding 800 acres for exclusive use, the project collapsed and the remaining land was opened for more conventional development, limiting any benefits from the overall planning originally intended.

Inspired by his experience in the Usonian Wright designed for Sidney Bazett, 23 San Francisco Bay Area merchant builder Joseph Eichler envisioned modest communities of similar design ideals. In 1949 he retained local architects Anshen+Allen who interpreted Wright's Usonian planning through Neutra's austere (and more easily mass-produced) formal language to create eponymous icons of post-WWII Modernism. Eichler's single-family homes featured expanses of full-height exterior glass, flat roofs, and radiant floors. 24 Taking full advantage of coastal California's mild climate, the openness of the Eichler designs encouraged garden and atrium life and greatly influenced mid-Century American suburban culture as families could encounter the patterns and rhythms of nature within their discrete properties. Joseph Eichler provided Modernist design to mainstream America, at least in California, and Eichler Homes remain an

example of successful suburban residential design, having earned a loyal following among owners as much for their memories of sunsplashed breakfast tables as for their lasting marketplace value.



Eichler Home in Los Angeles, California



Plan Voisin, by Le Corbusier, 1925

THE FAILURE OF MODERNISM AND THE MODERN PROJECT

Wright's work and the work of others within his sphere of influence were widely disavowed by their contemporary Modernists. John Lautner, who left Taliesin after six years in the 1930's struggled to find work in Los Angeles when employers discovered he had worked for Wright. 25 While Neutra's portfolio is canon in the academe and professional practice (one of the few areas of correlation between these two disparate worlds) little discussion is afforded to his affiliation with Wright. In fact, Wright is largely absent from American architectural education altogether.

This should not have been unforeseen in light of the dominant framework of the last several centuries in the West. Taliesin philosophy was always counterculture. There was no way to account for the individual's experience within the larger Modern context. Since the time of Robert Boyle's vacuum experiments in the 1680's, the Modern Project had relied upon the participation of separate groups' observations of carefully constructed experiments to arrive at a consensus that overrides the individual's experience. The empirical process, in this intervening time, had transcended to become at least equal to human beings and in many ways had rendered humans subservient to the replicated results of the laboratory. 26

Architects were able to exploit the industrialization and volatility of the

20th Century as opportunities for the application of such an ethic. The International Style was so aptly named because of its capacity to disregard local vernacular traditions and unique characteristics of site with modular, industrial, *a priori* solutions. Midcentury American architects and city planners promoted High Modernism as symbolic of democracy and indicative of the industrial power of the non-Communist West, but by 1965, voices protested it as "cold, inhuman, and unfriendly" 27 as it was obvious to too many that "a certain strain of modernist architecture, at least, was intent on transforming the world into a...nightmare of rationalism triumphant." 28

The failure of Modernist architecture reflected growing dissatisfaction with the larger Modern Project. During the last decades of the 20th Century, Modernity came to be seen as "a secular movement that sought the demystification and desacralization of knowledge" in favor of universal reason, incongruous with the way that human beings experience the world as individuals. 29 There was, actually, more than one answer to every question. Burdened to its yield point with these glaring inconsistencies the Modern Critique simply ceased being a useful model for understanding the world, and so not surprisingly the architectural movement that it spawned was ultimately rejected.

This architecture deemed *Modern* by academics (who also believed



Pruitt-Igoe Public Housing Project by Minoru Yamasaki, 1946
St. Louis, Missouri





themselves to be Modern) succeeded where solutions afforded sensitive access to nature, where individuals could engage in their own relationship with the natural world they experienced around them. In this light, the current method of discretely classifying architectural style needs to develop, instead, into discussion about the built environment not in terms of aesthetic appearance or the designer's rhetoric, but function, in terms of its efficacy as sensitive mediator between humankind and nature, for it seems that this is the defining characteristic of successful design from the *occupant's* perspective.

In this respect, Wright, Neutra, Lautner, and the others who shared their values seem to have been prepared for what was to come, for even as Modernism was reaching its apogee as an architectural movement, nature itself was being remarkably redefined.

Time-lapse of the demolition of one Pruitt-Igoe Tower, St. Louis, Missouri, April 1972

Pruitt-Igoe was demolished at 3:00pm on March 16, 1972, which American theorist and landscape architect Charles Jencks deemed "the day Modern architecture died."

REUNIFICATION: WEST MEETS EAST

The primary assumption of Modern thought, the immutability of fact, was overturned in 1927. German physicist Werner Heisenberg, with his colleague and mentor, Niels Bohr, announced to their colleagues gathered in Copenhagen, Denmark their discovery that the mere act of observing nature alters it and even with the most careful measurement, there always persists a degree of uncertainty about what is observed. Twenty years previous, Einstein had already provided an alternate definition of nature of light as a particle, expanding upon a century-old understanding of light as a wave and contradicting the Modern mind's comfortable, if not mistaken, distinct classification of the world and everything in it.

That the new physics seemed more like Eastern mysticism than anything familiar in the West was not lost on Bohr. His own focus, the dual nature of matter, complicated things further for the Modern Project: subatomic entities exist, in fact, both as a particle and a wave, which are alternately manifested by the processes of observation. Bohr's work revealed that an observer chooses, for instance, whether a photon appears and behaves as a particle or a wave, though in reality, it exists as both. For Bohr, this duality in nature and the paradoxes it revealed were their own reflections of the Tao te Ching:



Neils Bohr and Albert Einstein, 1925



Thus it is said:
The bright path seems dim;
Going forward seems like retreat;
The easy way seems hard;

The highest Virtue seems empty;
Great purity seems sullied;
A wealth of virtue seems frail;
Real virtue seems unreal;

The perfect square has no corners;
Great talents ripen late;
The highest notes are hard to hear;
The greatest form has no shape.
Chapter 41

Later in life, upon receiving the Order of the Elephant by the Danish government, Bohr would design his own coat of arms prominently featuring a *taijitu* (yin and yang symbol) with the motto, in Latin, *contraria sunt complementa* ("Opposites are complementary").

In 1953, Erwin Schrodinger further expanded upon Bohr's discoveries,

Attendees of the 1927 Solvay Conference on Quantum Mechanics, Belgium, including Albert Einstein (front row, center), Niels Bohr (second row, right), Werner Heisenberg (back row, third from right)

demonstrating in an exchange of correspondence with Einstein how both states of an entity exist simultaneously in a state of superposition until the act of observation collapses the wave function, that is, reduces the statistical probability to a unitary state. This discovery undermined Decartes' assertion that human consciousness is separate from the corporeal world: in fact, it is conscious human interaction with nature that determines its very materialization.

Emerging from these discoveries and refinements of Quantum Theory was the revelation of the inherent interconnectedness of all things. The universe, as Moderns understood it, was a well-regulated assembly of component parts—an elaborate, divinely designed Copernican clockwork exhibiting immutable truths. By contrast, Quantum Theory reflected the dynamic character of nature, always in flux and in constant interaction. This, as Lao Tzu attested, was the essence of Tao:

> There was something formless and perfect
> before the universe was born.
> It is serene. Empty.
> Solitary. Unchanging.
> Infinite. Eternally present.

It is the mother of the universe.

For lack of a better name,
I call it the Tao.
It flows through all things,
inside and outside, and returns
to the origin of all things.
Chapter 25

Pursuant to Quantum Theory, the universe is comprised solely of fields of electromagnetic energy. Even the building blocks of matter are simply fleeting concentrations of energy that exist only momentarily at the confluence of colliding fields which in the process, exchange, create, and annihilate photons (light). These fields, intangible and insubstantial as they may be, are the only real things in the universe. 30

Matter *is* energy.

Even more challenging to prevailing thought, particles once in proximity then separated across vast distances were found to act upon one another instantaneously. Einstein didn't care for these non-local effects, or *entanglement*, calling them "spooky action at a distance."

If, as he insisted, nothing exceeds the speed of light, and these particles are affecting one another across space instantaneously, the ramifications were staggering: either the two particles were multiple manifestations of the same entity, or spacetime was simply a construct for these real experiences. The logical end to this train of thought meant the certain death of Modernity's discrete understandings: because at the time of the creation of the universe every particle was in close proximity to every other, everything in nature would necessarily be entangled, constantly in flux as everything acted upon everything else. For those on the forward edge of science, nature became inextricably interactive and seamless and ultimately relative to the experience of the observer. Nothing in the traditions of the West seemed familiar anymore; it appeared that the non-Modern mystic traditions of the East had it right all along.

By mid-century, even as Modernism as an artistic and architectural movement was reaching its apex, the physical sciences had eroded the confident assumptions that had fueled the work of Moderns for 300 years. It is grand irony that Modernity, grounded in revolution and the empirical method, would be undone by a burst of activity within the physical sciences. Quantum Theory had effectively invalidated much of the Modern Critique and its claims of separation between humankind and the natural world. Even notions of *East* and *West* as geographic and philosophic identities could be discounted as contrivance.

A new context for understanding nature and humanity's place within it was developing in Europe and the United States. Unfortunately, except for the weaponization of the atom and its sublime deployment in 1945, outside intellectual circles, hardly anyone noticed. A select few designers, however, were prepared for this change. Through their affiliation with Wright, they were uniquely poised to address the human relationship with nature to the benefit of both. Their work would enjoy a special longevity and relevance.

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2 RUSH CREEK VILLAGE

The obstacle is the path.

Traditional Zen Teaching



South Street bridge over Rush Run, Worthington, 1955

HISTORY: RICHARD AND MARTHA WAKEFIELD

Among this small group, Martha (Barouth) Wakefield was born in Columbus, Ohio in 1922. Her mother having died when she was four, Martha grew up in her father's engineering office. Later in life, she would recall spending her childhood days sitting on his office floor reading plats. Attending The Ohio State University for one year, she pursued an ambitious curriculum of philosophy and art before meeting Richard Wakefield.

In 1942, Martha married Dick Wakefield, a fellow Central Ohio native who had attended Columbus' North High School before earning a degree in business from Ohio State. During the war effort, Dick worked at the Curtis Wright aviation manufacturing facility located in Columbus. At home, Martha developed drawings for a new house. After Dick took Martha's drawings to the facility to solicit comments from the engineers and designers, he returned home with a copy of the January 1938 Architectural Forum dedicated to Fallingwater.

At age 23, Martha Wakefield had never heard of Frank Lloyd Wright or his work, but upon seeing the magazine, immediately purchased *An Autobiography*. "I sat and read it, and there wasn't one section that I disagreed with," she would recall fifty years later. 1 In 1945 when Wright spoke in Columbus, Martha and Dick were in attendance. Having heard that Wright enjoyed Scotch whiskey, which was hard to procure due to wartime provisioning, Dick presented a bottle to him

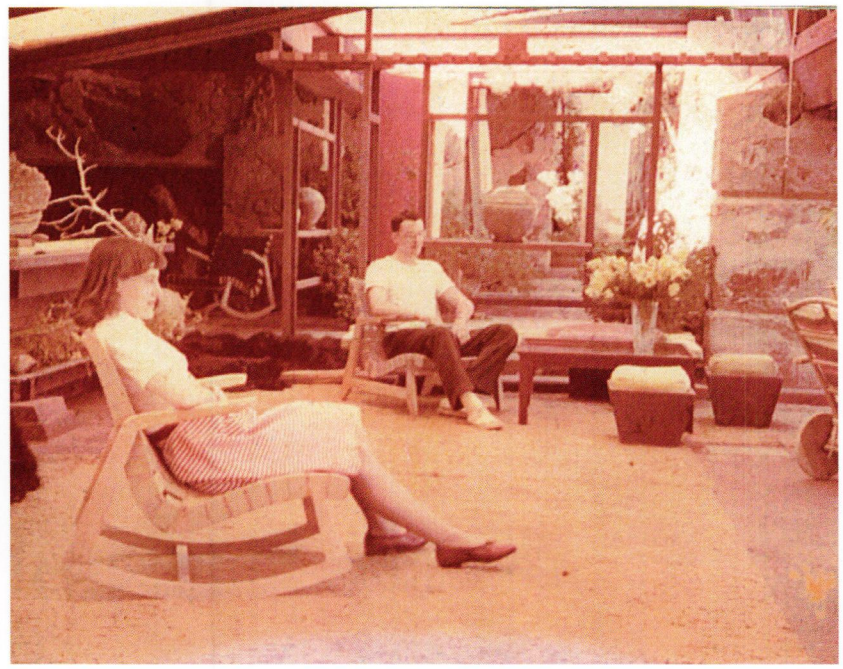
after the presentation. In appreciation, an invitation to visit Taliesin was extended.

"Right after the war, we decided that we were going to study with Frank Lloyd Wright. We sold all our furniture--the piano, everything. And we bought a trailer," Wakefield remembered. Their six-week-old daughter, Pam, was left in the care of Dick's mother and the pair drove to Arizona in the summer of 1946. Upon arrival at their hotel in Phoenix, they telephoned Wright:

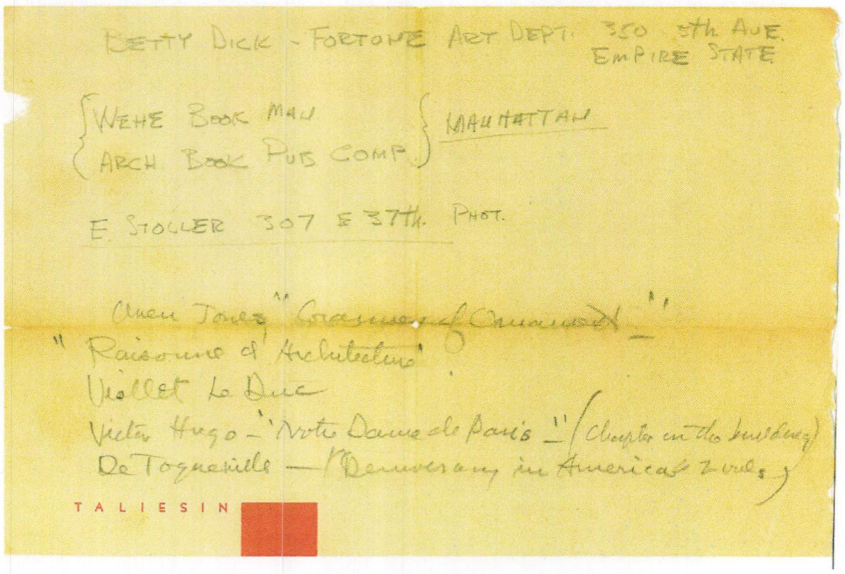
> "He said, 'Oh no! You're not staying at a hotel. You come right out here!' So we went to Taliesin West. The Goulds were there--the banking family. But there were no class distinctions at all." 2

Martha was struck by the setting at Taliesin: "You could look forever. The canvas roofs flapping in the wind, this great man, and everything that was going on with the apprentices. Oh God, it was just wonderful." 3

But soon enough into their two-week stay it became apparent that the desert complex wasn't appropriate—or even safe—for children. On the first day of their visit, an apprentice killed a rattlesnake at the studio entrance. Scorpions were a constant concern. And lacking a formalized curriculum and class schedule, apprentices were often up working all night. Dick and Martha, realizing that a tenure at Taliesin



Martha and Dick Wakefield at Taliesin West
Scottsdale, Arizona, 1946



as young parents was unfeasible, thanked Wright for his hospitality and packed their bags.

For the rest of her life, Martha Wakefield would retell the story of their departure in detail. "Mr. Wright walked us out to the car and stood there against the sunset, with his coat and hat, his silk scarf fluttering in the breeze." His benediction to them there would motivate their work for the rest of their lives: "He said to us, 'Go home. Buy a Jeep. Build a house. And then build one for your neighbor.' And that's exactly what we did. A lot of houses!" 4

Upon their return to Central Ohio, Martha contacted Bob and Mary Gunning and accepted their invitation to visit their remarkable home on Columbus' east side. Martha and Dick had met the Gunnings the previous year after Wright's lecture and were regaled with stories of their home overlooking Blacklick Creek. Designed and built in a collaborative effort by former-Taliesin fellows Tony Smith and Larry Cuneo, and Columbus native Theodore van Fossen, the Gunning House, or *Glenbrow*, was the example of organic architecture for which the Wakefields were searching. For several years, Martha would bring anyone willing to join her to the Gunning House to see just what it was she wanted to do. What she needed now was a designer.

HISTORY: THEODORE VAN FOSSEN

Born in Columbus, Ohio in 1919, Theodore van Fossen demonstrated

Reading list recommended by Frank Lloyd Wright, given to Martha and Dick Wakefield prior to their departure from Taliesin, 1946

his prodigious talent and ambition at an early age. After banishing his expansive wood block cities from the living room to the library, at age eight his parents enrolled him in Saturday morning art classes at the Columbus Gallery of Fine Art. While still in high school, he gathered a group of like-minded friends and built an art gallery in an abandoned stable on South Front Street in downtown Columbus. He had read Wright's *An Autobiography* when he was 15, and the following year ran away to New York City for several weeks to hear him lecture and experience firsthand the art world he'd seen in books and galleries.

In 1936 van Fossen came upon a newspaper ad for the opening of the New Bauhaus in Chicago. Artist Norma K. Stahle had recruited the cultural elite and industrialists of Chicago, under the banner of the "Association of Art and Industry" to reconstitute the Bauhaus school, closed by the Nazi regime three years earlier. At age 17, Theodore van Fossen persuaded his parents to send him to Chicago.

The New Bauhaus afforded van Fossen the opportunity he had sought. On faculty were photographers Edmund Teske and Georgy Kepes. Alexander Archipenko taught a sculpture studio; that year two of van Fossen's sculptures were shown at the New York Museum of Modern Art. Outside of class, Chicago was a city in renaissance, and the 23 students of the New Bauhaus' inaugural academic year were immersed in their culturally rich surroundings. H. H. Richardson's Glessner House was across the street. Students would enjoy special


A Place Where Young Folks May Drop in to Talk and Paint

July 14, 1936 newspaper article prominently featuring Theodore van Fossen (center top, with shovel) at age 17, building a stone wall for the gallery he envisioned for "stimulating interest in art among young people."



dinners in the dining room of Sullivan's Auditorium Hotel. Of course, Wright's work was everywhere to be studied.

Friendships that Theodore van Fossen forged among the other students that year in Chicago would last far beyond their time there and provide a broad cultural foundation for his own work. Fritz Bultman went on from the New Bauhaus to Hans Hofmann's Studio School in New York; it was through Bultman that van Fossen met Maria "Miz" Hofmann and participated in her European-style Sunday afternoon salons at her home on Morton Street. There, van Fossen found himself in the spirited company of Lee Krasner and Jackson Pollock, Linda Lindeberg, Giorgio Cavallen, Mark Rothko, Franz Kline, Alfonso Ossorio, and Jack Tworkov.

It was his friendship with Tony Smith, however, that had the most considerable influence on van Fossen. Seven years his senior, Smith had been a Taliesin fellow and from that experience shared his view that Frank Lloyd Wright presented a new method of approaching space and form. After participating in the student protests that led to the closing of the New Bauhaus in 1938 and the unsuccessful breach of contract lawsuit against director Lazlo Maholy-Nagy, van Fossen returned to Columbus only to receive word from Smith encouraging him to join him in Ardmore, Pennsylvania.

Wright had designed a multiple-family housing prototype in Ardmore

Theodore van Fossen with Lee Krasner, Easthampton, 1964

known as Suntop Homes for builder Harold Turner (previously the contractor for the Paul R. Hanna House in Palo Alto, California), and Smith had parlayed his experience with Wright into a job as "clerk of the works." By the time van Fossen arrived, however, the project was largely completed:

> "We camped out in an unoccupied unit, having dinners with friendly new occupants – it all had an atmosphere of pioneering and people were moving in with dreadfully inappropriate furniture. I designed some furniture that belonged and Tony wanted to get it built. The A.P. Smith Manufacturing Co. in New Jersey, his grandfather's, whose name he bore (Anthony Peter), was a city waterworks equipment manufacturer...We went to the factory pattern shop at night and built my furniture designs and brought them back to Suntop to be used in place of the awful stuff tenants brought with them. Typically we gave them to the tenants [at] no charge." 5

In a short time, they next found work as construction hands on another Wright project:

> "Harold Turner, the builder of Suntop and the previous Hanna House, the hexagonal module house in Palo Alto, had gone to Taliesin to be given another Wright house to build next. That turned out to be the Betty and Andrew F.H. Armstrong house in



Suntop Homes
Ardmore, Pennsylvania, 1939



Ogden Dunes, Indiana, a most unusual enclave in high sand dunes with a wide range of vegetation from pines to cactus at the south end of Lake Michigan, outside of Chicago. Tony, who had talked with Wright when he made a supervisory visit at Suntop, had been invited by Wright to visit Taliesin, so he used that time to do so, for a couple of weeks. Of course they put him to work. He took materials lists off of plans and made some estimates for Wright, before he and I turned up in Ogden Dunes to start work on the Armstrong house which began that fall in '38 and went through a cold winter taking the brunt of winds sweeping down the length of Lake Michigan against the house high on a dune facing them.

"I worked on building that house along with Tony Smith and a fine Danish craftsman and his capable son, Rolf. Their wife and mother cooked traditional Danish cuisine – including mid-morning Danish pastries just out of the oven with Danish coffee brought to the arctic cold of the job." 6

Once again returning to Columbus after the completion of the Armstrong House, van Fossen was eager for an opportunity to apply what he had learned. There was a feeling of urgency, too, as he sensed —as many did—that the news from Europe and Asia foretold war for America. Hearing his adventures and ideas for architecture, family friends Mary and Robert Gunning commissioned him to design a home for their secluded property overlooking Blacklick Creek. Tony

F. H. Armstrong House (under construction)
Ogden Dunes, Indiana, 1939

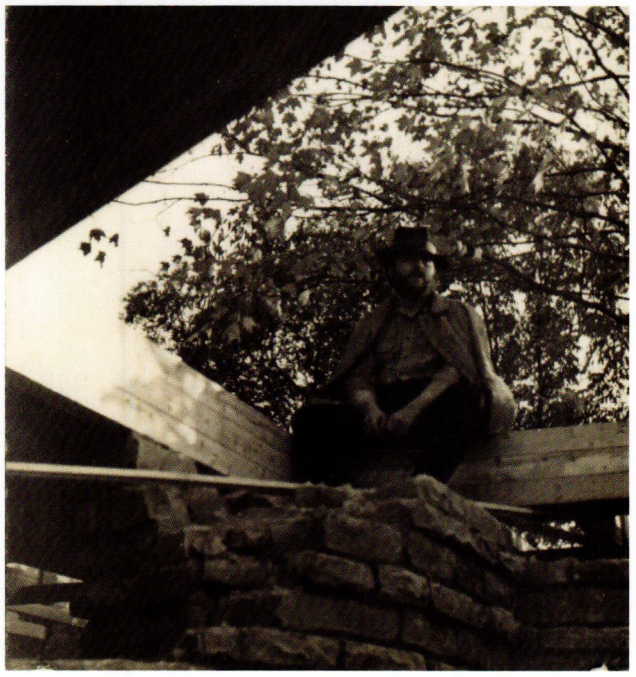


Smith arrived from New Jersey at van Fossen's request and they in turn contacted New Bauhaus classmate and former Taliesin fellow Larry Cuneo to detail millwork, windows, and doors. The clients' one demand, that their new home was not to have a flat roof, was overcome by a compelling design and persuasive presentation. Construction began immediately in 1939 with Smith overseeing all aspects of the work on site.

Their collaboration on the Gunning House a success by all accounts, Smith and van Fossen received subsequent commissions and worked together or consulted with one another on seven other projects across the United States during the next decade. Among these joint projects were explorations of prefabricated low-cost housing, though none of them were built:

"When the Gunning House was finished before Christmas 1940—full of mosquitoes living on from summer—I wanted very much to use that experience to explore plans and planning of many kinds, especially a truly low-cost house. After Christmas, Tony asked me to come over and work on my ideas at his family's large, old, shingle house in South Orange, N.J. He was exploring ideas in painting, as we also had done in offtime at the New Bauhaus.

"I developed a plan for an absolutely minimum house—kitchen, bath, heater for radiant floor heat—for which I also designed a



Top > Theodore van Fossen, Larry Cuneo, and Tony Smith review floorplans for the Gunning House just prior to their presentation to Mary and Bob Gunning, 1938.

Bottom > Tony Smith on site during construction of the Gunning House, 1939

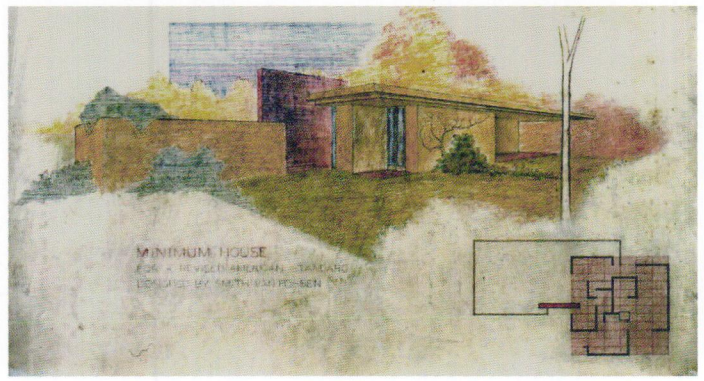
Opposite page > Gunning House or "Glenbrow" from the ravine below, 1939



'utility core' to be manufactured and brought to the site—from which a manufactured panel house could grow out in several directions. Using a hexagonal shed in the Sears catalog, I designed a low-cost rural house of hexagons clustered together in a variety of ways that Sears (which had once made prefab houses) could supply and offer to the customer. I also explored the possibilities of various modules and angles (45- right triangle, 30–60-right triangle) useful in designing houses to fit various sites and landscapes, how the aesthetics worked differently in each case. I pursued these possibilities, ideas, materials, forms, spatial indications in a variety of designs. But the 'minimum house' was my primary object. Tony and I wanted to see it built.

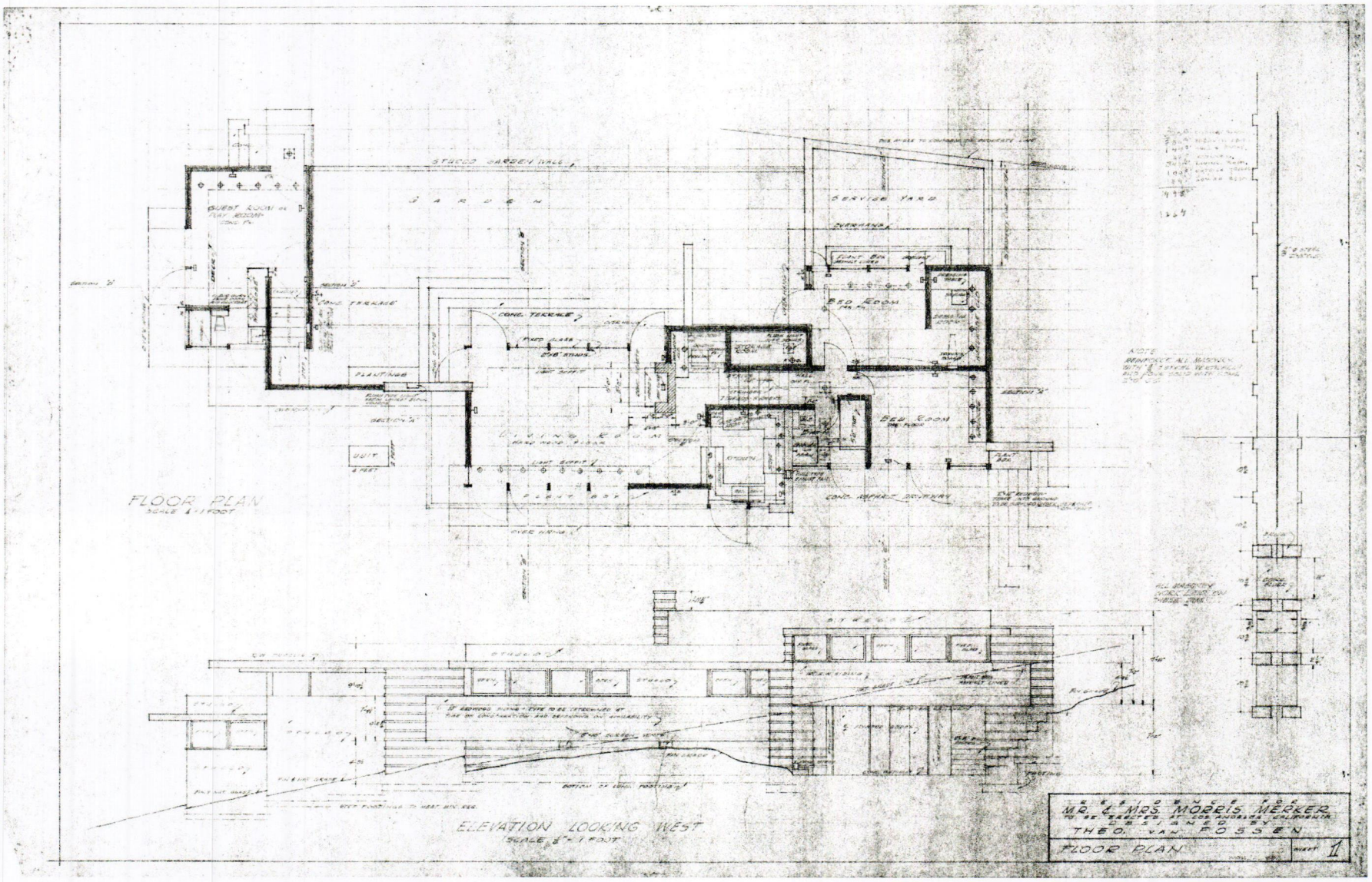
"We returned to Columbus where the best bank loan terms we could get would require such a large down payment as to make laughable its intended low income purchase. However two landowners offered their large acreages for us to plan a community and for which I did siting plans. At this time my draft board called me. I presented them with these plans and they were interested enough to grant me a deferment which continued until Pearl Harbor." 7

In 1942 van Fossen's mother, Katherine, asked the pair for preliminary designs for a compound of buildings (called *Fosskroft*) on the family's 10-acre property in Central Ohio, marking the



"Minimum House for a Revised American Standard"
Collaborative Study by Tony Smith and Theodore van Fossen, 1941

Opposite page > Plan, Elevation for Morris Merker Residence (Unbuilt)
Los Angeles, California, 1946
Theodore van Fossen


FLOOR PLAN
SCALE 1/4" = 1 FOOT
ELEVATION LOOKING WEST
SCALE 1/8" = 1 FOOT
GARDEN
SERVICE YARD
BED ROOM
BED ROOM
LIVING ROOM
PLANTING
CONC. TERRACE
CONC. ASPHALT DRIVEWAY
STUCCO
RESIDENCE FOR
MR. & MRS. MORRIS MERKER
TO BE ERECTED AT LOS ANGELES CALIFORNIA
DESIGNED BY
THEO. VAN POSSEN
FLOOR PLAN
SHEET 1

THEODORE VAN FOSSEN: THE NEW BAUHAUS

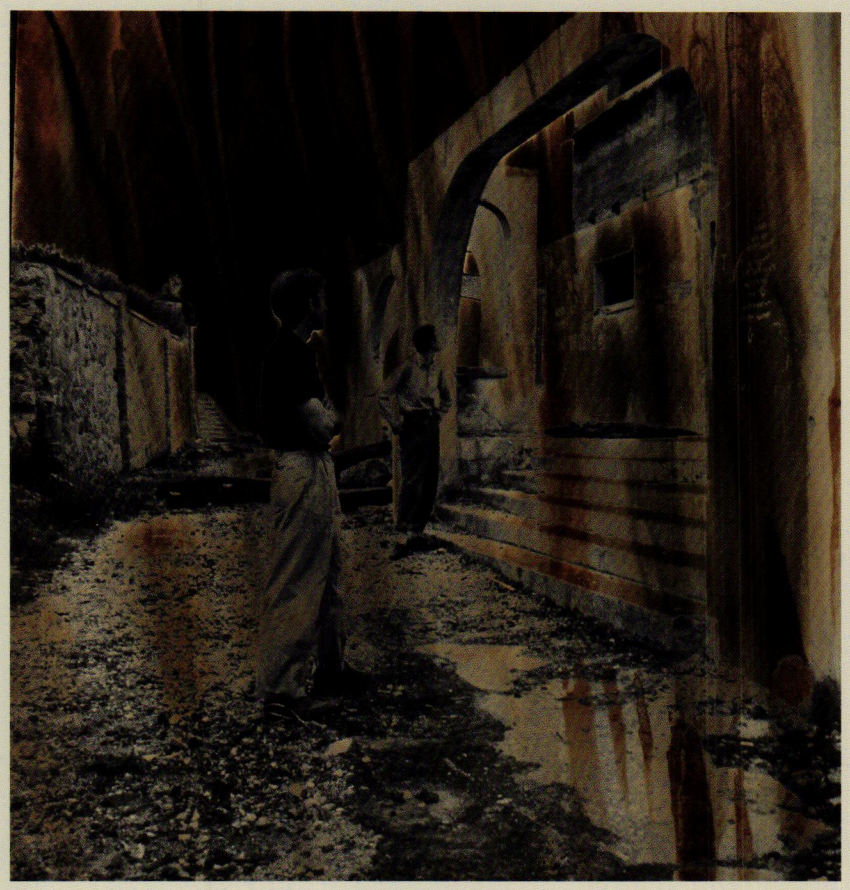
I made a conscious decision not to get a formal architecture education. Early on, I knew I didn't want to study architecture at Ohio State, I felt I'd have to unlearn too much. I was grateful that the New Bauhaus opened in Chicago. For all the ways in which it didn't turn out, what it did do was connect me with a larger, international world. I met more artists at the New Bauhaus than architects, which was good.

