In Search of Invention
Buhrich’s Modern Architectural ‘Quotations’

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Abstract
Architect Hugh Buhrich designed and built a house in Castlecrag, Sydney. Completed in the 1970s and lately celebrated, its specific disciplinary contribution has remained elusive. An early photomontage can be found in a NSW State Library archive. On a photo taken from the water facing the steeply sloping site, a painted image by Buhrich prefigured a horizontal rectangular volume floating within bushland.Aligned in height with the middle level of a neighbouring dwelling, repeated vertical floor to ceiling glazing was the only apparent façade articulation. At the eastern end, a spiral stair amongst native trees connected the floor of this imagined structure to a lower terrace. Invoking a ‘Miesian’ glass white box with upper and lower horizontal lines extended into the landscape, in many respects this abstracted floating visualisation was eventually realised. In dynamic counterpoint, organizational elements of the completed building plan and section emphasised variety in geometric and material expression and connections to the earth. In these respects the house aligns with aspects of John Lautner’s 1940 self-built home on a slope in suburban Los Angeles. Like Walter Burley Griffin, designer of Castlecrag and a small structure on Buhrich’s site, Lautner was a protégé of Frank Lloyd Wright. In a 1949 letter to an American friend, Hugh’s wife Eva described their unusual residential locale: “It started off years ago as a community of slightly crazy artists and intellectuals right in the bush where there were no improvements and with houses very different … in F. L. Wrightish manner slightly watered down”. Via primary research including Eva’s writings, together with a close reading of Buhrich’s building, this paper will explore tensions in the work between elements evoking ‘international style’ modernism and ‘organic’ fragments associated with the legacy of Wright. Frictions and connections between such modern ‘quotations’ frame a search for unexpected invention.
Every intellectual endeavor relies upon an existing body of knowledge, proven and primed for reuse. Historically, this appropriation has been regulated through quotation. Academics trade epigraphs and footnotes while designers refer to precedents and manifestos.

German émigré architect Hugh Buhrich spoke little and wrote less. Rarely referring to precedents, he designed and built a now celebrated home for his family in Castlecrag, Sydney. Completed in the 1970s and at the time largely unrecognized, it was described in the 1990s as “the finest modern house in Australia”. Heritage listed today for its “evolution of the international influences of Modernism in Australia”, in the Harvard Design Magazine in 1997, New York architect Susana Torre admired its lightness, elegance and precision. Noting a contemporary quest to expand and continue the Modern project, she praised it for not “merely engaging in the reproduction and manipulation of visual information”, rather seeking new possibilities via “the rewards of experiment”. Torre applauded this building for not reproducing a prevailing image or style, for not, in a familiar architectural manner, ‘quoting’. Internationally and locally now widely acknowledged, the building’s precise disciplinary contribution has remained elusive.

Publicly acclaimed for not ‘merely’ imitating, this late modern house resists description as an explication of appropriated sources. Inherited aspects have been resituated and newly incorporated within the project, such that direct ‘quotation’ as a critical framework appears perverse. Yet by exploring discrete threads of Buhrich’s architectural literacy, originality in the work can be better seen.

No rough sketches survive of the home’s design evolution but an early photomontage can be found in a scrap album kept by the late architect and now held in an archive in the State Library of New South Wales. On a photo taken from the water facing the steeply sloping site, a painted image by Buhrich prefigured in white lines an austere horizontal rectangular volume floating enmeshed in bushland. Aligned in height with the middle level of a neighbouring dwelling, repetitive vertical floor to ceiling glazing appeared the only façade articulation. At the eastern end, a single spiral stair amongst native trees connected the floor of this imagined delicate structure to a lower terrace. Invoking a ‘Miesian’ glass white box with upper and lower painted horizontal lines extended into the landscape, in many respects this abstract floating visualisation was eventually realised.

