Interiority, 2019, Vol. 2, No. 1, 79-93 DOI: 10.7454/in.v2i1.45 ISSN 2615-3386 (online) ISSN 2614-6584 (print)

# Interior Decoration to Exterior Surface: The Beleaguered Relief

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#### Abstract1

Surface articulation is a critical issue for interior architecture, and this paper sees the wall as a point of intersection where art and structure may converge and collide. A place of experimentation and a site of performance, built volumes and surface embellishments blur and reinforce edge conditions and ornament as embellishment and essential structure merge. This paper explores a sculptural relief Copper Crystals (1965) constructed by Jim Allen for the ICI (Imperial Chemical Industries) House (1964) situated at 61 Molesworth Street in Wellington, New Zealand, Following the building's failure, due to a 7.8 magnitude earthquake, the sculptural relief survived a five thousand tonne demolition. Construction, size and position of the work have contributed to its survival, partly because the relief shifted from surface activation to structural member. This paper investigates the relief as it protrudes from the surface of the building's interior. Surface, layer and structure extend beyond the planar, producing a range of complicated effects. Visible and invisible incrustations, geometric forms and structural matrices, transform and become linked to depth. substance, mass and thickness (Papapetros, 2013). The demarcation of the essential and inessential is blurred, and the perception of ornament as dangerous during earthquakes is subverted. This paper focuses on material mediation and points to new ways of interrogating the materiality and functionality of surface and places over time.

Keywords: surface, ornament, earthquake, demolition, sculptural relief

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<sup>&</sup>lt;sup>1</sup>A version of this abstract was published in 2017 Interstices Under Construction Symposium: Pattern/Surface—A Pursuit of Material Narratives. https://www.interstices.ac.nz/2017-interstices-19-under-construction-symposium-surface-pattern-a-pursuit-of-material-narratives/



Figure 1 Imperial Chemical Industries (ICI), ICI House, Wellington, mural. Winder, Duncan, 1919-1970: Architectural photographs. Ref: DW-1285-F. Alexander Turnbull Library, Wellington, New Zealand

#### Introduction

"How to distinguish the essential from the inessential? If indeed ornament is an embellishment or enrichment of the essential structure of an object, then surely it must be possible to locate this demarcation" (Gordon, 1992, p. 4). The ornament and structure couple has been much traversed and unpicked in the twentieth century. It continues to inform discussions around surface articulation and has emerged as a critical issue for interior architecture linked to advancements in fabrication. Observing the tension within modern thinking about murals, this paper acknowledges the view of the wall as a place of the architectural invention where the skin is independent and non-structural.<sup>2</sup>

The wall and its surface were generally seen as getting in the way of other architectural truths like those of materials, structure, and space. As a result, Modern architecture attempted to make the surface of the wall conceptually immaterial and transparent, perhaps most notably in the works of Adolf Loos and Le Corbusier. Modernism saw a separation of ornament and architectural surfaces, favouring functional structures and a lack of decorative detail. For Modernists, the wall was a critical and meaningful surface, both as a structural element and blank surface. Equally, sculptural relief was seen as an

<sup>&</sup>lt;sup>2</sup>This argument has been extensively reviewed. Andrew Benjamin writes, "In the case of Semper the key opening moment, at least for this project, is his discussion of the wall in The Four Elements of Architecture. If the wall's 'original meaning' is identified as the spatial enclosure, it is then possible to distinguish between a structure that is simply load bearing and the wall" (Benjamin, 2006, p. 4).

embellishment with no formal frame, with the wall being part of the work as well as its support.

This paper attends to a sculptural survivor of a recent Wellington earthquake: *Copper Crystals* (1965), Jim Allen's seven-metre-long relief of concrete panels, originally created for the New Zealand head office of the British company ICI (Imperial Chemical Industries) (Allen, 2014). Cast in 36 panels from a worked clay surface, the relief's physical integrity is a single material substrate. As it emerged from the ruins of a 5,000–tonne demolition, this relief shifted from surface activation and interior decoration to structural member, and eventually, exterior surface.

