Creative Living, Ecological Design and Russel Wright's Manitoga

by D.J. Huppatz

Abstract

With contemporary designers increasingly focusing on environmental considerations, design historians have begun the search for precedents that might reconstruct design history in sustainable terms. An essential step in this reconstruction will be further consideration of design as an extended ecological practice or process, rather than the previously narrow focus on the production, consumption and mediation of discrete, finished artefacts. This article examines design as an ecological practice through a close analysis of American designer Russel Wright's home, studio, and woodland garden, Manitoga. Integrating architecture, interior, and landscape design into an environmental *gesamtkunstwerk*, Manitoga is a largely forgotten proto-ecological design project of the 1950s. However, beyond simply an historical site, Manitoga is reconsidered here as a project that combines Wright's "creative living" ideals and design processes that remains provocative over fifty years later.

Keywords: Wright, Russel—ecological design—Manitoga—industrial design—landscape design— interior design.

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In 1942, industrial designer Russel Wright purchased a seventy-nine acre property in the Hudson River Valley near Garrison, roughly fifty miles from New York City. Here, he developed his final design project, a house and woodland garden he called Manitoga. During the 1950s, Wright designed a unique site at Manitoga, integrating architecture, interior and landscape design into a 'Temple to Ecological Design'.[1] Manitoga's unique cultural and historical significance was officially recognized in 2006 when it was designated a National Historic Landmark, but despite this recognition, Manitoga is little known today. Wright's holistic approach to design, while previously proving problematic for historians working within disciplinary silos, now seems ripe for reassessment.[2] In addition to its significance as an historic site, Wright's design and ongoing management of Manitoga was a sophisticated (if not always successful) engagement with the complex relationship between design and nature that remains fundamental today.

Wright was not a theorist, and there is very little historical documentation related to Manitoga with the exception of a 1961 lecture, 'Building a Dream House: The Story of Dragon Rock'. In it, Wright describes a 'prescription for escape from automation, also my plan of creative living for retirement'.[3] A precursor to later ecological design, Wright's 'creative living' attempted to integrate the house, woodland garden and an individual lifestyle with natural processes and the specificity of Manitoga's Hudson Highlands location. While ecological design has contemporary relevance, design history has thus far failed to engage extensively with broader ecological systems within which discrete objects are embedded.[4] To remain relevant, design historians must take up the urgent task of reconstructing design history in broader ecological terms.[5] Beginning with the roots of Wright's 'creative living' ideal in his early work as an industrial designer and tastemaker, this article analyses Wright's integrated lifestyle and design of Manitoga as an exemplary precedent for ecological design that might prompt a reconsideration of modern design's relationship to nature.

From Designing Products to Designing Lifestyles

A member of the first generation of American industrial designers, Wright initially trained as a sculptor, then started a Princeton law degree before dropping out in 1924 to design sets, props, and costumes for Broadway productions. In the early 1930s he shifted into product design, creating a series of bar and serving accessories from spun aluminium. Successfully marketed and sold during the Depression years, Wright's serving accessories – cocktail shakers, pitchers, and flatware – were designed for informal dinners or cocktail parties rather than formal dinners or afternoon teas, and were followed by designs for other domestic products, including the American Modern furniture range.[6] Although he arguably shared the sculptural and theatrical approach to product design with 'streamlined' designers such as Norman Bel Geddes (with whom he worked on Broadway productions in the 1920s), Raymond Loewy, Henry Dreyfuss, and Walter Dorwin Teague, Wright's aesthetic approach did not appear as a 'visual confirmation of technological progress',[7] but instead emphasized an organic, sensual, and hand-crafted aesthetic.

Wright's most successful production, his American Modern dinnerware, manufactured by Steubenville Pottery in 1939, was a popular dinner service that remained in production until the mid-1950s.[8] American Modern was innovative in a number of ways: it was marketed as flexible (as consumers could mix and match pieces within a range of modern colours), easily washable, durable and importantly, inexpensive. It also appealed to an emerging informal lifestyle, characterized by a shift away from the excessive number of delicate and decorative pieces demanded by formal entertaining. Aesthetically, the handcrafted appearance of the American Modern plates, bowls, and pitchers belied their mass production, allowing them to retain the aura of human artistry in an increasingly mass-produced and mechanized marketplace. A further key to American Modern's success was its marketing, largely overseen by Russel's wife Mary, who created 'stage sets' for department stores and promotional photographs. In these, domestic life was portrayed theatrically and Wright's designs were promoted as an integral part of a casual, modern lifestyle. However, despite the Wrights' promotion and later critics' celebration

of American Modern as the most popular dinnerware in the United States, it was not without contemporary critics, and the pottery, Steubenville, had a relatively small output.[9]

The Wrights' attempted to capitalize on the initial success of American Modern with a more ambitious program combining their domestic lifestyle designs with a bourgeoning sense of American nationalism. Launched in 1940 by First Lady Eleanor Roosevelt, American Way was a coordinated program in which the Wrights brought together 140 designers and manufacturers to promote and distribute American modern design and regional handicrafts in a coherent ensemble of domestic furnishings and accessories. Despite the support of prominent designers, manufacturers and tastemakers, the project failed. The collection was overly complex and far from unified, not particularly innovative, and ultimately collapsed following the nation's entrance into World War 2.[10] The Wrights' vision of a unified aesthetic of American domestic life was never realistic, but they had tapped into a heightened sense of distinctive American taste, based on the 'wholesome values of the American Way: cleanliness, comfort and convenience.'[11]

Expanding on these ideas, in 1950, Russel and Mary collaborated on a domestic advice guide that promoted 'a new way of living, informal, relaxed', and free from Victorian decorum and pretence.[12] Their *Guide to Easier Living* was a mid-century lifestyle manual that included advice on changing spatial configurations within the home, new furniture and materials, as well as etiquette, hospitality, and household management tips. Their proposals included open floor plans that flowed seamlessly between kitchen, dining room and living room, a closer integration of indoor and outdoor living, and an emphasis on flexible spaces and lightweight modern furniture. The Wrights' image of a modern home, architecturally drawn from pre-war precedents such as Frank Lloyd Wright's open plan prairie houses, was also a practical, easy to clean and maintain one, with inhabitants implicitly freed from the formal, rule-bound lifestyles of previous generations.[13]