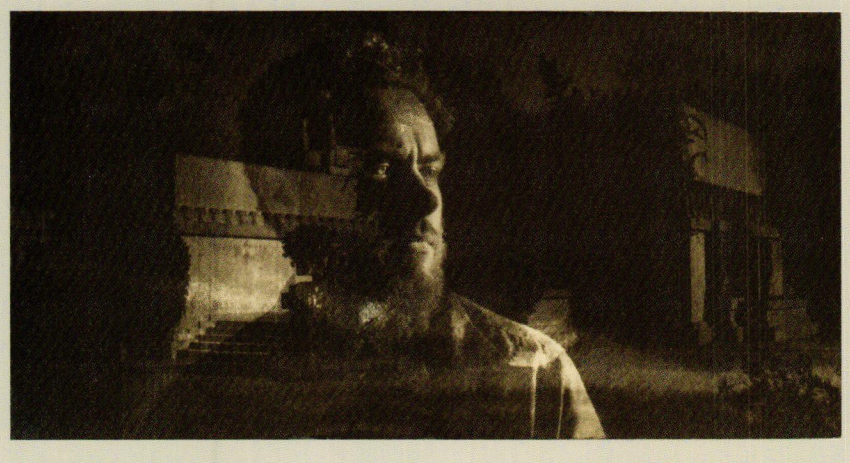
The Association of Arts and Industry in Chicago was led by a remarkable woman, Norma Kay Stahle, who took the idea of designing for industry and tried to make a school at the Art Institute, but the people involved were traditional people and that didn't work. Later, when Hitler closed the Bauhaus, she approached Gropius, who headed the Bauhaus in Europe, but he had already been employed by Harvard. Then she approached him [Laslo Maholy-Nagy], and he helped set up the New Bauhaus there in Chicago, which was backed by industrialists who were mostly important people socially in Chicago. One of the industrialists was a man named Walter Paepke, the chairman of the Continental Can Company. They had used modern graphic artists in their advertisements. They were a forerunner of the practice of using important artists.

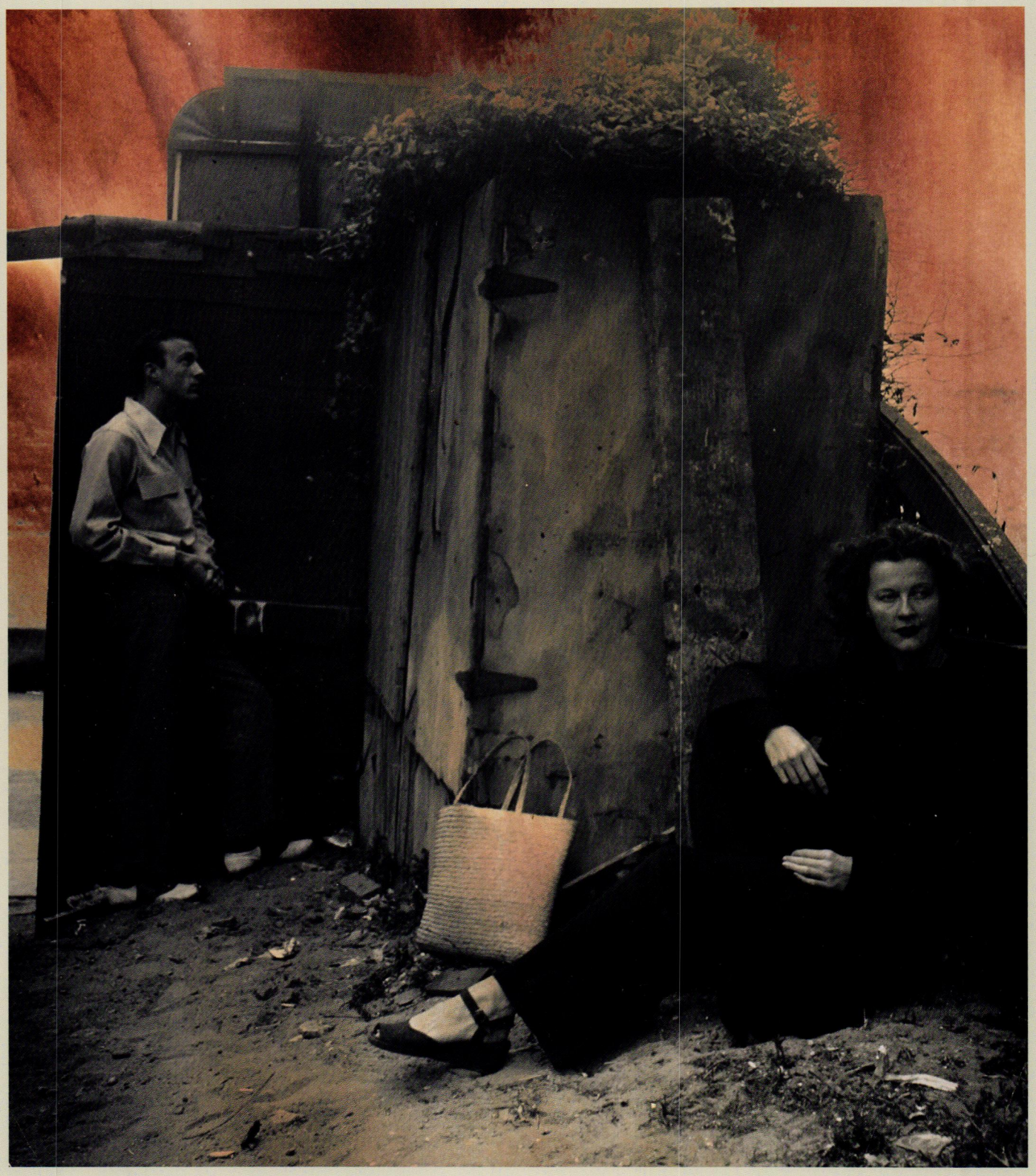
I went there when it opened at the end of 1937. It was headed up by Maholy-Nagy. Some of the better students got down on Maholy-Nagy, who had a certain reputation in Europe. I got down on Maholy-Nagy, and I suppose in some ways I was the leading instigator of the thing that finally led to a suit brought by the people who sponsored the New Bauhaus, against Maholy-Nagy, for breech of contract, which he finally won. I guess it's pretty hard to prove breech of contract.

There was a student at the New Bauhaus named Larry Cuneo, and he had been at Taliesin. He was a photographer, and I guess he had done photography there; that was something that happened to several people I knew. Edmond Teske, who taught photography at the New Bauhaus for a time, had set up a photo laboratory at Taliesin and had shot photographs that appear in almost anything that's published of Wright. I knew him in California; you saw a lot of Edmond Teske. He camped out at one of the buildings at the Hollyhock House. He arrived there and went into one of the deserted buildings and made himself at home. [Laughs] He lived there many years, and finally Alene Barnsdall ran into him there and threw him out. But he came back with her permission—and without it—several times. When she would throw him out, he would go to a little trailer at the end of the wall of the house, and live there until he got in! [Laughs] He was quite a friend.

The New Bauhaus was a mixture of things. I was there for one year; it closed after one year.







Theodore van Fossen's circle of friends in Los Angeles is documented in gelatin silver prints by New Bauhaus photography instructor Edmund Teske. Those friends included New Bauhaus classmate and design practice partner Tony Smith, Smith's fiancee, actress Jane Lawrence, and avant-garde filmmaker James Whitney.

"Ted van Fossen with Jane Lawrence, Santa Monica," 1943
Opposite page, top > "Ted van Fossen with Jim Whitney, Altadena," 1945
Opposite page, bottom > "Tony Smith," 1945

beginning of Theodore van Fossen's experimentation with multiple building compositions, but due to wartime scarcity the only structures built, a guest house and tool shed, were eventually demolished for materials.

Even before his military service ended, van Fossen found himself in Southern California, part of a generation determined to build a better world in the wake of wartime destruction and deprivations. As had been done by the previous generation after the Great War, the industrial processes that had supplied the military were re-examined for peaceful applications. Architects and designers were eager to experiment with new solutions and methods for housing. Participating in the Los Angeles Mutual Housing Association in Brentwood, California, van Fossen was invited to submit two designs for the ill-fated project. While his designs were rejected for being "too radical," his involvement with the failed venture provided an important lesson in residential development. 8

Theodore van Fossen established an architectural practice in Los Angeles with his old friend, Tony Smith. In the interim, however, Smith had married actress and singer Jane Lawrence. Not long after the formation of the design practice, Lawrence landed a role in a Broadway production and Smith followed his bride to New York, and so in 1945, Theodore van Fossen found himself on his own in Southern California in the midst of an enthusiastic design

community.

On the recommendation of friend John Lautner, van Fossen found a job as a designer with the office of Whitney R. Smith. *Arts & Architecture* magazine publisher John Entenza had undertaken a campaign of selecting local architects to submit designs for low cost experimental solutions for housing with the intention of introducing to the country the potential for modernist design. Whitney R. Smith's office was selected to participate in the Case Study House Program, and van Fossen's designs (CSH #5, 1945 and CSH #12, 1946), though never built, were noted for their use of materials by the panel and for being, ironically, the most "native Californian." 9 When asked by Whitney R. Smith if he wanted to be credited for the work, van Fossen demurred: "I didn't want credit for them because I knew they wouldn't be executed the way I designed them." 10

In February 1946, van Fossen was invited to visit Taliesin West for the first time. Immediately following his experience in Chicago almost ten years before, van Fossen had written the Fellowship inquiring about joining, but the roil of the intervening years had kept him more than occupied. Finally, he would go:

> "I went over from Los Angeles to Taliesin...I had a friend who was going back to Texas on a motorcycle, and I got a ride on the rear fender...Storms had been playing across the desert all the way over

there, but we hadn't been hit. But we were hit just before we got up to Taliesin and we were drenched—absolutely totally soaked—and I think that kind of appealed to Mr. Wright. Wright was a gracious host; we were taken in by a fireplace to dry out." 11

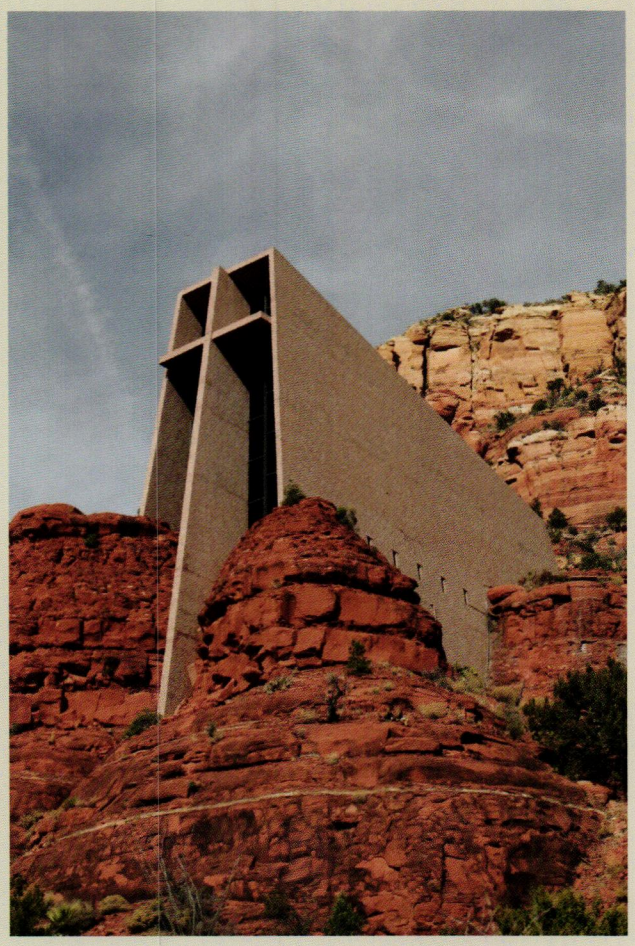
There, by the fire, they spent hours discussing culture and the contributions of various architects, artists, and musicians. Wright took stock of his career, comparing his own work favorably to Michelangelo, but doubted out loud if his own achievements ranked with Beethoven's. 12

It was the first of many visits van Fossen made to Taliesin, but he was never an apprentice.

"If I had joined, I certainly wouldn't have lasted long. The apprentices were given kitchen duty as a part of the apprenticeship, and I remember one morning I was there, Mrs. Wright sent back her breakfast three times! [Laughs] I was aware enough of Mrs. Wright, and I knew a few of the apprentices there at Taliesin, and I knew how she would interfere.

"One time when I was there, Mr. Wright asked me if I wanted to join the fellowship, and I said, no, and though I had wanted many times to join, I was doing work at that point that interested me very much and I couldn't leave it. And he said, 'Well, you're not a





THEODORE VAN FOSSEN: MARGUERITE BRUNSWIG STAUDE

A woman named Marguarite Brunswig Staude had an idea to build a skyscraper church in Los Angeles, that was a cross in plan and in elevation, but couldn't convince church officials to invest the money.

She decided she would do it on a smaller scale she could afford, so she brought me in to design it on a lot in Sedona, there in town. Before that, I had designed a studio for her, on her ranch. I struggled to make her idea work.

She was disappointed with my design, and then brought in Anshen+Allen. She found a new site, up on the rocks above town; Anshen+Allen had the good sense to ignore her and made the cross the central feature.

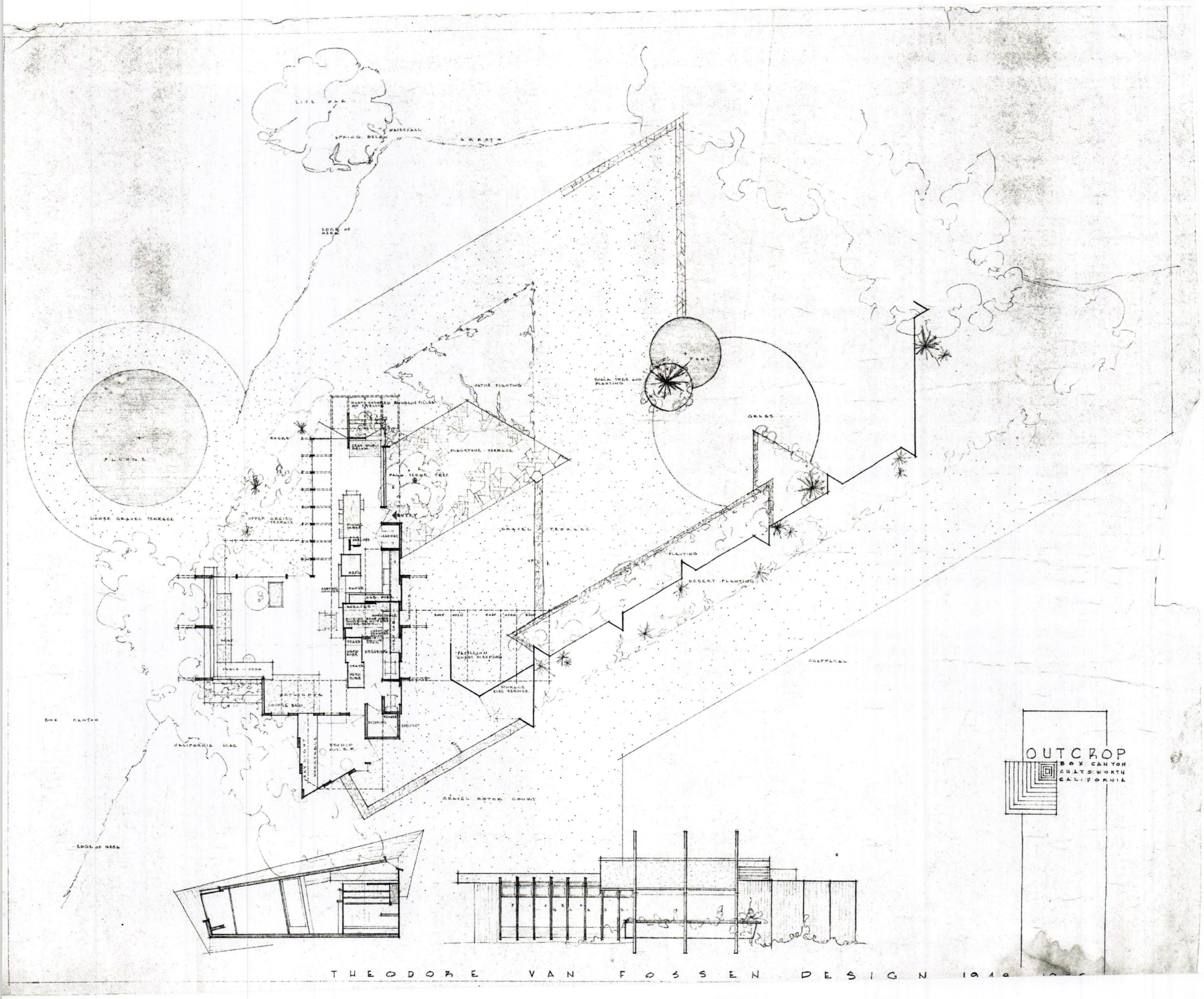
follower. You know how it is with followers!' Of course, surrounding him were sixty-five followers! [Laughs] I guess he knew how it was, too." 13

Back in Los Angeles, van Fossen set about taking commissions for private residential designs. In 1948, he designed and built a home for his wife, Maggie, and their son, Anthony (named after Tony Smith) on the edge of a mesa near Chatsworth, California. Though the only structure erected on the site, *Outcrop*, as van Fossen called it, was originally intended as another multiple home complex, much like the concept for *Fosskroft*. These explorations, and his proximity to the failure of the Mutual Housing Association, would prove invaluable soon enough.

Preceding page, top > Marguerite Brunswig Staude, near Sedona, Arizona, date unknown.

Preceding page, bottom > Chapel of the Holy Cross, by Anshen+Allen, Sedona, Arizona

Opposite page > Site plan of Theodore van Fossen's residence, "Outcrop," Chatsworth, California, 1948



THEODORE VAN FOSSEN DESIGN 1940

COLLABORATION

Problems in their marriage in 1952 compelled van Fossen and his young family to leave Los Angeles and return to Columbus. Maggie, however, was a Southern California native ill-suited to the changes in climate and culture. The following year, the couple divorced.

It wasn't long before Martha Wakefield heard that Theodore van Fossen was back in Columbus. Familiar with his work on the Gunning House, Martha contacted him to design a house for her family. Cautiously, van Fossen accepted the commission; the Wakefields freely admitted they had little money and no land on which to build.

In winter 1954 Martha opened a Worthington telephone directory and, at random, dialed a real estate agent. She told him sarcastically that she wanted "woods, a ravine, a brook, and a school district. And without hesitating, he responded, 'Well, I've got it. It's my bird refuge!'" 14

Originally designated for the purpose of agriculture on the plat established by James Kilbourne and Nathaniel Little in 1804, the site along South Street had long since been abandoned as unsuitable for farming. Now, new efforts would be undertaken to reconcile human affairs with the ravines along Rush Run:

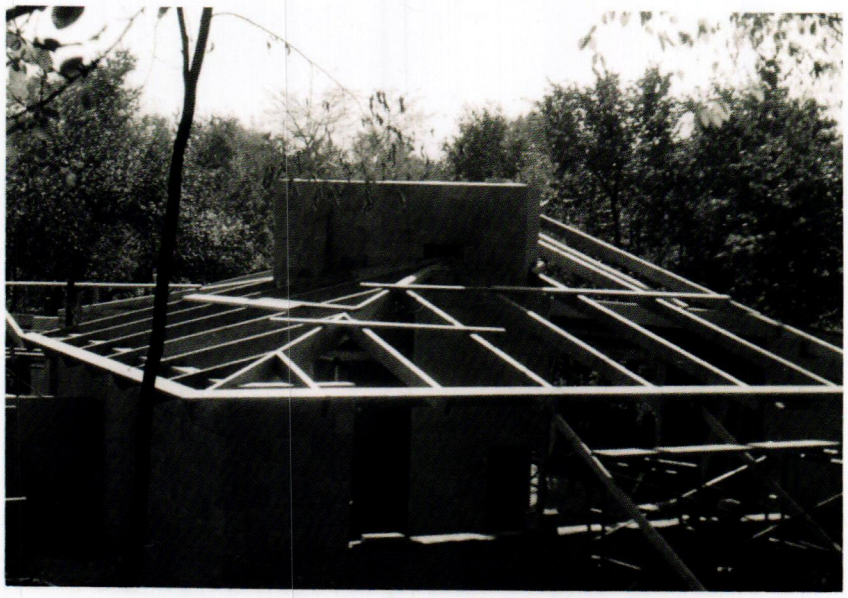




Top > Clearing and earthwork along East South Street, 1958

Bottom > Final grading for East South Street following completion of the wider bridge over Rush Run that exists today, 1958







> "We'd come up here every weekend. It took us six weeks just to clear a path. It was that dense: poison ivy, solid, huge, like cutleaf philodendron. The land had been an old apple orchard, and the orchard had blown over. As we cleared the land, we began to see what we had, and what was going to happen." 15

Living on site, Martha raised her family, which by then had grown to include two more children, enduring the primitive living conditions of a construction zone. "For months and months, the birds were flying through my half-finished house. We lived in a place that was full of machinery. There was no furniture, because there were no walls." 16

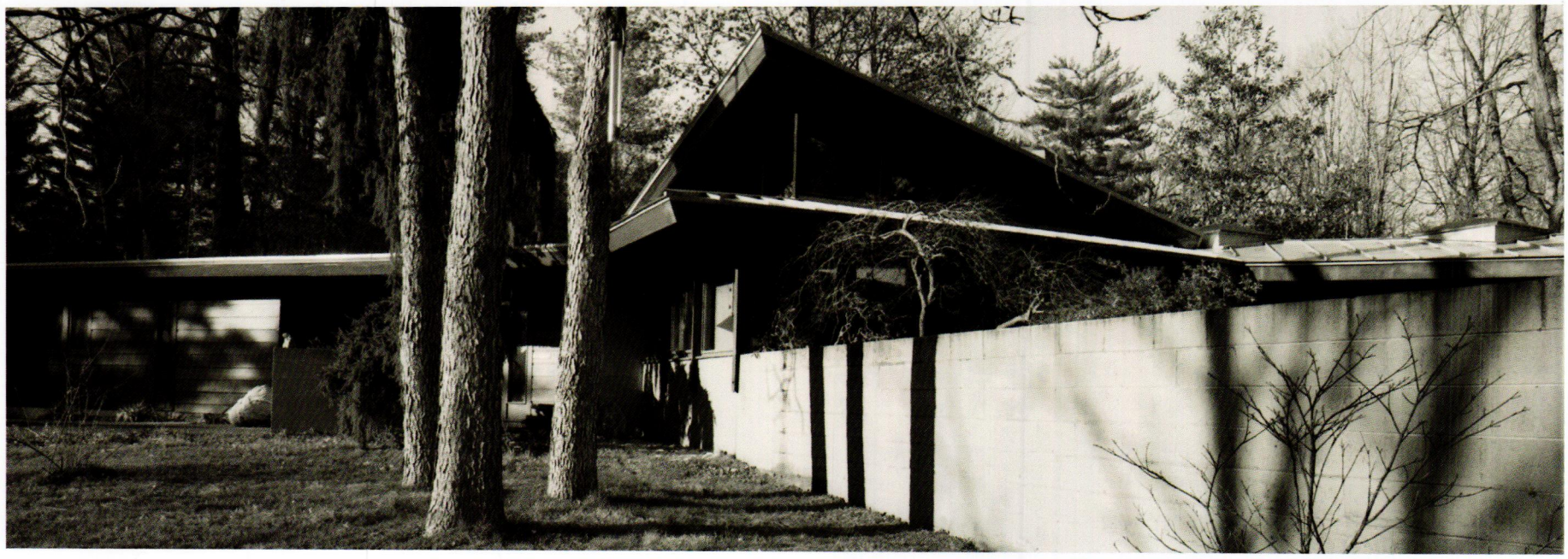
Before the Wakefield House was substantially complete, Martha proposed to van Fossen the idea of acquiring more land for the purpose of an architecturally integrated residential development. He recalled the demise of the Mutual Housing Association in Los Angeles and advised caution. First, the land they would need was currently held by several owners; to retain the design character of the proposed project, they would have to acquire all of it. Next, their purchases would have to proceed fairly quickly; the tract home subdivisions of Colonial Hills growing to the south of the Wakefield House created a sense of urgency to their scheme. But the ravines of Rush Run would provide natural boundaries against the burgeoning threat of the large-scale developers. And the site itself backed against the established campus of Harding Hospital to the east, prohibiting through traffic

Top > Foundations and concrete masonry work at the Wakefield House, 1955. The Wakefield's Jeep, purchased on the advice of Frank Lloyd Wright, is visible in the background.

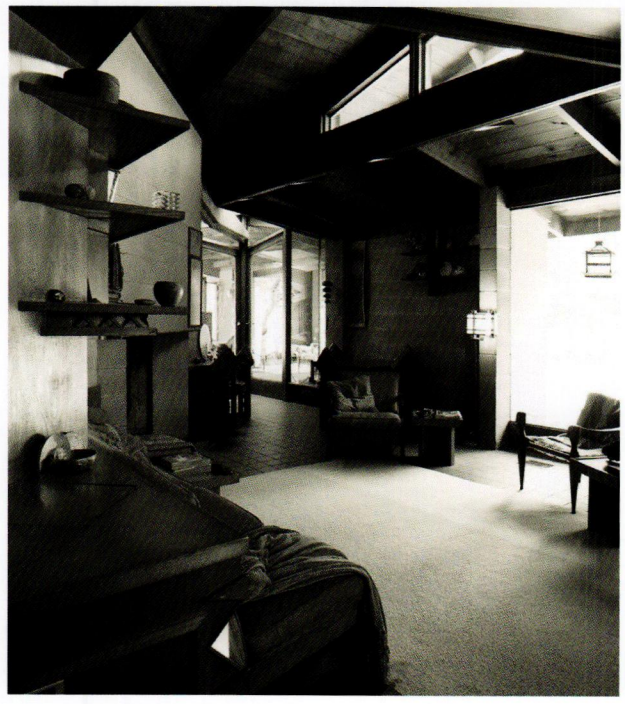
Middle > Concrete masonry and primary roof framing of the Wakefield House complete, early Autumn, 1955.

Bottom > Framing of the Wakefield House carport, 1956

Following pages > The Wakefield House, interior and exterior in the 1990's









and requiring a cul-de-sac master plan. Weighing the risk and potential, and pending financial backing, Theodore van Fossen signed onto the project.

Martha needed a loan to secure property along the ravine:

> "We found Carl Fergus from Park Federal Savings and Loan, who agreed to go along with us. It took me four days, going all through Rush Creek Village with him, to project what I proposed, and to get him to come along with us. But he did.
> And after that, after we made it work, my God, he drove through here in his Alfa Romeo and giggled. I think that Rush Creek Village was the most risqué thing he ever did." 17

Martha and Dick Wakefield paid $50 for a six-week option to purchase land across Rush Run. For several months before, Theodore van Fossen had been in discussions with a gathering of professors at The Ohio State University similarly interested in forming a community. From that group, John and Inez Freeman were fascinated by the Wakefield House and purchased an option on a lot belonging to a farmer along Rush Run, commissioning van Fossen to design a home there. That activity, coupled with the gradual completion of the Wakefield's home, generated a measure of interest around Central Ohio. In turn, the charter members (the Shingledecker, Wiess, Tye, Wilder, and Evans families) toured



Carl Fergus, date of photograph unknown
At first inspection, the biography of Carl Fergus doesn't suggest a bank loan officer comfortable with assuming the risks of a venture like Rush Creek Village, but Fergus is remembered for his progressive values, ignoring conventions of racial segregation, hiring Japanese-Americans during WWII, and advocating for returning war veterans struggling to re-establish themselves in peacetime. No doubt, Martha Wakefield's commitment captured Fergus' attention, as did the lack of racial restrictions for Rush Creek Village membership.



Martha and Dick's home and subsequently committed to purchase a lot. Constantly marketing to anyone who would listen, Martha came to favor the name Rush Creek, as it sounded more romantic.

As the concept of Rush Creek Village took form, van Fossen stressed the need for maintaining control of design. Even if finances didn't force the Wakefields to open up the development to others, nothing prevented a property owner, title in hand, from improving that property as he or she saw fit and diluting the integrity of the project. Martha searched for a lawyer who might understand this risk. After weeks of limited success, she found Mac Lee Henney, a local attorney who appreciated the nuance of what she needed.

On Henney's advice, it was agreed that a non-profit organization could best represent and protect Martha's ambitious goals. In December 1954, the Rush Creek Village Company filed articles of incorporation with the State of Ohio.

Together, they established a process in which interested parties would attend a conference with Mac Lee Henney for review of legal aspects of the community, another with Karl Fergus to determine their ability to purchase a lot, and a third with Martha and Dick Wakefield for a general orientation to the objectives of their endeavor. Purchasers of lots would only receive their deeds upon approval of their plans by the members of the board. Deed in hand, they could obtain a loan from

Dick Wakefield during ongoing construction of the Wakefield House, 1956

Carl Fergus. But only with a design approved by the Board of Directors could they break ground. This, according to van Fossen, was absolutely critical to maintaining the design integrity of Rush Creek Village, and for 51 years Martha Wakefield would see to it that Theodore van Fossen was the only designer allowed on site.