In Ruin Memories: Materialities, Aesthetics and the Archaeology of the Recent Past, Olsen Bjørnar and Þóra Pétursdóttir (2014) write that

ruination is conventionally understood as loss or destruction—but it can also be seen as a mode of disclosure or revelation, a recovering or bringing forth in their own often unruly fashion, inside is turned out, new assemblages formed ... bringing attention to the trivial and reticent. (pp. 11-12)

This paper investigates these processes of revelation, reversal, transformation, and mutation in the case of Allen's *Copper Crystals*. As the relief protrudes from the surface of the building's interior, surface, layer, and structure extend beyond the planar, to produce a range of complicated effects. Visible and invisible encrustations, geometric forms, and structural matrices transform and become linked to depth, substance, mass, and thickness (Papapetros, 2013). The demarcation of the essential and inessential is blurred, and the perception of ornament as dangerous during earthquakes is subverted.

## **Earthquake and Demolition**

On Monday 14 November 2016, at two minutes after midnight, a 7.8 magnitude earthquake struck fifteen kilometres north-east of Culverden, North Canterbury, and created widespread damage throughout Wellington City (M 7.8 Kaikōura, 2016). Aftershocks continued through the night: by 5 am, there had been two hundred and seventy-eight (Wellington, 2016). The assurance of the nine-storey ICI building at 61 Molesworth Street vanished, and the trembling ground changed the public space of the foyer, giving it over to uncertainty. Severely damaged, the building was unapproachable, and at risk of collapse.

Ten days later, an eighty-five-tonne excavator began to reduce the construction to rubble; there was little knowledge of the mural's fate (Nightingale, 2016). By December 2016 the building was demolished, destroying architectural fantasies of permanence made manifest in its built form.<sup>3</sup> The building's collapse was a result of an axial shear failure, unsupported reinforcing, and points of weakness in the concrete, steel, aluminium, and glass construction. Nestled under a structural concrete arch, however, *Copper Crystals* survived the 5,000–tonne demolition. The construction, size, and position of the mural contributed to its survival. The relief shifted from surface activation to structural member.

Earthquakes induce an uncertainty that cannot be entirely represented by a seismographic needle. The ground unzipping, surfaces become horizontally and vertically displaced. After the earthquake on 14 November 2016, extensive coastal uplift, and widespread landslides as well as slow-slip'silent'earthquakes, rippled throughout the lower North Island of New Zealand. The trembling ground offered proliferating details of mapped and unmapped faults, surface ruptures and slips. McLauchlan and Treadwell note in Earthquake Weather and Other Tentative Correspondence (2014) that

Assurance vanishes when the ground is a trembling liquid when the balance is unreliable, and premonitions disturbingly follow the event; the black lines of the earthquake graphs need a supplement to register the uncertainty induced by imaginative escalations of disaster. (pp. 24–35)

Surface becomes everything, folding interiors into external constructions, tectonic plates slide apart and rifts opened. Uncertainty and displacement prompted regulatory countermeasures. The seismic performance of buildings has been examined in New Zealand since 1888. Fenestrations, heavy cornices and ornamental projections are to be tied back, reinforced, and secured into existing structures (Skinner, 2009). By the late 1970s, Wellington City Council encouraged owners to upgrade and replace buildings vulnerable to earthquake, employing building

<sup>&</sup>lt;sup>3</sup> Demolition is often connected to cycles of fashion and attachment and subject to forces of nature, slowed down or hastened by regulatory frameworks. See Cairns & Jacobs (2014).

<sup>&</sup>lt;sup>4</sup> "Field observations, in conjunction with InSAR, GPS, and seismology reveal this to be one of the most complex earthquakes ever recorded. The rupture propagated northward for more than one hundred and seventy kilometres along both mapped and unmapped faults, before continuing offshore at its north-eastern extent. Geodetic and field observations reveal surface ruptures along at least twelve major faults, including possible slip along the southern Hikurangi subduction interface, extensive uplift along much of the coastline and widespread anelastic deformation including the eight metre uplift of a fault-bounded block. This complex earthquake defies many conventional assumptions about the degree to which earthquake ruptures are controlled by fault segmentation" (Hamling et al., 2017).

