Design and Unknowns

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Abstract
Design is often viewed as an activity focused on shaping futures or, more precisely, on creating 'better' futures. However, an important yet often overlooked reality is that the future is uncertain, unpredictable, and fundamentally unknown. Based on this premise, the Open Debate section seeks to explore the relationship between Design and Unknowns. By examining its philosophical, ethical, cosmological, practical, and pedagogical implications, this section wishes to offer new perspectives for design research: *slowness*, as a way to approach the encounter with the unknown, as well as a way to design it; *problematization*, as a rethinking of what we know; an engagement with the *possible*, to emphasize the *non-linearity* of how unknowns may shape potential realities; *de-scripting*, as a way to decouple from established blueprints and de-colonise futures; and a stance against the *inevitabilism* that strips potential from the unknown. These concepts introduce the voices that populate the section, exploring different dimensions of the relationships between Design and Unknowns.

Keywords
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Possible

Introducing an unknown factor has nothing to do with providing a ready-made solution, but entails casting a problem in such a way that its solution becomes conceivable.
(Stengers, 2018, p. 46)

Why Design and Unknowns?

It is commonplace to state that design concerns the future. An entire strand of design research, thinking and practice is built around the notion that design can build 'better' futures — misguided and mystifying as this may be. But an important, if obvious, implication of engaging with the not-yet of futures — and one that does not always receive the attention it deserves — is that the future is uncertain, unpredictable and fundamentally *unknown*. Uncertainty, as Betti Marenko writes in her forthcoming book *The Power Of Maybes. Machines, Uncertainty and Design Futures* (Bloomsbury, 2025), is the irrevocable, oceanic and cosmic condition of existence.

If we accept this, then we may even say that design, with its apparatus of planning, scripting, blueprinting, ideating and prototyping, is nothing but a sophisticated technology for keeping uncertainty at bay, gaining control over the environment by making, remaking and unmaking its experiential organisation, from the minimum viable intervention that shifts human micro-behaviours to totalizing plans that attempt to impose a macro-vision on what is an otherwise fluctuating, messy, unpredictable world. But what if, as a thought experiment, we placed the unknown at the centre of design, in order to rethink coordinates, logics, sequences of action, phases and protocols in an experiment with modes of unknowing?

On this premise, the Open Debate section seeks to unpack the relationship between Design and Unknowns, taking as a starting point what Isabelle Stengers describes as "the non-knowing at the heart of all knowledge". In her view, drawn on Alfred North Whitehead, this is nothing less than "an undertaking that is meticulous, grave, and always to be taken up again" (Stengers, 2011, p. 3).

Because the unknown is inexhaustible (there is no knowing without unknowing), what it demands is not the effort to know. Instead, it asks that we keep on refining our 'tools for thinking' it (and through it). To think the unknown means to advocate for a kind of inquiry that concerns itself not with what exists already, even less with what ought to be (and ought to be known); an inquiry that is less interested in reproducing what we already know, offering answers or, worse, prescriptions, and instead strives to be attuned to what *may be* — the contingent.

In her much quoted *The Cosmopolitical Proposal* Isabelle Stengers (2005) asks:

How can I present a proposal intended not to say what is, or what ought to be, but to provoke thought; one that requires no other verification than the way in which it is able to *slow down* reasoning and create an opportunity to arouse a slightly different awareness of the *problems* and situations mobilizing us? (p. 994)

Taking Stengers' question above as both lens and driver to activate our Design and Unknowns theme, we use it as an invitation to reframe what is assumed to be the *problem* at stake. One way of doing this is by *slowing down*, which, paraphrasing Stengers' argument about "slow science", characterises a mode of knowledge concerned less with its own advancement and more with what tends to be disregarded by the canon of the discipline, what remains unattended because it is deemed "not-enough" (Stengers et al., 2024, p. 369). More relevant to our objective is the idea of proposing *slowness* as an ally in our encounter with Unknowns, and more specifically as one of the many ways in which such an encounter may be designed.

