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## TOWARDS A NEW RENAISSANCE? ARTIFICIAL INTELLIGENCE AND ARCHITECTURAL DESIGN

**ABSTRACT:** This article examines artificial intelligence in architecture through a critical-theoretical lens, arguing that AI is not merely a tool but a force reshaping authorship, agency, and design practice. It explores three key issues: the emergence of human-machine assemblages that challenge traditional conception of authorship in architecture, the dominance of efficiency versus the “poetry” of architectural intention, and the limits of workflow optimization. Situating AI within historical analogies such as the Renaissance, the author questions these comparisons while highlighting AI’s political, cultural, and epistemological implications. Ultimately, the paper calls for alternative design paradigms that emphasize intention, inclusivity, and new relationships between humans, machines, and the environment.

**KEYWORDS:** artificial intelligence, design, architectural intention, architectural authorship

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Artificial intelligence has rapidly moved from a specialized technological domain to a pervasive cultural and professional condition. Its recent acceleration, driven by advances in generative models, has not only expanded its field of application but also intensified the questions it raises. In architecture, as in other design disciplines, AI is no longer simply a matter of tools or techniques; it has become a lens through which fundamental issues—agency, authorship, intention, and responsibility—must be reconsidered.

This article approaches AI from the perspective of a critical theory attentive to its broader implications. Rather than asking what AI can do for architecture in purely instrumental terms, it examines how AI transforms the very frameworks within which architectural practice has traditionally been understood. In doing so, it situates current developments within a longer historical trajectory, while also questioning the limits of such analogies.

The argument developed here unfolds across three main lines of inquiry: the reconfiguration of authorship and the emergence of human-machine assemblages; the tension between efficiency and the “poetry of art” as a defining dimension of architectural intention; and, finally, the possibility of thinking beyond the dominant paradigm of workflow optimization toward alternative conceptions of design, time, and agency. Together, these perspectives aim to contribute to a more nuanced understanding of AI—not as a neutral instrument, but as a force that reshapes both practice and the way we conceive of ourselves as designers and, more broadly, as human beings.

## A CONTRIBUTION TO A CRITICAL THEORY OF AI

Artificial intelligence is here to stay. The prospect of a new AI winter has largely receded, and AI will not withdraw after a brief moment in the spotlight.<sup>1</sup> As a result, questions concerning how societies, professions, and disciplines should adapt to this rapidly developing technology—and what can reasonably be expected from it—have become widespread. Since 2022, and particularly with the rapid diffusion of generative and diffusion models, AI has become a major source of interrogation for the design world. Where is it leading us? What degree of agency do we retain in the face of a technology that appears increasingly difficult to control?

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<sup>1</sup> S. Chaillou, *Artificial Intelligence and Architecture: From Research to Practice*, Birkhäuser, Basel/Berlin/Boston, 2022.

Periods of accelerated change are frequently interpreted through comparison with earlier moments of dramatic technological and cultural transformation. Such analogies are often mobilized as tools for making sense of novelty. Yet this use of history is, in many respects, problematic—at least when measured against its modern, scientific conception. It recalls instead an older understanding of history as a guide for action rather than as an explanatory discipline. This tension lies at the core of Reinhart Koselleck's *Futures Past: On the Semantics of Historical Time*.<sup>2</sup> References to earlier periods of transformation do not so much aim to explain the present as to render it intelligible and to clarify the range of possible responses to ongoing change.

Since the emergence of the digital revolution, the Renaissance has been a recurring point of comparison. In the field of architectural theory, Mario Carpo famously drew a parallel between developments during the time of Alberti and those accompanying the generalization of computer-aided design and digital fabrication.<sup>3</sup> At a broader cultural level, treating the digital not merely as a technical apparatus but as a cultural paradigm, the French sociologist Dominique Cardon has argued that the digital revolution bears a closer resemblance to the Renaissance and the spread of the printing press than to the industrial revolution.<sup>4</sup>

This Renaissance analogy has also resurfaced recently in public discourse on artificial intelligence. In a widely commented post, Sam Altman suggested that current developments may resemble the Renaissance more than the industrial revolution.<sup>5</sup> Here again, the printing press functions as a key reference point, symbolizing an unprecedented acceleration of intellectual production and circulation. The implication is that AI may usher in a comparable expansion of knowledge, creativity, and cultural output.