regulations established after the 1931 Napier earthquake (Gatley & Walker, 2014). Wellington's history of development, coupled with its seismic exposure, variable soil types, many tectonic faults, gale force winds, corrosive salt-laden atmosphere, steep hillsides, and variable geotechnical conditions, involved significant seismic retrofits involving securing and removal of decorative pediments, parapets, chimneys, and cupolas.<sup>5</sup>

For Jim Allen's *Copper Crystals* and the ICI building at 61 Molesworth Street, seismic activity and the uncertainty of a trembling ground shifted notions of ornament and structure. Movement and unpredictable states replaced surface as a separated and hierarchical entity (Taylor, 2009). The seismic activity disrupted the concrete construction where surface effects were anchored to structure, and now evidenced material movement and instability. The relief surfaced, and became a means to consider other surfaces while acknowledging the seemingly forgotten, or perhaps overlooked: the nature of its appearance both revealing and concealing.

## Mural Relief, 61 Molesworth Street

ICI (Imperial Chemical Industries), founded in 1926, produced chemicals, dyes, explosives, fertilisers, synthetic fibres, insecticides, dyestuffs, non-ferrous metals, paints, rat killer, and nuclear weapons. In the 1920s the company developed new chemical products, including the acrylic plastic Perspex, Dulux paints, and polyethylene, which would later become an element in the fibre known as Terylene (Kollewe & Wearden, 2007). Terylene's chemical structure is a modified polyethylene terephthalate, and it was one of the first wholly synthetic fibres to be invented in the United Kingdom, its desirable characteristics, including a "higher intrinsic viscosity and stiffer fibres with higher tenacity," as observed by industrial historians Hounshell and Smith (1988, p. 411). The chemical structure was used as an alternative to wool and cotton fabric; it kept its shape after washing, was very hard wearing, and would become one of the most widely produced synthetic fibres.

<sup>&</sup>lt;sup>5</sup> By the late 1970s, the local and central government began to address seismic risks following the 1942 Wairarapa earthquake and 1931 Napier earthquake. The 1931 Hawke's Bay earthquake, also known as the Napier earthquake, occurred in New Zealand at 10:47 am on 3 February, killing two hundred and fifty-six, injuring thousands and devastating the Hawke's Bay region. It remains New Zealand's deadliest natural disaster. Between 1971 and 1975 Wellington city council identified some seven hundred buildings as earthquake risk structural/seismic knowledge and design expertise started their dramatic increase from the mid to late 1950s led initially by the ministry of works. Structural mitigation included walls to diaphragms the addition of band beams. See Thornton (2010).

In the 1950s modifications to Terylene resulted in Crimplene, <sup>6</sup> a thick, heavy, wrinkle resistant, wash-and-wear polyester (Crimplene, 2015). ICl's assembly of such complex chemical structures transcended cloth to include food ingredients, speciality polymers, electronic materials, fragrances, and flavourings, visible in their composition at microscopic scales. Ladies' nylons and Sunbeam motorcycles reflect these shifting scales and the company's widespread reach.

ICI's modern advancements in almost indestructible chemical structures manifested in the magnified molecules that crept across the wall surface at 61 Molesworth Street. The surviving *Copper Crystals* relief offers surface as it becomes linked to substance, mass, thickness and structure. The wall relief shifts between abstract and representational strength. The textured concrete is a material constant, its plastic surface elaborating its depth and breadth, much like the double knit of ICI's Crimplene: two needles, two yarns, two materials knitted together into a single fabric, the resulting cloth thick and wrinkle resistant, its wash and wear shape promoted as "the scene stealer for the fashion-wise. Crimplene can be crushed, crumpled, splashed, soiled, stained, squashed and washed and comes up-like new" (Fibremakers, 1969, p. 30). The sculptural relief, like the almost imperishable Crimplene, tied itself into the structure of the building.

