Montreal Architectural Review

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Book Review 1:
Andersen, Anna Ulrikke.
Following Norberg-Schulz: An Architectural History through the Essay Film
London: Bloomsbury Visual Arts, 2022

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A windowpane shattered, fallen snow and conflicting frame rates, silently draped over trees, ground and archetype; modern monolith tight-lipped looming; a baby in utero hears muted music performed at his father's funeral; the dissonance of sound and image, an operatic voice-over; father and son, father and daughter; fragmentary histories enframed amid the musicality of landscapes and lecturing styles; crisp snow crunching underfoot, a glass house aurally divided.

This short opening passage conveys something of the reflective impact of the thought-provoking new book by Anna Ulrikke Andersen on the life and theoretical contribution of the influential Norwegian architectural theorist Christian Norberg-Schulz (1926-2000). The book is divided into ten chapters, or 'Windows,' that creatively frame, reflect, and relate to key moments in the life of Norberg-Schulz in order to critically consider his continued relevance within the field of architectural phenomenology. These windows are accompanied by ten film essays accessed via QR codes at the start of each chapter.

Andersen's films function on multiple levels. They are quiet and restrained but manage to serve as potent forms of critical spatial practice; creative ways to simultaneously draw near and create distance between the author and her subject. The films manage to emplace the study, enabling the reader to follow the author to frozen Trondheim, the *forre* of Calcata, Piazza Navona, and a rooftop in Rome. Along the way, these films serve as touchstones connecting the biographical information and theoretical stance of Norberg-Schulz to broader movements and tendencies in film studies. There is also a strong self-reflective vein that courses through the films, metaphorically drawing on the fact that, depending on the direction and quality of light, transparent windows often become reflective. In the most general sense, the films subtly accustom the eyes and ears of the reader towards a more nuanced form of noticing.

The films are paired with telling moments in the life of Norberg-Schulz through an analogical window motif. For instance, the segment on the rooftop in Rome is linked with the windows that Norberg-Schulz designed at The Norwegian Institute in Rome; the soundscape of his domestic writing life in Norway is paired with the iconic view from his window used to open his book *Genius Loci* (1980); and the moment Norberg-Schulz realized how Rome relates to its surroundings is questioned through a filmed re-enactment on Piazza Navona, with a sea of windows reflecting in the background. In some of the later chapters, Norberg-Schulz's friendship with Italian architect Paolo Portoghesi, and their shared love of the Austrian poet Rainer Maria Rilke, is evinced in the landscape of Calcata and then questioned in a Norwegian translation of one of Rilke's poems about a window. While some of these connections to windows are tangential, the motif is not so much about looking through windows as it is concerned with dwelling amid their capacity for relating and dividing. Above all, the films and associated windows provide an opportunity for reflective pause amid the author's acts of following.

As the title suggests, this book asks many questions about the notion of *following*. Across a spectrum of followings, Andersen's approach can be bookended by two terms: framing and re-enactment. On the one hand, she is weaving a narrative from wide-ranging ideas, finding obscure fragments of information and choosing to frame them within the field of film studies, editing them according to her will. On the other hand, there is a strong focus on re-enactment, on trying to understand the positions and prejudices of her subject. This tendency is particularly evident in those films which literally follow in the footsteps of Norberg-Schulz and even re-enact certain moments in his life. The outcome is a productive ambivalence where Andersen can simultaneously appreciate the "deep, inevitable and intimate connections with place"[1] characterizing the dwelling lives of so many, while also feeling uncomfortable with the static conservatism evident in Norberg-Schulz's "dismissal of mobility and emphasis on belonging."[2] In this ambivalent state, the author is free to question the potential connections between the way Norberg-Schulz's (real and metaphorical) windows seem to "watch and control"[3] and his often universalist tone that so liberally employs the word "we"; thereby inciting Andersen to admit that "I do not like the way Norberg-Schulz talks about *me*."[4]

Despite her reservations, Andersen finds many productive ways to follow. She follows Norberg-Schulz linguistically and brings the implications of various archival and published material written in Norwegian to an English-speaking audience. She follows up personal connections through interviews with key figures in his life, including his wife, Anna Maria Norberg-Schulz, and his close friend, Paolo Portoghesi. She also takes a refreshingly personal tone (in response to the universalist claims often made by Norberg-Schulz) and reflects on fragmentary minutia, facts, and events that at first appear peripheral. This kind of following is able to let gaps in knowledge linger and "expose the uncertainties at play in the work of the historian, rather than smooth them over."[5] It is an approach that might exasperate some, but while her following is open to detours and skepticism, it is neither indifferent nor willful. Instead of the grand, timeless narrative and emphasis on 'strong places'[6] so characteristic of Norberg-Schulz's writings, Andersen's attempts at following act as an intra-epochal listening and answering that is mobile, interdisciplinary, and open.