Such comparisons are not entirely convincing. Nevertheless, they may serve as useful heuristic devices for unpacking some of the tensions currently at play. The Renaissance analogy is particularly charged in architecture, as this period witnessed the emergence of several defining features of the discipline as it is understood today. Among these was the

<sup>2</sup> R. Koselleck, *Futures Past: On the Semantics of Historical Time*, Columbia University Press, New York, 2004.

<sup>3</sup> M. Carpo, *The Alphabet and the Algorithm*, The MIT Press, Cambridge, Mass., 2011.

<sup>4</sup> D. Cardon, *Culture numérique*, Presses de Sciences Po, Paris, 2019.

<sup>5</sup> "I think this is gonna be more the renaissance than the industrial revolution," S. Altman, "Post on X," April 18, 2025.

architect's claim to authorship: the ambition to be recognized as an intellectual figure, conversant with humanists and scholars, and supported by the written and printed word through the publication of treatises.

Authorship, however, cannot be considered in isolation. During the Renaissance, it was inseparable from questions of professional hierarchy and power. The transformation of architectural authorship coincided with a reconfiguration of roles on the building site, determining who benefited from the new tools and representational techniques and who lost influence in the process.

This shift entailed the gradual decline of craftsmen who had occupied dominant positions in medieval construction practices. The struggle was not merely professional but also axiological. Craft traditions—particularly in Northern Europe, where Flamboyant Gothic developed—valued virtuosity, performance, and technical display.<sup>6</sup> These criteria were increasingly rejected by the emerging figure of the architect, who promoted ideals of measure, proportion, and harmony grounded in theoretical knowledge.

In contemporary discussions surrounding AI, a comparable emphasis on efficiency has become prominent. Efficiency is here understood broadly, encompassing form-finding processes, optimization strategies, and compliance with standards and regulations. This emphasis supports the image of a better-equipped designer, capable of responding more effectively to complex challenges such as climate change, resource scarcity, and evolving human needs.

Yet a fundamental question remains: can design be reduced to efficiency alone? Architecture has historically also been conceived as a source of meaning and inspiration that exceeds the satisfaction of immediate functional requirements. This dimension was famously articulated by the late eighteenth-century French architect Étienne-Louis Boullée as the “poetry of art”—a quality irreducible to technical optimization.<sup>7</sup> The compatibility of this ambition with an extensive reliance on machines remains uncertain. It raises the question of whether such a poetic dimension can be preserved, transformed, or even amplified through computational means.

<sup>6</sup> J.-M. Guillouët, *Flamboyant Architecture and Medieval Technicality: The Rise of Artistic Consciousness and the End of Middle Ages (c. 1400–c. 1530)*, Brepols, Turnhout, 2019.

<sup>7</sup> J.-M. Pérouse de Montclos, *Étienne-Louis Boullée (1728–1799): Theoretician of Revolutionary Architecture*, Braziller, New York, 1974.

This is not an argument for reducing architecture to poetic expression alone. The material, regulatory, and economic constraints of professional practice leave limited room for such aspirations. Nevertheless, acknowledging the existence of this irreducible dimension—often associated with human intention—helps to clarify what is at stake in the development of AI within architectural practice. It brings into focus the question of intentionality: what it means to conceive, to decide, and to take responsibility for architectural form.

If efficiency is reconsidered beyond its narrow technical definition, the potential gains offered by AI may appear in a different light. Just as the Renaissance introduced new ways of seeing, representing, and conceiving the built environment, AI may open the door to alternative notions of efficiency and to more inclusive approaches to design.

These questions resonate with developments in the humanities, a field that has so far been more immediately and visibly affected by AI. Text production in particular, has undergone rapid transformation, prompting professions grounded in writing to question their future viability. Examining how AI is reshaping textual practices may therefore provide valuable insights for design disciplines. Moreover, contemporary AI systems increasingly blur the traditional boundary between text and image, even if the underlying computational models remain distinct.

From the perspective of the humanities, the objective is not to prescribe courses of action to AI developers or architects. Rather, it is to contribute to what the Swedish sociologist Simon Lindgren has termed a *critical theory of AI*.<sup>8</sup> Such an endeavor is necessary precisely because AI is not merely a technical tool. It is a technology that interrogates our practices, our values, and ultimately our understanding of what it means to act, create, and decide as human beings.