Unfortunately, the sale of the parcel for the Freeman House occurred in 1954, prior to the establishment of the Rush Creek Village Company and the protective design restrictions. As a result, the first house built at Rush Creek was never formally admitted into Rush Creek Village and insensitive alterations from subsequent owners have since rendered it almost unrecognizable as having been conceived as part of the greater plans for the site. The Freeman House still remains a sad reminder for many who might otherwise dismiss the rigor with which the design controls were originally drafted and are still maintained.

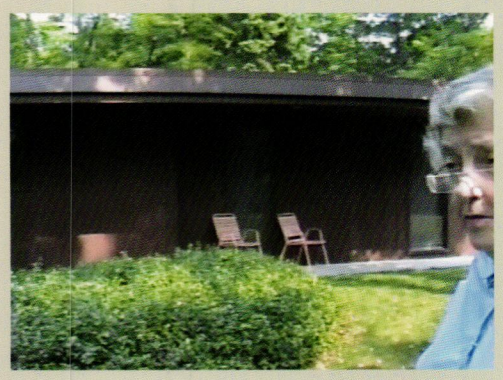
For all of the liberties that lot purchasers surrendered, there were no minimum area or cost requirements for homes. Notably absent, too, were race restrictions, all too common in American suburbs at the time. Anyone who could afford a lot was considered a welcome partner in Martha's great mission and among the early members were African American, Asian American, and Jewish families.

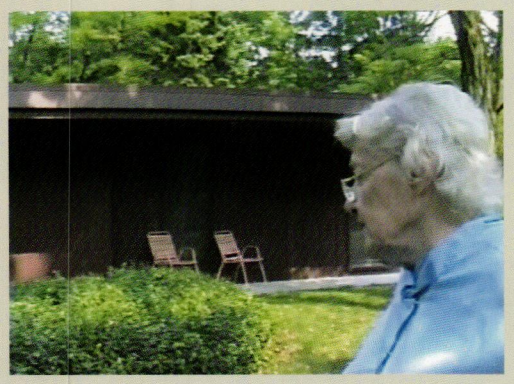
Worthington was incorporated in 1956 and immediately annexed



Freeman House, prior to modifications, date of photograph unknown.







MARTHA WAKEFIELD: THE FREEMAN HOUSE

Well, I came up right after the first man bought it. Of course, remember now, there was no such thing as Rush Creek when this house was built, so it wasn't a part of it. Rush Creek was for the members to develop the land and we'd already had this lot and this house was there—or almost there. And it was all block, which they covered with boards and there was a wonderful carport, all cantilevered—big cantilever—which you can see...and the living room had mitered glass doors and they are just wonderful.

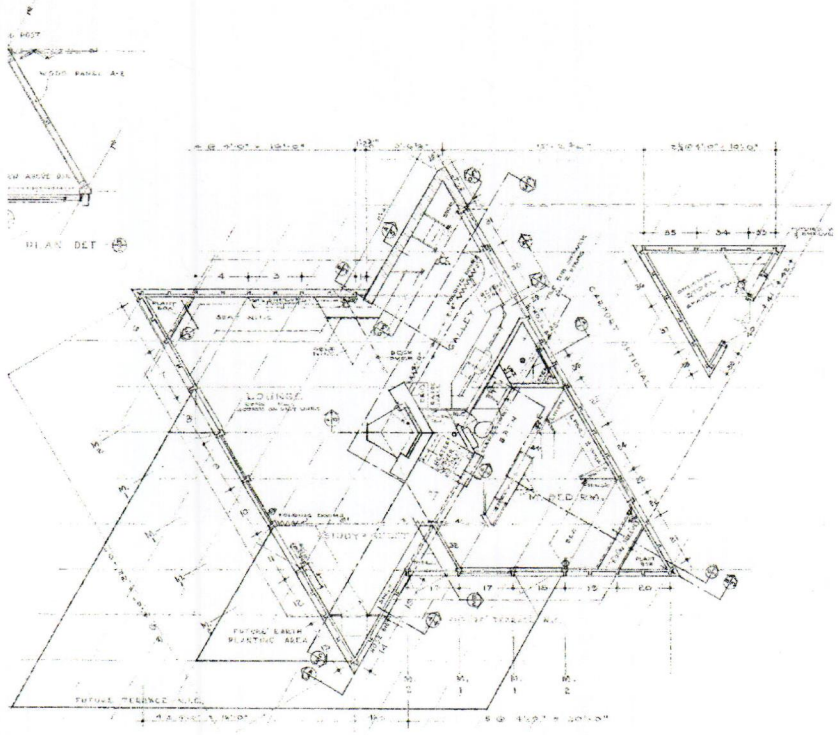
I looked in the window after this man bought it and he had Colonial carpeting down and Colonial wallpaper in the kitchen and Chinese silk over the living room walls and then he managed to make a big addition on the Lower Level and it was just God awful.

And the house just slowly, owner after owner, got ruined.

Rush Creek Village. City authorities now had jurisdiction over the site and new officials were understandably uncomfortable with the unfamiliar development plan. Any agreements the Wakefields had struck with their predecessors would not be automatically honored. Streets on a regular grid were preferred and while the municipality would have enforced typical requirements for curbs, gutters, sidewalks, and street lamps if they could, the Wakefields had retained a civil engineer the previous year and secured variances from the county development code while the land was still unincorporated. The town fathers needed persuading to allow the development to proceed unopposed, so the new trustees of Worthington toured the site, saw firsthand Dick Wakefield's craftsmanship, and were satisfied enough to permit construction on the first several houses without incident.

Those initial years were marked with sacrifice. Water service, promised by the city, was delayed again and again; John and Inez Freeman showered at the Wakefields and cooked there even after Dick had completed their house. George Williams lived with Martha, Dick, and the children while his house was under construction through 1956.

Undeterred, Martha was aggressively promoting her project. Within weeks of establishing the articles of incorporation, she approached the owner of a property on White Oak Drive, arranging a purchase option because, as she recalled, "We didn't have any money. I think





Top > Plan of the Williams House from 1957 reveals its original planning concept of two interlocking isosceles triangles pinned by a central masonry chimney.

Bottom > Williams House under construction, summer, 1957.

Opposite page > Plan of the 1985 addition to the Williams House by Theodore van Fossen for owner Clark Leavit demonstrates a commitment to the modular planning established thirty years earlier.

CANZANI

LANE

NEW MASTER PAVILLION

OAK

FIRE PIT

HOT TUB

TERRACE

DRESS'G

GUEST

STUDY

LOUNGE

NEW COATS

DINING

KITCHEN

FOYER

SOLAR

GARDEN ST. CONT.

MOWER

WORKSHOP CONT.

2 - CARPORT

LOW PLANTING

The Igelsruds and the Tyes were close friends, and they decided to run the drive—which I hardly approved of—right up the properly line and share the drive. Well, we had a building inspector in Worthington that tried to give us a little trouble. He also gave us a little trouble on George Williams' House down there.



When he saw this properly line running right through here and that wall extension, which I simply regarded as a garden wall which you could run right up against the properly line, he said, "No, that's part of the house, and it's not far enough back from the property line." And his solution was, "You've got to tear it down."

Well, because the Tyes and the Igelsruds were such good friends, the Igelsruds simply took how far it was the building inspector was going to require it to be set back from the property line and gave them a piece of land...that made the wall that far back from the property line.

The building inspector was furious! That's not what he had in mind at all! He wanted something torn down! [Laughs]



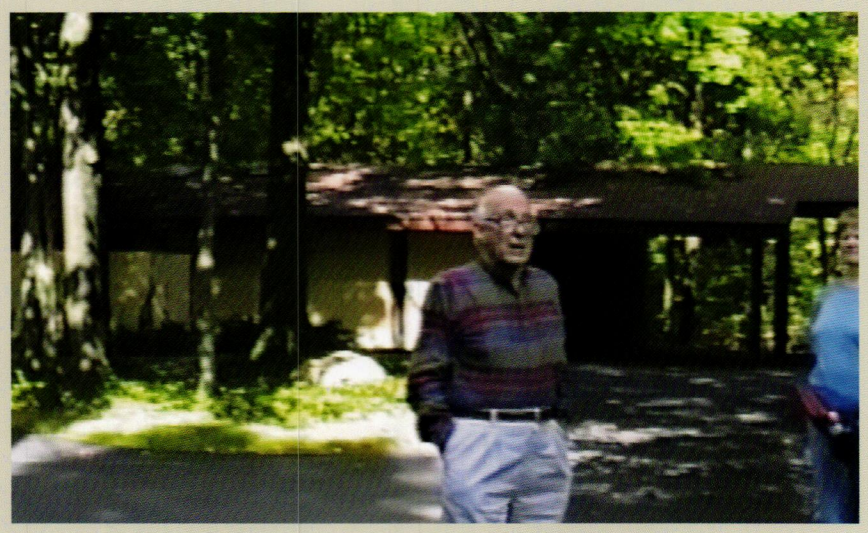
The first houses that I had designed in Rush Creek Village—and already we had, gosh, more than 10, maybe 15 members...just going on sheer faith in me that I could design something, and there were all kinds of delays in getting things built—the first houses were the Wakefields' and the Freemans' and George Williams' down there. Well, these were nothing like what they wanted. That is, could I design anything that they would want? And I took that as a real challenge, because the group would break up. I mean, it was tenuous, at best.

So, the Igesruds were retired, and relatedly conservative, but quite open—open to all sorts of things. So in designing this house for them, they wanted a garage, and...it would be in part utilized as a workshop. But a garage is driving a car into a box that does not participate in the architecture, and...the freedom of the plan is not present in a garage like that. With cars the way they are, the ability to simply drive into the architecture, as Vera and Clark [Leavitt] can over there [in the Williams House], and as you see in other places [in Rush Creek], you're *in* it: you just get out of the car, and you're in and out of the house, and back into the car and go.



Everything about this architecture is getting away from "box rooms," getting away from all of that, and the garage just sets it off wrong to begin with. In a few cases, I didn't try to give much of the explanation that I'm giving to you now, and I thought it was very reasonable, where Iver [Igelsrud] wanted a workshop and didn't plan to build a workshop, he could just expand into the garage space. I just wanted







to point that out.

And here, Arthur and Josie [Tye] wanted to reminisce about some of the ways in which a Chinese house worked. It wouldn't "be" Chinese in the house but I would incorporate the way that a Chinese house worked, and some of the feeling, and so forth. It's just impossible to replicate a traditional architecture and have it be meaningful in my mind, and they agreed with that.

But they did want a walled entry, which is Chinese, and a Moon Gate into the walled entry. Of course from the Living Room there, this end is glass and it gets a peek out this way, and the wall gives privacy to that which would be otherwise exposed, and they have glass on the far side into the ravine.

There was this little side ravine here, that made a dynamic of the landscape for the house in addition to the big ravine down that way. So they enjoyed a rich natural setting. And a deck, not large but large enough, was cantilevered out from the end of the Living Room so they could dine there.

those lots were $750." 18

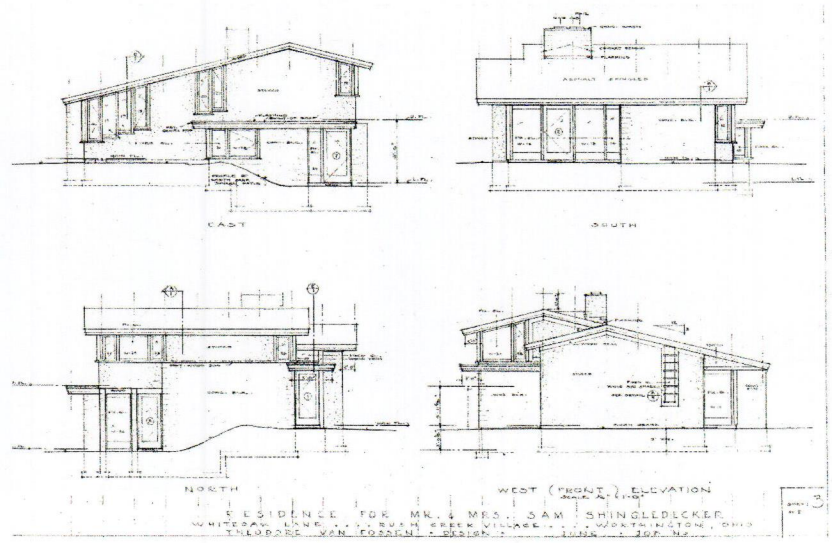
That same month, van Fossen approached the owner of the property on Evergreen Circle, the 10-acre site of a boarding school for disabled children that had just been destroyed by fire:

> "Another developer had already extended an offer on the site. I convinced her how unique Rush Creek Village would be, and told her that while we could match the developer's price we couldn't exceed it. She decided to sell to us." 19

Perseverance was rewarded and by the end of 1957 Dick Wakefield had completed the Igelsrud, Tye, Shingledecker, and Williams houses. Land for 30 lots, ranging from ½- to ¾-acres, had been purchased by the Wakefields and subdivided by van Fossen and a waiting list was populated. Martha, a most unlikely real estate developer in what seemed to so many the most unlikely place, was well along in realizing her vision.

THE EASTERN NEIGHBORHOOD

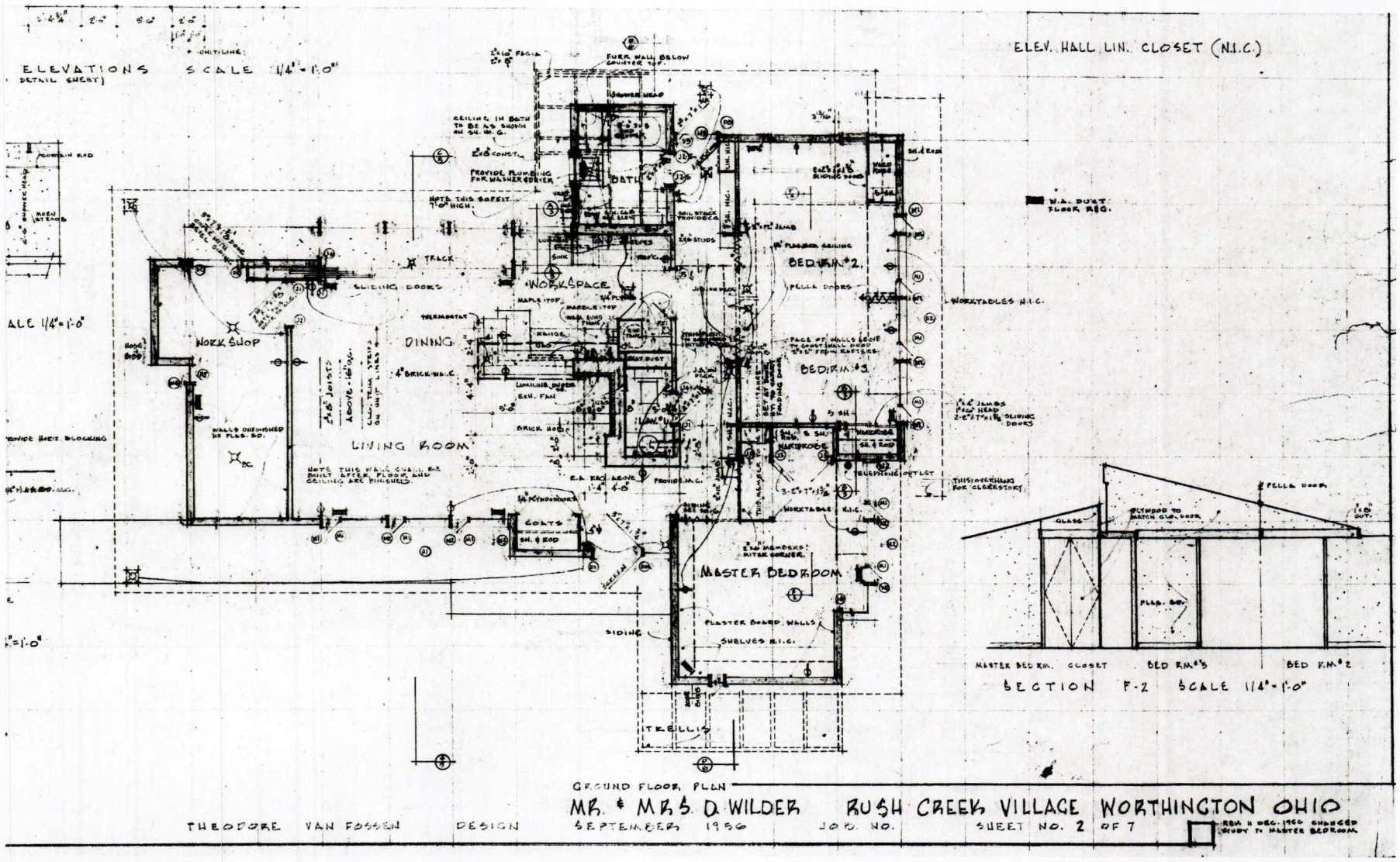
Of these 30 parcels, this original phase of work was centered in what van Fossen would call the Eastern Neighborhood, characterized by fairly level high meadow easing into ravines on its north and south



Exterior elevations of the Shingledecker House, 1956

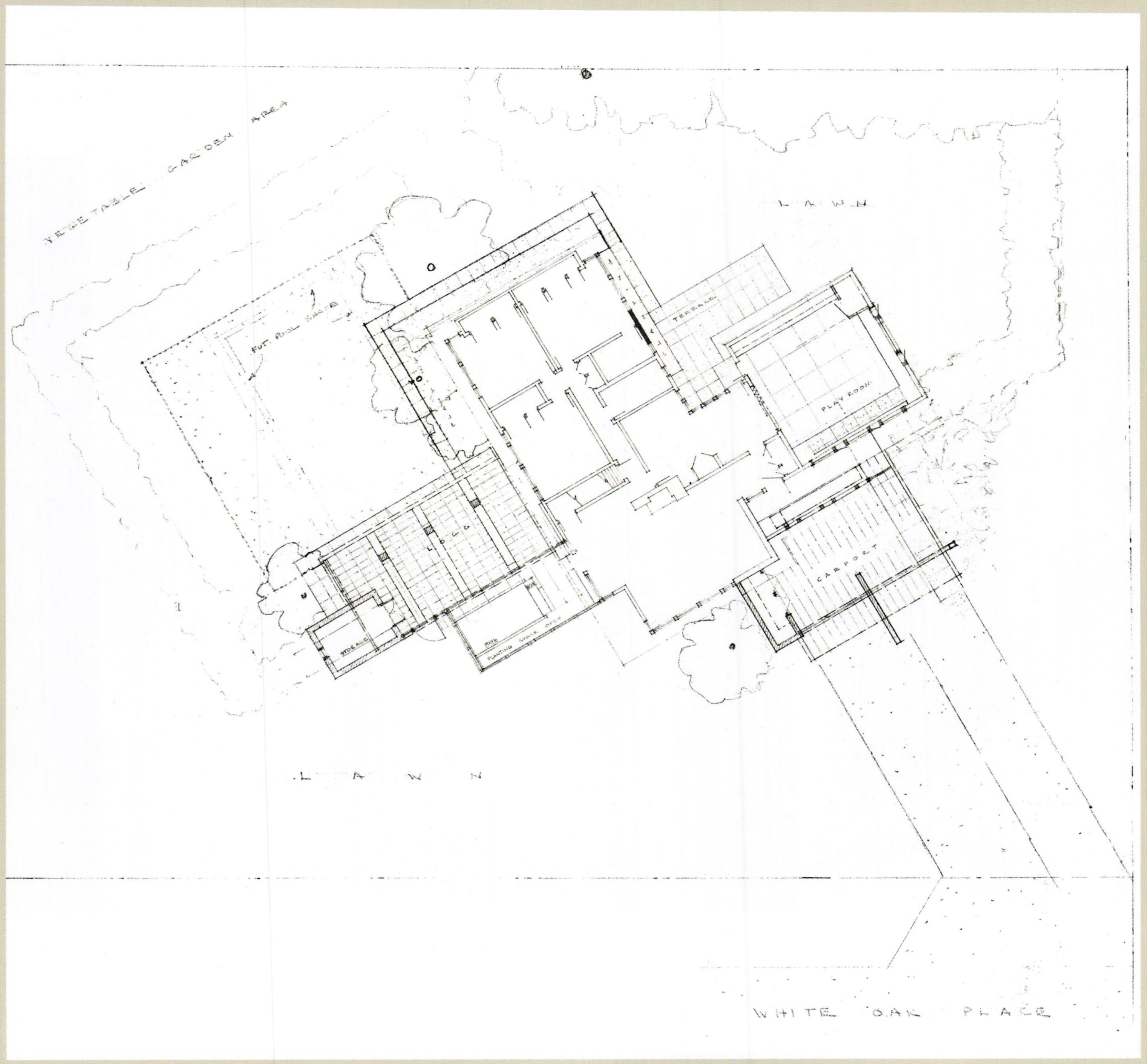
Opposite page > Wilder House, plan, 1956

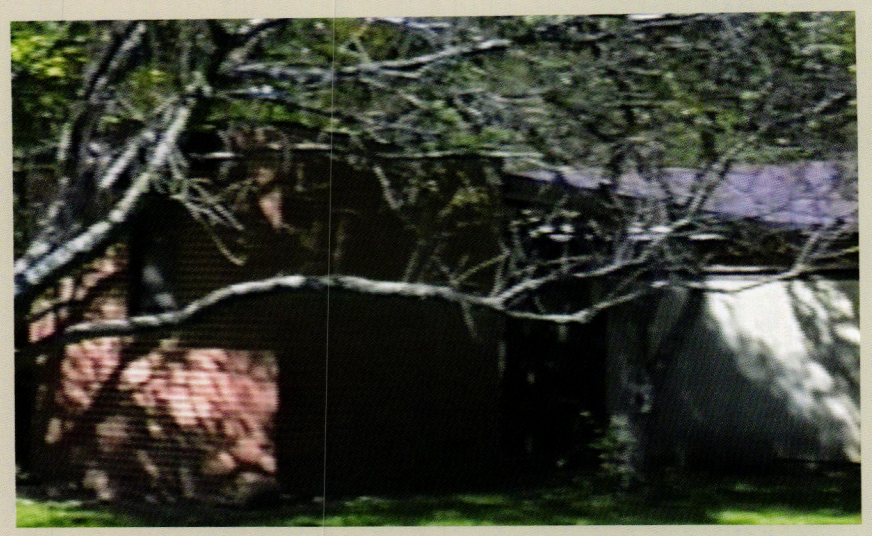
Following pages > Wilder House


ELEVATIONS SCALE 1/4"=1'-0"
ELEV. HALL LIN. CLOSET (N.I.C.)
BATH
WORKSPACE
DINING
WORK SHOP
LIVING ROOM
BEDRM. #2
BEDRM. #3
MASTER BEDROOM
COATS
TRELLIS
SECTION F-2 SCALE 1/4"=1'-0"
GROUND FLOOR PLAN
MR. & MRS. D. WILDER RUSH CREEK VILLAGE WORTHINGTON OHIO
THEODORE VAN FOSSEN DESIGN SEPTEMBER 1956 JOB NO. SHEET NO. 2 OF 7






VEGETABLE GARDEN AREA
LAWN
FUT. POOL SHED
TERRACE
PLAY ROOM
CARPORT
LAWN
WHITE OAK PLACE







THEODORE VAN FOSSEN: EVANS HOUSE

He had decided to take a plan of mine for a kind of builder's house on a tight, city lot and to build it here. And what you see here is not that. All that you see of that is this end here. I then sited the house–which hadn't been sited–and so I sited the house back towards that side with this same thing.

Now that angle is working at the same angle as this projection from the Bakers' house here. It's at right angles–the houses are at right angles.

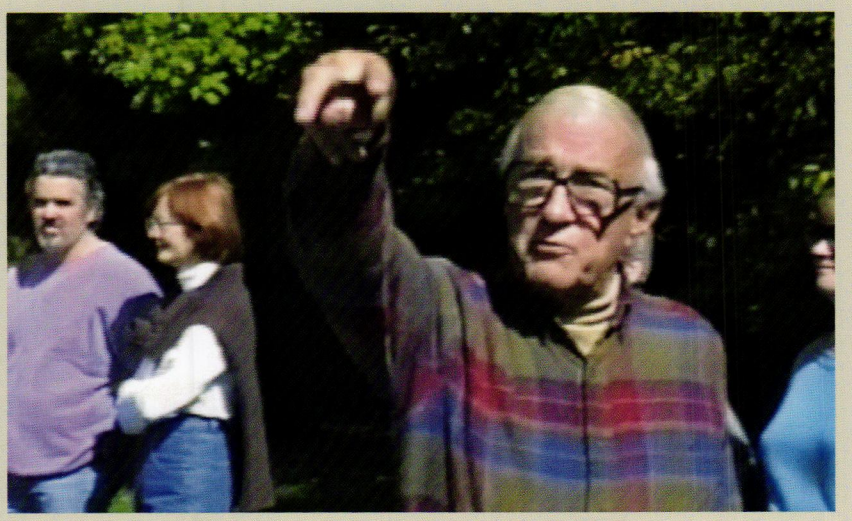
He came to me...and you couldn't get out of the house to get out into...to use the outside areas, because the house wasn't planned for that. So I designed this whole structure to extend the house to give privacy to its grounds and I added the carport over on the other side.

In addition, I did the same thing as I did at the Shingledeckers': a big circle of planting.



THEODORE VAN FOSSEN: BAKER HOUSE

The house here for the Bakers'...which is actually parallel to this house [the Shingledecker House], but in which you don't particularly make that connection because there are these wedges of space.



This house had a...very, very strict Modern aesthetic that comes via Cubism, Russian Constructivism, and Frank Lloyd Wright. It's rigidly planes, cubic masses, and free planes, which both the carport roof extension and the roof above it, which has a band of clerestory windows, which frees that roof. And, of course, this is the thing that operates throughout and that is, making each kind of thing in the design discrete. It occupies its own form, according to the material, according to the space, and so forth.

So there's a cube of masonry. There's a roof plane that sails out here. And lifted above that is a roof plane...and it's freed from the other by the band of glass...both inside and outside that it is freed. And then the...strong block element...up to the front door...it's in another material, it's in beautiful natural cyprus.

Those play against each other, but they also have a strong relationship in form. There are very few instances in this kind of architecture...in which you are cutting holes into a wall.





and bordered to the east by the hospital property, providing the terminus to East South Street. Lot subdivisions along White Oak Place created larger-than-normal parcels of regular shape, not at all offensive to typical suburban sensibilities. The houses he designed there, however, did not orient themselves to the street or exist unaware of one another, but rather to a 30°-60°-90° grid anchored at the south of the street by the Williams House, planned on an equilateral triangular module. The result remains a quietly unifying order shared by the homes along White Oak Place and Dendra Lane; distances between them afford each its individual identity at the center of its own geometry that is, in fact, shared with other structures in view.

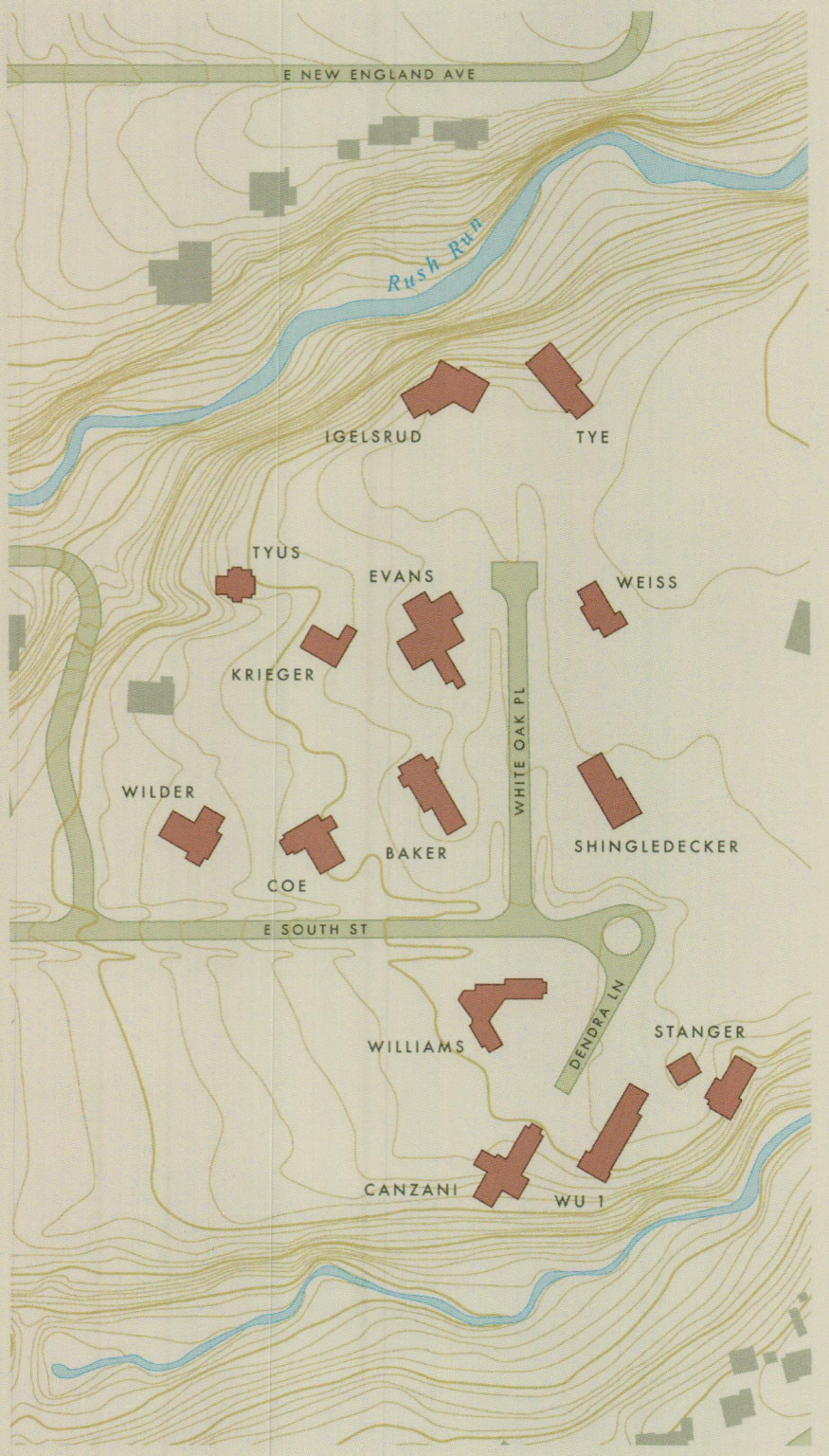
It was originally intended that these houses—and those that would follow throughout the development—would be prefabricated. Not unexpectedly, van Fossen's planning was based on a 4-foot module, lending itself to factory-produced exterior wall panels, to be delivered to the site and installed quickly against a structural frame. His earlier experiments with prefabrication with Tony Smith found a kindred interest certainly with Dick Wakefield, who worked at the Lustron Corporation during its short existence from 1947 to 1950. 20 Lustron Homes earned a measure of notoriety for their porcelain enameled steel panel prefabricated solution to the postwar housing shortage. The company, an offshoot of the Chicago Vitreous China Corporation, had been awarded half of the enormous Curtiss-Wright





Top > Framing of the sweeping roof of the Weiss House complete and exterior sheathing underway, 1958.