Slowness

Explaining the slow down mode, Stengers writes: "It takes time to develop imagination. It takes time to learn how to seriously consider matters we don't know anything about and to learn how they are nevertheless connected with what we know" (Stengers et al., 2024, p. 369).

Slowing down is a way to introduce hesitation; to allow perplexity in, and to give it value; indeed, to turn perplexity into a significant moment in the process of inquiry. When we seek to be shielded "from any perplexity" (Stengers, 2023, p. 7) what we really do is refuse to see what lies on either side of our well-travelled, well-known path.

Slowing down is a way of steering us away from certainties. By advocating for *slowness* as a modus operandi, we do not suggest plunging head-first into the unknown and just see what happens. On the contrary — and this is where design participates in our framing of the unknown — how one approaches the unknown demands cultivation and careful crafting. Hesitation, perplexity (and vigilance so that we are not swallowed by the path of least resistance) can then become the conduit to the creation of new knowledge, ways of looking afresh at existing questions and thus ways of reframing problems. But there is more. Because the capitalist machine is incapable of any form of hesitation, the act of hesitating in the face of the unknown may be our most profound and un-capturable form of resistance yet (Stengers, 2015, p. 8).

Problem

Perhaps another way of framing the relationship between Design and Unknowns is to posit the unknown as a way to *problematize* design.

By problematization we mean the practice of asking those questions that will bring to the surface systems of beliefs, assumptions and pre-understanding; those inquiries that will trouble the deeply held assumptions that underpin our expectations of what is supposed to happen. Problematization disrupts and *complicates* how both problems and solutions are perceived. It shines a light onto what *we* take for granted so that we can see it afresh: the unknown that resides at the core of knowing. We argue that this is the very ground of critique, or even that this is precisely what critique is[1].

However, it is often the case that we tend to simplify problems so that they can fit the possible solutions we have. Gilles Deleuze

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"Critique consists in driving these modes of thought out of hiding and trying to change them: showing that things are not as obvious as we might believe, doing it in such a way that what we take for granted is no longer accepted as such. To critique is to render the too-easy gestures difficult [...] It is absolutely indispensable for all transformation. Because a transformation which would remain within the same mode of thought, which would only be a certain manner of better adjusting the same thought to the reality of things, would only be a superficial transformation" (Foucault, 1982).

(1994) calls this "the hard work of reducing problems", for instance the Cartesian method which, in its search for clarity, is the opposite of a "method of invention appropriate to the constitution of problems or the understanding of questions" (p. 161). And he continues: "Learning to swim or learning a foreign language means composing the singular points of one's own body or one's own language with those of another shape or element, which tears us apart but also propels us into a hitherto unknown and unheard-of world of problems" (Deleuze, 1994, p. 241).

Taken in this way problematization produces a rethinking of what we think we know, anchored and ricocheting onto the unknowns.

Chiara Colombi and Adam Nocek develop this reasoning in the Open Debate section by introducing the concept of post-normative brief. Recalling Deleuze's philosophy, they suggest that the design brief, rather than being a rigid tool for problem-solving, should be seen as a flexible guide for inquiry and unknowing. As a dynamic process, it can generate questions; as a space of plurality, it can resist the normalization of solutions that serve dominant power structures.

Possible

In philosophical discourse, the *possible* has often been framed as a pre-existing realm of latent potentialities, a repository of potentialities waiting to be realized. Classical metaphysics, as seen in the Platonic and Aristotelian traditions, treats the possible as a template for the real, tied to ideal forms or potential states. Design practice, however, appropriates this notion, claiming to render the invisible visible through the project. Yet, this assertion requires scrutiny and critique too. Does design truly serve as a transformative force that unveils hidden opportunities, or is it more accurately a constructed narrative rather than an actual revelation? By positioning itself as the bridge between the possible and the potential, design risks overstating its capacity, projecting clarity where ambiguity and complexity inherently persist.

