fragility • dynamic spatial practices • relational care • ecological regeneration • sociotechnical systems

Inhabiting Fragility.
A Sociotechnical Approach to Spatial Vulnerability

Gianluca Burgio (1), Deborah Giunta (2)

Abstract

This article explores fragility as a core concept for rethinking architecture and its relationship with the built environment. Challenging traditional notions of permanence and mastery, it reframes fragility as a generative force that fosters adaptability and care. Architecture is positioned as an evolving ecology, where human and non-human interdependencies shape spaces through continuous maintenance, repair, and negotiation. Case studies, such as the Ballarò market of Palermo, highlight how material and social fragility can drive innovation and resistance, revealing the adaptive capacities of precarious systems. Drawing on thinkers like Latour and Haraway, the article argues for an architectural practice rooted in relational care, flexibility, and responsiveness. Ultimately, it proposes fragility as a paradigm that transforms vulnerability into resistance, fostering dynamic coexistence and ecological renewal.

Affiliation:
(1), (2) Università degli Studi di Enna "Kore"

Contacts:
(1) gianluca [dot] burgio [at] unikore [dot] it
(2) deborah [dot] giunta [at] unikore [dot] it

Received:
16 December 2024

Accepted:
23 July 2025

DOI:
10.17454/ARDETH15.05

ARDETH #15

Fragility reveals that human survival is deeply entwined with ecosystems, materials, and non-human entities. It challenges the anthropocentric assumption that humans are the sole agents of history and progress.

Introduction

Fragility is not merely incidental to our existence; it is intrinsically tied to the possibility of inhabiting the Earth. We dwell within a spatial milieu that continually reveals its profound vulnerability, shaping the conditions under which life unfolds. The Earth, as a delicate and precarious entity, compels us to engage in an ongoing negotiation of our presence (Latour, 2015). Embracing the material fragility of the non-human world means recognizing intricate networks of co-existence – relations, both seen and unseen, that bind humans to the environment in ways irreducible to unilateral control (Latour, 2005). To inhabit this planetary space, therefore, means accepting vulnerability as a sustained concern (Latour, 2004), approaching environmental modifications with a deliberate and responsive attitude. Such an approach involves nuanced, continuous negotiation with the elements and life-forms we alter, so that Gaia may persist in nurturing conditions necessary for all species to endure (Latour, 2015). Environmental changes, spatial rearrangements, and design processes must confront these material realities, acknowledging that every intervention reverberates through multiple dimensions of vulnerability.

Fragility challenges the dominant Western perspective, which prioritises stability, control, and mastery over the natural world. It highlights the precariousness of all entities – human and non-human – and the interdependence sustaining life on Earth. Recognising fragility compels us to confront the limitations of the anthropocentric worldview that characterises much of Western thought. This dualistic framework positions humans as separate from and superior to nature, fostering an exploitative approach that treats the environment as a resource to be controlled or consumed. Moreover, the emphasis on stability marginalises the dynamic and vulnerable aspects of existence, promoting an illusion of dominion that neglects the delicate balances required to sustain life. By contrast, fragility reveals that human survival is deeply entwined with ecosystems, materials, and non-human entities. It challenges the anthropocentric assumption that humans are the sole agents of history and progress, acknowledging the agency of non-human actors – plants, animals, landscapes, and even inanimate objects – and their crucial roles in shaping the world. The fragility of these actors underscores the need for careful negotiation, collaboration, and care rather than dominance.

By embracing fragility, we move beyond Western dichotomies to adopt a relational perspective that values coexistence over control. This shift calls for rethinking how we engage with the vulnerabilities inherent in the systems we inhabit, highlighting that fragility is not merely a condition to overcome but a reality requiring ongoing attention and care. In this light:

> [...] notions of care and repair become central because appreciating the intrinsic fragility of worlds we are inhabiting allows us to illuminate another dimension of reparation: the maintenance of life through subtle and often 'minor acts' and processes of repair, healing, care, and reinventions by humans and non-humans, despite the ongoing, and possibly inevitable, experiences of breakdown
> (Papadopoulos, Puig de la Bellacasa, Tacchetti, 2023: 3).

