The Dialectics of Text and Image: From Mechanical Reproductions to AI Image Productions

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Abstract

The textual descriptions of architecture—best exemplified in 19th-century novels—engage the imagination more dynamically than the paintings of the buildings themselves. Yet creative writing practices attuned to the imagination receive only marginal emphasis in architectural education. Today, with the widespread use of AI image generators, students compose prompts to produce architectural representations and design concepts with little to no formal training. The risk is that their agency may be undermined by the overwhelming power and ease of these tools. This paper presents the outcomes of a funded research initiative aimed at developing pedagogical methods for harnessing AI image production in architectural education. In addition to establishing a theoretical framework, the project involved two workshops in which students experimented with refining textual descriptions of design schemes and reverse-engineering AI-generated images. The goal was twofold: first, to mediate the "translation" between textual and visual representations by grounding their reciprocity in context, program, and precedent studies; second, to capitalize on AI's unintended deviations rather than suppress them.

In systematizing the latter process, students drew on the Nietzschean notion of creativity to stage a form of "organized chaos." For Nietzsche, the creative "will to power" is animated by the tension between the Apollonian spirit of order, restraint, and control, and the Dionysian disposition toward frenzy, madness, and ecstatic intoxication. We paralleled this conceptualization of creativity with the notions of *hallucinations* and *bias* in Large Language Models (LLMs). Through this process, we controlled the conditions of aleatory variation within tools such as Midjourney, Stable Diffusion, and DALL-E. Using a qualitative analytical framework, we assessed the divergence between the "intended" outcomes and the "unintended" variations produced by these AI tools. This research underlines the centrality of contextualization to the productive use of AI in architectural design. These tools, we concluded, are not revolutionary when they produce exactly what is expected. They offer new avenues when they don't exactly provide what was hoped for—that is, when they generate outcomes that extend or challenge our imagination.

Introduction

The relationship between textual descriptions of buildings and representational images has always been ambivalent— as Jacques Rancière and Jean Baudrillard noted.[1] In *De Architectura*, Vitruvius described buildings—he did not draw them. It was only during the Renaissance that his treatise was illustrated. Similarly, the Tower of Babel, Dante's *Inferno*, Shangri-La, El Dorado, and *Dune* were not originally accompanied by images. They existed first and foremost as biblical accounts, theological treatises, and literary productions. It was only through subsequent interpretations by painters, architects, filmmakers, and other image-makers that these texts were reborn into "images." Today, a new contender has emerged, capable of conjuring images from texts: AI-powered tools.

The impetus for this research emerged in response to the widespread, yet uncritical, use of AI tools by my students. Whether using ChatGPT in research-based courses, especially in history classes, or Midjourney and Stable Diffusion in design studios, students rely on these tools without prior training or a systematic framework. What is at risk, then, is their intellectual and creative autonomy, as they may be swayed by the overwhelming power and convenience of these tools.

Recent research suggests that heavy "reliance on AI tools is associated with a decline in critical thinking skills" as they "reduce the necessity for users to employ deep analytical reasoning and independent problem-solving."[2] But why, despite this well-documented risk, can't their use help but grow? The answer lies in the relative competence of these tools. Since these algorithms operate by synthesizing vast amounts of information—including image databases—through correlation and predictive sequencing based on the prompt, their results often align closely with expectations. In and of itself, this synthetic mechanism doesn't constitute a problem. One could argue that architectural creativity, too, involves synthesizing existing forms—especially within Classical architecture or a particular style. Even before the advent of "the Digital," debates over the creation of new forms—sustained by the tension between imitation and deviation—were already pervasive.

For 18th- and 19th-century architectural thinkers, it was the notion of "type," in the sense of architectural typologies, that lay at the heart of such debates. Quatremère de Quincy (1755–1849), for example, defined a type as "an element which ought itself to serve as a rule for the model," not a formula to be imitated.[3] He admonished contemporaries who "would mechanistically imitate the type, thereby turning it into a literal 'model'."[4] Just as firmly, he criticized those who "denied every rule and any constraint, reducing the design to 'a play, where each individual is the master and rule.'" Architects, he maintained, should treat the language of building types much as an imaginative writer treats grammar—following it and breaking from it. "[A]s in languages," he wrote, "there are many ways to speak against the rules of grammar."[5]

Jean-Nicolas-Louis Durand (1760-1834) opened a similar space for creativity through the "art of combination or disposition of each type." His students at the *École Polytechnique* used the "surface of a graph paper grid" to readjust building types according to social program and economic rationality.[6] The scaled grid system served to contain and regulate new combinations. Yet, as Michael Jefferson suggests, Durand's formulation of typologies as generative formulas already involved *errors*. A type, or a "typo" as Jefferson suggests, was "a model for deliberate design procedures infused with error in order to generate reconfigured originals—both as a method of architectural invention and for the formation of objects that create new affiliations outside of themselves."[7] In short, it was such "errors" and deviations that fostered creativity, not close imitations.

