Guest-edited by Daniel K Brown
and Michael Chapman

The Allegorical Architectural Machine

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THE ALLEGORICAL ARCHITECTURAL MACHINE

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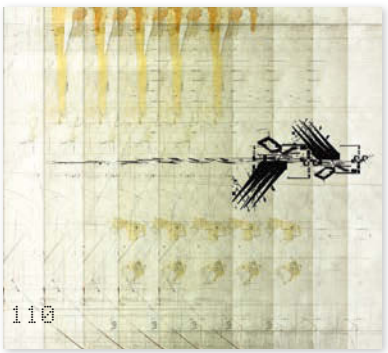

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> The machine provided both an aesthetic and functional device linked not only to architectural form but also to fabrication.
>
> — Daniel K Brown and Michael Chapman

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ABOUT THE
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DANIEL K BROWN
MICHAEL CHAPMAN

Daniel K Brown is Professor of Design Studio at the Wellington School of Architecture in New Zealand, where he specialises in Architectural Design Studio teaching at undergraduate and postgraduate levels. Michael Chapman is Professor and Chair of Architecture and Design at Western Sydney University, where his research and practice focus on architectural drawing, urbanism, industrialisation and artificial intelligence. In 2021, they collaborated jointly in a panel presentation about the allegorical architectural machine for the International Society for the Study of Surrealism conference, titled 'Machines Don't Care: Architecture, Drawing, and the Surrealist Machine'. Both are deeply committed to creative practice as research, with a shared focus on architectural drawing and exhibition. They have exhibited extensively, nationally and internationally, including at the Venice Architecture Biennale. Their work on the machine as an allegorical device is a constant theme throughout their architectural research, practice and teaching.

Daniel is an American-born New Zealander. He completed his MArch degree at Yale University, and is a registered architect in New York. During his 26-year academic career, he has won 12 teaching awards, including the New Zealand National Award for Sustained Excellence in Tertiary Teaching. He has been awarded seven international research fellowships, including the American Fulbright Fellowship; three national research fellowships; and 16 professional awards for collaborative designs. A five-year retrospective of his work was exhibited at the 2010 Venice Architecture Biennale in the host Italian Pavilion, as part of the exhibition 'Reflections from the Future', which included architectural designs responding to the theme of 'work that unveils a vision of architecture as civil art capable of generating solutions for a society in the midst of deep-seated change'. During his 14-year professional architecture career, Daniel worked for Emilio Ambasz & Associates and Richard Meier in New York, Harry Seidler in Sydney, and Brown Daltas in Rome. He was Vice-President of Emilio Ambasz & Associates for six years. His projects from this time have been published in 12 books (including eight monographs) and 200 international journal articles, won seven international awards, and have been exhibited in London, Tokyo, Milan, Bologna, Monterrey and Mexico City.

Michael Chapman attained his architectural qualifications at the University of Newcastle, New South Wales, which developed an international reputation in the 1990s for its commitment to problem-based learning and rigorous architectural process. He also has a Research Masters, focusing on the drawings of Lebbeus Woods, and a PhD on the relationship between Dada and Surrealism and architecture. He is currently completing a second PhD at RMIT University in Melbourne, exploring allegory and drawing by documenting the architecture of fictional architects whose first name is Michael. He has been engaged in architectural practice since graduating, and has completed a number of bespoke houses and adaptive reuse projects in Newcastle. As well as his built work, he has undertaken an extensive number of exhibitions over the last 20 years, being twice shortlisted for the Australian Institute of Architects' Unbuilt Architecture award, and receiving a commendation in 2021. As well as his exhibition work, he is a co-author of *Residue: Architecture as a Condition of Loss* (RMIT Press, 2007), which proposes ways for architectural machines to engage with historical events.

