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## Detonating the Image. Nuclear Aesthetics, Hyperobjects, and the Ethics of the Future

**Abstract:** This paper examines the nuclear condition as a crisis of perception and reason. Firstly drawing on Joseph Masco’s notion of the nuclear uncanny and Timothy Morton’s theory of hyperobjects, it argues that deterrence operates as an aesthetic and epistemic regime that transforms catastrophe into management. Within this regime, the atomic bomb appears not merely as a political instrument but as the negative revelation or *akme* of European rationality—its unresolved *telos* of mastery without reflection. Here, reinterpreting Enzo Paci’s phenomenology, the paper proposes a *peacebuilding* reason counterpart that replaces the logic of deterrence with that of relation. Indeed, Paci’s distinction between negative function and the constant search for proper meaning allows for a reconstruction of rationality as dialogue, turning the suspension of destruction into a more accountable form of reflection. Finally, through Hans Jonas and Bernard Stiegler, the paper extends this phenomenological ethics to the future, outlining an intergenerational imagination capable of confronting new hyperobjects such as artificial intelligence. To “detonate the image”, in this sense, means to release perception from paralysis and recover the communicative vocation of reason.

**Keywords:** Phenomenology, Nuclear Aesthetics, Deterrence, Reason of Care, Peacebuilding

### 1. Introduction – Detonating the Image

This paper investigates how nuclear deterrence has rapidly transformed both political reason and the field of *perception*<sup>1</sup>. It examines the visual and imaginative regime that has emerged from the atomic age—what Joseph Masco would define as a sort of *nuclear uncanny*—and asks how phenomenology, particularly in Enzo Paci’s late writings, can help to think beyond it. Accordingly, by reading the bomb as a figure of reason’s exhaustion, the argument reconnects nuclear aesthetics with the unresolved *telos* of European rationality and outlines a phenomenological ethics of responsibility for the future. The starting point is simple: the bomb has already exploded. Not as an event, but as a *condition*. Starting from 1945, nuclear era has progressively become the atmosphere in which political imagination inevitably operates. Its latent visibility has faded, yet its logic continues to shape how fear, control, and reason are deeply organised. In this context, deterrence, conceived as the management of potential catastrophe, has turned the possibility of destruction into a permanent background of somewhat obscure governance and latent control. Here, the apocalypse survives as mere routine. In his works, Joseph Masco describes this transformation as a sort of always playing *spectacle of absence*, i.e., a political and most importantly affective infrastructure that replaces the event with its anticipation, actuality or accomplishment with potentiality<sup>2</sup>.

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<sup>1</sup> This paper has benefited from the support of AI-assisted tools (OpenAI’s ChatGPT) for language refinement and minor stylistic suggestions. All conceptual, argumentative, and interpretative choices are entirely the author’s own.

<sup>2</sup> Indeed, in *Atomic Health* (2010), Masco shows how nuclear weapons have normalized once-unthinkable forms of danger. He writes that “instant mass death, individualized cellular mutation, and radiation-induced disease have become normalized threats” (Masco, 2010, p. 133) and describes contemporary life as “a postnuclear for-

Indeed, the nuclear age produces not shock but dull repetition: catastrophe is endlessly rehearsed so that it will never actually occur. The resulting aesthetic is one of paralysis. The image of the bomb, circulating through film, media, and popular culture, becomes a tool of public sedation and intellectual anesthesia. Politics yields to maintenance; imagination collapses into prediction. Timothy Morton's notion of the *hyperobject* provides a parallel philosophical framework<sup>3</sup>. In a way, nuclear weapons, like the climate, exist on a scale that exceeds human natural and intuitive perception and potential foresight. They cannot be seen as objects. Rather, they can only be felt as rather oppressive conditions. This is the case because their temporality and long-lasting effects—measured in half-lives—extends far beyond human history, undermining traditional ideas of agency and moral accountability. The bomb thus exposes a structural disproportion between the magnitude of technical power and the fragility of human reason.

However, I believe, this crisis of perception conceals a deeper one—a crisis of *reason*. Indeed, the rationality that once promised *mastery* over nature now confronts its own limits. Deterrence, with its language of control and predictability, exemplifies the exhaustion of a form of thinking that can measure outcomes but no longer question its ends<sup>4</sup>. It is here that I argue the phenomenological perspective becomes essential. Rather than treating the nuclear condition as a merely political or ethical issue, Classic phenomenology exposes the structures of experience that make it intelligible in the first place. Indeed, Italian philosopher Enzo Paci approached the problem of the atomic bomb precisely in these terms. In some most prominent excerpts of *Relazioni e significati III* (1966), but not only, he read the bomb as the extreme manifestation of the separation between functional knowledge and meaningful life—the negative pole of a

