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Drawn Translations: Toward and Beyond Buhrich’s Building

Architectural drawings, prepared by the author for a 1991 exhibition at the Garry Anderson Gallery, Sydney, formed early primary research and documentation of a Castlecrag home at 375 Edinburgh Road, designed and built by the architect Hugh Buhrich in 1968–72. Drawn from the existing building, in ink on film, they were exhibited with large-scale photographs of the dwelling and published in an accompanying catalogue. Subsequently republished in Architecture Australia (1992), L’Architecture d’Aujourdhui (1993) and Harvard Design Magazine (1997), those visual materials supported late international recognition of a now acknowledged major, but until then critically neglected, modern Australian built work.

Strict plans, sections and elevations with no text, these measured line drawings for public and disciplinary presentation brought an abstract geometric emphasis. Striking was the lack of any reference to the dramatic landscape within which the architecture is located and conceived. In an alternate much earlier set of documents, Buhrich’s previously unexamined existent working drawings for the house, a distinct yet parallel abstraction can be found.

Now held in an archive at the State Library of NSW, that early fragmented primary source is limited in quantity and scope, but two drawing types crucial for the building’s materialization can be observed: small-scaled plans, elevations and sections submitted for legal planning approval, together with larger scaled, precise, detailed studies. This paper will explore the critical agency of these early design documents and the 1991 transcriptions, via their relationship with the built realisation. Connections and tensions between these discrete visualisations and the constructed house will form the focus: architectural drawings analysed as devices for translation both toward and beyond Buhrich’s building.
Drawings usually precede buildings. Tools for invention and a medium for making architectural thoughts material, they are also importantly lenses through which one sees architecture, standing for a building, before as well as after its realization. In 1991, outside an intimate architectural circle, Hugh Buhrich's Castlecrag house at 375 Edinburgh Road was almost invisible. Dissolved in surrounding bushland and observable more as momentary fragments, its physical situation formed a partial explanation. Professionally and historically, the extreme architectural discretion seemed more mysterious. Why was this refined work not in publications? Why were there apparently no photographs? Subsequent slow and unexpected translation of this building back into architectural drawings for exhibition, almost twenty years after its construction, became an exercise in careful verification and discovery. Intriguing mathematical, geometrical relationships, not clear in visits to the house, were suddenly made present. Close measurement and painstaking attention were used to transcribe the dense ensemble back into abstract, highly accurate plan, section and elevation drawings. Material detail was meticulously mapped. Spare consistent delineation was used throughout to help manifest a subtle but clear coherence, harder to see in the vigorous physical complex. Framed to allow the design to be read, coupled with a desire to avoid reduction, these strictly measured, delicate line presentation drawings deliberately minimised the presence of the local landscape.

After exhibition and publication of these depictions, the building developed a growing reputation as one of the finest modern houses in Australia. Trained under Hans Poelzig in Germany, émigré Buhrich who arrived in Sydney in 1939, lived to experience this late but widespread appreciation. Now known internationally, repeatedly re-published in collections and exhibitions of important Sydney houses, the home is heritage listed as a nationally significant work of 20th century architecture.

Historian James Ackerman, in discussing the conventions and rhetoric of architectural representations, suggests that a drawing of an existing building “relates to the signified (finished project) somewhat as a verbal description relates to an aspect of the object it refers to. This is not to say that either the graphic or the verbal description ‘accurately’ represents the signified, but only that it relates to it in some way that can be read.”¹ There is in this case, an object against which the fidelity of a new depiction, visual or verbal, can be publicly assessed.

Graphic and written records have different effects, and some architectural aspects are more clearly registered in drawings. In making a section, one is seeking measured tight alignment with crucial geometric and dimensional aspects of the building. Yet avoiding any distortion in a drawn transcription is clearly fraught. A set of meaningful relationships can never be transferred to an alternate medium without adjustment. As Robin Evans has observed, even when the sense of words are translated from language to language, the substratum across which they move “does not appear to have the requisite evenness and continuity; things can get bent, broken or lost on the way.”² This

condition is presumably compounded when one moves architectural content from two dimensional lines and numbers to a three-dimensional physical situation or vice versa. Evans complicates the thought:

“The assumption that there is a uniform space through which meaning may glide without modulation is more than just a naïve delusion however. Only by assuming its pure and unconditional existence in the first place can any precise knowledge of the pattern of deviations from this imaginary condition be gained. ... I would like to suggest that something similar occurs in architecture between the drawing and the building, and that a similar suspension of critical disbelief is necessary in order to enable architects to perform their task at all.”