Allow me an example to illustrate the way Andersen interweaves the diverse facets of her following. The passage at the start of this review is inspired by the scene set by Andersen's opening window.[7] The first chapter opens with a film about the death of Norberg-Schulz's father, who tragically perished by falling through a skylight of the old chemistry building at the Norwegian Technical University in Trondheim. The film presents the sound of Andersen and the caretaker searching for the skylight over a long shot of the exterior of the old chemistry building played at 50% reduced speed. This disjuncture between image and sound – an *acousmêtre* in cinematic parlance – is used to knit various aspects together: the tragic event, where students heard the glass shattering, but no one witnessed the fall; Rilke's use of the cinematic capacities of the window in *The Notebooks of Malte Laurids Brigge* (1910); the relational implications of listening in feminist criticism explored by Jane Rendell; the destabilizing impact on film essays when confronted with the Deleuzian sound image; even the imagined experience of Norberg-Schulz as a fetus, hearing the music performed at his father's funeral; before considering the need for skepticism in assessing the way historians make sense of historical events and persons. With this cross-referenced scene set, Andersen then considers the use of *acousmêtre* in Federico Fellini's *And the Ship Sails On* (1983), only to reveal that the singing parts of the character Ines Ruffo Saltino, while acted by Linda Polan, are performed by Elizabeth Norberg-Schulz, the famous opera singer and daughter of Christian Norberg-Schulz; an *acousmêtre* Andersen uses to reflect on the role music played in the life of Elizabeth's father. More than merely linking somewhat tangential details, Andersen then interprets these interwoven musings to contrast the way Norberg-Schulz presented the *genius loci* as a "unified whole" with her own attempts to "underscore contradiction, uncertainty, fissure and *interstice* [in the] experience of place."[8]

Andersen's approach is unconventional, but also compelling and timely. On the one hand, it draws on recent attempts at developing critical spatial practice in postgraduate practice-based research programs, where the designer's skillsets and creative output are utilized as research method. Simultaneously, her book

is published amidst a wide-ranging questioning of the assumptions underpinning the field of architectural phenomenology.[9] Yet Andersen manages to practice phenomenology in an open and self-reflective way, able to critically re-engage the difficulties and failings in Norberg-Schulz's approach while displaying a poetic sensibility that allows for a more refined appreciation of his position. Within this kind of open stance, poetic participation can be understood as an act of reflective measuring in which the ambivalent follower both "belongs to Being and yet, amidst beings, remains a stranger", as Martin Heidegger put it. Heidegger continues: "Humans will know the incalculable . . . only in creative questioning and forming from out of the power of genuine reflection."[10] Andersen's book is a welcome invitation to follow this venturesome path, in both critical and creative ways.

Notes

1   Anna Ulrikke Andersen, *Following Norberg-Schulz: An Architectural History through the Essay Film* (London: Bloomsbury Visual Arts, 2022), 60.

2   Ibid., 79.

3   Ibid., 83.

4   Ibid., 93.

5   Ibid., 161.

6   Christian Norberg-Schulz, *Genius Loci: Towards a Phenomenology of Architecture* (New York: Rizzoli, 1980), 179.

7   Anna Ulrikke Andersen, *Following Norberg-Schulz: An Architectural History through the Essay Film* (London: Bloomsbury Visual Arts, 2022), 17-29.

8   Ibid., 29.

9   For example, see the Winter/Spring 2018 issue of *Log*, entitled "Disorienting Phenomenology".

10   Martin Heidegger, *The Age of the World Picture*, 222-223. Translated by Kenneth Haynes & Julian Young and modified by Jerome Veith. In: Günter Figal (ed.) *The Heidegger Reader* (Bloomington: Indiana University Press, 2009), 207-223.

About the Author

Hendrik Auret is a senior lecturer at the University of the Free State in Bloemfontein, South Africa, and registered as a professional architect. His research interests revolve around architectural moments that reveal the *seldsame* concerned relationships between dwellers and their emplaced existence as instances of caring, thereby making the case for attentive, appropriate ways of designing and building able to dignify this lived totality, architecture as an art of care. In 2019 Routledge published his first book, *Christian Norberg-Schulz's Interpretation of Heidegger's Philosophy: Care, Place and Architecture.*

Book Review 2:
Baudez, Basile. *Inessential Colors: Architecture on Paper in Early Modern Europe*
Princeton, NJ: Princeton University Press, 2021

Paul Emmons[1] and Negar Goljan[2]

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Color's importance in architectural drawing is attested by Le Corbusier while addressing architecture students in 1929: "Consider this advice like gold: ...with color you characterize, you classify, you read, you see clearly, you manage. ...Color will save you."[1] Today, as color fully saturates our contemporary image-dominant world, it is valuable to look back to an earlier time when the inclusion of color in drawings required substantial effort and skill and therefore careful and critical consideration.

As one of the first book-length studies of the use of color in architectural drawing, *Inessential Colors: Architecture on Paper in Early Modern Europe* by Basile Baudez, represents a significant contribution to understanding the development of color drafting methodologies and their influences on architectural history. Examining original drawings, handbooks, and treatises from across the European continent, Baudez extensively surveys the role of color in architectural drawings from the Renaissance through the early nineteenth century. The Enlightenment-era French drawing research is particularly valuable. The book's illustrations serve its topic well, with a generous quantity of high-quality color reproductions.