But how can one guide the design process to connect architecture to existing form-making logics and mechanisms, while simultaneously transgress them? The former, a ground for rules and principles, relies on algorithms' deduction from existing models, whereas the latter depends on a "reasonable" departure from them. But how can we ensure that students retain control over this double procedure?

Creativity: The Space Between Madness and Rationality

Creativity, broadly conceived, traverses elements of surprise, originality, spontaneity, and agency.[8] In architecture, creativity entered into the vocabulary of the discipline only in the 20th century. Because its exact meaning has remained contested, it may be more helpful to situate it within the emergence of modern and abstract art, and Bauhaus-style pedagogical approaches. Rooted in the Deutscher Werkbund movement, the Bauhaus positioned itself not only in opposition to Romantic and Classical arts and architecture, but also against prevailing assumptions that treated artistic creation as purely intuitive and fundamentally distinct from scientific or technical production. For Bauhaus pedagogues, intuition, ambiguity, irrational leaps, and scientific precision were part and parcel of the same creative process. László Moholy-Nagy, for example, described the "creative urge" as arising from the intersection of "irrational intuitions and rational investigations."[9] Creativity thus dwells in the productive tension between order and chaos, rationality and what Nietzsche calls the "Dionysian" impulse—a wild, instinctual force that challenges the strictures of reason and opens space for transformative invention.

Nietzsche's privileged sites of creativity, as Alain Babiou notes, were dance and poetry. Dance was "the image of thought free from all hindering thought ('*esprit de pesanteur*')."[10] In characterizing dance, Zarathustra evokes images of flight, birds, lightness, a free child, play, and a wheel that turns itself. In contrast to the theater, where spectators became passive before the mimicry of social roles, dance was the site of active, engaged bodies—capable of disrupting the tyranny of representation. As for poetry, the tragic verse of ancient Greece represented the "greatest feats of creativity." This poetry was "born out of a rare cooperation between the 'Dionysian' spirit of ecstatic intoxication, which imbues the work with vitality and passion, and the 'Apollonian' spirit of sober restraint, which tempers chaos with order and form."[11]

Creativity, then, emerges through the tension between the Apollonian tendency toward order and the Dionysian proclivity for ecstasy. This is precisely how this paper conceptualizes creativity: controlled departures—or structured deviations—from order. Incidentally, Jacques Rancière's notion of the "sentence-image" resonates with Nietzsche's balancing of ecstatic intoxication and sober restraint: *"As image, with its disruptive force [sentence-image] repels the big sleep of indifferent triteness or the great communal intoxication of bodies. The sentence-image reins in the power of the great parataxis and stands in the way of its vanishing into schizophrenia or consensus."*[12] To subdue "the power of chaos," one must separate it "from schizophrenic explosion and consensual stupor." But how can one test the conditions of possibility for a controlled chaos?

Testing Ground for Controlled Chaos

To explore the idea of controlled chaos, we began with basic geometric forms. Our initial prompt used a conventional linguistic definition of a Platonic form—starting with the circle—and examined how different AI image generators translated this verbal abstraction into visual outputs. The *Oxford English Dictionary* defines a circle as "a perfectly round plane figure. In Geometry defined as a plane figure bounded by a single curved line, called the circumference, which is everywhere equally distant from a point within, called the centre."[13] Put simply, a circle is a two-dimensional shape in which all points lie at an equal distance from a central point. Students prompted Midjourney with a similar definition along with some slight variations. The results were surprising: the generated forms were more "sophisticated" than a two-dimensional circle (Fig. 1).

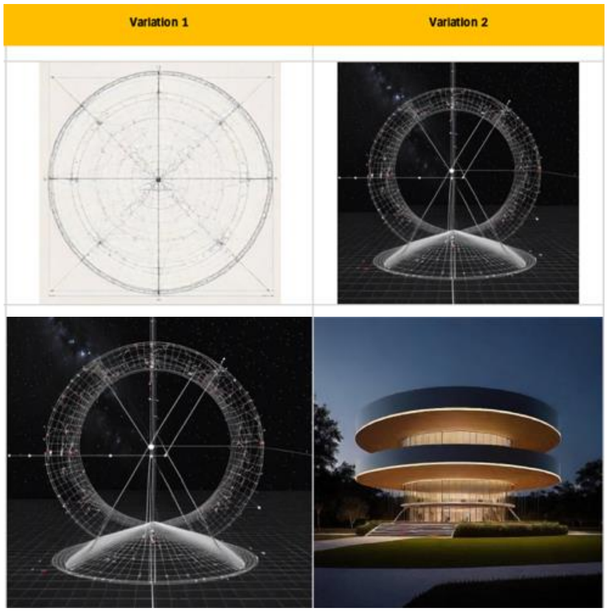


Fig 1. AI response to iterations on "circle"

