

Editorial. Designing within the Planetary Condition: Multiscalarity, Attention, and Habitability

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This introduction to the first volume on the planetary condition aims to situate how design research articulates with debates on planetarity, understood as a condition that exceeds the traditional scales, frameworks, and practices of design thinking and practice. To this end, the first part introduces a set of phenomena that allows us to understand the grammar of the planetary; the second part discusses its implications for design intervention and research. Finally, it proposes reading the articles that make up this first special issue through three analytical coordinates that seek to delineate a planetary design agenda: attention to multiscalar worlds, the deployment of cartographies of attention, and the exploration of forms of diplomacy oriented toward terrestrial habitability.

In recent years, the notion of the planetary has gained increasing prominence in contemporary debates across the social sciences, the humanities, and critical technology studies (Bratton, 2019; Chakrabarty, 2021; Clark & Szerszynski, 2020; Hui, 2020; Latour, 2017). More than a univocal concept or a mere physical description of the world, the planetary emerges as a sensibility that enables the problematization of the confluence of multiple crises—ecological, technological, social, and epistemological—that exceed the traditional scales from which social life and design practice have been conceived.

Speaking of a planetary condition does not simply mean broadening the scale of analysis to the global level but also recognizing a transformation in the way relationships between humans, technologies, and terrestrial systems are shaped. The disruptions that characterize this condition are heterogeneous and operate at different scales; however, it is possible to identify certain interrelated phenomena that allow us to understand the emergence of a planetary sensibility.

Interdependencies in the New Climatic Regime

A first path for understanding the planetary condition emerges from the radical transformation of the Earth's ecological conditions, which Bruno Latour has conceptualized as the entry into a new climatic regime (2017). This new regime is not limited to an environmental problem or a crisis confined to ecological issues; rather, it refers to a metamorphosis of the very conditions under which it is possible to inhabit, know, and project the world. This regime designates a situation that makes it impossible to think about the planet's metabolism without considering human interventions into ecological cycles, territories, and the Earth's conditions of habitability. For the first time in history, a set of processes—associated with the accelerated deterioration of ecosystems, droughts, ice melt, species extinction, soil and water pollution, biosphere degradation, and the extractivist dynamics of fossil capitalism—simultaneously affects all human and non-human inhabitants of the Earth.

In the face of these impacts associated with climate change, the planetary gains strength as a sensibility that calls for abandoning fragmented conceptions of the world. That is, it calls for understanding the Earth as an ecology of interdependent systems, in which human and more-than-human destinies are intimately intertwined (Latour, 2018). This shift has been interpreted by various authors as a transition toward a post-natural condition, insofar as it blurs the modern divide between nature and culture (Haraway, 2016). Far from constituting autonomous spheres, natural history and social history now form a single field of interwoven processes, where geological and climatic temporalities intersect with human activity, giving rise to the emergence of the terrestrial as a new condition of political orientation (Latour, 2017). The question of habitability thus ceases to be a local or sectoral issue and becomes a problem of composition, which requires relearning how to coexist and negotiate with a plurality of agents, processes, and terrestrial resources that can no longer be subordinated to a single human project.

Planetary Computational Infrastructures

A second dimension of the planetary unfolds through the proliferation of technological infrastructures that mediate our relationship to the Earth (Bratton, 2019; Gabrys, 2018; Parikka, 2015). Understanding planetary phenomena—such as climate change—is inseparable from the technologies that render them visible, measurable, and governable. The expansion of sensors, satellites, AI systems, and digital infrastructures has increased both the scale and the resolution of Earth data, shaping what could be called a *smart Earth*: a planet observed, modeled, and managed through intelligent

computational systems (Gabrys, 2018; Gil-Fournier & Parikka, 2024). The Earth is not presented solely as a homogeneous “globe” “out there,” but as a technical–epistemic object produced through these technopolitics, shaped by these massive flows of data, computational models, and monitoring and surveillance devices (Bratton, 2019). As Hui (2024) asserts, technology does not operate as a mere external instrument, but as a constitutive dimension of our experience of the world.