We draw from Henri Bergson (1930/2017) the idea that the *possible* is not a precondition for reality but rather a retrospective construct. Overturning the conventional view of the possible, Bergson claims, "The possible is simply the real with, in addition, a mental act that casts its image into the past once it has been produced". This "mirage of the present projected into the past" exposes the illusion that the future is predetermined by pre-existing potentialities. Maybe, the unknown shapes possibilities, revealing the open, unpredictable nature of reality.

This assumption clearly emerges in Clive Dilnot's essay, published in the Open Debate Section. Dilnot identifies the 1960s and 1970s as the period when Western scholars recognized that design, as traditionally practiced, was inadequate for addressing the evolving challenges of the artificial world. In particular, the re-actualization of the significant contributions of computer scientist and psychologist Herbert Simon is crucial to understanding design as a "science of uncertainty" and possibility, rather than a science of law, within the context of artificiality.

Non-linearity

Thus, to claim (or reclaim) a centrality of the unknown for design may be interpreted in several ways and discontinuities, but it may be summed up with the exhortation: stay away from certainties.

This should not be seen as an encouragement to passive inaction, *laissez-faire* or worse fatalism. Rather, it should be read as a challenge to see the uncertain and the unknown from another perspective; not as something to fill, to smooth over, tame, push away, or deny, but as something (or somewhere) to plunge deep into.

Design and Unknowns becomes an inquiry into how to produce new modes of knowing, by insisting that things could have been and still could be *otherwise*. Design, as that which creates the artificial, is also therefore a way of working with the potential of the unknown.

Reclaiming *slowness* and the genuinely humbling unknowability of un-scripted futures can become a way of stemming and counteracting some aspects of design, namely the lingering modernist mindset that still informs 'design for a better' world.

Design is far from a neutral discipline; as Tony Fry states, it "acts as an agent in the world" (1999, p. 15), frequently reinforcing unsustainable systems. In particular, Fry critiques the "myth of linear development" that drives much of contemporary economic and technological growth. His provoking "defuturing" proposal describes how many modern design practices effectively "cancel future possibilities" by narrowly focusing on immediate demands (Fry, 1999, p. 7). This "subtraction of the future" is often propelled by a techno-deterministic worldview, in which the only perceived trajectory is one of unrestrained linear development dictated by consumers' needs.

Are there ways to scramble this linearity? We propose that working with unknowns can be a chance for design to intensify and expand the pool of 'possible possibles'. This intensification should not be seen simply as the springboard for innovation opportunities or novel product pipelines, but first and foremost as a commitment to be swayed. A commitment to what *may be.*

Artist, writer, and educator Georgina Voss, in conversation with the guest editor, offers an anti-mechanistic and anti-technocratic interpretation of the theory of systems, also applied to design objects, in favor of an a-human and political approach. At the same time, they critique the "solutionism" of design and the "professionalization" of the field, advocating instead for a more fluid understanding of knowledge as a framework of understanding.

De-scripting

Such a commitment is also a challenge. How to move into unknown tomorrows without imposing today's (or yesterday) script of what the future should be? We echo philosopher Elizabeth Grosz's pointed question:

> How is it possible to revel and delight in the indeterminacy of the future without raising the kind of panic and defensive counterre-actions that surround the attempts of the old to contain the new, to predict, anticipate, and incorporate the new within its already existing frameworks? (Grosz, 1999, p. 16)

One way to revel and delight in the indeterminacy of the future is by staying alert to the insidious hold of those well-rehearsed stories about the future that the Global North is so fond of — technology will save the world, progress is growth, growth is a linear upward trajectory, instrumental reason prevails, capitalism is unavoidable. Whether these stories envision the future as a territory to occupy, a resource to extract, or a disembodied realm to manage, they are all teleological stories that serve the future as a *foreclosed* event, already given and pre-ordained (Facer, 2011, 2019). These stories colonise imagination, mould anticipa-tion, become naturalized, appear *inevitable*.

The act of de-scripting finds a possible exemplification in the article by Kayoko Nohara and Betti Marenko, who explore how Trans-lation Studies can inspire a mode of thinking about the unknown as a space of untranslatability — a challenge that invites creative and inventive responses. Translation is not about achieving exact equiva-lence but about navigating gaps and differences, adapting content to fit new contexts. Using the example of post-WWII Japanese translations of American science textbooks, the article demonstrates how translation reflects cultural, educational, and ideological tensions, either domes-ticating or foreignizing content to reshape society and knowledge, and illuminates the potential role of a translation paradigm in thinking design with.

