

*Rachel Hurst*

# MEGALOMANIACAL PLANS: EXPLOITING TIME AND TRANSPARENCY

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## ABSTRACT

*If there is one drawing indispensable to the description and production of architecture it is the plan. As it slices through space and substance, it allows us to describe and communicate the partis, construction and circulation of a building, all with the benefit of a bird's-eye, or God-like elevated view that confirms our architectural authority over the design. As the preeminent tool to conceive and construct architecture, the plan has evolved highly codified techniques of representation, including the superimposition of transparent layers of drawings to show alternative arrangements, additional storeys, reflected surfaces or site conditions. Superimposition thus allows an extrusion from two- into three-dimensions. This paper explores how this tactic of superimposition can also operate as an extrusion into the fourth dimension of time, to reveal insights into the histories of both drawings and buildings.*

*Three projects support this premise, described in intertwining, parallel texts of theory and practice, and in an accompanying gallery of images. Contextualised against Eisenman's defining use of 'superpositioning', and Rossi's analogical collages, the projects align with contemporary drawing-thinking practices of polyvalency and indeterminism. They develop a practice of using archival plans as a primary source for research and creative speculation. The resulting works explore three concepts: the conventions and possible future of analogue architectural representation; the use of the archive for speculative practices; and the use of speculative practices to construct new knowledge.*

## BIOGRAPHY

*Rachel Hurst is Senior Lecturer and Design Coordinator in Architecture at the University of South Australia, joining the School of Art Architecture and Design after fifteen years in practice. She has an extensive exhibition and publication background, of over 20 shows and 80 text works. She holds a PHD by practice from RMIT. Her thesis, The Gentle Hand and the Greedy Eye, investigated the everyday, hybrid analogue representation and curatorial practices through works of diverse media and scale. It was awarded both the Pinnacle and Judge's Choice Awards for Publication in the 2016 Australian Graphic Design Awards, and was a finalist in the NGV Art Book Publishing Prize 2017. Rachel is a contributing editor for Architecture Australia, and regular juror in national and international awards and competitions*

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Despite the fact they carry a critical part of the DNA of a building within them, architectural plans are often artefacts of flimsy substance, inscribed on paper-thin, transparent or virtual ground. Their material reality belies the weight of the knowledge they store. But this is a characteristic of almost any architectural drawing, where the inherent linearity of the way we draw reduces the substance of material construction to micron-thin inscriptions of edge and boundary. This is no more apparent than when we use techniques of superimposition to collapse and collide spatial delineation as a way to see through not just one level of a building but through the entirety of its volume, or more speculatively, through its temporal context.

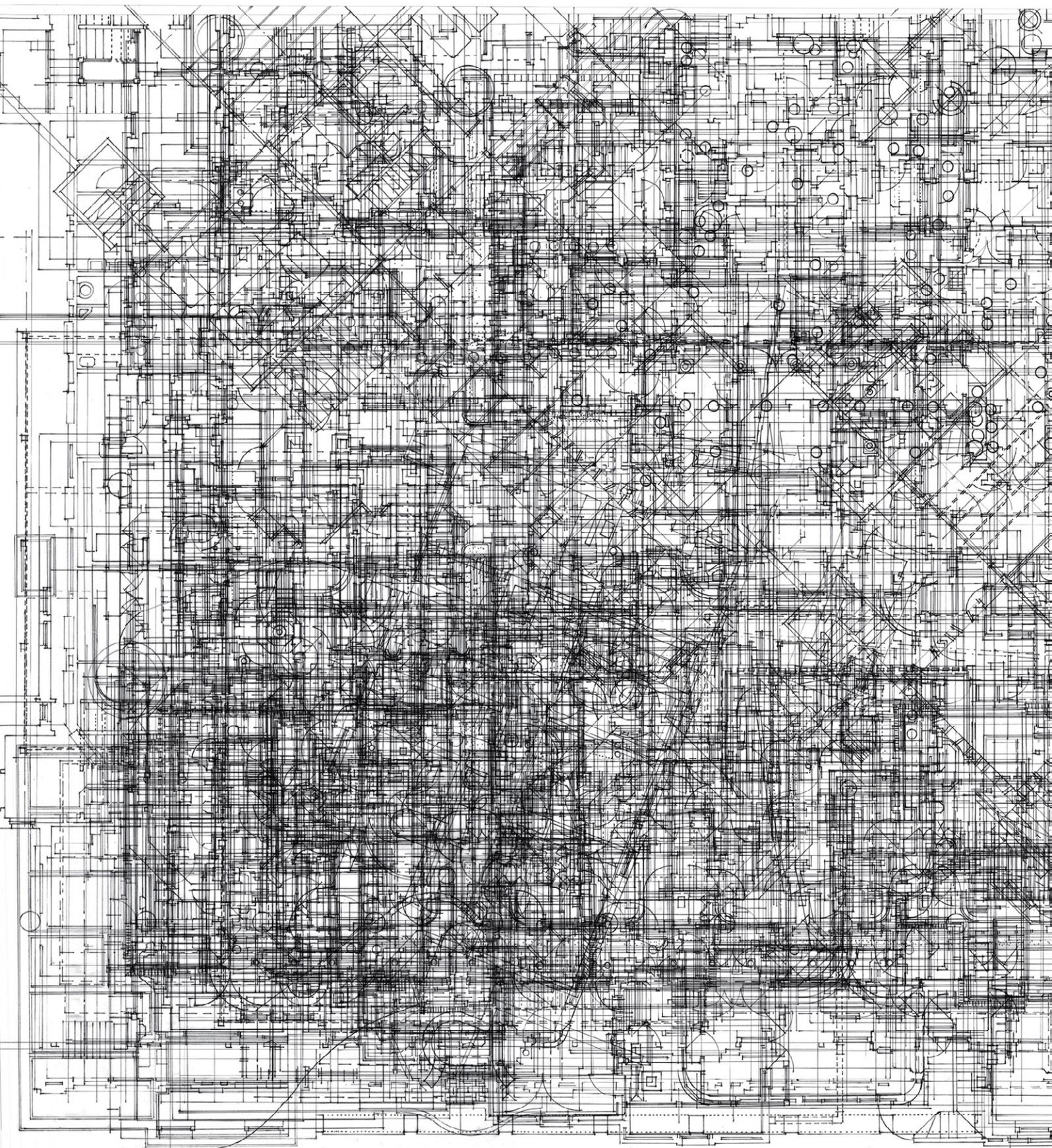
Simple in essence, superimposition is a methodology that has been widely deployed—beyond practical documentation—as a mode of drawing-thinking, from the imaginative interrogations of the recto-verso by Marco Frascari, to the analogical collages of Aldo Rossi, artificial excavations of Peter Eisenman and, more recently, archival ghosts of Perry Kulper. If there are commonalities between these it is in how the selective, malleably scaled and serendipitous collisions of varied architectural elements and associations is a generative tool, a foil to the inherently reductive, rational quality and purposes of orthodox documentation. Further, most of these techniques are slow, analogue processes, either by default or declamatory intent.

This forms the context for this paper, which is a tracing of two kinds: literally a suite of traced drawings and resulting artefacts, and figuratively as a tracing of the speculative

drawing practice of superimposition more generally. These are presented as two oscillating narratives throughout, indicative of the shifting dynamic between practice and theory, and the propulsion of the project from its practice-based methodology. Three themes underpin the overall project and structure the following discussion and drawing exposé: firstly, an exploration of the conventions and possible futures of analogue architectural representation; secondly, the use of the architectural archive for speculative practices; thirdly, the use of these two practices to construct new knowledge.

The works presented for *Megalomaniacal plans* extend a research project into the plan as the ubiquitous depiction of architecture, and foreground the tactic of transparency as a long-understood way of simulating X-ray vision through storeys, structure and time. The selective and narrow frame offered by focusing on the plan is a response to external circumstances, and does not deny the significance of other forms of orthographic projection. The section or axonometric, for example, might equally be employed to interrogate the specificity and latency inherent in any partial representation, or to challenge the norms of how we interpret drawings for what they 'say' they are. Kulper, for instance, attempts to augment (and subvert) the roles of the architectural drawing and move fluidly between conventions, "building the plan here and the section there."<sup>01</sup>

Here, however, three iterations develop a methodology that uses the analogue superimposition of archival plans only as both interrogatory research practice and creative production. An accompanying gallery of images



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*Millions Hours\_3 Layers Drawing, detail, 2017. Ink on polyester film, 420x594mm.*



summarises a lineage of technique, resulting discoveries and artefacts.