He notes that drawings are material and that this is related to their effect, but certain types of architectural drawings interestingly also function as a strict registration of something that does not yet exist. In order for buildings to be made, the object to be realized needs to be seen through the dimensioned lines, numbers, shapes and words assembled on a page. One projects the building not by seeing the drawing, but instead, as it were, through it. “Drawing in architecture is not done after nature, but prior to construction.” Construction or ‘working’ drawings in particular seem to require a provisionally imagined transparency.

Previously unexamined, fragmented early planning approval documents and construction details for Buhrich’s house, barely surviving an office fire, are now held in a NSW State Library archive. Each sharply reflecting a practical means to manifest his building, they collectively offer important insights into the silent priorities of a highly skilled architect who wrote and spoke rarely and published minimally. Terse, detailed and measured, they are redolent of the time in which they were made and of Buhrich’s design and realization process in this particular project. Never intended for publication, they dryly register the thought connecting drawing and building in the long physical production of this highly personal work. An examination of these almost private documents, and their unusual transition into building, will form the focus of this paper, mindful of the mirrored later design drawings publicly ‘presenting’ the finished house. Archived materials will be explored in the light of their somewhat mysterious capacity to assume descriptive authority over something not yet there. Comparing material properties, double exploration will be made of the parallel relationships between records before and after building, and the architecture that in distinct ways they represent.

Looking backwards from his building into Buhrich’s surviving documentation, one is struck by its hard precision and economy. Extremely efficient, only two roughly A2 sized sheets, number

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3 Evans, *Translations from Drawing to Building*, 154.
4 Ackerman, *Origins, Imitation, Conventions*, 165.
630/6 and number 630/7\(^5\) containing a site drawing, floor plans, two sections and four elevations, describe the entire building. Rough sketches of any overall building appearance are absent. Without knowing the house via disciplinary representation, it might not here be recognized. The images accurately prefigure an outcome that in substantial ways they scarcely resemble. Evan’s suggestion in relation to an imagined medium through which architectural drawings are projected seems apt; one could not realize Buhrich’s house by picturing something physically similar to his drawings. It is only possible to envisage the project by reading the descriptions as highly abstracted drawn conventions. Many seem more aligned with a scientific set of formulas than causally connected to a richly developed, dynamic physical form.

Numbered sequentially, the first drawing of this project in the archive is a clearly drafted plan. Number 630/5 is titled “sketch plan 3” and dated 18 May 1971. Probably drawn by Buhrich’s assistant Bill Chambers,\(^6\) it is remarkably similar to the final plan, although some important changes, in particular to the entrance area and façade-like southern wall were still to be made. It is not clear what drawings came before this one, presumably “sketch plans” 1 and 2 existed, and may have been lost in the fire. This drawing is burnt all along its top edge. The next two sheets, as noted, concisely delineate the project at a small scale largely as it was built. Both titled “working drawing” and dated 9 June 1971, it seems probable they were submitted for local council approval. Compressed and unsentimental, these depictions appear strikingly disengaged with building aesthetic preferences. It is plausible that their taut factual emphasis and diminutive presence assisted in negotiating planning regulations not particularly sympathetic to modernist architecture.\(^7\) Technically compliant and dimensionally correct, they barely hint at the ambitious material and spatial complexity of the finished house.

Sheet number 630/8, only the third in the working drawing set, is titled “Details Beam 1."\(^8\) With little or no architectural clues as to its location within the building or a finished appearance, it indicates shape and dimension together with all the different types of steel used in the design of a concrete floor beam located along the southern ‘façade’. The placement, dimension, frequency and spacing of all reinforcing mesh, rods and their relationships are here detailed. Extremely unusual as an early

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5 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. 630-48. Note both these drawings appear to have been badly affected by fire and smoke damage. Copies of them have presumably been made by Buhrich to recover the burnt part of the page, so that drawings numbered 630/6(A) and 630/7(A) also exist in the collection. My reference to the content of 630/6 and 630/7 also refers to both those copies.

6 The initials in the title block under ‘drawn’ are ‘BC.’ Peter Myers states in his introduction to the exhibition catalogue documenting the house at 375 Edinburgh Road “I really admire how Hugh and his meticulous, taciturn assistant Bill Chambers got this house up off the boards ...” Neil Durbach and Catherine Lassen, House: Hugh Buhrich 1972 (Sydney: Garry Anderson Gallery, 1991), np.