Baudez's excursion into the role of color in architectural drawing begins by surveying how Italian Renaissance practice emphasized black and white drawing. Indeed, Leon Battista Alberti, while strongly recommending the study of painting for architects, distinguishes drawings by architects from those by painters and explicitly dismisses colored architectural models as "lewdly dressed with the allurement of painting."[2] The Renaissance emphasis on the harmonic proportionality of part and whole was seen as a prime theoretical motivation for preferring outline over color and appearance. Despite this general trend, however, the author ought to note a number of important exceptions, such as the substantial use of red wash and instances of yellow and green in drawings by Giuliano da Sangallo (c.1465-1516).[3]

The changing technology of color image reproduction (and its inevitable influence on the uses of color) is an important subtheme. During the Renaissance, the hand coloring of black and white prints was widespread, persisting even after mechanically produced color prints first appeared in Europe in the early sixteenth century. In England and the Low Countries, a center of color printing, Baudez notes, architectural drawings were quick to adopt color once it became technologically available.

The first chapter, "Imitative Colors," discusses the early development, primarily in the geographic regions of France and the United Provinces, of using color in architectural drawing to show the appearance of certain building materials. Baudez identifies the origin of color in elevations from the representational work of painters (at a time when divisions between these activities were not strongly drawn, as evidenced by the many painter-architects). One important use of color was for roofing materials: blue-gray wash for slate and red for clay tiles. Although not mentioned in the text, the drawing reproductions show that roofing colors are often graded in intensity from top to bottom to suggest the changing light on the roof's slope and thereby help to distinguish it from vertical walls in flat elevation drawings.

The discussion continues in chapter one through a search for the source of color in plan drawings that, Baudez argues, derives from mapmaking practices and writing that cartography primarily employs color as "natural signs." The broad distribution of printed maps influenced chromatic signs in architectural drawing. Baudez concludes that color in cartography played a taxonomic more than an imitative role, even when borrowing hues imitatively from the real world. While not introduced in the text, it should be noted that debates in semiotics question to what degree iconic imitations are conventional symbols,[4] suggesting that the line between imitation and convention can be elusive and putting into question Baudez's claim that the use of color in elevation is a "straightforward imitation of the visible" (52).

A careful reading of late seventeenth- and early eighteenth-century drawing manuals is provided in chapter two, "Conventional Colors," to reveal a shift in thinking away from a simple imitation of reality and towards more codified symbolic representation systems. French military engineers led the adoption of color conventions in architectural drawing, which subsequently spread to civil architecture. Due to the centralization of authority within the French government, color was at the forefront of standardizing drawing codes. Despite Baudez seeming to equate convention with standard, it's helpful to appreciate the difference between convention itself, which can be devised by individual drafters for their own purposes

at hand, and standardization, which superimposes a convention across many practices. One widespread norm that was already present in the Italian Renaissance (eg. Baldassare Peruzzi) was the use of red to indicate proposed new construction to contrast with black for extant structures. While elevation drawings tend to be more imitative than convention-driven, certain materials such as glass presented unique representational problems that led to its being treated as blue or green. Baudez identifies the use of pink for masonry in section as the single most enduring color code. Perhaps because he isolates elevation from plan drawing, the influence of red for walls in plan is largely overlooked when discussing the use of color in section.

"Affective Colors," the third chapter, highlights the rise of the art of draftsmanship during the late eighteenth century, especially in Paris. The Enlightenment-era progression from pure taxonomy and categories into an artform which sought to excite emotions in the viewer developed from empiricist theories of knowledge by Locke, Condillac and Burke, among others. Here, Baudez explains the increasing use of polychromy as an aesthetic medium in architectural drawings – architectural color "would achieve something new, inspired by painting: it would please and delight the senses" (160). In light of this new subjective turn, architectural painting expanded beyond its previously limited boundaries, combining the technical skills of the draftsman with the aesthetic expression of the painter. These emotive drawings began to rely heavily on color and paint. With reference to Claude-Nicolas Ledoux ("If you would become an architect, begin by being a painter"), Baudez champions a "sensualist approach" to architecture (170). Technical developments in color image reproduction at this time also probably played a role in exciting polychromic enthusiasm.

In another section of chapter three, "Polychromy to Sublime Monochromy," the emphasis gradually shifts from the use of overwhelming and emotive color to large, greyscale, atmospheric designs, like those of Boullée, Froideau, and Campana, aiming to evoke a sublime sense of awe and wonder. This relied heavily on tremendous scale, ink-washes, and huge volumes and spaces, and marks a distinct shift towards the coming Romanticism.

After the turn of the century, we see a schism in architectural drawings and their purposes. Jean-Nicolas-Louis Durand, at the École Polytechnique, favored highly reductive black-and-white outline drawings, whereas others took their skills as draftsmen into creating evocative paintings in the new Romantic styles. One key aspect of this was in the relative expansion of engraving techniques, which were largely color-neutral, but highly refined and reproducible. Practical issues therefore relegated the overtly expressive use of color and drawing techniques to the artist's easel, effectively banishing them from the draftsman's drawing board for the best part of a century. However, they did not prevent the advancements of polychromatic washes as an integral part of a designer's training.

A very helpful appendix describes the tools, media, and instruments of architectural drawing in a historical survey that unfolds from an analysis of Lequeu's 1782 iconic image of a draftsman's tools. Baudez writes that there is no T-square, only a straight edge in Lequeu's drawing (227)[5] and mentions the

late appearance of the T-square in architectural drawing that probably derives in part from Maya Hambly, who, in a rare oversight, identifies an illustration from 1642 as "one of the earliest illustrations to show a tee-square with a drawing board" but fails to note that the engraving was adapted from an earlier 1509 woodblock print.[6]

The concluding summary, *Anxiety of the Architect,* clearly sets out the book's main points, but lacks the nuance of the full text, making the argument appear overly black and white. Nonetheless, this excellent foundational work of extensive range opens an important field of study with numerous lines of inquiry for further investigation.