Consisting of three pairs of ink drawings and oil paintings, *Million hours* responded to the *Drawing Millions of Plans* conference/exhibition at The Royal Danish Academy of Fine Arts School of Architecture in November 2017 which focused on “contemporary architectural drawing and, in particular, the drawn plan.”<sup>02</sup> *Million hours* initiated an experimental tactic of superimposing and hand-tracing selected local archival drawings, sectioning through building and drawings typologies to reveal recurrent characteristics in both fields. A second stage transformed this content into painterly visual analyses, as a proposition for alternative modes of analogue representation. Exhibited in Copenhagen (and used as a teaching tool for a Masters of Architecture research practices course), the historical discoveries, potential interrogations and intricacy of the results prompted expansion, theoretically, technically and in terms of scale.

*Megalomaniacal plans: conversations across 236 years*, uses the same technique of hand-traced, superimposed archival drawings for an entry for the Australian Tapestry Workshop’s Tapestry Design Prize for Architects (TDPA). Established in 2015, the annual TDPA invites architects to explore the possibilities of tapestry and architecture through a design for a designated site. The 2018 brief asked entrants to design a tapestry for a cenotaph designed by Beaux-Arts architect Étienne-Louis Boullée, as the direct inspiration behind the recent Pharos Wing of the Tasmanian Museum of Old and New Art [MONA]. Presented as analogue drawings and digital renders of the proposed work enlarged and installed in MONA, the design compiles and contrasts drawings from the Bibliothèque Nationale de France of Boullée’s seminal works with Australian projects of a comparable type, age or intent, in an exploration of conceptual largesse and colonial aspiration.

The most recent iteration of this methodology, *Megalomaniacal plans: exploiting time and transparency* is fuelled in part by the tempting translation of the *Megalomaniacal plans* drawing into an alternative analogue medium of tapestry, but chiefly by a serendipitous discovery during the re-inscription of Boullée’s plans. Exploring translations of scale and pixelation, the work comprises an enlarged image of *Megalomaniacal Plans: conversations across 236*

*years*, printed on linen to evoke its original 18th century medium,<sup>03</sup> and an accompanying needlepoint, entitled *Boullée’s Error* that isolates a hitherto unnoticed mistake in Boullée’s original drawing.

## EXPLOITING THE TRACES OF TIME

Orthographic projection is the architect’s dissecting knife, slicing through the material and spatial envelope of a building to reveal views and conjunctions never intended to be seen simultaneously.<sup>04</sup> The line of the cut is placed with surgical precision, to critically expose the inner workings of the design, the areas and joints in need of attention. In doing so, each plan or section becomes at once a digest of the salient elements and an assemblage of a scheme. Our representational media have evolved in support of this forensic capacity. The sheer tissue of tracing paper and the invisible ether of digital layers allow us to superimpose multiple orthographic drawings to assemble the volumetric whole of the architectural body. In this simulated panoptic view, it is possible to sense the three-dimensionality, if not tactility of the architecture.

These techniques are so embedded in architectural drawing that it is easy to forget the ingenuity with which they cross dimensions, from the two-dimensional plane to the evocation of three-dimensional space (at is zenith in perspectival and axonometric projections). And if we look closely at analogue drawings we can sometimes see the timeline of their facture—the slowly built scaffold of faint pencil construction lines and later confident brisk inking of top layers—revealing that each document has its own temporal history.

The drawing as a site of attenuated, embodied transformation of architectural projection is central to Marco Frascari’s plea for the preservation of analogue representation.<sup>05</sup> He argues that the majority of analogue processes work within a frame of space, time, atmosphere, measure, tactility, weight, balance, muscle, scent and sound; and in this preliminary anticipation of the design—what Sennett calls prehension—there is natural correlation with the multi-sensory temporal perception of architecture.<sup>06</sup> The sensations of how we will occupy space are there in the raw ingredients, even if they are, by definition, analogous to the ultimate outcome. The drawing could be considered a miniature rehearsal of making and occupying the building, a way of thinking into

space, perhaps even more so when it involves tracing and retracing decisions already in place.

While Aldo Rossi is identified as an exponent of drawing-thinking, both through his writing and prolific folio of analogue works,<sup>07</sup> his position on analogical thinking is much more profoundly knit with the concept of substitution than on embodied physicality. We use the term 'analogue' so often in the vernacular as antonym to its increasingly dominant other, digital, that it almost comes as a shock to return to its formal definition as something parallel, or comparable to something else, or which can stand in for it as 'analogous'. Rossi's canonical works, *An Analogical Architecture* and *The Architecture of the City* demonstrate a process of enquiry based on translation, substitution and metaphor, enacted through drawings and pivotally expressed in the 1973 and 1976 collages *Città Analoga*.<sup>08</sup> These superimpositions juxtapose a range of imagery and representational modes, plans and elevations, from historic and contemporary sources, that, in a direct challenge to Modernism, simultaneously reconnect and disconnect with time. Or, as Peter Eisenman summarises in an introduction to Rossi's work, "the time of analogy [is] a bifocal lens of history and memory, that "dispossess, reassociates, and thus transforms real places and real times."<sup>09</sup>

For Eisenman a similar emancipation of the temporal fixity of the drawing acquires its own nomenclature: 'superpositioning'. Developed through a series of significant projects in the mid 1980s,<sup>10</sup> this process identifies polemic urban and architectural structures and narratives as 'artificial excavations', which are then layered to produce "a suspended object, a frozen fragment of no past and no future, a place. Let us say it is of its own time."<sup>11</sup> Within the palimpsest of the drawing's inscriptions, Eisenman manipulates and traces authentic archaeological data, unrealised historical projections and fictional entities with contemporary conditions and programmatic demands, erasing, and folding so that "the fragments become a whole as the whole becomes fragment."<sup>12</sup> Scaling is deployed fluidly as an active protagonist in the process, not only in its dimensional sense, but as a tripartite strategy of destabilizing concepts of "discontinuity, recursivity and self-similarity."<sup>13</sup> This heightens the sense of multiple texts informing both the drawings and the built works.<sup>14</sup> Eisenman argues that while superpositions of scale and place address the dominant themes of the projects, "in the overlaps and coincidences

of registration arise interrelated elements of present conditions, memory and immanence, revealing aspects of the structure of the textual narrative."<sup>15</sup> The tactic, then, is simultaneously deliberate and indeterminate.

Rossi and Eisenman's design approaches consequently reconfigure typology, site and the drawing itself as non-static, as both "palimpsest and quarry,"<sup>16</sup> but there is a further nuanced way that superimposition defies the temporal stasis a drawing traditionally imposes. In layering separate plan drawings there is an inherent dynamic that takes these physical artefacts into the 4th dimension. Generally constructed from the ground floor up, every plan sheet has its own discrete role in the sequencing of space and circulation. The requisite transparency, consistent scale, register and orientation of superimposition enable us to coalesce these into one entity, one fixed moment of viewed experience, in the manner of most drawings.<sup>17</sup> But equally by the simple act of re-ordering, reorienting or removing drawings we can make alternative assemblages, parallel worlds with different chronological characteristics, where one might not start at the 'beginning' of the building, but instead at the middle. It is a tactic exploited by contemporary Ethiopian-born American artist Julie Mehretu, whose architecturally-inspired works bear surface similarities with *Megalomaniac plans*.<sup>18</sup> She describes using superimposition to produce paintings that "almost move in time or move in space," and to make ambiguous "story maps of no location."<sup>19</sup>

Peculiarly, these overloaded surfaces become transformed with perceptual depth, despite the flattened orthographic coding of which the individual layers are made. In Mehretu's "cacophony of marks,"<sup>20</sup> or the seminal *Micromegas* suite of Daniel Libeskind,<sup>21</sup> there is visual intrigue in their obsessive complication, even if they initially appear enigmatic. The eye looks for form and a coalescing narrative, in a tension between complexifying and reductionism that resonates with aspects of Rossi's drawings. For, as he explains, "the construction of form and its destruction are two complimentary aspects of the same process,"<sup>22</sup> and critically it is this "accumulation of form [that] amounts to an erasure of form" which can "create an analogical space for projective possibility."<sup>23</sup>

The *Megalomaniacal* series responds to quite different briefs, yet constitute a unified development of the premise and technique of superimposition as a diagnostic drawing