Inevitabilism

Nowhere is it written that the future cannot be changed. The biggest story of all is the story of *inevitability*. Inevitability is like a bad dream from which I struggle to wake up but wake up I must. Even if it feels unthinkable, the tracks the future seems to be on *can* be upended. These tracks lead straight to planetary exhaustion, alienation and annihilation. They *must* be upended. New futures stories ought to be spun from the unrecognizability of the truly unknown, from the 'infinite variability of the world', the 'delight of indeterminacy' and irrevocable, oceanic, cosmic uncertainty.

Rallying against what he calls "inevitabilism", philosopher and historian of science Andrew Pickering (2015) writes about being "struck by an almost total absence of ontological visions that do not conjure up a regular and knowable world, that conjure up something different. We have nothing to set against what I could call the modern ontology of fixity and knowability" (p. 118). The only inevitability, he continues, is the infinite variability of the world, shining unexpectedly like a crystal catch-ing the light in endless refractions, each time slightly different and new.

Looking into uncertainty as if it were a crystal is how we begin to stray from a future in which "the uncontained is woven into a containing framework and the new is made recognizable and tied to the known" (Grosz, 1999, p. 16).

But there is more. To commit to work with unknowns assumes something else: that past behaviour should not be taken as a reliable indicator that something will occur again in the future. Reprising Bergson's formidable insight mentioned earlier, Deleuze (1991) writes that when the future is predicted on past occurrences, it is nothing but a doubling up of the real, a pre-planned version of what exists already. It is a mode based on anticipatory resemblance, where the "possible" looks like what has gone on before and is therefore contained within a narrow and predictable range. This mode is derivative. Its mechanical grasp strips the unknown of its potential or, more precisely, strips potential from the unknown. Nothing new and unexpected has the space for surfacing. It is, to use Deleuze's words, a mystifying 'sleight of hand'.

The applied experiences reported by Victoria Rodriguez Schon in the *Stories* section reflect on this idea, drawing a parallel between unknowing and the unlearning: she emphasizes how knowledge, deeply embedded in the Wichí cosmology, cannot always be captured in words but is instead revealed through the act of making. Her work echoes Elizabeth St. Pierre's (2018) rejection of traditional methods, advocating instead for an approach that prioritizes the conditions under which something new and unthought can arise. These alignments reveal how post-qualitative inquiry and the approach to unlearning intersect in treating the unknown as a vital, transformative material for rethinking knowledge and design practices. In this context, design is seen not merely as a practice, but as an act of unknowing, in which assumptions are deconstructed and unexpected forms of knowledge emerge through the hands-on process.

Working with the Unknowns

Something still remains to be said: that the unknown is both terrifying and inspiring. It strikes us with deep-seated, ancestral fear but also with irresistible curiosity. It is, literally, what pushes us to keep on researching, to keep investigating, to keep on asking questions.

What is the unknown? What I don't know, what I am uncertain of, what I don't even know that I don't know. The perplexing relationship between knowing that I don't know and not knowing was not Donald Rumsfeld's invention, but was already identified by Plato's dialogue *Meno* in which Socrates evinces the difference between ignorance and error[2]. When I am in error, Socrates says, I believe I know what I actually do not know. When I ignore something, I know that I lack that specific knowledge. Hence the famous Socratic saying (and paradox): "I know that I know nothing"[3].

The idea that not-knowing — 'meta-ignorance' or 'conscious ignorance' — has a value carries a long and eclectic legacy. This is what American poet, philosopher and naturalist thinker Henry David Thoreau, French philosopher George Bataille, German epistemologist Karen Knorr Cetina, English poet John Keats and the medieval scholar and mystic Nicholas of Cusa have in common.