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Building Machines

INTRODUCTION

MICHAEL CHAPMAN
AND DANIEL K BROWN

The machine is one of the most recurring elements in the architecture of Modernism, originally fetishised in the first decades of the 20th century in both the polemics of Le Corbusier and the discursive avant-garde practices of Dada. The mass expansion of industrial processes and technological innovation, fuelled to a large extent by two catastrophic wars, saw unprecedented technical innovation in the decades after. The machine provided both an aesthetic and functional device linked not only to architectural form but also to fabrication. Both aspects became central to Reyner Banham's influential theory of architecture in the 1960s[1] which drew from the early experiments of the avant-garde to frame a future of design inseparable from the mechanical processes of industrial production. These machinist histories provided the DNA upon which a speculative and ambitious design culture emerged in the 1980s that sought to propose new histories, narratives and imagery in order to chart this new terrain.

With the expansion of Poststructuralist theories in the late 1960s, there was an intensification of concern for radical Marxist and feminist theories which repositioned labour and the machine as historical subjects, tied to language and cultural expression. It was in this context that a range of exploratory practices emerged in the late

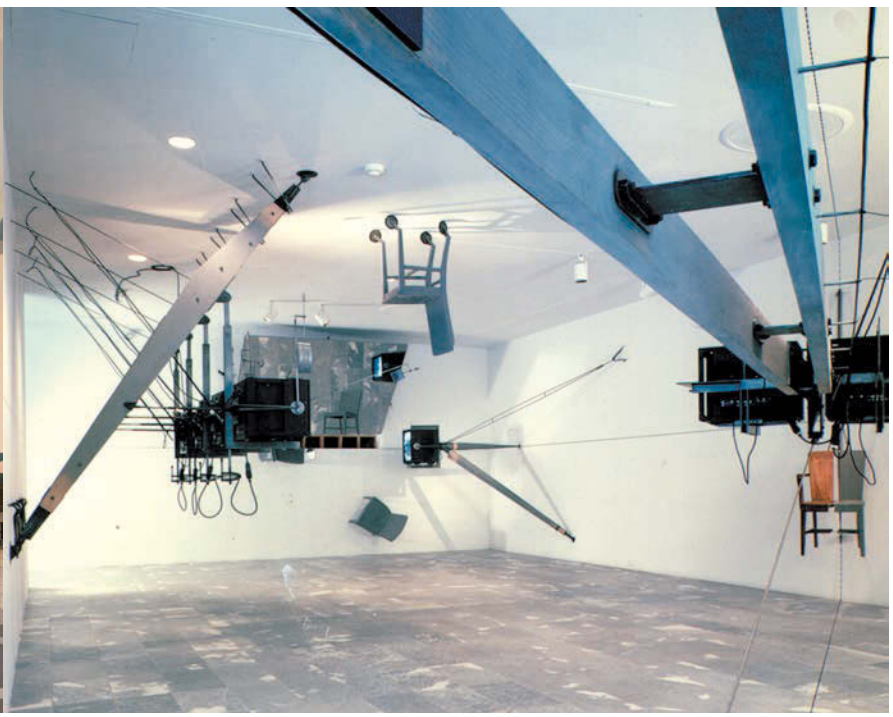
From Prodigies to Progeny

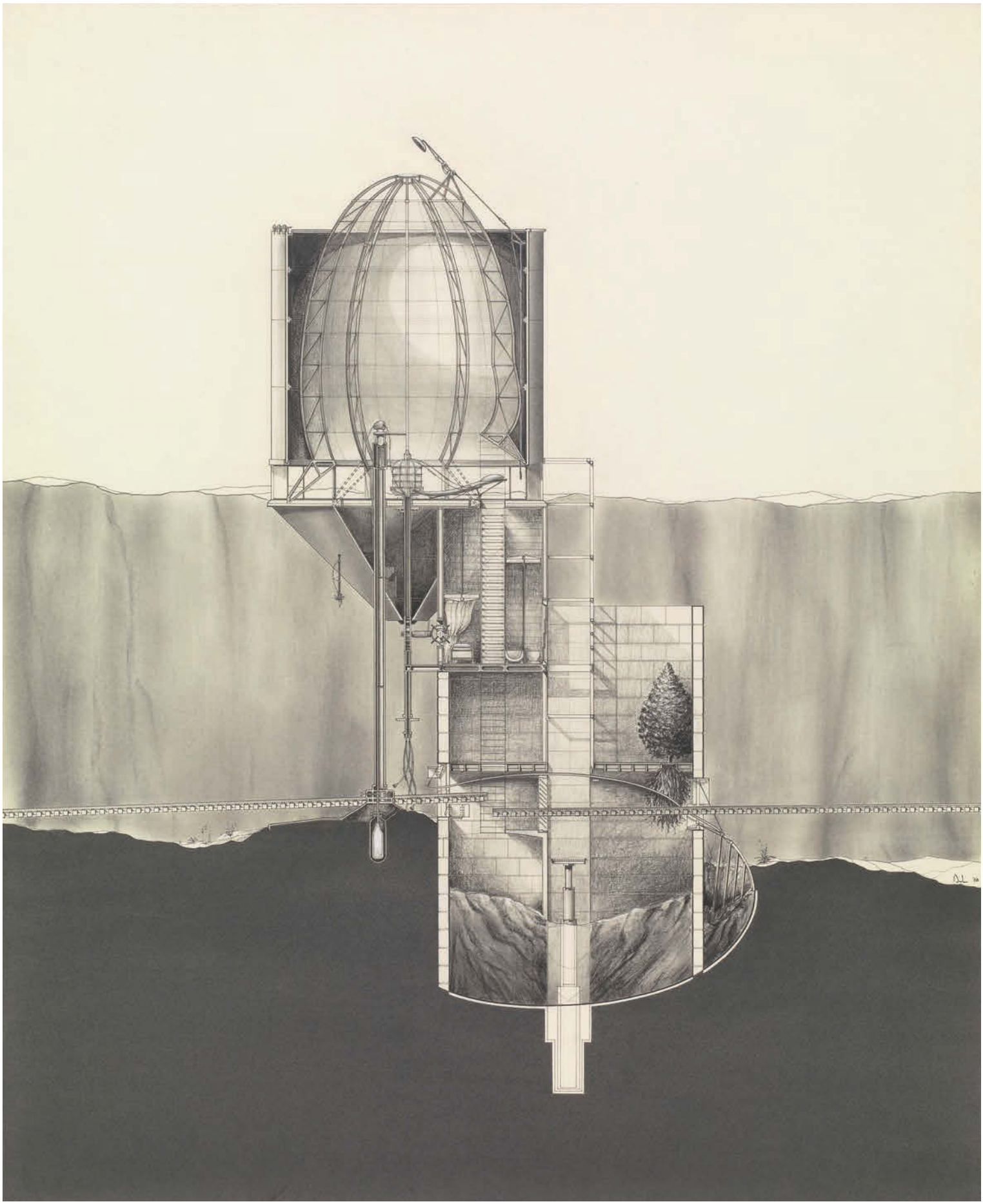
1970s through to the 1980s that set out to engage more deeply with complexity as well as language. In 1978, Italian architect Carlo Scarpa incorporated machinic gears and counterweights into his Brion-Vega Meditation Pavilion in San Vito d'Altivole to imply temporal movements allegorically capable of transforming a pavilion for meditation into a tomb for the ruminant. In the context of North America, there was a wave of provocative practices, such as Morphosis in Los Angeles, who undertook intricate and carefully calibrated models and buildings. Equally influential was the early work of Diller + Scofidio (now Diller Scofidio + Renfro) which developed a collaborative practice that challenged the relationship between body and machine, as well as the boundaries between art and architecture. Their *Para-Site* project, from 1989, explored the intertwined relationship between televised media, machine prosthetics and architectural space in a gallery context where the viewer and building became part of an expanded field of cultural production. At the same time, in Japan, architects such as Shin Takamatsu were drawing and constructing elaborate and refined machine-architectures from the mid-1980s, which invented new forms and spaces for this relationship and its representation.

