Nebula Rasa: Exploring the Diaphanous[1]

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"Diaphanous" (2024) (Author, AI-generated via Freepik.com)

1. Introduction

If there is one concept that Western philosophy has abhorred, it is ambiguity. The Socratic dialogue—that hallmark of Greek philosophy—is an attempt to confront

[1] This essay was previously published in a slightly different form as (Paans, 2024a), except for the Introduction, which was written specifically for APP.

ambiguity, and, if possible, to eliminate it. This line of thinking continued in the Middle Ages through a refined Scholastic tradition that aimed at constructing a coherent, broadly Aristotelian worldview in which ambiguity was eliminated. After all, God provided the light of Reason to understand the order of the cosmos. And understanding was often equated with the elimination of ambiguity and paradox.

This critical attitude informed also the Enlightenment, as mathematical truth was elevated as the pinnacle of human knowledge. For a time, complete elimination of ambiguity seemed within reach. It is the great merit of Immanuel Kant that he overturned this picture, and critically examined the limits of what sense and reason could hope to accomplish.

Yet, something of the hostility towards ambiguity remains in the sciences, and the Positivist ideal of absolute clarity about the structure of the universe only emphasizes this—admittedly ambitious—project. Ironically, the latest advances in the sciences have not eliminated ambiguity: they have magnified and intensified it. We have no science of quantum mechanics, no science of consciousness, and no science of creativity. We have physics, neuroscience, and the psychology of creativity, and these are at best attempts at explanations, but they are scratching the surface while inviting only more fundamental questions.

The good thing about philosophy becoming global is that we can freely explore the accomplishments of other traditions. For instance, Chinese philosophy has a rather different take on ambiguity; I am not even sure if they would describe it that way. If oneness or unity, or even definition are the hallmarks of Greek philosophy, then the multiple, the more-than-one, the neither-one-nor-the-other or the generative are hallmarks of Chinese philosophy.

This characteristic is especially visible within the Daoist tradition, which comes to us in writings that are paradoxical, playful, imitative, theatrical, open-ended, and by nature … ambiguous. The very idea of the *Dao* (way) is the prime example: it cannot be caught yet is everywhere; it cannot be found in the world, but still it can be practiced; it cannot be spoken, yet it can be understood; there are no exercises to learn the way, but you will recognize it when you find it. Ambiguity and multiplicity are the key terms of the tradition. Above all, there is something inherently processual about the *Dao*—it is a way, a journey, an unfolding. It suggests ceaseless movement and creation. Or, put differently, it is the play of communicating forces: settling and springing-up, becoming large and becoming small, being nowhere and everywhere. What settles takes on a more or less fixed form for the time being; what springs up suggests itself to the observer: it is the spark of novelty, or the moment in which one notices something that was "hidden in plain sight."

For those familiar with Hegelian dialectics, this thought is not entirely new. Hegel introduced the idea of process into thought itself, rendering it as a sequence of moments. Unlike Hegel, however, Chinese thought does not seek to describe this process in determinate terms: it recognizes that it is there, and hints how it might function. Parables, anecdotes and stories are used as examples without the need for closure—that would be an ultimately un-Daoist thing to do. Or: it would show that one does not understand the *Dao*.

This essay, titled *nebula rasa*, is a philosophical short-circuit between the Western and Chinese aesthetic traditions when it comes to thinking about drawing. Where the Western mind often saw the drawing as a visual representation of an absent object, or later as a carrier of information, the Chinese mind discovered something else. The drawing surface is a place (or *topos*) rather than a surface.[2] Moreover, it is the place where the new springs up and inserts itself into the world. It follows that in the process of creation, this space never remains the same for long: the *Dao* is everywhere, after all, and so everything changes.

To discover, then, is the *modus operandi* of the artist. But to discover, ambiguity, allusiveness and suggestion are necessarily involved. If there is a way in which we can grasp the *Dao* at all, it is in witnessing the change of the world—or its inhering in the "ten thousand things."

In particular, the idea of the *diaphanous*—i.e., the translucent, opaque, or nebulous—plays a decisive role here. In the realm of the diaphanous, the more-than-one, the suggested, the allusive and the contour reside comfortably alongside and through one another. The diaphanous represents the space of ambiguity that, like the *Dao*, escapes determination but drives all creative processes.

We should move from the *tabula rasa,* the plane on which we write the world, to the *nebula rasa*, the interstitial realm of the in-between, the ambiguous, and the allusive. This shift represents also a move from conceptualism to non-conceptualism. Given its emphasis on clarity and definition, the Western mind heavily leans towards conceptualism. We disenchanted the world while presupposing that we did everyone a great service. But such disenchantment comes at a price, as the Romantics realized. What hides in the shadows (and the diaphanous, no less) is not merely superstition and folk wisdom. It is an imaginational dimension that is just as real as the objects and ideas we take for granted. The imaginary worlds conjured up by J.J.R. Tolkien or Frank Herbert, the sunflowers of Van Gogh, the feeling of awe when seeing a redwood tree, the sense of dread when seeing a storm approaching—these affects are real. All art and design directly affect a range of emotive and bodily responses, from rage and anger on one hand, to sympathy and pity on the other.

[2] See (Paans 2024b) for a detailed discussion of this theme.

The diaphanous and the nebulous invite in the non-conceptual and make us witness to the process of seeing concepts form, dissolve, change, and transform. This means that we have access to a cognitive domain that possess an infinite informational richness transcending our conceptual capabilities, and luckily so. It also means that this domain is continuously in play, inviting observers in and activating their feelings.

Unlike the reductionist, mechanistic approaches used in order to explain the nooks and crannies of our cognitive systems, the diaphanous opens up towards the organic. Quite literally, we witness the growth an idea, becoming part of its gestation and developmental trajectory. Despite all our knowledge about biology, we still have trouble conceiving of cognition in truly organicist terms—and how could it be otherwise, given the fact that the terminology that we routinely use has been thoroughly (thought)-shaped by the mechanist worldview? To think in organicist terms about creativity, we require a thoughtful exploration of the process of creation as it unfolds before our eyes.

Like the *Dao*, it is hard to pinpoint this process in determinate, let alone mechanistic, terms. We require precision in order to understand it, yet the language inherited from the Western mind will not provide us with the language and (anti)-concepts to achieve understanding. Therefore, this essay invokes the work of the French sinologist and philosopher François Jullien, who has fruitfully explored Chinese philosophy and has highlighted its differences with Western thought. Through this cross-tradition encounter, we might advance our understanding, simply by adopting an attitude of epistemic humility and willingness to leave the comfort zone of our own philosophical tradition—without, however, forgetting where we came from.

2. Two Suggestions about the Diaphanous

Not every design idea starts with a flash of insight or a clear-cut notion. Often, articulating an idea is painstaking work, subject to many dead ends and frustrating episodes of stagnation. Discarded sketches and scribbles—often on top of one another on a single sheet of paper—can be found in design studios throughout the world. So much so, that this feature has generated considerable academic attention within design theory literature. Correspondingly, the so-called "image sciences" (*Bildwissenschaften*) have steadily developed, signaling a philosophical shift away from text and towards visual media (Bredekamp, 2015; Krämer, 2016; Alloa, 2021). In particular, image sciences elucidate (i) the generative role of aesthetic experience in creative processes, and (ii) identify relationships between various modes of representation, media and creative pathways.