In dynamic counterpoint, organizational elements of the completed building plan and section emphasised variety in geometric and material expression, together with connections to the earth. In these respects the work is suggestively aligned with strategic aspects of John Lautner’s 1940 “small, somehow affordable two bedroom house” also on a steep site, in the Silver Lake suburb of Los Angeles. Like Walter Burley Griffin, designer of Castlecrag and a small remnant structure on Buhrich’s site, Lautner was a protégé of Frank Lloyd Wright. In a 1949 letter to a New York friend, Hugh’s wife Eva described their unusual residential locale:

I wanted to tell you about Castlecrag, … It started off years ago as a community of slightly crazy artists and intellectuals right in the bush where there were no improvements and with houses very different … in F. L. Wrightish manner slightly watered down.

Via preliminary archival research including Eva’s writings, together with a close reading of Buhrich’s building, this paper will explore tensions in the work between ‘international style’ modernism and ‘organic’ fragments associated with the legacy of Griffin and Wright. Frictions and connections between such assimilated traditions can be traced as ‘quotations’, to help frame a search for unexpected invention.
QUOTATION: What does history have in store for architecture today?

‘Castlecrag: The Suburb Griffin Created’
As indicated in Eva’s letter, the related architectural legacies of Frank Lloyd Wright and Walter Burley Griffin formed important background to this residential construction. Castlecrag as a context was critical. The Buhrichs had designed and built their first home there; many of Hugh’s projects were extensions to Griffin designed houses; and Eva was associated with numerous publications that promoted appreciation of the embedded novel planning and architectural ideas. In the *Sydney Morning Herald* in 1965 she published an article titled “Castlecrag remembers its debt to Burley Griffin”. After describing in detail his ‘Wrightian’ American background and challenging conditions in Canberra she noted: “But his brilliant idea for a harbourside suburb in unspoilt natural bush surroundings was developed in Castlecrag, where he also designed a number of highly original stone and concrete block houses far ahead of their time”.

Writing in the Australian magazine *Walkabout* in 1967, Eva presented “Castlecrag: the suburb Griffin created”, a three-page article illustrated by six photographs by Max Dupain. Relating pioneering aspects of that planned landscape and housing community, she emphasized “Griffin’s conviction that architecture, town planning and landscaping could not be separated”. Unusual regard for the indigenous landscape and architectural specifics of the suburb were clearly articulated:

Spaces around dwellings were designed as carefully as the houses … With diversity of spaces and interesting natural features, houses themselves are so subdued as to be almost invisible from the street. By their simple geometric form and the use of natural materials they harmonise with their surroundings. They … are, almost two generations ahead of other Australian suburban houses.

Noting spatial effects of the dramatic interiors with their varying ceiling heights together with the usual presence of a “massive stone fireplace”, Eva wrote that they gave a feeling of sheltered security and a consciousness of surrounding nature. She described their built-in lights and furniture, modern conveniences such as double sinks, as well as their material details:

The early houses have locally cut sandstone walls and flat roofs, on which Griffin insisted, so that views should not be obstructed and houses not be too prominent. He also developed an ingenious interlocking concrete block system … on many of the later houses. This alone almost amounted to a revolution at a time when brick or weatherboard were the only accepted materials. But it worked, looked well and never needed maintenance.

Many years later, in a small book, *Castlecrag*, designed by Eva Buhrich and Bim Hilder with photography by Max Dupain, Eva authored a section titled “Griffin the architect”. She began: “Griffin’s design philosophy was formed in his early days of collaborating with Frank Lloyd Wright in America”.