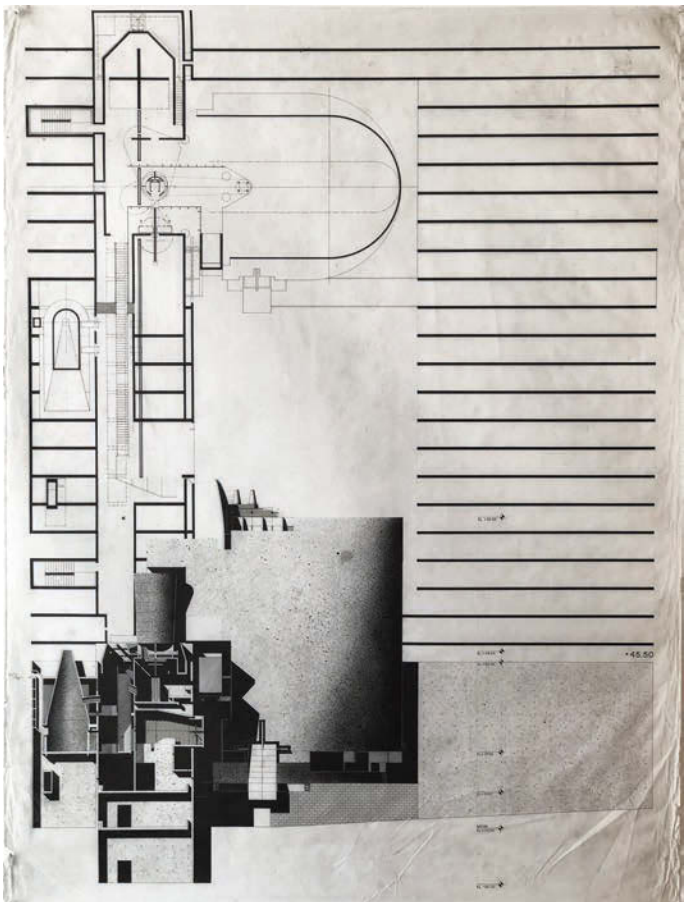
Carlo Scarpa,
Brion-Vega Meditation Pavilion,
San Vito d'Altivole, Italy,
1978
opposite: The legs of Scarpa's pavilion are slotted and in sections, implying that the roof component can be raised and lowered by the pulleys and counterweights to the right. The height where the roof has come to rest suggests that you must bow as you enter. Once inside, you must kneel to see out; and once you kneel, you gaze upon your own reflection in the water. The pulleys and counterweights on the opposite wall, like the cogs and pendulums of an ancient timepiece, are active participants in the allegory. If the gears and counterweights were to lower the heavy roof to the ground, it would take on the form of a tomb.

Morphosis,
Kate Mantilini steakhouse,
Beverly Hills, California,
1986
below left: A machine-like orrery is suspended from the ceiling at the end of the restaurant's main axis. Its needle appears to be caught in the act of inscribing the plan of Morphosis's design onto a stainless-steel plate on the floor.

Elizabeth Diller and Ricardo Scofidio,
Para-Site,
Museum of Modern Art (MoMA),
New York,
1989
below right: American architects Diller and Scofidio's machine-rich installation – first exhibited at the 1989 MoMA Project Series in New York – portrayed architecture as voyeuristic and opportunistic, feeding off the structural and electrical components of its architectural site.







Neil Denari,
Monastery - New York City - No. 8305,
1987
left: Denari's Monastery creates a brazen machine architecture as a retreat from the urban grid of New York. The iconic project, executed in both drawing and model, is derived from traces of the machine and its Modernist history.