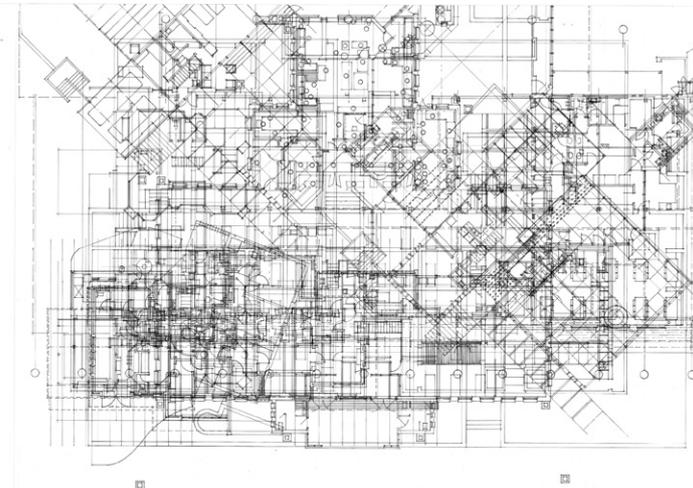
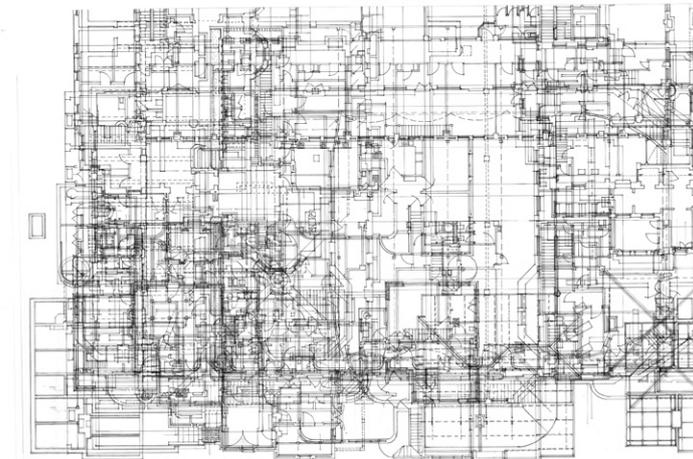
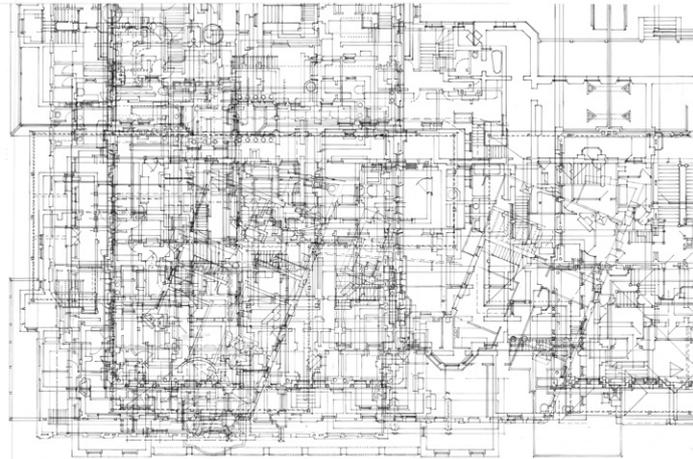
tool with spatio-temporal latitude. *Million hours* focused on the assumption that plans are autopsies of unborn buildings, and the intention was to synthesise a nominal million hours of existing plans into a hybrid rendition of the floor plan as graphic DNA, and decipher what was encoded there. Thirty plan drawings were gathered from a specialist Australian architectural museum allied to an architectural school, and traced by hand into three drawings, each containing ten superimposed plans of allied chronological origins.

The drawings were made on polyester film using only one pen thickness. Each drawing was aligned consistently at the bottom left hand corner, regardless of the layout of the original. This deliberately flattened the individual characteristics of the original depictions into a non-hierarchical format, such that grand public buildings assume the same representational status as pragmatic warehouse sheds. Unlike the drawings of Rossi, Eisenman, Libeskind and Mehrutu, there is minimal adjustment or manipulation of content, nor variation in the type of drawing projections deployed. Each layer is a plan, and only a plan: the results are raw undifferentiated data, divorced from any programmatic agenda. The resulting drawings are nevertheless an intricate tangle of linework, intensified to an almost cosmological field if the three are further superimposed on each other. The slow, embodied ritual of their making exposes 'accumulations of form' across the set of three, evolving 'deconstructions of form'. Sections of these compilations were subsequently magnified in scale and reinterpreted through three oil paintings. Here, the intent was to reveal the prevalent structures of the narratives that have emerged out of recurrent plan devices, drawing physiognomies and "coincidences of registration." Akin to Eisenman's distillation of multiple texts, these are propositions of ambiguous time and form, with fragments rescaled and reworked to make a whole, or at least an image that is no longer pure plan, pure history. The linear surface of the 'raw data' is mined for any angularities and juxtapositions that might evoke axonometric projection, and these heightened with blocks of colour, to propel the paintings further from their planar origin. For while these paintings aimed to distil and amplify the pathology of each of the drawings, they were also an exploration of hybrid representations between architectural and art conventions, and part of the larger question of the future of analogue architectural representation.

Though *Megalomaniacal plans: conversations across 236 years* uses an almost identical technique of compilation, it is an orchestrated interrogation of projects related not just by function and temporality, but also of intent—the historic intent manifest in the original drawing material, but also making a set of drawings that has a polemic, as opposed to exploratory motivation. The core material is inadvertently the same as that used by Rossi throughout his writing as a critique of "naïve functionalism."<sup>24</sup> and here serves a slightly more acerbic purpose. Rossi used Boullée's work, to postulate "a vision of rationalism as an alternative to the functionalist position" that "neither oversimplifies reality and humiliates fantasy and liberty."<sup>25</sup> He admired its architectural unity "where use and decoration are one,"<sup>26</sup> and saw the powerful monumental forms as definitive, if unbuilt, examples of his key analogical device of 'urban artefacts'.

At MONA, the direct reference to Boullée's work is no casual formal appropriation, but a deliberate play on its owner, David Walsh's own reputation for monumental moves. An iconoclastic professional gambler, art collector and businessman, Walsh correlates Boullée's taste for grandiosity with his own, stating: "'Boullée's fondness for grandiose designs has caused him to be characterized as both a megalomaniac and a visionary.' That's from the Wikipedia article on Étienne-Louis Boullée. Those around me, my staff, friends and sycophants, call me a visionary to my face and a megalomaniac to each other."<sup>27</sup> Recognising that superimposition collapses information contained in single documents into an instantaneously comparative visual field suggested a potential 'superimposition of megalomaniacal personalities' as well as related plans across time and distant places.

In one drawing plane and at one scale, six of Boullée's obsessively-platonic plans, (sourced digitally from the Bibliothèque Nationale de France) are layered against five historic Australian projects, selected as closely typologically and chronologically as achievable, and the plan of MONA. Each group is traced by hand initially (with schemes aligned by centre point and northern orientation) into three separate colour-coded drawings: black for Boullée's square schemes; blue for his celestial circular ones; burnt sienna for the Australian projects and the fiction of the empty ground of *Terra Nullius*. The accumulation is united by a mutual ambition for architectural presence—or megalomania—whether in the first church or lighthouse of the colony, or in the



02-04:  
*Million Hours 1-3 Drawings, 2017.*  
Ink on polyester film (420x594mm)

expansive layout of Walsh's MONA, as the intended site for the tapestry.

Acknowledging Boullée's supreme draughtsmanship and the intensely analogue nature of tapestry, the design was produced by hand. It hence foregrounds threatened crafts as intrinsic to the making of both tapestry and traditional architectural documentation. The components deliberately play between the intense handcraft of the original ink-wash renditions and, with the hypnotic repetition of the magnified drawing, allude to both Boullée and MONA's intention to visually overwhelm.