As well as a guide to taste, the *Guide to Easier Living* functioned as a Do-It-Yourself manual. While they emphasized modernism in general, the Wrights were not prescriptive

as to precisely which furniture, appliances, or décor to adopt.[14] Instead, the book contained detailed information about new materials and their properties – new textiles, flooring materials and synthetic furniture coverings, for example – that were analysed in terms of their durability, cleanability and comfort rather than their aesthetic appeal. Beyond Europe, California was hailed as a model for modern lifestyles – 'from them we can learn improvisation' – and some of the exemplary contemporary spaces featured in the *Guide to Easier Living* were designed by California-based modernists such as Richard Neutra and Harwell Hamilton Harris.[15] A further inspiration came from traditional Japanese rooms, which were presented as ideal flexible, uncluttered spaces.[16] However, although promoted by the Wrights as distinctly American modern lifestyle, it is worth noting that in Grace Lees-Maffei's analysis of British advice literature, there was a similar post-war shift by British tastemakers in which casual living, informal hospitality and etiquette were promoted as essential components in a modern lifestyle.[17]

By 1950, Wright was a household name in America and, as a symbol of quality and authenticity, 'signed' his products as if they were unique artistic creations, rather than mass-produced artefacts. However, his post-war design career and philosophy faced significant obstacles. Despite his pre-war successes, Wright's post-war designs for household furnishings and follow-ups to American Modern were either unfashionable or unsuitable for existing mass production processes,[18] while in context of a broader debate in American design of the 1950s between the handcrafted and machine-made, Wright's commitment to individual expression made compromise difficult.[19] Wright held onto implicit connections between mass production, poor quality, and standardization, as well as an image of the designer as a creative individual. Given Wright's earlier contributions to American mass consumerism, Manitoga was (perhaps ironically) an idiosyncratic and individualist project, a reaction against 'mechanization, automation and the assembly line' which Wright came to believe were increasingly 'crowding out individual creative expression'.[20] Without the compromises of his role as a design consultant, Wright's own home and garden would become his final design laboratory where he could expand his lifestyle ideas and ongoing interest in both an organic, handcrafted aesthetic and individual expression into a designer *gesamtkunstwerk*.

Dragon Rock and Manitoga

The Hudson River Valley property Wright purchased in 1942 was hardly a promising location for a rural retreat. The steeply sloping site's main feature was three abandoned granite quarries, and extensive nineteenth century logging had left only patches of second-growth hemlock forest. Wright's initial work included diverting a stream at the top of the property to create a waterfall and damming up the largest quarry to create a pool, as well as vegetation regeneration and selective land clearance. During the 1950s, Wright continued his design practice in New York City but became increasingly obsessed the design of the site he named Manitoga (derived from an Algonquian word meaning 'Place of Great Spirit' according to Wright), particularly after Mary's death in 1952.[21] With the aid of architect David L. Leavitt, Wright designed a house and studio there between 1956 and 1961, and during this time also began shaping the surrounding landscape into a woodland garden.

Rather than at the top of the site with sweeping views of the Hudson River Valley, the house, which his young daughter named Dragon Rock, was nestled into the side of a granite cliff overlooking the quarry pond, enclosed by rocks and trees (figure 1). Wright's studio and bedroom, connected to the house via a vine-draped pergola, was built into the adjacent hillside, creating an intimate living and working relationship with the site. The dark gray timber frame, overhanging eaves, and flat aluminium roofs planted with sedum were conscious attempts to integrate Dragon Rock both aesthetically and materially into its environment, while the multi-levelled dwelling's complex plan followed the site's irregular topography (figure 2). While the north side and entrance of the house were largely closed, the house and studio's large expanses of glass on the south elevations served to integrate inhabitation with the environment outside.

Dragon Rock's low, horizontal profile, flat roofs, and rectilinear forms reflected both modernist and Japanese architectural inspiration. Wright's interest in Japanese design was evident in the *Guide to Easier Living*, but he also traveled to Japan as an official design

advisor in 1955 and commissioned Leavitt based on the architect's knowledge of Japanese architecture. In the early 1950s, Leavitt worked with architect Antonin Raymond in Japan, and Leavitt constructed Dragon Rock in a post-and-lintel system modeled on Raymond's Japanese system.[22] Wright's integration of Dragon Rock's interiors with the environment outside may have also been inspired by traditional Japanese design.[23]

The house comprised free-flowing public spaces, including a split-level living-dining room that flows into the kitchen, as well as a private wing for Wright's daughter Annie and a housekeeper. Connected to the house by a pergola, the studio comprised Wright's open studio-bedroom, and a guest room. Wright carefully considered the experience of the house unfolding spatially and temporally.[24] A visitor, for example, would arrive via the circular driveway, and be confronted with the vine-draped pergola connecting the house and studio. The intention was to heighten anticipation as the visitor could hear the waterfall beyond the screen of vines but not see it. Entering the house via a small entrance hall, the visitor would descend a short flight of wooden stairs onto a landing, and then descend a couple of granite steps into the living-dining space, where the waterfall was finally revealed though the large expanse of glass (figure 3). The carefully choreographed path served to heighten sensory awareness, with the change in levels, materials underfoot, and the aural and visual stimulation all contributing to a rich phenomenological experience.

The double-storey living-dining space was perhaps the most dramatic expression of Wright's design ideals. Surprisingly intimate despite its openness, the split-level living room was partially composed from granite, including the central stone fireplace, built-in seating, and the flagstone floor. Further continuity was highlighted by ferns planted inside as well as on the terrace outside, while expansive views from the wall of windows and sliding doors merged the interior with the quarry pond below. A built-in sideboard with Formica panels, synthetic flooring material, and Wright's furniture provided contrast within the cave-like space in a formal, material, spatial and temporal dialogue between culture and nature.

Wright's interior décor also actively encouraged this ongoing dialogue through two design principles, *Blending* and *Contrasting*.[25] As the term suggests, blending involved merging the house and its contents with the environment outside. Wright consciously incorporated natural materials into the living spaces, such as the rusticated cedar log used as the main post in the living-dining room (figure 3). As an extension of the quarry, the flagstone terrace outside flowed seamlessly into the interior's flagstone floors, granite boulder stairs, and the central hearth (figure 4). Further details, including pine needles embedded into the living room wall, a stone used as a doorknob, a branch used as a towel rack, and birch bark applied to the studio guest room door, brought inhabitants in constant contact with natural textures, forms, and colours. Careful spatial planning and consideration of views also related human habitation to the surrounding environment, including free flowing spaces from the living-dining room and studio onto outdoor terraces, as well as numerous details such as the bed in the studio guest room, positioned precisely at window height to frame an unobstructed view of the quarry pond below.