## TOWARDS A DIFFERENT POLITICS OF AUTHORSHIP

Current uses of AI in architecture appear to be developing along two relatively distinct trajectories. One focuses on ideation and form-finding, relying in particular on image-generative capacities to stimulate creativity and generate new perspectives. The other is oriented toward the optimization of constraints, ranging from programmatic and structural requirements to carbon emissions and liveability criteria. A recent study

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<sup>8</sup> S. Lindgren, *Critical Theory of AI*, Polity Press, Cambridge/Hoboken/New Jersey, 2023.

conducted in Turin and published in the latest issue of *Technology | Architecture + Design* suggests that the former approach is more frequently adopted by large architectural practices, which possess the resources necessary to develop dedicated tools, while the latter is more common among smaller firms.<sup>9</sup>

Whether this division will persist—thereby increasing the polarization of the profession between thriving large practices and smaller firms facing financial insecurity—or whether AI will eventually level the field through the widespread availability of powerful tools remains uncertain. At present, outcomes are still indeterminate, and the distribution of winners and losers has yet to be established.

Another source of uncertainty concerns the future modalities of co-operation between humans and machines. Many designers maintain that humans should retain mastery over the design process, distinguishing between the capacity to generate arrays of solutions—assigned to machines—and the ultimate power of decision, reserved for humans. Others, however, are struck by the growing potential of machines to guide the entire process, rather than merely supporting human intervention. While one position seeks to confine AI to the status of a tool, the other anticipates forms of co-design or even an expansion of machine-led decision-making.

At this stage, it may be useful to consider developments in text production, particularly within the humanities and, more specifically, in universities. In my own experience—far from unique—I am increasingly confronted with essays that are co-written by humans and machines, if not entirely generated by machines. These texts are often better written and more clearly structured than those produced independently by students, yet they frequently lack a distinctive mark of personal subjectivity, a point to which I will return. While some colleagues advocate a return to handwritten, supervised examinations, I am inclined to adopt a different perspective: we are no longer evaluating humans alone, but rather cyborg assemblages composed of humans and machines. This shift inevitably raises the question of which competencies evaluation procedures are meant to assess—a question to which no clear answer has yet emerged.

What developments in text production suggest is that it will become increasingly difficult to treat AI as a mere tool. In educational contexts,

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<sup>9</sup> F. J. Gardella, L. Mastrolia, F. Moro, M. Rossi, “The Impact of AI on Small Architecture Firms,” *Technology | Architecture + Design*, 9, 1, 2025, pp. 73–83.

as well as in many professional environments, AI already demonstrates the capacity to replace humans in certain situations.

Behind these machines, however, are humans who have produced the materials on which AI systems are trained, as well as others who have supervised their training. In other words, contemporary AI relies on a fractal hybridization of humans and machines operating at multiple levels. These assemblages are far more complex than traditional models of human-machine interaction, and they complicate—if not destabilize—the very notion of authorship.

During the 1960s and 1970s, French critical theory famously proclaimed the “death of the author.” Historians such as Roger Chartier, a specialist in the history of reading and publishing practices, echoed this claim by noting that the modern conception of authorship, as it had existed since at least the eighteenth century, had not always prevailed, and that its apparent demise might represent only a temporary parenthesis.<sup>10</sup> That parenthesis, however, never fully closed. The death of the author did not occur. It may nonetheless be unfolding today, through the proliferation of partial or quasi-authors.

The situation remains more complex still, as contemporary culture is characterized by an age of hypertrophied stardom—from music to design—governed by a winner-takes-all logic. The fractal assemblages described above may continue to be attributed to a super-author, overseeing layers of human-machine interaction.

In architecture, this condition of the super- or arch-author predates the rise of AI. Architectural production has long been collective in nature, involving networks of people as well as tools and machines, well before the advent of digital computation. Nevertheless, the outcome of this collective process has traditionally been attributed to a single author. With AI, this veil appears to be lifting—although the process had begun earlier. Over the past decades, the collective, layered, and distributed character of architectural authorship has been examined by scholars using frameworks ranging from Peggy Deamer’s use of the post-Marxist concept of “immaterial labour” to Bruno Latour’s actor-network theory.<sup>11</sup>

<sup>10</sup> R. Chartier, *The Order of Books: Readers, Authors, and Libraries in Europe Between the 14th and 18th Centuries*, Stanford University Press, Stanford, 1994.