Table of Prompts and Results

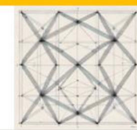
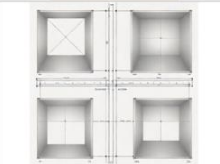
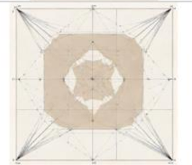
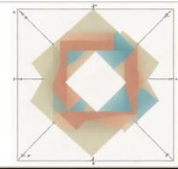
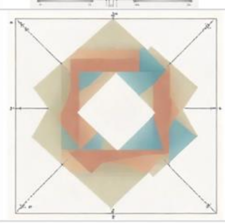
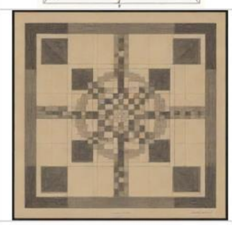
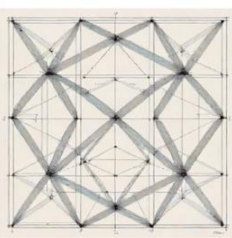
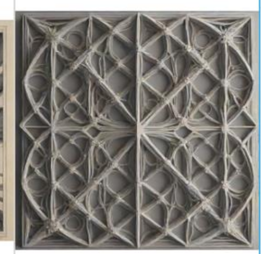
Prompt Number	Prompt Description	AI Tool Used	Result Description
1	Create an object in which every point is in equal distance from a given pivotal point.	Midjourney	Generated complex, multi-dimensional shapes resembling spheres and abstract geometries.
2	Create an object or all possible objects that are created by four equal parts.	Midjourney	Produced symmetrical, tessellated patterns with fourfold symmetry.
3	Create all possible objects in which 4 equal sides shape a closed object.	Midjourney	Rendered quadrilaterals, including squares and rhombuses, with intricate surface textures.
4	Combine the geometry of a pine cone with stalactites.	DALL-E	Generated hybrid forms blending organic and geometric patterns.
5	Combine the geometries of a pine cone with Isfahan Shah Mosque entrance portal.	DALL-E	Created architectural forms merging natural and Islamic geometric motifs.
6	Combine the geometries of a pine cone with Isfahan Shah Mosque's central dome geometric patterns.	DALL-E	Produced dome-like structures with intricate, fractal-like patterns.
7	Combine the geometries of a pine cone with cave stalactites and Alhambra Palace arches.	DALL-E	Generated complex, layered forms blending natural and architectural elements.
8	Create a complex and subtle arch design based on a weighted catenary.	Midjourney	Rendered arches with varying degrees of curvature and ornamentation.

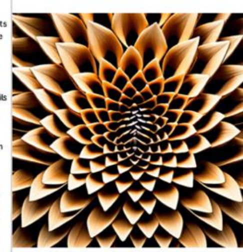
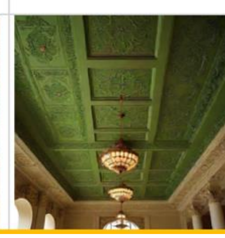
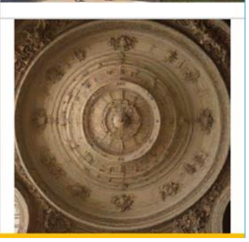
Table 1. Iterations of prompts for expanding simple geometries

Table 1 shows the exploration of prompts to include other basic geometries, materiality, and patterns. In Tables 2 and 3, we continued to tweak the prompts to encourage slight deviations toward three-dimensional forms. To leverage AI's computational power, we also introduced biomorphic patterns into the three-dimensional iterations of our geometries. For example, we applied a cone shape to introduce pattern and texture on ceilings and facades.

The process involved three layer of development. First, abstract and open-ended prompts—such as *"Create an object in which every point is at equal distance from a given pivotal point"*—tended to produce more complex and unexpected results. Students realized they didn't need to begin with elaborate prompts to generate compelling outcomes. In fact, starting with the most basic and essential information often proved more productive, allowing designs to evolve step by step. The challenge was how to express design intentions with less rather than more. Second, prompts that combined diverse and disparate elements—such as *"Combine the geometry of a pine cone with stalactites"*—produced hybrid forms that fused, for example, natural and architectural motifs. This approach especially appealed to students interested in biomorphic design. Third, prompts that incorporated contextual or cultural references—such as *"Combine the geometries of a pine cone with Isfahan's Shah Mosque's central dome geometric patterns"*—generated more relevant and nuanced results. This allowed students to align AI-generated forms with specific precedents or stylistic orientations.