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mation” in which the human body is reorganized at the cellular level by the residual effects of the bomb (Masco, 2010, p. 133). Moreover, in *The Nuclear Borderland* (2006), he argues that the Cold War transformed existential threat into a permanent background condition (see Masco, 2006, pp. 68–78), producing a population trained to live with an absent yet omnipresent catastrophe. Masco develops this further in *The Theater of Operations* (2014), where he describes national security affect as “a structure of feeling” that organizes everyday life (Masco, 2014, p. 18). Here the nuclear apparatus actually becomes a spectacle of absence: indeed, the state governs through the management of an unseeable event, mobilizing images of destruction without the destruction itself. Finally, in *The Crisis in Crisis* (2017), Masco characterizes this nuclear legacy as a conceptual and affective infrastructure that stabilizes political order by perpetuating crisis as an ongoing condition (Masco, 2017). Taken together, these analyses justify the expression “nuclear uncanny” as a concise way to refer to Masco’s central insight: after 1945, nuclear weapons cease to function primarily as material devices and instead become a disturbing atmosphere, i.e., diffuse, invisible, and constitutive of perception, emotion, and governance.

<sup>3</sup> Morton’s framework helps clarify why nuclear aesthetics produces paralysis rather than shock. Hyperobjects are “massively distributed in time and space” and thus exceed direct perception (Morton, 2013, p. 1), forcing experience into incommensurable temporalities (Everhart, 2017, pp. 1–2) and phenomena that exceed any local horizon of understanding (Lange, 2012). As Gidal notes, Morton’s dark ecology frames a sort of catastrophe as something that has already occurred, creating a recursive, traumatic structure of feeling (Gidal, 2011, p. 374). In *Ecology Without Nature*, repetition itself becomes uncanny: a strong rhythm of the “uncanny” returning “again and again” (Morton, 2007, pp. 178–179), while ecomimesis produces an “automatic” aesthetic loop (Morton, 2007, p. 112). Such recursive atmospheres mirror the nuclear condition as described by Masco: endlessly rehearsed catastrophe and the administration of an absence.

<sup>4</sup> The disappointment embodied by Robert J. Oppenheimer himself illustrates this exhaustion of reason. In public statements after 1945, he repeatedly insisted that the bomb had been developed in the hope that it might “end all wars” and inaugurate an era of peace, only to conclude that it had instead created a world ruled by fear (Oppenheimer, 1946/1953). Furthermore, Nolan’s *Oppenheimer* (2023) dramatizes this shift through the imagined conversation with Einstein, where Oppenheimer admits that the world “did change” on July 16, 1945, though not toward stability. The device meant to secure peace became the technological symbol of a rationality that could no longer control its own consequences.

rationality that had lost its human and thus *intuitive* orientation<sup>5</sup>. For Paci, the crisis revealed by the bomb was not accidental but *constitutive*: the European project of reason had reached its unresolved end<sup>6</sup>. Yet, as I want to claim here, this failure also pointed toward generative *renewal*.

This paper develops that insight in five steps. The first section reconstructs the aesthetic regime of deterrence. The second examines the bomb as a hyperobject. The third outlines how postwar European thinkers diagnosed the moral and political crisis of scale. The fourth applies Paci's phenomenology to this crisis, showing how reason may be rebuilt as relation. The final section proposes an ethics of intergenerational imagination capable of confronting the future as technical inheritance.

## 2. *The Nuclear Uncanny: Aesthetics of Deterrence*

If the introduction outlined the nuclear condition as an aesthetic and political environment, this section examines how that environment takes shape in *images*. The aim is not to offer a history of representation, but to understand how deterrence itself operates as an aesthetic system, i.e., a mode of managing visibility, emotion, and belief. In this sense, the nuclear image is not merely symbolic, but rather deeply constitutive. It produces the very habits of perception that make deterrence possible. What follows describes this transformation: how the representation of catastrophe becomes a technique of *control* and how this visual logic prepares the collapse of reason that phenomenology must later address. Indeed, the Cold War produced not only new weapons but new ways of seeing. Deterrence was never purely a political doctrine. Rather, it was a cultural technique that redefined how danger and security were experienced. The bomb's power resided as much in its images as in its material effects<sup>7</sup>.

As the already mentioned Joseph Masco holds, the United States and the Soviet Union transformed the possibility of annihilation into an everyday background of life, i.e., the nuclear uncanny, a state in which catastrophe was permanently imagined but never witnessed. The threat had to remain invisible to be effective. Its invisibility generated a distinctive aesthetic: a mix of

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<sup>5</sup> Indeed, Paci explicitly describes the atomic bomb as the exemplary object in which the crisis of modern rationality reveals itself. In *Relazioni e significati III*, he writes that the bomb is “the concrete example of an object” produced by human beings which then “turns against the human being who created it,” becoming the limit-case of alienation (Paci, 1966, pp. 330–331). He insists that the atomic situation exposes “an occultamento di ciò che l'uomo veramente può essere secondo la sua ragione” and demands a renewed responsibility grounded on a radical return to the subject (Paci, 1966, p. 331). Elsewhere he notes that nuclear war represents the “*massima alienazione*”, since passivity before the bomb means becoming “*oggetti*” or “*cose*” (Paci, 1966, p. 329). The bomb thus marks the point at which functional rationality, detached from its human meaning, manifests as a historical contradiction: a product of reason that negates reason itself.