<sup>11</sup> P. Deamer (ed.), *The Architect as Worker: Immaterial Labor, the Creative Class, and the Politics of Design*, Bloomsbury, London/New York, 2015; A. Yaneva, *Latour for Architects*, Routledge, London/New York, 2022.

AI now forces these issues beyond the relative confidentiality of academic debate, compelling a more direct engagement.

AI also calls for renewed reflection on compensation at multiple levels. Should new mechanisms be devised to remunerate the producers of works used in machine training? What about those who supervise such training processes? And how should compensation account for the varying degrees of human involvement within human–machine assemblages? These questions suggest the need for differentiated modes of recognition and remuneration.

Without indulging in utopian visions of perfect fairness, it must be acknowledged that AI will compel design professions to rethink key aspects of their organization. AI, like many features of digital culture, is as much a political issue as it is a technological one.

In this context, it is worth asking who the losers might be in the profound transformation of the designer into a constellation of cyborg assemblages—networks of human and non-human actors rather than autonomous individuals. Thus far, the primary losers of the digital turn in architecture were those unable to master complex software or who failed to ascend early enough within professional hierarchies to delegate computational tasks to others. AI may demand a different set of skills than those previously dominant. Consider, for instance, the emerging importance of prompt-writing. Interacting with “intelligent” machines may resemble the practice of animal training, where success depends on the ability to communicate effectively across species. In this sense, interspecies communication may prove more valuable than traditional computer skills. One might even imagine future courses dedicated to understanding latent spaces—a competence that could become as significant as coding itself.

This development poses a major challenge for architectural education, which traditionally seeks to produce winners rather than losers. The rise of AI is likely to accelerate a shift toward asking the right questions, formulating meaningful problems, and curating the multiple responses generated by machines, rather than producing designs in the traditional sense. In other words, emphasis may move from the *how* to the *why*, from step-by-step production to strategic inquiry. This raises a fundamental pedagogical question: how does one train curators? At present, architectural education remains largely oriented toward mastering procedures and techniques.

Finally, these issues extend well beyond the design studio. For historians, AI represents both an opportunity and a challenge. While it offers

powerful new tools, it also renders simple, linear narratives increasingly implausible. The history of architecture, even as it has moved beyond canonical accounts toward more global perspectives, has largely continued to rely on unified, coherent narratives. AI challenges the very premise of such singular narratives. Its capacity for endless hybridization opens new perspectives at a pace that can be disorienting. Wikipedia had already exposed the limits of traditional survey models; AI now more radically questions the possibility of a single narrative framework in historical teaching. This does not imply abandoning narrative altogether, but rather redefining what narrative can mean under these new conditions.

### AI PRODUCTION AND THE “POETRY OF ART”

The question of the ambition that guides design leads directly to that of architectural intention. As previously noted, the growing centrality of efficiency in contemporary design practices is striking, even when it is not explicitly framed as such. Efficiency has long been a defining feature of design activity, but it now appears to govern practice more systematically than in the past. It permeates the generation of ideas as well as the elaboration of forms and projects conceived to satisfy increasingly precise requirements. This emphasis on efficiency may function as a form of reassurance: from this perspective, AI would represent an augmentation rather than a radical transformation of design practice, enabling designers to keep pace with the acceleration and complexity of the contemporary world.

Yet this perspective raises questions regarding the irreplaceable role of humans in the design process. If design is primarily understood as “enabling an environment to function appropriately,” to borrow a formulation from AI-in-architecture specialist Immanuel Koh, it becomes conceivable that machines might eventually perform this task without human input.<sup>12</sup>

This possibility is readily apparent in domains such as structural soundness or thermal comfort. But does it extend to aesthetics? AI systems already demonstrate the capacity to process extremely large datasets, ranging from the totality of Baroque churches to the corpus of modernist villas built in the first half of the twentieth century. This capacity enables them to identify stylistic patterns and even to infer preferences.

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<sup>12</sup> I. Koh, *Artificial & Architectural Intelligence in Design*, Singapore University of Technology and Design, Singapore, 2020.