ICI House (1964) at 61 Molesworth Street was designed by the Australian firm Stephenson and Turner, with interiors by New Zealand artist Guy Ngan (1926-2017) and a sculptural relief by artist Jim Allen (Allen, 2014). A modernist podium with twin towers was constructed in reinforced concrete. The building was clad in a curtain wall that combined highly polished concrete panels containing Takaka marble, tinted glass, and dark structural glass spandrels (Balasoglou, 2006). The twin tower design combined office accommodation and an adjoining separately configured service tower. The building's careful massing, corner details, generous podium, and advances in curtain wall systems, articulated the modern façade: an example of the post-war revival of office buildings in Wellington from 1960 to late the late 1980's, which were often designed in an abstract, modernist hybrid language of curtain wall and brutalist concrete (Gatley & Walker, 2014).

Ngan was a public works consultant for the Ministry of Works and later joined the architectural firm Stephenson and Turner in 1970. In both posts, he employed his skills to incorporate his sculptures

<sup>&</sup>lt;sup>6</sup> Crimplene is a texturised continuous fibre produced by modifying Terylene. "Polyester textured yearns/branded 'Crimplene' was launched in 1959. Crimplene's 'performance, aesthetic properties, quick drying and resistance to crease and wear all contributed to its success" (McCann, 2005, pp. 49-50).

and the work of other artists into the design. <sup>7</sup> Ngan was also a member of the Architectural Centre, <sup>8</sup> an association in Wellington founded in 1946 which promoted the idea that every new building contract should include a sum of money set aside to commission a work by an established artist that was connected in some way with the site. <sup>9</sup> From the 1930s to the 1950s, murals played a central role in New Zealand architecture. Carlin (2018) describes the mural as "a synthesising of art and architecture; its polychromatised patterning dematerialising the structure and solidity of the wall, while at the same time subverting the nature of decoration, understood then as recidivist" (p. 97).



Figure 2 Imperial Chemical Industries (ICI), ICI House, Wellington. Winder, Duncan, 1919–1970: Architectural photographs. Ref: DW-1286-F. Alexander Turnbull Library, Wellington, New Zealand.

Often working with Allen, Ngan was best known for his sculptural murals, working at a variety of scales and techniques, ranging from the façades of banks to small, hand-held pieces. Between 1957 and

<sup>&</sup>lt;sup>7</sup> Guy Ngan came to sculpture as a profession by way of a cabinet making, The Wellington Technical Institute, The Royal College of Art, The British School in Rome, as an industrial designer for Stephenson and Turner who were also responsible for Shell House (1960), BP House (1968-70), ICI House (1965) and the IBM Building (1971) amongst others in Wellington. See Cape (1980).

<sup>&</sup>lt;sup>8</sup> The Architectural Centre's (formed at the same time as the Architectural Group) main focus was the belief that urban development should be carefully controlled in the desirability of planning for a better future. "...the Architectural Centre has never been only an association of architects. It has been concerned with the state of the visual arts...the idea of the modern itself...correspondence between the fabrication of cities, buildings, interiors, furniture, paintings, sculptures, typefaces and so on" (Gatley & Walker, 2014, p. 6).

<sup>&</sup>lt;sup>9</sup> Although the idea never entered into legislation, it was adopted by a number of architects who put the concept into practice. Artists who completed architecturally associated public art commissions included Guy Ngan, Jim Allen, John Drawbridge, James Turkington, Roy Cowan, Russell Clark, Milan Mrkusich and E. Mervyn Taylor. Architects such as Ernst Plischke, Gordon Wilson and Maurice Patience were also part of this group. See Holloway-Smith (2018).

1973, Ngan won several notable awards and competitions for the *Reserve Bank Mural* (1972) at The Terrace, Wellington, *Newton Post Office Mural* (1973) at Karangahape Road, Auckland, Government *Print Mural* (1957) and *Invercargill Centenary Mural* (1971) (Blumhardt & Brake, 1981). Ngan often worked in commercial interiors, and his design included furniture fittings and murals in a variety of different media including bronze, gold, silver, aluminium, stainless steel, plastics, wood, and stone.

