



Recalibrating Our Position

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A review of Pari Riahi, Laure Katsaros and Michael T. Davis (eds), *Exactitude: On Precision and Play in Contemporary Architecture*, Amherst: University of Massachusetts Press, 2022, 216 pages, 38 illus. ISBN: 9781625346728. The book is a timely, well-crafted and wide-ranging collection of essays that stake out contrasting and, at times, contradictory positions toward exactitude in architectural theory and practice. Using Italo Calvino's *Six Memos for the Millenium* as a starting point, the essays share a common goal of exploring how a critical understanding of the ethical and imaginative capabilities of exactitude can help us appreciate the agency of architects.

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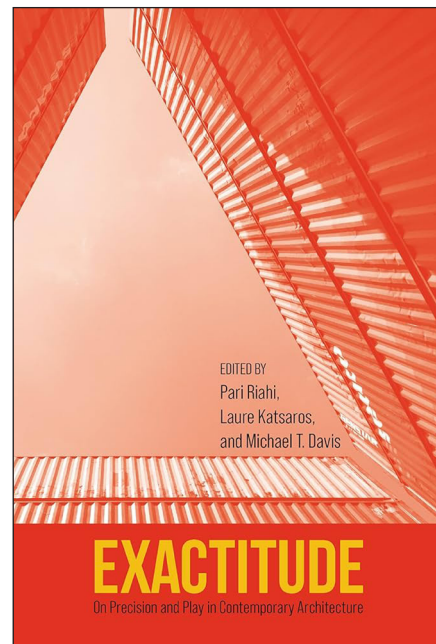


Architecture is defined by contradictory and challenging relationships with exactitude. Architects fetishize the promise of exactitude in drawing a perfectly consistent joint, specifying a tolerance achievable only by digital means of production, and predicting the perfect alignment of assembled materials and construction processes with predefined intentions. Simultaneously, exactitude eludes and frustrates architects — the construction site never quite aligning to the drawn instructions, materials and installers alike deviating from planned processes, the rigidity of contracts, spreadsheets, and project files challenging creativity and adaptability. From Vitruvius’s recommendations to pay the “greatest attention” in making architectural plans to

19th-century stipulations that an architect’s instruction should permit not the ‘shadow of a doubt or ambiguity’ in any part of an architectural work and more recent predictions of digital software eradicating conflict on the construction site, exactitude has long been pursued as a means toward achieving certainty.¹ But what kind of certainty is to be gained from exactitude, and how does exactitude enhance architecture’s purpose?

These questions can be examined by approaching exactitude in architecture as covering territory beyond that of a perfect alignment between the architect’s intention and the constructed result. More than a technical construct, exactitude is, at its heart, an attempt to describe complex and contradictory relationships. In pursuing exactitude, architects both circumvent and engender trust and understanding between themselves and builders, come to appreciate and control how materials relate to each other and the tools that transform them, attempt to realize poetic intent while taking into account the practicalities of daily concerns, and seek to prescribe how humans might live ethically with each other and on this earth. When exactitude is reduced to a precise description of objective processes, the ethical and imaginative agency of architects amidst an ever-growing team of specialist disciplines, each of which brings its own interpretation of exactitude’s purpose to an architectural project, may be compromised. How, in such a context, might architects claim agency over the ethical and imaginative potential of exactitude?

Exactitude: On Precision and Play in Contemporary Architecture is a timely, well-crafted, and wide-ranging collection of essays that stake out varied positions regarding



the promises of exactitude in this context of alignment and contradiction between architectural theory and practice. Seeking to ‘bring the topic of exactitude to the forefront of contemporary debates in architecture’ by drawing theory and practice closer together, the book takes Italo Calvino’s *Six Memos for the Next Millennium* as its inspiration and starting point.

In ‘Exactitude’, one of the essays in *Six Memos for the Next Millennium*, Calvino proposes that ‘the poet of vagueness can only be the poet of exactitude, who is able to grasp the subtlest of sensations with eyes and ears and quick, unerring hands’.² Challenging the idea that ‘the more vague and imprecise language is, the more poetic it becomes’, Calvino argues that poetry can only achieve the desired degree of vagueness by being as precise as possible, that is, by giving the language of the poem “exact and meticulous attention.”³ This symbiotic pairing of vagueness and exactitude is a core thread running through *Exactitude*. The contributions in this volume examine the promises and consequences of exactitude in architecture from historical, philosophical, political, ethical, digital, climatic, non-human, and social perspectives, offering contrasting and, at times, opposing views on the desire for and the implications of exactitude in architecture. All, however, maintain that an appreciation of the ethical and imaginative capabilities of exactitude draws attention to the crucial role of the architect’s agency.

The volume is the result of a 2020 symposium on exactitude jointly sponsored by the University of Massachusetts at Amherst, Amherst College, and Mount Holyoke College, that brought together oppositional views on the topic. Theorists, historians, editors, architects, and writers responded to questions regarding the role of regulation, reuse, innovations in construction, innovations in digital media, and environmental crises in contemporary architecture. This volume is divided into four sections based on commonalities that emerged during the symposium.