At this point, it is useful to examine more closely certain characteristics of contemporary AI productions. They often appear to oscillate between two poles: the slightly boring and the spectacular.

The first pole can be illustrated by an experience at the 2025 Venice Biennale curated by Carlo Ratti. There, the numerous panels lining the main exhibition space were accompanied by AI-generated summaries intended to facilitate the reading of long and detailed texts. These summaries were accurate but flat and bland; something of the excitement conveyed by the original texts seemed to be lost. A similar flatness characterizes many AI-generated or AI-assisted papers submitted by students. Although often better written and more clearly structured than purely human-produced texts, they tend to lack a distinctive inflection.

At the opposite pole lies the spectacular. This includes images depicting monumental, intricate, and often labyrinthine scenes. Even more striking are the videos proliferating on social media, featuring hybrids of humans and animals or humans and machines engaged in strange rituals. These productions are undeniably spectacular, yet the sense of awe they provoke is frequently accompanied by an impression of *déjà vu*. This reinforces the hallucinatory quality often associated with AI-generated imagery.

Taken together, many AI productions appear to lack a distinctive personality. Chatbots, by contrast, seem capable of adopting almost any persona in conversation. Yet personality may not be the most appropriate concept here; intention provides a more precise term. AI outputs often fascinate without fully engaging us in the manner of human works that convey a clear intention. When chatbots give the impression of personality, this may owe less to the intrinsic content of their responses than to the user's desire to be heard—a desire that can obscure critical distance.

One explanation for the relatively impersonal quality of many AI productions lies in their reliance on processes analogous to imitation, a principle that dominated artistic production for centuries. Mario Carpo was among the first to draw a parallel between AI and the principle of mimesis—reasoned imitation—that structured early modern European art as well as many other artistic traditions.<sup>13</sup> Creation largely meant imitation. While artists were theoretically expected to imitate nature, in

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<sup>13</sup> M. Carpo, "The Imitation Machine," in Carlo Ratti (ed.), *Intelligens. Natural. Artificial. Collective. Biennale Architettura 2025*, vol. 1, La Biennale di Venezia, Venice, 2025, pp. 190–193.

practice they often imitated one another's works. AI has amplified this logic of imitation to such an extent that it is not always immediately recognizable, though its presence is often sensed at a subliminal level. The absence of a clearly articulated intention is further revealed by AI's capacity to hybridize almost everything with everything else. The resulting productions—resembling a Max Ernst composition on steroids—bear a distinctive mechanical signature.

Historically, mimesis most often gave rise to conventional, not necessarily compelling works. Most human creations are, in fact, not radically creative. It is therefore unsurprising that AI reproduces this pattern.

This dynamic is evident in certain architectural uses of AI that explicitly capitalize on imitation. Coop Himmelblau's *Deep Himmelblau*, for instance, is designed to generate proposals derived from the firm's previous projects.<sup>14</sup> This amounts to a form of self-imitation—a fundamental mechanism of cultural production, particularly in contexts governed by economic imperatives.

To move beyond imitation, humans have at times needed to operate at the margins of established rules. Within imitation-based systems, artistic innovation historically emerged at the threshold where imitation began to transform into something new. Because of their fundamentally foreign modes of processing text and images, machines can provoke similar explorations. However, their rule-based nature continues to constrain the scope of what they can propose.

Not all forms of novelty, however, are equally meaningful to humans. In the realm of language, certain combinations of words resonate by striking an inner chord. This capacity for resonance lies at the core of poetry.

Such evocative power is closely linked to embodiment. The resonance of particular words, forms, textures, or colors derives from holistic experience as embodied intelligence, rather than from purely intellectual comprehension. Meaning, understood in this sense, is not abstract or fixed, like a dictionary definition; it is rooted in physical and sensory experience.

Applied to architecture, this understanding suggests that architecture expressing a human intention beyond the satisfaction of constraints—architecture as a poetic endeavor—operates in a comparable way. Its meaning is embodied, even if contemporary theory no longer adheres to direct analogies between architectural proportion and the human body.

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<sup>14</sup> W. dPrix, K. Schmidbaur, D. Bolojan, E. Baseta, "The Legacy Sketch Machine: From Artificial to Architectural Intelligence," *Architectural Design*, 92, 3, 2022, pp. 14–21.