Questions around the unknown at the core of knowledge abound. What does it mean exactly to not know? If I know that I do not know, does it still count as not-knowing? How can I use the unknown as a way of knowing, whilst retaining its full potentiality perched on something inscrutable?

Still, the unknown remains relatively unattended as a topic of inquiry. The default position is to construct it negatively as lack (of knowledge) or darkness (of ignorance); it is often rendered as "impenetrable fog of obscurity" (Rescher, 2009, p. 13).

For instance, the well-rehearsed notion of "unknown unknowns", reveals the powerful conceptual terrain that lies beyond conventional boundaries of knowledge and institutional frameworks. These unacknowledged uncertainties are illustrated by Shirin Elahi (2011) through the potent metaphor of "here be dragons" — a phrase historically marking uncharted, potentially perilous areas on early maps. This evocative metaphor, enriched by depictions of mythical creatures, speaks to the complexity of the unknown: it embodies both the foreboding nature of these cognitive "blind spots" and the latent potential they hold[4]. The image of the dragon is especially resonant, as it underscores not only the intimidating aspects of unexplored realms but also, as François Jullien suggests, the profound potential within form itself — a potential charged with possibilities waiting to be realized. The dragon is "a symbol of all the potential with which form can be charged, a potential that never ceases to be actualized" (Jullien, 1995, p. 51). This duality — the dragon as both a warning and a wellspring of possibility — invites a fresh approach to knowledge, one that transcends the limitations of traditional paradigms and embraces the rich, unpredictable dynamism of the unknown.

Perhaps it is useful to frame the unknown as a verb, thus emphasising the action of 'unknowing'. But we argue that unknowing is not just the opposite of knowing. It can be "a way of being in the world that allows it to be messy, incoherent, and imperfect"; not only "a quasi-mystical and intentionally passive relation to that which one does not know, but rather, and perhaps more importantly, a conditioning of one's self assured knowledge" (Bojesen, 2019, p. 397).

Unknowing also concerns discarding obsolete ideas, dated beliefs and dogmatic fixations. Unknowing is, for instance, when we let go of what we no longer need to make space for new ideas, or when we unpick an entrenched view to re-train in what our specular "curated ignorance"[5] had prevented us from grasping. Giorgio Agamben (2010, p. 114) distinguishes between "not knowing" (*non sapere*), concerning an unexplored territory to be conquered by knowledge, and "nonknowledge" (*non conoscenza*), a zone that must remain unknowable, thus demanding continuous vigilance[6]. Cunningly, Agamben notes that this zone of nonknowledge may eventually be found to contain nothing at all. It may not even exist, I simply do not know. In the absence of a recipe, says Agamben, all we can do is strive to maintain "the right relationship with ignorance, allowing an absence of knowledge to guide and accompany our gestures, letting a stubborn silence clearly respond for our words".

We begin to grasp the contours of what posing the unknown as a guide may mean: the acknowledgement that its 'stubborn silence' must be listened to (attentively, with a pause); that the

encounter with the unknown must be designed if we want to turn the unknown into an ally.

This is what 'working with the unknowns' may mean. Treating the unknown as a material, as a dense, viscose, difficult substance, with transformative properties, a substance whose touch can catalyse unexpected views.

For us, to work with the unknowns does not mean giving in passively to anything that might happen, but rather insisting on moving away from the certain to enter the zone of indiscernibility where new thoughts can emerge. It is the cultivation of the space between not-knowing and coming to know.

Isabelle Stengers and Didier Debaise (2017) write

What we need to activate today is *a thinking that commits to a possible, by means of resisting the probable* - fighting any interpretation subscribing to the irresistible nature of unbounded capitalism as if that were our immutable destiny, even the conduit conveying the message of progress and emancipation, whereas in fact it denotes the desertification of our worlds and our inability to think that what we care about might have a future. (p. 18)

They also observe that the "sense of the possible to be activated always lies in the interstices of a situation, however incapable this situation may be of validating it" (Stengers & Debaise, 2017, p. 18).

Our hope is that the voices assembled in this section will generate precisely some of the interstices that may lead us away from the comfort of what we already know.

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