Opening the first section, ‘Exactitude, or the Art of Intolerance’, Mark Wigley’s “The Intolerances of Architecture” observes the contradiction of architecture being a low-technology field whose products nevertheless rely on vast amounts of data, a field that is both static and yet composed of complex flows, standardised and yet responsive and customized. Wigley examines architecture’s conflicting attitudes toward exactitude through a historical overview that covers architects from Alberti, Perrault, Ruskin, Corbusier, and Wachsmann to Buckminster Fuller and demonstrates connections between sensuality, desire, health, and the economy, on the one hand, and exactitude in architecture, on the other, noting that Corbusier talks of mechanical exactitude and smuggles in feeling and that Ruskin talks about feeling and smuggles in exactitude. Exactitude both excites and confuses architects, Wigley concludes, maintaining, like Calvino, that the objective of exactitude is not exactness but art.

In ‘New Narratives in the After-Post-Truth Age: Posthuman, Precision, and Conservation’, Alejandro Zaero-Polo argues for the necessity in an “After-Post-Truth age” of the climate crisis, global pandemic, and identity politics of framing exactitude in ethical terms. Arguing that ‘exactitude may become the alternative to the relentless drive toward the artificial construction of difference that has engulfed speculative architectural practice’, leading us, ‘in construction parlance’ to adopt ‘a new range of intolerances in our practices and discourses’ (34), Zaero-Polo foregrounds how architects’ technical expertise can help ‘physical and concrete’ (34) matters like carbon emissions and thermal efficiency. Zaero-Polo contends that architects can assert agency and develop an alternative ground for authenticity in response to post-truth identity politics by embracing the ‘arcane’ values of scientific measurement and rationality.

Turning to negotiations of exactitude in constructed reality, Eric Höweler reviews the how the relationship between drawing and construction is changing in ‘Verify in Field: Verification and Materiality in Contemporary Design Workflow’. Digital tools for drawing and making have recalibrated traditional relationships between concept and construction, challenging physical and conceptual interpretations of tolerance in the pursuit of exactitude. Describing three separate monument projects he worked on, Höweler journeys through the precisely measured wearing down of a stone-cutting saw that was required for the Sean Collier Memorial at MIT, the challenges of representing the historical trauma of enslaved labourers in the Memorial to Enslaved Laborers at the University of Virginia, and the celebration of embodied energy in the Stepwell public art installation in Spokane, Washington and concludes that exactitude is simultaneously technical and ethical in practice.

The second section, ‘Exactitude Adrift’, focuses on the external forces that work against exactitude in architecture. In ‘Exactitude and the Weather’, Christopher Benfey reviews historical, cultural and theoretical approaches that deplore the effects of weather and time on architecture, framing them as an enemy of exactitude, as well as those that embrace those effects, seeing them as an aesthetically enhancing additive force. In “Building in the Floating World,” Sunil Bald contrasts a staccato, puncturing sense of exactitude with an adaptive, ungrounded idea of floating, using the otherness of floating to situate the Japanese studio SUMO as an ‘untethered’ outsider. Bald considers exactitude ‘not as an extension of immovable fixity but as a form of continual becoming’ (91).

The third section, ‘Exactitude at Play’, explores the subversion, misappropriation, and hacking of machines, objects, and processes intended to offer the absolute certainty of exactitude. In ‘Stacks: Case Studies in a Construction of Exactitude’, LOT-EK describes the many kinds of exactitude — neuromuscular proficiency, attentiveness,

collaboration, patience, and technical quantification — required to stack shipping containers in a non-standard way, forms of exactitude that have the effect of bridging the ‘false divide’ between the theoretical and the practical. Alicia Imperiale’s “Machine Consequences” highlights the potential of subverting the intended precision of machines. Imperiale’s scoping of art practices hacking Xerox photocopiers and 3-D printers brings to light a history of relationships between maker and machine and standardisation and surprise, revealing play within the mechanisms of exactitude.

The final section, ‘Exactitude and Its Discontents’ advocates taking a critical approach to the fetishization of exactitude. In ‘Filthy Logics: Exactitude and the Architecture of Mediocrity’, Francesca Hughes critically reviews big data’s origins in nineteenth-century statistical analyses, showing how these analyses were used by colonial empires as mechanisms of control and warning against a data-driven approach to decision making. Teresa Stoppani equates a non-static idea of exactitude to theories of the city as fluid and perpetually organising, drawing on Calvino’s interpretation of exactitude as a practice rather than a definition in ‘The In-Exact Words of Architecture’. Closing the volume with ‘A Postlude’, Cynthia Davidson reflects on her orchestration of a Zoom meeting bringing together the authors at the close of the symposium and describes how she aimed to build conversation by encouraging play in the face of the online platform’s tendency to smooth over and flatten out debate. *Exactitude*’s collective purpose, she notes, is to ‘crack it [exactitude] open and see what might be inside’ (182), and she maintains that play is the best way to approach this nut.

The variety of interpretations of exactitude presented here speaks directly to contemporary architectural practice’s varied and complex concerns as it changes how it addresses urgent environmental, ethical, economic, political and cultural challenges. *Exactitude* speaks to both practitioners and academics, advocating that we proactively engage with exactitude and respond critically to its promises as well as the threats posed by its objectives. As Wigley observes, ‘Only when the rules of exactitude have been faithfully and deeply absorbed can they be broken to poetic effect’ (19). The essays in this compelling book offer an expanded view of how learning and breaking the rules can productively inform architectural theory and practice and encourage us to recalibrate our own position on exactitude.

Notes

- ¹ Vitruvius 1960: 282; Bartholomew 1893:1; Finch 2015: 32.
- ² Calvino 1996: 60.
- ³ Calvino 1996: 56–57, 60.

Competing Interests

The author has no competing interests to declare.

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