<sup>6</sup> The link to Husserl is direct. In the *Krisis*, Husserl had argued that European reason had entered a state of a self-alienation produced by the triumph of a merely functional science detached from the lifeworld. Paci reads the atomic bomb as the historical concretization of this crisis: the moment in which objectivist rationality, having forgotten its grounding in meaning, returns to humanity as a destructive and unintelligible power. In this sense, the “end” revealed by the bomb is precisely the unresolved telos of Husserl's critique of modern scientific rationality.

<sup>7</sup> The culture of deterrence was shaped not only by geopolitical doctrine but by the unprecedented scale and visibility of nuclear testing. Between 1945 and 1963, the United States, the Soviet Union, and the United Kingdom conducted hundreds of atmospheric detonations across the Pacific, Kazakhstan, Nevada, and the Arctic, producing global fallout patterns and turning nuclear explosions into a recurrent spectacle (see Norris & Kristensen, 2010). This recurring display helped generate what contemporaries described as a climate of nuclear anxiety—a mixture of public fear, fascination, and morbid anticipation. Kubrick's *Dr. Strangelove* (1964) famously captured this collective psychosis: the bomb becomes at once an object of bureaucratic obsession, erotic excitement, and apocalyptic fantasy. The film's dark humour reveals a deeper cultural truth of the period: the nuclear holocaust appears terrifying and yet perversely seductive, a catastrophic imaginary that both frightens and irresistibly solicits the imagination.

fascination and denial. The first photographs of Hiroshima and Nagasaki already express this paradox. They show no explosion, only traces—ruins, shadows, and absence<sup>8</sup>. The bomb turned visibility into evidence of disappearance. Susan Sontag also observed that photographs of this kind of atrocities oscillate between revelation and awkward numbness: the more we see, the less we feel<sup>9</sup>. In the nuclear case, the saturation of imagery, meaning mushroom clouds, test films, and documentaries, produced not empathy but anesthesia. What was shown confirmed what could no longer be understood. Official Cold War imagery extended this anesthetic effect. Government archives, public information films, and newsreels choreographed destruction as spectacle.

The explosion was rendered sublime rather than terrifying, accompanied by scientific commentary and orchestral music. Paul Virilio described this as the logistics of perception: the militarisation of vision itself<sup>10</sup>. Indeed, the spectator was invited to see without suffering, to interpret the unthinkable as an index of progress. By framing catastrophe as controllable, these images converted fear into strange reassurance. Deterrence depended on this balance between horror and trust, distance and fascination. This aesthetic economy persists today in the digital representation of the apocalypse. As Masco has argued, the Cold War's affective regime has migrated into contemporary media. Films, simulations, and video games repeat the same pattern. In *Fallout* or *Metro 2033*, the world actually begins after the end. Catastrophe becomes livable, even playable, as it happens in these videoludic franchises. Survival replaces reflection. These worlds do not warn against destruction. Rather, they normalise it. They turn the unimaginable into an environment. This repetition of endings produces what Claire Colebrook also calls the aestheticisation of extinction: a culture in which the apocalypse is both omnipresent and meaningless (2014, p. 33).

Such representations show that deterrence functions not only through weapons but through perception. It is a politics of seeing that depends on managing what must remain unseen. By displaying just enough to sustain belief while concealing what would provoke resistance, deterrence operates as a regime of mediation. The image of the bomb becomes a screen, be it literally and metaphorically, that hides the collapse of reason beneath the spectacle of its mastery. The capacity to see replaces the capacity to think. This transformation also reshapes temporality. The constant anticipation of an explosion that must not occur produces a suspended present, a permanent *after* without closure. Günther Anders described this as the human

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<sup>8</sup> Lifton's work provides the clearest account of the paradox you mention. In *Death in Life* (1967), he shows how the first images of Hiroshima and Nagasaki captured not the explosion itself but its negative imprint: shadows of bodies burned into stone, i.e., a visual record made of absence rather than presence (Lifton, 1967). This supports the idea that the nuclear image emerges as a trace, not an event. Later, in *Hiroshima in America* (1995), Lifton describes the cultural response as a mixture of fascination and denial, arguing that the bomb produced a "symbolic aura" that both revealed and concealed its destructiveness, shaping a national psychology oscillating between horror and numbing (Lifton & Mitchell, 1995).

<sup>9</sup> Indeed, Sontag emphasizes that images of suffering have a double effect: they make violence visible while simultaneously dulling emotional response. In *On Photography* (2007), she explains how repeated exposure to images of atrocity gradually diminishes our sensitivity to them. In *Regarding the Pain of Others* (2004), she further argues that photographs of violence place viewers in an ambivalent position—drawing them closer to the event yet producing a sense of emotional saturation and distance. This oscillation between revelation and numbness helps to explain why the photographs of Hiroshima and Nagasaki, despite depicting overwhelming devastation, often generate a muted or mediated perceptual response.