Against the background of that context, I would like to make two suggestions regarding the phenomenology of images, in particular those that play generative roles in architectural design processes.

My first suggestion is that the generative agency of these images derives from their *diaphaneity*. Diaphaneity is the visual characteristic of being indistinct, blurry, nebulous, open, vague, or ambiguous. I will suggest that diaphanous images possess a dimensionality that extends well beyond them actually being two- or three-dimensional images and that turns them into effective creative operators.

My second suggestion advances one step further and examines the diaphanous as a *generative stimulus* in its own right, and not just as a particular property of an image. To formulate this as a statement: to achieve progress in a creative design process, a degree of diaphaneity is essential to their generative efficacy.

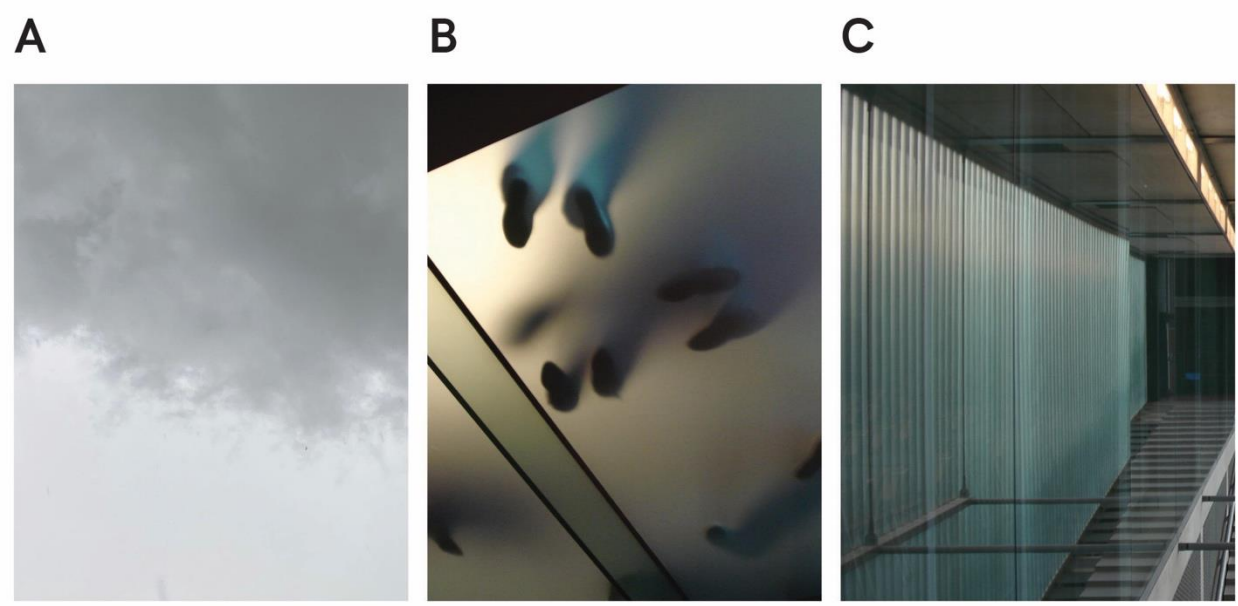

Figure 1. Three examples of the visual characteristic of diaphaneity. (A) the indistinct, blurry line of two cloud formations; (B) the translucence of the glass partially obfuscates the figures behind it; (C) the reflection of the window replicates the view, visually overlaying it on the surface and suggesting additional depth. Photographs by author.

Therefore, I explore the diaphanous as a *nebula rasa*—a nebulous realm of open and suggestive representation that is not reducible to either axiomatic understanding or Cartesian geometry or to two-dimensional representation on a neutral plane—the *tabula rasa*.[3] I aim to present and defend the claim that in the *diaphanous* as visual

[3] Aristotle discussed the concept of the *tabula rasa* ("empty plane") in *De Anima*, just like the concept of the diaphanous. While Aristotle's discussion takes place in the context of formulating a theory of

characteristic (point 1) and as generative stimulus (point 2) resides an underexplored theoretical concept that accounts for creative development, and that we have to understand it on its own terms.

This essay provides a *theoretical perspective* on the diaphanous as generative stimulus. It does so in a synoptic manner, discussing selected sources on architectural sketching and illustrating the influence of the diaphanous in architectural design. The generative characteristics of the diaphanous as driver of architectural design are explored by engaging with architectural theory (notably the so-called "phenomenological approach"), recent and classic accounts of creativity, and with selected works of the French sinologist and philosopher François Jullien on the concepts of the "effective present" and "propensity." The examples shown and discussed here should therefore be understood as thematic examples rather than targeted research results that would allow for generalizing the conclusions of this article across the entire domain of sketch-driven architectural design. This essay provides the preliminary (theoretical) foundations for further investigating the diaphanous with precision, so a relatively well-circumscribed initial definition is required. To that end, I'll present a concise historical overview of how the notion developed and relate it to architectural theory. The concluding section provides suggestions on how the role and influence of the diaphanous could be investigated in a systematic study and outlines some repercussions of the diaphanous on architectural design.

First, I discuss some historical background of the notion of the diaphanous, even if this account is meant only to introduce a key distinction between *cognitivist* and *agentive* paradigms that I use throughout this essay, and which I introduce in the third section. Second, following the presentation of this distinction, I turn to the role of the diaphanous as visual characteristic in architectural design processes. Third, this exposition is followed by a discussion of Jullien's concept of the "effective present." Fourth and finally, I explore the diaphanous considered as generative stimulus.

3. Historical Background

The notion of the diaphanous derived initially from Aristotle, although it is mentioned already in an embryonic form in Plato's *Timaeus*. In *De Anima*, Aristotle describes it as a phenomenon that renders objects visible. The word *diaphanēs* itself is comprised of the Greek "*dia*" (through) and "*phainein*" (to show). Importantly, Aristotle draws an explicit parallel between "light", the diaphanous, and actuality:

mind—or, more precisely, the mind as an empty surface to be inscribed—it would later be interpreted as the plane on which ideas are inscribed by reason (*logos*).

> Light is as it were the proper colour of what is transparent, and exists whenever the potentially transparent is excited to actuality by the influence of fire or something resembling "the uppermost body"; for fire too contains something which is one and the same with the substance in question. (Aristotle, 1991: p. 33, 418b4.8–12)

The link between potentiality, actualization and an object or phenomenon that becomes visible can be discerned in the wording: the excitation of the "potentially transparent" into something actual is rendered as "*phôs de estin hê toutou energeia, tou diaphanous hê diaphanès.*" The word "*energeia*" does not just mean "energy" in the way we commonly use it. It connotes activity or an active operational principle. Anca Vasiliu notes that this way of framing the diaphanous stages an "impossible ontological encounter": it conjoins the (1) subject's sense of sight, (2) an external object to which the gaze is directed, (3) the medium that ensures visibility or at least tangibility, and (4) a principle of actualization (Vasiliu, 2023: p. 123). Neither a body nor a body's property, the diaphanous participates in the visibility of everything, without being part of anything. It is a phenomenal attribute that suffuses the visual realm and that structures and stages its accessibility.