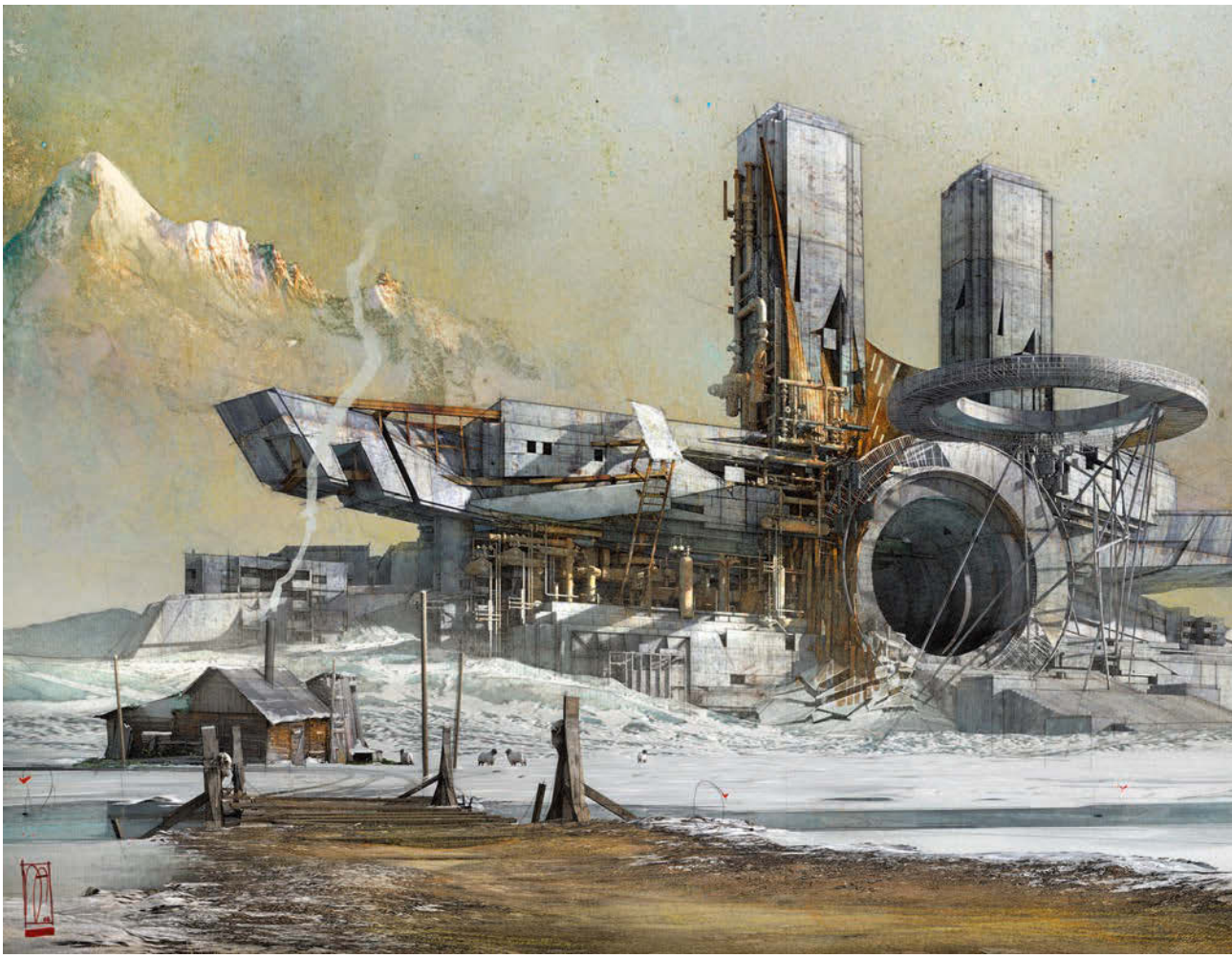
Douglas Darden,
Oxygen House,
1988
opposite: One of Darden's most refined projects, the *Oxygen House* takes distinct elements from William Faulkner's novel *As I Lay Dying* (1930), which becomes its fictional site. Darden weaves traces of the storyline through a diagonal axis between life and death, symbolised in the tree and the oxygen tent. In counterpoint to Le Corbusier's 'house for living in', Darden's *Oxygen House* is a house for dying in – and ultimately to be buried in. It was designed for the mythical client Burnden Abraham, a man confined to an oxygen tent, who wanted his mechanical life support system to become his final resting place.