What distinguishes this project from normative prompt engineering is its recursive interplay between image and text. After an image-generating AI, such as Midjourney, produced a visual output, we asked a text-based AI, such as ChatGPT, to interpret that very image. The discrepancy between the original prompt and the AI's textual reading of the generated image became a central focus. ChatGPT's interpretation introduced unexpected associations, enriching the conceptual possibilities of architectural production. This recursive feedback loop was significant because it helped students recognize how their work could be interpreted in diverse—and often unintended—ways. These descriptive deviations, or interpretive surpluses, became essential to expanding both the architectural imagination and the domain of creativity.

	Variation 1	Variation 2	Variation 3
Prompt#2: Creating a square Create an object or all possible objects that are created by four equal parts. **Prompt#2 modification** Create a geometric shape that is created by four equal parts			
Prompt#3 Create all possible objects in which 4 equal sides shape a closed object. **Prompt#3 modification** Create a two dimensional geometric shape in which four equal lines create a closed shape **Prompt#3 modification** Create a two dimensional shape in which four equal sides create a closed shape			
Astica Text generator A geometric composition featuring a square made of white paper with a diagonal pattern, set against a blue background. The square is divided into four smaller squares at the center, creating a visually striking design. The overall color palette includes shades of white, blue, and earth tones like beige and grey. The intricate pattern and symmetry of the squares give off a sense of precision and order. This image showcases a unique and modern take on geometric shapes, combining simplicity with complexity in a visually appealing way. **Description after using a Prompt** [User]: explain how it can inspire an architectural form [asticaVision]: This geometric composition of a square with a diagonal pattern and smaller squares at the center can inspire an architectural form by showcasing the beauty and elegance of symmetry and precision. Architects could draw inspiration from the intricate pattern and design elements in this image to create buildings with visually striking facades or interior spaces. The use of white paper with a blue background could translate into a modern and minimalist color scheme for a building, while the earth tones like beige and grey could be incorporated into the materials used for construction. The overall sense of order and balance in this image could inspire architects to create buildings with clean lines and geometric shapes, resulting in a unique and visually appealing architectural form **Prompt to Leonardo AI generator** This geometric composition of a square with a diagonal pattern and smaller squares at the center			
Astica Text generator This image depicts a geometric drawing of a square structure with intersecting lines. The drawing is intricate and detailed, showcasing a pattern of lines creating a visually appealing design. The colors used are primarily shades of grey and white, with accents of dark grey. In the center of the square, there is an umbrella object, with a white canopy and a black handle. The umbrella adds a contrasting element to the overall composition. The lines and shapes in the drawing create a sense of depth and complexity, making it a visually stimulating piece of art. **Description after using a Prompt** [User]: explain how it can inspire an architectural form [asticaVision]: This geometric drawing of a square structure with intersecting lines can inspire an architectural form by showcasing the beauty and complexity that can be achieved through the use of lines and patterns. Architects could draw inspiration from the intricate design of the intersecting lines to create unique and visually appealing building facades or interior structures. The use of shades of grey and white in the drawing can also inspire architects to explore different color palettes for their designs. Additionally, the inclusion of the umbrella object in the center of the square could spark ideas for incorporating unexpected elements or focal points in architectural designs. Overall, this drawing can serve as a source of inspiration for architects looking to create innovative and visually striking architectural forms. [User]: What do you think the purpose or meaning of the intersecting lines in the square drawing could be? [asticaVision]: The intersecting lines in the square drawing could serve multiple purposes or meanings. They could represent a sense of order and structure, showcasing the precision and balance that can be achieved through geometric patterns. The lines could also symbolize connectivity and unity, as they intersect and overlap to create a cohesive design. Additionally, the intersecting lines could be interpreted as a representation of complexity and depth, adding visual interest and intrigue to the overall composition. Ultimately, the purpose or meaning of the intersecting lines could vary depending on the viewer's interpretation and perspective.			