Notes

1   Le Corbusier, *Precisions: On the Present State of Architecture and City Planning*, translated by Edith Schreiber Aujame (Cambridge, Mass: MIT Press, 1991) 225. See also: William Braham, *Modern Color/Modern Architecture: Amédée Ozenfant and the Genealogy of Color in Modern Architecture* (Aldershot, England: Ashgate, 2002).

2   Leon Battista Alberti, *On the Art of Building in Ten Books*, translated by Joseph Rykwert, Neil Leach and Robert Tavernor (Cambridge, Mass: MIT Press, 1988) 34, 317.

3   Cammy Brothers, *Giuliano da Sangallo and the Ruins of Rome* (Princeton: Princeton University Press, 2022).

4   Umberto Eco*, Kant and the Platypus: Essays on Language and Cognition*, translated by Alastair McEwen (New York: Harcourt, 1999) 337-392.

5   Hambly identifies Lequeu's horizontal straight edge to be part of a T-square. Maya Hambly, *Drawing Instruments 1580-1980* (London: Sotheby's, 1988) 17.

6   Hambly, 14, 113. Viator (Jean Pélerin), *De Artificiali perspectiva* (1509 second edition). See: Paul Emmons, *Drawing Imagining Building* (London: Routledge, 2019) 56-7.

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Book Review 3:
Wölfflin H., Boehm G., Eichelberger A. M., Neagoe S. *Prolegomena zu einer Psychologie der Architektur, 1886.* Edited by Giovanna Targia.
Gesammelte Werke / Wölfflin, Heinrich, Band 1.
Basel: Schwabe Verlag, 2021

Vlad Ionescu

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Schwabe's remarkable edition of Heinrich Wölfflin's *Collected Works* is a late but monumental editorial project that is meant to cement the memory of the legendary Swiss art historian. Wölfflin's *Prolegomena to a Psychology of Architecture* (1886) is the first of four volumes that have been published and has attracted new readers recently on both sides of the Atlantic. The necessity of a critical edition of Wölfflin's *oeuvre* is an easily justifiable and advisable project. Besides the German text of the *Prolegomena,* Schwabe's edition is important for the exhaustive critical apparatus that it includes. With its introduction by Gottfried Boehm, the work is the most accurate and scientifically reliable version to have ever been published. The text of the *Prolegomena* follows the 1886 edition as it was originally published by Kgl. Hof- und Universitäts-Buchdruckerei von Dr. C. Wolf & Sohn, the Munich-based academic publisher.

Overall, Boehm addresses the main thesis of the *Prolegomena*: that the animated human body is the criterion according to which architecture is experienced and evaluated. For Wölfflin, the symbolic understanding of architecture presupposes endowing tectonic forms with a certain purpose. Architectural forms are thus felt as disturbing or affirming the organic constitution of the body, and its movement in space, and so generate a euphoric or dysphoric affect. This theory of symbolism originates in Wölfflin's studies of Friedrich Theodor Vischer (and his son Robert), Johannes Volkelt, Goethe, and Schopenhauer. Other ideas draw from the physiological psychology of Wilhelm Wundt and the experimental aesthetics of Hermann Lotze, Gustav Fechner and the anatomist Rudolf Virchow. The *Prolegomena* thus combines different paradigms that determined the intellectual debates around art and architecture at the time. Wölfflin's explanation of architecture in terms of the human body is an attempt to find a center of gravity for an interpretation of the experience of architecture.

For Boehm, the *Prolegomena* is also related to Kant's Copernican revolution in the sense that the work delineates the a priori conditions of experience. Objects orient themselves to a mind which perceives them according to its working. The synthetic a priori judgments that are the goal of Kant's First Critique suggest that the mind and the world inherently meet in order to yield pertinent scientific propositions (17). Similarly, Wölfflin's goal is not to address specific architectural styles but to explain how tectonic structures appear as aesthetically meaningful.

In Wölfflin's concept of empathy, Boehm is right to see a certain "gesture" that transfers, and thus relates, the subject to the surrounding world and its objects. *Einfühlen* and *Mitfühlen* are semantic variations of this gesture that explain the aesthetic experience as fundamentally relational. He is also right to consider this transference of the interior self into the exterior object as fundamentally "pantheistic". However, it is precisely this gestural interpretation that will make empathy an obsolete theory. Perhaps instead of relating the *Prolegomena* to Kant's *Critique of Pure Reason*, a comparison to the *Critique of Judgment* would have proved more fruitful. Granted, Wölfflin does not refer to the transcendental analysis of the beautiful and the sublime, but yet the Kantian description of the aesthetic judgment does contain the elements Wölfflin refers to in the *Prolegomena*: the stirring of the disposition or the mood (*Gemüt*) in terms of "vital feeling" (*Lebensgefühl*), its affirmation in the case of beauty, and its temporary frustration in the case of the sublime.