When classical Aristotelian philosophy was transmitted to Medieval Europe via the Islamic world, the word was rendered in Latin as *diaphanum*, leading ultimately to the introduction of the neologism *transparens*, and later on becoming synonymous with the Latin *perlucida*, which both connote visual transparency in the way that we use commonly use the term.

Some of the properly *operative* nature of the original Greek concept was retained in the Eastern Christian theological context, whereby the presence of God was equated with the character of light or so-called "noetic illumination." This development can be traced back to Plato's treatment of knowledge as illumination, using light as a metaphor for achieving insight. Still, we can see the influence of the Aristotelian concept, for instance in the thought of St. Gregory Palamas, who held that everyone participates in God's energies—using the Greek word *energeia* again (Meyendorff, 1983: pp. 139–142). God is immanently present throughout creation, and in the moment of noetic illumination, one fully experiences the creative force of the Divine (Pseudo-Dionysius, 1987: pp. 146, 184). God's energies are not special powers, rather they are akin to divine potentials that can be experienced rather than talked about.[4]

[4] Pseudo-Dionysius provides allegorical descriptions of the creative, dynamic force of the Divine. In the following passage, we can see how he introduces the ceaseless play of creativity by comparing it to fire, a theme that François Jullien would take up while discussing Chinese thought:

> It lights up everything and remains hidden at the same time. In itself it is undetectable and becomes evident only through its own workings on matter. It is unstoppable. It cannot be looked upon. Yet it is master of everything. Wherever it is, it changes things towards its own

This approach derived from so-called *apophatic* (or negative) theology. The idea is that certain phenomena (like noetic light) cannot be described in determinate, clear concepts. All one can do is try to say what they are *not* by tracing a silhouette that negatively demarcates them. There is a certain parallel with creative processes here: often, it is hard to tell what defines a good idea or what influence contributed to its (final) form. The (artistic) concepts to define an idea clearly are lacking or remain to be invented, yet the creative impetus that shapes ideas is undeniably present.
Due to semantic changes that occurred during translation and the scattered usage of the concept in Medieval Europe, the notion of diaphanous became almost synonymous with visual translucence, including partial opacity. While this usage is not explicitly ruled out by the original Greek concept, it is worth remembering that Aristotle's usage is certainly broader and closely related to the phenomenal structure of perception, instead of being narrowly focused on the visual character of an image. In its modern, narrower usage, we typically equate diaphaneity with the visual characteristic of being vague, ambiguous, nebulous, veiled, translucent, opaque, blurry, or indistinct.

Although this interpretation of the diaphanous represents it as a visual characteristic, it also invokes a creative, visual dimension due to the fact that it visually stages the "impossible ontological encounter" in the perceptual field. This generative aspect of the original Aristotelian concept becomes obfuscated if we focus only on the diaphanous as a visual characteristic. Notably in architectural design processes, such seemingly impossible encounters are essential for developing ideas and design concepts alike.

4. Cognitivism and Creativity: A Concise Overview

To understand why modern design theory has not paid much attention to the diaphanous, we introduce a sharp distinction between two scientific paradigms. During the decades following the Second World War, Western design theory adopted a broadly *cognitivist* approach to creativity. Following the cultural influence of both positivism and the rise of the mechanistic worldview, designing was framed as a kind of rational problem-solving or heuristic search (Newell, 1980; Simon, 1996; see also Paans 2022). Correspondingly, the designer was viewed in terms of decision theory,

> activity. It bestows itself upon all who draw near…. It makes distinctions and is nevertheless unchanging. It rises up and penetrates deeply. It is exalted and never brought low. It is ever on the move, moving itself and others. It extends in all directions and is hemmed in nowhere. (Pseudo-Dionysius , 1987: p. 184)

Note how all this applies to the characteristics of the *Dao*, the characteristic of diaphaneity, and the concept of *shi* (efficacy).

as a rational optimizer.[5] Again, corresponding to *that* idea, creativity was viewed as a kind of heuristic selection of the best possible solution for a relatively well-defined problem. Particularly the first generation of design theorists during the 1960s and 1970s presupposed rather than argued for this notion, although many of their core concepts remain firmly entrenched in the design literature. During the 1980s, the thematic focus shifted towards the sociological aspects of designing, but the core of the approach always retained—in some form or the other—its cognitivist inheritance.

Cognitivism in design theory champions the idea that designing is a specialized form of deliberative reasoning. Admittedly, this form of reasoning may be less structured and more open-ended than philosophical reasoning, legal reasoning, or bounded rationality, but it is nevertheless concerned fundamentally with the development of theories or micro-theories about a given design idea. There is certainly a deep kinship here with the idea of *logos,* construed as our human logical reasoning capacity. The operation of the creative mind was often quickly subordinated to our capacity for logical reasoning, either in the inductive or deductive sense (Eastman, 1968, 1969). The cognitivist orientation had its roots in post-war work on cybernetics. This can be seen in how visual representations were viewed: they were regarded as carriers of informational contents. Following Norbert Wiener's and Marshall McLuhan's cybernetics theories, such representations were deemed successful if their contents could be unambiguously interpreted. Consequently, the designer was viewed as a rational agent who made sketches to aid effective decision-making, recording options, or communicating ideas to others. The design drawing was regarded as strictly a decision-theoretic, heuristic, or communicative tool. It became the physical transcript of reasoning processes, giving rise to the so-called "protocol studies," in which participants sketched and verbalized their thinking processes. It should be emphasized that such studies were useful in understanding the "reasoning of designers" (Rittel, 1988). That does not mean, however, that the *entire* design process is understood; it entails merely that its *reasoning* is clarified. However—and this has been a recurring question—the cognitivist paradigm had always problems in locating the site of creativity or the properly generative potential within a design process. If designing is just logical reasoning, where does the creativity reside? Why then are designers not just engineers?

Certainly, there have been attempts to address these questions. For instance, the work of Teresa Amabile on creative processes can be read as an attempt to address that gap in the cognitivist paradigm (Amabile, 1988). Amabile closely followed the

[5] Horst Rittel explicitly made the point that spatial planning is a process of variety creation and reduction in his 1970 article *Der Planungsprozess als interativer Vorgang von Varietätserzeugung und Varietätseinschränkung,* "The Planning Process as Iterative Progression of Variety Generation and Variety Reduction," highlighting the core idea that heuristic reasoning forms the basis of design activity. In turn, Rittel took this idea up from his colleagues using the same Positivist/decision-theoretic approach.

procedure-like models of the first generation but added that "creativity-relevant skills" are required to advance from mere problem-solving to reaching truly creative solutions. Amabile concluded that creativity and personal traits are closely linked. An open, experimental, flexible, and explorative mindset seems conducive to creativity. Moreover, the creative mind experiments with new cognitive pathways in order to broaden the range of strategies to break through cemented habits, patterns that shape thoughts, and ways of approaching problems (Hanna and Paans, 2021). Amabile builds on an earlier conception of the creative personality developed by Donald McKinnon, who held that creative persons tended to more expressive, thereby affording themselves easier access to the richness of the subjective experience (McKinnon 1966).