Yet these very digital technologies that enable the emergence of new planetary sensibilities depend, for their operation, on extractive logics inscribed in deep temporalities and intensive materialities (Tironi & Albornoz, 2025). The expansion of digital technologies, and of AI in particular, has intensified chains of interdependence between humans, machines, and natural resources, giving rise to a planetary metabolism of computing (Crawford, 2021; Tironi & Garretón, in press). Far from operating in an immaterial space, these technologies are grounded in social, energy, and terrestrial infrastructures that require minerals, water, soil, energy, and human labor. Technological systems do not float in the void of the cloud; rather, they depend on specific geological, hydrological, and biological conditions that make their existence possible.

The Planetary as a *Limit to the Human Project*

The planetary also introduces a conceptual and political limit to the modern promises of human dominion. At the outset, it calls into question the notion of globalization as formulated by the modern project (Chakrabarty, 2021; Latour, 2017). The grammar of globalization was dominated by the idea of human projects capable of extending and governing the entire globe. The perspective of planetarity brings a fundamental shift: an effort to reconnect thought and action with the terrestrial and ecological dimensions that make human development possible, but that at the same time exceed its capacity for control (Chakrabarty, 2021).

While the globalizing project sought to render invisible the heterogeneity of agencies—human and more-than-human—that constitute and sustain the Earth, the planetary insists on making them visible and politically relevant. In this sense, the global operates as a homogenizing and anthropocentric force, whereas the planetary acts as a challenge that invites grounding on the critical zone (Latour, 2018): that thin layer of the planet where soils, waters, the atmosphere, and life forms intertwine, and upon which our possibilities for coexistence depend. In this way, the planet ceases to be conceived as an abstract space of circulation and control and is instead affirmed as a material, heterogeneous, and finite condition that demands new responsi-

bilities and forms of cohabitation attentive to the plurality of agencies that constitute it.

On the other hand, the planetary displaces the human from the center by showing that our agency is always conditioned by terrestrial forces we do not control. Our civilization depends on the Earth's biophysical processes—climatic, geological, and ecological—that have been altered by human action but can never be fully governed or reduced to objects of management or optimization (Clark & Szerszynski, 2020). This situation puts into question modern promises of total dominion and control, and compels us to think about habitability from a horizon of dependence, vulnerability, and permanent arrangement.

In this sense, the dimension of excess (De la Cadena & Escobar, 2023) or that of the unbuildable, as formulated by Neyrat (2025), emerges forcefully in this planetary sensibility. The planetary implies accepting that we inhabit a world that in no way belongs to us, recognizing that it is not merely an object of human management, but an otherness with which we must learn to coexist. From microbial dynamics to the molten rocks of the deep geology of rare earths, through the oceanic and atmospheric cycles of the camanchaca, forces and temporalities exist that go beyond human projects. Even in the context of the expansion of geoengineering initiatives, acknowledging this excess entails rehabilitating an irreducible outside (Neyrat, 2025), a dimension of the world that resists absorption by instrumental logistics. In this sense, the planetary confronts us with that which resists total appropriation and translation (Spivak, 2012). Becoming sensitive to this planetary excess implies opening up other ways of thinking about design, beyond the paradigm of control and the totalizing project (Tironi & Garretón, 2026).

PLANETARY DESIGN

This issue of *Diseña* seeks precisely to generate a debate around what it means and what it takes to think design through a planetary lens. In other words, through the various contributions that make up this issue—which address different scales, materialities, methods, and specific issues—a conversation is opened about the ways in which design engages with the planetary condition and with the ecological, technical, aesthetic, and political tensions that run through it.

Opening this debate is particularly complex, given that modern design has been grounded in anthropocentric logics that have shaped our relationship with the planet, acting as a material articulator of particular conceptions of the Earth and its inhabitants (Fallan, 2025). Embedded in the modernizing narrative (Latour, 2018), design has contributed to the reproduc-

tion of a vision that advances by rendering invisible and subordinating human and more-than-human forms of otherness, while simultaneously intensifying overconsumption and the degradation of the biosphere as a consequence of extractivist dynamics (Escobar, 2018; Fry & Nocek, 2020; Vázquez, 2017).