## SEE-THROUGH ARCHIVES: EXPLOITING HISTORY AT HAND

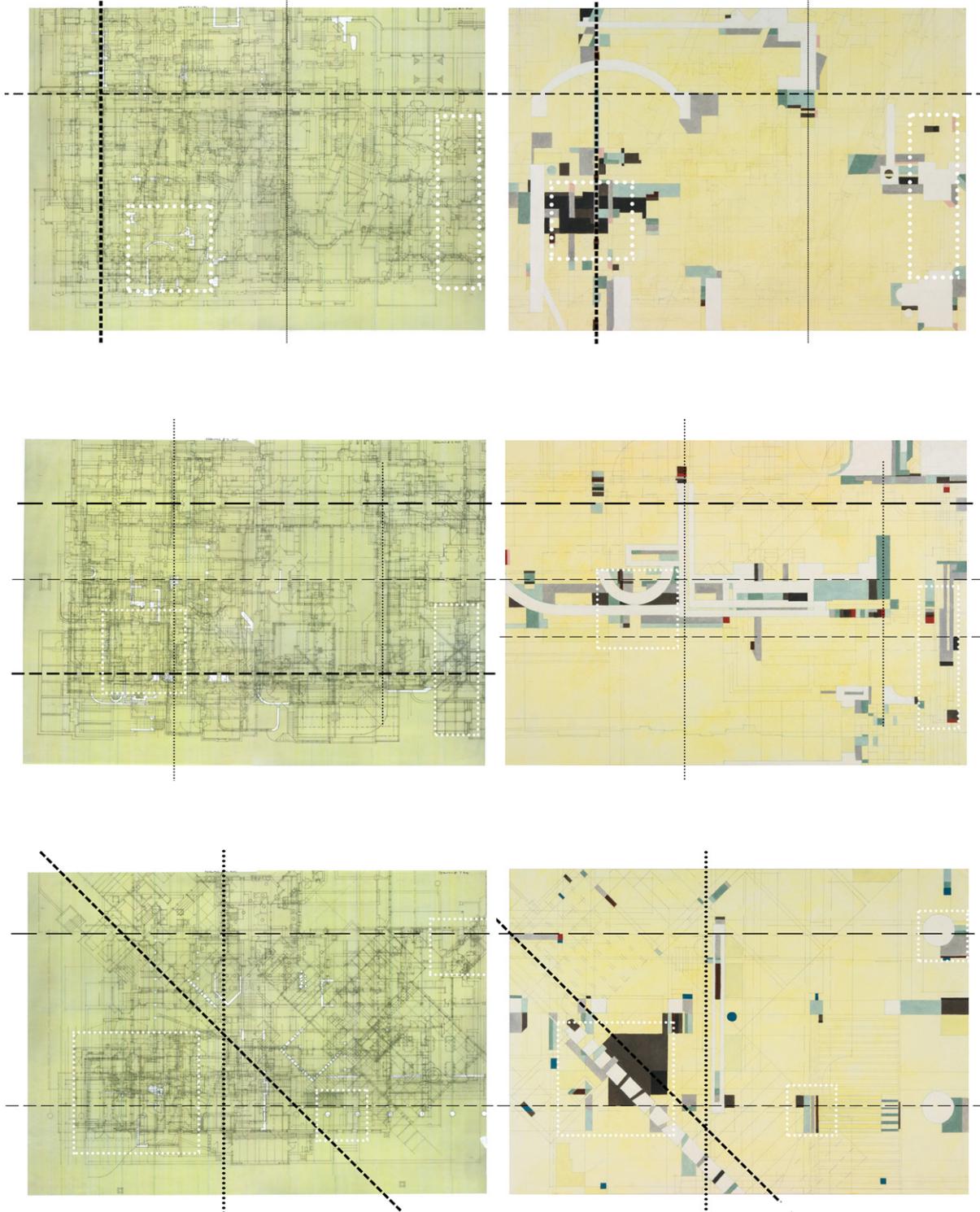
Notwithstanding the ahistorical manifesto of Modernism, architectural practice has always occupied a peculiar junction between the past and future. Dependent on the acquired knowledge of its past, it is compulsively propelled by projective thinking. Even as attitudes to architectural agency shift to take on the ethical obligations of sustainability, and we re-evaluate whether the appropriate course is to build, reuse or restore, our impulse is always "toward a new architecture" that marks the next point on the architectural journey.<sup>28</sup> The archive is hence a critical site to support any ideological or contextual position, whether to inform or deny contextual continuity.

And while perhaps the most powerful architectural archive is the one we inhabit on a daily basis, in the manner of Rossi's empirical analyses of *The Architecture of the City*,<sup>29</sup> conventional document and artefact based archives remain invaluable repositories to explore the genesis and processes of individual and collective architectural enterprises. If the "material of the past"<sup>30</sup> is a legacy rediscovered by post-modernism and "used somewhat promiscuously as a conditioning element for new material whilst remaining ahistorical," it remains a useful source, deployed sometimes verbatim (as in Eisenman's work), sometimes to illuminate architectural thinking (as in Frascari's writing), more often instrumentally for contextual or historic motifs in practice,<sup>31</sup> and sometimes as a loose field for the imaginative reinterpretation of typologies (as in Perry Kulper's speculative mining of forms, constructions and cartographies).

There might seem a tempting parallel between the archive as a home for obsolescent things, and the perceived obsolescence of analogue drawing (that make up the bulk of specialised architectural museums and the focus of this paper), but this is superficial. The value of the archive is as a conceptual, accessible resource and curated taxonomy, equally applicable to the disappearing digital as to the stuff of paper, pencil or ink.

Furthermore, as contemporary preservation has expanded to embrace different scales (temporal and physical) and modes, so too the role of the archive has expanded from one of protective custody over significant historical artefacts, to one of active agency in defining what is significant in a rapidly changing environment. Rem Koolhaas suggests the scale of what merits consideration for preservation is escalating relentlessly to include entire landscapes.<sup>32</sup> He notes that "everything we inhabit is potentially susceptible to preservation."<sup>33</sup> Certainly current practices to preservation view it as a living art form able to propel immediate, not just retrospective, architectural endeavours. Take, for example, the site-specific interventions performed by Jorge Otero-Pailos in his ongoing, decade-long series of works called *The Ethics of Dust*.<sup>34</sup> Making gossamer layers of latex peels from the faces of significant buildings, Otero-Pailos carefully preserves the fabric and data of architectural age as new archival content, and concurrently suggests new forms of architectural representation and materiality. These artefacts and his curation deliberately traverse disciplinary boundaries into hybrid art-architectural expressions that stimulate new ways of looking at our architectural surroundings. More subtly, it subverts orthodox values within the field of architectural heritage. Conventional preservation necessarily elevates selected artefacts as noteworthy, corralling them from their everyday milieu to become part of a static set, fixed in time and significance. But here, value is imbued in new 'archival documents' of latex and dirt, derived from accidental, anonymous, accretions, rather than an authorial architectural hand.

*The Ethics of Dust* works evoke the depth of a building's history through the accumulations on its surface. By comparison, similar stories can be uncovered through an accumulation of drawing surfaces. Each demands a recalibration of what merits consideration: the built edifice or the 'debris' of its drawing (for both are 'architecture' in Rossi or Eisenman's estimation).<sup>35</sup> Retracing such



05-07:

A comparison of *Million hours Drawings 1 to 3* and *Paintings 1 to 3*, showing the correlation of compositional characteristics, and amplification of recurrent construction elements. Ink, gouache, yellow tracing paper and graphite; oil paint on paper (420x594mm)

artefacts inevitably yields insights into their content, but additionally re-inhabits their facture in a way that catalyses a greater appreciation for and criticality about allegedly archaic forms and processes.

The archival selection in *Million hours*,<sup>36</sup> though nominally based on one million hours of local history (114 years 56 days and 16 hours), was curated with respect to characteristics of specific periods of drawing and building broadly represented in the museum's collection. Each compilation drawing spans a defined era: *Drawing 1: 1878–1923*, *Drawing 2: 1924–1945* and *Drawing 3: 1946–1992*. These groupings accord respectively with 19th century Victorian and Federation stylistic trends, 'between the wars' economic conditions, and lastly the influx of Modernist ideas after the Second World War, and were adjusted to take account of contemporary events affecting the local industry (for example, changes in building regulations). The selection inevitably privileges the predominant typologies of each era (civic, residential, commercial and later industrial), however the criteria for inclusion resisted focusing on what might, for reasons of age, association or built form, be regarded as the most significant items. Instead it aimed to be an egalitarian cross-section, as a counterpoint to the normal meritocracy of archival curation.

Recurrent formal languages and construction modes for each era become evident through repeated depiction and comparison: for example, the pronounced weight of building elements, fireplaces, moulded facades and elaborate thresholds in *Drawing 1*, which by the third set had been usurped by grids, thin partition walls and slender columns. The compilation drawings also amplify representational conventions of each group, so that shifts in composition and craft are highlighted. In *Drawing 1*, for example, verticality aligns strongly in two main axes, while the horizontal prevails in *Drawing 2*, and *Drawing 3* is dominated by the diagonal.

There is consistent respect for the bottom left hand corner, as the 'correct' location for the plan in any set of drawings, but surprisingly less agreement on the location of North points. Across the trio there is a discernible decline in drafting finesse. The meticulous care of the layers reproduced in *Drawing 1* implies a corresponding craft in building: minute plan variations (with few large-scale details) presume an informed, artisanal workforce able to interpret from minimal description. In comparison,

the plans superimposed in *Drawing 2* have brisker, less precise linework, with crossed lines suggesting drawings operating on site as direct documentation used to check measure, while in *Drawing 3* the underlying drafting is now less accurate, with more legends, annotation and standardized approaches to walls, windows and insertions.