This perspective aligns with contemporary critiques from fields like Science and Technology Studies and environmental philosophy, including Latour's Actor-Network Theory, which dismantles the human/non-human divide, and Haraway's multispecies entanglements, which advocate for "staying with the trouble" of interconnected living systems (Haraway, 2019).

Embracing fragility: Reconsidering the metaphysics of architecture

In the dazzling panorama of contemporary architecture, fragility finds very limited room. The buildings that are constructed and the narratives accompanying their emergence and existence remain predominantly focused and oriented around ideals firmly associated with stability and permanence (Sample, 2016). Manuals, specialised academic journals, and celebratory critical discourses assembled around so-called "iconic" works rarely acknowledge the inherently fragile nature that characterises material everydayness (Malterre-Barthes, 2022): the intrinsic vulnerabilities of materials which, together with us, contribute to constituting the inhabited spaces. Even less is said about the fact that both artefacts and people are truly

The buildings that are constructed and the narratives accompanying their emergence and existence remain predominantly focused and oriented around ideals firmly associated with stability and permanence.

If we observe the continuous restoration sites that keep churches, bridges, public housing blocks, or iconic buildings standing, we can notice how this ‘forteresse’ of presence is constantly maintained and negotiated.

transient beings on Earth, and that the equilibria we perceive as solid or definitive are in fact the outcome of constant negotiations with the very fragility of things. Consider, for instance, the cyclical and often unnoticed repairs required to preserve intact the finishes of a historical palazzo, or the regular substitution of components in a contemporary building equipped with advanced technologies. Without these hidden interventions, the structures would swiftly reveal their vulnerability. Neglecting this fact – the perpetual oscillation between permanence and impermanence – conceals the intricate network of diverse relations and carefully orchestrated interventions holding together our built environment. From an STS and Latourian perspective, architecture is never merely a stable object. Still, it emerges from a web of material, social, political, and technological relations (Latour, Yaneva, 2017), continuously reshaped by human efforts and non-human actions intended to preserve what would otherwise inevitably deteriorate.
Nearly forty years ago, Jacques Derrida, in a fruitful, critical dialogue with the architect Peter Eisenman, stated that architecture is “la forteresse de la métaphysique de la présence” (Derrida, 2015: 66). With this expression, Derrida signaled the persistence of a paradigm that, beyond any attempt at deconstruction, remained deeply embedded, and continues to ground architecture in elements deemed invariant: habitability as a requirement, the institutional foundations that establish its authoritativeness, functionality as the primary aim and, ultimately, aesthetic values as key, fundamental criteria of careful judgement.
Such a metaphysical configuration has long supported architecture as a bulwark of stability and firm endurance. However, if we observe the continuous restoration sites that keep churches, bridges, public housing blocks, or iconic buildings standing, we can notice how this ‘forteresse’ of presence is constantly maintained and negotiated. Each iron bridge, subject to corrosion, requires regular periodic interventions; each historic façade, attacked by atmospheric agents, is reinforced through intricate support lattices and innovative resins; each high-tech building, to remain efficient, requires updated software and regular frequent component substitutions. These practices show how the status of architectural permanence is

achieved through continuous and highly composite work, a veritable ‘assemblage’ of diverse intertwined human and non-human actors. From a Latourian perspective, therefore, architecture is not revealed as an ontologically stable entity, but as an Actor-Network that remains in equilibrium thanks to the innumerable acts of repair, care, and adaptation that continually support it, day after day.

Fragility and normativity

The dualistic approach in metaphysics separates concepts, such as humans and things, nature and culture, solidity and fragility. This separation creates a hierarchy of superior entities that exist in an ideal world, establishing an aspirational standard. In this framework, fragility is viewed as an imperfect, earthly counterpart to the ideals of solidity and permanence. Consequently, this way of thinking promotes the idea that what is considered “normal” is stable and solid, while all forms of fragility are to be rejected (Mèlich, 2024).
To understand how fragility may serve as a lever for the emergence of new forms of stabilisation, it is useful to draw on the concept of normativity proposed by Georges Canguilhem in his studies on health and illness (Canguilhem, 1978). According to Canguilhem, the ‘normal’ does not correspond to a fixed given or to a state of perfect, immutable functionality, but rather to a process of continuous renegotiation between an organism and the environment in which it lives. Far from associating normality with a predefined, static equilibrium, Canguilhem shows that every living being incessantly redefines its own internal standards in response to external conditions, including those fragile and changing. In this perspective, fragility does not represent a mere inconvenience or a deficit to be eliminated, but becomes an opportunity: it is the emergence of critical situations that drives the organism to create new norms of functioning, experimenting with solutions and acquiring alternative forms of stability. Thus, normativity is not the capacity to comply with standards, but the power to invent new standards starting from vulnerabilities encountered along the way.
This dynamic conception of normativity can be applied to architecture. Just as the Canguilhemian organ-