	Variation 1	Variation 2	Variation 3
Prompt#4 **Combine the geometry of a pine cone with stalactites (first with Leonardo Ai and the second with DALL -E)** **Prompt#4 Modification** **Combine the geometries patterns of a pine cone with the geometries patter of stalactites**			
Prompt#6 **Combine geometries of a pine cone with Isfahan Shah Mosque's central dome geometric patterns** **Prompt#6 Modification** Combine the geometric shape of a pine tree cone with Isfahan shah mosque's central dome geometric pattern **Photo#3** same prompt two days after the first test **Prompt#6 Modification** Combine the geometry of a pine tree cone with Isfahan shah mosque's central dome geometry			
Astica Text generator A close-up image of a stunning flower is showcased against a striking black background. The intricate details of the flower"s petals are highlighted, revealing a beautiful spiral pattern that radiates outwards. The color palette consists of warm tones like deep browns and soft yellows, creating a visually appealing contrast against the dark backdrop. The composition draws the viewer"s attention to the center of the flower, which is large and prominent, while the outer edges delicately fade into the background. This image exudes a sense of elegance and mystery, inviting viewers to appreciate the beauty of nature up close **Description as Prompt to Leonardo AI generator** [User]: **if this is an architectural form, how would you explain it** [asticaVision]: This image does not depict an architectural form, but rather a close-up of a flower with a black background. The intricate details of the flower's petals and the spiral pattern are highlighted in the image. The warm tones and contrast against the dark backdrop create a visually appealing composition. [User]: What type of flower is it? [asticaVision]: The image does not specify the type of flower depicted. However, based on the visual characteristics such as the spiral pattern and warm tones, it could be interpreted as a daisy or a lily. [User]: **explain how it can inspire an architectural form** [asticaVision]: The intricate spiral pattern and warm tones seen in the flower image could inspire an architectural form in various ways. For example, the spiral pattern could be translated into a unique facade design, creating a visually striking and dynamic exterior for a building. The warm tones could influence the color palette of a structure, adding a sense of warmth and elegance to the overall design. Additionally, the contrast against the dark background could inspire the use of light and shadow in architectural elements, creating depth and visual interest. Overall, the beauty and details of the flower image could serve as a source of inspiration for creating innovative and visually appealing architectural forms.			
Astica Text generator The image shows a detailed green and brown ceiling with a beautiful flower design. The ceiling resembles the dome of a mosque, with intricate patterns and drawings on the surface. The green color dominates the background, creating a serene atmosphere. In the center, there is a large flower made of brown paper, with a striking yellow center. The design is reminiscent of a circular pattern of paper flowers, adding a touch of elegance to the overall composition. This unique and artistic ceiling is a captivating sight, possibly located in the city of Karbala **Description after using a Prompt** [User]: explain how it can inspire an architectural form The intricate patterns and designs on the ceiling, particularly the flower motif, can inspire architectural forms by incorporating similar elements into building facades, ceilings, or domes. The use of green and brown colors can also be translated into architectural materials and color schemes, creating a harmonious and visually appealing design. The overall elegance and serenity of the ceiling can inspire architects to create spaces that evoke a sense of tranquility and beauty, similar to the atmosphere created by this unique ceiling. **Prompt to Leonardo AI generator** The intricate patterns and designs on the ceiling, particularly the flower motif, can inspire architectural forms by incorporating similar elements into building facades, ceilings, or domes.			

Tables 2 and 3, Experiments with three-dimensionality and layering

Our strategy was both accumulative and reiterative. Each new prompt introduced additional layers of contextualization while retaining core elements of previous descriptions that had proven effective. These evolving descriptions included both students' refined prompts and new texts generated by AI in response to earlier images. As such, each iteration became a hybrid—integrating human intention with machine interpretation. Students facilitated this translation between textual and visual representations by rigorously contextualizing their design goals. To frame this context, we incorporated themes such as geoclimatic and environmental settings, social uses, material conditions, and construction techniques—as shown in Table 4.

To align this experiment with one way of understanding the broader logic of architectural design, the iterative dialogue between text and image unfolded in three key stages (Fig. 2). First, students began with a textual prompt articulating their preliminary design intentions. Next, they incorporated precedent research that combined stylistic references, spatial analysis, and critical interpretation—both textual and visual. These precedents, ranging from historical buildings to natural forms, served not only as visual inspiration but also as conceptual anchors informing the development of form and organization. Finally, students introduced both visual and textual information about the site, including geoclimatic conditions, social contexts, material constraints, and construction techniques.

At each stage, students synthesized their own design judgments with the interpretive capacities of AI tools, repeating the cycle until they arrived at outcomes they found desirable. This iterative process deliberately welcomed unintended results—*controlled chaos*—as productive deviations. Students' oversight and judgment remained crucial in preserving their agency, especially in navigating the balance between close imitation and excessive divergence.