This coincides with the finding by McCrae that a defining characteristic of creative personalities is openness to new experiences (McCrae, 1987). In addition to dealing with new experiences, the creative process is also distributed in time. McKinnon held that often, there are phases of engagement, disengagement, withdrawal, insight, and evaluation (McKinnon, 1967). While it is tempting to frame these phases as neatly delineated, in reality they seamlessly merge into one another. In an additional refinement of this picture, Harvey and Berry have argued that we might distinguish between various forms of creativity, some of which are concerned with novelty in the narrow sense, while others are focused on integration (Harvey and Berry, 2023). This insight was already present in the early, pattern-based design theory developed by Christopher Alexander to the so-called Systematic Design Models, which distinguished between phases of divergence and integration (Asimov, 1962; Broadbent, 1966; Jones, 1970; Lawson, 2005).

The layered and variegated nature of the creative process was also recognized by Mihaly Csikszentmihalyi in his seminal study of "flow states" (Csikszentmihalyi, 2008). On the one hand, flow states are "autotelic"—that is, they become ends-in-themselves. They invite involvement, play and enjoyment. And on the other hand, they also provide a cognitive advantage, since they fuse action and awareness, joining both capacities to reach high levels of achievement (Csikszentmihalyi, 2013: pp. 101–102). One of the advantages of this fusion is that it becomes easier to focus one's energy towards the external world, thereby aiding a deep involvement with the surrounding environment and highlighting the capacity to "see" new possibilities. Indeed, as David Bohm has argued in his work on creativity, the capacity to perceive the new into the existing order of things is what underlies creativity as such: the novelty that is produced lies not only in making new objects or plans, but in conceptualizing relationships that were "hidden in plain sight"(Bohm, 2004). All these insights apply straightforwardly to hand drawing and sketching: if there is a single group of practices that could lay claim to the label "autotelic," this is it. In drawing, the hand and the head fuse in the material domain. An idea acquires a form, while the form that appears transforms the idea. Already, we deal with a certain translucency here: an opacity

through which the idea appears on the world—but not in its final form, but as an allusive imprint of what it will become. The acquisition of form takes place through a lived, engaged, embodied experience. It cannot be reduced to an intellectual exercise or the practice of decision-theory. To think so would be reductive, discounting the lived experience that is absolutely crucial to the act of human creation.

In architectural theory, this line of thinking has been developed in the "phenomenological approach" (Mallgrave and Goodman, 2011: pp. 201–214). Concisely put, this approach focuses on first-person, lived experience and engaged forms of knowing in order to account for design creativity. In particular, the work of Peter Zumthor is relevant here (Zumthor, 2014: p. 13). Zumthor held that drawings require a degree of openness, so that they can be "inhabited" by the imagination (see also Paans and Pasel, 2018). Some sixty years earlier, Michael Polanyi formulated a similar idea by advancing a notion which he termed "indwelling" (Polanyi, 2009). The idea is that only intimate knowledge leads to insights that are truly creative. Without denying the use of heuristic reasoning, both Zumthor and Polanyi supplement it with an aspect of deep familiarization and immersion. Instead of focusing only on the logical reasoning of designers, the phenomenological approach stresses the subjective and embodied experiences of designers while working out their ideas. Zumthor emphasizes this point and states that the perception must "take the drawing in possession." That is, only an engaging attitude and willingness to be influenced by what is present allows one to drive the design process onward.

Recently, the work of Juhani Pallasmaa applied the insights of personal experience, hand drawing and embodiment theory to architectural design. For Pallasmaa, working out an idea consists in keeping all loose ends close by as a way to "dwell in the plasticity and multiplicity of an idea" (Pallasmaa, 2009: pp. 109–110). Indeed, the architectural image is seen as an "organizing image." We use this organizing image as representation of our most fundamental categories of thinking and experiencing (Pallasmaa, 2011: pp. 121–122). By analogy, the architectural drawing becomes a microcosm in which one can experience what the space-to-be will become. In emphasizing this lived aspect, Pallasmaa builds on McKinnon's insight that creation thrives on the willingness to experience new impressions. The architectural image becomes not just the site of reasoning, but the site of experimentation with a range of (spatial) experiences. It follows that the designer must therefore grow accustomed to a degree of uncertainty or indefiniteness. One must, as it were, "learn to love" the process of exploring, deferring decisions, and lacking direction (Jonas, 2014: pp. 72–103).

In the phenomenological approach, the image itself is imbued with a kind of agency. As Albena Yaneva has shown, this insight easily extends to the thought that the designer, the design tools, and the image are all joined in a network (Yaneva, 2009).

Drawing on Bruno Latour's version of Actor-Network Theory (ANT), the designer is seen as one of the many actors in a meshwork of (social and instrumental) interactions and relations. The designer is no longer the sole process agent, and design cognition becomes one among many factors that shape thoughts and ideas. Many of these factors are located in the material realm – ranging from the sketching paper to the marker or felt pen with which the lines are drawing, or the gypsum that leaves drops and splashes on a surface. But equally, we can conceive of the perceptual realm of the allusive or translucent as an agent in its own right. Why should we deny causal influence to such notions, even if they are distributed throughout the creative process? Not every agent in the meshwork of design is a clearly demarcated entity.

Extending this thought, over against the cognitivist paradigm, we can therefore formulate an alternative, which I'll call the *agentive* paradigm. Extending the insights of ANT, the core idea is that images or visual media more generally possess an inherent propensity to *effectuate, drive, direct, illuminate, and actualize thinking processes* that include deliberative reasoning, but also include other forms of thought. These thought-forms can be emotive or affective, but at any rate, they are non-conceptual and non-propositional. That is, they cannot be framed as neat, determinate statements about a design concept or idea. There have been moves towards a so-called "aesthetic epistemology" (Haarmann, 2019), or architectural image theories to emphasize the agency that images exert (Goldschmidt, 2017). Building on this foundation, I'll turn to the work of François Jullien, who provides an alternative way of conceptualizing this agency, and whose insights allow us to understand *why* diaphaneity is a generative stimulus in design.

5. From Cognitivism to Propensity

Diaphaneity subverts the cognitivist idea that drawings are primarily carriers of information. If an image drawn up during a design process is about clear communication, why do vague and indeterminate image stimulate such powerful creative thinking? Partially, the answer lies in the structure of its *semantic content*. That is, the image contains contents about which assertions can be made, and which in turn spur reflection-in-action or associative thinking (Schön, 1987). Yet, there seems to be surplus of openness. Diaphanous images invite to indwelling, exploration, or "taking-in-possession." They set a kind of immersive movement in play and refuse to close or even to reach a conclusion. They are more like spaces that can be inhabited than flat visual representations that can be looked at.