Another reference that deserved more attention in the work is Wilhelm Worringer's psychological reading of empathy, which reading brought about the idea of a generic typology of styles. But we do not have to wait long for a theory that resisted empathy as an interpretative model. Already in 1893 the sculptor Adolf von Hildebrand argued in his *The Problem of Form* for an explanation of art on the basis of making. Art confronts every artist with challenges of perception and of forming the material. Art is no longer bound to Vischer's act of projecting a soul on objects (*Seelenleihung*) but to the emergence of visual forms. However, as Boehm briefly points out, Husserlian phenomenology will return to the notion of the animated body (the *Leib*) as the center of experience and distinguish it from the body as an object (*Körper*).

Finally, the question regarding the *Prolegomena* is whether the centrality of the human body and its organic existence is both a necessary *and* sufficient condition for the interpretation of architecture. The elements of architecture that Wölfflin derives from the human body (material and form, weight and power) are surely necessary conditions for an intuitive and direct experience of architecture. There is little question that the direct, intuitive, and sensitive relation of our bodies to tectonic structures consists of a continuously animated impression on the moving body. But the body is also always already formed by the specific architectural context where it developed. The relationship between body and architecture is never in a pure state and the aesthetic judgment itself presupposes this informed relation.

Since architecture is among the oldest of human activities, we can also infer that its *practice* and its *history* equally determine how bodies (should) move in space, how their sensitive constitution is conditioned, and especially how architectural design depends on an architect's practical wisdom and education. These topics are here left untouched even though Boehm convincingly argues that the weight of the thesis lies in the extension of the limited experience of visuality to broader feeling and the moving body (19). Hence, besides the *descriptive* character of the thesis, the *Prolegomena* also contains a *performative* dimension: the body's proportions are related to the rhythm of breathing, which relation also justifies the comparison between rhythm in architecture and music. Time and again, we realize that Vitruvius was right when he prescribed, amongst other pursuits, music and mathematics as essential disciplines in architectural education. However, one wonders whether, with Boehm, the *Prolegomena* can be read as the origin of architectural criticism. Surely, the essay is necessary to architectural criticism, but in order to become also a sufficient condition for such a practice, Wölfflin's pellucid prose of *Renaissance and Baroque* and the structural polarities of his *Principles* are also essential literature. In other words, architectural criticism depends not only on explaining how architecture is *felt* but on how it *works*. Hence, the history of architecture, the cultural variations, and the practical wisdom involved in the making of architecture are quintessential dimensions. Fortunately, Schwabe's edition is the monument that secures Heinrich Wölfflin's *oeuvre* as a fundamental force in specific questions about art and architecture and their history and meaning.

About the Author

Vlad Ionescu is associate professor at the Faculty of Architecture and Art (UHasselt) / PXL MAD where he currently teaches the history and theory of these domains. His research concerns the epistemology of formalist art history (Aloïs Riegl, Heinrich Wölfflin and Wilhelm Worringer) and architectural theory. Besides co-editing and co-translating Jean-François Lyotard's *Writings on Contemporary Art and Artists* (Leuven University Press, 7 volumes published between 2009-2013), he is the author of *Applied Arts, Implied Art. Craftsmanship and Technology in the Age of Art Industry* (A&S Books, 2016) and *Pneumatology. An Inquiry into the Representation of Wind, Air, Breath* (ASP, 2017).

Book Review 4:
Wharton, Annabel Jane. *Models and World Making: Bodies, Buildings, Black Boxes*
Charlottesville: University of Virginia Press, 2022

Matthew Mindrup
University of Sydney

High praise to Annabel Jane Wharton for her most recent publication *Models and World Making: Bodies, Buildings, Black Boxes*. This long overdue study of the model in the sciences, art, architecture, finance, and popular culture is both timely and well received. As Wharton asserts, models have a long history as an integral part of our daily lives as records of the past, testaments to our aspirations, and tools intimately involved in conditioning the future. At their most basic level models are familiar in everyday life through fashion icons and miniature scale descriptions of buildings. Yet we also find models in everything from climate change forecasts and pandemic maps to Lego sets and Ancestry algorithms. It is, as Wharton reasons, because of this incredible variety of models that an interdisciplinary investigation of the subject had heretofore not been written. Rather, most model studies treat a single genre of model: mathematical, climatic, architectural, economic, or literary. To fill this lacuna in contemporary discourse, Wharton has set out with this book to broaden the conversation about models by defining, historicizing, and politicizing them.

Warton begins her excurse into the model with a brief survey of its etymology, historical evolution, and application in the sciences, popular culture, economics and play – to name only a few – with an aim of understanding its various operations. The essential attribute of a model is its relationship to a referent which, as Wharton explains, may be described as either strong or weak. That is, it may act as a dominant subject that determines its weak object or act like a copy subordinate to its strong archetypes. Then in chapter two, to highlight the historical dimension to which the model belongs, Wharton explores how the cadaver has been described, exhibited, and visually rendered from the Middle Ages until the present. The discussion shifts in the third chapter so as to foreground the political force of the model through an analysis of several architectural representations, including the series of copies made of the Church of the Holy Sepulchre, Leon Battista Alberti's Rucellai tomb in Florence, Franciscan olive wood replicas of sacred places, an archaeological model of Herod's Jerusalem, and video game renderings in *Assassin's Creed*. The final chapter asks the reader to consider how models are entangled in discourse. To do this, Wharton surveys the threats posed by what she refers to as 'black boxes', i.e., instruments whose inputs we control and whose outputs we interpret, but whose inner workings are beyond our comprehension. As Wharton observes, climate change models, which are generated by black boxes, suffer from intentional misinterpretations made by climate change deniers. Considering all this, the definition of model Wharton arrives at is:

> A model is an autonomous agent that has a referent (material, ideal, conceptual, imaginary, . . .) to which it adverts (mimetically, symbolically, symptomatically, inferentially, . . .), but from which it differs in significant ways (in its complexity, scale, material, function, way of being-in-the-world, . . .). In its relation to its referent, a model is weak or strong, sometimes oscillating between the two. A model assumes its interpreter's familiarity with its particular hermeneutic conventions. Although no model can ever licitly make truth claims, a model can be good or bad, honest or dishonest. A good model is an epistemic operator that works (abstractly, critically, ludically . . .) toward a fuller understanding of the world. All models have histories. All models act politically. And all models are entangled in discourse.

Clearly, Wharton's definition is broad and, in this way aims to include the large diversity of characteristics to which the term refers.

The disadvantage of Wharton's approach to such a broad definition of models is that it does not set clear boundaries between the terms of, say, 'model' and 'representation.' A quick perusal of the *Oxford English Dictionary* finds a definition for 'representation' that is equally broad and includes a person, object, process, or action which stands for or denotes a referent in a variety of ways. We can see from this that a model is a representation, but not all representations are models. For example, the orthogonal plan drawing of a building is a horizontal cut through an existing or proposed referent at a particular height above the ground, but it doesn't refer to the entire building in its absence. The distinction between rep

resentation and model appears to be in the utility of the model as a miniature, prototype, example, ideal or source of inspiration. It is this process of interpretation that the model's user makes a person, object, process, or action meaningful to themselves, a group of people or a situation as a model. Thus, we can say with a certain confidence, anything can be a model if is interpreted as one.

The challenge we face in establishing the boundaries of the term model is further aggravated by its conflation within methods of production. As Wharton notes, the etymology of the term 'model' comes from late middle English in the term *moldus*, meaning a "template used in building" or "hollow form for casting metal." During this period of time, the terms "mold" and "model" were often used interchangeably. It was not until industrialisation that, "model" (used as a reference to a particular mold) became part of everyday language along with the need to specify particularity in a commercial world where things were becoming increasingly fungible. We witness a similar sematic creep in Wharton's example of Pietro-Lucia-no Buono's algorithm for a horse's secondary gait. Indeed, the algorithm relates to its referent abstractly, but the danger of this relation occurs when the one is exchanged for the other in terms of conveying its meaning. To explain, consider an architecture student who claims, "all my building models are in this computer folder." The student's digital files are not the models themselves but instructions that a partic-ular computer program reads to generate a visual representation of the model on a computer screen, or a Stereolithographic (SLA) 3D printer uses to fabricate the model in physical three-dimensional form. The Greeks were already cautious to make such distinctions in building construction when, as J.J. Coulton observed in *Ancient Greek Architect's at Work* how Herodotus' account for the rebuilding of the temple of Apollo at Delphi that the Greeks used the term *syngraphe* to mean a written description of the temple while a three-dimensional model was its *paradeigma*. Thus, an algorithm is not a model of a horse but a set of rules to be followed in calculations for describing or generating the gait of a horse. What these examples indicate is the need to be cautious in regard to these sorts of casual exchanges of meaning that make ascertaining an already complex term, 'model' even more challenging to define.

In the second and third chapters, Wharton introduces a unique and valuable argument for the historicalness and the politicalness of models. As she relates, much has been written about both types of models, but less thought has been given to the question of how dramatic shifts in representation in the West relate to changes in their social and material being, in its ontology or essence. For example, transfor-mations in the visual renderings of the medical body model—from diagrammatic to hyperreal—contributed to modifications of the cadaver itself from the third century BCE Alexandria and the cadaver in the Duke University anatomy lab in 2020. Similarly, in architectural terms, models such as those exhibited at the infamous 1976-77 *Idea as Model* exhibition at the New York Institute for Architecture and Urban Studies (IAUS) bear the marks of the period in which they were made through shifts in thinking about architecture and representation.

Intriguing and expansive, *Models and World Making* introduces the reader to the complexity of seeing and critically evaluating how we make and remake the world in which we live through models. For those architects and architectural historians reading this journal, Warton's book provides an apt introduction to the complexity of meanings this familiar tool, medium and agent of change embodies. In lieu of a micro-historical study of the use of models by a particular architect, region or specific period of time, the reader will be reminded how our understanding and use of models evolves over time in different disciplines and fields of study.

In my case, this book transformed my understanding of the political issues mitigating the emergence of architectural models. By illuminating important political factors for the design and interpretation of structures such as Leon Battista Alberti's Church of the Holy Sepulchre in Florence, or Franciscan olive wood model replicas of sacred sites, the book prepares me for understanding the motivations for the models I may take up in my own work as an architect. *Models and World Making* will certainly find itself on many a bookshelf as an introduction to the topic, and a reference for considering the meaning of the term as it continues to change over time.