However, Dragon Rock was not designed as simply a showcase of natural materials and scenic views. As an industrial designer, Wright was fascinated with high-tech materials and his principle of *Contrasting* provided both visual and sensual interest within Dragon Rock, as Wright juxtaposed local, natural materials with plastic furniture, panels, and partitions, and framed picturesque views to the exterior through regular, geometric window frames. With careful attention to the textures, colours and surfaces within the interiors, Wright incorporated new synthetic plastics into what he also referred to as his 'Experimental House', a name he used in order to offset mounting expenses by convincing manufacturers to donate materials in return for publicity. The innovative new materials Wright incorporated into the interior included transparent acrylic panels embedded with leaves and butterflies, laminated cabinet doors and panels, polystyrene foam insulation, and recessed fluorescent lighting.[26] Through this principle of *Contrasting*, Dragon Rock was not simply a homage to raw 'nature' or a nostalgic return to 'primitive' living, but a dynamic interaction between the artificial and the natural.

Dragon Rock was conceived as a part of a idiosyncratic lifestyle, an extension of Wright's domestic management ideas developed in the *Guide to Easier Living*. Dragon Rock, Wright said, was 'a designer's experiment, not only in designing a house, but in designing a home and the way to live in it'.[27] Entertaining and meals were an important part of Wright's earlier promotion of a distinctly American lifestyle and at Dragon Rock, he included a practical kitchen arrangement, for example, with a bar for buffet serving of food, built in shelving and pull out racks for easy storage. While Wright's earlier lifestyle ideal was not overly reliant on new domestic technologies, Dragon Rock was equipped with a modern washer-dryer and dishwasher. Hospitality was an essential part of Wright's life, and he extended the *Guide to Easier Living*'s domestic management ideas with menus for Dragon Rock that comprised not only recipes designed for both nutrition and aesthetics, but also dinnerware and table settings designed to compliment particular foods appropriate to the seasons.[28]

Wright also devised two interior décor schemes for Dragon Rock, one for winter, and one for summer, and changed window dressings, floor treatments, furniture covers, and artworks in order to harmonize the interiors with seasonal changes.[29] Thus, the house and studio was not only a simply a conventional architectural or interior design project, but the design of a holistic lifestyle and an 'escape from automation'.[30] In some ways a precursor of the 1960s counter-culture, Wright's Dragon Rock lifestyle was diametrically opposed to the 1950s suburban lifestyle centred on excessive consumerism, technological fetishism and the pre-packaged TV dinner. In contrast to idealized images of the suburban 'Dream Home',[31] Wright's 'Dream Home' was designed to shape a particular lifestyle closely attuned to the rhythms of nature and responsive to the local environment.

Architecturally, the 1950s in America are often characterized as the era in which International Style Modernism was increasingly adopted by corporations, educational institutions, and promoted by architectural journals and institutions such as MoMA. Unlike Dragon Rock, iconic post-war modernist homes such as Mies van der Rohe's Farnsworth House and Philip Johnson's Glass House were elevated above and clearly separate from their immediate surroundings, creating a very different relationship with

nature (figure 5). Theoretically, International Modernist design favoured the rational and universal, inspired by new technologies and largely divorced from the local environment. Arthur Drexler's description of the Farnsworth House in the catalogue of the 1952 MoMA exhibition, 'Built in USA: Post-war Architecture', neatly encapsulates this ideal:

> Each detail and each material, including the champagne-colored raw silk curtains, is used to clarify an absolute—one could say a Platonic—architectural space, serenely independent of the transient emotional values of light, location, and atmosphere. But, in its cumulative effect, the Farnsworth House generates emotional overtones as insistent as the hum of a dynamo.[32]

In contrast to Mies' universal space and purist design that seemed indifferent to its immediate context, Wright's use of local materials, slippage between interior and exterior spaces, theatrical unfolding, and avoidance of overt technological signs created an opposing vision of modernist design and a more integrated relationship to its local environment.

In *Guide to Easier Living*, Wright noted the informality of Californian modernists as an inspiration for re-imagining modern lifestyles, but the architecture and writings of Frank Lloyd Wright provide a closer architectural precursor. Wright's iconic Fallingwater, with its flagstone floors and terraces, rough stone hearth and dialogue between interior and exterior suggests a direct precedent for Dragon Rock, although his ultimate concern, like Mies and Johnson, was the creation of a dramatic architectural masterpiece (figure 6).[33] In his 1954 book, *The Natural House*, Wright wrote:

> We have no longer an outside and an inside as two separate things. Now the outside may come inside, and the inside may and does go outside. They are *of* each other ... It is in the nature of any organic building to grow from its site, come out of the ground into the light—the ground itself held always as a component basic part of the building itself... A building dignified as a tree in the midst of nature...[34]

While Frank Lloyd Wright's 'organic' or 'natural' house is certainly close to Russel Wright's architecture and interior design, the latter Wright's comprehensive approach involved a more subtle assimilation of lifestyle and site in an integrated engagement that extended from the domestic space to consciously design the landscape as well. Harking back to the pre-war theories of Lewis Mumford in which 'the reawakening of the vital and the organic in every department undermines the authority of the purely mechanical,'[35] Wright's holistic design continued to valorize the hand-crafted and individual over the mass produced and standardized.

Woodland Garden

Wright expanded his design process from Dragon Rock's interiors and architecture to shape the surrounding landscape into an extensive woodland garden. He began by clearing underbrush, planting native vegetation, pruning trees, and designing paths that followed the site's topography. Wright retained and highlighted remnants of native hemlock forest, and completed extensive study of local flora in an effort to create appropriate plantings for the region and its climate.[36] In this process, Wright did not attempt to recreate the ecology of a primeval wilderness, but paid careful attention to texture, colour, light and sensual qualities, consciously sculpting the landscape, stones, and vegetation into particular scenic effects. The thirty-foot waterfall into the quarry pond, for example, was carefully constructed for both aesthetic and aural qualities; stones were moved around the former quarry to create steps and informal seating; and the forest canopy was thinned overhead to create dramatic plays of light and shadow along certain sections of the paths. Wright also acknowledged prior human intervention and the site's history as a quarry by visibly exposing blasting marks on boulders and iron cable hooks along the paths (figure 7). The woodland garden was thus not simply a regeneration and stewardship project, but a site in which Wright consciously dramatized the dialogue between industrial history, the local environment, and contemporary human habitation.