Bottom > The Weiss House, White Oak Place frontage, nearly enclosed, 1958.



THEODORE VAN FOSSEN: THE EASTERN NEIGHBORHOOD

I knew, that to take advantage of a variety of siting and still have the houses related, that the hexagon formed more than four directions and that became the underlying way of organizing all of this. That means that the so-called 30°-60°-right triangle...60°, 90°, 120° and so forth, would allow the disposition of this, not helter-skelter, providing a basis for the relationship from one house to the other that was very tight but that seemed very casual.

In the Eastern Neighborhood group of houses in Rush Creek Village, the siting and design problems were so different that neither an orientation of houses that were square with the world, that is four cardinal directions like the main streets, nor adding four more directions of the 45° diagonals would coincide with the more dynamic needs of planning houses and siting them off the open field and the irregular edges of ravines. I found it necessary to introduce the 30°-60°-right angle triangle as the basis for the interrelationships and orientation of the various houses.

This is more flexible as eight possible directions are added to the four directions of the basic cardinal points of the streets. If the streets and Worthington were not already laid out to the cardinal points, that would not be our basic point of departure. The 30°-60°-right triangle is, of course, half of an equilateral triangle and it is that form which lies at the bottom of the various relationships and orientation of the houses in the Eastern Neighborhood. The overlapping equilateral triangles of the George Williams House both keep to and provide a center for the houses that cluster around it in much the same way as the Orcutts' and Turners' provide a central focus in the Western Neighborhood.



THEODORE VAN FOSSEN: THE CANZANI HOUSE



It contains what wants to be done within very simple blocks [and] these floating planes. [The Canzanis] were interested in this...kind of design that is recognized everywhere as modern. It's not what I would call "sterile," as European Modernism often is, but it certainly is glassy, simple, big masonry shapes.

And this has the...divisions between the fixed glass and opening ventilation panels that aren't glass. But in a room that has that much glass, from the inside you get the continuity of the glass just as much as if it was all glass. It's like seeing a Japanese screen in several panels.

There really isn't anything like it elsewhere in Rush Creek Village.




519

aircraft factory in 1947 by the Federal Reconstruction Finance Corporation and Dick had stayed on as plant designer. 21 In spite of producing 2,500 homes shipped to and assembled in 33 states as far away as Alaska, Lustron was beset with financial difficulties accelerated by political machinations that led to its foreclosure. 22

But for all of the time that Dick Wakefield and van Fossen invested in trying to make prefabrication work at Rush Creek, they found it an unprofitable means. Rush Creek Village wasn't going to be large enough or develop fast enough to justify the expense of setting up a shop. These were to be custom homes designed specifically for their respective sites and the most cost efficient method of providing affordable homes would prove to be Dick Wakefield and his dedicated crew. Fortunately, van Fossen's details were developed with constructibility in mind, gleaned from his experience as a carpenter in Ogden Dunes executing Wright's anything-but-standard detailing. An important distinction between the homes at Rush Creek Village and Wright's Usonians is van Fossen's use of standard 2x4 wood framing as opposed to Wright's plank-and-batten assemblies on a plywood core. This facilitated construction at the time and has since made maintaining Rush Creek homes easier and less expensive than Usonians.

With construction well underway on several homes, Martha Wakefield continued to market lots. The initial successes on White



Construction of the Weiss House, 1958



Oak Place meant dozens of interested knocks on her door every weekend. She hosted hundreds of dinner parties. And with every lot that was purchased, she took it upon herself to her to arrange for subcontractors, design furniture and fixtures, and guide new members in the appropriate accessorizing of their new homes.

Along Dendra Lane, at the Eastern end of South Street, the Canzani and the Stanger homes along the southern ravine joined the Williams House by 1959 and the Eastern Neighborhood was largely completed along White Oak Place with the Baker, Evans, and Weiss Houses by the end of 1960.

THE WESTERN NEIGHBORHOOD



With Evergreen Circle paved where the drive to the ill-fated boarding school had stood a few years before, surrounding lots were ready to be developed. The round Orcutt House, completed in 1958, provides an organizing center, in plan, for the Western Neighborhood where Evergreen Circle intersects East South Street.

Extending from the Orcutt House, a colonnade extends south to anchor it and suggests a spacial relationship with the Elliott House. Originally, a strong, formal relationship was contemplated for the two homes, articulated by the extension of the colonnade from the Orcutt

Top > Orcutt House, view from South Street

Bottom > Orcutt House, from Evergreen Circle

Following pages > Orcutt House interior





THEODORE VAN FOSSEN: THE WESTERN NEIGHBORHOOD

From within a circle, there are infinite possibilities of divisions that radiate from the center. When a circular form is used, as it in in the Orcutts', how the designer chooses to divide it is the critical difference between haphazard chaos and a humanly satisfying space. From within, the tendency of the space to spin must be firmly anchored in the interrelationships of the architectural divisions chosen to make the spaces useful to the living arrangements of the family as well as their visual pleasure and psychological comfort. Most circular plans do not confront these problems, they take a functional view of the desirable possibilities of such plans and willy-nilly divide up the pie without considering the chaotic feeling engendered if they are not strongly and handsomely interrelated–the product of the architect's skill.

The Orcutts' house site was almost level land at the intersection of two streets that are oriented, like most streets in Worthington, North-South, and East-West. It was also the beneficiary, if that is the word, of the old grape pergola from the house that was previously on the adjoining land. The grape pergola was oriented with the streets, so I used it as an open and rectilinear anchor for the circle against which other angular divisions within the house and the angles of siting of other neighboring houses could play. The orientation also established at the center of the neighborhood a clear identification with the orientation of the streets and houses of nearby Worthington which are visible in many parts of the neighborhood.

But to gain the flexibility that would arise from using other angles, an absolute necessity in a circular plan, I chose for excellent reasons the angles that come from turning a square on the diagonal that I had used in the Wakefield's house, a house that is visible from the Orcutts' in the middle distance. Happily these angular divisions not only work in the inner arrangements of the Orcutts' house, but from within they relate it to most of the other houses that are clustered around them. For various uses of the form possibilities that exist within the right angle that is overlaid with a square on the diagonal, I have selected it for the various forms and siting relationships of these surrounding houses.

The Jane and Joseph Cooper House is a rectilinear extension of the primary direction set up by the directional "anchors" of the Orcutts'. It's roof fascia is set a the same height as the Orcutts' fascia, giving great extension to the movement set up from within the circle.

The Julie and Bruce Johnson House has a main angle of siting along a diagonal extended from the center of the circle. The extensions to the basic rectilinear form make use of the flow within and the reaching out into space that comes from adding the 45-degree right triangle.

The Ginny and Darrel McDougle House is rectilinear oriented in the primary directions of the Orcutts' and Coopers' houses and of Worthington. Riding on its point of land, it is both a long terminal for the directional movement initiated in the Orcutts' but within its view, it has an interrelationship that parallels the Kytle House in the meadow below it.

Also below it, the angles of plan and siting of the Pei Hsing and Tien Hsing Wu House are the terminal of the direction suggested by the 45-degree in the Orcutts'.

On top of the slope moving clockwise from the McDougles', the Joan Gibbons-Rongieras House is basically a two story rectilinear house that rides the top of the slope down to the lower level. It is given inner flow of the plan and outer position on the knob of the hill and in relation to its neighbors by using both the cardinal directions and a main and more desirable orientation along the diagonal direction.

Directly across the road to the west of the Orcutts' is the house for Polly and Harold Pepinsky. The entrance end is positioned with the primary directions of the street and the rectilinear anchors of the Orcutts'. The main body of the house shifts to a diagonal to improve its site, view, and climate orientation. When the Pepinskys later added a separate study and guest house across their patio and towards the Orcutts' across the street, we decided to bow to the circular form and relate a smaller circular house to it more that to the rectilinear shapes of their own house. A circular reflecting pool on their patio and a variety of circular furniture shapes drift on through their house all having a certain sense of origin in the larger circle across the street.

The house for June and Bill Todd is a rectilinear house adjusting to a changing slope. Its siting is diagonal to the Orcutts' and mainly parallel to the Pepinsky's. The far northern terminal of this group is the Wakefields' house.

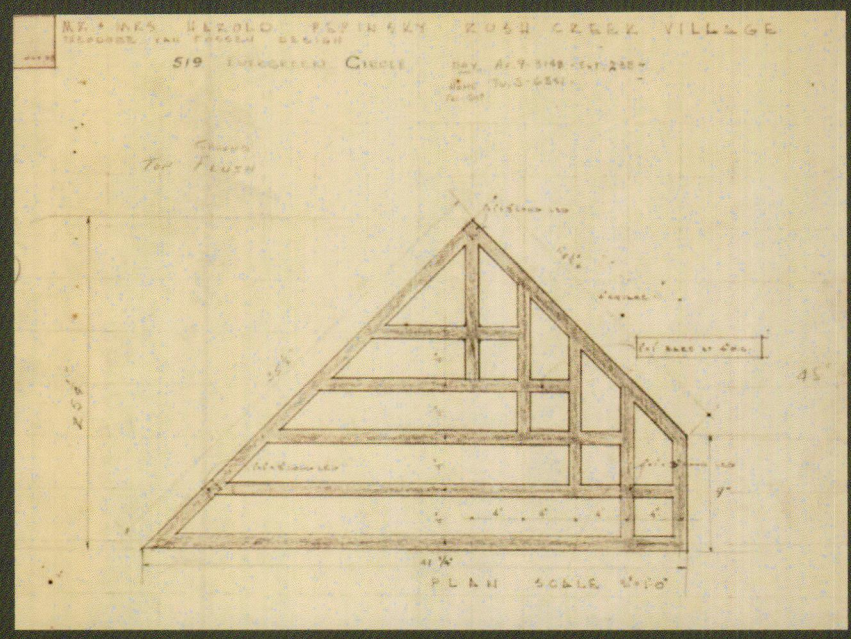
Continuing clockwise from the Wakefields', the Sally and Dick Yurich House is oriented with the cardinal points as is the Barbara and Grey Austin House. As their land was acquired much later and was more expensive, the sites are smaller and had to be carefully planned together with each other and to enjoy the larger spaces that we had already saved along the valley of Rush Creek. Their siting is square with the street pattern of the older group of houses on the northern edge of the village. Any use of angles would be inappropriate.

However in the house for Ruth and Jacques Kaswan which is also entered from that side and is close to the older houses, the site on the top of the rise allowed a rectangular plan to be shifted in its siting along the diagonal for better and more dynamic orientation and views across the valley.

We have by now worked our way around the other house that is central to this cluster, that of Jeanne and Bill Turner. I shall came back to that last in the in Western Neighborhood of Rush Creek Village but after I have pointed out that this vertical and most visual central structure is a plan of overlapping squares that have been twisted onto the diagonal to wrench the most dynamic space and orientation from its own site and establishing the center of that dynamic space for relationships as far from it as the Kaswans, the former Freeman house, the Joy Rubin House, the Gigantes, the Wus and the Wakefields. Inasmuch as many of the houses already mentioned partake in their plan elements of both orientations, they serve as bridges relating the rectilinear shapes of the houses aligned only with the cardinal points of the old community of Worthington back to the more dynamic spatial directions taken by the Turners' tower house.


WAKEFIELD 3
YURICH
WAKEFIELD
KASWAN
AUSTIN
FREEMAN
SMILACK
WAKEFIELD 2
McCOY AVE
E SOUTH ST
TODD
TURNER
HOFFMAN
RAAB
MCGRAIL
ORCUTT
EVERGREEN CIR
PINCHERRY LN
COOPER
ROTTER
PEPINSKY
ELLIOTT
JOHNSON
GIBBONS
KYTLE
MCDOUGLE
FISCHER
TEITELBAUM
WU 2
RUBIN
GIGANTE
STEVENS
FOSTER AVE
HARDY WAY





PEPINSKY HOUSE: EXPLORING THE POTENTIAL FOR ORGANIC DESIGN

The enduring friendship among Drs. Harold and Polly Pepinsky and Theodore van Fossen nurtured perhaps the most complete project within Rush Creek Village. In Polly Pepinsky, van Fossen found a brilliant and courageous client interested in pursuing a study of the potential of organic architecture on their parcel there on Evergreen Circle, overlooking the Meadow Ravine.

Their initial work on the Pepinsky House commenced in Spring 1957 and included the usual compliment of furnishings designed specifically for the home in addition to the custom rug, right, which the Pepinsky's commissioned. Christened "the filling station" by carpenters on the project for it's carport, workers tied back adjacent junipers to permit access to construction .

Soon after the completion of their home, the Pepinsky's asked van Fossen to design a guest house on the lot. That *"garconnaire"* is a small structure with circular form that responds to the round Orcutt House across Evergreen Circle and creates an intimate patio with reflecting pool for the Pepinskys. Inside the Guest House, integrated lighting, built-in furniture, and a smaller water closet fixture imported from Japan make efficient use of the limited space.

Left > Pepinsky House interior
Right > Drawing of Pepinsky House custom fireplace grate reflecting the home's overall design parti
Opposite page > Pepinsky House exterior
Following four pages > Pepinsky Guest House

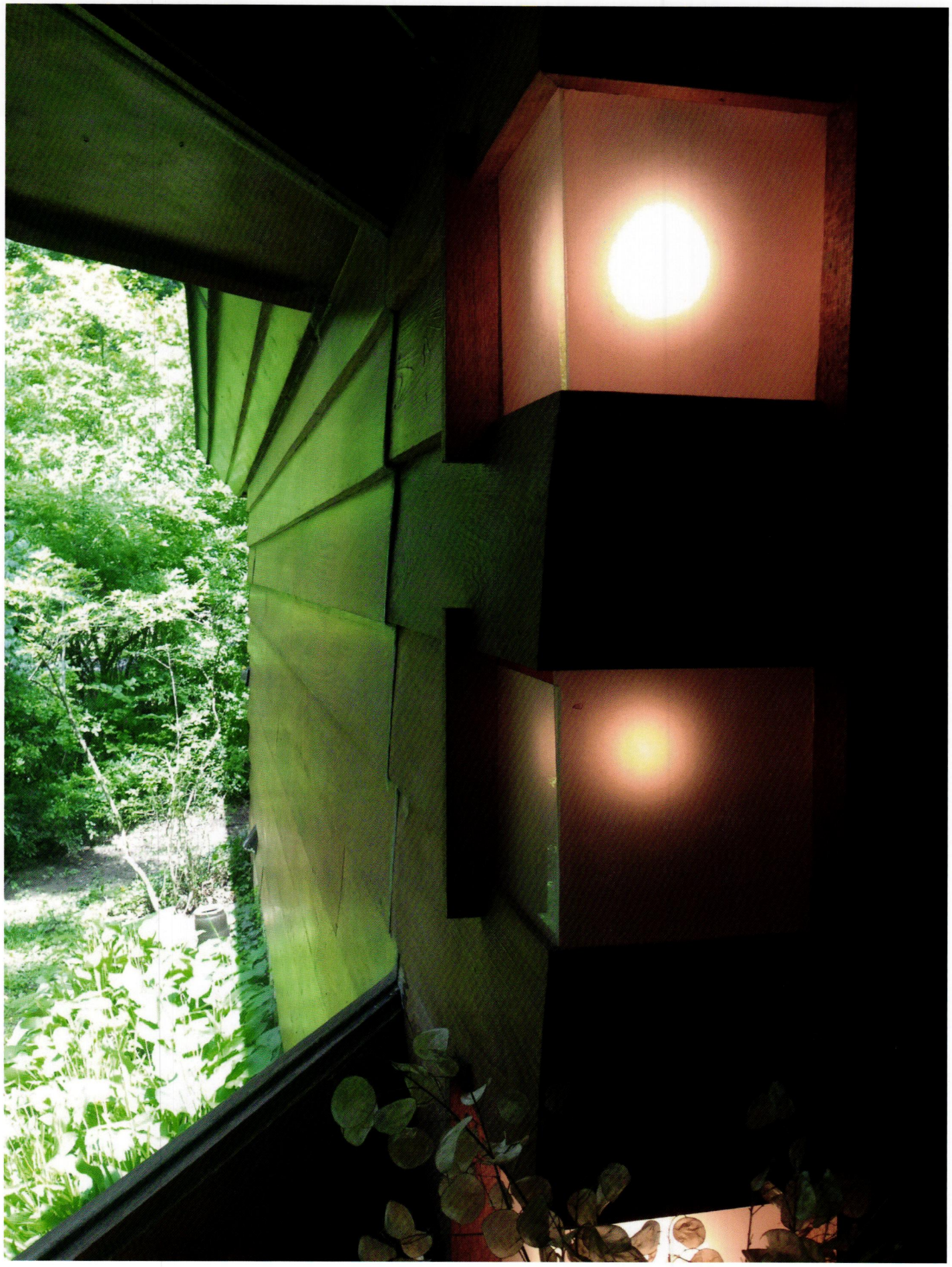


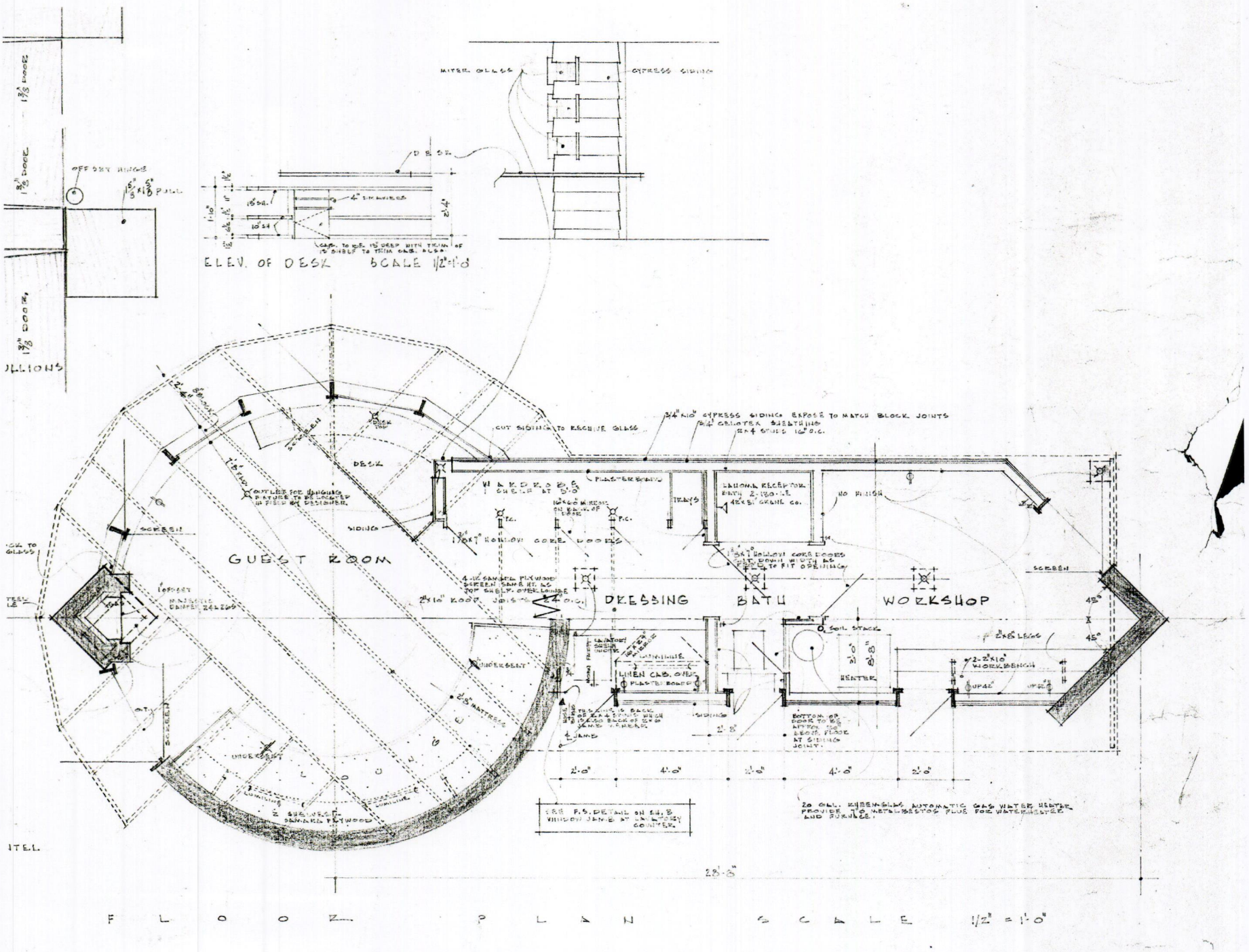












F L O O R P L A N S C A L E 1/2" = 1'-0"

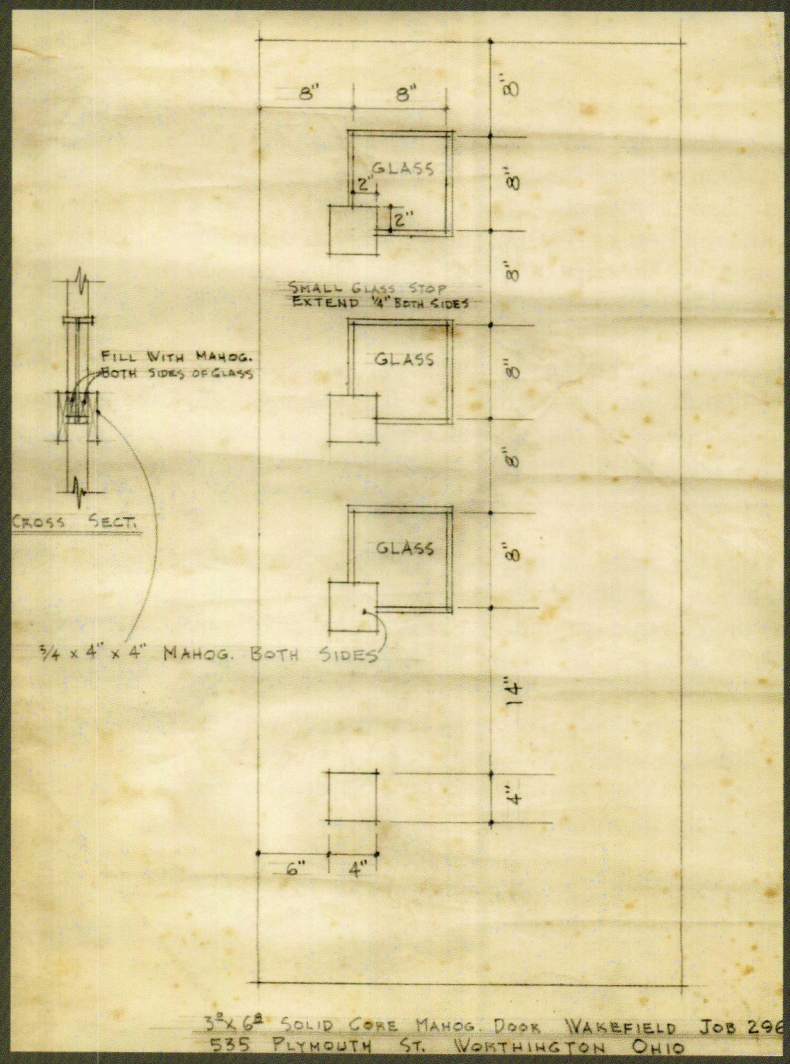
GARCONNIÈRE.
MR. & MRS. HAROLD PEPINSKY ROSH CREEK VILLAGE WORTHINGTON OHIO SHEET NO
THEODORE VAN FOSSEN DESIGN NOV. 1958



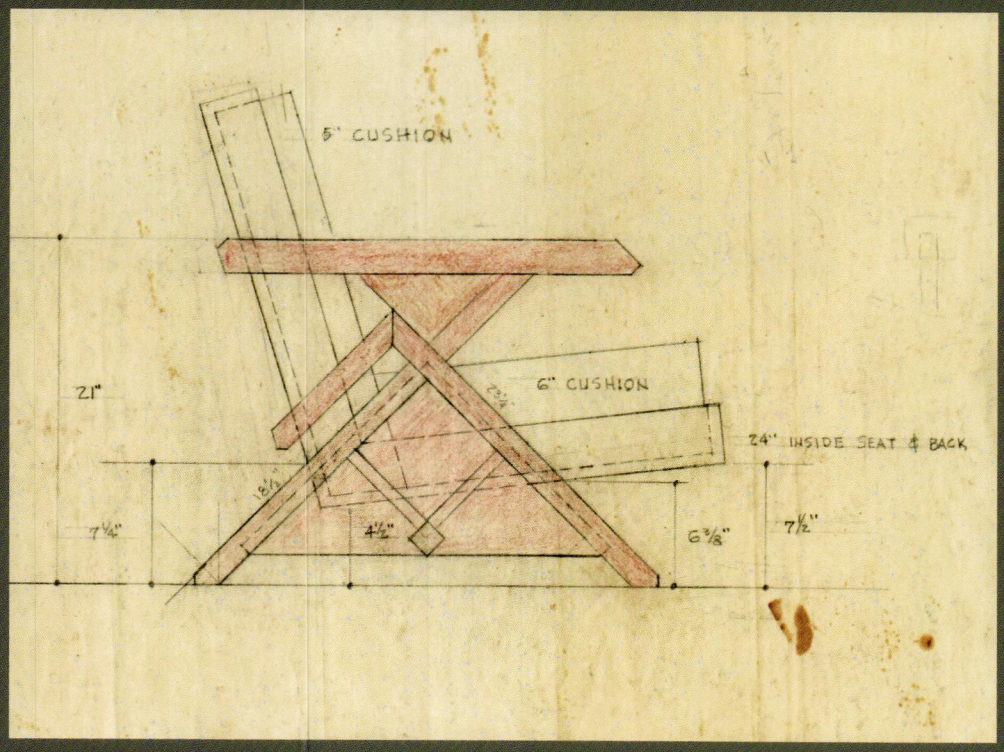
INTERIOR MILLWORK

The totality of design reinforces the immersive experience of Rush Creek Village homes. This includes built-in seating and custom designed furnishings to complete the compositions on a still-smaller scale to mediate further between site and occupant. An important part of the collaboration between Theodore van Fossen and the Wakefields was this detailed articulation. Architectural drawings prepared by van Fossen depict casework elevations and door jamb details necessary for municipal approvals with little further detail. Subsequent conversation would then convey van Fossen's design intent to Martha Wakefield, who would interpret that intent and produce drawings of lighting fixtures, furnishings, and doors. Richard Wakefield then fabricated each element, usually in solid mahogany. Installations occurred under Martha's diligent attention. In the interest of economy, some details, such as the built-in lighting for wall shelves, are applied throughout the development, affording the entire composition of Rush Creek Village a unifying sense.





3'-0" x 6'-8" SOLID CORE MAHOG. DOOR WAKEFIELD JOB 298
535 PLYMOUTH ST. WORTHINGTON OHIO



House into the Elliot property providing the structure for an unbuilt pavilion. Around Evergreen Circle, the Pepinsky House views the northern homes of the meadow below: the Todd, Raab, Kytle, and Gibbons Houses. West of the Elliott House, the McDougle House perches at the edge of the ravine glancing across to the Rubin and Fisher Houses on its south side.

The southern ravine provided a unique set of planning challenges and an opportunity for relationships between individual buildings. Access to the houses on the south side of the ravine would need to be from Park Boulevard in the Colonial Hills subdivision, which was by this time establishing itself as a conventionally planned neighborhood.

It was the ability to view neighboring homes without views to their interiors that afforded social cohesion among the members, as much as their shared commitment, as recalled by original member Ginny McDougle:

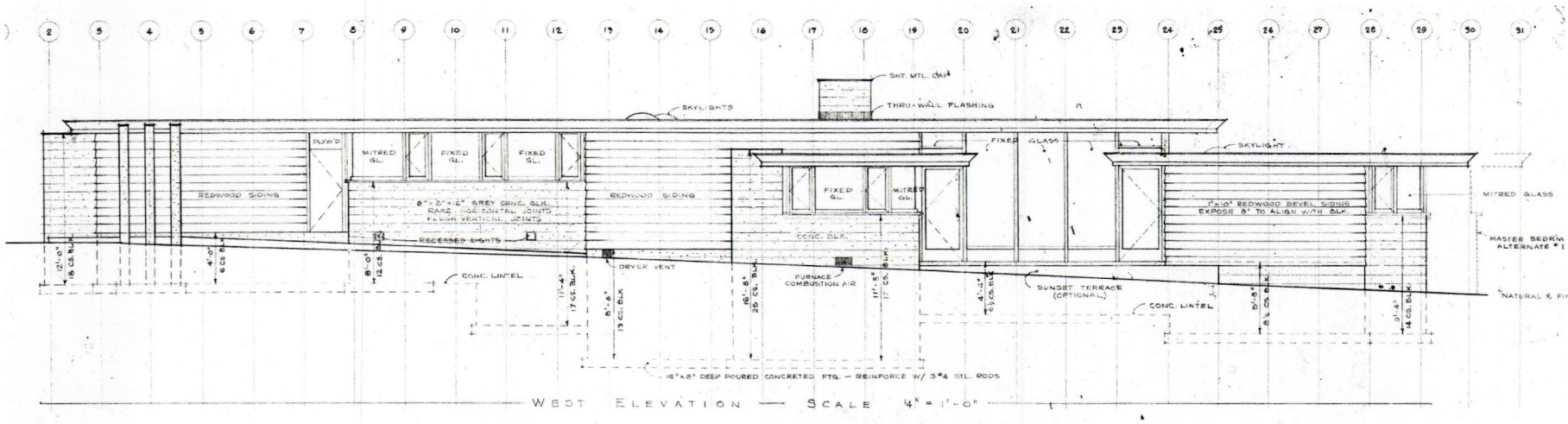
> "We weren't all necessarily friends, and we were not a 'club.' Yes, I think the only real cement was the interest in the architecture. And you can't just say 'architecture,' because the design of the land was equally important." 23

Rush Creek Village was never a utopia. In addition to the logistics of real estate development, there remained the challenging complexity



Elliot House

Opposite page > Gibbons House from the meadow ravine below.



WEST ELEVATION — SCALE 1/4" = 1'-0"



of social interactions among the members. At times these relations became strained and endangered the project. In retrospect, van Fossen appreciated the original members and their commitment:

> "Time and again the whole thing could have blown up. There was inflation to factor in, the cost of development was escalating, and I was trying to staff my studio. There were board meetings in which all Hell was going to potentially break loose. And in the end, we came out of those meetings and went ahead. And that in itself was absolutely remarkable.
>
> "They were noble people. They had the integrity to stand by." 24

THE MEADOW RAVINE

Along the western periphery of the development, extending south of the bridge along Rush Run below the Pepinski and Gibbons Houses, flat, low land provided a discrete world unto itself. Where the homes of the Eastern Neighborhood on White Oak Place exist as conspicuous objects in a field that define spaces between them, the Raab, Todd, and Kytle Houses constructed in 1961 and 1962 occupy the Meadow Valley as interrelated objects and spaces. The second home in Rush Creek Village that van Fossen designed for the Wu family, built in

McDougle House under construction, early 1966.