<sup>10</sup> Virilio uses the phrase "logistics of perception" to describe the way modern warfare reorganizes vision itself. In *War and Cinema*, he argues that industrialized conflict gradually shifted from a war of objects to a "war of pictures and sounds," in which images become a tactical resource equivalent to munitions (Virilio, 1989, pp. 2–3). The cinematic techniques used to aestheticize destruction—editing, framing, musical scoring, controlled illumination—are not secondary embellishments but integral to military strategy. Virilio notes that the military "derealizes engagement" by turning combat into staged spectacle, producing what he calls an "aesthetics of disappearance" in which perception is militarized and distance is falsified.

condition of the atomic age<sup>11</sup>. The future is frozen; and action becomes impossible. The nuclear uncanny thus represents not only a psychological state but a cognitive structure. It trains reason to maintain equilibrium within paralysis, to perpetuate the crisis it was meant to resolve. Recognising this structure is essential to the argument of this paper. The aesthetic regime of deterrence does not simply reflect a political order—it reproduces it at the level of perception. By turning catastrophe into routine, it obscures the scale and meaning of human action.

This is the point at which the analysis must shift from images to structures, from representation to ontology. The next section approaches this shift through the notion of the hyperobject: a concept that names the disproportion between what we can see and what we have made, between perception and consequence.

### 3. *Hyperobjects and the Collapse of Scale*

The aesthetic regime of deterrence described above depends on maintaining a stable viewpoint. As seen, its images promise mastery through distance: the spectacle of controlled destruction reassures the spectator that catastrophe as far as it remains external. Yet the bomb actually undoes this assumption. It has no outside. Its effects, i.e., radiation, contamination, the long decay of matter, extend far beyond any horizon of observation. The nuclear condition thus forces philosophy to confront the limits of perspective itself. What happens when the world we inhabit exceeds the scale on which meaning and responsibility have been conceived? Timothy Morton’s concept of the *hyperobject* provides one of the most productive ways to approach this question. Hyperobjects are entities that “stick to us” while remaining beyond our grasp—massively distributed across time and space, indifferent to the boundaries that ordinarily define things (Morton, 2013). They cannot be localized or represented because they are the background conditions of perception. The climate, plastic waste, and nuclear radiation are all hyperobjects. They are not phenomena we observe; they are environments we inhabit.

However, Morton’s aim is not merely descriptive. He wants to show that the modern ideal of a centered observer is inadequate to the world it has produced. Indeed, hyperobjects reveal that human consciousness is embedded within processes that far exceed its sensory and temporal range. The bomb, in this sense, is the most visible form of *invisibility*. Seen phenomenologically, the hyperobject actually represents the inversion of intentionality. Instead of consciousness constituting the object, the object surrounds and constitutes consciousness itself. It defines what can be seen, felt, and imagined. Radioactive decay, for instance, unfolds on scales that transcend the human lifespan; its “half-lives” are geological, not historical. The bomb thus interrupts the ordinary rhythm of temporal experience—what Husserl called the flow of retention and protention—by introducing durations that the body cannot live through<sup>12</sup>. To perceive the nuclear is to encounter a temporal disproportion that no intuition can resolve. Morton calls this “the end of the world,” not as an apocalypse but as the loss of a shared horizon (2013, pp. 3–5).

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<sup>11</sup> Indeed, Anders insisted that the atomic age introduced a new structure of temporality: human beings now live in a world whose defining feature is the permanent possibility of self-extinction. In *The Obsolescence of Human Beings* and in later reflections, he describes 6 August 1945 as the beginning of a “world condition” in which humanity becomes contemporaneous with its own end—the first historical epoch whose horizon is identical with the prospect of collective annihilation (see Anders, 2016, pp. 112–113). For Anders, this marks the existential core of the atomic age: we inhabit a time that can cease at any moment and whose end is coextensive with our being.

<sup>12</sup> Husserl describes temporal experience as a continuous flow in which each moment is held together by retention (the just-elapsing) and protention (the about-to-come). This structure presupposes that consciousness can integrate events into a horizon of lived continuity (see Husserl, 1991 on this). The atomic bomb, however, exceeds the scale of embodied temporality: its destructive capacity unfolds at speeds and magnitudes that outstrip retention and overwhelm protention. Rather than being lived through, the event breaks the temporal arc within which experience becomes meaningful. In this sense, nuclear temporality suspends the very conditions that allow for a coherent flow of consciousness, producing a form of time that the body cannot inhabit but only imagine.

This disproportion has both epistemic and moral consequences. Rationality that measures success by prediction and control cannot function within such asymmetry. Deterrence, as a rational project, depends on the idea that outcomes can be calculated. Yet the nuclear hyperobject exposes the vanity of this belief.