Revisiting the dialogue between architecture and machines is a history inherently punctuated by the 1987 publication of Robert McCarter's *Pamphlet Architecture No 12*, on the topic of *Building; Machines*.[2] This small publication drew together an impressive collection of emerging and exploratory practices that had, at the time, used this relationship as a launching pad for new forms of architectural practice and thinking. Contemporaneous with the massive expansion of digital drawing practices over the next decade, it was an invitation to collaborate with machines, to form new relationships with them and, fundamentally, to radicalise the role of architecture through this engagement. Drawing together a combination of revolutionary and ambitious design practices, the publication created a narrative for the machine in contemporary architecture at the philosophical, spatial and analogical levels. Some of these now canonical projects, such as Neil Denari's Monastery in New York City (1987), significantly expanded the role of the machine, both in functional and philosophical terms, implying an allegorical as well as functional capacity.

Allegorical Machines

'Allegory' is a term that has its origins in film and literature, used as a device to allow multiple and usually deliberate interpretations of a narrative to emerge. In this context, it functions as a device, or tool, that allows shifts between divergent viewpoints and conflict to co-exist. Where mechanical analogies in architecture have historically been linked to functional and industrialised processes, it can equally be imagined as a mechanical process for weaving competing strands of narrative, history or programme together. In this context, the allegorical machine is a device, but one operating at a symbolic level as well as a functional one. In the realm of speculative and unbuilt projects, allegory creates a decoding mechanism, offering the viewer a way into architectural processes that can be mapped to known or discovered narratives from film, literature or life.

In the early 1990s, American architect Douglas Darden's intricately drawn work emerged, scattering fragments of meaning across painstakingly drawn plans and sections. His method borrowed unapologetically from literature in both method and material. Using a process he described as the 'Composite Ideogram', Darden merged layers of drawn artefacts of multiple storylines into the one diagram, which became the source for his fictional architectural projects. Inherently subversive, Darden was amongst the first to use the term 'allegory' consciously in an architectural context, suggesting that the tools of literature could be transplanted into architectural narratives and, more importantly, that the machine could be a device for translating and disguising these.