7 Required stair handrails are shown that Buhrich had (in clear retrospect) no intention of building. The drawings also indicate a car park area at the lower plan level accessed from an extremely steep (and ungraded) end of ‘Edinburgh Road’. Today that road area is a steep rocky stepped bush path. It is hard to imagine it was ever negotiable by car.

drawing in any set of architectural documents, this sheet’s close proximity to the small-scale plan and sections is indicative of the tight relationship one finds in the house between all construction details and a larger organizational conception. Buhrich’s priorities are here registered, structural material daring and engineering specifics are as important as the overall arrangements. Legible is an ambition later evident in the house. The main southern wall, whilst visually aligned with the ground, in reality floats. Supported by this concrete ‘Beam 1,’ the built result sustains throughout, a dynamic dialogue between weight and a sense of immateriality. Obliquely, almost mathematically, this drawing anticipates the later condition.

Nothing in these early notations seems vague or left to chance. A series of seven full sheets, 630/13 - 630/20, a large number of drawings given the broadly condensed documentation, consists of closely spaced gridded lines filled with numerical data. Every piece of reinforcing in this unusual, extensive steel schedule appears to have been here itemised, drawn in detail and fully dimensioned. Surveying the archived set, a framework of developed thought is conjured in which evident meticulousness and technical control is situated within a wider aesthetic ambition.

Drawing number 630/11 details structurally, materially, geometrically and dimensionally, a concrete spiral stair designed as a series of precast treads. The top portion of the page is burnt but the arrangement is impressive for the simple clear manner in which it compactly conveys all required information. As if a drawing of a machine component, it interestingly shows no image of the final assembled stair elevation. When built, this element powerfully and simultaneously embodies numerous complex ambitions. Structurally essential, it is a significant column, also creating a crucially charged moment in the house circulation. It is an element grounded as well as cantilevered, dynamic and light, yet made from earth-like material. Singular and sculptural, it is also constructed as repetitive re-assembled parts. Physically and metaphorically engaging the building with the landscape, it stands as a part of the house in the bush garden, in plan and in section. At once highly constructed, the final appearance of the stair also connects it to the trees. Dense with architectural thought, this building part in working drawing is visibly conceived within pragmatic criteria and the sense of construction. Circular geometry is explored. Internal relationships between arcs, radii and tangents are situated within structural limits and opportunities, material assembly conditions and dimensions for stair performance. A clear absence of rhetoric coupled with a heightened sense of abstraction pervades the drafted lines. Extreme restraint in this dry depiction contrasts powerfully with the lyrical beauty and symbolism of the built element. Yet the drawing with precise clarity appears to precipitate the finished outcome.


10 Drawing 630/11 in, Hugh Buhrich – collection of architectural and design plans, ca. 1940-1988, NSW Mitchell Library Drawing Archives, PXD970, nos. 630-48. Note this drawing has no title, no date and is not attributed. It is most likely to have been drawn by Buhrich.
Working drawings are usually organised in sequence, moving from overall descriptions of a building at small scale, gradually toward larger scaled portrayals of details. Part and whole, in this way, are generally distinguished. Here, the documents do not evoke such easy divisions. Tiny plans, sections and elevations are immediately followed by the unusually detailed documentation of one beam articulating every reinforcing bar. The next sheet, number 630/9 is a part plan showing the entrance, study, corridor and bathroom(s). With every stud, timber thickness, cladding condition and steel column clearly visible, the detail resists many drawn conventions as short cuts or placeholders for future thought. Rather than a line with quarter circle for generic doors, typical in plans of this type, every door thickness is shown and in exact relation to adjacent wall cladding, frame, and/or cavity concealing a panel. The entire part plan is drawn as if it were furniture. Doors here are not easily separate from the walls. Suggested is a personal but systematic approach in which traditional distinctions, between architecture and engineering, pieces of furniture and enclosing boundaries, are not present. Throughout the house too, this attitude is legible. Structural walls and joinery elements function in equivalent ways. Floor surfaces and furnishings are not fundamentally distinguished. Traditional structural expectations and material roles are questioned. A refusal to reduce, to easily classify, to over simplify pervades every relationship and component.

Idiosyncrasies in this working drawing set include many detailed, highly oblique studies preoccupied with curvilinear geometry that are initially hard to position in the building. Not clearly signposted or cross-referenced to other drawings, on examination they are analyses used to determine accurate two and three-dimensional relationships between complex curved surfaces and sloping planes. An apparently calm resolution in the house of three curved partial vaults into a straight sloping ceiling and simple angled wall is here shown as hard won. Almost private in nature, appearing more as personal numerical calculations than easily communicable sketched images, they register too, the unusual relationship between drafting and building in this modern house. Buhrich also built the design, and the familiar mediation typically found between conception and construction, interpretation of documents and subsequent realisation by a builder, was in this architecture not present.