The consequences of a single decision—whether to build, test, or deploy a bomb—extend into futures that no model can encompass. Jean-Pierre Dupuy expresses this in ethical terms: the only coherent form of anticipation is to act as if the catastrophe had already occurred (2013). We must imagine ourselves in the aftermath before the event. Dupuy’s paradox mirrors the phenomenological one: indeed, responsibility begins when mastery fails. This crisis of scale did not originate with Morton’s ecological thought. It defines the intellectual horizon of the postwar period. The thinkers who first faced the bomb intuited what hyperobject theory would later formalize: that the human relation to the world had become disproportionate to its own creations. Günther Anders saw this as the constitutive trait of the atomic age. We are smaller than our works, he considers, and “we are unable to visualise what we are actually producing” (2016, p. 100). The bomb thus revealed the structural lag between technical capacity and emotional comprehension. Anders’s Promethean shame captures the existential dimension of the hyperobject: an awareness of power that has escaped meaning. This is not merely guilt for potential destruction. Rather, it represents the recognition that the human no longer coincides with its own measure. Albert Camus, writing in the immediate aftermath of Hiroshima, interpreted the atomic bomb not as a sign of humanity’s triumph over nature but as evidence of a deeper absurdity at the heart of modern rationality. Rather than extending human mastery, the bomb exposed a civilization capable of preparing its own destruction in the name of progress. His appeal for a “truce” among nations was therefore not only political but philosophical: an attempt to restore a sense of proportion and to confront the absurd through solidarity rather than fatalism (see Camus, 1951).

Where Anders emphasized the temporal lag between making and imagining, Camus stressed the moral lag between knowing and acting. Both pointed to a paralysis of responsibility masked as control. Hannah Arendt developed this diagnosis in political terms. In *The Human Condition* (1958), she argued that the atomic bomb collapses the distinction between fabrication and action: between doing something in the world and producing an artifact external to it. Once human power extends to the planet itself, there is no longer a boundary separating creation from destruction. Arendt called this the “Archimedean point outside the Earth”—the illusion of a perspective from nowhere. What appears as mastery over nature is in fact the loss of a common world. Her analysis transforms the ontological disproportion of the hyperobject into a political one: the eclipse of plurality by process. Karl Jaspers responded to this eclipse by formulating what he called world consciousness. In *The Atom Bomb and the Future of Man* (1961), he argued that survival now depends on a new form of communication—a political reason grounded in mutual recognition rather than domination. Jaspers’s appeal anticipates the phenomenological call for intersubjectivity. The planetary scope of danger demands a planetary form of dialogue. For him, philosophy after the bomb could only mean the reawakening of conscience as a collective faculty.

In France, Maurice Merleau-Ponty offered yet another variation on this theme. In *Humanisme et terreur* (1947), he refused both moral quietism and technological optimism. The problem, he argued, was not the absence of values but the detachment of reason from perception. To rebuild politics, one must return to the world as it is experienced in common (see 1969, pp. 186–189). Later, in *Le visible et l’invisible*, Merleau-Ponty’s notion of the flesh of the world described precisely this interdependence: a world that is not an object before subjects but a field of relations that perceive one another (see 1968, p. 139). His phenomenology of reciprocity provides the conceptual bridge between the ontological insights of the hyperobject and the ethical renewal sought by postwar humanism. Taken together, these reflections form a

constellation around a single intuition: that the atomic age exposes a disproportion between human power and human sense. Anders, Camus, Arendt, Jaspers, and Merleau-Ponty each responded from a different angle—existential, political, or phenomenological—to the same rupture that Morton now rearticulates in ecological terms. The hyperobject names what these thinkers experienced: the emergence of an order of magnitude that destabilizes perception, temporality, and moral proportion.

However, for Enzo Paci, writing a decade later, this diagnosis becomes the starting point of a constructive project. The bomb reveals the crisis of European reason, but it also points toward its renewal. The disproportion that Anders or Arendt describe as paralysis can become, in phenomenological terms, the condition for reflection. If modern rationality has alienated itself from life, the task is not to abandon reason but to relocate it within relation. The next section turns to Paci's writings to develop this transformation: phenomenology as a *peacebuilding* practice that converts awareness of disproportion into the possibility of dialogue.

#### ***4. Phenomenology as a Peacebuilder: Enzo Paci and the Unresolved Telos of European Reason***

The reflections of Anders, Arendt, and their contemporaries all point toward a shared recognition: the atomic bomb did not simply change politics; it changed the structure of reason itself. Enzo Paci was among the few philosophers to confront this change directly within the framework of phenomenology. Writing in the 1950s and 1960s, he regarded the bomb as both an event in history and a revelation in thought, i.e., a moment in which European rationality became aware of its own exhaustion. As already mentioned, in *Relazioni e significati III* (1966), Paci seminally defines the atomic weapon as the negative pole of a science that has forgotten the world of life. Here, the bomb is not simply a technological threshold but a phenomenological disclosure: it reveals what reason becomes when it detaches itself from meaning<sup>13</sup>. As previously for Husserl, also according to Paci, the crisis of modern rationality does not lie in its excesses but in its detrimental abstractions. Indeed, science without significance becomes power without direction. The bomb actually materializes this full-blown detachment. It is the moment when instrumental reason confronts the consequences of its own autonomy. Paci's originality lies in treating the nuclear event not as an anomaly but as a *symptom*. The atomic bomb appears when the functional dimension of knowledge—the capacity to manipulate processes, calculate