Wright gave each of his woodland paths a poetic name such as Autumn Path, Morning Path, Sunset Path, or Lost Pond Path, names that designated a particular time of the year or day, or particular destination. The Morning Path, for example, went east to correspond with rising sun filtering through the tree canopy, while Autumn Path was designed to take advantage of vegetation rich in autumn colours.[37] Each path was carefully composed in a sequential arrangement of scenes and sensory experiences that extended from Dragon Rock's interior. Wright designed a dynamic, sensual experience for walkers through differing surfaces underfoot, surprise vistas, and garden 'rooms' created by selective planting and culling. Skirting around the quarry, for example, the Quarry Pond Path (now part of the Main Path) is the most concentrated experience that contains composed scenes of magnifying native species. The first section begins at the edge of a grassy open meadow, Mary's Meadow, and ascends irregular stone stairs, winds through a concentration of bushy mountain laurel and through a tight space between huge boulders before emerging into an open vista. Wright's selective clearing, thinning, and planting along the path created concentrated scenes of ferns, lilies, wildflowers, and even a Japanese-style moss garden along the quarry's edge (figure 8).

As in Dragon Rock's interior, Wright contrasted colours, forms, and textures along the paths for dramatic effect and a rich phenomenological experience for the walker. Thus, he juxtaposed white birch bark with dark hemlocks, barren paths with luxuriant growth, and created a drama of light and darkness by manipulating the hemlock canopy above. However, Wright's manipulations are simulating without being distracting, and the walker's attention becomes attuned to birds flitting around, squirrels scampering up trees, and even the occasional deer disappearing into the distance. These textures, sounds, smells, and tactile encounters engage the walker with natural materials and processes, and at certain points, Wright narrows a trail in order to force the walker to brush past laurel branches or negotiate granite boulders apparently blocking access (figure 10). For Robert Schonfeld, walking Manitoga was "an experience that would enliven multiple senses simultaneously—the revelation of being *inside* a work of art".[38]

Stretching almost to the end of the property, the Lost Pond Path is the longest and most varied path. Its uneven surfaces were not graded or paved for easy walking, and constant changes in texture underfoot draw attention to the experience of walking. The crunch of fallen leaves or gravel contrasts with the hardness of granite steps, thin tree branches spread like fingers across the path, which later becomes a carpet of spongy moss winding through the hemlocks (figure 9). Just before reaching the Lost Pond and furthest from the house, the path becomes consciously more rugged, narrow, and difficult to identify, heightening the walker's anticipation of finding a secret, remote place. While walking the Lost Pond path is like a wilderness trek in miniature (the round trip is a little over two miles), it differs from hiking the nearby Appalachian Trail due to Wright's carefully contrived artifice, magnified species tableaux, and compressed effects in choreographed sequences.

Wright's design of Manitoga's woodland garden is not without precedents, and can be understood in the context of both the Anglo-American picturesque and Japanese garden traditions. Building on eighteenth century English ideas, architect Alexander Jackson Davis designed picturesque rural cottages and gardens in the Hudson River Valley in the late 1830s, while Andrew Jackson Downing's influential *A Treatise of Theory and Practice of Landscape Gardening* of 1841 adapted English picturesque theories to American topography, climate, and vegetation. While this local tradition, founded on an appreciation of the *genius loci*, the use of indigenous vegetation and naturalistic compositions, may have provided some inspiration, the Japanese tradition was perhaps a more significant influence. In 1957, Wright hired an experienced Japanese gardener, Masami Maeda, to aid in the design and construction of his garden.[39] The sequence of composed scenes along irregular, ritual paths accumulates impressions as in a Japanese 'stroll garden', and the magnification of local plant communities and miniaturization of experiences all seem derived from Japanese garden aesthetics.[40]

In an American context, Wright's rehabilitation of the environment at Manitoga can be seen as part of a long history that goes back to pioneer environmentalist George Perkins Marsh's *Man and Nature* (1864), in which he wrote: 'In reclaiming and reoccupying lands laid waste by human improvidence or malice ... the task is to become a co-worker

with nature in the reconstruction of the damaged fabric.'[41] Although not directed towards designers, Marsh's book laid out some fundamental issues arising from 19th century American industrialization. More than this, however, Wright's lifestyle at Manitoga is part of an enduring romantic individualist tradition, a continuation of Henry David Thoreau's intimate engagement with nature in his dwelling in the woods around Walden Pond in 1845.[42] While it is possible to understand Manitoga as simply another version of the American ideal of shedding civilization to return to a simpler life, Wright's 'creative living' was evidently more complex in its incorporation of modern domestic technologies, synthetic materials, and the scenographic manipulation of the natural environment.

Ecological design and the 'Dream Home'

For Wright, the natural environment was more than simply 'expensive wallpaper' as Philip Johnson put it; it was intimately integrated into human inhabitation and implicitly challenged the modernist notion of nature and culture as separate realms.[43] Wright's design of Manitoga dramatized design's transformative characteristics in an ongoing dialogue between dwelling, site, and natural processes in what could be (retrospectively) termed ecological design. German biologist Ernst Haeckel coined the term ecology, derived from the Greek *oikos*, meaning "household", in 1866 to describe the complex network of relationships between organisms and their environment.[44] Based on the idea of nature as a household, this comprehensive and systematic approach was not used in a design context until the 1960s, when it was popularized in designer-theorist Buckminster Fuller's calls for the 'comprehensive designer' and the holistic consideration of the environment advocated by landscape designer-theorist Ian McHarg.[45]

However, during the immediate post-war era, mainstream American mass culture was dominated by the cultural and technological conquest of nature, epitomized by the 'Dream Homes' of developer-suburbs such as the three Levittowns. For historian John Archer, "By the late 1940s … a complex of government, media, and corporate interests had forged a dream-house ideal that would, in considerable measure, govern the

production of housing and the shape of the American landscape into the next century."[46] The 'Dream Home' was popularly conceived as a container for the latest consumer commodities and technological marvels, while suburban estates were reshaping the landscape by clearing and levelling on a massive scale, erasing the local topography, and replacing it with the standardized monoculture of the suburban home, lawn, and decorative evergreen trees. [47] Largely indifferent to existing ecosystems, the suburban lifestyle of the 1950s was opposed to Wright's individualist vision that engaged intimately with the local site, merging inhabitation with existing ecology, topography, and history. Although self-consciously individual, Manitoga might also be seen as part of a long-standing and ongoing debate between standardization and individuality in American housing.[48]