We find ourselves at a moment when not only the biophysical conditions that enable human life on the planet are at risk, but also the conceptual frameworks through which we think about development, design, and the Earth itself. The environmental crisis should not be understood as a mere climatic crisis, but as a crisis of relation: of the cartographies, interpretive frameworks, and regimes of attention through which we have thought—and practiced—the relationship between the environment, humans, and technology (Ait-Touati et al., 2022; Latour, 2018; Morizot, 2020). As Morizot (2023) suggests, this crisis reveals less a deficit of technical solutions than a relational misalignment, an inability to perceive the ties that bind us to living and nonliving worlds. The task at hand, therefore, is not only to mitigate impacts, but to relearn how to relate to the planet, overcoming its conception as a passive and inexhaustible canvas for human action.

When entangled phenomena exceed the available practical and conceptual repertoires, there is a need to broaden our understanding of design and to situate it as an articulator and translator of the planetary (Tironi, 2024). In this sense, planetary design—rather than being oriented toward the manufacture of closed solutions—takes shape as an expanded practice aimed at composing and recomposing complex problems typical of the entangled dynamics described above. In other words, while modern design was organized around solving human problems in environments considered stable and available, planetary design instead starts from instability, fragility, the decentering of the human, and the impossibility of a total projection of the world.

In the following, I would like to highlight three coordinates that allow us to read the articles in this special issue and consider the conceptual and practical challenges posed by a planetary design agenda.

Multiscalar Worlds

From seasonal and atmospheric temporalities to geological and urban cycles, the contributions in this issue converge on the need for design to become sensitive to scales that exceed the human, making visible temporal and material configurations that exceed immediate human perception. In this sense, we could say that the invitation of planetary design consists in abandoning the understanding of problems as static entities and, instead, mapping dynamics and processes that blur scales and overflow our catego-

ries, shaping assemblages that unfold simultaneously on multiple levels, from the microscopic to the astronomical.

Today, the distinction between the local and the global becomes increasingly blurred: an algorithm that optimizes electricity consumption in an app may translate into greater lithium extraction in northern Chile; the location and operation of a data center can alter the hydrological cycles of a specific territory; a digital interface may reconfigure urban rhythms of life; and an aesthetic modification can directly influence patterns of mass consumption on a global scale.

In this issue, the work of Sena Cucumak and Özge Subaşı, as well as that of Michaela Büsse, clearly illustrates the multiscale of planetary design. On the one hand, Cucumak and Subaşı examine how different repertoires and forms of design intervention—spaces, devices, practices, or concrete material arrangements—are inscribed in trans-scalar networks of energy, resources, infrastructures, and regulations, producing effects that exceed the immediate context in which they were conceived. On the other hand, Büsse's piece addresses multiscale from a material perspective, showing how the materialities of design connect microscopic, infrastructural, and planetary scales, revealing design as part of energy and ecological flows that exceed both the object and the temporal horizon of the project. In both cases, the design artifact appears as a point of articulation capable of integrating geophysical deposits, physicochemical processes, and extractive dynamics, as well as living agencies such as fungi and plants, evidencing how design is deeply entangled in planetary metabolisms.

Cartographies of Attention

A second feature that emerges from a planetary design agenda relates to the need to make visible dimensions, intensities, flows, and beings that are often excluded from design discourse. Rather than appealing to administrative or extensive records of the territory—based on distances, magnitudes, or abstract quantifications—the aim is to produce sensitive grammars that allow it to be inhabited from within, paying attention to its frictions, limits, resistances, and the plurality of agencies that compose it (Ait-Touati et al., 2022; Morizot, 2023). In this sense, the operation of mapping and making visible functions as a diplomatic device of attention, prompts other ways of seeing and recognizing more-than-human agencies. The challenge is not to achieve higher resolution in visualization (AI can do that), but to decenter the way we see in order to inhabit complex terrestrial configurations, where mapping becomes a practice of diplomatic mediation rather than of domination.