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<sup>13</sup> Indeed, in *Relazioni e significati III*, he describes the atomic bomb as “the concrete example of an object” that turns against the human being who produced it, revealing the historical process by which scientific rationality, having lost its intentional grounding, alienates the very subjects who brought it into existence (Paci, 1966, pp. 329–334). This is why nuclear war appears to him as “the maximum alienation”, the moment in which human beings risk being reduced to Dinge, mere things, by an object that has become the bearer of an inverted rationality (Paci, 1966, pp. 329–330). A similar diagnosis also appears in *Funzione delle scienze e significato dell'uomo*, where Paci interprets the bomb as “the final metamorphosis of objectification”, the clearest sign that the sciences have lost their intentional vocation and now serve an alienated logic in which the subject is subordinated to the products of its own labour (Paci, 1963, pp. 204–206). The bomb thus discloses a crisis internal to reason itself: the collapse of the distinction between a rationality oriented toward human meaning and one reduced to technical power. In the *Diario fenomenologico*, this crisis appears in existential form: the atomic threat forces humanity to “choose life”, revealing both the fragility of reason and the possibility of its renewal (Paci, 1958/1979, pp. 62–63). And in *Il filosofo e la città*, Paci situates the bomb within a broader Marxian genealogy of alienation, identifying it as the “logical consequence of the reversal of the subject into the object”—the point where the products of human activity acquire the status of subjects and threaten to annihilate their makers (Paci, 1979, p. 126). Across these texts, the bomb becomes a revelation of what happens when reason severs its connection to lived meaning: it returns to us as a destructive, opaque, and inhuman power. Nuclear rationality is therefore not simply an episode in technological history; it is the negative truth of modernity's failed telos, a phenomenon that phenomenology must confront if it is to recover the possibility of a rational, human world.

reactions, and predict exact outcomes—becomes disconnected from the significative dimension—the shared horizon in which actions acquire meaning.

In *Funzione delle scienze e significato dell'uomo*, Paci insists that knowledge is always double: it is both operation and interpretation. When the latter is suppressed, operation turns into automatism. The bomb is thus the truth of a rationality that seeks mastery without relation. This separation had already been diagnosed by Husserl in the *Krisis*: modern science, he warned, achieves exactness by abandoning the lifeworld. Paci here radicalizes this insight. The crisis is no longer theoretical or cultural; it is existential and political (Paci, 1963, pp. 204–205). The atomic age exposes what the lifeworld becomes when functional reason governs alone: a world in which human meaning is secondary to technological coherence. This is why, for Paci, the bomb is not morally evil in itself; it is rationally empty. It is pure *function*. And this emptiness is precisely what makes it destructive. To understand the political implications of this critique, Paci introduces a decisive distinction: that between *function* and *meaning*. Functional rationality organizes reality through rules, algorithms, protocols. It is efficient but blind. Meaningful rationality relates each function back to the totality of human coexistence. It is interpretative, dialogical, and rooted in communication. The crisis of the atomic age emerges when function claims the status of meaning, i.e., when calculability becomes the measure of reason itself.

Accordingly, deterrence may be interpreted as the political form of this confusion. Indeed, deterrence is functional in the extreme: an equilibrium of forces that maintains stability by perpetually deferring conflict. But this stability rests on a fundamental abstraction. It isolates states, suspends politics, and replaces ethical criteria with probabilistic models. What is absent from deterrence is precisely phenomenological and thus existential meaning: the shared horizon in which risk and responsibility can be articulated. Thus, deterrence is not merely a military strategy. Rather, it is an *epistemic regime*<sup>14</sup>. Paci's response is not to reject functional rationality but to reintegrate it. Science must be placed back within the horizon of life. Rationality must acknowledge that it always already unfolds within relation. In this sense, Paci anticipates later critiques by Stiegler, Habermas, and contemporary phenomenologists of the technoscientific order. His proposal is not nostalgic but *reconstructive*: to rebuild reason as communication. Seen through this phenomenological framework, deterrence acquires a paradoxical significance. It is a suspension—a forced *epoché*—in which humanity halts its own self-destruction without yet understanding it. This suspension, however passive, opens a space for critique. It reveals the gap between function and meaning. In Paci's reading, the historical stalemate of the Cold War can become an opportunity: the moment in which consciousness recognizes its own limits. The task of phenomenology is to convert this passive suspension into an active one.