On the Buhrichs’ home site was an existing Griffin ‘knit-lock’ structure, later employed as the new dwelling’s carport or street address. “Almost invisible from the street”, the 1970s building seemed to incorporate Eva’s notes on Griffin’s town planning and architectural manners. Many elements within the house design follow her articulation of early priorities developed for the suburb. In crucial ways, Buhrich’s architecture ‘built-on’ Griffin’s thinking as well as on his work. Materials associated with the earth such as ‘locally cut sandstone’ and wood were emphasised. Multiple interconnections were explored with the indigenous landscape and natural setting. Key diagonals were employed within the planning and a spatial emphasis was placed on horizontality. Central to the living room was a symbolically located ‘massive stone fireplace’. Such devices were commonly identified with the influence of Wright; Griffin had continued such ‘organic’ principles. Implicit in Buhrich’s building, was a detailed appreciation of the ‘Wrightian’ tradition as developed in the planned Castlecrag environment. Eva’s writings suggest this embedded awareness was deliberate.
Incorporating numerous ‘organic’ elements, the structure evoked however, no simple emulation of Wright or Griffin’s thinking. It bore no easy visual resemblance to their work. Noting the broad relationship to surrounding dwellings, in 1997 Susana Torre commented: “What a contrast (Buhrich’s house) provided to Griffin’s ponderous, claustrophobic stone buildings!” Rather than evoking a cave, site-carved sandstone had been importantly repositioned, forming a house that seemed to float. Inheritance here was hard to read.

‘In F. L. Wrightish Manner’

More explicit in its ‘Wrightian’ connections, a Los Angeles home by John Lautner can be used to illuminate aligned devices in Buhrich’s building. Self-built approximately three decades earlier, this economically constrained yet architecturally ambitious residence rewards close comparison with the Sydney dwelling. In plan and indicative cross section, multiple parallels connect chosen geometries, spatial hierarchies, patterns of organization, and for some elements, even broad dimensions.

Published twice in California arts and architecture in 1940 and in House Beautiful in 1941, Lautner later introduced this building as the first project in a 1994 substantial monograph, framed in terms of his architectural inheritance:

This was my first try at architecture on my own after six years’ apprentice training with Frank Lloyd Wright at Taliesin East and West. Naturally I felt inadequate on leaving the architectural genius of the last three or four hundred years. But I had to try, and found that in a modest way I could conceive and construct a satisfying work of architecture. … Frank Lloyd Wright approved this house, and on publication, architectural critic Henry Russell Hitchcock called it the ‘best house by an architect under 30 in the US’.

His 1940 published design suggests strategic overlaps with Buhrich’s 1971 small-scale plan and section working drawings held in an archive at the State Library of New South Wales. The Sydney setting could have been described in the same terms as Lautner’s site in California arts and architecture: “It steps down a forty-five degree hill in two floor levels sheltered by one simple roof which slopes with the ground.” In the dual locations, sites slipped away from an upper roadway from which one walked down to a home with panoramic city and water views. Broadly arranged as one long, slender, roughly rectangular volume with angled ends, a lateral wall roughly bisected each compact plan into bedroom and living wings. In both buildings the bedroom ‘half’ was marginally longer than the other major zone, comprised of kitchen, living and dining spaces. Each plan further incorporated an outdoor balcony suggestive of a half hexagon with unequal sides.

On either side of the Pacific, three rooms in a row facing the water broadly formed the more private house-half. With a bathroom located between two bedrooms, a minor hierarchy echoed the overall bilateral division; a slightly larger bedroom was furthest from the living areas. Interior and external access-ways in both plans bracketed and linked these three private spaces. On the waterside, an exterior balcony gave access, fresh air and views, whilst a shorter rear internal corridor in the two homes provided alternate access and substantial adjacent storage.

Carports located behind this wing connected each building to the street, with entry arranged down steps through a garden adjacent to that structure. Within each roughly bi-fold plan, the more public ‘half’ was about six feet deeper than the narrower bath and bedroom zone. Both centrally located entrances were placed at the step to this more generous dimension; via a small vestibule visitors were obliquely directed toward the living area with impressive views. Diagonal movement linked the car parking to this doorway and continued inside, toward a window on the opposing living room corner. Both plans were thus organised around a clear line of transverse movement connecting a grounded higher carport through the entrance to a suspended corner with outlook. Sharing abstract
geometric strategies and rough proportional plan dimensions, placement patterns and functional hierarchies for all major home elements were aligned.