Opposite page > The west elevation of the McDougle House, with it's masonry piers and strict modularity, reveals the home's Meisian influence and demonstrates Theodore van Fossen's comfort in using the lessons learned during his time in Chicago at the New Bauhaus to execute Wrightian ideals.





1969, provides a visual cue at the end of the Meadow Valley as well as a visual fulcrum, offering a reference point for the homes that extend along the southern ravine to the east.

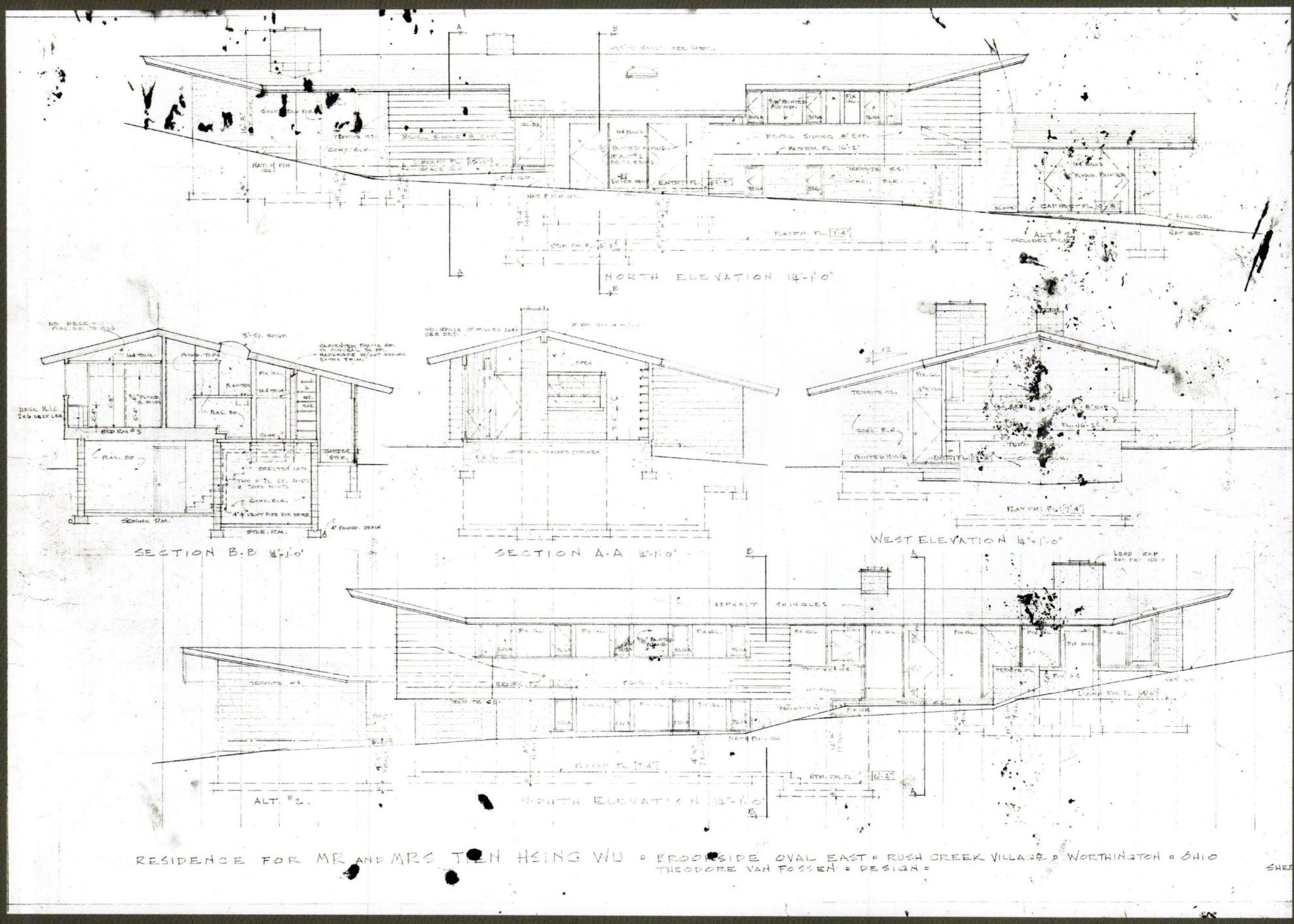
THE SOUTHERN RAVINE

The ravine running along the south boundary of the Western Neighborhood demonstrates as well as anywhere else, the interrelationship between the individual homes to define exterior space between. Horizontal elements of the Fischer and Gigante Houses, on the south side of the ravine align in elevation with the rooflines of the Johnson and Elliott Houses on the north. The Rubin House at the brook's edge exists almost unaware of the Gigante House above and behind it, instead relating to the McDougle, Elliott, and second Wu Houses across the ravine. The ravine itself becomes a calming multi-story extension of each of these homes, under the thick canopy that wouldn't mature for decades after van Fossen had planned them.

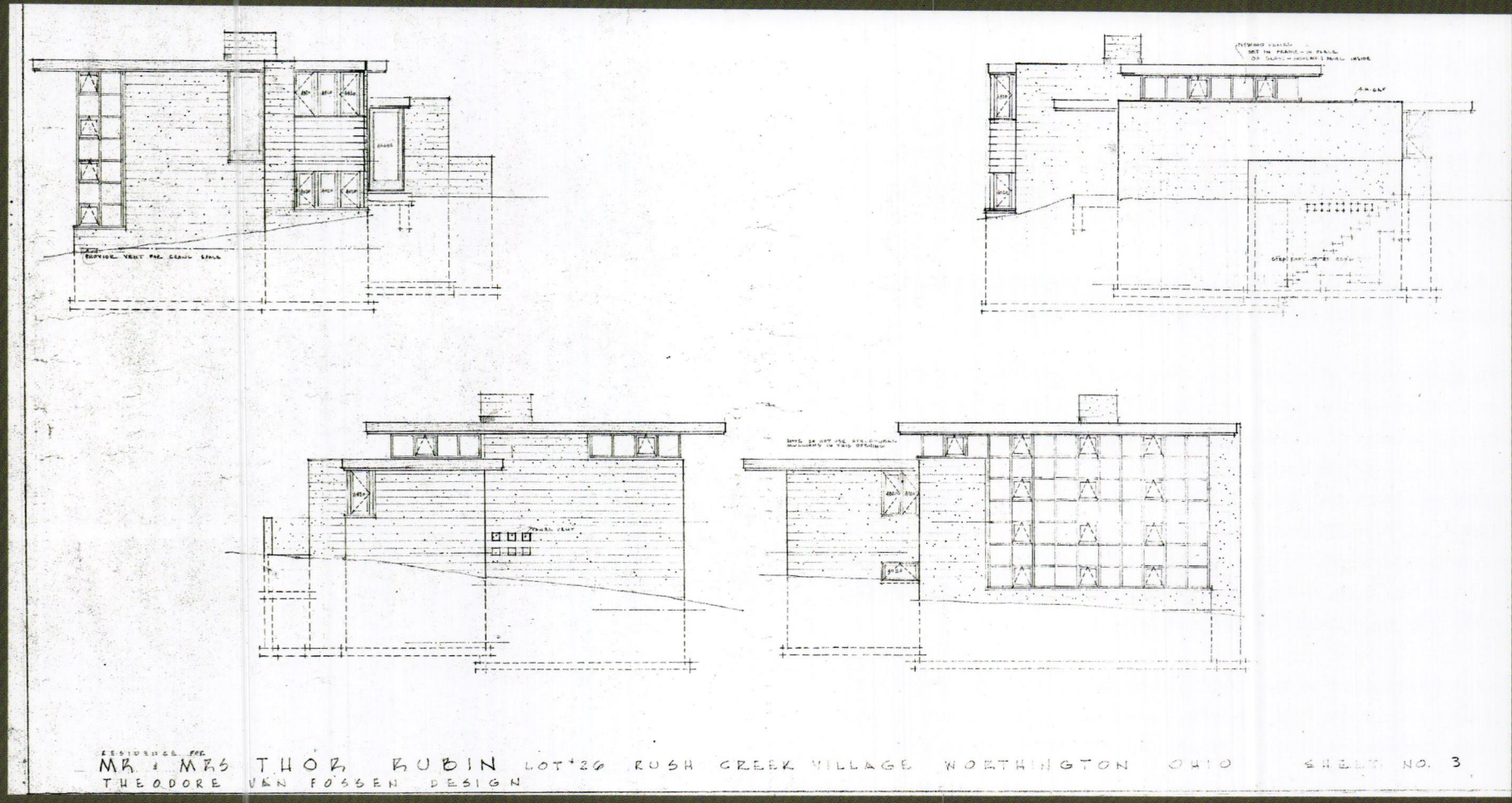
While the Fischer, Gigante, Rubin, Stevens, and Titelbaum Houses appear in plan to form a cul-de-sac around Foster Avenue, only the Stevens House directly addresses the streetscape. The Gigante House is well hidden and only the discrete carport of the Fischer House is visible from the public way. The driveway down to the Rubin House,

Kytle House, along the banks of Rush Run.

Opposite page > Todd House



RESIDENCE FOR MR AND MRS TIEN HSING WU ▫ BROOKSIDE OVAL EAST ▫ RUSH CREEK VILLAGE ▫ WORTHINGTON ▫ OHIO
THEODORE VAN FOSSEN ▫ DESIGN ▫



WU HOUSE 2 AND THE RUBIN HOUSE

The stark differences between the second Wu House (above) and the Rubin House (opposite page), are easily seen in their exterior elevations and demonstrate Theodore van Fossen's fearlessness in putting his extensive mid-century architectural vocabulary to work creating the "spacial tension" among the homes of Rush Creek. Wu House 2 backs against the eastern wall of the "meadow ravine" well below the McDougle House, with its expressive swept-back roof gables gesturing to the Rubin House in the Southern Ravine.

The two buildings, designed almost a decade apart, appear radically different. The second Wu House is reminiscent of other sloped-roof homes in Rush Creek Village: a casual Usonian massing in horizontal redwood siding under a 3-in-12 sloped roof. The Rubin House, by contrast, is a study of cubist massing rendered in concrete masonry.

However, these two structures respond to one another to provide a sense of continuity from one otherwise discrete region of the Western Neighborhood to another. They also reveal how Theodore van Fossen simultaneously regarded each home as a dwelling from which to view the landscape and as a landscape element in itself, depending upon the perspective of the viewer. These complimentary existences "stitch" Rush Creek Village homes together as a single composition.

The verticals are four feet on center, and then the divisions of that are two feet on center running horizontally. On the corners...that's a free corner, where the glass is mitered, but we can set opening sashes into these...according to where we want them.

This is a whole system of doing this, and the plywood panels go in as a blank...in this house, there isn't any wood siding as such.

Whatever system of fenestration—the way the windows and the doors are handled—that goes all the way through the house. There are different systems of fenestration in the houses [at Rush Creek Village] but they are worked out and detailed in each case to work for that system. And you can see here this kind of 4-foot wide, 2-foot high grid "cage"...is then continued and carried through as a clerestory all the way around and then it goes back down in the corner, there just like the glass box here. Actually it emphasizes that the glass box is of this whole size and these other things happen in it.

The same thing is true at the end and the bedrooms. That means that the house has to be very carefully worked out by me in a vertical grid of how the block stacks up—how the other materials go together.

One of the reasons that people enclose fireplaces is that they don't draw properly. A fireplace is not *this*, what you see. A fireplace is up *here*—and the way that is constructed is how the fireplace draws. In the house the Schuters had, this is extremely high... it's very narrow... but there is one hell of a throat and a smoke chimney up here that's... keeping the smoke out of the room. In fact, the Rotters were very suspicious of that and asked me over and over again about it. And the first time they built a fire in it after they moved into the house, they phoned me over in Pennsylvania. They said, "The fireplace is a total failure, we can't get a wisp of smell of smoke in the house!" [Laughs.]











THEODORE VAN FOSSEN: THE STEVENS HOUSE

This, again, was an open suburban lot and although it was bigger than most suburban lots, it had most of the characteristics of a suburban lot, where they considered it...flat. I tried to take advance of what little slope there was there. It's higher in the back than it is out here.

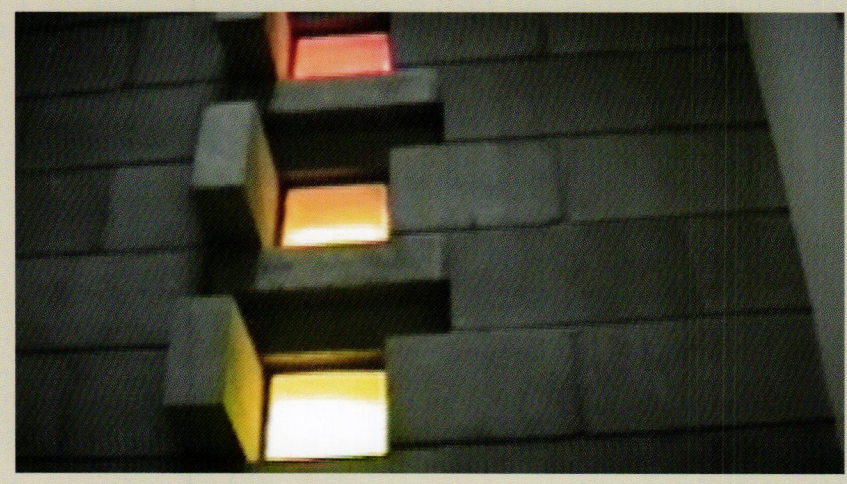
There wasn't particularly anything to see out this way to the west. I used the house itself as a screen from the street, but let light into the Living Room up high and then let a lot of light in low into the basement room and make that a livable, usable room. From the street, I extended the wall to make a sharp division for privacy between the rear [of the lot] and the front. And you just drive the car in under.

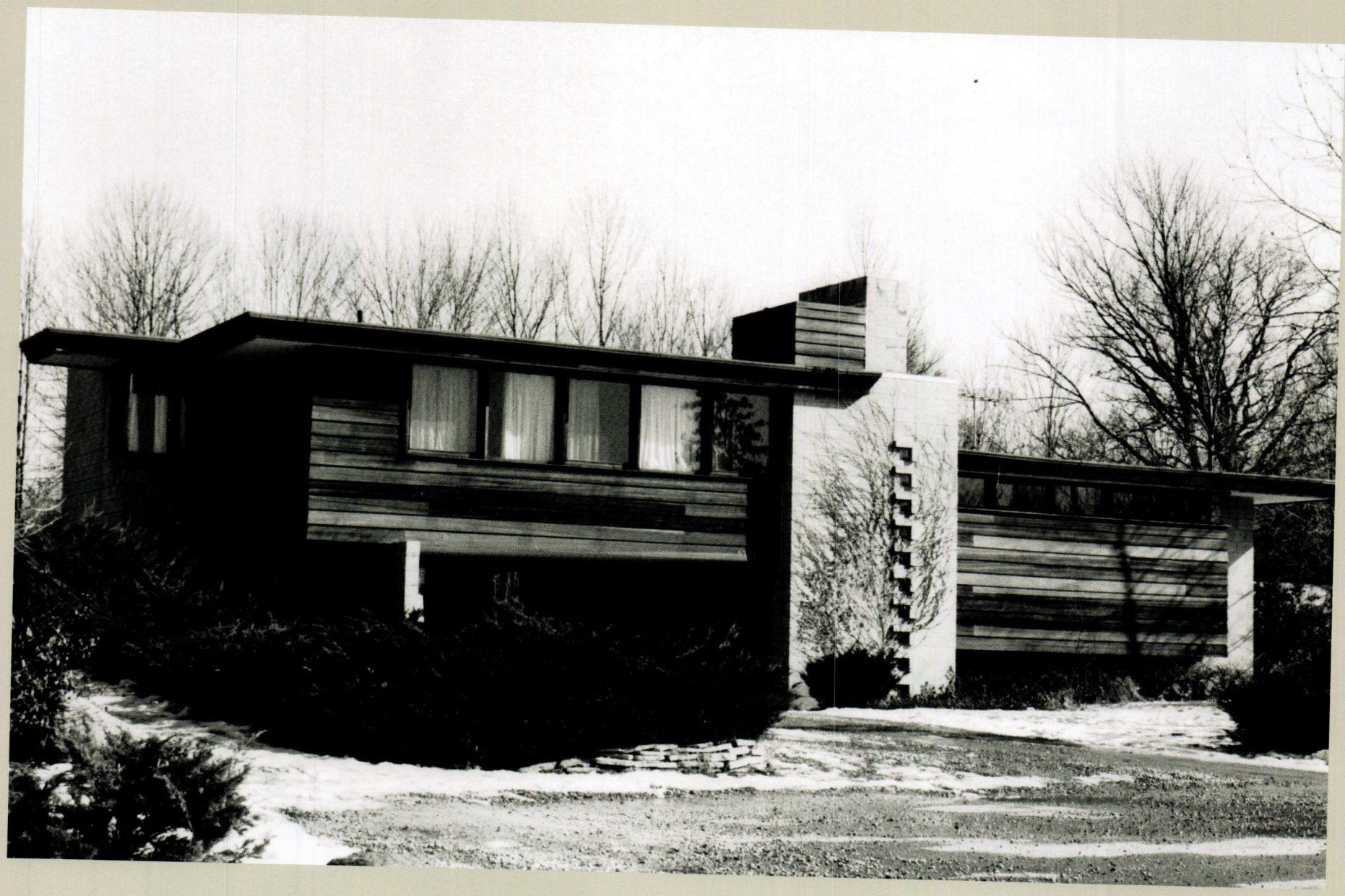


And then the bedroom level up there can take advantage of a long view out this way, but with the parapet, it doesn't pose very much of a privacy problem. I really consider this almost a textbook house about taking an ordinary, so-called "flat lot," honing and dividing it into use areas.

This big block mass that is the center of the house, the central feature of the house...it should be noted that every one of my houses has a central core and the house in some way moves out from that central core in one or more directions, but it has a central entity around which the forms and the circulation, usually, is composed around, too.

Well, that flat masonry mass there is a good enough shape, but needs relief and it needs light into the stairwell, so the architectural grille as a vertical feature relieves that mass of the block, which would be unnecessarily plain without.









sited on the ravine floor, is under the canopy of trees and is easily overlooked from the street.

THE CENTER

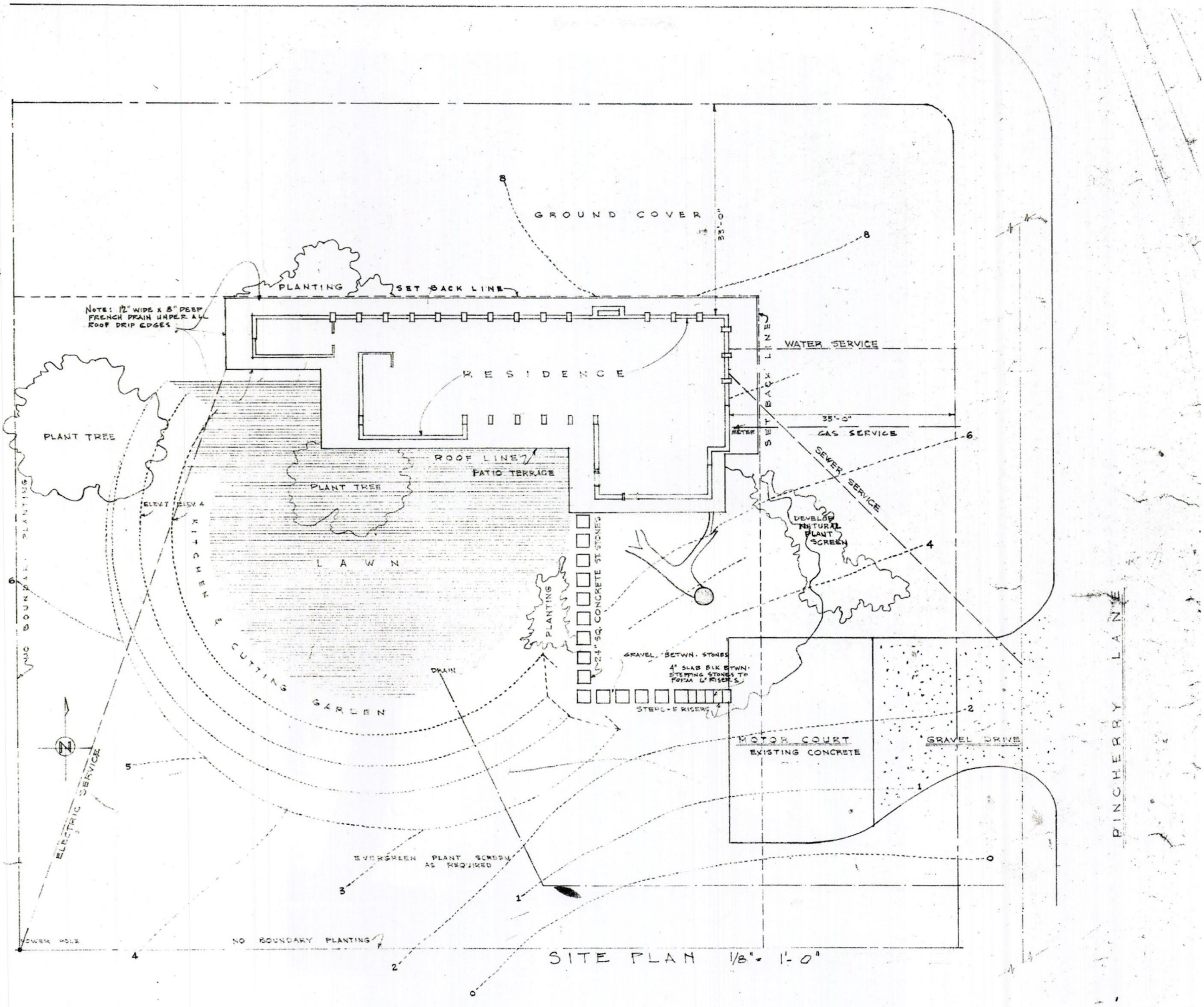
A footpath at the end of Foster Avenue, flanked by the Tietelbaum and Fischer Houses, leads north and down into the southern ravine. The tension between them and the Johnson and Rotter Houses perched on the north side of the south ravine is tangible at a pedestrian pace. Altogether, the quartet provides a discernible order to the terrain of the ravine floor, reinforcing the overhead plane of the forest canopy and the walls of the ravine itself. Emerging from the footpath between them, the Johnson and Rotter Houses transition to the McGrail House on higher ground against South Street. The Cooper House, backed against an earthen berm, shields Pincherry Lane from the distractions of vehicles on South Street and extends the visual cue of the Orcutt House east to the McGrail House. Here, the loss of the Freeman House as can be felt as a gap in the visual continuity of the community, especially as plantings have matured to obscure original sight lines to the Smilack and Hoffman Houses. In this zone between Western and Eastern Neighborhoods, direct visual relationships

McGrail House

Opposite page > Tietelbaum House

Following pages > Cooper House





SITE PLAN 1/8" = 1'-0"

SMALL VILLA FOR JANE AND JOSEPH COOPER

EAST SOUTH STREET WORTHINGTON OHIO

THEODORE VAN FOSSEN DESIGN AUGUST 1961

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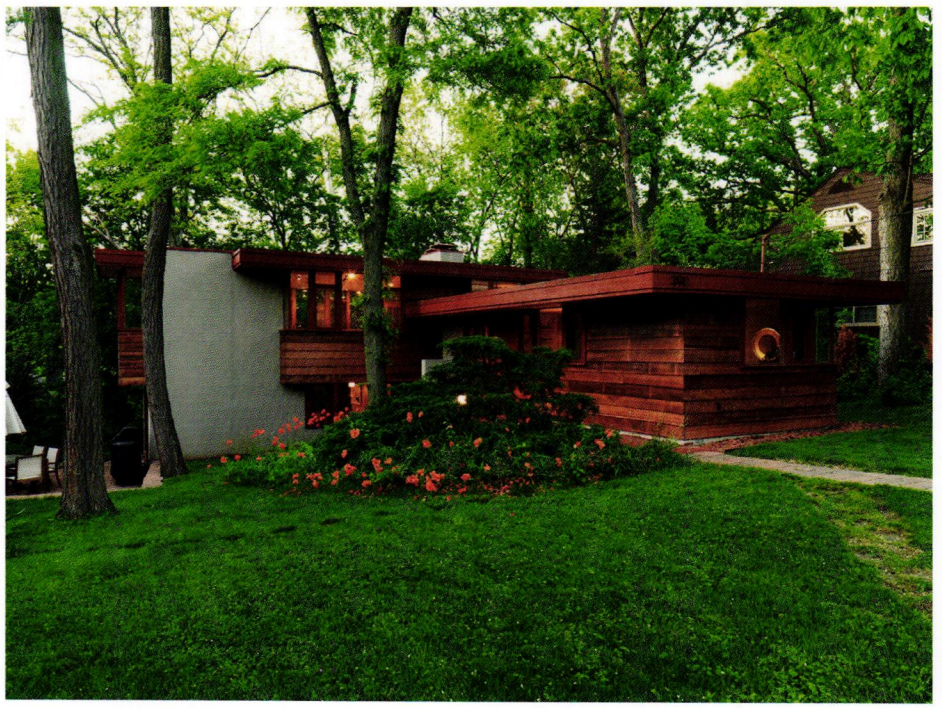
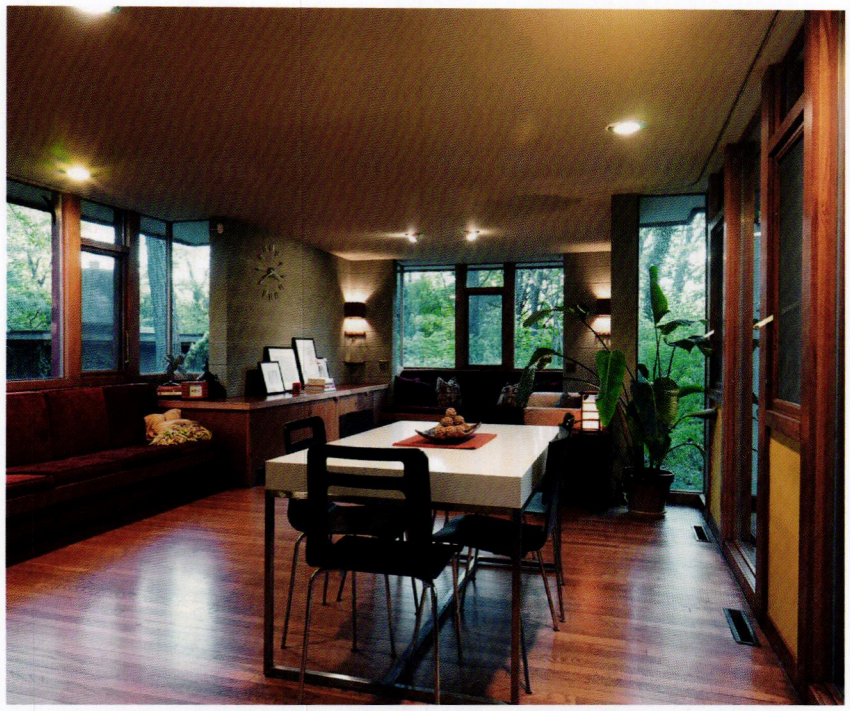
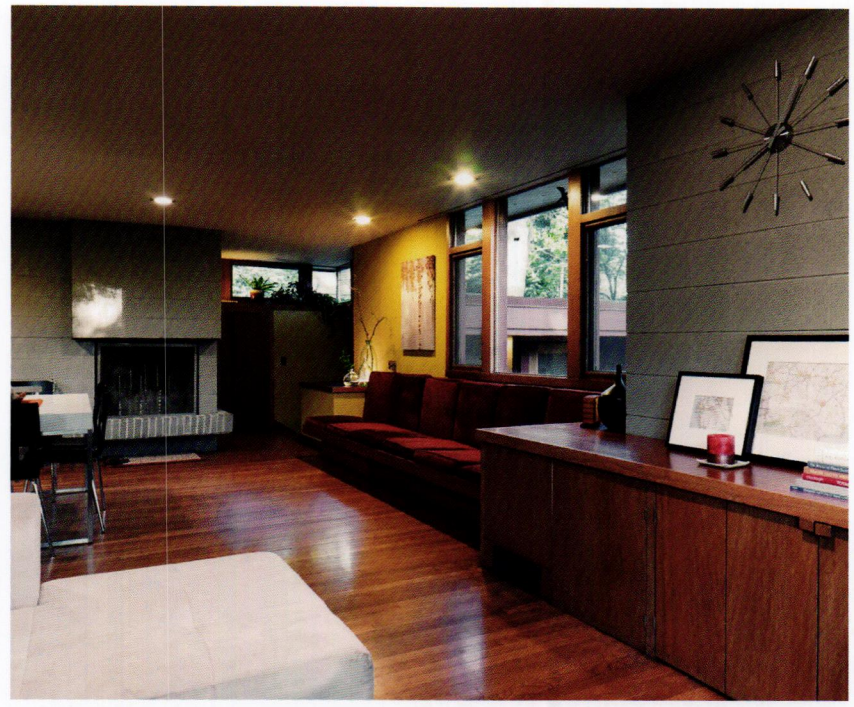








Smilack House, interior

Opposite page > Smilak House, exterior



THEODORE VAN FOSSEN: DESIGNING THE HOFFMAN HOUSE

Julius Hoffman, a psychiatrist, said repeatedly 'just work it out' with his wife, and everything would be fine, you know. Well, that made me extremely nervous. [Laughs] He no sooner got into the house that he couldn't *stand it*, because it was all put together as one thing. We had to add this wing out here to get the children out of his way. He would fall asleep during our conferences and say, "Oh, just whatever she wants." Well, it's funny...he didn't know what his needs were until he got into it!



between individual homes are stretched thinner and it is the consistency in architectural detailing and finishes that bridges the distance between the McGrail and Wilder Houses.

Historically, Rush Run had proven to be a convenient natural barrier to the rest of Old Worthington, and so with the exception of internal disputes, Martha's development was allowed to proceed safely out of sight and out of the public's attention until 1966 when the scaffolding was removed from the house for Jeane and William Turner.

Located where East South Street crosses over Rush Run, the Turner House, with its volumetric three-story tower, was anything but inconspicuous. Immediately, a scandal erupted in town with Martha Wakefield defending her "ultra modern" homes against the outrage of a community that felt its way of life threatened. Many urged a policy of containment.

But Worthington's building authorities had already approved the Turner House. Permit documents submitted to the Building Department met applicable code and planning ordinances. Nevertheless, Martha was compelled to defend her enterprise. Speaking to the city council, she justified her mission:

> "They retired to an executive session, which means that they went into the back room and talked. And they came out and announced



Turner House, 1970

Opposite page > April 17, 1966 newspaper article reporting Worthington's consideration of design controls in response to the Turner House.

ORDINANCE WOULD BE AIMED AT PRESERVING COLONIAL ATMOSPHERE

Worthington Considers Architecture Curbs

By TOM SESLAR
Of The Dispatch Staff

A plan to place legal restriction on styles of architecture in Worthington is being considered by city officials, The Dispatch learned Saturday.

Councilman Chester Hutchison, chairman of the Municipal Development Commission (MDC), said the proposal is only in formative stages, in MDC, but probably will be forwarded to council within the next two months.