However, Wright's 'creative living' ideal was far from a naïve environmentalist position of leaving nature undisturbed, as his design process acknowledged human intervention as both inevitable and necessary. In fact, his design of Manitoga could be seen as provocative from a simplistic environmental perspective. In a 1971 interview, for example, Wright described the Hudson Highlands in terms that were critical of nature's shortcomings: 'These hills have grown into the typical monotony which nature produces unless man or the elements disturb the overall repetitive pattern.'[49] Thus for Wright, neither the monotony of the mass produced suburbs nor nature left undisturbed were an appropriate model for his 'Dream Home'. Instead, Wright created a highly idiosyncratic theatrical sculpting of inhabitation, architecture, interior and landscape design into a set that unfolded as the inhabitant moved through and engaged with it.[50]

Of course, Wright was not alone in his reaction against American mass culture in the 1950s and early 1960s, a period in which environmental concerns began to coalesce into a coherent and popular social movement (culminating in the first Earth Day in 1970). Wright's design ideas found parallels with this emerging environmental consciousness, and he hosted dinners and picnics in order to share ideas with leading environmental activists.[51] Guests at Manitoga included scientist and author Réné Dubos (who coined the phrase, 'Think Globally, Act Locally'); Secretary of the Interior, Stuart Udall (who

promoted and assisted with the enactment of important environmental legislations under Presidents Kennedy and Johnson); Scenic Hudson (an influential community environmental organization) founder Franny Reese; and singer and environmental activist, Pete Seeger. In addition, Wright directed festivals in nearby Garrison intended to draw attention to the degradation of the Hudson River, worked as a consultant for various environmental management organizations during the 1960s, and implemented public environmental education programs at Manitoga that evolved into today's Summer Nature and Design Camp for youth.

Manitoga was an ecological design project in which Wright channelled natural processes and corralled vegetation into a complete aesthetic experience, but one that required careful and ongoing management. Landscape designer Carol Franklin, who worked closely with Wright on Manitoga and wrote a management guide to the property, said: 'At every point in the garden, Russel Wright was managing the direction of change. However, in doing this he felt that the great contrast—and contrast was one of his favorite design tools— was between the garden held static in time and the rapidly changing forest that formed its setting'.[52] In this sense, it is impossible to consider Manitoga as a finished artefact, but instead a designed infrastructure for negotiating processes in a continual state of becoming. This is particularly the case with the woodland garden and its trails, which required constant maintenance in response to natural changes and processes.

For Wright, Manitoga involved not only rehabilitation, but also innovative ecological management techniques to maintain an ongoing relationship between culture and nature. Landscape writer Jack Ahern noted that Wright's woodland garden was based on native species, 'and his maintenance methods involved physical and mechanical processes only', in an era of increasingly widespread use of chemical intervention.[53] While these attitudes are commonplace today, in the 1950s, even the cultivation and regeneration of only native species in a landscape design project was relatively rare.[54] As a proto-ecological garden, Franklin described Manitoga as 'a living laboratory demonstrating a sophisticated expertise with the management of natural systems. This management had

two goals: To return the landscape to a diverse, healthy, self-sustaining system, and to create dramatic and complex aesthetic effects'.[55] The duality of Wright's project is understood by Franklin as both regenerative and aesthetic, the latter acknowledging the consciously constructed nature of landscape design, a characteristic generally underestimated in early ecological design projects. A scenic grouping of mountain laurel, for example, was maintained by Wright's selective thinning of the canopy of oaks overhead, to create sufficient open space and light for the mountain laurel to flourish below. Without such ongoing intervention, 'the canopy would close, the laurel would decline and the essential open character of the meadow would disappear'.[56] Thus, rather than a closed, self-sustaining system, Manitoga was created as an environment that requires constant management and care, in this particular example, halting some natural processes as well as allowing others to continue.

This ongoing negotiation between human artifice and natural processes continued after Wright's death in 1976, but both financial deficiencies and Wright's idiosyncratic infrastructure have created problems. An infestation of woolly adelgid has devastated much of the hemlock forest at the top of the property, for example, while the woodland garden has not been ideally managed due to insufficient funding, such that today, some of the trails and their effects do not function as Wright intended. Even Dragon Rock, while seemingly integrated harmoniously into its surrounding environment, has suffered long-term drainage problems, caused by the studio's situation nestled into the hillside and its green roof (problems anticipated by architect Leavitt).[57] From an ecological perspective, Manitoga's recent history also underscores shortcomings of such a *gesamtkunstwerk* in which control is overly dependent on a single individual.[58]

Despite these flaws, for visitors today, Manitoga still functions as an educational and inspirational dramatization of design's ecological possibilities. With contemporary designers struggling to respond to the 'defuturing condition of unsustainability' that is the legacy of so much twentieth century design culture, Manitoga might function as a model of proto-ecological design that attempted to bridge architecture, interior design and design management with a particular modern lifestyle. [59] Wright's carefully conceived

gesamtkunstwerk still induces a sense of wonder – not at the sophisticated modernist architecture or sublime landscape – but at the dramatized and magnified ordinariness of a particular ecological system. This sense of wonder is evoked by what landscape designer and theorist James Corner terms 'poetic transfiguration', that is, design that 'enables an unfolding of things previously unforeseen, raising people to a perception of the wonderful and the infinite'.[60] Through absorption into Manitoga's designed environment, visitors today can still experience the phenomenological immediacy and intensity of modern design as a transformative process in continual dialogue with human habitation and nature.