Immediately adjacent in both cases to the dramatic corner view, was a large open fireplace that symbolically terminated a wall located across the steep slope; it was suggested as rock-like in each house via material choice and angled plan geometries. Heavy hearth and chimney counterbalanced by contiguous window void thus formed a distinctive almost freestanding end wall to the major space in both Buhrich and Lautner’s designs. At right angles, located along site contours, a major glazed facade in both buildings formed an extension to the corner window, affording widespread views. Parallel to the glazing, built-in lounge seating provided outlook coupled with proximity to the fire. In the dual locations this furnished an edge to the living room and negotiated a floor level change leading to an upper dining area with built-in table. Each kitchen was organised as an open-ended galley extension to this raised zone, discretely screened from view.

Small-scale cross-sections through the major living spaces suggest further parallels. Both drawings offer similar dimensional, spatial and functional hierarchies within split-level arrangements. Predominately timber framed roofs with a gentle pitch following the site slope span low, stepped, living and dining rooms. Doubly present was a masonry fireplace with chimney adjacent to dramatically cantilevered windows. Modesty in scale in each situation prevailed. Each dwelling provided a bridge from a grounded garden, associated with the street, to a substantial cantilever offering views and suspension above the landscape.

Materials employed for their capacity to evoke earth-like conditions were aligned in these two works, for example in ceilings to the more public spaces. ‘Redwood’ faced plywood was employed in California whilst strips of western red cedar lined the living room ceiling in Castlecrag. Lautner used vertically oriented, brown, hollow clay tiles to face the fireplace and dining room wall; Buhrich assembled native sandstone on comparable walls with parallel functions. Via their origin, colour, strength and varied appearance such materials suggested natural, ‘as-found’ conditions; physical and visual weight was deliberately conjured. In spite of apparent mass, in both dwellings such surfaces were explicitly constructed as ‘skins’, not as load bearing structure.

Whether aware of Lautner’s home or not, such numerous alignments map ‘organic’ fragments in Buhrich’s building. Yet the houses were crucially distinct. Whilst both plans indicated an almost continuous open outlook for the long window wall, comparison of exterior appearances reveals vital differences. Lautner’s construction was grounded. Long rendered walls in California formed a weighted planar base that held and framed within its mass an angled projection. Clad in horizontal redwood boards, timber framed windows formed an upper strip to this cantilevered section and a hovering roof plane shadowed all components. Suggesting a dynamic arrangement of built elements in the manner of Frank Lloyd Wright, this dramatic composition of masses in counterpoint had nothing in common with the rectangular, apparently weightless, continuous strip of floor to ceiling glazing facing the water in Castlecrag.

American critic Henry Russell Hitchcock, writing in 1940 about the Silver Lake house, had remarked on the visible relationship to Lautner’s mentor:

Among the new work in Los Angeles the Wright tradition achieves authentic expression at the hands of John Lautner, … The Wright influence may be too marked in certain details of Lautner’s house, but it is in general a remarkably successful thing, …

Observe these Wright ‘quotations’, the review notes further that the house was “simple in plan and economical in execution as Wright has rarely had occasion to be” and that “Lautner uses diagonals more cleanly and less arbitrarily … and has for wooden construction an advancing rather than a semi-
traditional feeling. Here in Los Angeles his work can unashamedly stand comparison with that of his master.\(^{25}\)

Hitchcock suggests that Lautner articulated his own architectural direction by inflecting alignments with his mentor’s manner. Variations thus described were similarly present in Castlecrag. Buhrich’s living room plan diagonal closely parallels Lautner’s; his house was comparably ‘simple in plan and economical in execution’. No aspect of Buhrich’s use of wood felt ‘semi-traditional’. Timber construction, particularly in the roof, was explicitly engaged with new technological potentials.