HE SAID RESTRICTIONS probably would affect only the area bounded by Morning St., Evening St., North St. and South St.—plus an area 200 feet deep around the perimeter of the streets.

The streets outline the original village plat of 1803.

The plan was conceived by members of MDC "to preserve the colonial atmosphere of Old Worthington," according to Hutchison.

LAREN T. SMITH, council president, said he favored the plan and doubts it would meet any strong opposition.

"We don't want to restrict anyone's freedom," Smith said. "We just want to preserve the beauty and historical significance of some of our houses and commercial buildings."

Study of legal implications of the possible ordinance has not been completed yet, Hutchison said.

HOWEVER, HE said he did think council would be able legally to create an architecture review board which would have the power to regulate "any construction that would change the appearance of a building."

He added that such a change "probably would be anything more than repainting."

Both Smith and Hutchison emphasized the point that any restrictions approved probably would concentrate on preserving old homes and regulating architecture of new commercial buildings. Hutchison compared the plan to Columbus' German Village.

SMITH POINTED out that a major gasoline company recently was "persuaded" to revise its plans for a service station from modern to colonial.

City Manager H. G. Shapter said he believed owners sometimes could be "persuaded" to cooperate, but said he doubted that the city could regulate architecture "for purely aesthetic purposes."

"As long as a building meets our standards on basic requirements such as size and height, there is little that can be done," Shapter said.

SHAPTER SAID some persons were opposed to a house under construction on E. South St., but said investigation showed the house meets all building standards including the maximum height limit of 30 feet.

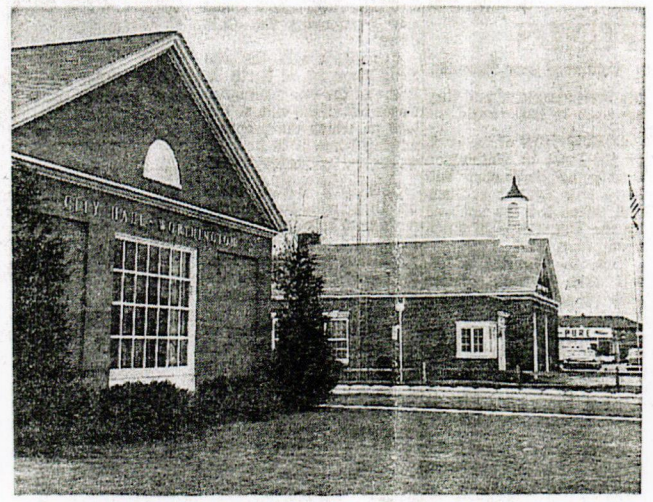
Mrs. George Overfield, president of the Worthington Historical Society, said her group would give MDC its support if the plan is recommended to city council.

"We are very concerned about some of the new construction here and irreparable damage to historic buildings," she said.

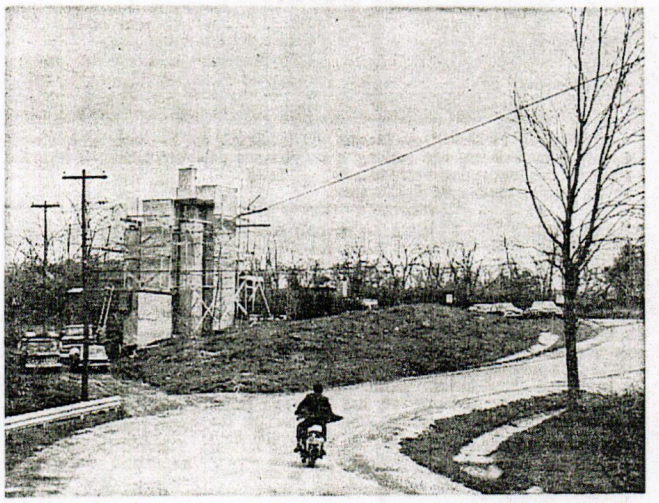
THE DISPATCH has received several calls from anonymous persons who complained about houses being built in Worthington's Rush Creek area. The callers also urged support for the plan MDC is considering.

Richard Wakefield, the builder of all of the ultra-modern Rush Creek homes along E. South St., said he believed the MDC plan "is the work of people who want to live in the past."

News From **Suburbia**



THE OLD NEW — Worthington City Hall, left, and the Sharon Township Fire Department building, both only a few years old, reflect Worthington's efforts to preserve its colonial atmosphere.



AND THE NEW NEW — This tower-like house under construction on E. South St. shows that not everyone holds the colonial architecture in such high esteem.

THEODORE VAN FOSSEN: THE TURNER HOUSE

So with this background of informing principles we may return to the case in point, Rush Creek Village. Its controversial Tower House may stand as well as any for the whole. Let me briefly explain here how, in addition to the reasons already given, a tower made sense in its situation.

At the lowest level, there is a studio for the owner, with excellent northeast light and removed from the rest of the house. The floor above has an outside entrance for visitors to the studio and for the children's rooms. The third floor is the main floor. The main entry to the house is here, reached by a short bridge from the upper slope. It consists of living, dining, and kitchen areas. The living room has a two-story glass bay (affording an incomparable view of a stream winding through a small valley) as well as a large roof deck. Above that is a master sitting-bedroom with a small private deck and its own superb view. At the top is a penthouse on a large roof deck. It is used as a study-retreat away from the rest of the house, and is a place where guests may also stay. A complete intercommunication system to save steps links all parts of the house. A dumbwaiter from the kitchen makes it easy to have tea in the studio or breakfast on the roof. Since the top and bottom floors are retreats one need not go to unless he chooses, what remains is a three-story house entered at the middle floor. The children go down one floor to their quarters, the parents go up one to theirs. The forms of the house were as carefully worked out as I could make them, to minimize the bulk and emphasize a play of vertical forms. This has the additional benefit of providing a contrast usually lacking in the predominantly horizontal forms of any suburban community. It is interesting in this regard that the only visual relief from endless houses of similar size and shape in the new suburban community is provided by a church. A number of people had at first supposed the tower to be a church. It was after they found it was not that their outrage began to mount.

By present conventions one would use an 8-foot ceiling height, and there would be one foot of floor joists, making nine feet from floor to floor. By careful paring to the circumstance and using the size of a man as the measure of height, I was able to minimize ceiling heights so as to cut down the number of steps in the tower. This reduced the whole height by more than half a story and was accomplished by the interaction of several of the aforementioned principles. First, an exposed and modular spacing of floor (ceiling) beams permitted them to be placed at a 7-foot height, saving a foot on each floor. Placing the room ceiling two-thirds of the way up in the exposed beams did not make the ceiling oppressively low, and left the upper third of the beam space for heat ducts, wiring, and sound insulation. For relief and spatial excitement in the living room, a portion of it is two stories high with a 2-story glass bay. The great feeling of freedom given by this expansive view is conversely an extensive exposure so it is turned away from the street and from neighbors and may be contemplated under a low-beamed ceiling from a lounge beside a fire. This is in consideration of the psychological needs of the people who must live in the house.

...We see an expressed concern for human occupancy. On the exposed, street side of the house the stairs and storage elements for each floor are grouped to provide both the privacy screening of their solid walls and a play of varied vertical forms. Narrow slots of glass between the shapes flood the interior with light without losing the privacy screen. This is a kind of informing that by design provides an outlook on how to live which is diametrically opposed to the suburban "ranch" house. By design the latter usually displays all its more costly materials to the street only, stopping them short at the (highly visible) corners. This betrays the designer's two-dimensional concept of the house.

The typical ranch house's largest area of glass is not a view window to a privately usable area but a "picture" window, presenting a view to the casual passerby of the contents of the living room specially furnished with this in mind. Frequently, the remainder of the house skimps on windows and is made of cheaper materials unrelated to the front. The lack of conventional window openings on the street side of the Tower House is relieved at the top where there is no privacy problem, and a large corner of windows permits the penthouse dweller to look out across great distances, above the street and most trees, as in a crow's nest. This arrangement provides a quality I find very suitable to a study retreat. In this and other ways the Tower House has been determined in form by using its walls, forms, spaces, and openings as shaping, screening, opening devices to achieve spaces with the most desirable character and utility for the manifold needs of the family.

Excerpt from People and Information, Chapter 6 "Informing What We Make," Harold B. Pepinski, Ed., Pergamon Press, 1970





A STUDY OF TWO TOWERS: THE TURNER AND GUNNING HOUSES

In 1949, Theodore van Fossen was establishing a design practice with Tony Smith in Los Angeles, so Robert and Mary Gunning turned to reputable Columbus firm Tibbals, Crumley, Musson Architects to design a needed addition to their iconic home that included a new carport, conversion of the existing carport into a bedroom, and a bathroom. By the 1960's the Gunnings wanted to expand their home again, and Theodore van Fossen, his studio in Columbus supporting ongoing work at Rush Creek Village as well as other commissions, was available. A three-story tower was proposed over Bob Gunning's existing one-story concrete masonry ceramics studio on the property and was constructed by Richard Wakefield.

Typical of van Fossen's work, the Gunning Tower is a cubist composition of colliding volumes, and like the Turner House, a Miesian expanse of glazing spans multiple floors. Launching from the ravine edge, it's peers over the ravine below as an element in the landscape rather than acting as a vertical datum in relation to other nearby structures as the Turner House must. A rooftop terrace, complete with Murphy bed, allowed for outdoor sleeping during humid summer months.



> that they wanted to preserve what they called 'American Heritage' architecture. Well, we thought that was a good idea, because Frank Lloyd Wright's architecture is the only true American heritage architecture. It's quintessentially American, like jazz. All the rest of it is borrowed from France, England, and Greece. 25

It's unlikely that many on the council were swayed by the merits of Martha's arguments, but in the face of her stubborn refusal to yield, there was little that concerned citizens could immediately do.

Worthington finally responded with the establishment of an architectural review board. Charged with protecting the aesthetics of the city's historic character, the board would become an obstacle to further development that didn't complement the town's colonial appearance. Elsewhere in Worthington, marketplace-safe tract homes continued to multiply along suburban streets and the designated historic district while Old Worthington remained immediately to the north and west of the properties that Martha Wakefield had gathered. Beyond the boundaries of these protected blocks, however, Worthington's means of enforcing aesthetic ideals were limited to the building department's technical review and inspection process and, to minimal if any effect, social pressure.

Fearful of the unfamiliar, many about town vilified the members of Rush Creek as Communists or malcontents. Others were fascinated



Construction of the Worthington Estates development, 1960



by the strangeness, and curious onlookers slowly drove up and down East South Street on Sunday afternoons. Dr. Polly Pepinski remembered:

> "When we moved in, our son Harold was 12 years old. He had one of those kid telescopes. On Sundays, when people would slowly cruise through the neighborhood, Harold would mount his telescope out here on the patio. He would focus on the gawkers. And then they'd see him and they'd go!" 26

From time to time, Rush Creek residents would be startled to find inquisitive faces against their windows or classes of architecture students marching through their planting beds. There was something to be seen, to be sure, but these interlopers most often left with their questions unanswered.

The members themselves were making discoveries of their own. As overgrown vacant lots yielded to new homes, they enjoyed a new sense of community. The shared experience of their radical homesteading adventure was augmented by the realization of a life different than that of the rest of town. Life seemed quieter and slower along Rush Run than on High Street. Progressive dinner parties and recreational walks became ingrained in the lifestyles of many member families. And in time, an awareness of the effects of their homes on them became an integral component of the Rush Creek Village

Pepinski House, 1970

identity. The cheerful testimony of Dr. Clark Leavitt, a retired professor of psychology who purchased the Williams House in 1981, summarizes the experience of his neighbors:

> "I'm constantly surprised. Every time I turn a corner I never know what I'm going to find. There's always something going on outside. I can just sit here in the comfort of my living room and take it all in." 27

Likewise, Stacie and Chris Conner, relative newcomers to Rush Creek Village, wonder at the effects of their home (the Wilder House) on their family life:

> "We don't need to watch television. Everywhere we look, we're surrounded by nature. It's like we live in the woods. Our son can spend all day outside, occupied with whatever he finds there. We don't need to constantly buy him toys to entertain him." 28

After growing accustomed to the expansive views from their living rooms and the sense of cozy, subtle spacial relationships between their homes, members would share with one another their discomfort when visiting friends and family outside the development. By contrast, they felt overexposed when strolling along High Street or out on Worthington's Village Green. Martha Wakefield summarized the experience by explaining, "First, we give you claustrophobia, then



Yurich House, interior

Opposite page > Yurich House





THEODORE VAN FOSSEN: THE WEISS HOUSE AS A STUDY OF "PSYCHOLOGICAL SPACE"

In this house, standard windows were used in the grid of the glass and the structural windowwall, and then it's carried up to fixed glass above. From the outside, it keeps this whole glass area to itself. There has to be a relationship between the glass and the door.

So you see, above the door there, there's glass going up. And that was a door made for the size of the opening, which carries the same module as this, so those are related.

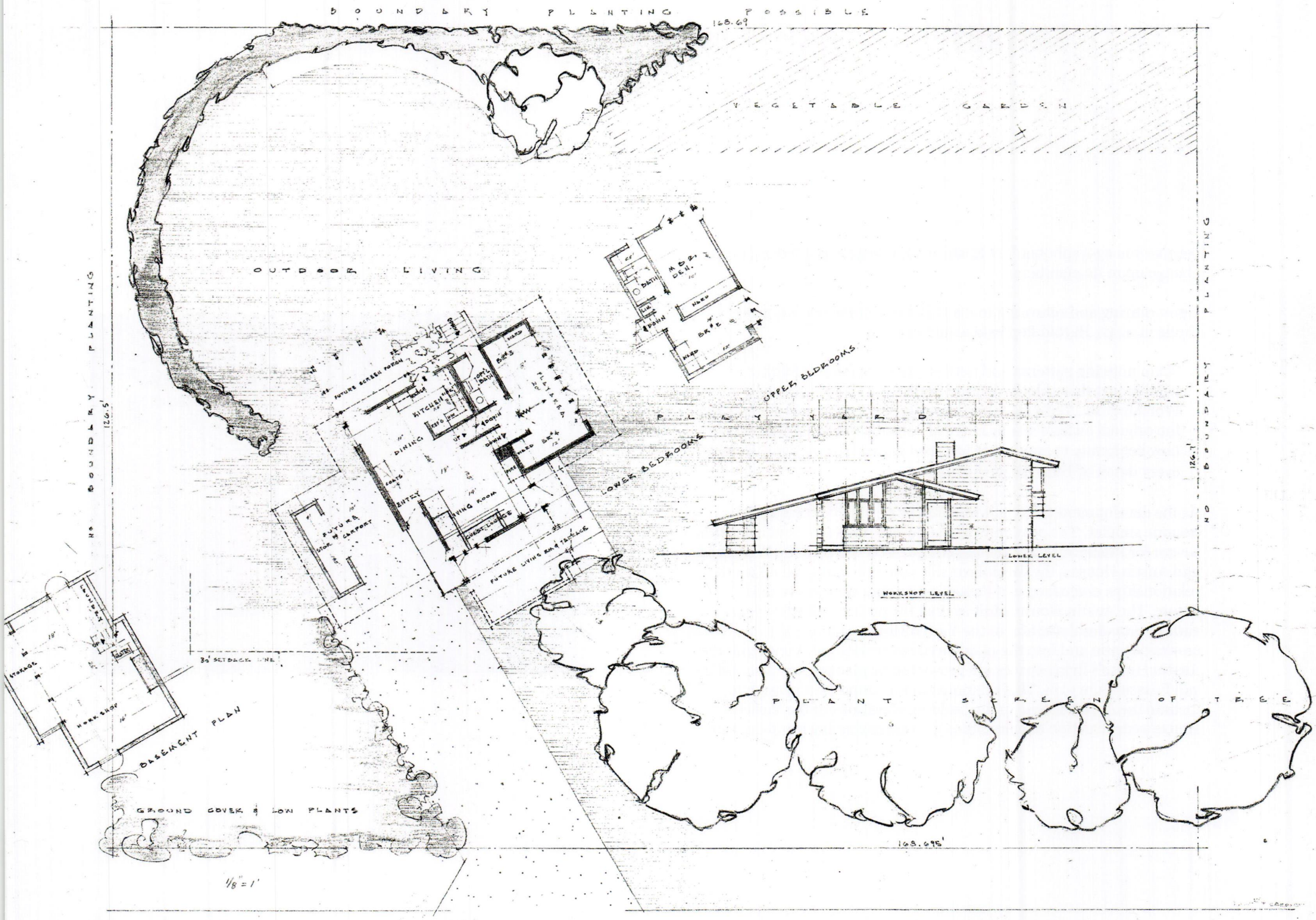
From the inside, there's a real sense of freedom that you cannot get in a standard, conventional house where the area above the windows is filled up with a wall section. And the roof, from the inside, just floats up in that area and provides you a visual and psychological way out.

You can see how carrying the glass up to the roof, without any heavy structure across the head of the glass. It doesn't need it. In all standard construction, you get a big impediment across at the top of the glass. To one extent, if you're viewing out the glass, you can see to a certain extent that it's glass...interrupted by solid sections.

It requires...a careful utilization of space...in which the dining area overlaps the kitchen space. I don't remember what the budget was...it wasn't much. This is a small house with a big space...with an interesting sense of materials.

The cabinets are my design and they relate to the kitchen cabinets, the bathroom cabinets, the bedroom cabinets...it's all of one piece. They give a rich sense of material.

In my plan, I proposed...planting that completed a circle that the Living Room looked onto that shielded it from the road. Fortunately, they went ahead and did that right away and within two or three years they began to have the kind of privacy that it did not have to begin with.



RESIDENCE
for MR. & MRS. M. P. WEISS WHITEOAK LANE BUSH CREEK VILLAGE WORTHINGTON O.
THEODORE VAN FOSSEN DESIGN
SCALE 1/8" = 1'0"
SHEET 1

we give you agoraphobia." 29 Rush Creek Village was affecting deep change upon its members.

Upon retiring and returning to his childhood home on Evergreen Circle in 2012, Harold Pepinski would marvel:

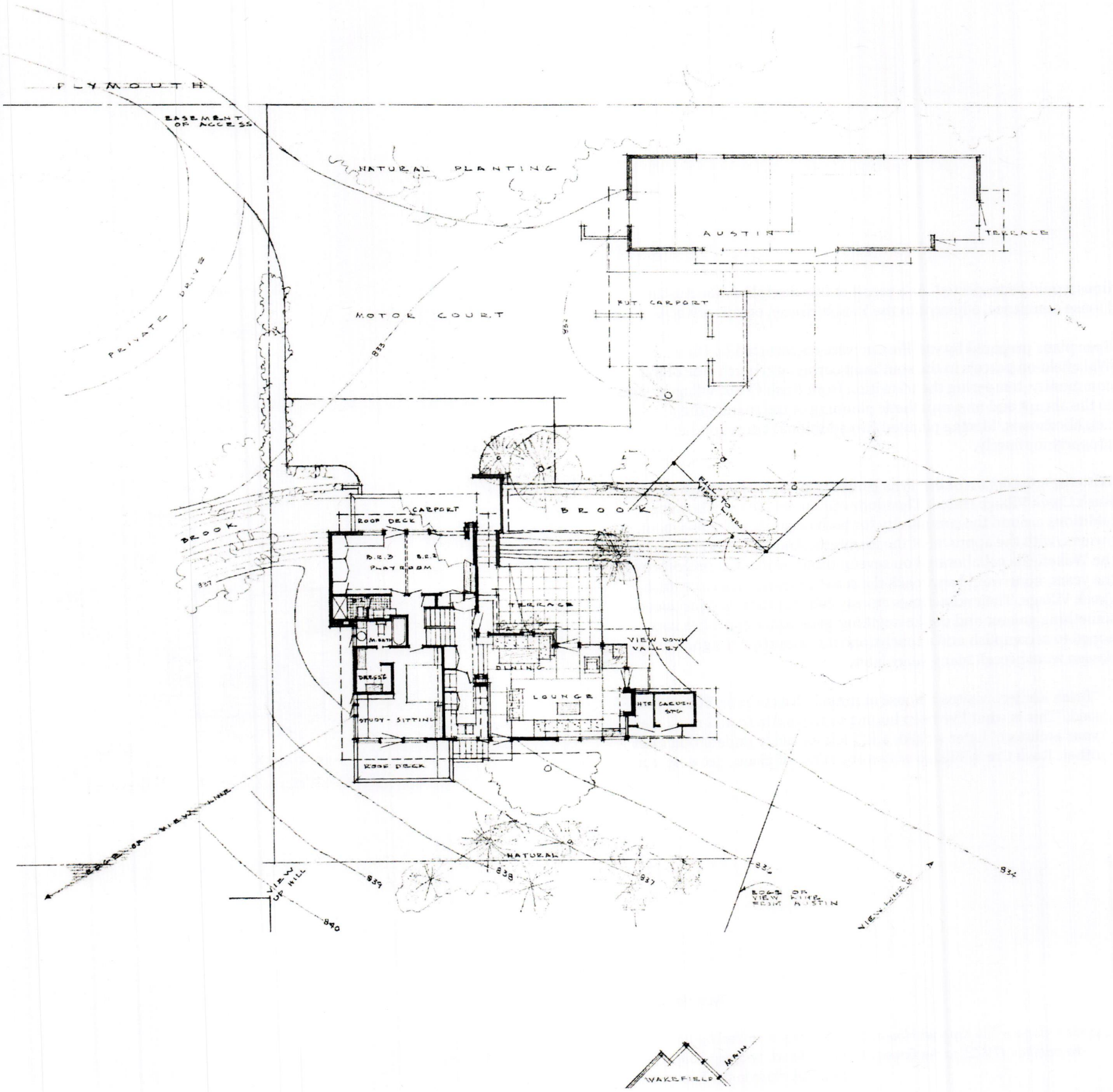
> "I am noticing patterns and details and siting and unfolding of wildlife just three blocks' routine walk from the center of Old Worthington...Ted's slowness in perfecting Rush Creek designs for the original owners was a source of considerable frustration. I am now beginning to appreciate just how painstaking and meticulous every detail of Ted's design is." 30

As the development filled in, lots along its periphery necessarily became smaller. The proximity of the Yurich House to its neighbors is severe for Rush Creek Village and compressed between the Wakefield and Austin Houses, the careful consideration of views and adjacent relationships excercized van Fossen's planning skills more than before. The Austin House, built against the ravine wall a few years earlier, provides definition to the Yurich House as it opens to a creekside patio and into the manicured ravine beyond. Views into the Austin House's living spaces are prevented by plantings as directed on van Fossen's site plan. This relationship was important enough to include the Austin House in the building elevations of the Yurich House's construction documents to guarantee that horizontal datum



Austin House entry

Opposite page > Yurich House site plan indicating Theodore van Fossen's consideration of views and privacy between the neighboring Austin and Wakefield Houses

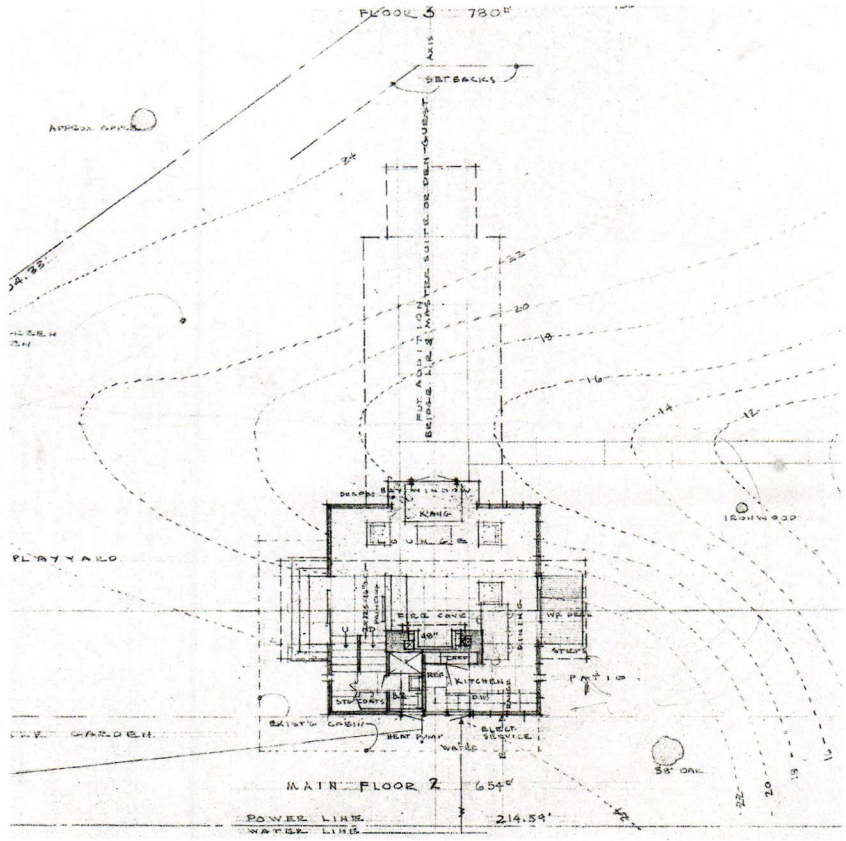

PLYMOUTH
EASEMENT OF ACCESS
NATURAL PLANTING
AUSTIN
TERRACE
PRIVATE DRIVE
MOTOR COURT
FUT. CARPORT
VIEW
BROOK
CARPORT
ROOF DECK
B.R.3
B.R.2
PLAYROOM
TERRACE
VIEW DOWN VALLEY
DINING
LOUNGE
HTR
GARDEN STG
STUDY - SITTING
ROOF DECK
NATURAL
VIEW UP HILL
EDGE OF VIEW LINE
EDGE OF VIEW LINE FROM AUSTIN
VIEW LINE
WAKEFIELD
MAIN

lines would be respected. As a result of this discipline, the Austin House's entrance, adjacent to the Yurich House, enjoys privacy.

Spec plans prepared by van Fossen were constructed by Dick Wakefield on parcels in the southeast corner and north side of the community, tempering the transition from Rush Creek Village proper to the abrupt and unsympathetic planning of the surrounding neighborhoods. Martha planned two additional homes on her property for family.

With the completion of the Tyus House in 1976, major construction at Rush Creek Village ended. Theodore van Fossen designed several additions around the community for both original and subsequent owners, with the approval of the members. And while van Fossen and the Wakefields collaborated on several other residential projects over the years, none would approach the scale and significance of Rush Creek Village. Their sometimes stormy collaboration had produced something greater and unlike anything their contemporaries had hoped to accomplish and a touchstone for American design. As van Fossen would recall many years later,

> "Erich Kahler...visited a house of mine in Rush Creek Village and said, 'This is what I've been hoping to see in America. I must meet your architect.' Later we did, and I felt we really understood each other. Rush Creek Village is a strong sense of place...growing out



Tyus House plan

Opposite page > The Kreager House, completed on a modest budget, was a late addition (1972) to the Eastern Neighborhood, bridging homes along White Oak Place to the Tyus House.


555



of those elements that make America what it is, at its best...enclosing well and encouraging how we really live." 31

In time, the marketplace came to recognize the value of that strong sense of space as well. To the present day, Rush Creek Village homes outperform nearby Worthington's real estate market by as much as 400%. In spite of smaller footprints, their better design, appropriate siting, and careful planning maintain consistent demand for the life that Rush Creek homes provide.

Seeking to formally protect their community, in 2002 members petitioned the US Department of the Interior for Rush Creek Village's inclusion on the National Register of Historic Places as an Historic District. The nomination, supported by the Columbus Landmarks Foundation, cited van Fossen's site planning that "transcended all lot-line conventions...creating a truly organic architecture and landscape architecture, achieving Wright's ideal in a way that the master himself did not." 32

Two final parcels, tucked away in the Eastern Neighborhood adjacent to the Harding Hospital campus, were developed by members in 2010. While the buildings are sited according to van Fossen's master plan and avail themselves of the latest sustainable construction methods, they stand apart from the community and van Fossen's pragmatic humility as a designer. The bottled lightning of the



The integrated siting of each home at Rush Creek can be seen in the relationship between the Coe House, built in 1972 (foreground), and the Wilder House (beyond), designed 15 years earlier. When construction was complete on the Coe House, Theodore van Fossen informed the residents of the Wilder House that the design of their home was, finally, complete. Each home, enjoys privacy in spite of their proximity and lack of a discernible property boundary.

Opposite page > Wakefield House 3

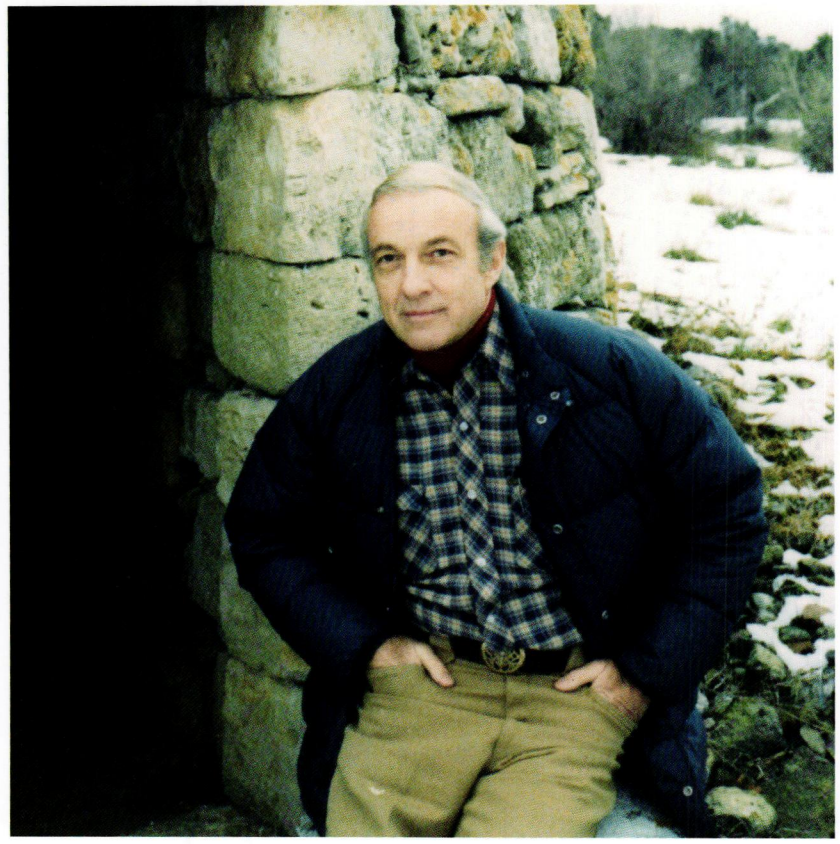
collaboration between Theodore van Fossen and the Wakefields would prove impossible to replicate.

Having completed his master work and weary from the demands of clients, Theodore van Fossen retreated to the quiet anonymity of rural western Pennsylvania where he died in December 2010.

Therefore, the Master acts without doing anything
and teaches without saying anything.

Things arise and he lets them come;
Things disappear and he lets them go.
He has, but doesn't possess,
Acts, but doesn't expect.

When his work is done, he retires.
That is why it lasts forever.
Chapter 2



Theodore van Fossen, *date unknown*

The Wakefields remained in their home at Rush Creek Village. It had been 30 years of relentless motion since they left the Arizona desert charged with a mission from Wright himself. Richard Wakefield passed away in 1998. Martha stayed on in the house she and Dick loved. Stretched out like an empress next to her fireplace, she would hold court for pilgrims and the occasional local interest newspaper reporter, advocating for her project and for organic architecture. She died at home in 2006. Her remains rest with Dick's along the bank of Rush Run; Rush Creek Village is their only monument. It remains the largest development of organic architecture rendered by a single designer. In concert with the natural world, it is also a thriving community, more prepared than others for the uncertain challenges of the 21st Century.