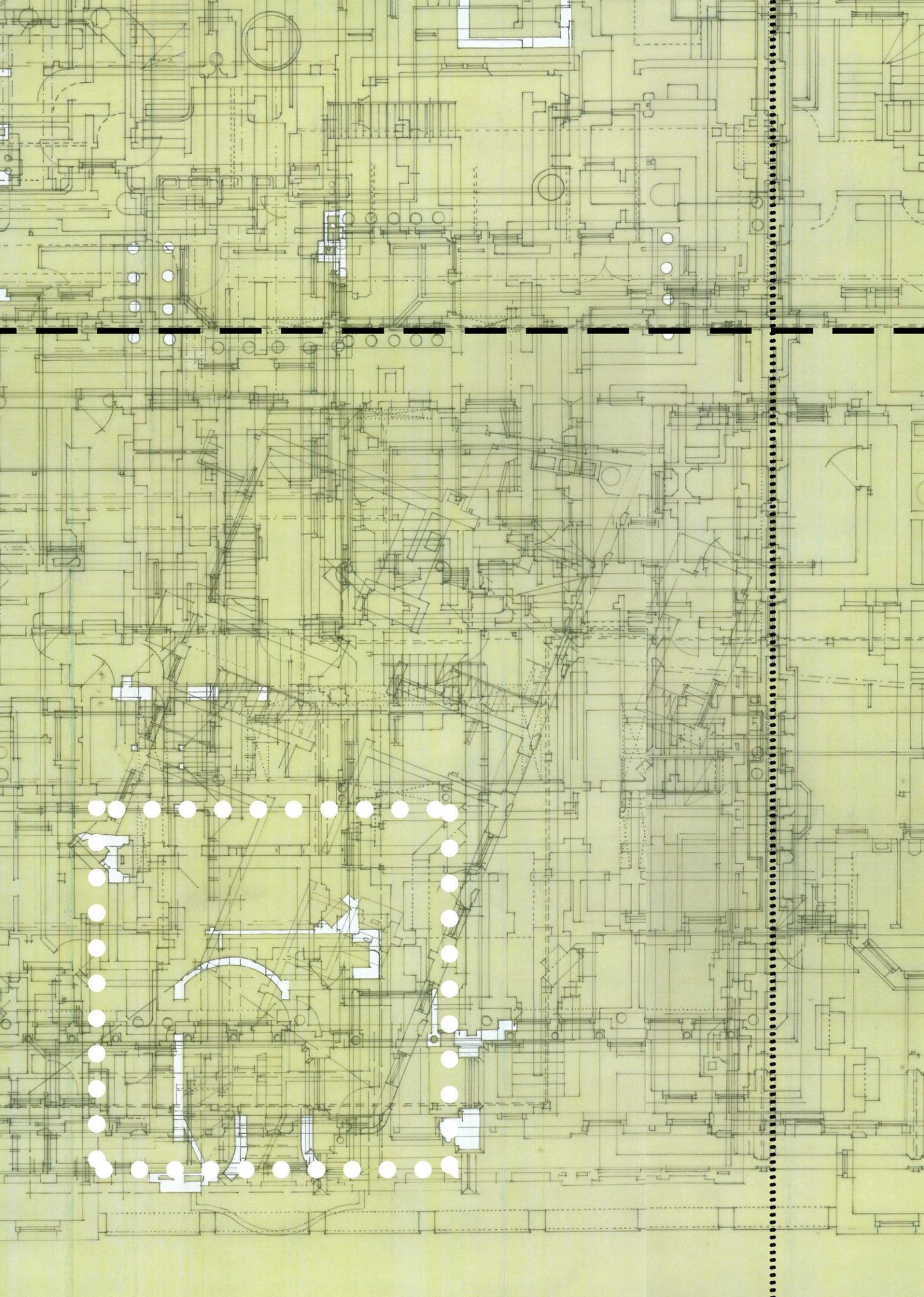
The insights from *Million hours* emerge without prior hypothesis of what might be discovered, and the nature of that content is—like its raw material—fine grained, incremental and comparatively modest. With *Megalomaniacal plans: conversations across 236 years* there was an initial agenda to contrast the extravagant scale and platonic geometry of Boullée's fantastic propositions with the compromised reality of a contemporaneous colony that in many senses was a by-product of such utopian thinking. From the outset it was an intentionally polemic piece. The time scale is bookended by Boullée's 1781 design for a Cenotaph for Turenne, and the MONA Pharos Wing extension completed in 2017 (by Fender Katsalidis), but concentrates on the late 18th and 19th century as an investigation of stylistic influences in the embryonic Australian colony. The 'wild card' of the 21st century MONA plan serves to locate the image in the present, underscoring the notion of architecture and its archive as a live continuum.

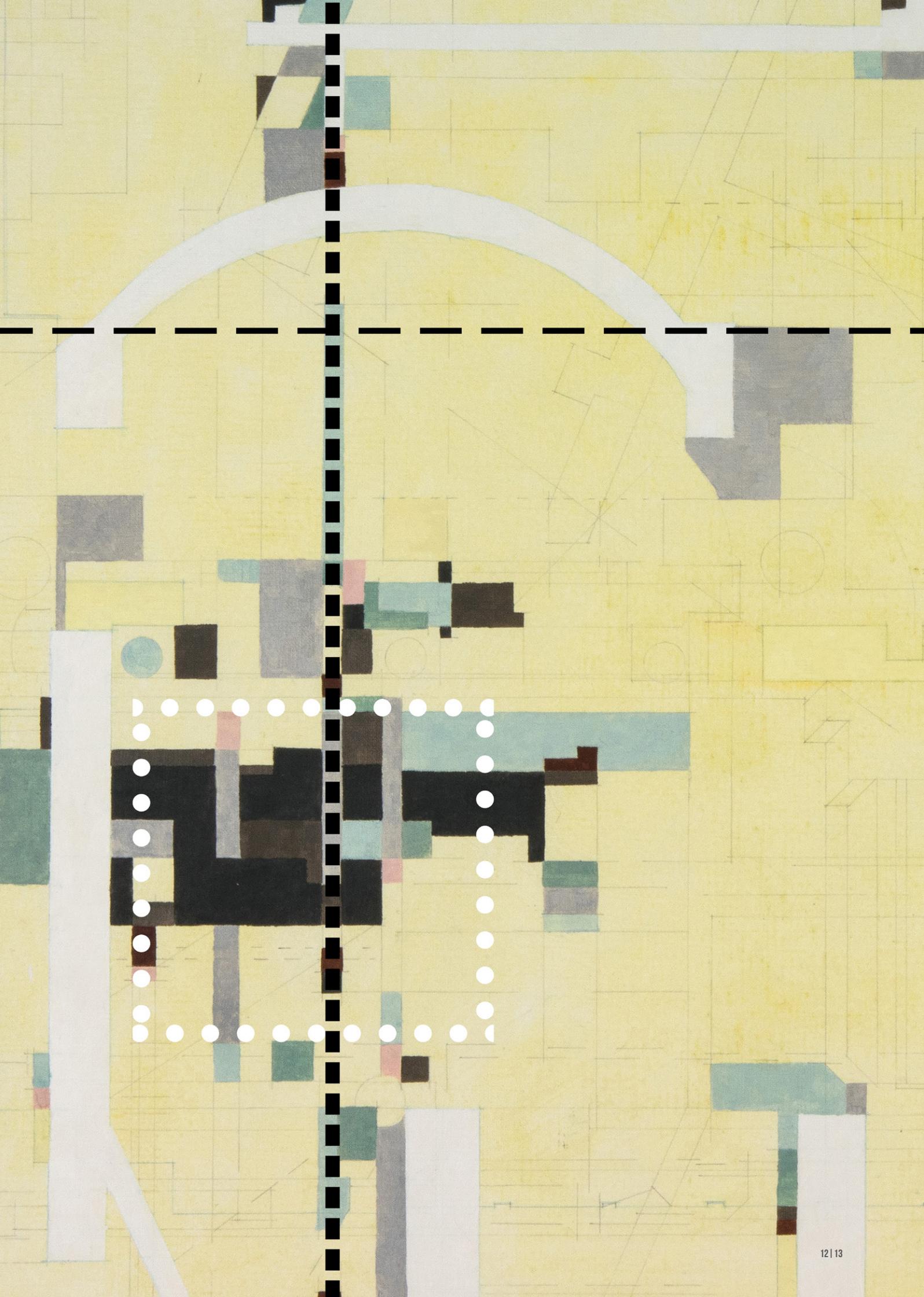
The resulting labyrinthine mandala of lines exposes not only contrasts of scale, but the relationship between idealised and realised neo-classical projects. Superimposing around a central point, (as opposed to merely comparing discrete drawings) highlights coincident axes, and the regularity or asymmetry of the data, while the ability to reorder colour-coded groupings of circular, square or irregular schemes allows different readings and hierarchies to come to the fore. Front and back aspects are persistently visible in the Australian selection, when viewed against the homogenous neutral directionality of Boullée's schemes. These gargantuan geometrically-pure Beaux-Arts propositions dwarf the actuality of the built, and the expedient adaptation to topology and orientation evident in the Antipodean examples.