Architectural intention thus exceeds the fulfillment of practical requirements, whether technological or aesthetic. This is what Étienne-Louis Boullée meant by the “poetry of art,” and what Le Corbusier had in mind when, after famously declaring that a house was a machine for living in, he corrected himself to insist that architecture was ultimately a machine for producing emotion. Even his modest *Cabanon* on the Mediterranean coast was conceived as an emotional experience. Walter Gropius articulated a similar position when, in *The New Architecture and the Bauhaus* (1936), he argued that while architecture must mobilize the most advanced science and techniques, emotional and aesthetic satisfaction remained paramount.<sup>15</sup>

Architects do not, of course, generally aspire to be Le Corbusier, Gropius, or Zumthor. Nevertheless, architectural practice is inseparable from the desire to express something beyond the merely functional, and from the expectation that this expression will remain perceptible amid technical and regulatory constraints.

This ambition is also tied to the aspiration to go beyond the merely livable and to create spaces that are truly habitable—that is, spaces that suggest that human actions within them have meaning. The ultimate purpose of architecture is not to signify in itself, but to frame meaningful human activity. In this sense, architecture resembles a theater, inviting humans to become the actors of their own lives.

The capacity to generate emotion—emotion that resonates not only cognitively but through embodied intelligence—is what distinguishes genuinely poetic human production from mere imitation or unreflective rule-following.

Most of the time, humans follow codes and procedures, producing outcomes that machines will likely soon be able to generate autonomously. Human cognition itself has a mechanistic dimension, a fact that has long fascinated philosophers. Denis Diderot’s interest in machines, for example, stemmed from his desire to explore what is machine-like in the human mind. His editorial project for the *Encyclopédie* sought to investigate this question through the systematic documentation of arts and crafts. Today, this question has regained particular urgency.

What remains uncertain is whether machines will be able to go further and produce works that convey a genuinely human-like intention. Beyond

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<sup>15</sup> W. Gropius, *The New Architecture and the Bauhaus*, Museum of Modern Art/Faber and Faber, New York/London, 1936.

the poetry born of their radical strangeness, will they be able to move us in the same way as human-created works? Will they, in other words, eventually imitate our capacity to be—in certain moments—inimitable?

This scenario cannot be excluded. Following the thread of embodiment, such a development would likely depend not only on increased computational power but also on its embodiment. At present, this embodiment remains rudimentary, but it is evolving rapidly.

These questions are far from purely academic. The future of the architectural profession is directly implicated. If machine-generated projects were able to move us in the same way as human productions, the designer's role might be reduced to selecting among alternatives—the curatorial function previously evoked. Yet this raises a further question: why would curators still be needed, and on the basis of which specific competencies?

Ultimately, the future of design also concerns our understanding of ourselves. Is life fundamentally computational, as suggested by Google researcher Blaise Agüera y Arcas in *What Is Intelligence?*<sup>16</sup> Are humans even more machine-like than they have believed at various points in history? Returning once more to the Renaissance analogy, transformations in design ideals and practices were inseparable from broader conceptions of what it meant to be human. Today, architecture once again serves as a privileged site for this enduring inquiry. Who, in the end, are we?

## BEYOND WORKFLOWS

With the widespread adoption of AI, the notion of the workflow has become even more pervasive than before. It is inseparable from a fluid conception of efficiency in which work sequences and documents are expected to circulate seamlessly, production processes are streamlined, and nothing is allowed to hinder rapid delivery.

Research in the history of engineering shows that this vision of efficiency is rooted in a long intellectual trajectory that began in the second half of the eighteenth century. At that time, engineers and early economists alike developed a growing fascination with a world in which movement became the primary measure of value. Movement gradually replaced harmony as the dominant organizing principle. For the

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<sup>16</sup> B. Agüera y Arcas, *What Is Intelligence? Lessons from AI About Evolution, Computing, and Minds*, Cambridge, Mass./London: The MIT Press, 2025.

Physiocrats, for instance, the circulation of goods was central to the generation of economic value.

This emphasis on movement was inseparable from a transformation in the understanding of nature, which came to be interpreted less in terms of harmonious order than as a dynamic system in constant flux. The decline of the Vitruvian tradition in architecture was closely connected to this shift. Order and proportion progressively lost both their artistic and scientific prestige.<sup>17</sup>

A century later, this logic found a new expression in scientific management and its obsession with streamlining production. Factory automation followed a similar path. Contemporary discourse around AI appears to extend this trajectory toward the ultimate streamlining of conception itself, aiming at the full integration and unification of workflows.