It is evident from Eva’s letters that she and Hugh had ongoing critical and current knowledge of American progressive architecture. Maintaining contact on the couple’s behalf, she wrote regularly to a close German friend from childhood, Ruth Eckstein, based in New York. In 1944, she wrote to request a book:

> In the last Number of the Architectural Forum we saw a book advertised which we would be very keen on having. … It is called “BUILT IN USA 1932-1944” edited by Elizabeth B. Mock, published by Museum of Modern Art.\(^{26}\)

Displayed within were modern architectural developments in the United States for the twelve years following the well publicised 1932 Hitchcock and Johnson ‘International Style’ exhibition at MoMA. The first buildings shown after the introductory essays are by Frank Lloyd Wright. In his foreword, Philip L Goodwin notes the Museum of Modern Art’s ongoing interest in such exhibitions contributing to “the development of a modern American architecture from the mingling of traditional American techniques and materials with the forms of Wright and the Europeans”.\(^{27}\)

Commenting on recent work in the USA, she wrote to Ruth in 1949 after receiving from her “the booklet on Breuer’s house that caused much interest among all my architect friends. …. I like particularly his very European careful approach to detailing – unknown here”.\(^{28}\) On January 5th 1951 she noted: “Oh by the way, today this Skidmore + Owings publication of the Museum of Mod Art arrived, many thanks very interesting”.\(^{29}\) In another undated letter from the early 1950s she describes the substantial influence of American projects and publications on local production: “The similarity between our magazines and yours that you remark upon, is not accidental. Everybody here reads all the American magazines relevant to his work and any idea that has caught on there 2 or 3 years ago is pretty certain to be used here”.\(^{30}\) Eva Buhrich was in the process of developing what was to become a respected career as an Australian architectural writer.\(^{31}\)

Reporting on Gropius’ 1954 visit to Sydney, she wrote in the Australian journal *Architecture and Arts*: “The great event is over. Australian architects have had the stimulus of seeing and hearing one of the three or four great architects of our time”.\(^{32}\) Seeking to enrich overly simple distinctions between ‘organic’ and ‘functionalist’ architecture, she noted that “listening to Gropius made us realize that there are no poles; that to Gropius as much as to Frank Lloyd Wright emotionally and organically balanced living is the important aim, not utility and function”.\(^{33}\) Extending the former Bauhaus leader’s conception of functionalism, she stated: “we had not broken with the 19\(^{th}\) century’s applied archaeology called architecture in order to follow another narrow path, that of the so-called international style”.\(^{34}\) Eva here argued to dissolve narrowly perceived choices between “international or regional style, tradition or functionalism” in the search for a broader ethic to inform new work.\(^{35}\)

*(Breuer’s) Very European Careful Approach*

Clearly distinguished from Lautner’s dynamic projected Wright-like masses, the waterside façade of Buhrich’s house offered a much more abstract, delicate, repetitive system. Aluminium framed glazing seemed here suspended, a clear elaboration of the painted site photo. Viewed from the harbour, this roof outlined an edge to the continuous glass. Lautner’s extremely material construction appeared to
have grown up from its rugged site; the Australian framework looked to have floated down into local trees.

Explored in the apparently weightless northern frontage was a rigorous optimization of minimal material use, doubly focused by the financial economy offered by an off-the-shelf assembly, together with an apparent desire for heightened physical delicacy in that component. Explicit in the early photomontage and later in built detail was a repetitive system that seemed to require almost no upper and lower supporting beams with any depth. Precisely painted white horizontal lines on the site photograph were strikingly fine; the floor was suggested as only marginally thicker than the uniformly tiny repeated verticals. Indeed the thickest white horizontal line is only a millimeter wide and portrays the roof, an element least likely to offer physical material support.