Explorations in light and surface were predominant in Allen's work from the mid to late 1960s with works that included the *Hocken Library Mural* (1967), commission for the *Bank of New South Wales, Queen Street, Auckland* (1967), and commission for *Logan Park Motel, Parnell, Auckland* (1967). In 1962 Allen began work on the Futuna Chapel (1962) altar windows in Wellington, using plexiglass donated by ICI New Zealand. Allen had earlier explored surface and light through plaster works including *Light Modulator* (1960) and *Studies in Light Over Surfaces* (1962-1965). Each was constructed from slabs of clay, with particular consciousness to the way light would play across the surface. Describing the process of working backwards into thick clay, Allen (2014) states that he "scrubbed out and reworked any unsatisfactory patches." Thick plaster cast moulds were constructed, over which a slurry of cement was poured, "allowing a surface definition that showed fingerprints" (p. 82).

## Micro-structures and Building Blocks

Copper Crystals measured seven metres long and three metres high, and was a prominent feature on the rear wall of the foyer at the entrance of the building. A number of plaster scale models were proposed, showing a scaled version of the interior of the lobby. Allen remarks that no fixing points were given for the mural, and he assumes the panels were fixed in place using a forklift (J. Allen, personal communication, March 7, 2017).

Allen describes the sculptural relief as "a sculptured concrete panel inspired by the micro-structures of naturally occurring copper crystals, building blocks of the chemical industry" (p.76).<sup>10</sup> The construction of the concrete relief for the foyer of ICI House was carried out on the floor of the sculpture studio at Elam School of Fine Arts at the University of Auckland. Assembled galvanised sheets and worked clay became the formwork for the concrete pour.

<sup>&</sup>lt;sup>10</sup> Allen notes that this was his first significant job with an architectural firm. He was shown the site and given the dimensions from the building plan. He then prepared a number of plaster scale models as proposals for them to consider. The microphotograph of copper-crystals was chosen. See Allen (2014, pp. 74-76).

The worked clay surface, filled with cement, gave sharp profiling to the modelling. The resulting negative forms offered elemental imagery. Complex, infinite, interlacing geometrical forms spread across the surface—a large microscopic lens that peers at the structural makeup of the building blocks of copper crystals. The surface articulation became a place for the architectural invention where the skin became independent. Following the earthquake, the sculptural relief became part of the work as well as its support. The concrete relief became the wall.

The sculptural relief, earthquake, and resulting demolition offer a particular reading of an instance of architecture and its materials which tests conventional assumptions about the connection between surface and structure, and the contexts in which they operate. <sup>11</sup> Surface and its remnants have become a place for architectural experimentation: a site for smooth geometries, tessellated patterns, and material textures that may also perform technical functions as joints, details, and joining patterns. Examining the production of surface effects and intensities, and the organisation of patterns and movement, offers a multitude of phenomena or readings. Here the surface of the sculptural relief becomes a site of performance. Built volumes, surface embellishments, decorative artefacts, and spatial geometries present manipulation of artifice as material.

Critical theorist Benjamin (2012) writes that "surfaces would have become either the bearer of ornament or construed as merely ornamental" (p. 62); surfaces materiality and not just its empirical presence is taken as significant and become a material event, an interconnection between geometry, program and the work of materials. From the viewpoint of the Modern artists and architects, walls were critical and meaningful surfaces for treatment or application, as well as being structural elements of the building. Modernism, with its privileging of the wall as structure rather than surface effect, resulted in the artists' work appearing as mere decorative embellishment, functioning as visual variety to relieve the blank slate of Modernism's vertical surfaces (Benjamin, 2006, p. 24).

The sculptural relief becomes a method for redefining the building's interior surfaces, but where on the face of a building does surface begin, and what is the perfect wrapper? Geometric formulations,

<sup>&</sup>lt;sup>11</sup> Andrew Benjamin (2012) notes that, "...within architecture the surface figures as both a historical and theoretical concern. As an introduction to the specific engagement with Borromini, Semper and Loos–all of whose work will pay a pivotal role in this reacting of the surface as a concept within architectural theory..." (p. 20).

<sup>&</sup>lt;sup>12</sup> Benjamin (2012) goes on to write that the surface forms a "connection between the buildings inherent materiality and material presence and function" (p. 64).

grids and highly organised structures, qualities of surface and material conditions suggest the fabrication of assembly and structure. The wall is a unique and singular site of an intersection—a nexus where two worlds converge and collide. Internal applied decoration materialises as inherent to the load-bearing structure. Ornament becomes a portable layer that can be detached from its original core and transported, inverted, and finally worn inside out.