The *epoché* becomes a method not of retreat but of reorientation. It interrupts the automaticity of functional reason and redirects attention toward the lifeworld. Paci thereby transforms deterrence: what appears as paralysis becomes the precondition for renewal. The critique of instrumental rationality is not a rejection but a redirection — a recovery of the capacity to situate functions within meanings. Paci's *scienza politica* thus emerges directly from this transformation. Unlike traditional political science, which describes behavior through models and systems, Paci's political science is phenomenological: it begins from lived experience, intersubjectivity, and communication. Politics is not a competition of interests. Rather, it is a

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<sup>14</sup> This interpretation of deterrence as an epistemic regime has been explored in several strands of critical nuclear scholarship. Indeed, Carol Cohn famously showed how the technical language of nuclear strategy does not merely describe reality but produces a specific way of seeing and feeling, shaping experts' perceptions and moral imaginations (Cohn, 1987). Hugh Gusterson has argued that deterrence depends on a "culture of abstraction", in which weapons are conceived epistemically rather than materially, generating a split between lived experience and strategic reasoning (Gusterson, 1996). I believe such analyses support a phenomenological reading: deterrence functions by structuring the horizon of perception—what appears, what remains hidden, and what counts as rational within the nuclear age.

*space of meaning*. It is the shared practice of interpreting the world together. This leads Paci to formulate a “new humanism”. Not the humanism of mastery, autonomy, or abstract values, but a humanism grounded in relation. Humanity is not an essence but a practice: the ongoing constitution of a world in common. Phenomenology thus becomes political not by prescribing specific outcomes but by revealing the structures of coexistence that underlie any possible politics.

In this sense, Paci continues and transforms the work of Arendt, Merleau-Ponty, and Jaspers. But he does so with a distinct emphasis: whereas they ground responsibility in judgment or perception, Paci grounds it in communication. To exist is to communicate; and to communicate is already to assume responsibility for the shared world. It is in this context that Paci can describe phenomenology as a “peacebuilder”. Peace is not an ideal state to be achieved but a method of experience. It is the rational form of *coexistence*: a discipline of attention, listening, and mutual recognition<sup>15</sup>. Just as the phenomenological *epoché* suspends assumptions to allow phenomena to appear, peace suspends hostility to allow relations to emerge. Peace is a way of *perceiving*. Thus Paci rejects any opposition between realism and idealism. Peace is realistic not because it avoids conflict but because it acknowledges that conflict is meaningful only within a world held in common. Deterrence achieves stability by isolating subjects; peace achieves it by relating them. The work of phenomenology is therefore to train perception toward relation—to cultivate the attitudes that make coexistence possible.

The unresolved telos of European reason, as Paci understands it, is the reconciliation of universality and relation. The bomb exposes the failure of such reconciliation. But it also reveals its necessity. Reason must become care: not sentimentality but attentiveness to the world and to others. Care is the form that meaning takes when reason is situated within life rather than above it. This transformation does not negate the achievements of science. It reinterprets them. Science is no longer the sovereign of the world but its interlocutor. Rationality becomes reflexive—aware of its dependence on the lifeworld. And within this reflexivity, peace appears not as utopia but as the rational horizon of coexistence. Phenomenology thus becomes a political therapy: a practice that restores proportion between action and meaning. By grounding reason in communication, Paci retrieves what the atomic age seemed to destroy—the capacity to imagine a shared future.

### ***5. Ethics of the Future: Intergenerational Imagination***

The atomic age has made clear that human action now unfolds on scales that no single generation can master. Each technical invention becomes a form of inheritance, a delegation of power to futures we will never inhabit. This temporal asymmetry defines the ethical condition of modernity. As Jean-Pierre Dupuy observed, we act as though the catastrophe had already

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<sup>15</sup> Paci’s concept of “coexistence” is deeply indebted to Nicola Abbagnano’s reformulation of existential categories after *La struttura dell’esistenza* (1939). Abbagnano explicitly defines coexistence as the structural condition of human existence, rooted in the fact that the being of each entity (*ente*) is inseparable from its being-with-others. In *La struttura dell’esistenza*, he writes that existence is always “transcendence toward other entities,” and that the unity of the self is constituted only within the broader field of coexistence understood as “a common participation in being” (Abbagnano, 1939/2001, pp. 70–73). This idea becomes even clearer in Abbagnano’s postwar sociological writings, where coexistence is no longer merely an existential structure but the fundamental condition of intelligibility of social life. He characterizes coexistence as the “possibility of an unlimited number of relations between entities”, grounded in mutual understanding (*intercomprensione*) and shared participation in a common world (Abbagnano, 2001, pp. 10–12). In this sense, coexistence is not harmony but the disciplined practice of attention, listening, and reciprocal recognition—a relational field that precedes both conflict and agreement. Paci adopts this framework explicitly: in *Relazioni e significati*, coexistence becomes the normative horizon of political life, the space where meaning is generated and where critique becomes possible. Thus, when Paci insists that phenomenology must foster “forms of rational coexistence”, he is drawing on Abbagnano’s view that human existence is structurally co-constituted and that responsibility arises only within this shared horizon.

happened. To prevent disaster, we must think from the perspective of its aftermath. The challenge is not merely to foresee consequences. Rather, it is to imagine what kind of world will remain when we are no longer here. Phenomenology, because it begins from temporality, offers a unique response to this challenge. For Husserl, consciousness is not a series of isolated moments but a continuum of retentions and protentions, i.e., a structure in which the past endures and the future is always anticipated. In the nuclear epoch, this structure extends beyond individual life. The persistence of radiation, the inertia of infrastructures, and the ecological interdependence of all beings have turned temporality into a collective phenomenon.