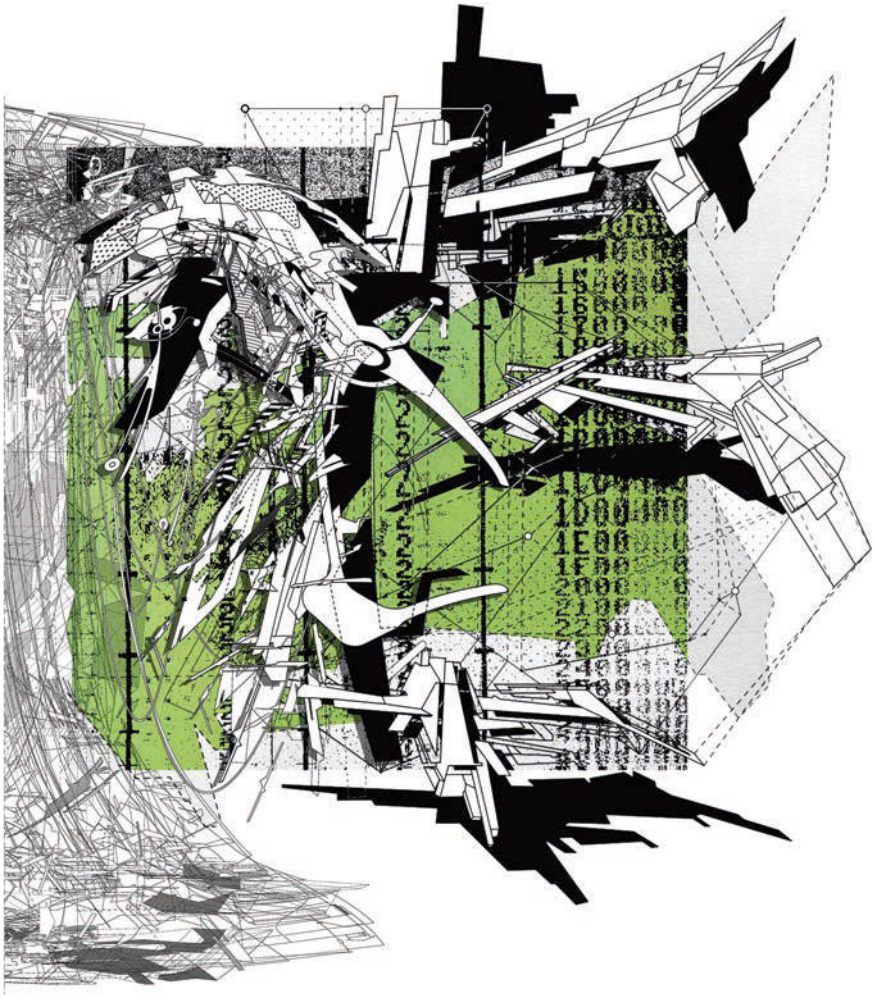


Our present is constructed from newly emerging paradigms that are no longer tied to the hegemonies of the 20th century, the functionalist concerns of Modernism or even the intertwined labyrinths of Poststructuralism. Here the machine enters a new cycle of evolution, demonstrated in the graphic depictions of Rania Ghosn and El Hadi Jazairy (DESIGN EARTH),[3] Bea Martin's 'Machinic Assemblies' (2023)[4] or the haunting apocalyptic imagery of Dennis Allain which all provide a glimpse of a future world dominated by advanced machinery. Revisiting the relationship between architecture and the machine from our contemporary vantage point, and drawing from a broad international perspective of critical discourse, this issue of Δ looks at the role of the machine in constructing, concealing and completing these narratives. Each author, in their own way, embeds the machine into speculative representations as an allegorical device to awaken us to the nature of the world we have inherited – and most importantly, to the world we are destined to leave behind.

Machine Practices

The issue is clustered into three interrelated themes, proceeding from practice to pedagogy to pure invention. The first explores mechanical and machine practices, drawing together speculative and built projects and processes that engage directly with the machine and its representational potential. The issue starts with the highly influential and seductive drawing practice of California-based architect and educator Bryan Cantley. Spanning more than three decades of dedicated production, Cantley's drawings offer continually inventive and mechanical ways of interacting with and disrupting existing known forms of machine architecture as a platform for both exploration and invention.

Next, Russian architect Kirill Chelushkin presents his Paris studio in 'Between Utopia and Hallucination', which provides a passage from the Russian Constructivists, via the American industrial architect Albert Kahn, to a highly advanced speculative drawing practice. These machine landscapes deliberately challenge the laws of gravity and friction as well as those of architectural convention. Architect Tom Kundig's 'Essential Machines' takes us through an impressive body of built work across North America, through which he has maintained a close



philosophical and functional relationship with the machine as an aesthetic and programmatic component in his work. What he refers to as 'kinetic architecture' is a mode of practice that uses mechanical relationships to connect more deeply with both site and user in built form.

Portuguese-born, London-based architect Bea Martin then walks us through the world of Argentinian architect Adolfo Moure Strangis's astonishing drawings as though wandering through a strange garden or Jorge Luis Borges's labyrinths.[5] These introspective machines have a reflective quality that situates allegory as a choice between pathways, with equally seductive architecture in either direction. Italian-born, New York-based architect and academic Giuliano Fiorenzoli provides a personal account of his own drawing practice which began in the 1970s. Fiorenzoli's process seeks out dynamic relationships, either actual or implied, in a body of work that repositions allegory as a constantly shifting position. Lastly for this first theme, Guest-Editor Michael Chapman's 'Coping Mechanisms' presents a more nurturing and vulnerable machine as a counter to the functionalist trajectory of the 20th century. Through collaboration and drawing, these machines set out to discover a softer technology, more attuned to the fragilities of the present day.

Bea Martin,
Project-I-on,
2023
above: Fields that are no longer steady, evolving or enduring, built on the repetitive and recurrent nature of established conditions, but instead are erratic, unanchored, unprecedented. This drawing portrays artificial states of existence – fabricated, manipulated, irregular, synthetic, bizarre and unexpected.

Dennis Allain,
The Fisherman,
2023
opposite: A machine-like structure sited near the dwelling of an Inuit fisherman represents the stark contrast between the very old and the very new. The architectural plates of the building mimic shards of broken ice, as its two tower masses pay homage to the mountains beyond.

Patient Caleb Skene
THANATOPHORIC DEVOLUTION