The “normal” does not correspond to a fixed given or to a state of perfect, immutable functionality, but rather to a process of continuous renegotiation between an organism and the environment in which it lives.

The privilege of permanence is consistently reinforced by the intentional oversight of maintenance practices.

ism does not merely replicate a given model of health, but redefines what it means to be "healthy" according to encountered fragilities, so the built space can be interpreted as a living system, capable of restructuring and renewing itself in response to its material, and social vulnerabilities. A crack in a wall, the deterioration of a coating, the obsolescence of a technological component are not simply signs of failure with respect to presumed perfection: they become stimuli to renegotiate the criteria of habitability, safety, functionality, and aesthetics of the space itself. Maintenance, repair, the replacement of materials, and the integration of new technological devices can thus be read as normative acts, moments in which architecture reinvents its own operational standards anew. Thus fragility is not the opposite of architectural stability; rather, it is the foundation from which new forms of stability emerge. Viewed from this perspective, the built environment is not an immutable monolith, but a dynamic system that redefines its own norms of existence engaging with its vulnerabilities.

Minor acts: The fragility of infra-ordinary

Moreover, the privilege of permanence is consistently reinforced by the intentional oversight of maintenance practices. These minor acts (Deleuze, Guattari, 1987; Papadopoulos, Puig de la Bellacasa, Tacchetti, 2023) – quiet, continuous, and almost Sisyphean in their repetitive efforts – operate upon the inherent vulnerabilities of buildings and urban infrastructures yet often remain hidden from public attention (Latour, 2021; Denis, Pontille, 2022; Sample 2016). They unfold out of sight, at unusual hours or in concealed spaces, addressing leaks in pipework, tightening bolts in support frames, cleaning drainage channels to prevent infiltration, or replacing tiny, corroded fixtures before they fail. These tasks do not proclaim themselves through grand narratives; instead, they whisper the fragile truth that structures cannot simply stand unchanged. By tending to the minute and infra-ordinary demands of matter, such acts negotiate daily with fragility, ensuring that walls remain upright, bridges hold steady, and facades stay coherent, even if these conditions must be continuously re-won through unacknowledged effort. Interpreted through a Latourian lens, maintenance emerges not as a mere technical operation on inert objects but as a practice of relational care, a form of 'repair' binding human and non-human actors in ongoing dialogue. The material properties of metals, wood, or concrete 'speak' through signs of wear and fatigue, while human caretakers respond by patching, substituting, adjusting, and renewing. This intricate interplay forms a network of connections – between architects, engineers, repair crews, climatic factors, chemical reactions, and structural components – all engaged in preserving the tenuous integrity of the built environment. Such care is neither heroic nor final: it is a perpetual process, a subtle choreography of responsiveness and adaptation in which fragility becomes the very condition that allows new modes of coexistence to be sustained.

Fig. 1 - Traces of improvised and entangled electrical systems among the stalls of Ballarò. Photo by the authors.

Ballarò, a Fragile and Invisible World

If we view fragility as a generative principle – something to be explored rather than hidden – it is important to seek it in places where its presence is not immediately obvious. This fragility quietly influences the structures we create and the relations that sustain them. For instance, we can find it at the core of ancient urban environments that have endured for centuries, survived wars, and navigated global crises, constantly reshaping themselves in the process.