Realised with unusual precision, Buhrich’s technical knowledge enabled him to structure this suggestively immaterial visualisation. Legible in his 1971 small-scale section drawing, glazed, vertical, repeated supports were shown as roughly two inches thick. Six inches indicated the strikingly thin horizontal floor. With a roof edge denoted as approximately ten inches, dimensional relationships in the imaginary paint lines had proved surprisingly accurate. In the building, an extremely lightweight steel and timber roof structure allowed just four 60mm diameter steel columns together with intermittent walls, to frame the mechanically repeated, prosaic, unusually fine glass wall.

Critically thus also distinct from the ‘organic’ tradition, features such as this floating façade, invoked aspects of machine-like immateriality and geometric abstraction. Connections with Gropius’ protégé Breuer, as well as Mies’ famous glass house had been implied in the early montage. In developed realizations, elements such as the structurally and formally hybrid roof, seamlessly and inventively reconciled two apparently discrete architectural spatial traditions. A sense of continuous horizontal extension faced the water whilst a series of gable ends addressed the street. Cool abstraction and machined refinement were in this building effortlessly fused with variety in geometric and physical material expression. Architectural manners associated with mechanical weightlessness were doubly engaged with those that explored earth-like associations.

‘International or Regional Style, Tradition or Functionalism’

‘International style’ and ‘Miesian’ aspects were here intertwined with equally critical ‘organic’ thinking. More visible via a lens of ‘quotation’, organisational decisions in small-scale plan and section echoed Lautner; technological potentials of a repetitive, glass and metal screen suggested an alternate modern tradition. Engaged in detail with both ‘Wrightian’ principles as well as searching for aspects of immaterial abstraction, the project evoked neither a hovering white glass box nor a Griffin ‘site-grown’ cave. Embracing both architectural frameworks, this dwelling doubly floated abstractly over and materially engaged its indigenous natural and constructed setting.

Achieved through in-built know-how, structural, material and spatial experimentation in this work were unusually wide ranging. Curvilinear and angled geometries were as readily deployed as rectangular ‘mass-produced’ aluminium extrusions. Neither Miesian nor Breuer-like nor recognizably ‘F. L. Wrightish’, the work resists singular categorization. Combining red plastic, neon tubes, a floating glass and perspex table with off-form concrete, standard assemblies, optimized steel and timber frames, site-carved sandstone and daring structural cantilevers, Buhrich seamlessly connected aspects associated with “international” and “regional” modernisms, “tradition” as well as “functionalism”. Complex yet literate, constructed was a deliberate inventive synthesis.
Endnotes

5 Hugh Buhrich scrap album & mounted architectural presentation drawings with photographs, 1941-1959, NSW Mitchell Library Drawing Archives, PXD 1012, np.
9 Buhrich, Castlecrag remembers its debt.
11 Buhrich, Castlecrag, 31.
12 Buhrich, Castlecrag, 31.
13 Buhrich, Castlecrag, 31.
14 Eva Buhrich, “Griffin the architect”, in Castlecrag, introduction by John Gunn (Castlecrag, NSW: Arthur and Marea Weller on behalf of Castlecrag Infants’ School Club, c1972), 15.
15 Buhrich, Castlecrag, 31.
16 Torre, The Rewards of Experiment, 30.
17 Lautner built his house with contractor and friend Paul Speer. Buhrich designed and constructed his home over a number of years, labouring on weekends, holidays and in the evenings.
20 Lautner and Escher, John Lautner Architect.
21 A Hillside Redwood House, 27 and Drawings 630/6 and 630/7 in, Hugh Buhrich - collection of architectural and design plans, ca. 1940-1988, NSW Mitchell Library Drawing Archives, PXD970, nos. 630-648.
33 “Eva Buhrich (1915-1976)”, 891.
34 “Eva Buhrich (1915-1976)”.
35 “Eva Buhrich (1915-1976)”.
36 Drawing 630/7 in, Hugh Buhrich - collection of architectural and design plans, ca. 1940-1988, NSW Mitchell Library Drawing Archives, PXD970, nos. 630-648.