FIGURES

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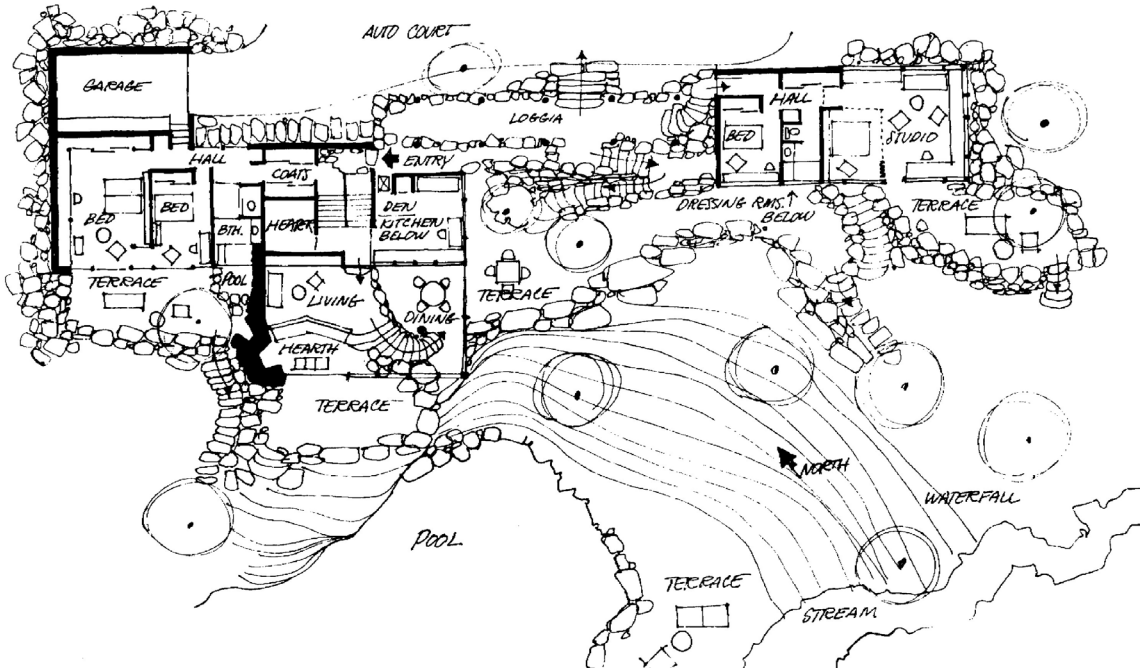

Figure 1: Dragon Rock, site plan. Drawing by David L. Leavitt, AIA, courtesy Manitoga/The Russel Wright Design Center. Wright's studio is at top right, the main house is to the left and the Quarry Pond is marked as the Pool.

Figure 2: Dragon Rock. Wright's studio is to the right, while the main house is to the left. Photo copyright: D.J. Huppatz

Figure 3: Looking down on the dining room. In the foreground, stones from the quarry separate the dining room from the living space and continue onto the terrace outside. The table is set with Wright's American Modern dinnerware. Photo copyright: D.J. Huppatz

Figure 4: Living Room. The fireplace is composed of stones from the quarry, their natural forms and texture contrast with the bright red lacquered panel and the synthetic flooring. Photo copyright: tarawingphotography.com.

Figure 5: Philip Johnson's 1949 Glass House in New Canaan, Connecticut. The house is raised above the landscape on a brick podium; its interior space clearly demarcated by glass, steel, and concrete steps, from the meticulously manicured lawn outside. Photo copyright: D.J. Huppatz

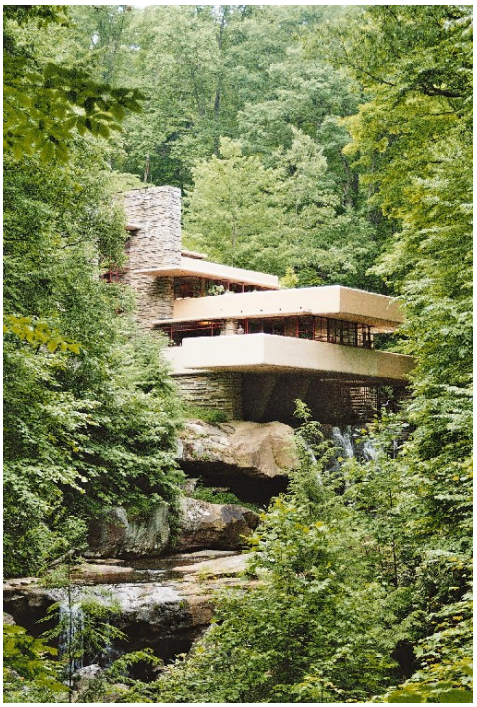

Figure 6: Frank Lloyd Wright's 1936 Fallingwater in Pennsylvania. Although Wright's masterpiece was intended to blend with the local environment, it ultimately stands above the waterfall, and Wright made few alterations to the surrounding landscape. Photo copyright: D.J. Huppatz

Figure 7: A path ascending the side of the quarry constructed from quarried stones. A metal cable hook, remains of the former industrial use of the site, is prominently positioned. Photo copyright: D.J. Huppatz

Figure 8: The fern glen, a cultivated “scene” composed of concentrated fern varieties. Photo copyright: D.J. Huppatz

Figure 9: Created by cultivating moss, this section of the Lost Pond path winds through the hemlock forest. Photo copyright: D.J. Huppatz

Figure 10: A barely discernable trail leads into a dense grove of mountain laurel, forcing walkers to engage intimately with nature. Photo copyright: D.J. Huppatz