About the Author

An architect by training, Matthew Mindrup is an Associate Professor of Architectural History and Theory at the University of Sydney. He completed a Ph.D. in Architecture and Design at Virginia Tech University on the physical and metaphysical coalition of two architectural models assembled by Kurt Schwitters in the early 1920s. Dr. Mindrup's ongoing research in the history and theory of architectural design locates and projects the implications that materials have in the design process. Dr. Mindrup has presented some of this research at conferences and published others in *The Journal of Architectural Education* (JAE), *Interstices*, *Architecture Research Quarterly* (ARQ), *Architecture Theory Review* (ATR) and, in 2019, welcomed the publication of his book: *The Architectural Model: Histories of the Miniature and the Prototype, the Exemplar and the Muse* (MIT Press, 2019).

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Book Review 5:
Kingwell, Mark.
The Ethics of Architecture
New York: Oxford University Press, 2021

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"In the view of many thinkers," notes Mark Kingwell, "true thinking is only possible while walking."[1] In step with this observation, his own thoughts present a series of perambulations and deviations along the sometimes poorly-lit paths of architecture's ethical commitments.

The Ethics of Architecture does not pretend to offer an exhaustive survey of its territory. Nor does it aim to compete with the scope of Karsten Harries's *The Ethical Function of Architecture*, published in 1997 and still robust today. Instead, Kingwell's narrative is personal, as every good guide must be. He describes neighbourhoods in his hometown Toronto, altercations with security guards at the Empire State Building, and experiences among migrant construction workers in Qatar. But his excursions are also set against a broader landscape of ideas, populated by its own engaging cast of characters. Heidegger appears repeatedly, in the company of philosophers from Plato and Aristotle to John Rawls and Charles Taylor. And there are other, less strictly philosophical, protagonists, from Louis Sullivan and Adolf Loos to Robert Moses, General Eisenhower, and Homer Simpson. These interlocutors render the conversation accessible to every reader.

Kingwell opens by framing architecture's ethical obligations within the context of the shifting crises of our century: poverty and plague; the expansion of homelessness and the shrinking of public space; swelling populations, growing isolation, and rising sea levels, exacerbated by the anxieties of modernity and the fault lines of social unrest, political bombast, despair, suspicion, and surveillance. Any reader who has pondered these troubles will find the book rewarding. Published during a year of pandemic, it aspires to take advantage of a "pause in the reckless velocities of neoliberal life," urging a longer perspective.[2]

The book is a slim volume, easy to take with you as you step into the streets of the contemporary city. Yet it draws on the intellectual depth of a philosopher with a longstanding interest in architecture. And it proves a provocative companion, reminding the reader, right from its opening pages, of what is at stake in building a society. "Shapers of space need to reconceive their task as uncovering the utopian and revolutionary possibilities of building, of opening up spaces for political thought and action." The word *political* must here be read with all the force of its origins in the ancient *polis*.[3] But to build, notes Kingwell, is also to believe. The discipline of architecture, thoughtfully pursued, demands belief in something worth building for. But what to believe in? Contemporary culture offers binaries of precarity and privilege—undergirded by individualist ideologies that match the vacuous project of personal self-fulfilment with the reduction of individuals "to clusters of spending patterns or retail choices."[4] None of this is satisfying.

Kingwell reminds us that "the kind of urban world we build for ourselves today will determine whether we have the civic vocabulary to be more than just a society of consumers."[5] And he poses provocative questions—among them, the one that is precedent to all architectural thought: "Are buildings necessarily sites, as Heidegger suggested, of fundamental existential reflection?" Kingwell's book would argue in the affirmative. But specific architectural answers are more elusive. The author is himself a philosopher, and he notes that ethical reflections, "by their nature, are always themselves *preliminary to action*."[6] To translate abstract concept into material reality is a task for architect, patron, and public. For such readers, Kingwell's text serves as an invitation.

The book could occasionally have benefitted from more careful editing. The reader stumbles over sporadic errors and omissions. A pedestal is mistaken for a pediment; sentences are repeated; a line of text is formatted as a subtitle. And there are unhappy moments, like one describing the Nazi party's 1937 "Degenerate Art" exhibition as "a monument of aesthetic courage"[7]—when precisely the opposite was surely meant. These slips reflect poorly on the velocity of contemporary academic publishing.

More vexing, however, is a recurring refrain that is quick to associate "neoclassical nonsense" *tout court* with figures from Adolf Hitler to Donald Trump, pitting New York City's "deliberately anti-classical" Museum of Modern Art as a "welcoming" democratic rebuke to the "intimidating" authoritarian façade of the Metropolitan Museum of Art.[8] In 2022, that caricature sounds oddly discordant, in a way that is not fully defused by the author's admission that MoMA's architecture was itself designed "by, ironically, Nazi-admiring Philip Johnson."

To be fair, the author is conscious that neoclassicism can hardly claim a monopoly on despotism. He acknowledges the lingering reality of other entanglements with repressive regimes, in a narrative that features the names of a cadre of architects who have attained the highest ranks of professional and academic success: I. M. Pei, Rem Koolhaas, Jean Nouvel, Zaha Hadid, and Bjarke Ingels. He does not pretend to resolve the uncomfortable disciplinary implications of these associations. But part of the book was evidently written during the brief interval between the publication of President Trump's ill-conceived executive order promoting the adoption of classical and traditional architectures for federal buildings, and its revocation by President Biden a few weeks later. It may be noted that Biden was photographed signing the revocation while seated at a desk placed carefully in front of the base profile of a neoclassical pilaster order, just one month after the celebration of his own inauguration, when the full glory of the neoclassical architecture of the US Capitol was mobilized in favour of a peaceful transfer of power, and two months after the chaos of January 6, when that same neoclassical architecture was attacked by Trump's supporters.