The first thing to notice about the diaphanous in creative processes is the fact that it is moving, dynamic, and layered. Initially, we can regard it as a figure-ground phenomenon (Maas, 2019: pp. 65–67). That is, it is structured in a relatively stable background and an emergent, dynamic foreground. This foreground-background

relation causes dynamic relations to emerge. For instance, as per the classic *Gestalt* test, when we encounter a simple line figure of four vertical lines on a homogeneous background, we inadvertently read them as lanes or columns. Our perception engages in sense-making by applying structural metaphors or visual schemata to the represented content, a skill known as "seeing-as" (Wittgenstein, 2009: p. 204). "Seeing-as" has long been recognized as a design skill that helps in creating various interpretations of a single figure or visual constellation. For example, here is a response by a designer who participated in a protocol study, describing his interactions with sketches:

> "I can't get very far with just thinking about it without drawing something…I tend to overlay when I use pencil…they [i.e., the overlays] are usually pretty similar…these drawings are usually worthless as products so I am not very attached to them. I also do a lot of erasing. I like to erase because I like to have a lot of lines on the page. I like fuzzy stuff. I can see things in it more than I can in harder-lined things. So, sometimes I just get a lot of lines out and start to see things in it. A lot of times I pick up things I think are important. I put down potentials and erase down to them." (Quoted in Goldschmidt, 1991: p. 129)

However, no matter how useful adding layers and erasing is, this is but a single part of the entire creative process. As Pallasmaa noted, the idea is "plastic" and layered and shapes thinking through visual suggestion and allusion. The fact that material practices like sketching in layers, erasing and working with fluid media like ink or paint leave random marks only adds to their effectivity. Even these seemingly random marks enrich the space in which they appear – or, rather, they define the emerging space. Even a single splash of ink near a sketch sets a complicated visual movement in play – sometimes even before the conscious mind catches hold of it. Such smudges, half-erased lines, marks, blots and random traces function as stimuli in the process of thinking-through-drawing. In particular, the presence of the past in the form of half-erased lines, half-finished sketches, construction lines and scribbles introduce a translucency or diaphaneity that unsettles the drawing, but which also opens it up to new interpretation.

The diaphanous constitutes a visual, generative stimulus that introduces a new creative dynamic in designing. This dynamic goes well beyond reading various interpretations into a sketch or visual representation. It is important to remember that "putting down potentials" is an accurate way of describing the explorative phase of designing. The goal is not to work out ideas, but to experience which potentials emerge, and where novelty appears.

We can see this by turning our attention towards the common design practice of making multiple tracings on semi-transparent sketching paper. By overlayering multiple sketches, the former foreground becomes background and visually fades in

relation to a new overlay. As the former foreground starts to play the role of a non-homogeneous background, it becomes part of the new sketch, both as background and as tentatively established point of departure:

> The [sketch] paper is not transparent in the same way glass is, but makes the underlying image somewhat foggy and unfocused. By tracing the map, its information is reduced to a play of lines, a graphic pattern that reveals compositional proportions…. It opens the map to new interpretations. As more transparent sheets are superimposed, the image of the background (the initial drawing) becomes more blurred. The previous drawing or design still shines through, but becomes less and less compelling. This strengthens and stimulates the process of choosing, omitting and highlighting. As the uncertainty of what lies beneath grows, so does the freedom of interpretation. (Palmboom, 2002: pp. 35–37)

The old design shines through: it is present in a translucent manner, suggesting itself at the edge of perception, but nevertheless it exerts a certain influence. But because it is not forcefully present anymore, it invokes a play, a re-interpretation, or a reconstruction of its compositional elements.

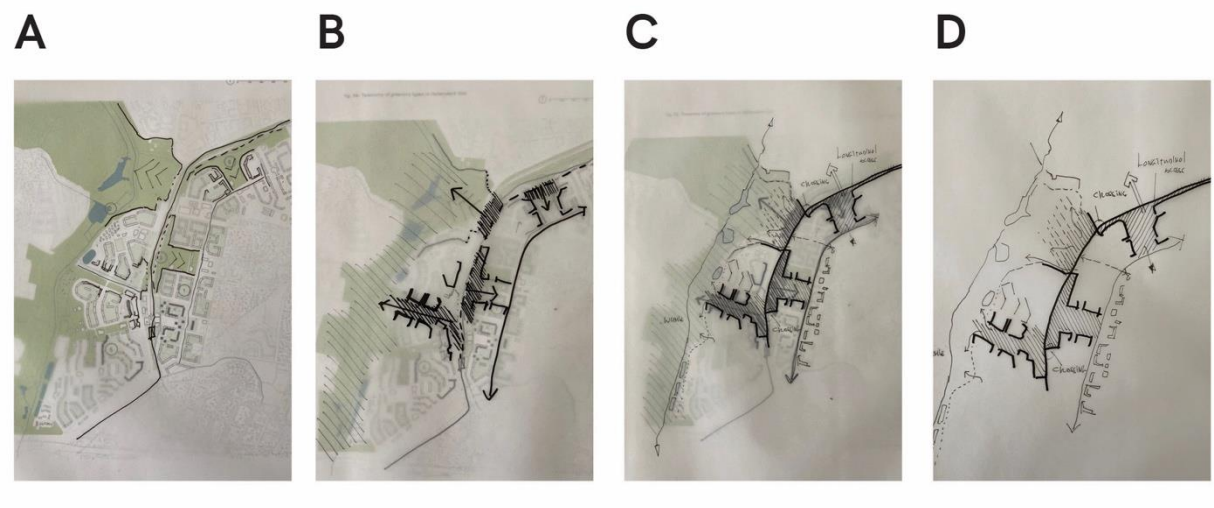

Figure 2. Overlayering on semi-transparent sketch paper during architectural sketching. (A) visual exploration of patterns; (B) blurring the background and exaggerating remarkable features; (C) formalizing the initial idea into a spatial configuration; (D) abstracted configuration without background. Panels (A)–(C) show how the original drawing becomes increasingly indistinct. Photographs by author.

The earlier sketches in the sequence submerge within the visual and cognitive background without disappearing completely. From the point of view of architectural creation, this is essential. Especially when working on a complex, layered topic, the parameters that structure the architectural problems and questions must be kept on-hand, as it were. They must be cognitively and affectively present in a way that is accessible, yet not dominant. Their influence must be felt, but the creative gesture of designing or thinking further must not be hampered by them. Pallasmaa described how he likes to "dwell" in the "plasticity of the idea," and therefore works with

layered drawings that bear traces of the past. The presence of multiple layers makes the plasticity of an idea tangible and accessible. All the phases of the creative process (conception, insight, evaluation) are as it were present in the drawing.

Insightfully, architectural theorist Marco Frascari described architectural thought as "sedimentation" (Frascari, 2009: pp. 200–212). The many topics involved in developing an architectural idea require time to settle and must be gradually organized in a coherent order. This process is slow and more akin to distillation and precipitation than it is to ceaseless creation. Diaphanous representation allows for multiple layers of an idea to be diffusely present, slowly and dynamically enriching the appearances through which an idea appears. Within the diaphanous, an architectural idea never appears as either monolithic, diagrammatic, one-dimensional, or closed. Instead, it appears as a suggestion, hint, semblance, allusion and even as a playful and gradual unfolding.