# Sculptural Relief and Copper Crystals: Surface Pattern

The abstract forms of *Copper Crystals* offer an alternative to the visual structure of the foyer; flatness recedes into depth. The punctuated conversation of the design spreads across the wall like a crowded quarrel or point of dispute—deployed artifice, layering exaggerated patterns to emphasise the possibility of an animated surface plane. Arterial fractures disrupt the surface and radiate outwards, connecting clustered circular discs. ICl's chemicals and fabrics, evidence of the company's mastery of science shape the surface of the interior and have the potential to migrate.

The persistent experience of the molecular design sees the surface as a saturated environment of fragments constructed through repetition. Media critic Giuliana Bruno (2014) suggests in Surface: Matters of Aesthetics, Materiality, and Media that:

Architecture rethinks the distinctions between structure and ornaments, function and décor, form and façade, the surface no longer has the status of decorative elements but becomes an entity in itself. In contemporary times, surface turns into architecture...the surface becomes weighted, deep, differentiated, tartan, alternating, camouflaged, tonal, graduated, textured, branded, serial. (p. 93)

In Copper Crystals, such fluctuations are implicit: pattern and layer silently extend beyond the planar surface of the relief, constructing boundaries in which performance plays out, producing a range of complicated effects. The heavy sculptural surface of the mural relief, with its molecular view of copper crystals, constructs surface as a separated hierarchical entity and is replaced by movement, shifting states and structure (Taylor, 2009). Negative forms shaped from elemental clay, filled with cement, give sharp profiling to the modelling. The relief protrudes from the modern surfaces of the building's interior as visible and invisible encrustations, geometric forms, and structural matrices. The elements are dynamic: they do not impose fixity but, rather, imply the changing of one element into another.

Patterns oscillate between figuration, form, texture, and effect, and articulate a passage from the one to the anything, from centrality toward digression and dispersal (Gfader, 2013). The result is an illusion of movement, where the interplay of light and shadow, the dissolution of regular forms, and the overlapping of architectural elements, create a feeling of energy and restlessness. 'The eye is led "to and fro" as Wölfflin famously put it, across the blurred contours, superimpositions, and dislocations of the building's surface (Narath, 2015, p. 31).

Contrasts, repetitions, duplications, and surface torsions—overlapping, framing, layering, and disrupting, the sculptural relief frustrates the Modern emptiness of the foyer. A flowing rhythm and non-static visual viewpoint spread across the wall. The concrete copper crystals take on scale and material density, the structural and non-structural aspects of the building. The surface becomes independent, and a place for invention: the three-dimensional crystal relief engages both the momentary and the integrated potential of the surface. As Benjamin (2012) writes,

The possibility for a materialist account of matter precisely because matter reconceived in terms of work becomes a locus of potentiality. Potentiality is a quality intrinsic to materials once materials no longer have to bear the weight of being part of architecture's irreducible essence. (p. 93)

## Conclusion

This paper presents a spatial analysis that floats in a sea of other concrete stories. Allen's mural initially placed on the surface of the wall of an interior has become part of the architecture. Sheltered under a concrete arch wrapped in tangled reinforcing, the relief survived the failure of the building. Displayed to the street after the earthquake, the relief's role shifts from internal applied decoration, and this allows the work to be understood as inherent to the load-bearing structure. The demarcation of the essential and inessential is blurred, and the perception of ornament as dangerous during earthquakes is subverted. Daniel M. Abramson observes in Obsolescence: An Architectural History that

architects and others concerned with the built environment discovered that all that was solid did not necessarily melt into air. There were survivals and attachment that would have to be accounted for. Re-evaluation for the obsolete...the past persists as unpredictably as the future unfolds (Abramson, 2016, p. 137).

The surface is neither merely structure nor a decorative aspect of a building. Instead, the post-earthquake creation of surface allows for a reading of space and connection. The wall registers the demolition and failure of the building, yet it registers the presence of ornament. Matter's ghost presence has revealed the struggle behind the surface ornament and the site of the actual structural error. As the relief weaves its way furtively, the suspicion of a surface as mere mask or illusion frustrates the modern emptiness of the foyer. The now paradoxical and mobile surface mounted on architecture is separate, the somewhat temporary work having survived the demise of the building twice. The surfacing of the mural brings it to the fore, after a period of obscurity and a blind relationship with depth, and presents the surface itself as no longer secondary or superfluous.