CHAPTER 2 NOTES

1 Martha Wakefield, personal communication with Marcia Rees-Conrad, AIA, July 17, 1996
2 Martha Wakefield, personal communication with Marcia Rees-Conrad, AIA, July 17, 1996
3 Martha Wakefield, personal communication with Marcia Rees-Conrad, AIA, July 17, 1996
4 Martha Wakefield, personal communication with the Author, AIA, February 17, 2003
5 Theodore van Fossen, personal communication with Dorothy Hogan, August 28, 2001
6 Theodore van Fossen, personal communication with the Author, March 24, 2007
7 Theodore van Fossen, personal communication with Dorothy Hogan, August 28, 2001
8 Theodore van Fossen, personal communication with the author, March 24, 2007
9 Elizabeth A.T. Smith, *Case Study Houses,* (Los Angeles: Taschen, 2007), 18
10 Theodore van Fossen, personal communication with the Author, March 24, 2007
11 Theodore van Fossen, personal communication with the Author, March 24, 2007
12 Theodore van Fossen, personal communication with the Author, March 24, 2007
13 Theodore van Fossen, personal communication with the Author, March 24, 2007
14 Martha Wakefield, personal communication with the Author, February 17, 2003
15 Martha Wakefield, personal communication with Marcia Rees-Conrad, AIA, July 17, 1996

16 Martha Wakefield, personal communication with Marcia Rees-Conrad, AIA, July 17, 1996
17 Martha Wakefield, personal communication with Marcia Rees-Conrad, AIA, July 17, 1996
18 Martha Wakefield, personal communication with Marcia Rees-Conrad, AIA, July 17, 1996
19 Theodore van Fossen, personal communication with the author, March 24, 2007
20 Martha Wakefield, personal communication with Dorothy Hogan, November 19, 2002
21 Thomas Fetters, *The Lustron Home: History of a Postwar Prefabricated Housing Experiment*, (Jefferson:McFarland & Co, 2002), 34
22 Thomas Fetters, (2002), 1
23 Ginny McDougle, personal communication with Marcia Rees-Conrad, AIA, June 4, 1996
24 Theodore van Fossen, personal communication with Marcia Rees-Conrad, AIA, August 2, 1996
25 Martha Wakefield, personal communication with Marcia Rees-Conrad, AIA, July 17, 1996
26 Dr. Polly Pepinski, personal communication with Marcia Rees-Conrad, AIA, May 12, 1996
27 Dr. Clark Leavitt, personal communication with the author, November 18, 2008
28 Chris and Stacie Conner, personal communication with the Author, November 18, 2008
29 Martha Wakefield, personal communication with the Author, July 28, 2004
30 Harold E. Pepinsky, personal communication with the Author, August 15, 2014
31 Theodore van Fossen, personal communication with Dorothy Hogan, August 28, 2001
32 *Rush Creek Village Historic District, National Historic Register Nomination*, June 2002

Theodore van Fossen's narratives on the following pages are transcribed by the Author from video footage recorded by Marcia Rees-Conrad, AIA and Cynthia Hayes, AIA on October 6-7, 1996: 57-58, 76-77, 65, 69, 93, 95, 103, 115. Every attempt has been made to faithfully render his words.

Theodore van Fossen's narratives on pages 68 and 75-76 are excerpted from a transcript of his presentation given in 1979 (exact date is unknown), courtesy of the Wakefield Family Archives.

Theodore van Fossen's narratives on pages 39 and 44 are taken from the transcript of an interview with the Author on March 24, 2007.

Martha Wakefield's narrative on page 54 is transcribed by the Author from video footage recorded by Marcia Rees-Conrad, AIA on July 17, 1996.

3 AFFECT

We have to remember that what we observe is not nature herself, but nature exposed to our method of questioning.

Werner Heisenberg

THE BIOPHILIC RESPONSE: THE BRAIN AND NATURE

The natural world, as it is perceived everyday by most, is comprised of plant and animal species co-existing and interacting within terrestrial environments subject to the forces of geology, astronomy, and weather. These entities and forces produce—and are in turn produced by—self-similar patterns in space and time. Such fractal patterns manifest themselves most apparently in plant foliage and the composition of supporting stem and branch growth. 1 Even the subtraction of foliage due to herbivore feeding, pest infestation, or disease follows fractal patterns. 2

Additionally, fissures in rock can frequently take on self-similar characteristics at multiple scales. And time itself, as it's experienced on Earth, is a constant succession of day and night with variations of length cycling through the year.

These exist in near-constant animation as meteorological forces act upon them. Wind sets foliage and clouds into unpredictable motion and the sun casts shadows of self-similar shapes onto others, amplifying their geometries further. Precipitation falls and blows and drifts, providing surface water that migrates to lower levels. Even the Brownian motion of fog in still air reveals action to the quiet observer. There is no corner of Earth too remote, no sun scorched desert, no dark depth of ocean, and no barren ice shelf too inhospitable for



Kytle House

animal life to move about competing for resources. Motion is everywhere. So it's not unreasonable to assert that the human brain, having evolved to its present form in this setting of animated patterns out of focus, should continue evolving toward higher degrees of order within it.

This seems to be the essence of evolution and of life itself. Physicist Erwin Schrodinger asserted in 1944 that the fundamental characteristic of life is the creation of greater order from lower degrees of order in opposition to tendencies of the Second Law of Thermodynamics. Every living organism, he wrote, stays alive by "drawing from its environment negative entropy." 3

In other words, the processes of life must constantly metabolize their environment, extracting order from it to counteract the effects of entropy—the tendency of all systems, pursuant to the Second Law of Thermodynamics, to break down. As long as an organism can draw from its environment negative entropy (order) and utilize it in opposition to the Second Law of Thermodynamics, it remains alive. Quantum Theory is appropriate, even necessary, then, for describing and understanding living systems, including the human brain.

The brain doesn't perceive nature directly, however. From its dark isolation, it relies upon input from the sensory organs and the nervous system to obtain data about the external world. This data is

concerned with geometries, motion, and other conditions that are seen, heard, or otherwise detected by the perceiving apparatus. For the brain, the world as we observe it is simply information to be processed. But the human brain does not passively receive information about the world. Instead, it seeks it out, creating a subjective simulation that is projected onto the world as it is perceived, testing that model through the senses, becoming conscious of its surroundings and, ultimately, of itself. The phenomenon of consciousness is thus "grounded in the permanent trade of the brain... with the outside world." 4

Moreover, the mind—the emergent manifestation of the brain's interaction with the environment --asserts itself on the world. Well known is the downward causal influence of higher emergent (mental) phenomena over lower (neural) entities. In the brain,

> "simpler electric, atomic, molecular, and cellular forces and laws, though still present and operating, have been superseded by the conformational forces of higher-level mechanisms. At the top, in the human brain, these include the powers of perception, cognition, reason, judgment, and the like, the operational causal effects and forces of which are equally or more potent in brain dynamics than are the outclassed inner chemical forces." 5

Beyond curious anecdotes of the placebo effect, clinical research consistently confirms the intuitive notion of mental influence on

physiology, with study in recent years focusing on the natural environment and its effect on human physiology and behavior. Low impact physical activities during exposure to forests and natural environments have been found to be effective in reducing emotional stress and depression and their physiological correlates. 6,7 The symptoms of short attention and antisocial behavior in children and adolescents diagnosed with Attention-Deficit/Hyperactivity Disorder (ADHD) are reduced after nature walks. 8 Even the fundamental biological function of self-repair is promoted by simple visual access to outdoor foliage. 9

More relevant to architecture and design are studies that document the benefits from living close to land reserved for natural settings. Neighborhoods that residents identify as "green" see greater associations with mental health and social coherence. 10 Even in public housing, where the necessities of population density generally eclipse concerns of natural exposure, occupants of units with views of trees have been shown to demonstrate higher levels of attention and less aggressive behavior. 11

In this light, an image of the human being develops as a self-regulating organism having evolved within an observable environment with specific characteristics. The brain, responsible for regulating the human organism's physiology, is undeniably

dependent upon its interaction with that environment, namely the geometries and processes of nature. In 1984, Edward O. Wilson coined the term Biophilia, which he defined as the tendencies for humans to derive benefit from interaction with other species. Wilson declared:

> "The brain is prone to weave the mind from the evidences of life, not merely the minimal contact required to exist, but a luxuriance and excess spilling into virtually everything we do...lawn grass, potted plants, caged parakeets, puppies, and rubber snakes are not enough." 12

Since then, anthropologists, biologists, environmental psychologists, and architects have scrabbled about attempting to make sense within a clinical context of what seemed intuitive to the Taoists, those 19th Century Transcendentalists, and Wright: that human beings benefit from, and even require, abundant interaction with nature. At long last, science appears to have caught up with the poetry.

Almost. Conventional models of brain function presently constitute a piecemeal assortment of research pursued by several disciplines, often at odds with one another. Biochemistry, physiology, molecular biology, and behavioral psychology have failed thus far to present a coherent, unified model of the brain. Problematically, these disciplines have been focused on the thermally disordered behaviors of living organisms and their seemingly disparate systems 13 and

cannot account for what is now broadly accepted regarding the interconnectivity between humanity and the rest of the natural world.

A dual system model, however, advanced by Hiroomi Umezawa, Mari Jibu, Kunio Yasue, and others, develops more comprehensive description of how the brain interacts with the world and holds promise for understanding exactly how the natural environment effects the human organism. Expanding Schrodinger's exploration at mid-century, this model of the human brain consists of tissue containing two interrelated structures: the classical system, the familiar biomolecular structure of transmembrane ionic diffusions (macroscopic neuron-synapse networks); and a quantum system of phase transition dynamics of molecular vibration fields of biomolecules and water molecules. Interacting within this second system are corticons, the quanta of biomolecular vibration fields, and exchange bosons, the quanta of vibration fields of water molecules. 14

If quantum theory is applicable to consciousness, there must be biological structures in the brain that can accommodate quantum coherence that would correlate with states of consciousness. This phenomenon seems only possible in the assemblies of tubelin proteins found in the neural cytoskeleton that regulate neural connectivity and synaptic operation.

According to the Orchestrated Objective Reduction (OrchOR) model

proposed by Sir Roger Penrose and Dr. Stuart Hameroff M.D., it is inside these cylindrical 25 nanometer-diameter structures, called microtubules, that sub-neuronal information processing occurs and the highly coherent properties of water molecules in the neural cytoplasm manifest themselves, isolated from background quantum decoherence. 15

As neurons fire in response to external sensory stimulation, cytoplasmic water within microtubules, initiated by actin polymerization, rapidly alternates between fluid and highly organized gel states. In this gel state, quantized electromagnetic fields are propagated and exchange bosons demonstrate collective dynamics Jibu and Hameroff call superradiance. 16 These ongoing, synchronized quantum events occur at a rate of 40 times per second (detected as EEG gamma/40 Hz) and give rise to the perception of a stream of consciousness and the experience of *qualia*, the engagement with spacetime.

NEURODYNAMICS OF THE BIOPHILIC EFFECT

A structural explanation for the Biophilic Effect can now be advanced in which sensory stimulation data is conveyed via the central nervous system to the classical neuron-synapse neurotransmitter system of the brain. From the model propounded by Jibu and Yasue, the volume of data derived from the body's environment (through the sensory apparatus) prompts a phase transition from the less ordered classical system to a state of higher order within the quantum dynamic system. This energy-induced vacuum phase transition (asymmetries in the ground state) constitutes long-term memory. Memory stored in this fashion is recalled by transforming external stimuli similar to original data into coherent energy inputs through the classical system-induced coherent wave propagation. Jibu and Yasue identify this coherent wave quanta as a Goldstone boson and in this model it produces a coherent dynamic effect within the classical dynamic system as coherent output. 17 Measured as electroencephalographic waves, it is this output that regulates the body's various systems.

Put more simply, the brain receives sensory stimulation from the outside world via sensory organs and the nervous system. In processing this data, sensory signals travel across synapses between dendrites. Within individual neurons, cytoplasm within microtubules oscillates in response to this electrical activity between liquid and gel



Wakefield House 3

states. The oscillation propagates the quantum phenomena that regulate physiology.

In the constructed Modern world, however, complex, orderly natural geometries have been supplanted by "landscapes of fear and the topography of despair." [18] In cities, humans find themselves in a riptide of disorganized form, erratic motion, and abrupt sound that demands immediate attention as it constantly induces the defensive reflex. Protecting the brain from information too intense to permit natural function, the central nervous system inhibits data flow to the cortex, instead routing it to premotor regions of the brain for somatic reactionary response. This is the reflex arc that generates the startled leap at the sudden screech of tires on asphalt and prevents the cortex from processing the sensory data collected within the dense urban fabric.

As offensive as congested city streets may be, the population of the developed world spends 90% of its time indoors, [19] in classrooms and office surroundings less geometrically complex than the natural environment by several orders of magnitude. These settings are unable to provide the cortex adequate neurological stimulation. Such "colorless, drab, minimalist surfaces and spaces reproduce clinical symptoms of macular degeneration, stroke, cerebral achromatopsia, and visual agnosia." [20]

It is not hyperbole to state that in this environment of Modernity's "raging capitalism and urban alienation" 21 the human brain is starving for ordered information.

The brain exists to process data. It requires "an engagement with information and its organization." 22 Deprived of adequate natural neurological stimulation and the sense of well-being it delivers, though, Moderns have pursued artificial means at great cost. The cumulative strain of surviving in the urban context constantly threatens self-identity as "the qualitative aspects of life are transformed quantitatively." 23 "This leads ultimately to the strangest eccentricities, to specifically metropolitan extravagances of self-distantiation, of caprice, of fastidiousness, the meaning of which is not longer to be found in the content of such activity itself but rather in the form of 'being different' - of making oneself noticeable." 24

The demand for veneer individuality drives increasingly specialized offerings in competition for consumer attention in the marketplace, which in turn accelerates contemporary consumer culture which now threatens human survival through habitat destruction, the toxins of overproduction, and the detritus of overconsumption. The steadily diminishing novelty of an increasing volume of acquired accessories never satisfies; there is never enough of anything to buy that can maintain the excitement.

The search for biochemical relief has led to an epidemic of legalized psychotropic substance abuse: from 1999 to 2002 antidepressant prescriptions increased threefold in the United States alone. [25] This trend shows no indication of abating, as Americans made 169.9 million antidepressant purchases in 2005, nearly 16 million more than in 2002. [26]

From 2005 to 2008, ten percent of Americans over age 12 were using antidepressants, with fourteen percent of them using the drugs for more than ten years. [27] The Modern world is not a happy place.

Recently, architects and designers have been inspired to prescribe their own remedies. Some have lamented the abandonment of ornament in building design during the last century while sounding the call for its reintroduction, [28] but even if it were possible to replicate the geometric complexities observed in nature for ornamentation, the methods employed would surely prove a prohibitive expenditure of time, energy, and resources. Further, architectural ornament is stationary, where the natural environment is anything but. As the physical sciences have discovered, nature as it is experienced is an abstraction; [29] ornament, as an abstraction of the abstraction, is a unsuitable substitution for this purpose. Special consideration of religious architecture has even been suggested for designers who wish to accommodate transcendent experiences. [30]

Historically, however, archetypal transcendent experiences have taken place far from social and physical construction: Moses received his transformative vision on Mt. Sinai, Prince Siddhartha Gautama attained enlightenment under a hilltop tree, Jesus of Nazareth surmounted the limitations of self in the unsettled hinterlands of Roman-occupied First Century Judea, and Muhammed experienced divinity meditating in a remote cave in the desert. Temples, shrines, and altars have traditionally facilitated the shared rituals that commemorate such events, but are designed to strictly regulate observation and response.

The *natural world* is the setting for these experiences that expand the sense of self beyond the individual.

Opposite page > Pepinsky House



The answer then, it would seem, is an architecture with sufficient visual access to site and its neurologically nourishing natural geometries and processes. At the same time, provisions must be made for the psychological comfort of the observer. These were the fundamental Wrightian precepts of space planning ("assertion and repose") and were more completely executed at Rush Creek Village than anywhere else.

Wright's great innovation, the articulation of interior space as a composition of interpenetrating positive forms, experienced in constant transition, interacts with the building occupant by stimulating the orienting reflex. This nonspecific reflex is initiated by the qualitative changes in the array of stimuli received regarding the occupant's relative position within these spaces. Stated another way, the orienting reflex is evoked when the subjective simulation that the brain projects onto its surroundings in incongruent with sensory information it receives. Over time, the orienting reflex is diminished by repeated presentation of the stimuli as the brain's simulation is adequately updated to reflect the consistency of new data from the sensory organs. Wright's other innovation, the dematerialization of the building envelope to expose interior space to the exterior, provides constant variation in the light and shadows that play upon the surfaces of the interior as well as views of the natural world's



Yurich House

fractal geometries, always in motion and capable of further inspection to reveal consistently complex forms. This prevents habituation of the orienting reflex and increases sensitivity to these stimuli. Conscious awareness of these stimuli only occurs when the intensity of activity presents itself over a certain threshold, but whether or not the building occupant is conscious of these changes, the cortex processes all of this data. 31

Employing these tools to a greater degree, every window or glazed wall at Rush Creek provides a glimpse of at least one of the neighboring homes. More often, two are visible in addition to the eave over the viewing aperture. Theodore van Fossen aligns the sweeping overhangs and fasciae in elevation to subtly define exterior overhead planes. More than a simple concern for privacy, views into adjacent houses are prevented by skillful planning, making them sculptural objects in the landscape that provide further definition to these shared exterior zones.

Herein lies Theodore van Fossen's genius: the entirety of Rush Creek Village is an enormous composition of interpenetrating spaces of varying degrees of enclosure (as dictated by programmed use). When Rush Creek members gaze out of their homes, projecting their consciousness into the natural setting, there is a place thoughtfully prepared for them to occupy. The neurologically rich natural geometries and processes there can be understood within a carefully

THE BIOPHILIC EFFECT

A QUANTUM NEURODYNAMIC MODEL

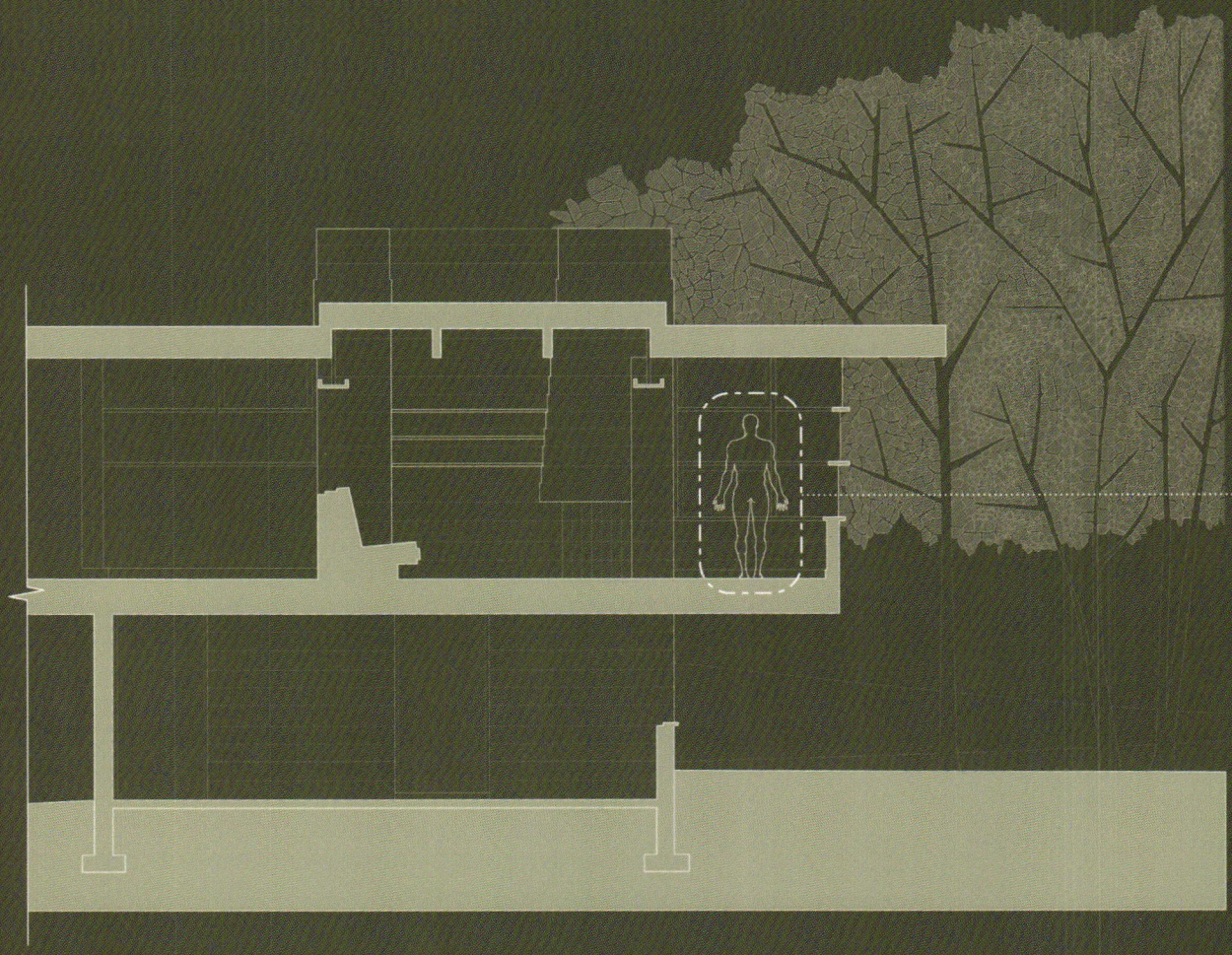


Fig. 1 > The appropriately designed building (in this instance, the Kytle House) affords its occupant ample exposure to the self-similar geometries and processes of the natural environment, while, at the same time, providing a sufficent degree of enclosure to comforfortably observe them.

Theodore van Fossen:
"One of the things I learned from Hollywood architects who did European modern architecture was that the house would be on top of a hill over Beverly Hills and have glass all the way around and the client would live there with the curtains drawn. That very much impressed upon me that you couldn't just apply a standard design to anything. And I was aware from Wright and from my own designs, that if you had glass in great view that you needed a cove to retreat to, to stay in and enjoy the great view."
(Interview, A pril 2008)

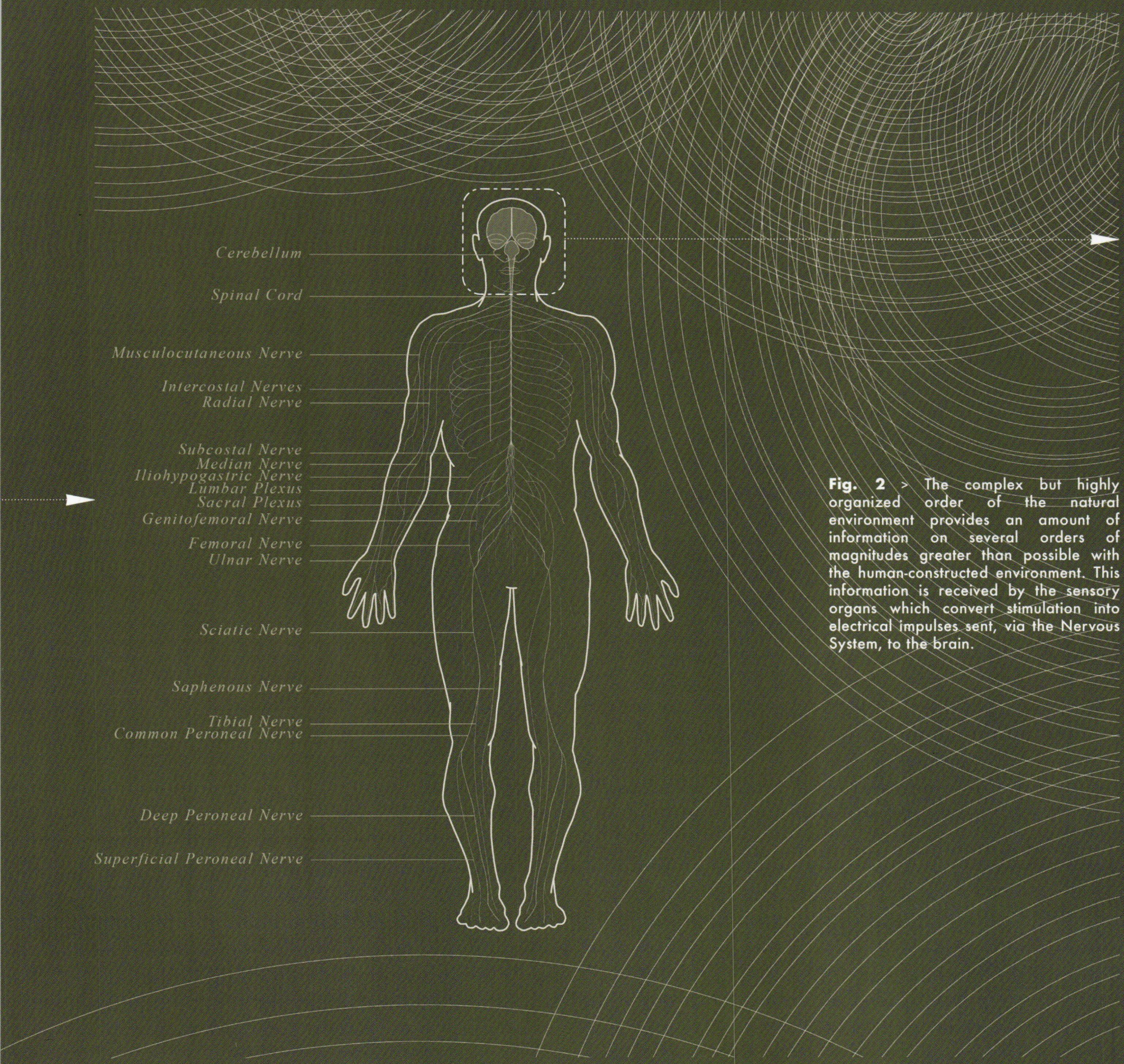


Fig. 2 > The complex but highly organized order of the natural environment provides an amount of information on several orders of magnitudes greater than possible with the human-constructed environment. This information is received by the sensory organs which convert stimulation into electrical impulses sent, via the Nervous System, to the brain.

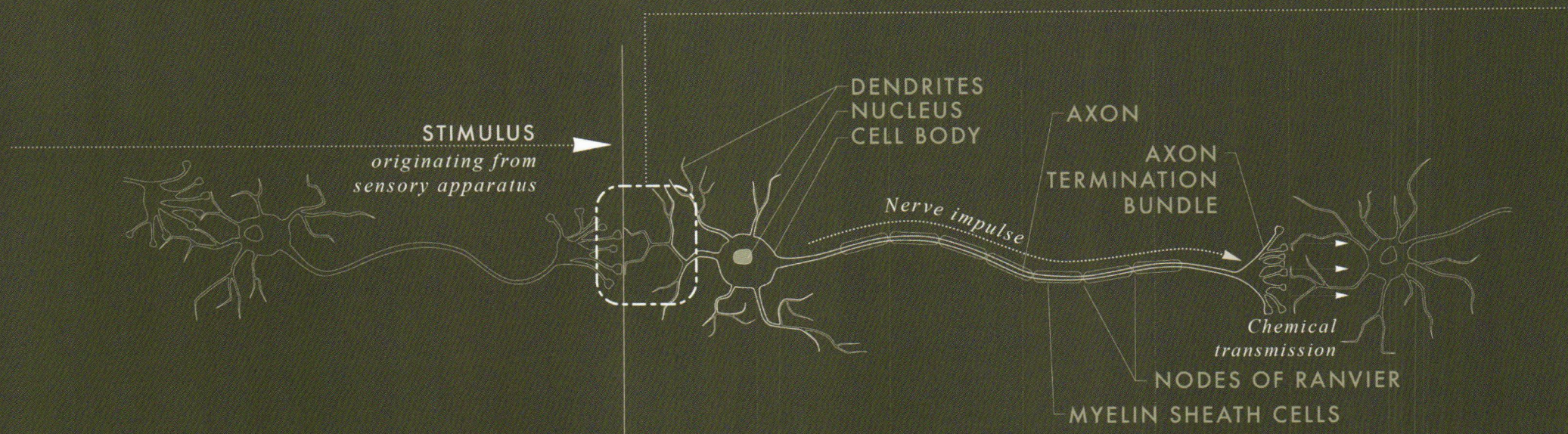
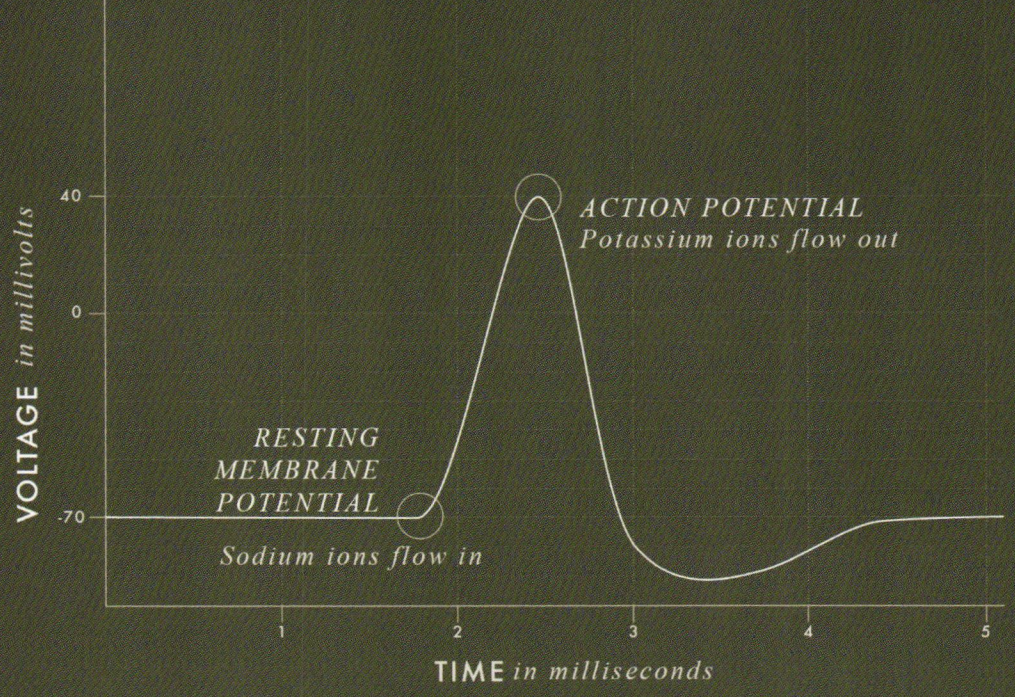
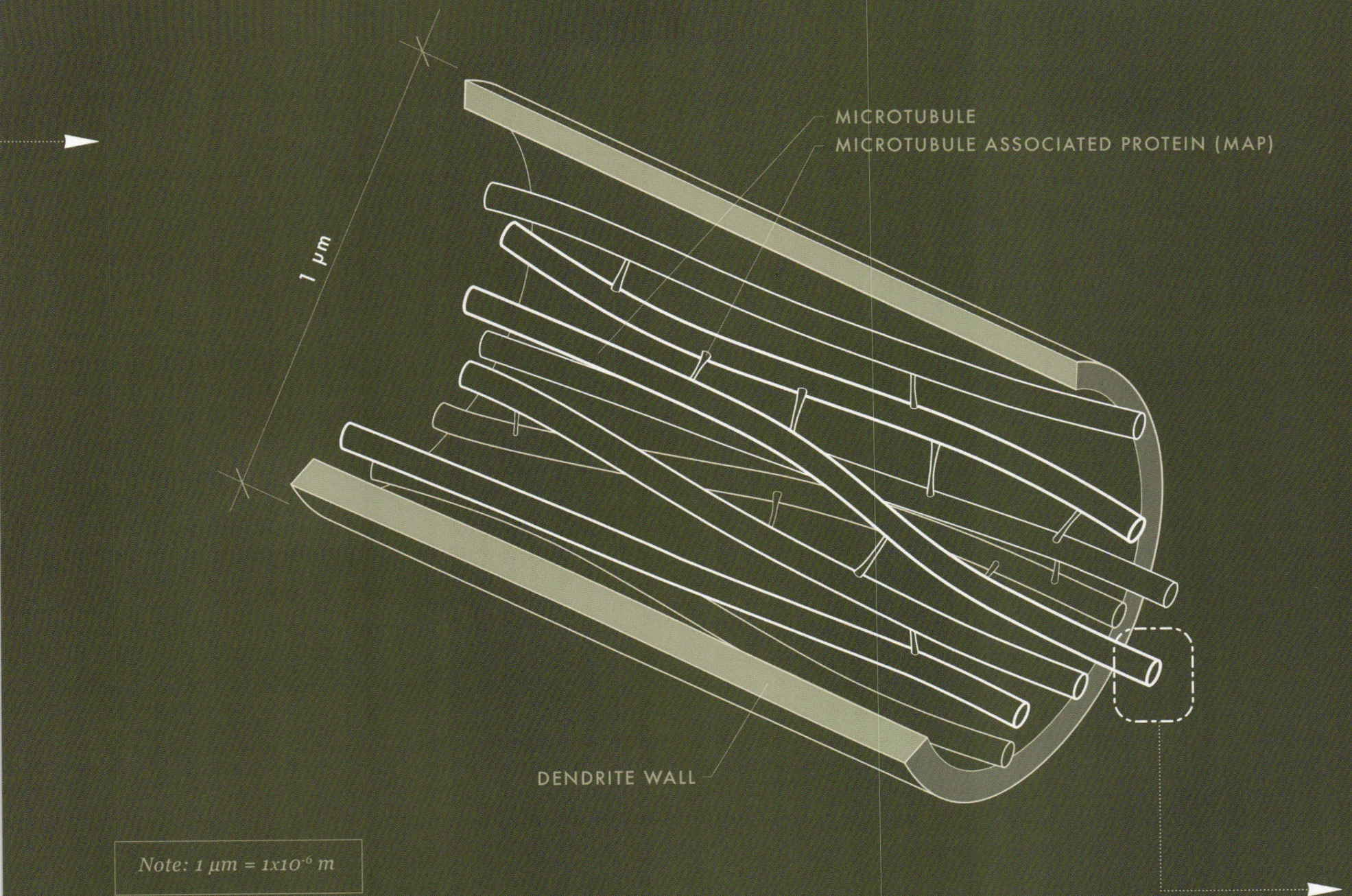


Fig. 3 > As the brain processes the incoming data, sensory signals travel across synapses between neuronal dendrites.