To understand the interplay between foreground and background, we introduce an additional notion, developed by the Czech literary theorist Jan Mukařovský. He argued that repeated representation of an object (let's say a single word or a visual image) *foregrounds* it, wresting it loose from its context until it acquires an ontologically autonomous status (Mukařovský, 2014: p. 44). Due to its detachment, such an object becomes strange, uprooted and fascinating, even alien in its own right. Once this happens, it appears not as an ordinary object anymore, but it acquires once again individuality, fascination and a phenomenological "depth" that was not accessible when it was submerged in its surroundings. Foregrounding an object played a major role in the artistic strategy of *ostranenie*, or "making-strange,"[6] that is, creating an aesthetic effect that due to its deliberate strangeness catches the attention and causes an instability or perceptual shift (Paans, 2020).

The diaphanous space of representation seamlessly allows for collapsing foreground into background and the other way around. In this subtle shifting, the image (i.e., the representational object that appears) and what is depicted (i.e., its representational content, its broadly Fregean "sense" or *Sinn*) merge into one another. When this happens, any clear form of interpretation becomes unstable and fluid. If we follow Mukařovský's thinking to the end, we see that any element in a drawing can be foregrounded or may collapse the entire configuration of foreground and background altogether. Diaphaneity as visual characteristic enables each element in the drawing to acquire added depth and to submerge and emerge from the texture of the drawing, allowing for a seamless foregrounding of elements. Its blurriness and indistinction suggests potentials and ideas, yet in a way that becomes never fully

[6] *Ostranenie* (lit. "making-strange") as literary technique was first explicitly described in Victor Shklovsky's 1917 essay "Art as Technique." Mukařovský expands on that notion in his discussion of poetic language, which introduces a new dynamic in the text.

determined, keeping the creative play active and moving. All this, as Pallasmaa already noted, has a thoroughly material dimension:

> The pure expression of ink may be found in the energetic splash, while gypsum's truth lingers in the formless mass. Like the silhouettes and patterns of mountains, clouds and stars, the plastic results are most often irregular and amorphous. (Sauter and Von Moos, 2022: p. 55)

Forms and silhouettes materially express themselves. A few random blots, vague outlines or indistinct traces suddenly may acquire a possible meaning, emerging from the depth of the surface, becoming form in the process. In diaphanous representations, we encounter a dialectic of becoming-form (*Formwerden*) and form-fading (*Formvergehen*). It cannot be emphasized enough that this process is inherently occurent. It subverts the neat idea of a static foreground and background, or a static figure-ground order, as well as the idea that drawings are mere carriers of information. Moreover, diaphanous drawings are inherently open-ended towards a non-conceptual domain (Paans, 2020).

6. The Work at Work, or, the Effective Present

Apart from the concepts discussed previously, how can we think of diaphaneity as generative stimulus in its own right? I propose that we turn to the work of the French sinologist and philosopher François Jullien, who compared Western (Greek) and Eastern (Chinese) thinking, and acutely analyzed the "blind spots" of Western thinking in conceptualizing the notion of transformation. One of the topics that Jullien analyzed at length is the theme of "efficacy," or "inherent activity" implied throughout various areas of Chinese thought.

Let's start with an idea that does not fit into the cognitivist paradigm: the dialectic interplay between "springing up" and "settling." As Frascari emphasized, architectural ideas have to settle gradually, thereby "sedimenting" themselves. Jullien provides an alternative formulation of this idea. Visual representations that are open and seemingly unfinished are not determined completely. Not every element in them is finished, unambiguous, or clearly demarcated. As such, the representation remains "at work." In doing so, it invites new readings and stimulates thinking. As Jullien argues, new elements "spring up" out of the drawing. Those elements that "settle" are determined for the time being:

> [T]his fundamental fact … [is] that the determination (any determination) grasps what is settled and not the springing up; that the definition is situated downstream rather than upstream, in a state of flatness that is sterile and not fecund. (Jullien, 2016: p. 49)

So, (Greek) *logos* or deliberative reason can grasp only what is determined. In cognitivist terms, it reads representational contents as *informational* contents. But many representations are not just vehicles for transmitting information. By definition, information is already settled—it is circumscribed and determined. Once it is determined a flatness enters. The suggested depth disappears, and its stimulating potential fades.

Instead, many representations in architectural design processes are best understood in a *generative* sense (Jullien, 2016: p. 48). They constitute an "effective present." That is, their presence renders creative thought effective in the here and now. Rather than transmitting informational contents, such architectural drawings drive the development of an idea. Their generative characteristic is due to elements that "spring up" and that evade the determinations of *logos*, as for example in the following drawing:

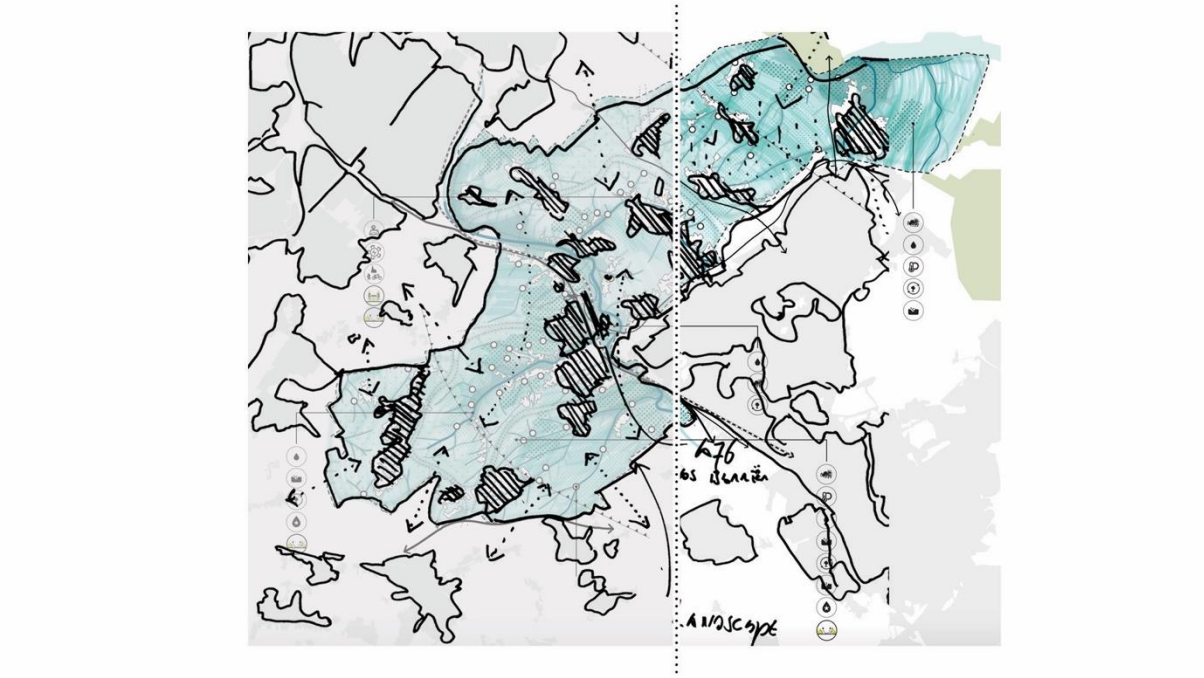

Figure 3. Visual filtering effect of sketch paper in the diaphanous effect of semi-transparent paper (left of the dotted line), combined with black lining and the original image (right of the dotted line). The play of elements and suggested "depth" creates an "effective present." Drawing by author.