The article by Erik Andersson, Martín Ávila, and Nelly Mäekivi addresses in a sensitive manner how more-than-human temporalities translate into an understanding of design as a practice oriented toward mapping and sustaining conditions of terrestrial habitability. Rather than serving as a means to intervene in stable systems, design in the article becomes a means to translate and make legible the ecological rhythms, processes of regeneration, and vulnerabilities that living environments undergo over time. In this way, design operates as a cartography of habitability, capable of accompanying forms of human and non-human coexistence on a finite and constantly changing planet. Along the same lines, the work of Tomás Criado and Carla Boserman proposes an alternative cartography of urban habitability by shifting attention from abstract climatic representations toward sensitive and situated records of everyday phenomena that are normally rendered invisible, such as shadows, heat, and solar exposure. Through drawing practices and the use of ephemeral techniques such as anotypes, the work constructs an affective and divergent cartography that enables inhabiting and perceiving the city's climatic mutations from within, thus promoting new forms of cohabitation.

Similarly, the work of Sergio Bravo-Josephson, Cindy Kohtala, Brendon Clark, and Luis Berríos-Negrón problematizes the role of design in the configuration of territorial and extractive infrastructures, showing how certain technical and project-based devices contribute to naturalizing and disciplining relations of environmental exploitation. In response, the article proposes reorienting design practices from a situated perspective, making ecological and social asymmetries visible in light of Latin American ontologies. The work of Cymene Howe, Dominic Boyer, Sólveig Sigurðardóttir, Magnús Agnesar-Sigurðsson, and Nikiwe Solomon examines Cape Town and Reykjavik by discussing hydrological and climatic interdependencies through the mapping of flows, asymmetries, and material links that connect the two cities, positioning design as a tool for recomposing forms of urban cooperation in the face of the environmental crisis. In this way, the planetary is not a neutral condition, but rather one traversed by extractive, geopolitical, and colonial histories.

Diplomacy for Terrestrial Habitability

A third element of a planetary design agenda, which runs throughout this issue, relates to the need to place design practice and projects within the horizon of terrestrial habitability. The crisis we face is not a temporary situation that can be resolved through the deployment of more technology; rather, it entails redesigning our ways of inhabiting a damaged

planet. In this sense, planetarity cannot be reduced to a diagnosis, but instead takes shape as a design project oriented toward habitability.

Through its experimental and iterative capacities, design can engage in processes of care, repair, and recomposition aimed at sustaining conditions of habitability. This involves shifting the focus from exclusive attention to human needs to a broader understanding of terrestrial life, also taking into account the multiple beings—human and more-than-human—that cohabit the planet. Hence the call to conceive a design project from the planetary, understood no longer as something to overcome, but as a condition to be integrated in order to maintain the potential and continuity of a habitable world (Tironi, 2024).

The contribution of Karey Helms, Meike Schalk, and Airi Lampinen is particularly illuminating in this regard: it proposes the notion of wonder as a form of diplomatic attention to situated ecological processes. More than a simple naïve or purely aesthetic emotion, wonder, for the authors, emerges as a political-ethical disposition for planetary habitability, insofar as it entails an act of humility and an effort to decenter the perceptual regime. From this perspective, design does not seek to intervene to dominate or correct, but rather to accompany, sustain, and learn from the environments that make a habitable world possible.

The question that planetary design raises is whether it is sustainable to continue designing exclusively for a single species. If the goal is to preserve and regenerate the conditions of a habitable world, it seems necessary to compose for an expanded common cohabitation. To planetarize design involves asking what an expanded cohabitation entails—a coexistence with other beings and intelligences that are no longer resources for human ends.

Within this framework, Morizot's (2017, 2023) proposal on diplomatic cohabitation becomes central to planetary design. The question that arises is: what practices, sensibilities, and repertoires allow us to (re)imagine our ways of relating to the Earth, other beings, and the ecosystems that cohabit it? This diplomatic action entails understanding, negotiating, and learning from the ways of being in the world of others, in order to experiment with forms of coexistence, while assuming the ever-present possibility of error, disagreement, and failure. Thinking about design practice from this diplomatic ethic not only introduces careful attention to different modes of existence, but also opens the possibility of a desirable planetarity by valuing local knowledge and other forms of worlding—always partial, situated, and divergent.

It is worth noting that the contributions gathered in this first issue do not offer clear-cut answers or definitive solutions. Rather, they seek to expand vocabularies and practices in order to explore other ways of designing

in and *with* a wounded planet. Taken together, these contributions demonstrate that planetary design is neither a new disciplinary canon nor an already established field, but rather an invitation to rethink design as a practice of terrestrial cohabitation. **D**

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