From this perspective, we propose a concrete case of fragility. In the centre of Palermo, the Ballarò market emerges as a tangible example of how material, social, and normative instability can generate new forms of collective existence (Burgio, Giunta, 2023). For over a thousand years, this space has evaded fixity by intertwining human and infrastructural dynamics, turning precariousness into a driver of adaptation rather than an obstacle. This market is where stalls are set up with reclaimed materials, water and electrical infrastructures are improvised day by day, and regulations are continually reinterpreted (Fig. 1).

At a closer glance, the fragility of Ballarò materializes vividly: wooden crates, splintered and patched with duct tape, precariously stacked to display ripe tomatoes; rusted metal structures, once painted vivid colors, now weathered and corroded by time and humidity. Beneath the tarpaulins, strings of bare bulbs dangle precariously, swaying gently with the breeze, their flickering yellow glow illuminating scratched plastic trays. Each object here speaks quietly of improvisation, survival, and vulnerability.

Beneath the tarpaulins, strings of bare bulbs dangle precariously, swaying gently with the breeze, their flickering yellow glow illuminating scratched plastic trays. Each object here speaks quietly of improvisation, survival, and vulnerability.

In Ballarò, fragility asserts itself as a constitutive principle, an invisible force able to hold together what might otherwise dissolve. There is no model of stability to return to, no idealisation of a perfect past: rather, there is a constant flow of micro-renegotiations, repairs, redistributions, and negotiations that keep alive an ecosystem of commerce, itself highly precarious. From this perspective, fragility is the norm rather than an exceptional condition, a vital tissue of relations that remould themselves amid rubble and uncertainties, whether historical or contemporary. It is along these lines that Ballarò may be understood as a hybrid entity, akin to the figure of Cthulhu evoked by Lovecraft and reimagined by Donna Haraway in describing the Chthulucene, a time steeped in invisible, subterranean connections (Haraway, 2019).

In such a context, life persists not thanks to stable order, but in the interstices between devastation and regeneration, through unexpected symbiotic alliances among human beings, non-human organisms, and discarded materials. An equally potent image, proposed by Anna Tsing (2021), is that of the Matsutake mushroom, capable of thriving in forests disturbed by human action through mycelia that weave nurturing connections, fostering the capacity of ecosystems to adapt and regenerate after perturbations. Similarly, Ballarò is more than just a simple market; it is a mosaic of social, material, and technological elements. This microcosm responds to crises by deepening relationships between people and things, multiplying

Fig. 2 - On one side, the fragile structure of improvised supports precariously sustaining it all; on the other, the display of goods. Photo by the authors.

Fig. 3 - A ‘T’ oint that allows a small stall to exist. Photo by the authors.

Fig. 4 - Improvised water tanks. Photo by the authors.

adaptive strategies and practices (Fig. 2). Just like the Matsutake mushroom that emerges amid the ruins of history, the market does not falter in the face of challenges; on the contrary, it exploits them to reinvent itself. In this way, Ballarò emerges as a complex system of interconnected patches that, through their interweaving, create new possibilities for resistance and transformation within a context of global uncertainties. Here, fragility is not a weakness but a vital condition that allows the market's structure to survive and evolve. Each material component plays a role in a dynamic process of negotiation in which instability doesn't hinder life; rather, it nourishes it.

Fig. 5 - A part of the pipe's path. Photo by the authors.

The Opaque Story of an Entangled Pipe

Within this everyday theatre, the narrative we regard as emblematic takes shape, that of an artefact – an intricate system of pipes – ensuring access to water for the sales points. Simultaneously, it stands as a symbol of invisible negotiations and a tangible event of socio-technical systems that precariously uphold collective survival.

Like all fresh food markets, Ballarò needs for water, which is used extensively, especially by fruit and vegetable sellers and fish vendors. However, not all of them occupy a stable position in the market; indeed, their presence is often temporary, lasting only a few

The narrative we regard as emblematic takes shape, that of an artefact – an intricate system of pipes – ensuring access to water.