Figure 3
Claire Robinson
(2017) courtesy of
NZ Mural Heritage
on Twitter: "Jim Allan
mural has been saved
(so far) in demolition
of Molesworth
St building
#greatnewsstory
@MuralsNZ
#nowwhat? @
justin\_lester?"
https://twitter.com/
Spinprofessor/

Following the earthquake, the relief collapses near and far, inside and outside, on its own sculpted surface. Pondering architectural ruination in *Buildings Must Die: A Perverse View of Architecture"*, Cairns and Jacobs (2014) observes that "buildings decay, their parts used in other buildings, some of their bits become souvenirs, others get inappropriately restored, buildings burn and get buried" (p. 64). But here, as the external structure crumbles and the relief itself emerges, it defies ruination. Uncertainty has revealed the inner relief, and its laminar surface becomes more than a painterly envelope or skin. Under the thrust of internal forces, the relief erupts into space and revels in the light. The wall, regardless, remains fixed in place, its surface now itinerant and liberated, establishing its own limits, and becoming mobile (Carlin, 2018). Complex, infinite, interlacing

geometrical forms spread across the surface—a microscopic lens that peers at the structural makeup of the building blocks of copper crystals. The surface articulation becomes a place for the architectural invention where the skin becomes independent; the sculptural relief becomes part of the work as well as its support. Internal applied decoration allows the work to be understood as inherent to the load-bearing structure.

Copper Crystals sculpted concrete panels have been preserved. The owner has indicated he would like the relief removed, to enable the site to be used for other purposes, and is prepared to gift it to a new owner. As a result, the Wellington City Council have now undertaken to fund the removal and storage of the work, and—along with the Wellington Sculpture Trust—the identification of a new installation site (Parsons-King, 2017). Offering a multitude of readings, the surface here is a performance where built volumes, surface embellishments, and spatial geometries blur, reinforce edge conditions, and where surface presents a manipulation of artifice as material and structure. Jim Allen's Copper Crystals serves as applied decoration, the Modernist equivalent of architectural ornamentation inside the ascetic space of a predetermined volume: a commission that attempted to change the muted volume of the office lobby. The relief questions the wall as a spatial enclosure that is structural and load bearing, refusing the distinction between ornament and structure, withstanding tectonic forces, and becoming a surface in its own right. Objects are formed and transformed by their movement, generating guestions, raising old arguments, and making new meaning in their preservation and persistence as equally as in their destruction and disposal.

## References

- Abramson, D. M. (2016). *Obsolescence: An architectural history*. Chicago, London: The University of Chicago Press.
- Allen, J. (2014). The skin of years / Jim Allen: interviews with Jim Allen by Phil Dadson and Tony Green. Auckland: Clouds, Michael Lett.
- Balasoglou, J. (Ed.). (2006). *Stephenson and Turner*. Auckland: Bagasoglou Books.
- Benjamin, A. (2006). Surface effects: Borromini, Semper, Loos. *The Journal of Architecture, 11*(1), 1-35. https://doi. org/10.1080/13602360600636099
- Benjamin, A. (2012). Architectural projections. Melbourne: RMIT