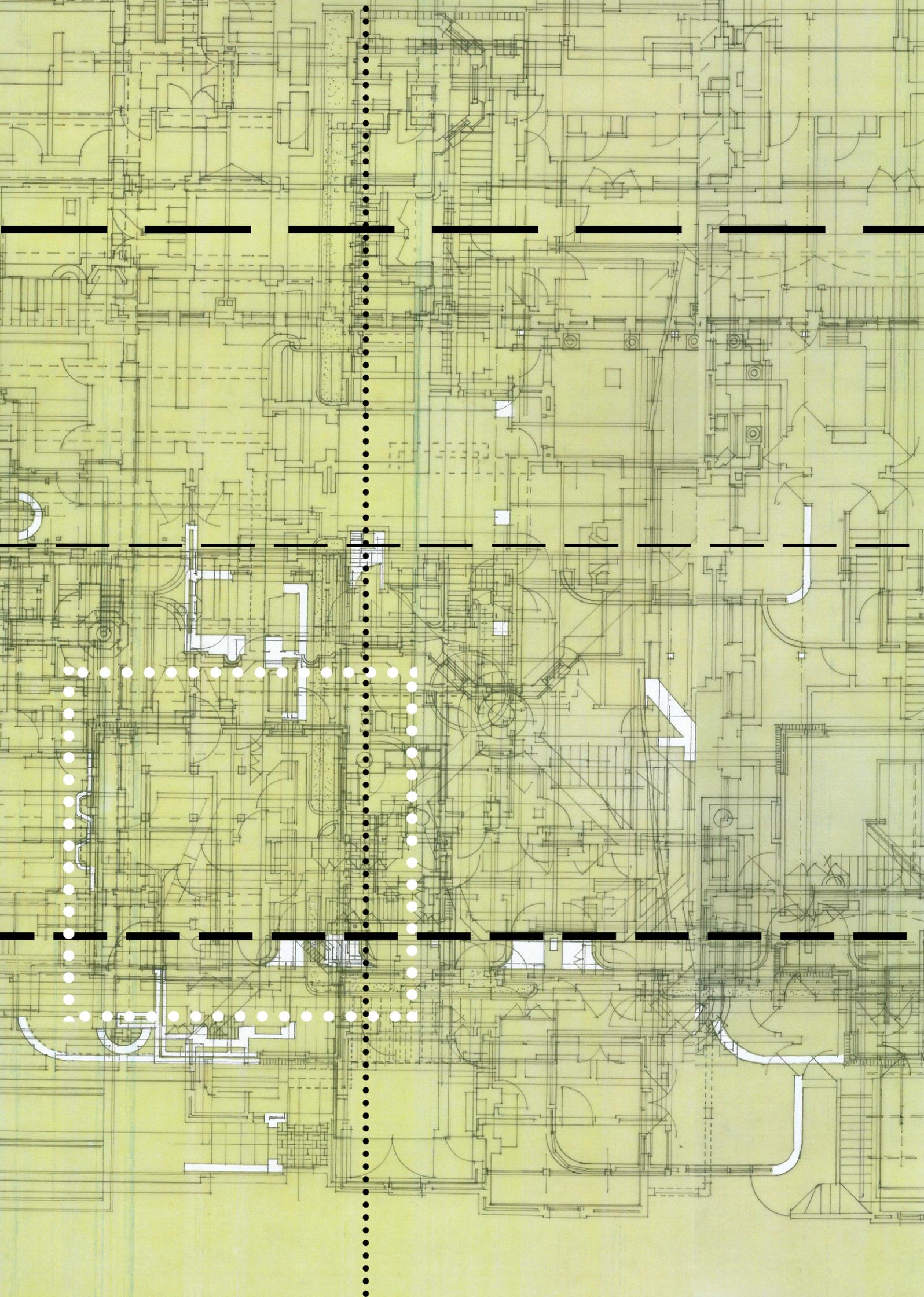
Yet, establishing a colony on the other side of the globe—constructing civic edifices with unfamiliar materials and improvised labour force—arguably shows an equally grandiose aspiration. It is a dramatic manifestation of the disjunct between the canon and its colonial lineage.

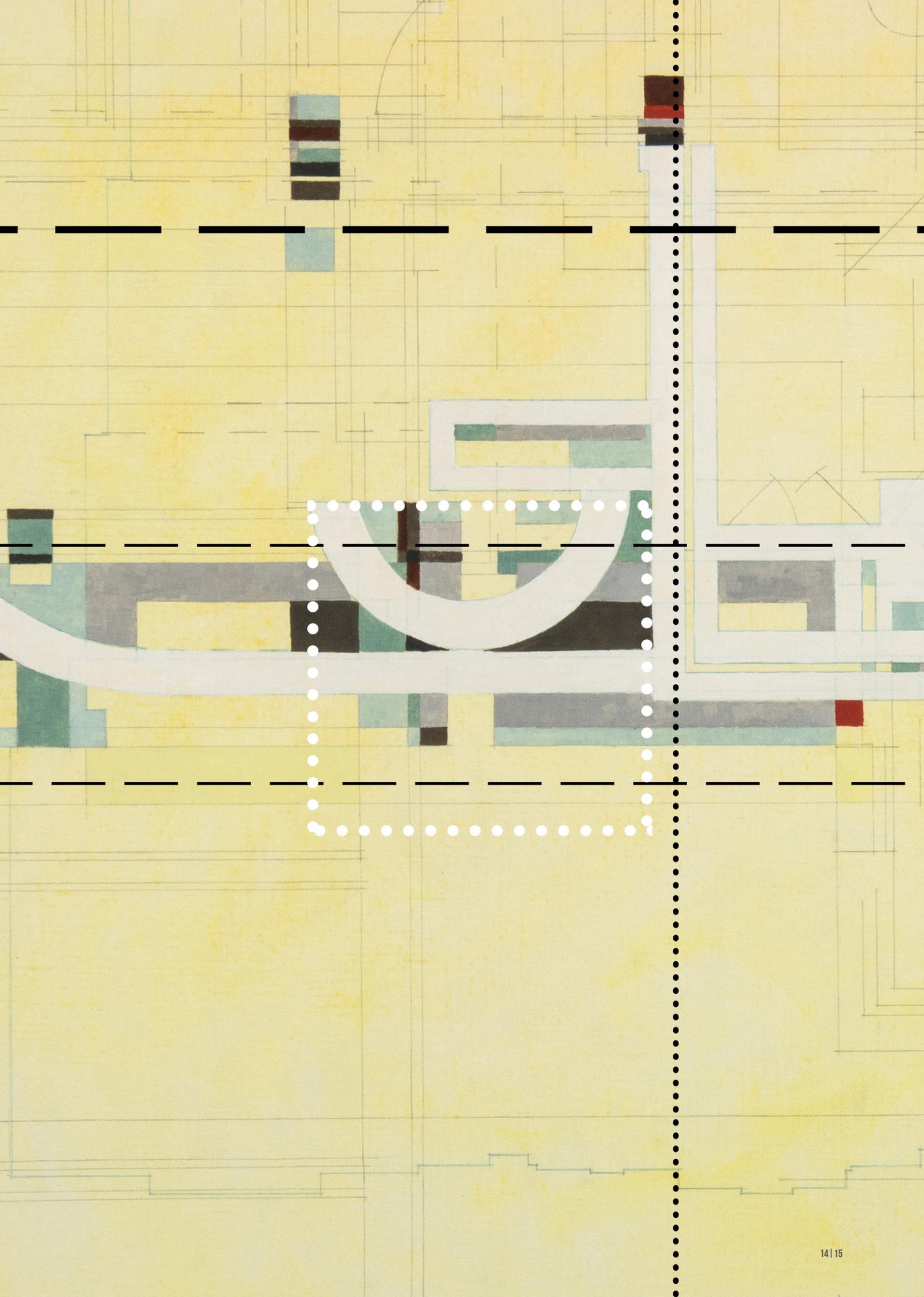
08-09:

A comparison of *Million hours Drawings 1 to 2* and *Paintings 1 to 2*, 2017, detail. Ink, gouache, yellow tracing paper and graphite; oil paint on paper (420x594mm)









## FELIX CULPA: EXPLOITING THE OBSCURE PATH

Working from archival material imbues speculative drawings with a degree of veracity, even if we use content in a somewhat cavalier manner to “pick the pockets of truth.”<sup>37</sup> But the processes of speculative drawing more typically works to unsettle the ground, challenging assumed architectural positions and the very nature of representation at the same time using one of these assumptions as a tool to critique and construct new knowledge. In a lucid discussion, where he argues for an expanded field of representation, Kulper describes “the latent potential of the drawing in relation to its explicit intent...and an expanded sense of what might be considered as fodder for the architectural mill.”<sup>38</sup> At the core of Kulper’s approach (and typical of other practitioners in the field) is a dismantling of dedicated instrumentality in drawing toward polyvalent techniques and readings of what a project might contain. The drawing is no longer singular in either representational codes or purpose, but may fulfil multiple functions, from “augment[ing] the picturing of architecture...to the generative roles of mediating drawings and their capacities to consider a wide range of ideas simultaneously.”<sup>39</sup> While not necessarily targeted at a built outcomes, speculative drawings can still be specific in their intent—studying in Kulper’s case, for example, relational thinking, erasure or other unexplored disciplinary conversations—and consequently can develop methods and artefacts with a freedom that approaches art practice, an architectural representation that in addition to its genetics as a design accomplice, produces “objects in the world with their own potential.”<sup>40</sup>