This explains why some architectural sketches have such an expressive and creative appeal: their unfinishedness keeps them effective. They keep exerting tangible generative effects, allowing the designer to dwell in the ideas that they suggest. But the more one finishes and refines, the more the sketch becomes settled, losing the critical edge of its generative power (Jullien, 2012: p. 60). Its incompleteness causes its efficacy:

> In revealing to us the power of incompletion (or by revealing that plenitude is not completion), the sketch makes us feel the infinite richness of the indefinite, or the

> fecundity of the beyond and of possibility—in short, what we ordinarily understand as the powers of the virtual. (Jullien, 2012: p. 61).

The "indefinite" is the operative realm of the diaphanous: the domain of (visual) suggestion and springing-up as opposed to the domain of settling down and defining. Every sketch that is an "effective present" is suffused with diaphaneity. Its openness forms an integral part of its visual texture. While the cognitivist paradigm viewed representations as the endpoint of a determinative process, Jullien emphasizes the fact that "availability" or space for development is the most effective moment in the creative process (Jullien, 2012: pp. 69–70). Only once a designer realizes how much can still be changed, accomplished and how many possibilities are still waiting to be worked out, can the creative process unfold and open up again.

Through diaphaneity, visual elements like texture, border and volume coalesce into new configurations—worlds of fluidity and availability rather than fixation and definition. In this openness, half-visible in the margin of suggestion, resides its developmental potential. The diaphanous is the opposite of definition: it is *nichtfestgelegtheit* (not-being-defined) as a constitutive condition (List, 2009: pp. 319–332; Forster, 2019: pp. 126–127). The diaphanous opens out into new aesthetic domains staging the "impossible ontological encounter" previously mentioned. The fact that not every element is determined, or that multiple readings are possible, creates opportunities to revisit familiar ideas in a new setting, thereby making them literally appear strange and novel again.

That brings us to the issue of form. What then, should be drawn? Should we make only vague drawings that suggest ideas rather than representations meant to developing them? This question is justified, but also deeply cognitivist—it wishes to return to the process of determination, as it fears insecurity and ambiguity. As Jullien notes, the Aristotelian tradition saw form as the end result of a developmental process (*telos*). The Chinese line of thinking turns this thought upside down. It views the sketch as a locus of forces and vectors, rather than a depiction or illustration. If a sketch is viewed in this manner, it follows that the dots, lines, planes, and scribbles possess a certain *propensity*, or agency of their own. Indeed, that is what renders them effective (Jullien, 2016: p. 50). The sketch is no longer a neutral surface, but an in-between space of openness and architectural creation (Kuch, 2019).

The art of sketching centers around evolving from one property of the drawing to the other, freely navigating the new, diaphanous space that emerges between the elements. Jullien speaks here of a "divergence that is provoked" within the work. Each new line extends the play of forces and the architectural design process in its entirety (Jullien, 2016: 74). The diaphanous creates divergencies in the form of new possibilities, foregrounding certain elements while our blurring others out. There is

an inherent, organic dynamic at work in this process, a play of forces that involves our embodied cognition as much as our interpretive capabilities.

The skill of organizing this dynamic constitutes the craftsmanship of architectural design. Jullien emphasizes the importance of *shi* (efficacy) in this process. Not every scribble or sketch drives the design process forward or creates fruitful thinking. Discipline and exercise are required to draw well and to imbue sketches with an affective force that makes them truly come alive:

> [I]t is shi that "gives life" and that makes the slightest dot or stroke vibrate, as if we were reliving the moment of its execution. Shi always enhances what would be mere empty representation without it, for shi gives depth to a representation and exceeds its concrete limitations by revealing within the actualized static form, a dimension of perpetual, soaring flight. (Jullien, 1999: p. 78)

Once more, the Chinese line of thinking subverts the cognitivist paradigm, and simultaneously extends and supplements the phenomenological approach. If drawings are seen as static carriers of information, their empirical content is what makes them useful or valid. By contrast, if drawings are regarded as active catalysts in a thinking process, their "concrete limitations" are not important: instead, it is far more important how they unleash the process of "perpetual soaring flight" or intense creativity. The property of *nichtfestgelegtheit* is that which urges on forward, inviting growth and change.

To create an "effective present," a drawing needs to be shot through with diaphaneity, that nebulous property which stimulates the creative dynamic which Immanuel Kant so aptly called the "free play of the imagination" (Kant, 1790/1997: p. 102, Ak 5: 217). This rhythmic process is distinctly organic and defies notions of efficiency in mechanistic terms. Here, then, we encounter a core idea that should be regarded as central for any organicist theory of aesthetics: the notion that images are processual entities that entangle with human imagination. The ensuing play underlies creativity and even grounds heuristics thought. But above all, it exists on its own terms, and cannot be reduced to mechanist models for the sake of explanation.

An organicist theory of aesthetics fully involves embodied capacities and subconscious as well as self-conscious modes of thinking and experiencing that entangle with the real world, in this case as presented by the image or the topos that it affords.

7. The Diaphanous as Generative Stimulus

Summarizing so far, in the diaphanous, relations and ideas spring up. They seemingly foreground themselves as the eye ranges over the surface. Even in the moment when

the pen touches the paper, the new already emerges. Between the body and the efficacy of the drawing occurs an active entanglement that touches on the potentials residing in an idea. But even if the eye repeatedly scans the drawing surface, the image and eye are not the same as on the first occasion. Freed from the process of ceaseless determination (and therefore fixing) by the *logos*, the diaphanous literally renders new ideas and associations visible.

The movement of springing-up is not the same as the Derridean notion of *différance*, whereby the ultimate meaning of a drawing is ultimately postponed and closure never arrives (Derrida, 1982, 2011: p. 71). Instead, there are multiple openings-up and settlings-down at work, and the issue of closure or ultimate meaning is once again an attempt to determine and fix the generative process that occurs in a drawing. A better way of thinking about such processes is to embrace the instability and experiential richness of the diaphanous, accepting the occurrence of singular events, unexpected combinations, and unforeseen turns in the road.

Creation in design processes requires indeterminacy. In the diaphanous, we witness a process of becoming-form (*Formwerden*) and form-fading (*Formvergehen*) that continuously unfolds. When Palmboom discussed forms that "shine through," he did not just state a fact about the visual properties of architectural drawings but indicated what makes the effective present truly effective. These are the relations and elements that present themselves in the diaphanous zone between determinacy and indeterminacy, causing the movements of "settling and springing-up," as well as foregrounding and gradually unfolding.