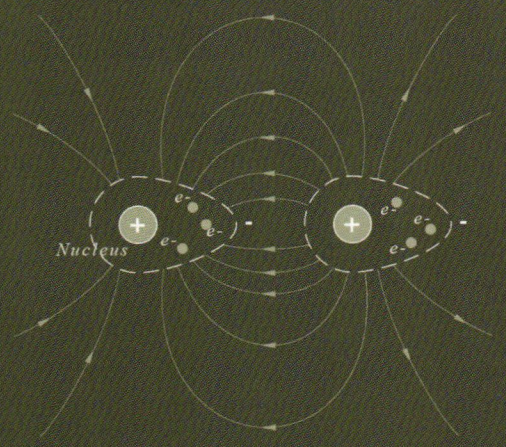
From Hammeroff: The synapses between neurons is small enough to permit the coherent oscillation of dipolar molecules (see Fig. 7) in one neuron to "tunnel" across the gap into adjacent neurons. This permits quantum activity to extend across the brain and is the source of 40 Hz oscillations that correlates with consciousness, measured as 40 Hz Gamma.



Note: 1 μm = 1x10^{-6} m

Fig. 4 > Within neural dendrites in the brain, microtubles carry on information processing (Hammeroff and Penrose).

Note: Microtubules in neuronal dendrites are uniquely organized in mixed-polarity networks of short, stabilized microtubules, whereas axonal microtubules extend continuously in unipolar bundles. The functional ramifications of this difference is unknown.



THE LONDON DISPERSION FORCE -- the weakest intermolecular force -- is a temporary attractive force that results when the arrangement of electrons in two adjacent atoms form temporary dipoles (equal and oppositely charged or magnetized poles separated by a distance).

A QUBIT, or "quantum bit," is a quantum analogue of the classical bit. However, where a bit has two possible states typically thought of as 0 and 1 (or any other binary choice), the qubit can also be a superposition of both.

Multiple qubits can exhibit quantum entanglement. This non-local phenomenon can prevent quantum decoherence.

$$|\alpha|^2 + |\beta|^2 = 1$$

where α and β are probability amplitudes

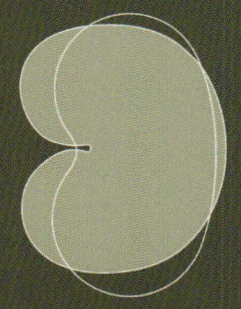
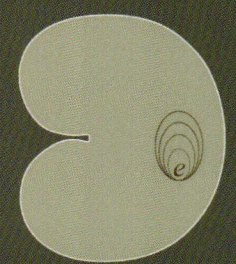
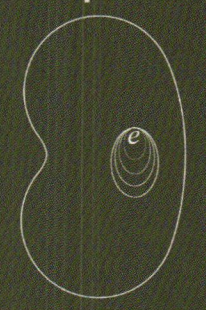


Fig. 6 > ORCHESTRATED OBJECTIVE REDUCTION (ORCH OR)
Each dimer consists of two individual protein monomers which act as a quantum computing **qubit**, oscillating between states in quantum superposition, governed by **London forces** in hydrophobic voids inside. This phenomenon prompts the cytoplasm within microtubules to alternate between fluid and gel.

ALPHA TUBELIN PROTEIN MONOMER
α



BETA TUBELIN PROTEIN MONOMER
β



Note: 1 nm = 1x10^{-9} m

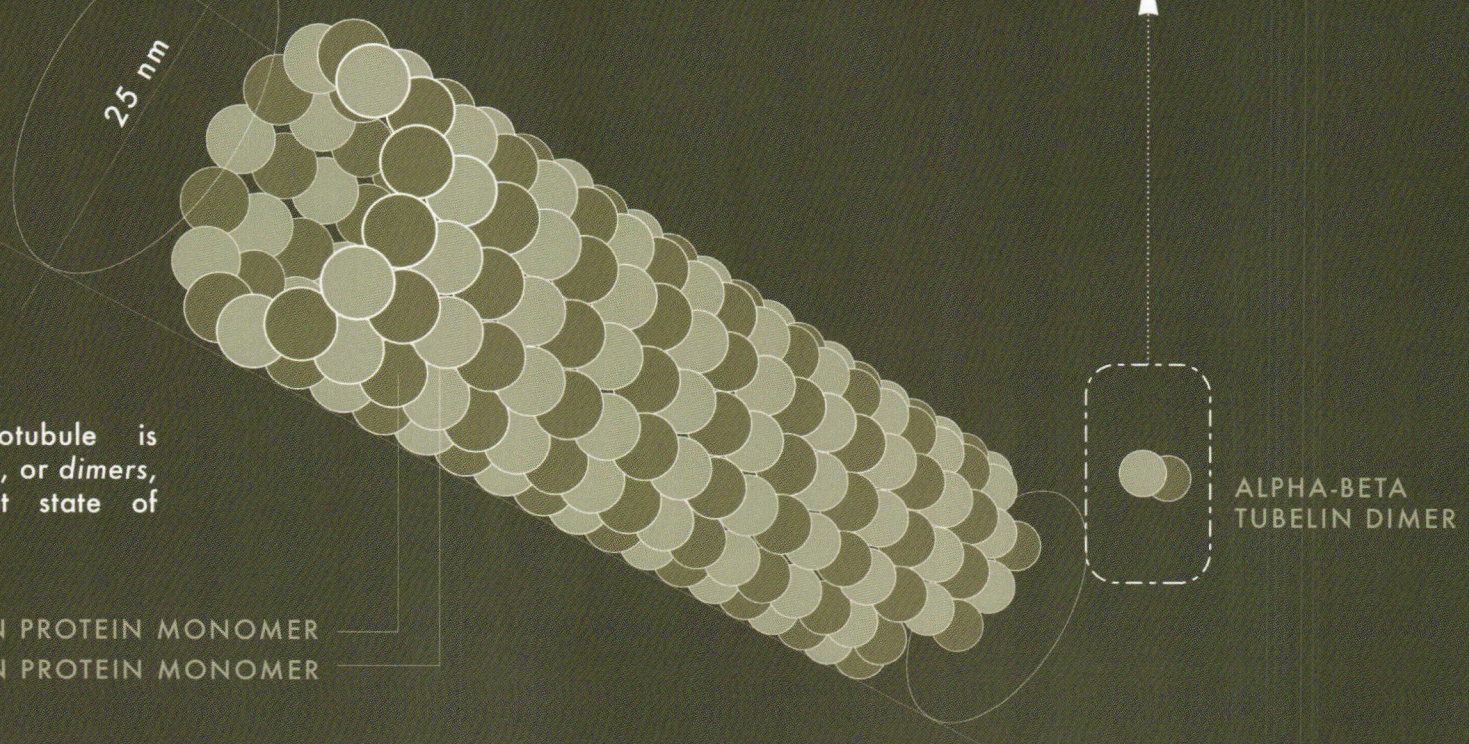


Fig. 5 > Each microtubule is constructed of protein pairs, or *dimers*, that exist in a constant state of assembly and re-assembly.

ALPHA TUBELIN PROTEIN MONOMER
BETA TUBELIN PROTEIN MONOMER

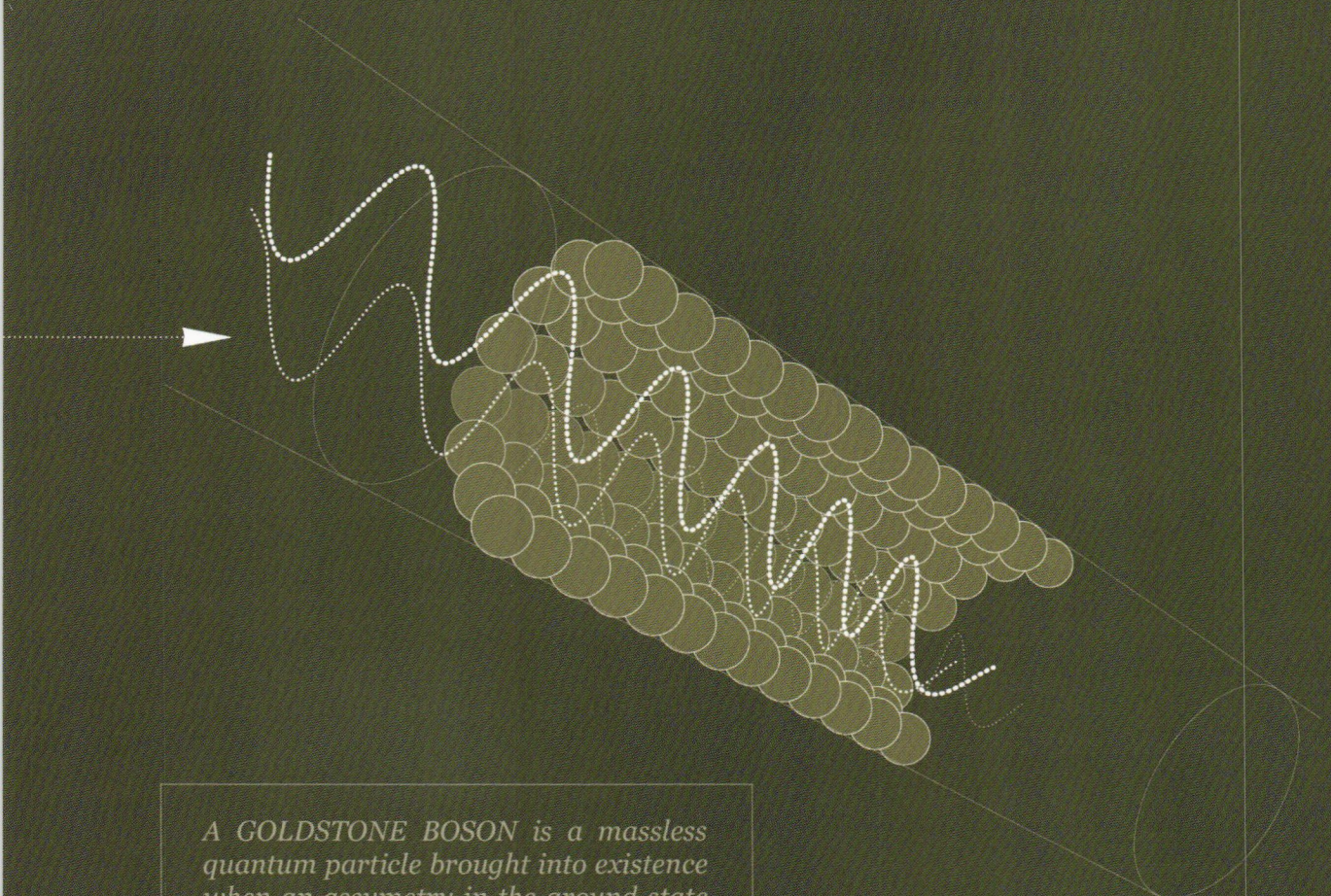


Fig. 7 > These alternating states of the cytoplasm propogate quantized electrical fields and exchange bosons demonstrate collective dynamics, or *superradiance*, and give rise to consciousness.

According to Penrose, the greater the mass-energy of the object, the faster it undergoes Objective Reduction (OR). Atomic-level superpositions would require 10 million years to reach OR threshold, while an isolated 1 kg object would reach OR threshold in 10–37 seconds. Objects between these two extremes could collapse on a timescale relevant to neural processing.

A GOLDSTONE BOSON is a massless quantum particle brought into existence when an assymetry in the ground state (ripples in spacetime geometry) is created by a change in the state of matter, in this instance, the ongoing rapid fluxuations between liquid and gel of nueral cytoplasm during the Orch OR process.

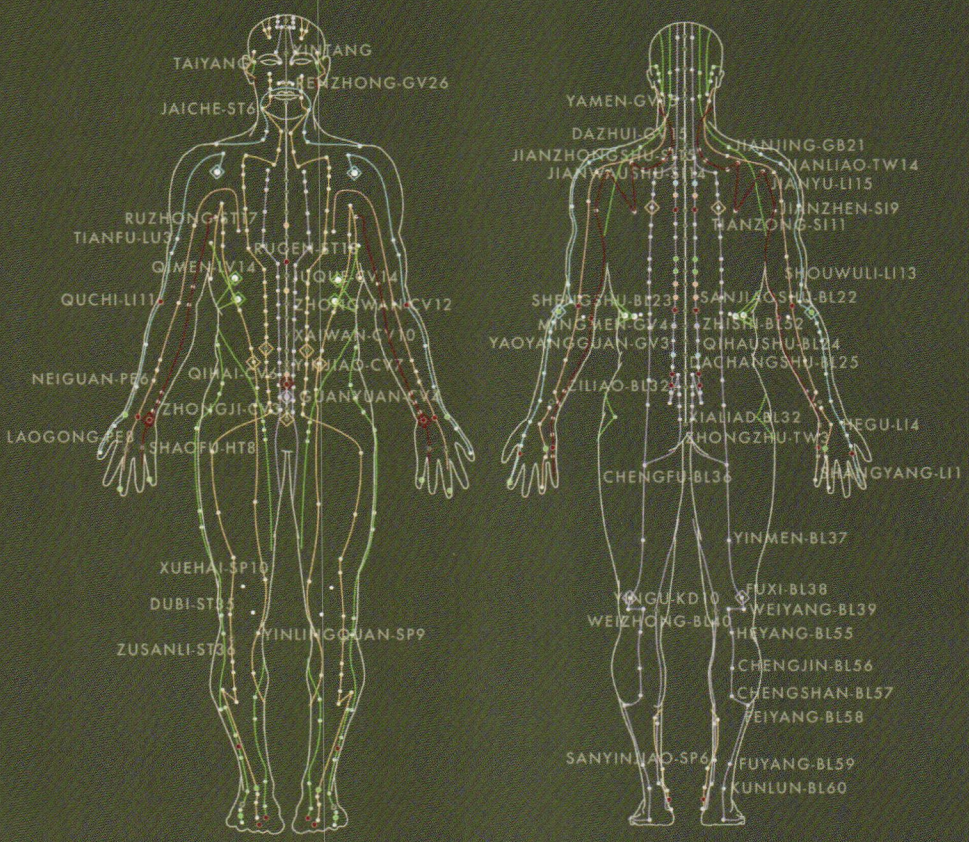


Fig. 8 > This coherent wave quanta, deemed a Goldstone boson by Jibu and Yasue, is measured as electroencephalographic waves. Quanta "tunnel" across neuron synapses throughout the Nervous System. Jibu and Yasue believe that this is the *chi* energy detected along the meridians of traditional Chinese and Japanese medical practice that regulates physiological function.

crafted context that invites their attention. This simultaneity in the occupation of both the spaces under the protective shelter of roof and the spaces implied between them is what makes Rush Creek Village a powerfully affective environment.

It is while they are projected into these spaces that the Rush Creek members are inundated with the quantity and quality of sensory information they require. Sufficient firings within the neural networks of the cortex induce superradiance within cytoskeletal microtubules, which propagate highly coherent Goldstone boson exchange throughout the central nervous system. This accounts for the proper regulation of physiological processes—the Biophilic Effect—reported by residents at Rush Creek Village. Martha Wakefield would be pleased (and no doubt claim to be unsurprised) to learn that Jibu and Yasue have marveled that this current of Goldstone bosons throughout the nervous system is congruent with the model of *chi*, the regulating energy of living systems in traditional Chinese medicine. 32

The revelation isn't that Rush Creek Village is doing something extra to its residents to produce these effects, it's that the conventional buildings outside Rush Creek are denying them to their occupants. (Hence, Martha's keen observations regarding claustrophobia and agoraphobia.)

The projection that actualizes the world is hardly cast upon it coldly,

but rather imbued with meanings and the essences of the observer's own humanity. [33] This projective proclivity tests for truth and reflects the observer's innermost desire to relate and belong. This is especially true for dwelling space, what Baschelard calls "our first universe" and further declares, "inhabited space transcends geometric space." [34]

The natural world is not objectively observed at Rush Creek (as the Modernity would have it), but on a level of intimate personal engagement that affects the observer and actualizes the world for each individual. This provides the foundation for the empathic response. Empathy is the very transcendence of individual identity, surpassing the perceived division between the self and the "world out there." [35] The rest of the universe becomes included in Baschelard's first universe.

Therein lies the most applicable lesson to be learned at Rush Creek Village for contemporary designers and planners concerned with environmental stewardship. If there is to be a genuine cultural shift in the United States to a truly ecologically sustainable ethic, it will not be because of negotiated design and construction standards enforced by remote organizations. Rather, it will have to come about through individual decisions informed by an awareness of just how much entropy is created within the environment to sustain the building occupant's life. Empathy is the fulcrum about which those decisions will be made. An architecture that fosters that entangled

interrelationship will trigger such a shift.

The architecture at Rush Creek teases friction against gravity and other forces of entropy, temporarily suspending materials to create a localized context within the larger construct of spacetime that produces these poetically non-local effects. The materials—brick, block, wood, and glass—are really, upon closer and closer examination, the momentary manifestations of colliding fields of energy employed to provide this context. Subatomic particles wink in and out of existence just long enough to participate in the molecules that are assembled through the execution of human intention.

It was Martha Wakefield's and Theodore van Fossen's combined will (sometimes at odds) that submicroscopic chaos yields to greater degrees of order as it seems to exist at Rush Creek. But to dwell too long on the appearance of the homes as objects to be admired or coveted risks becoming lost in *maya*, the illusion that our experiences reflect a singular, immutable reality that can be seized for oneself or captured by camera. Instead, the structures of Rush Creek Village are best understood as they were intended: a complex composition of interlocking spaces *(non-being)* from which observations of nature are comfortably made by participants in a processes of common understanding (*being*).

Inevitably, someday, Rush Creek Village will succumb to the forces of

entropy, fall into ruin, and disintegrate when the structures can no longer be maintained by humans. The grass and trees, insects and birds, the freeze and thaw of the Olentangy River Valley will reclaim their meadows and hillsides. The stories of Rush Creek--the memories of lives pursued among the architecture--written by humans to the foundation of the universe itself, will be all that remain. Because nothing lasts, the point of all that work must be the stories. And the main theme of Rush Creek Village's stories is inclusion, made possible through empathy.

To fully appreciate Rush Creek is to look beyond its materials altogether and focus, instead, on the space flowing around the masonry and wood assemblies and into the surrounding natural geometries and rhythms. Within this arrangement of intervals, graduated from cozy and human to the scale of trees and hillsides and the vast expanses of the sky, are the geometries and processes of spacetime.

That's where the members of Rush Creek Village truly reside, both physically and phenomenally, fully included in the universe around them.

CHAPTER 3 NOTES

1 In most instances, natural fractals tend to be *discrete*, that is, self-similar patterns that only replicate themselves to a limited degree. It is interesting to note that the scale of replication is generally limited to that which can be detected by the unaided eye, suggesting a curious relationship between these species' geometries and evolution of the human eye which in turn influence the brain and it's tendencies.

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Sperry goes into detail to describe this hierarchy:

"...recall that a molecule in many respects is the master of its inner atoms and electrons. The latter are hauled and forced about in chemical interactions by the overall configurational properties of the whole molecule. At the same time, if our given molecule is itself part of a single-celled organism such as paramecium, it in turn is obliged, with all its parts and its partners, to follow along a trail of events in time and space determined largely by the extrinsic overall dynamics of *Paramecium caudatum*."

6 *Ecotherapy: The Green Agenda for Mental Health*, National Association of Mental Health (Mind), (2007)

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13 Mari Jibu and Kunio Yasue, "The Basics of Quantum Brain Dynamics." In K. Pribram (Ed.) *Rethinking Neural Networks: Quantum Fields and Biological Data*, 124

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19 U.S. Environmental Protection Agency, Office of Air and Radiation. *Report to Congress on Indoor Air Quality, Volume II: Assessment and Control of Indoor Air Pollution.* (1989)

20 N. Salingaros, and K.G. Masden, "Neuroscience, the Natural Environment, and Building Design" in *Biophilic Design: The Theory, Science, and Practice of Bringing Buildings to Life*, ed. S.R. Kellert, M. Mador, J. Heerwagen, (New York:John Wiley, 2008), 64

21 Pierluigi Serraino, (2006), 191

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> Popper discusses the "metaphysical picture of the world" conveyed in Heisenberg's Uncertainty Principal, concluding that "The thing in itself is unknowable: we can only know its appearances which are to be understood (as pointed out by Kant) as resulting from the thing in itself, and from our own perceiving apparatus. Thus the appearances result from a kind of interaction between the things in themselves and ourselves. That is why one thing may appear to us in different forms, according to our different ways of perceiving it--of observing it, and of interacting with it. We try to catch, as it were, the thing in itself, but we never succeed: we only find appearances in our traps."

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85 Tom Hogan
86 Tom Hogan
87 *Image courtesy of Wakefield Family Archives*
88 *Image courtesy of Wakefield Family Archives*
89 Tom Hogan
90 Tom Hogan
91 *Image courtesy of Wakefield Family Archives*
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96 Brent Turner
97 Tom Hogan
98 Paul Ringstrom
99 Addison Godel
100 *Image courtesy of the Wakefield Family Archives*
101 top, bottom Tom Hogan
102 left, right Tom Hogan
103 Tom Hogan
104 Tom Hogan
105 Brent Turner
106 *Image courtesy of the Wakefield Family Archives*
108 Tom Hogan
109 Robert Gunning
110 Robert Gunning
111 *Image courtesy of the Worthington Historical Society*
112 Brent Turner
113 Tom Hogan
114 top, bottom Tom Hogan
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120 Addison Godel
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Back Cover *Photograph by the Author*

APPENDIX

ARTICLES OF INCORPORATION
RUSH CREEK VILLAGE COMPANY

The undersigned, a majority of whom are citizens of The United States, desiring to form a corporation not for profit, under the General Incorporation Law of Ohio, do hereby certify:

FIRST. The name of said Corporation shall be Rush Creek Village Company.

SECOND. The principal office of the Corporation is to be located in Worthington, Franklin County, Ohio.

THIRD. The Corporation is formed for the following purposes:

To promote, conserve, and maintain the health, safety, welfare, comfort, convenience and enjoyment of home owners and residents of Rush Creek Village in the Southeast corner of the Village of Worthington, Ohio, and the lands adjacent thereto.
To acquire, hold, convey, lease, mortgage or otherwise dispose of all forms of property, whether real or personal, and to insert in all instruments of acquisition or alienation such terms, conditions, covenants, charges, restrictions or regulations as it may deem appropriate.

To fix and provide the terms, conditions, covenants, charges, restrictions and regulations upon, under, and subject to which any real property acquired by the Corporation in said vicinity shall be so acquired, held, used, possessed, occupied or disposed of, and to alter, amend, change, add to, extend, waive, or terminate in whole or in part, any such terms, conditions, covenants, charges and regulations.

To perform and carry out, but without any purpose of profit, all of the foregoing acts and purposes and all other acts which are necessary, expedient, incidental or appropriate thereto and all acts within and without this State not repugnant to law.
To provide, improve and maintain such roads, parks, reserves, conveniences and utilities as may be desired by the residents of said area.

To change, substantially or otherwise, any or all of the foregoing purposes.

FOURTH. The following persons shall serve said Corporation as Trustees until the first Annual Meeting or other meeting called to elect Trustees.

Sidney Chafertz, 205 Fourteenth Avenue, Columbus, Ohio
Sam J. Shingledecker, 600 Wedgewood Drive, Columbus, Ohio
Arthur Tye, 131 West Lane Avenue, Columbus, Ohio

IN WITNESS WHEREOF, we have hereunto subscribed our names this 14th day of December, 1954.

/s/ Sidney Chafertz
/s/ Sam J. Singledecker
/s/ Arthur Tye

CODE OF REGULATIONS
THE RUSH CREEK VILLAGE COMPANY

Article I
Meetings of Members
The Annual Meeting of the members for the election of Trustees and the transaction of other business shall be held at the office or the Corporation in Worthington, Ohio, and a Sunday in March or April in each year.

Special meetings may be held at such times and places as may be ordered by the Board of Trustees, or by a special call specifying the purpose of the meeting and signed by at least five members.

Notice of meetings shall be given as provided by law by the Secretary, or in his absence by the President, at least ten days prior to the date of such meeting by mailing the same to the address of such member. Notice of regular, annual or special meetings, may be waived in writing by any member, before, at, or after such meeting.

Article II
Quorum
At all meetings, a majority of all dues paying members, as defined in Article VIII, shall constitute a quorum for the transaction of business.

Article III
Board of Trustees
The corporate powers, property, and affairs of the corporation shall be exercised, conducted and controlled by the Board of Trustees, consisting of seven members, each of whom shall be a member of the corporation.

The election of the Trustees shall take place at the Annual Meeting of the members, or at any special meeting called for the purpose, and shall be by ballot. Trustees shall be elected for a term of three years and shall continue in office until their successors are elected and qualified, except one member of the Board of Trustees elected at the organizing meeting of the Corporation shall be elected for the term of one year, one such member shall be elected for a term of two years, one such member shall be elected for a term of three years and one such member shall be elected for a term of four years. The other member so elected shall be elected for a full term of five years and thereafter all elections shall be for a full term of five years except that, in the event of a vacancy, a special meeting of the members shall be called and held and a successor elected for the unexpired term.

Article IV
Officers, Term and Compensation
The officers of the Corporation who shall be elected by the Trustees, shall be a President, Vice-President, Secretary and Treasurer. They shall be members of the Corporation in good standing. Such officers shall be elected for one year and shall serve until their successors are elected and qualified.

The offices of Secretary and Treasurer may be held by one and the same person.

No officer or Trustee shall receive any compensation for services rendered to the Corporation as such.

Article V
Duties of the President and Vice-President
It shall be the duty of the President to preside at all meetings of the members and Trustees, to attest the correctness of the records thereof and in general to perform all the duties usually incident to such office, or which may be required by the members or Trustees.

It shall be the duty of the Vice-President to perform all the duties of the President in the event of the latter's absence or disability.

Article VI
Duties of Secretary
It shall be the duty of the Secretary to keep an accurate record of the Acts and Proceedings of the members and Trustees, to give all notices required by law and by the members and Trustees and in general to perform all the duties usually incident to such office.

Article VII
Duties of Treasurer
The Treasurer shall receive and safely keep all money and choses in action belonging to the Corporation and disburse the same under the direction of the Board of Directors. He shall keep an accurate account of the finances of the Corporation in books to be provided him by the Trustees and hold the same open for inspection and examination of the Trustees or members at all times and shall present abstracts of the same at Annual Meetings of the members or at any other meeting when requested.

Article VIII
Duties of Members
All members shall pay annual dues in the sum of 35 Dollars per year. The dues year shall start on the first of April. Voting privileges at Annual Meetings and other meetings or ballots of the membership shall be contingent upon payment of dues for the current dues year.

Article IX
Assessments
The Board of Trustees shall have the authority to assess the members for the cost of work performed or improvements made to property belonging to the Corporation and property surrounding that owned and occupied by members. Such assessments shall be made only after the same shall have been approved by the vote of four Trustees at a meeting called and held for the purpose, notice of which meeting specified such purpose.

Article X
Membership
The members of Rush Creek Village Company shall be limited to the owners of lots acquired from or through the Corporation, those who have contracted to purchase a lot from the Corporation, Messrs. Theodore van Fossen and Richard C. Wakefield and their spouses. Each member shall be entitled to one vote in any vote, no individual shall be entitled to more than one vote, and no member who has failed to pay an assessment levied pursuant to Article IX hereof in full shall be entitled to vote, but no assessment may be levied against Messrs. Theodore van Fossen, Richard C. Wakefield, or their spouses without their consent.

An absent member may, under procedures prescribed by the Board of Trustees, name another member of the Corporation to represent him and to cast his vote in any election or on any matter submitted to the membership for approval in accordance with the Code of Regulations.


RUSH CREEK VILLAGE