days or several months, and situated in ever-changing locations. These are precarious sellers improvising a small sales station that serves their equally precarious and fragile existence. In this highly dynamic and precarious context, access to water becomes particularly important, as it determines the possibility – or impossibility – of trade and thus of a subsistence economy. Therefore, The issue is how to gain access to water in order to position a precarious sales stall (Fig. 3).
Public water networks consist of rigid infrastructures with well-defined access points, which clashes with the precarious dynamism of these pop-up shops. Water capture tactics become essential to ensure the survival of these improvised vendors, and it is here that a parallel water infrastructure emerges, alongside the official and public one (Fig. 4).
Thus water flows through a network of flexible pipes and improvised branches, often joined with 'T' junctions and taps recovered or adapted on site. These extensions, reminiscent more of a tiny hydraulic landscape than a regulated infrastructural network, discreetly traverse the lattice of stalls, insinuating themselves between plastic crates and cardboard boxes, overcoming uneven pavements, wrapping behind curtains and tarpaulins (Fig. 5). The flow does not come from a single easily identifiable point: the

Fig. 6 - Partial reconstruction of the pipe's path. Photo by the authors.

1 – Our intent is by no means to justify practices that, from an institutional and regulatory perspective, are not always lawful or legal. Rather, we aim to shed light on how the management of market spaces and the positioning geometries of vendors are the outcomes of complex processes. The artefacts created by the inhabitants of Ballarò fit into a much broader context than might initially appear. The space of negotiation is constantly in flux, often oscillating between the lawful and the unlawful.

Ballarò functions as a social ecosystem in which official rules intertwine with alternative practices, creating a living yet hard-to-decipher urban fabric.

water seems to originate from a plurality of sources and connections, sometimes linked to pre-existing urban networks or informal supply systems. It proceeds towards the stalls through a continuous sequence of practical micro-negotiations. The result is a small hydraulic ecosystem, assembled almost daily, capable of adapting to the vendors' changing needs, where each new fitting constitutes an indispensable piece of this invisible, yet vital infrastructure (Fig. 6).

The story of the pipe is profoundly opaque, underscoring the limitations of certain cognitive procedures in fully grasping certain realities. We refer to it as a pipe not just to identify a physical object, but because this seemingly simple hydraulic metaphor can shed light on a range of practices, adaptations and vulnerabilities that would otherwise remain invisible. The pipe represents the emblem of a system created to support the fragile collective of market traders and ensure their survival. While the genesis of this artefact can be roughly understood, it remains largely mysterious. It emerges from negotiation dynamics that are difficult to penetrate from the outside, occurring in non-institutional settings and often at the edges of legality. This lack of transparency is what sustains the system: if the occasionally questionable subsistence policies were fully exposed, the entire mechanism would probably be dismantled[1]. Understanding these dynamics allows us to grasp the nuances of a system that operates at the boundary between visible and invisible, formal and informal. Ballarò functions as a social ecosystem in which official rules intertwine with alternative practices, creating a living yet hard-to-decipher urban fabric. In this context, architecture cannot limit itself to representing stability and permanence, but must recognise and engage with the fragility and impermanence (Tsing, 2017; 2021) that characterise the merchants' everyday reality. In recognising this, architecture itself must embrace evolving conditions and actively participate in sustaining these fragile configurations over time.

The spectacularisation of fragility

The concept of fragility, in the context of Ballarò, presents significant contradictions. The material fragility of these spaces is sometimes instrumentalised and presented as an identity element, transforming conditions of material, social, and economic precariousness into an aestheticised product, destined for tourist consumption. Dilapidated structures, uneven pavements, and signs of material and infrastructural decay become a brand attracting tourists eager for what they perceive as authentic experiences. Yet, this aestheticisation of decay not only ignores the real problems that precarious conditions reflect, but exploits them to construct a visual narrative favouring aesthetic consumption at the expense of improving material conditions. This phenomenon can be interpreted as a form of "exoticisation" of fragility, a process in which precarious and neglected conditions are almost entirely overlooked.

The display of material fragility is part of a broader process of symbolic exploitation, transforming precariousness – whose political and social causes are not always identified – into a commercial and marketable element, while local communities find themselves alienated from the environment in which they live, reduced to a stage for tourists. The *missing masses* (Latour, 1992) of the market, such as invisible workers, local economic dynamics, and relations between sellers and residents, are obscured, while the fragile surface becomes the only visible narrative element. This phenomenon reveals a tension between fragility understood as cultural identity and fragility as a real problem requiring acts of care and maintenance to ensure habitability (Burgio, 2024). In this context, Édouard Glissant's thought and his theory of opacity (Glissant, 1997) offer a particularly relevant interpretive framework to understand how mass tourism tends to simplify and commodify the cultural complexity of places. Opacity, conceived not as darkness but as resistance to transparency and simplification, contrasts with the reduction of complex meanings into a simplified, easily consumable narrative.