To unfold, then, means to be involved in a process of becoming-form and form-fading in which non-determinacy is utilized in ways that are not merely differential or divergent. We are not speaking of unconstrained elation, but of a developmental, sedimental process in which some elements and relations "sink" and others "float." The creative process organizes its contents without the pressing need to freeze, to fix, and to determine. Taking the freedom to let things run their course, it lets them sediment into coherent and surprising structures.

This requires a methodology or regimen of openness, a *nebula rasa*. Openness is not just the absence of constraints, but a visual organization in which alternatives spring up, ideas crystallize, and relations settle down. In a *nebula rasa*, the designer engages in a fine-grained, ever-shifting geography of creative possibilities. It is constituted by temporal stabilities and modalities of being-present, such as foregrounding, self-presenting and self-suggesting, or even being-promising. By engaging with the diaphanous space in all its concreteness, and by fully embracing this shifting presence on "face value," *logos* loosens its determinative hold, and the representational contents acquire an agency of their own.

We can now rework the Aristotelian notion with which we started. The diaphanous enables indeed a form of visibility, not just because it is a visual characteristic, but because it is a *generative stimulus* that directs its own development. As Aristotle argued, the diaphanous is a mediating phenomenon: it is not a void, nor is it ossified in determinations and fixed, rigid notions and concepts. It is the medium through which representations are viewed, while it suffuses them, without being an entity itself. When the propensity that is characteristic of the diaphanous inhabits drawings, its presence there turns it into an aesthetic potential that drives architectural design processes. The virtual space afforded by the diaphanous represents a domain in which (half-formed) concepts and notions shade into the foreground or fade into the background, mingling with non-conceptual contents and affects to produce a range of aesthetic effects that surpass deliberative reasoning, but that stimulate concept-blending and emotive, associative thought (Fauconnier and Turner, 2002; Taura and Nagai, 2013)—and above all what Jullien called *shi*—the presence of efficacy.

The generative impetus of diaphaneity resides in the fact that it avoids all-too-quick determinations and categorizations, creating material-perceptual conditions under which new relations can be perceived. The diaphanous is a visual environment in which fuzziness, vagueness, and blurriness, the oblique, the opaque, the nebulous, and the suggestion of an additional dimensionality, all productively conspire together. By suggesting a different (hypothetical) order of things, an order made visible without being fully determined, the diaphanous drawing creates an effective, organic regime of visibility that inspires and generates new options and configurations.

Such visual representations are continuously in play, both content-wise and through the medium in which they present themselves. As Emmanuel Alloa argues, the medium contains an inherent instability:

> [T]he irreconcilability of the image-carrier and image-appearance–in covering each other, the two can never coincide–expresses, once more the lack of a specific place granted to images within a traditional ontology of objects. (…) Images are singular because of their intrinsic tension between facticity and unreality, which does not resolve in a unity and always already veer from a classical logic of identity. (Alloa, 2021: p. 193)

In this medial surplus resides the potential for efficacy. The surface of the drawing is no longer a neutral surface on which marks or traces are inscribed, but becomes a figure-ground playground, a *topos* in which relations dynamically form, settle and spring up. The Greek *logos* framed the drawing surface as a *tabula rasa*, or empty surface on which marks are made in order to determine and fix a creative concept or

idea.[7] By sharp contrast, Chinese thought and recent phenomenology conceive of the surface as a *nebula rasa*: a representational space of diaphanous indistinction in which a creative play unfolds. In this space, the diaphanous exerts its generative impetus, turning the *nebula rasa* into a non-geographical, layered space in which relations, possibilities and constellations emerge, morph and fade.

The differential and sedimentary play of visual properties and allusions makes the present continually effective. That is, it constitutes its inner life that, as Jullien puts it, represents "perpetual, soaring flight."

8. Conclusion

The cognitivist paradigm in many cases relies too heavily on the visual representation as a carrier of information. But if we combine insights from the phenomenological approach and the agentive paradigm, the notion of the diaphanous suggests a different account of architectural drawing. This does not imply that *all* drawings in an architectural design process should be diaphanous. Indeed, there is a case to be made that precise, technical drawings tap into a very different aspect of our creative capabilities (see also Ursprung, 2016. With this in mind, we should raise the question of how to utilize the potentials of different types of drawing throughout architectural design processes? These processes could take place in a professional as well as a non-professional educational context.

One suggestion is to foster *visual literacy,* in the sense that practitioners should actively practice producing drawings that cover the full range of architectural expression, from the precise to the allusive. Especially in a time where digital technology affords the possibility to rapidly create countless variations, the phenomenological side of the design process become extremely important. The idea that technical competence can replace the existential, lived side of architectural design is prevalent, but learning to "love uncertainty" may balance these digital designing and lived experience.

As I've argued, drawing is not just a skill to communicate ideas or information. It is also a fully developed way of thinking-through-making that is unique for many design disciplines. As such, acquiring a degree of visual literacy is a prerequisite for learning to think well through visual representation. As the heuristic side of design processes can be relatively easily digitized, the skill to critically discern which design

[7] In image theory—following up on the linguistic work on iterativity and tracing by Derrida—the idea of tracing has been worked out in different directions to blend the conceptual frameworks of linguistics and visual arts, e.g., by Hans-Jörg Rheinberger in his philosophy of science and in Sybille Krämer's work on tracing and performativity. However, as I've argued, the origin of this philosophical approach can readily be traced back to the Greek *logos*.

options make sense, which potentials are worth developing further and which questions are addressed can all be trained through engaging with diaphanous representations.

The hypothesis that could be raised here is that practitioners who grow accustomed to work with diaphanous media will be more at ease and more attuned to the ceaseless play of options, and correspondingly more comfortable with the absence of clear, settled information. Moreover, an auxiliary hypothesis that could be raised is that training the skill to work with the diaphanous activates the recognition of different patterns and relationships. The sense of openness that permeates all creative endeavors becomes the standard *modus operandi* in the diaphanous. Therefore, it would be quite easy to test whether a group of participants working with conventional media, and a group working with diaphanous media, actually develop different styles of cognition, association, and perception and ultimately designing.

I'll make a concluding suggestion concerning the notion of "sedimentation." As both Frascari and McKinnon remarked, the creative process is distributed in time. There are episodes of creation and novelty, as well as episodes of detachment and revisiting old ideas. Put differently: things "spring up" and "settle." The visual realm of the diaphanous can be revisited again and again: it can be "taken into possession" once the need for (further) exploring ideas makes itself felt. Time and "letting things settle" is a prerequisite for deepening and developing design ideas. Just like producing ideas, so too letting them rest can also be thought of as a skill and can also be taught as such. Learning to revisit the diaphanous and letting the "effective present" exert its formative influence on design thinking is part of developing visual literacy and effective creative thinking alike. What is needed is to embrace the efficacy of the drawing, navigating its openness and fostering the willingness to be changed by it.

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