Harnessing AI Tools in Design Pedagogy Workshop designed by Professor Ehsan	Building Description Provided by you Narrative	Building Description Provided by the AI (ChatGPT-Claude)	Theme-I (Architectural) Materiality Form & Geometry Climate Geography Site & Context Scale Theme A-II (demographic) Women – Gender differences People of Color – Racial and Ethnic difference Cultural Differences? Social class Age	Theme B (extra-architectural) Poetic Dreamlike Apocalyptic & Catastrophic Futuristic Cinematic Alieno-morphic Sociopathic Natural/Green/Bucolic For other species (cats, bats)
Text	YOU	AI text	New Description	
Image	On the Web – or provided to MidJourney		Leonardo.Ai or MidJourney	

Table 4. Elements of Contextualization

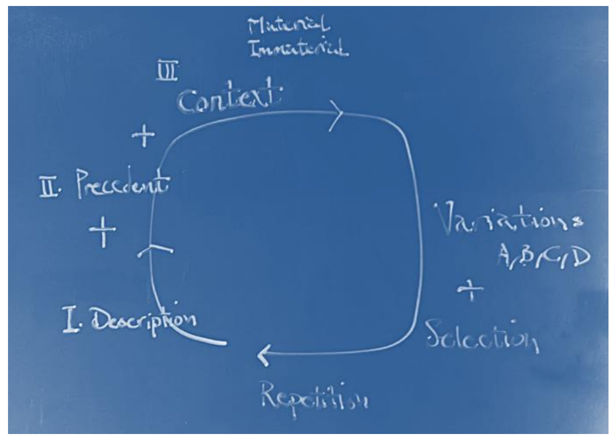


Fig. 2. Irritative Design Procedure

Return to Typologies

What are the takeaways? The human–machine dialectic of texts and images yielded powerful results—especially when approached as a pedagogical experiment. First, students were reminded of the significance of articulating their design ideas through precise textual descriptions. They came to appreciate the generative role of language in design and narrative construction. The clearer and more structured the prompt, the more likely it was to yield desired outcomes. Writing became not just a descriptive tool but a key input shaping visual outcomes—especially in communicating design intentions to generative algorithms.

Second, reversing the process by asking AI to interpret a design image proved just as instructive as generating images from prompts. This helped students recognize how their work might be interpreted in divergent—and sometimes unintended—ways.

Perhaps the most challenging—and ultimately rewarding—aspect of the exercise was maintaining a productive tension between expectations and deviations, between set intentions and elements of surprise, and between imitation and playfulness. The process was most successful when students embraced this gap, learning to harness the "controlled chaos" that emerged from the dialectical nature of this process. What is ironic is that algorithms do not inherently distinguish between texts and images—they "see" both as data, albeit processed differently.

Algorithms are designed to anticipate the next probable occurrence based on the patterns detected within a data set, regardless of whether that data is coded as text, image, sound, or any other mode intelligible to human perception.[14] While text and image may appear categorically distinct to human perception—the former structured around syntax and language, and the latter composed of visual form and spatial relations—AI algorithms do not process them according to such ontological separations. All input data, regardless of their type, must first be converted into numerical "representations" before becoming "legible" to machine learning systems. Text is tokenized into discrete units and mapped onto vectors within a language model's embedding space; images are converted into arrays of pixel values or compressed into latent representations through processes such as convolution or diffusion.

This implies that—at the level of computation—the algorithm does not "see" a fundamental difference between a paragraph and a photograph. What distinguishes one from the other is not their inherent meaning or medium, but rather the ways in which they are structured, modeled, and routed through specific layers of the neural network. Yet what registers as indifference to machinic intelligence becomes a site of tension for the human subject. Normatively speaking, images—and imagination more broadly—are considered *intuitive*, whereas linguistic texts (along with other rule-based systems such as mathematics and geometric abstractions) are regarded as *rational*. This binary is a philosophical fallacy. Not only does the *intuitive* perception of images and representations require mediation through "cognition" and "logical categories" as a step towards intelligibility, but the *rational* interpretation of language also requires (transcendental) imagination to be inscribed within the sphere of intelligibility.[15] Just as images and texts are not ontologically distinct, so too intuition and rationality do not constitute separate domains of consciousness. In Kant's account of aesthetic judgment, the faculties of imagination and understanding enter into "free play," wherein "imagination functions in a rule-governed way but without being governed by any rule in particular." [16] How can we then bridge this "free lawfulness" with the notion of controlled chaos? Likewise, if "genuine intuition," to use a Hegelian term, is always already "intellectual" and by extension "rational," then the creative act of introducing "chaos" becomes a difficult task. How far can one push the "reasonable" distance from a model—without plunging into what Rancière called a "schizophrenic explosion"?

This question is particularly relevant in the case of architectural typologies. One can read typology as a system of signs that, through combinations and variations, opens space for infinite differentiation. For example, the basilica as a type is predicated on a grammar in which constituent elements—nave, aisles, altar, apse, and so forth—operate according to a certain internal logic and order. Yet, as Quatremère de Quincy suggests, this very type may be manipulated to generate diverse basilicas. He described the distance between strict imitation of a type and its transformation as “character.” Unlike the universal nature of a type, character embodies the cultural, emotional, and symbolic attributes that arise when a type is adapted to a specific context.