In the case of Ballarò, material fragility becomes the only visible narrative element and obscures the social dynamics characterising it.

In the case of Ballarò, material fragility becomes the only visible narrative element and obscures the social dynamics characterising it. This recalls a colonial logic, where symbolic elements such as folklore or architectural structures are extracted from their original context to meet the expectations of a global audience. To counter this drift, it is necessary to adopt an approach that does not merely exhibit fragility, but integrates it into a process of authentic care and

This would mean transforming fragility from a sign of marginalisation into an element of resistance and strength.

enhancement, involving the local community and restoring the market's original identity. This would mean transforming fragility from a sign of marginalisation into an element of resistance and strength, in a process of valorisation that regards the market not only as a tourist attraction but as a living space, capable of maintaining its authenticity and centrality for those who experience it on a daily basis.

Fragility as a generative paradigm for architecture
Recognising fragility as a generative paradigm challenges architecture to confront its assumptions about permanence and mastery. Instead of perceiving impermanence as a limitation, fragility reframes it as a productive force, encouraging a shift from designing for stability to embracing adaptive and responsive practices. Fragility becomes a lens through which architecture reimagines itself as an ecology, a living practice attuned to the interdependencies of human and non-human actors. This shift demands a reorientation of values, replacing the pursuit of control with care, repair, and responsiveness.
To embrace fragility is to accept that architecture is never static but always in flux. Maintenance and repair, often overlooked, demonstrate that permanence is not inherent but a result of ongoing negotiation. This awareness positions architecture as an act of stewardship, where impermanence fosters creativity and innovation. Fragility, as a capacity to adapt, challenges architects to design for resistance – not through rigidity but through flexibility and care – shifting the focus from immutable forms to evolving systems.
Fragility also reveals the social and political dimensions of architecture (Denis, Pontille, 2022; Malterre-Barthes, 2022; Burgio, 2024). It exposes the dependencies underpinning every structure, from the labour and materials sustaining it to the ecosystems it inhabits. The case of Ballarò exemplifies this: its improvised water systems and precarious stalls are not failures but evidence of adaptive ecologies that sustain collective life. Such practices demonstrate how fragility can foster innovation and community resistance, challenging architects to address the socio-political conditions that produce precariousness. Architecture, in this sense, becomes a site of negotiation, where vulnerability is neither aestheticised nor commodified but engaged as a transformative force.
Integrating the maintenance of fragility as a design method means shifting from an architecture of outcomes to an architecture of continuous process. The project does not seek to eliminate vulnerability; rather, it seeks to *choreograph* it, transforming it into a framework for collective learning where each act of repair serves as an important moment for knowledge and political engagement. Thus, fragility is not merely a condition of reality but a critical device that regenerates the discipline, redirecting attention from the finished object to uninterrupted care and the dynamic co-existence of its parts.
Acknowledging material and social fragility also calls for a relational approach to maintenance and repair. These practices, understood as continuous and situated processes, create networks of deep interactions between care practitioners and the objects of care (Mol, 2008). Fragile ecologies demand constant attention, as their equilibrium is often precarious and subject to shifts. Care cannot be reduced to rigid protocols but must remain flexible and responsive to evolving vulnerabilities. Each act of care becomes a negotiation, sensitive to context and attuned to the dynamic needs of fragile systems.
This perspective aligns with contemporary critiques by thinkers like Latour and Haraway, who emphasise the interconnectedness of human and non-human actors in shaping the world. Fragility fosters practices prioritising coexistence, repair, and care. This ethic of care encourages architects to design spaces that are sustainable and adaptable over time. The improvisational infrastructures of Ballarò, for instance, highlight how care sustains life through flexibility and resistance.
When, years from now, someone asks where the building is, the answer will point not to a constructed volume or a plaza, but to the relationships: the maintenance logs, the community toolbox, the hands that can replace a rusted bolt without an detailed blueprint. By then, practicing architecture will have become a process in which fragility is cultivated as a vital resource, continually regenerated by collective acts of care.
The role of the architect evolves within this framework. No longer a master imposing order, the archi-