# University Press.

- Bjørnar, O., & Pétursdóttir, P. (Eds.). (2014). Ruin memories: Materialities, aesthetics and the archaeology of the recent past. Milton Park, Abingdon, Oxon: Routledge.
- Blumhardt, D. & Brake, B. (1981). *Craft New Zealand: The art of the craftsman*. Wellington: Reed.
- Bruno, G. (2014). *Surface: Matters of aesthetics, materiality, and media*. Chicago; London: University of Chicago Press.
- Cairns, S., & Jacobs, J. M. (2014). *Buildings must die: A perverse view of architecture*. Cambridge, Mass: The MIT Press.
- Cape, P. (1980). Please touch: A survey of the three-dimensional arts in New Zealand. Auckland: Collins.
- Carlin, P. (2018). *On surface and place: Between architecture, textiles and photography.* London: Routledge.
- Crimplene. (2015, June 26). *Vintage Fashion Guild*. Retrieved from https://vintagefashionguild.org/fabric-resource/crimplene/
- Fibremakers: Maxine puts you in the fashion spotlight in 'Crimplene'. (1969, March 12). *The Australian Women's Weekly*. Retrieved from https://trove.nla.gov.au/aww/read/224750#page/3/mode/1up
- Gfader, V. (2013). On the fabulation of form of life in the drawn line and systems of thought. *Mechademia*, 8, 61-71. doi: 10.1353/mec.2013.0011
- Gatley J., & Walker, P. (2014). *Vertical living: The Architectural Centre* and the remaking of Wellington. Auckland: Auckland University Press.
- Gordon, R. B. (1992). *Ornament, fantasy, and desire in nineteenth-century French literature*. Princeton, N.J.: Princeton University Press
- Hamling, I., Hreinsdóttir, S., Clark, K., Elliott, J., Liang, C., Fielding, E., ... Stirling, M. (2017). Complex multi-fault rupture during the 2016 Mw 7.8 Kaikōura earthquake, New Zealand. *Science, 356*(6334), eaam7194. doi: 10.1126/science.aam7194
- Holloway-Smith, B. (2018). Wanted: The search for the Modernist murals of E. Mervyn Taylor. New Zealand: Massey University Press.
- Hounshell, D. A., & Smith, J. K. (1988). Science and corporate strategy: Du Pont R and D, 1902-1980 (Studies in Economic History and Policy: USA in the Twentieth Century). Cambridge, New York:

- Cambridge University Press.
- Kollewe, J., & Wearden, G. (2007, June 18). ICI: from Perspex to paints. *The Guardian*. Retrieved from https://www.theguardian.com/business/2007/jun/18/2
- M 7.8 Kaikōura Mon, Nov 14 2016. (2016, November 14). *GeoNet*. Retrieved from https://www.geonet.org.nz/earthquake/story/2016p858000
- McCann, J. (2005). Material requirements for the design of performance sportwear. In R. Shishoo (Ed.), *Textiles in sport*. Boca Raton: Woodhead Publishing.
- McLauchlan, L. & Treadwell, S. (2014). Earthquake weather and other tentative correspondences. *Interstices: Journal of Architecture and Related Arts*, 15, 24-35.
- Narath, A. (2015). Großstadt as Barockstadt: Art history, advertising and the surface of the Neo-Baroque. In A. Leach, J. MacArthur, & M. Delbek (Eds.), *The Baroque in architectural culture*, 1880-1980 (pp. 29-42). Farnham: Ashgate.
- Nightingale, M. (2016, November 21). Demolition of earthquake-hit 61 Molesworth Street in central Wellington unlikely to begin today. *NZ Herald*. Retrieved from http://www.nzherald.co.nz/nz/news/article.cfm?c\_id=1&objectid=11752019
- Papapetros, S. (2013). From ornament to object to surface. *Oxford Art Journal, 36*(3), 470-474. https://doi.org/10.1093/oxartj/kct024
- Parsons-King, R. (2017, January 19). Reprieve for mural in quakestricken building. *Radio New Zealand*. Retrieved from https://www.radionz.co.nz/news/national/322680/ reprieve-for-mural-in-quake-stricken-building
- Skinner, R. (2009). Understanding the risk. *Fabrications, 19*(1), 122-139.
- Taylor, M. (2009). Relentless patterns: The immersive interior. Architectural Design, 70(6), 43-47. https://doi.org/10.1002/ad.977
- Thornton, A. W. (2010). *Twenty-five years of strengthening Wellington*. presented at the meeting of the New Zealand Society for Earthquake Engineering Conference, Te Papa, Wellington, New Zealand, 24-26 March 2010.
- Wellington shaken awake by deadly earthquake, damage to CBD buildings. (2016, November 14). *NZ Herald*. Retrieved from https://www.nzherald.co.nz/nz/news/article.cfm?c\_id=1&objectid=11747451