With the 18th-century advances in descriptive geometry and polytechnic architectural education, typologies were conceptualized more systematically. Durand’s *Précis* (1809) includes geometrical schemes that are both abstracted representations of buildings (scaled drawings of floorplans juxtaposed with facades and sections) as well as mathematical correlates of those buildings (dimensions represented through a grid systems). Furthermore, he presented plans as assemblages of geometric units—rectangles, circles, squares, dots—organized on a grid. The use of modular grid system, allowed Durand’s students to explore variations by rearranging components according to a compositional logic, without relying on classical orders or symbolic ornamentation.

The point of referencing eighteenth-century debates on typology, intuitive thinking, and the systematization of creative processes is to underscore that, long before the advent of computational and digital technologies, questions concerning the balance between imitation and divergence—between the repetition of the same and the creation of difference—were already pivoting around the concept of *type*.

Understanding typology is not merely an exercise in architectural history; it is a foundational skill for navigating design in an age increasingly shaped by generative tools. The eighteenth-century debates around type—particularly the tension between imitation and divergence, repetition and invention—prefigure our current dilemmas with AI-generated forms. While tools like MidJourney can produce novel visual outputs, they often lack an understanding of spatial organization, functional logic, or sectional coherence. For instance, a prompt for a "hospital" might yield an image evocative of a hospital’s atmosphere, but with no grasp of circulation patterns, zoning, or programmatic hierarchy. In this light, typology becomes a form of design intelligence: it provides students with an internalized grammar by which they can assess how far they have pushed a form from its generative logic. By learning how types operate—how they can be transformed without collapsing into incoherence—students are better equipped to introduce controlled chaos into their designs. They are not simply producing variation for its own sake but engaging in a critical play that remains tethered to architectural reasoning.

Conclusion:

How might AI tools transform pedagogical methods and disciplinary norms in architectural education? Concerns about the disruption of the discipline’s established orders by new technologies are not new. Nineteenth-century debates over the loss of craftsmanship to automation and the ‘mechanical reproduction’ of materials and ornamentation animated otherwise-discordant thinkers like John Ruskin and William Morris. In their case, as Walter Benjamin observed, it took “half a century for the change in the conditions of production to be manifested in all areas of culture.”[17] For us, however, the vertiginous advances in AI technologies have already compelled architectural pedagogies to adapt.

This paper advances the thesis that linguistic descriptions—especially literary portrayals of buildings and cities—permit a greater degree of ontological openness, whereas visual representations are more deterministic. A novel about a city allows for a rich array of interpretations, while a painting of the same city imposes itself onto the imagination. The former animates the imagination—whether human or artificial, while the latter tends to constrain interpretation, as the immediacy of visual perception can override imaginative engagement.

There are two contradictory ways to conclude: (1) that AI will eventually render the role of the architect obsolete; or (2) that until the coupling of Artificial General Intelligence and sensory robotics, architecture still retains a chance to resist full automation.

Today's challenges surpass earlier transformations—not because the direction of change is entirely uncertain, but because—as Günther Anders noted—these tools are poised to bring about the obsolescence of the Humanity as such. If one can refine the dialectical process between textual and visual representations of a design scheme, there would be no need for an architect. If one can describe architecture as precise, vivid, and real as Balzac, the system can produce an architecture that comes very close to what is intended.

The magic of architecture, however, lies in the fact that we think through making. This *thinking-making* is not only phenomenological—as Merleau-Ponty and Pérez-Gómez suggest—but also tentacular, to borrow Donna Haraway's term. We think through our hands—that is, by drawing, by making, and by experimenting. This embodied perception, moreover, is grounded in material reality. As AI scientists have argued, the key difference between human consciousness and digital intelligence is that the former *acts* in the world and thus has a *conception of cause-and-effect relationality*.[18] We use an umbrella (an effect) to shield ourselves from the rain (the cause), while AI only correlates umbrellas with rain, without understanding which comes first.

Furthermore, the description of a project is never *a priori*—never something fully known or a decision fully made. It is through the process of making, building, and doing that the architect—and perhaps architects alone—can arrive at richer ideas about the built environment. More radically still, architects do not merely translate clients' desires into form; they help conjure futures that might not yet be imagined. This is why the balancing of Dionysian intoxication and Apollonian rationality sets architects apart as agents who can help others dream differently.

AI becomes compelling not when it confirms our expectations, but when it defies them—when it unsettles what we thought we knew. Let me end with Marcel Proust: *"Nous sommes tous obligés pour rendre la réalité supportable, d'entretenir en nous quelques petites folies." To make reality bearable, we all must harbor a few small madnesses.* Perhaps it is in these "small madnesses" that both architecture and imagination, human or artificial, find their deepest reason for being.