The US Capitol is not on my list of favourite architectures; and yet this structure—a symbol for longer commitments that retain their significance only if protected from abuse—offers a metaphor both for the present political moment and for architects' ethical obligations. What was celebrated during Biden's inauguration as the "temple of our democracy" and as a "shrine and citadel to liberty" was attacked soon after with axes, bats, and crowbars. Celebrated and attacked, the architecture stands in the background of both narratives, offering a shared point of reference, an opportunity either to address the ruptures of contemporary public discourse or to inflame their sound-bite narratives. Kingwell's *Ethics of Architecture* brings this opportunity to the foreground.

Happily, the book points toward a deeper engagement with architecture's longer obligations. "Architecture is not just the ordering and manipulation of space, but also of time," notes Kingwell.[9] Architecture's ethical obligation to *time* extends beyond that of a four-year term. It places us not only within the short-term context of our own individual mortality—ashes to ashes, dust to dust—but also within a longer trajectory of shared human endeavour. This responsibility both to future and to past has not always been acknowledged with equal enthusiasm; the architecture of the last century, in particular, is rightly condemned for the desperate short-sightedness of its outlook.

Indeed, Kingwell's various excursions leave room for the reader to explore the spaces between, and there are opportunities to place one passage in conversation with another. For instance, in his introduction the author quotes an increasingly tired critique, ca. 2014, of Britain's Prince Charles, now King Charles III.[10] Without wading into the shallows of that swamp, I am inclined to think that future decades will come to reassess its false dichotomies, just as many of Prince Charles's onetime axioms have quietly been adopted, more recently, by the most progressive of thinkers. Again, Kingwell's own text points the way forward, proposing the notion of a tradition as a way to plot a viable connection between democracy

and justice.[11] Quoting G. K. Chesterton, he adds: "tradition is only democracy extended through time. It is trusting to a consensus of common human voices."[12] But he also notes "the evidence of traditions in practice, their tendencies to ossify, corrupt, and even oppress, not just on the basis of bare power or deception but *in the name of tradition itself.*"

There is work still to be done to resolve this tension. And Kingwell does not fully extend this line of thought to trace its implications for building culture more generally—although it is worth paying attention to a growing recognition of the significance of vital *traditions* of building that stand outside the wretchedness of standard North American building practice (*pace* Alasdair MacIntyre, whose definition of a genuine *practice* is relevant here). However, Kingwell does go on to discuss the significance of architecture's relationship to *time*. He is conscious of the poverty of a "relentless demand for speedy novelty,"[13] that combines with an equally constant nostalgia "the ideology of inevitability that creeps up around technology—an ideology so stealthy and complete, and so intimately related to the very idea of capital, that it is functionally invisible."[14] He himself provides a terrific introduction to the distinction between two (Greek) conceptions of time: *chronos* and *kairos*. One, regulated by chronometers of increasing precision, responds to "the proposition that time is money," a commodity to be measured, parcelled out, sold, consumed.[15] The other, resistant to transactional reduction, answers to altogether different laws, the laws of the holi-day. Architecture's ethical discourse must answer to both of these. And it must be framed not only within the painfully narrow window of the present—no doubt a portrait window, too often conceived as a selfie—but also within the longer narrative frieze that extends from the future into the past, within which our own lives amble slowly backward.

At the end of his book Kingwell returns to a question posed to architects at the beginning: "Who do you work for?" He is conscious that architecture cannot be—even if it often is—an inward-facing discipline. As the most public form of art, constituting nothing less than a form of social trust, it has larger ethical responsibilities. Even a failure to communicate—what Kingwell describes as "the bafflegab of architectural theory"[16]—has ethical implications. Appropriately, Kingwell ends with a clearly articulated response. "Who do you work for? You work for *everyone*, human or otherwise."[17]

To work for *everyone*, of course, risks working for no one in particular—or, perhaps, working for yourself, for your own interests, for your own professional advancement. And here we might recall Oliver O'Donovan's 1989 essay "The Loss of a Sense of Place," where the ethicist writes: "The universal claim of every human being upon every other is, after all, more of a critical principle than a substantial one. To love everybody in the world equally is in fact to love nobody very much."[18] This, then, is the challenge for architects and for all those who wander the streets of our communal lives: to populate Kingwell's questions with specific and substantive answers.

Notes

1 Mark Kingwell, *The Ethics of Architecture* (New York: Oxford University Press, 2021), 47.

2 Ibid., xx.

3 Ibid., 21.

4 Ibid., 24.

5 Ibid., 19.

6 Ibid., 50.

7 Ibid., 75.

8 Ibid., 76.

9 Ibid., 84.

10 Ibid., 4–7.

11 Ibid., 91.

12 G. K. Chesterton, *Orthodoxy* (1945; repr., Peabody, MA: Hendrickson, 2006), 53, quoted in Kingwell, *Ethics of Architecture*, 92.

13 Kingwell, *Ethics of Architecture*, 23.

14 Ibid., 32.

15 Ibid., 98.

16 Ibid., 72.

17 Ibid., 125.

18 Oliver O'Donovan, "The Loss of a Sense of Place," *Irish Theological Quarterly* 55, no. 1 (1989): 53–54.

About the Author

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