Integrating the maintenance of fragility as a design method means shifting from an architecture of outcomes to an architecture of continuous process.

tect becomes a facilitator, mediating fragile relationships that define the built environment. This shift demands humility and an acceptance of uncertainty, recognising that architecture is subject to change and decay. Yet, this fragility is precisely where architecture's potential lies: supporting life through adaptability and care rather than permanence and control. Ultimately, fragility offers a relational and ecological foundation for architecture. It invites architects to reconceive the built environment as an evolving system, where impermanence fosters interconnectedness and adaptability. By placing fragility at the centre of architectural thought, architecture becomes a practice that transforms vulnerability into resistance, enabling coexistence and renewal.

References

Burgio, G. (2024), *Manutenzione simbiotica. La cura materiale dello spazio*, "AIS Design Journal", vol. 11, n. 20, pp. 86-98.

Burgio, G., Giunta, D. (2023), *La viscosità simbiotica e le ecologie delle pratiche spaziali. Dallo spazio domestico a quello urbano*, in *Actuar en la emergencia. La agencia del diseño durante (y después) de la covid-19*, Roma, Real Academia de España en Roma (AECID).

Canguilhem, G. (1978), *The Normal and the Pathological*, Dordrecht, Reidel.

Deleuze, G., Guattari, F. (1987), *A Thousand Plateaus. Capitalism and Schizophrenia*, Minneapolis, University of Minnesota Press.

Denis, J., Pontille, D. (2022), *Le soin des choses. Politiques de la maintenance*, Paris, La Découverte.

Derrida, J. (2015), *Séquence 2 - scène 2*, in Id., *Les arts de l'espace*, Paris, Éditions de la Différence, p. 66.

Glissant, É. (1997), *Poetics of Relation*, Ann Arbor, University of Michigan Press.

Haraway, D.J. (2019), *Chthulucene. Sopravvivere su un pianeta infetto*, Roma, Nero.

Latour, B. (1992), *Where are the missing masses? The sociology of a few mundane artifacts*, in W.E. Bijker, J. Law (eds), *Shaping Technology/Building Society: Studies in Sociotechnical Change*, Cambridge (MA), The MIT Press, pp. 225-258.

Latour, B. (2005), *Reassembling the Social: An Introduction to Actor-Network-Theory*, Oxford, Oxford University Press.

Latour, B. (2015), *Face à Gaïa. Huit conférences sur le nouveau régime climatique*, Paris, La Découverte.

Latour, B., Hermant, É. (2021), *Paris ville invisible*, Paris, Éditions B42.

Latour, B., Yaneva, A. (2017), *Give Me a Gun and I Will Make All Buildings Move: An ANT's View of Architecture*, "Ardeth", n. 1, pp. 103-111.

Malterre-Barthes, C. (2022), *Maintenance as Political Act*, in V. Grossman, C. Miguel (eds), *Everyday Matters*, Berlin, Ruby Press, pp. 193-203.

Mèlich, J.-C. (2024), *Essere fragili. Riflessioni sulla vulnerabilità*, Milano, il Saggiatore.

Mol, A. (2008), *The Logic of Care: Health and the Problem of Patient Choice*, New York, Routledge.

Papadopoulos, D., Puig de la Bellacasa, M., Tacchetti, M. (2023), *Ecological Reparation: Repair, Remediation and Resurgence in Social and Environmental Conflict*, Bristol, Bristol University Press, p. 3.

Sample, H. (2016), *Maintenance Architecture*, Cambridge (MA), The MIT Press.

Tsing, A.L. (2021), *Il fungo alla fine del mondo. La possibilità di vivere nelle rovine del capitalismo*, Rovereto, Keller.

Tsing, A.L., Swanson, H.A., Gan, E., Bubandt, N. (2017), *Arts of Living on a Damaged Planet: Ghosts and Monsters of the Anthropocene*, Minneapolis, University of Minnesota Press.