Notes:

1 Jacques Rancière, "On the Politics of Space," *archiDOCT* 11, no. 2 (November 28, 2023). Jean Baudrillard, *Simulacra and Simulation*, trans. Sheila Faria Glaser, *The Body, in Theory* (Ann Arbor: University of Michigan Press, 1994)

2 Michael Gerlich, "AI Tools in Society: Impacts on Cognitive Offloading and the Future of Critical Thinking," *Societies 15*, no. 1 (January 2025): 6, https://doi.org/10.3390/soc15010006.

3 "Type" in *Encyclopédie Méthodique*, vol. 3 trans. Samir Younés, reprinted in *The Historical Dictionary of Architecture of Quatremère de Quincy* (London: Papadakis Publisher, 2000).

4 Anthony Vidler, *The Idea of Type: The Transformation of the Academic Ideal, 1750-1830* (Cambridge, Mass: MIT Press, 1977), 104.

5 Anthony Vidler, *The Idea of Type,* 105.

6 Vidler, 107.

7 Michael Jefferson, "Typo: On Typology and Error," 2017, https://www.acsa-arch.org/chapter/typo-on-typology-and-error/.

8 Elliot Samuel Paul and Dustin Stokes, "Creativity," in *The Stanford Encyclopedia of Philosophy*, ed. Edward N. Zalta and Uri Nodelman, Spring 2024 (Metaphysics Research Lab, Stanford University, 2024), https://plato.stanford.edu/archives/spr2024/entries/creativity/.

9 László Moholy-Nagy, *Vision in Motion* (Chicago: Paul Theobald, 1947), 42.

10 Alain Badiou, "6. La danse comme métaphore de la pensée," *L'Ordre philosophique*, 2013, 91–111.

11 "Creativity," in *The Stanford Encyclopedia of Philosophy*.

12 Jacques Ranciere, *The Future of the Image* (Verso Books, 2019), 45-46.

13 "Circle, n. Meanings, Etymology and More | *Oxford English Dictionary*," https://www.oed.com/dictionary/circle_n.

14 José Antonio Bowen and C. Edward Watson, *Teaching with AI: A Practical Guide to a New Era of Human Learning* (Baltimore, Maryland: Johns Hopkins University Press, 2024), 46.

15 In *Philosophy of Mind*, Hegel claims: "In immediate intuition, I do indeed have the entire matter before me; but only in the cognition […] does the matter stand before my mind as an *internally articulated*, *systematic* totality." Intelligible cognition is possible because our faculty is capable to move from "immediate or sensory consciousness" to "mindful intuition" through the mediation of "logical categories." While text and linguistic representations are more prone to logical articulations, image and visual representations more attuned to aesthetic perceptions. M. J. Inwood and Georg Ludwig Friedrich Hegel, *A Commentary on Hegel's Philosophy of Mind* (Oxford [England]: Clarendon Press, 2010), 182.

16 For German Idealist philosophers—especially Schelling, Kant, and Hegel— intuition was more than "immediate or sensory consciousness." Genuine and mindful intuition was "a consciousness *filled* by certainty of *reason*, whose object has the determination of being something *rational.*" Hegel rejects the received idea that a poet, and artists in general, "must operate *purely intuitively*." Mediation and contemplative thinking is always necessary in artistic and imaginative productions. Similar to Hegel, Kant also maintained that what helps bridge intuition to cognitive intelligibility are logical categories. For Kant, it was transcendental imagination that linked representations to their mental conceptual correlates. In the "Transcendental Deduction of the Pure Concepts of the Understanding" of his *Critique of Pure Reason*, Kant elaborate on the relationship between representation, conceptual categories, and aesthetic experience. Representations (*Vorstellungen*) come from intuition (*Anschauung*), which for Kant refers to the raw, sensible input provided by space and time. Conceptual correlates are the categories (*reine Verstandesbegriffe*)—the pure concepts of the understanding. The transcendental imagination (*transzendentale Einbildungskraft*) plays a mediating role between concepts and image as it synthesizes the manifold of intuition according to the categories. This mediation is precisely what enables experience. "Kant's Theory of Judgment: The Togetherness Principle, Kant's Conceptualism, and Kant's Non-Conceptualism" (*Stanford Encyclopedia of Philosophy*), https://plato.stanford.edu/entries/kant-judgment/supplement1.html.

17 Walter Benjamin, *The Work of Art in the Age of Its Technological Reproducibility, and Other Writings on Media*, ed. Michael William Jennings, Brigid Doherty, and Thomas Y. Levin, trans. E. F. N. Jephcott, Rodney Livingstone, and Howard Eiland (Cambridge, Massachusetts: The Belknap Press of Harvard University Press, 2008), 19.

18 Bernhard Schölkopf et al., "Towards Causal Representation Learning" (arXiv, February 22, 2021), https://doi.org/10.48550/arXiv.2102.11107.

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