[1] I. McHarg, 'A Temple to Ecological Design', in R. Wright, *Good Design is For Everyone: In His Own Words*, Manitoga/The Russel Wright Center and Universe Publishing, New York, 2001, p. 104.
[2] Apart from occasional articles in design magazines over the past fifty years, the most accessible and authoritative accounts of Manitoga are the chapters 'From Hollywood to Walden Pond: Stage Sets for American Living' by Donald Albrecht, and 'Manitoga: A Modern Landscape in the Hudson River Valley', by Robert Schonfeld, both in D. Albrecht, R. Schonfeld and L. Stamm Shapiro, *Russel Wright: Creating American Lifestyle*, Harry N. Abrams, New York, 2001; R. Wright, *Good Design is For Everyone: In His Own Words*, Manitoga/The Russel Wright Center and Universe Publishing, New York, 2001; and the 'National Register of Historic Places Nomination Form', prepared by Kathleen LaFrank in July 2005, available online: http://www.nps.gov/history/nhl/Fall05Mtg/Manitoga.pdf.
[3] R. Wright, 'Building a Dream House: The Story of Dragon Rock', transcription of a lecture delivered by Wright, also known as 'Garrison Slide Lecture' (Russel Wright Archives, Syracuse University Library, New York): 1961, p.19.
[4] Kjetil Fallan argues that much design history remains focused on artefact production rather than consumption or mediation, while a 'core concern of most design history' is 'the materiality of objects', K. Fallan, *Design History: Understanding Theory and Method*, Berg, Oxford and New York, 2010, p. 33.
[5] This task has begun. Recent notable examples include the two special issues of *Design Philosophy Papers*, 'Design History Futures?', Issue 2, 2009, and 'Design History Futures, part 2', Issue 3, 2009. Available online: http://www.desphilosophy.com/dpp/dpp_index.html.
[6] In addition to Albrecht, Schonfeld and Stamm Shapiro's *Russel Wright: Creating American Lifestyle*, a good source on Wright's early design work is W.J. Hennessey, *Russel Wright: American Designer*, MIT Press, Cambridge, Mass., 1983.
[7] J. Meikle, *Twentieth Century Limited: Industrial Design in America 1925-39*, Temple University Press, Philadelphia, 1979, p. 38.
[8] See also Regina Lee Blaszczyk's classic study *Imagining Consumers: Design and Innovation from Wedgewood to Corning*, on American Modern's critical reception and place in the broader field of ceramic mass production. R. L. Blaszczyk, *Imagining Consumers: Design and Innovation from Wedgewood to Corning*, John Hopkins University Press, Baltimore, 2000, p.165-166.
[9] R. L. Blaszczyk, *Imagining Consumers: Design and Innovation from Wedgewood to Corning*, John Hopkins University Press, Baltimore, 2000, p.166.
[10] D.O. Pierce, "Design, Craft, and American Identity: Russel Wright's "American-Way" Project", Master of Arts in the History of Decorative Arts and Design Program, Cooper-Hewitt, National Design Museum, Smithsonian Institute and Parsons, The New School for Design, 2010. pp.105-109.
[11] R.L. Blaszczyk, 'Designing Synthetics, Promoting Brands: Dorothy Liebes, DuPont Fibres and Post-war American Interiors', *Journal of Design History*, vol. 21, no. 1, 2008.
[12] M. and R. Wright, *Guide to Easier Living*, Gibbs Smith, Layton, UT, 2003, p. 5. This is a facsimile of the 1950 original.
[13] The previous bestselling lifestyle guide in America was Emily Post's 1930 bestseller, *The Personality of a House: The Blue Book of Home Charm*, which was revised and reprinted in 1948, an indication that it still had currency in post-war America. In their *Guide*, the Wrights railed against the pretentious, over-decorative, and impractical nature of Post's interiors, her conformity to Victorian rules that stifle individuality and her dependence on European aristocratic models. Their first chapter contains numerous critiques of what they call Post's "Dear Old Dream", see M. and R. Wright, *Guide to Easier Living*, pp. 2-10.
[14] The Wrights' book was both more expansive and inclusive than a near-contemporary attempt at redefining the American post-war home, George Nelson and Henry Wright's, *Tomorrow's House: A Complete Guide for the Home-Builder*, Simon and Schuster, New York, 1945. While the Wrights focused on the house from the perspective of domestic management, Nelson and Wright's book was more architectural and self-consciously modernist in focus.
[15] M. and R. Wright, *Guide to Easier Living*, Gibbs Smith, Layton, UT, 2003, p.8; on the California model see p.14, and the Wrights' description of a Neutra house, which contains 'the most beautiful bedroom we've ever seen', p.66.

[16] M. and R. Wright, *Guide to Easier Living*, p.12.
[17] G. Lees-Maffei, 'From Service to Self-Service: Advice Literature as Design Discourse, 1920-70', *Journal of Design History*, vol. 14, no. 3, 2001.
[18] R. L. Blaszczyk, *Imagining Consumers: Design and Innovation from Wedgewood to Corning*, p.253.
[19] This debate is discussed in more detail in G. McDonald, 'The Modern American Home as Soft Power: Finland, MoMA and the 'American Home 1953' Exhibition', *Journal of Design History*, vol. 23, no. 4, 2010.
[20] R. Wright, 'Building a Dream House: The Story of Dragon Rock', transcription of a lecture delivered by Wright, also known as 'Garrison Slide Lecture' (Russel Wright Archives, Syracuse University Library, New York): 1961, 1. Interestingly, the sentence is lifted almost exactly from his earlier *Guide to Easier Living*, p. 6.
[21] The original Algonquian word, *manito* or *manitou*, has various meanings including 'spirit', 'guardian spirit', and 'genius loci', so Wright's version, Manitoga, should be seen as a poetic rather than a literal translation. See A. F. Chamberlain, 'Algonkian Words in American English: A Study in the Contrast of the White Man and the Indian', *The Journal of American Folklore*, vol. 15, no. 59, 1902.
[22] For more on Wright's Japanese connections, see Y. Kikuchi, 'Russel Wright and Japan: Bridging Japonisme and Good Design through Craft', *The Journal of Modern Craft*, vol. 1 no. 3, pp. 357-382. Leavitt's work with Raymond is documented briefly in K.G. F. Helfrich and W. Whitaker, *Crafting a Modern World: the Architecture and Design of Antonin and Noémi Raymond*, Princeton Architectural Press, New York, 2006, pp. 59-60.
[23] M. Hayakawa, *The Garden Art of Japan*, trans by Richard L. Gage, Weatherhill, New York 1973, p. 144.
[24] D. Albrecht, 'From Hollywood to Walden Pond: Stage Sets for American Living', in D. Albrecht, R. Schonfeld and L. Stamm Shapiro, *Russel Wright: Creating American Lifestyle*, Harry N. Abrams, New York, 2001, p.114.
[25] R. Wright, 'Building a Dream House: The Story of Dragon Rock', p. 5.
[26] A detailed survey of the plastics used in Manitoga can be found in Christeen Yoriko Taniguchi, 'The Identification and Conservation of the Interior Architectural Plastics at Dragon Rock', MS Thesis, University of Pennsylvania, 1997. Another conservation report, 'A Study of the Materials and Environment at Russel Wright's Dragon Rock', by S. L. Buck, Wooden Artifacts Group papers, 1996, also contains details about various synthetic materials Wright used.
[27] R. Wright, 'Building a Dream House: The Story of Dragon Rock', p. 2.
[28] His daughter later compiled Wright's menus and instructions on appropriate china, linen, and cutlery into a book, see A. Wright, *Russel Wright's Menu Cookbook: A Guide to Easier Entertaining*, Gibbs Smith, Layton, UT, 2003.
[29] At least two popular contemporary magazine articles featured extensive images of Dragon Rock: O. Guelft, 'Russel Wright's Dragon Rock', *Interiors*, vol. 121, no. 2, September 1961, and 'A Wonderful House to Live In', *LIFE*, vol. 52, no. 11, 16 March 1962.
[30] R. Wright, 'Building a Dream House: The Story of Dragon Rock', p. 19.
[31] A good survey of the popular 1950s American 'Dream Home' is chapter 13 of G. Wright, *Building the Dream: A Social History of Housing in America*, Pantheon Books, New York, 1981, pp.240-261.
[32] A. Drexler, 'Post-War Architecture', in the catalogue edited by H-R. Hitchcock and A. Drexler, *Built in USA: Post-war Architecture*, The Museum of Modern Art, New York, 1952, p. 21.
[33] Perhaps a closer precent for Manitoga was Taliesin, Frank Lloyd Wright's home and studio in rural Wisconsin, although here, living was integrated into to an agricultural environment.
[34] F. L. Wright, *The Natural House*, Horizon Press, New York, 1954, p. 50-51.
[35] L. Mumford, *Technics and Civilization*, Harcourt, Brace & World, New York, 1963 (original edition 1934), p.371.
[36] R. Wright, 'Building a Dream House: The Story of Dragon Rock', p. 7.
[37] Wright's design of the paths was an ongoing process, and he renamed them, diverted them, and changed them over the years. A single path may have also had more than one name at different times, making accurate historical documentation virtually impossible. The most authoritative source is Franklin's 1982 'Design and Management Guide'.
[38] R. Schonfeld, 'Manitoga: A Modern Landscape in the Hudson River Valley', in D. Albrecht, R. Schonfeld, L. Stamm Shapiro, *Russel Wright: Creating American Lifestyle*, p. 124.