Given their potential as a research tool, with all the connotations of rigour that this implies, it might seem incongruous that drawings are not always to be trusted. Kulper relishes the idea that “representational mediums’ techniques and design methods...are approximate, indirect and sometimes downright mischievous.”<sup>41</sup> He is highlighting an essential characteristic of expanded drawing practices as open-ended, led by instincts as much as reason, and embracing serendipity and imprecision as, ironically, the most accurate translation of the material world. There is latitude in responding to “hunches and approximations” and allowing them to co-exist, that allows a project to be discovered through the drawing, rather than proved by it.<sup>42</sup> And while error is generally anathema to architecture, as Francesca Hughes

explores in her recent book *The Architecture of Error*,<sup>43</sup> for speculative practices it is a vital axiom, whether in the fallibility of human input or natural resistance of material. Nat Chard, for example, identifies how the media we draw with are not neutral, and on one hand can translate a thought “unsullied into a state that others can understand and discuss”, while on the other “a seemingly insubstantial idea may be nurtured and productively corrupted by the capacity of the medium, helping the idea to emerge into something of substance.”<sup>44</sup> He notes that these connect intrinsically to the temporal: “one is about an instant, completeness. The other is about duration and a state of contingency.”<sup>45</sup> Similarly, in an introduction to Kulper’s work, Thomas Mical describes how “the difficult challenge of world making is always in the more subtle tissue of the minor slips, distortions, elisions and unobserved disappearances that are commonplace in the everyday world.”<sup>46</sup> The *felix culpa*, then is often a timely agent, a reminder of reality and forces beyond any project or page, and that every project is promisingly unfinished.

In *Million hours*, tracing precisely, mapping each tiny blip or variation, one can feel the ghosts of the original draughtspeople nearby. The process is a cold-case for the murdered drawings, and reveals subtle aspects of their making as well as the accumulation of habits that meld through their superimposition. However, after the embodied simulation of the original drawings, the subsequent oil paintings experiment with finding a new form, following the hunches and instincts that have evolved during the drawing process, and representing them as significant evidence. Consequently, these paintings suppress the ubiquitous linearity of both their sources and of architectural representation in favour of colour, tone and textural techniques derived from Cubism (for its focus on superimposition, phenomenal transparency and as roughly contemporaneous with the ‘million hours’). Each painting uses colour symbolically to emphasize singular aspects of its core referent group (the blue of post-war blueprints for example), but nevertheless keyed to connect as a frieze that indicates the continuum of architectural ideas and activity. Though never eschewing the task of accurately summarising the drawings, the paintings are design compositions within themselves, treating forms, linework, colour and opacity relationally in the image, as a propositional (albeit ambiguous) architectural field.

In *Megalomaniacal plans: conversations across 236 years* the drawings resulting from methodical superimposition are not reworked or interpreted in any way, save projecting them digitally as an installation into MONA, with a table of referent designs (colour coded to assist in tracing each source). Rescaling the filigree linework of the original A2 drawings to the space of the museum magnifies the glitches, prime territory for the threads of tapestry and nuanced interpretation of the weaver. Two variations offer alternative cropping and weight to the ground, challenging the weavers to recreate subtle evocations of material and transparency, anticipating future evolutions of the design through its translation to another medium, and a response to Frascari's investigation of the substrate of drawings as protagonists in their facture.<sup>47</sup>

As a condensed test of translating skeletal, transparent drawings to a thickened, double-sided medium, *Megalomaniacal plans: exploiting time and transparency* extracts, rescales and reworks a minuscule part of the drawing, for in tracing Boullée's plans I encountered a mistake. In the original plan for a *Basilique*, dated 1781-1782, four columns troop across a domed space that, from the model of its 47 neighbouring spaces, was clearly intended to be column-free.<sup>48</sup> From the perspective of one whose embedded muscle memory is familiar with the mimicry implicit in tracing, it is all too easy to understand what happened: during the slow meditation of inking some 3,500 pillars in the drawing, Boullée's mind must have wandered, the tempo of methodically moving the circle template or compass took over, and he continued a line of supports where none was supposed to be. In the moment of repeating then recognising the blunder more than 200 years later, the shock feels tangible. I can almost hear Boullée whisper "Merde!" under his breath. But unlike polyester film, ink is not easily erased from linen, so it is no surprise that in the Bibliothèque collection there is a second drawing of the *Basilique*, indistinguishable but for minute rendering variations – and no superfluous quartet of columns.<sup>49</sup> Neither document appears to be dated, but if it has perplexed scholars as to why there are two apparently identical depictions and which came first, the question is solved.

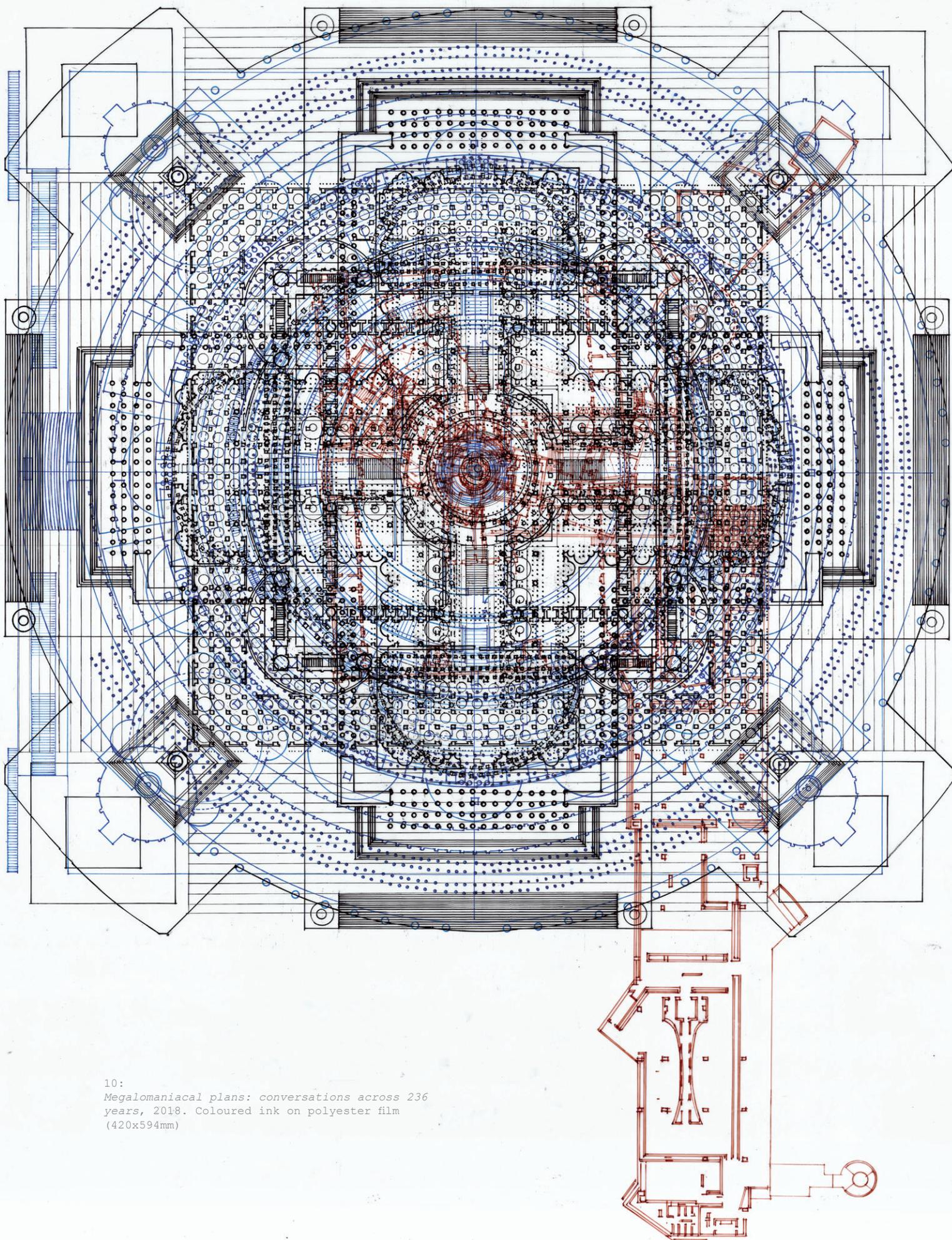
Here Boullée's tiny slip offers a *felix culpa* through which we might comment on architecture's pervasive quest for perfection. As an extension of the textile aspect of tapestry, but at a manageable scale, the detail is magnified a thousand times and translated into needlepoint, with

the offending columns sewn in red, the enduring colour of drawing mark-ups. Not only does the painstaking pixelation of the image conflate past and present techniques of depiction, the exposed 'wrong-side' of the canvas, with all its knots and trailing threads, discloses the recto-verso nature of the surface and what Frascari describes as "three-dimensional machine" of analogue images that allows us to negotiate "a chiasmus of theory and practice."<sup>50</sup> Paired with an enlarged reproduction of the entire drawing, the design is re-materialised at two different scales related to the body – the whole body and the hand, creating an immersive tactile experience that both abstracts the original purpose of documentation and celebrates its embodied production.