Time and this slow unusual process are somehow drawn. A sheet of door and window details, number 630/35, is dated July 20th 1972, thirteen months after the small-scaled plans. And built completion dates are hard to verify. A letter from Buhrich’s wife Eva to a close friend in New York, dated October 26th 1973 recounts:

12 Drawing 630/35 in, Hugh Buhrich - collection of architectural and design plans, ca. 1940–1988, NSW Mitchell Library Drawing Archives, PX0970, nos. 630–48. The initials in the title block are BC.
“No we still have not moved into the blasted house. Hugh is working longer and longer hours; but when you have only 2 helpers and everything is so unconventional, it takes ages. For example: he is still fiddling with his moulded fibreglass bathroom. Obviously it is uneconomical to make a mould for one object. No doubt it will be an unusual and exciting bathroom, all in one piece in bright orange. Then, the black slate flooring which will go all over except the bedrooms, arrived in June during a dock strike, went back to Italy via South America and has just returned. These were the two major items waiting so perhaps it should really be finished very soon now.”

Buhrich also continued to work on the house long after his family moved in. Another letter from Eva to the same friend, of 7 February 1976 notes: “Hugh is incredibly active and busy … present projects include: overhaul of diesel engine on his boat, making a huge woollen wall hanging, fixing aerials to the high fi and grinding concrete walls of the house, a terrible and heavy job.” Five years after the first working drawings, the project was clearly still being refined. An important architectonic element in the building, the wool wall hanging described, is now located internally between the floating concrete beams of the main southern façade. Published in the month before that letter, a photograph of the dining area shows the earlier interior wall finish. It similarly shows a large round paper lantern above the dining table, later evidently replaced with the more satisfactory line of three down-lights visible in that location in 1991 and today. Design and construction, drawings and detailed finish, in this project were radically intertwined. Many of the archived sheets are incomplete, with no titles or attribution. Such details, a lack of internal referencing and the irregular organization all reflect the fact that there was no need to visually explain the project to an external client, nor comprehensively tender it to a competitive builder. Yet construction documents from the outset, predict a not yet material, coherence. Atypical as a process, interestingly here registered, is the necessity of drawing in the evolution of this imaginatively measured architecture.

A partial plan, together with aforementioned photographs, was printed in a January 1976 issue of Australian House and Garden. Small, located on the last page of the article, toward the back of the magazine, and separated from the larger photos, it would have been difficult for most readers to understand the relationship between this diagram-like drawing and the images. No photographs of the building exterior are present and this brief public appearance of the house near the time of its completion raises many questions. By comparison, Hugh and Eva’s first home at 315 Edinburgh

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15 Published in, “An architect builds his ideal house,” Australian House and Garden (January 1976), 51. No identified author. Photography in the article is credited to Frank Gardner of Color Prints.
16 The drawing is cut so that the balcony, outdoor table, seating and external spiral stair are not included. On the portion shown, omitted important details are the internal stair to the wine cellar and the curved geometry of the bathroom.
18 To the author’s knowledge this same article was published twice. Re-published verbatim by Australian House and Garden within a selection of the ‘best’ homes they had published in the last few years, it employed the same images and layout. No identified author, “An architect builds his ideal house,” Australian House & Garden’s Greatest Houses, undated, 50-53 and 95.
Road had been well represented in a range of publications, often via elegant black and white photographs by Max Dupain. Of relevance too, is Eva’s work as a respected architectural journalist, she had written for *Australian House and Garden* for many years. In the same paragraph of her February 1976 letter in which she speaks of Hugh’s concrete grinding and wool hanging, she reports, “a publisher asked me to write a book.” She may well have been a critical force behind previous representation of her husband’s work. Tragically, she mentions then too, “I have been half sick for many months,” a quiet suggestion of the seriousness of her condition, in what was probably Eva’s last letter to her close friend.