[39] Architect David Leavitt was apparently influential in advising Wright to develop the system of paths through the property in the spirit of Japanese garden design. In a 2003 speech, Leavitt stated that Wright employed two Japanese gardeners to aid in the construction of Manitoga's paths. See D. Leavitt, 'The Origin of Dragon Rock', transcript of a speech given by Leavitt, 9/2/03. Accessed online 29/06/11: http://www.russelwrightcenter.org/restoration.html. On the Japanese gardener, see also Y. Kikuchi, 'Russel Wright and Japan: Bridging Japonisme and Good Design through Craft', *The Journal of Modern Craft*, vol. 1 no. 3, p. 377.
[40] For more detail on Manitoga from a landscape design perspective, see D.J. Huppatz, 'Revisiting Russel Wright's Manitoga', *Landscape Journal*, forthcoming 2013.
[41] G. P. Marsh, *Man and Nature, or, Physical Geography as Modified by Human Action*, Charles Scribner, New York, 1864, p. 35.
[42] However, Thoreau's retreat from civilization included engaging in agriculture to provide food and income to enable a self-sufficient lifestyle, while Wright's lifestyle was funded by existing wealth he had accumulated as well as ongoing consulting income. See H.D. Thoreau, *Walden; and, Civil Disobedience*, Penguin Books, New York, 1986.
[43] Although I believe he said this on numerous occasions, a documented instance is in the documentary, 'Philip Johnson: Diary of an Eccentric Genius', directed by Barbara Wolf, 1996.
[44] C. Merchant, *The Columbia Guide to American Environmental History*, Columbia University Press, New York, 2002, p.159.
[45] I. McHarg, *Design with Nature*, Natural History Press for the American Museum of Natural History, Garden City, N.Y., 1969.
[46] J. Archer, *Architecture and Suburbia: From English Villa to American Dream House, 1690-2000*, University of Minnesota Press, Minneapolis and London, 2005, p. 278.
[47] On the glamorous post-war world of new commodities and suburban culture, see T. Hine, *Populuxe*, Knopf, New York, 1986.
[48] J. Archer, *Architecture and Suburbia: From English Villa to American Dream House, 1690-2000*, pp. 304-305.
[49] R. Wright, 'Design with Nature', in R. Wright, *Good Design is For Everyone: In His Own Words*, Manitoga/The Russel Wright Center and Universe Publishing, New York, 2001, p. 121.
[50] Wright stressed that Manitoga was 'not a prototype and it should not be copied'. R. Wright, 'Building a Dream House: The Story of Dragon Rock', p. 2.
[51] For a useful brief history of ecological design from the 1960s, see S. Sadler, 'An Architecture of the Whole', *Journal of Architectural Education*, Vol. 61, No. 4, 2008, pp. 108-129.
[52] C. Franklin, quoted in J. Roy Brown, 'Learning from Dragon Rock', *Landscape Architecture*, vol. 95, no. 9, 2005, p. 72. Franklin's 1982 'Design and Management Guide' is available online: http://www.russelwrightcenter.org/redesign/pdf/rwdcDesignManageGuide1982opt.pdf
[53] J. Ahern, 'New Era for New England', *Landscape Design*, no. 239, 1995, p. 40. The landmark publication on the use and abuse of synthetic chemicals in the landscape was Rachel Carson's 1962 book, *Silent Spring*.
[54] An American pioneer in this field was Danish-born landscape designer Jens Jensen, a critic of formal historical styles and an advocate for indigenous plantings whose position set him apart from the mainstream of the landscape design profession during the inter-war years.
[55] C. Franklin, 'Fostering Living Landscapes', in G. F. Thompson and F. R. Steiner, eds, *Ecological Design and Planning*, John Wiley and Sons, New York, 1997, p. 285.
[56] J. Ahern, 'New Era for New England', *Landscape Design*, no. 239, 1995, p. 40.
[57] Dragon Rock's flat 'green roofs', innovative but ultimately flawed, were recently restored.
[58] See also M. Wigley, 'Whatever Happened to Total Design?', *Harvard Design Magazine*, no. 5, Summer 1998.
[59] T. Fry, Design Futuring: Sustainability, Ethics, and New Practice, Berg, Oxford and New York, 2008, p. 1.
[60] J. Corner, 'Ecology and Landscape as Agents of Creativity', in G. F. Thompson and F. R. Steiner, eds., *Ecological Design and Planning*, John Wiley and Sons, New York, 1997, p. 99.