Yet this evolution is not necessarily inevitable. In the context of the Anthropocene, contemporary societies are simultaneously experiencing a renewed transformation in their understanding of nature. Increasing attention is now paid to complexity, as well as to the intertwined conditions of fragility and resilience that were previously underestimated.

In parallel, slowness has emerged as a key value among environmental thinkers seeking to restore a more balanced relationship between humans and non-humans. This development invites a reconsideration of the relationship between architecture and time. Streamlining workflows may not constitute the sole priority. Architecture might instead be conceived from the perspective of deceleration rather than as a contributor to generalized acceleration. AI could just as readily be mobilized toward this end, for instance by helping to carve out moments of pause or contemplation, rather than exclusively serving to accelerate processes.

This reconsideration of efficiency also extends to the performance of buildings. In a thought-provoking essay entitled *Antidote to the Cult of Performance: The Robustness of the Living*, a French biologist contrasts traditional optimization strategies—which often increase vulnerability to unexpected events—with the robustness of living organisms, which rely on high levels of redundancy.<sup>18</sup> Taking nature as a model, albeit a nature understood differently from that of the Enlightenment and modernity,

<sup>17</sup> A. Picon, “Towards a History of Technological Thought,” in R. Fox (ed.), *Technological Change: Methods and Themes in the History of Technology*, Harwood Academic Publishers, London, 1996, pp. 37–49.

<sup>18</sup> O. Hamant, *Antidote au Culte de la Performance: La Robustesse du Vivant*, Gallimard, Paris, 2023.

could foster a renewed conception of optimization and performance. Here again, AI may offer opportunities to think beyond narrowly defined metrics of efficiency and to explore alternative design paradigms.

AI also opens new possibilities for diversifying the actors involved in the design process and for making previously unheard voices audible—an especially striking reversal given the biases that AI systems often reproduce. This approach has been explored by Thomas W. Sanchez, who argues that “when trained on diverse datasets incorporating a wide range of sources and community input, AI tools can act as powerful instruments for inclusivity.”<sup>19</sup> The uses of new technologies are never fully predetermined, and AI is not inherently synonymous with technocratic decision-making. Notably, such possibilities were already anticipated in the early history of computing in architecture. Nicholas Negroponte’s Architecture Machine Group at MIT experimented with ways of mobilizing computational power to incorporate the aspirations of social groups that were frequently marginalized.<sup>20</sup>

This line of inquiry can be extended further by considering the potential of AI to give voice to non-human actors in ways that differ from Bruno Latour’s notion of “parliaments of things.”<sup>21</sup> In 2016, researchers at the Berlin University of the Arts proposed an alternative approach, suggesting the use of sensors and algorithms to grant natural elements a form of agency, including limited decision-making power. They imagined, for example, a digitally augmented forest capable of managing itself and even expanding by acquiring land through blockchain technologies.<sup>22</sup> Building on such ideas, AI could contribute to a form of design practice that genuinely listens to non-human entities, moving beyond rhetorical commitments that often lack tangible consequences.

Artificial intelligence holds the promise that extends far beyond the optimization of workflows. Returning to Sam Altman’s evocation of an impending new Renaissance, it is indeed possible that a period of renewal lies ahead. Yet this Renaissance may differ markedly from the one anticipated by many voices in Silicon Valley. It is this alternative vision—one that architecture has a crucial role to articulate—that remains at stake.

<sup>19</sup> T. W. Sanchez, “Planning with Generative AI for Creativity, Global Insight, and Fairness,” *Technology | Architecture + Design*, 9, 1, 2025, pp. 19–24.

<sup>20</sup> N. Negroponte, *The Architecture Machine*, The MIT Press, Cambridge, Mass., 1970.

<sup>21</sup> B. Latour, *Politics of Nature: How to Bring the Sciences into Democracy*, Harvard University Press, Cambridge, Mass., 2004.

<sup>22</sup> “Autonomous Forest,” <https://www.las-art.foundation/programme/terra0-autonomous-forest> (accessed April 29, 2026).

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