Fifteen years hence, that small public mention long forgotten or unknown, an apparent absence of any historical registration of Hugh’s house prompted the late documentation and 1991 public exhibition. An exercise in fidelity, this mindful and dutiful translation was seen as fundamental to also transmuting the dense thought in the built work. Extremely complex as a structured series of spaces and lacking any easy ideological repetition or rhetoric, the house was and remains very difficult to see. For example, the three dimensional curvilinear movement in the bathroom elements, their implied liquidity, coupled with their corporeal colour and seamless shiny materiality, all tend to obscure the room’s abstract order and thoughtful organization. More visible in plan is the way in which an angled arrangement and functional hierarchy is tautly structured, the primary axis of each element subtly shifted geometrically. Apparent slow carving of the bathing elements worn by repeated movements of users through the room can be suggested. Relationships between functions, such as the possibility of shaving whilst looking at a double reflection of both oneself and in the landscape, can be inferred. Layers of built thought in tension, as well as in mutual support, can be, through drawing, provisionally, discreetly observed. Faithful tracing using disciplinary conventions brought a parallel mirror to early documents on the other side of Buhrich’s building. Following the architect, meticulousness and technical precision were priorities, efforts made to avoid exaggeration. Detailed recording was balanced by minimal depiction, no element over-described. Spare, flat, and linear, with no text, scale, north point or numbers, these exhibited measured drawings, foreshadowed by Buhrich’s own, presented an extremely material, three-dimensionally sculptural structure emphasizing abstracted architectural control.

Completeness here offered by hindsight, balanced archived fragmented drawn details. Though given the highly atypical design and construction process, plan and sections 630/6 and 630/7, delineate

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23 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. 630-48.
a remarkably finished conception. Minor adjustments from the initial designs are observable. As-built kitchen joinery elements, for example, were altered from primary plans, along with material details. Not present in early drawings is the striking window that extends a suspended glass dining table through adjacent sandstone into the landscape. Bathroom geometry is the most significant built variation from all small-scaled plans, which generally indicate orthogonal shapes. Shown as a regular rectangle, the bath was then alongside its adjacent wall, the basin similarly, though perpendicularly positioned.\(^\text{24}\) Sketched variations of orthogonal bath and shower placements exist, but the very early large-scale partial plan indicates a precisely drafted more fluid geometry, the bath angled in a manner very close to the finished assembly.\(^\text{25}\) A short basin edge in that drawing is aligned with the bath, though its primary axis was still more statically oriented east west. Buhrich may well have been committed in the early stages to a liquid like organization, yet refrained from drawing this in the submissions for planning approval; he may also have been uncertain about its material construction and cost. It is unclear why the 1976 *House and Garden* bathroom plan was inconsistent with its associated published photographs.

Explicitly explored in this project is a layered, mindful relationship with its immediate environment. Materially, symbolically and functionally intertwined with the house, numerous aspects of the surroundings are powerfully, consistently present and are crucial to any physical experience of this architecture. Life in the home is conceived in dialogue with the harbour foreshore, suspended amongst trees, a situation both contemplative and immersive. Perceiving Buhrich’s work in this entanglement presents a challenge, and perhaps partially explains its long obscurity. By isolating purely constructed aspects, in drawings that omit the image and material of the natural, his intervention is more easily seen. Measurement and geometry were thus used, as by Buhrich before the building, to help make later legible the subtle clarity of his proposition. And exhibited together with those later public presentations, in critical counterpoint, were huge photographs by John Gollings.\(^\text{26}\) Richly evoking the lived experience of the house in its spectacular setting, they also portrayed its dynamic material structure. Seductive images deliberately counterbalanced the drawn austere rigour. An intimacy together with a sense of spatial extension can be seen in the illustrated, inventive moments. Constructing their own physical environments, these photographs framed both house in bushland and bush ‘garden’ within the house.

In between two types of drawing, enmeshed within its landscape, Buhrich’s complex architecture resists determination. Documents for its imagined, physical projection, accentuate oblique

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\(^{24}\) Note this is the bathroom plan arrangement published in 1976 also showing photographs of the fibreglass built result. From Eva’s letters it seems this bathroom element was completed in 1973. No identified author, “An architect builds his ideal house,” *Australian House and Garden* (January 1976), 50-53 and 130.


mathematical distance and terse technical precision over visual similarity to the result. Irreducibly material, their traditional working drawing powers of conveyance mattered less in this case than their use as a medium to clarify construction thought. Layered with a negotiated idealism, distant from the building, they are dense with geometric explorations necessary to the structured reality of each component. Twenty years later, careful measurement and transcribed lines discovered those explorations, hidden in the material. Abstracted drawings represented built thought, discrete from its situation and physical immediacy. In his essay “Translations from Drawing to Building”, Robin Evans imagines a possible architecture with dual emphases. Vigorous engagement with the immediate material properties of things could be productively combined with an interest in the disembodied oblique distant action of the drawing. He suggests: “architects might conceivably combine, in such a way as to enhance both, the abstract and the corporeal aspects of their work.”

Buhrich’s circular geometries, remote but within his liquid red bathtub, sine-curving ceiling and concrete cast stairs, perhaps point in that direction.

27 Evans, Translations from Drawing to Building, 161.