## CONCLUSION

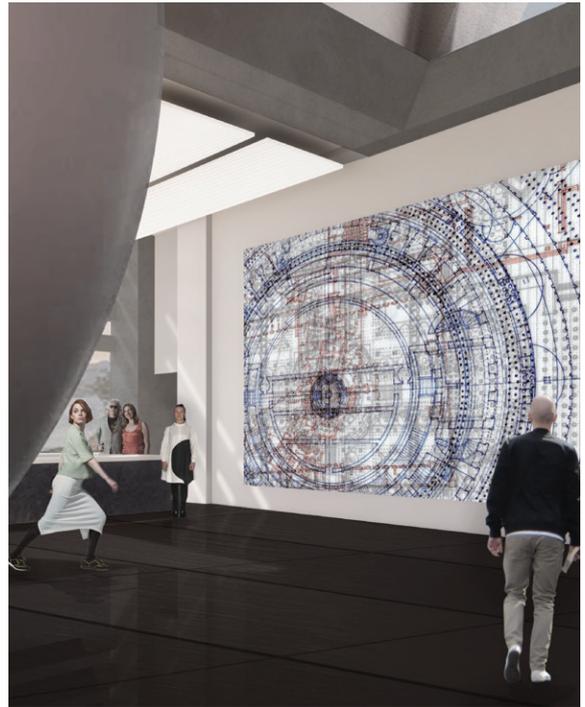
By altering the media, scale, and singularity of orthodox plans these projects explore what the plan cut of negligible thickness can tell us, not only of the three-dimensionality of architecture, but also its historical contexts, from the micro-level of manual fabrication, to the milieu of their times. Julie Mehretu describes her paintings as "tornados of visual incident...seeing them as pictures into an imagined, rather than actual reality."<sup>51</sup> In contrast, though the works of *Megalomaniacal plans* employ coincident techniques of superimposition and develop similar complexity, they are deliberate post-mortems of real architectural activity, drawn and built, offering new perspectives on familiar knowledge. Exhuming the ostensibly archaic forms and processes of analogue architectural documents as an active research tool and generative art form catalyses a greater appreciation of both their content and making. Hence archived drawings can be seen not as objects of nostalgia, but as means to synergistically preserve and revivify the skills embedded within them. These works also demonstrate how expanded drawing practices are propelled by different settings and tasks. Each exploration yielded fresh factual, historical information, in addition to producing creative artefacts that foreground the skills and communicative power of threatened representational modes.

Kulper makes the point that "the latent capacities and tacit knowledge gained through the making of a drawing have changed through the instrumental techniques linked to various digital protocols,"<sup>52</sup> yet neither he nor other speculative practitioners exclude the arcane from



10:  
*Megalomaniacal plans: conversations across 236  
years, 2018. Coloured ink on polyester film  
(420x594mm)*

their work.<sup>53</sup> Instead he suggests that “other forms of imaging and visualisation ‘outside’ the conventions of drawing practices, [open] alternative potential for what is in play and what’s not in the project.”<sup>54</sup> Far from abandoning the analogue because precise, repeatable, robust architectural documentation is now the province of the digital, the works here willingly admit imprecision, and borrow from the extensive fine-art history of image making, to propagate the under-utilized expressive and material aspects dormant in architectural representation.



11:  
*Megalomaniacal plans: exploiting time and transparency\_Boullée’s Error, detail, 2018. Wool on cotton needlepoint canvas (210x210mm).*

12:  
*Megalomaniacal plans: conversations across 236 years\_Australian Tapestry Prize for Architects 2018. Visualization in MONA.*

## NOTES

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- 04 Marco Frascari uses the analogy of the "the knife and the pen" in Frascari, Marco. 2011. *Eleven Exercises in the Art of Architectural Drawing: slow food for the architect's imagination*. New York: Routledge.
- 05 See, for example: Frascari, Marco. 2011. *Eleven Exercises in the Art of Architectural Drawing*; Frascari, Marco. 2009. *The Virtue of Architecture: A 2009 Strenna*. Lexington: lulu.com; Frascari, Marco. 2007."A reflection on paper and its virtues within the material and invisible factures of architecture" in Marco Frascari, Jonathon Hale & Bradley Starkey (eds.). *From Models to Drawings: Imagination and representation in architecture*. Oxford: Routledge; Frascari, Marco. 2004. "Semiotica Ab Edendo, Taste in Architecture" in Jamie Horwitz & Paulette Singly (eds.). *Eating Architecture*. Cambridge, MA. MIT Press; and Frascari, Marco. 1998. "the Drafting Knife and Pen" in *Implementing Architecture*. Atlanta: Nexus Press.
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- 07 For a sustained discussion of this see McEwan Cameron. 2014. *The Architecture of Analogy: an Inquiry into Aldo Rossi's Theory of the City, The Discipline, the Type, and the Analogue*. PhD thesis University of Dundee, and McEwan, Cameron. 2018. "The Analogical Surface, City Drawing, Form and Thought" in *Drawing On*, Issue 02: *Surface and Installation*. Available at <<http://drawingon.org/issue/02>> (accessed 16th September, 2019). In "The Analogical Surface," for example, McEwan cites Tafuri quoting Rossi to the effect that "the lucidity of drawing is the lucidity of thought" (McEwan, "The Analogical Surface," n.12).
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- 12 Eisenman, Peter. 1994. *Cities of Artificial Excavation*, p.80.
- 13 Eisenman, Peter. 1989. *Peter Eisenman*. p.70.
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- 15 Eisenman, Peter. 1989. *Peter Eisenman*, p.71.
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- 22 Rossi, Aldo. 1987. "These Projects" in Peter Arnell & Ted Bickford (eds.), *Aldo Rossi: Buildings and Projects*. New York: Rizzoli, p.10.
- 23 McEwan. "The Analogical Surface," p.18.
- 24 Rossi. 1982. *The Architecture of the City*. p.167.
- 25 Rossi. 1982. *The Architecture of the City*. p.167.
- 26 Stein, Karen. "Il Celeste della Madonna" in Adjmi Morris (ed.). 1992. *Aldo Rossi: the Complete Buildings and Projects 1981-1991*. London: Thames & Hudson, p.271.
- 27 Australian Tapestry Workshop, Site and Brief in *Tapestry Design Prize for Architects 2018*. Available at: <<http://www.tapestrydesignprize.org/2018-tdpa-site/>> (Accessed 17th January, 2019).
- 28 A reference to Le Corbusier's seminal 1923 text, *Vers Une Architecture*.
- 29 Throughout *The Architecture of the City* Rossi makes a case for the immersive didacticism inherent in any city, stating, for example: "One need only look at the layers of the city that archaeologists show us; they appear as a primordial and eternal fabric of life, an immutable pattern." Rossi. 1982. *The Architecture of the City*. p.22.
- 30 Anderson, Ross. 2013. "Analogue Architecture: Between Imagination and Memory" in Ross Anderson (ed.) *ANALOGUE*. Christchurch, NZ: Freerange Press, p.4.
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- 34 Otero-Pailos, Jorge. "Ethics of Dust Series." Available at: <http://www.oteropailos.com/the-ethics-of-dust-series/> (accessed 17th September, 2019).
- 35 McEwan. 2018. "The Analogical Surface," p.18.
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- 45 Chard, Nat. 2017. "Fabricating Indeterminate Precision," p. 31.
- 46 Mical, Thomas. 2010. "Perry Kulper's Imaginarium AS Darwin's Omission" in *Rensselaer Architecture* [online], available at: <https://www.arch.rpi.edu/2010/10/kulper-perry/> (accessed 12th April, 2019).
- 47 Frascari, Marco. 2007. "A reflection on paper and its virtues," pp.23-33.
- 48 Bibliothèque nationale de France, Gallica digital library, Etienne-Louis Boullée, (1728-1799) View 2. Available at: <https://gallica.bnf.fr/ark:/12148/btv1b7701002q/f2.item> (accessed 27th April, 2018).
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- 50 Frascari, Marco. 2011. *Eleven Exercises*, pp.169-171.
- 51 "Julie Mehretu," *White Cube* [online].
- 52 Kulper, Perry. 2012. "Drawing Architecture" [online].
- 53 See, for example, the perversely analogue automatic drawing machines and their products in Burke, Timothy. 2018. "Exhibitionist Drawing Machines," in *Drawing On*, Issue 02: *Surface and Installation*. Available at: [http://drawingon.org/uploads/papers/IS02-01\\_180305.pdf](http://drawingon.org/uploads/papers/IS02-01_180305.pdf) (accessed 29th January, 2019).
- 54 Kulper, Perry. 2012. "Drawing Architecture" [online].

## FIGURES

All of the drawings and paintings included in this piece were produced by the author.