The future is no longer an open horizon but a sedimented presence. To live ethically is therefore to assume responsibility for durations one cannot directly experience. Paci's thought finds its full resonance here. His "reason of care" does not rest on altruism but on a sheer phenomenological insight: the recognition that meaning is always co-constituted, that every act of thought presupposes a world shared with others. In *Relazioni e significati III*, he writes that the task of reason is to transform history into "communication" (1966, p. 269). The atomic bomb, which condensed centuries of scientific rationality into a single instant of destructive abstraction, showed how far we had drifted from this task. The response cannot be a moral appeal alone. It must involve a reconstruction of perception—an education of the senses and the intellect to coexist with the invisible scale of our own effects. The ethics of the future therefore begins as an aesthetic problem: how to perceive what exceeds perception. Deterrence has trained us to treat the future as an object of control, to calculate it as risk. Phenomenology reverses this attitude. It invites us to experience the future as relation: not as what will happen, but as what already addresses us. The unborn, the distant, and the nonhuman are not abstractions but interlocutors. Responsibility arises not from mastery but from attention. The philosopher's task, as Paci suggests, is to keep this attention alive—to make reflection a form of hospitality.

Hans Jonas's *Principle of Responsibility* articulates this insight in moral terms. When power becomes planetary, the imperative of ethics must shift from reciprocity to preservation (1984). Indeed, Jonas's imperative echoes Paci's new humanism, where reason is conceived not as domination but as communication. Both thinkers share a conviction that ethics must be grounded in imagination — the capacity to experience the absent. Jonas appeals to a "heuristics of fear," but Paci transforms fear into reflection. His phenomenology does not immobilise; it opens. It teaches that to imagine is already to care. Today, this horizon extends beyond the nuclear. Artificial intelligence, in its rapid and opaque development, embodies a new form of technological transcendence—an extension of power without corresponding reflection. Like the bomb, it transforms invisibility into norm. Algorithms learn, decide, and act in ways that no human can fully oversee. The AI system is thus another hyperobject: temporally deep, distributed, non-local, and yet constitutive of experience. Its autonomy magnifies the same disproportion that Anders and Paci diagnosed sixty years ago: the widening gap between the scale of action and the scale of meaning.

To interpret AI phenomenologically is to recognise it as a mirror of reason's unfinished telos. The machine does not surpass the human; it externalises the human's own dissociation between function and significance. It embodies the dream of reason purified from relation—the fantasy of thought without world. Yet, as Paci would insist, no function can sustain itself without meaning. The intelligence that forgets the lifeworld reproduces the blindness of the nuclear project: the capacity to operate without understanding. The danger is not that machines will think for us, but that we will cease to think phenomenologically—with attention to the relations that make thought meaningful. In this light, the ethics of the future becomes inseparable from the politics of sense. Deterrence once neutralised violence through mutual fear; algorithmic governance now seeks to neutralise uncertainty through prediction. Both produce stability by eliminating dialogue. Phenomenology resists this tendency by insisting that meaning is born in communication, not calculation. To perceive responsibly in the age of AI and nuclear persistence

is to accept that knowledge is never solitary—that every system of intelligence, human or artificial, depends on the shared world it interprets.

Such a perspective, I believe, also transforms imagination itself. No longer a faculty of projection, imagination becomes a mode of coexistence. It allows us to inhabit the temporal and technological magnitudes that define our epoch without succumbing to fatalism. This intergenerational imagination is not utopian but pragmatic: it sustains the continuity of sense across ruptures. To imagine the world after us is to extend perception beyond presence—to see the future as part of the lifeworld, not its negation. Stiegler’s notion of technics as care deepens this idea (2018). Every technology, he argues, is a form of tertiary memory: a means by which humanity exteriorises and inherits its own knowledge. The problem is not technology itself but its appropriation without attention. The same bomb, or the same algorithm, can transmit either destruction or responsibility, depending on how it is remembered. What phenomenology offers is the discipline of remembrance: the capacity to reflect on what we inherit before acting upon it. In this sense, Paci’s project of a *scienza politica* finds its contemporary translation in a politics of transmission—the art of handing down tools without surrendering sense. To live phenomenologically under these conditions is to accept that reason must learn to delay itself. In a culture that equates acceleration with progress, delay becomes resistance. The phenomenological suspension, the epoché, reappears here as a civic gesture: a pause that allows reflection before replication. It is this practice of slowness, not nostalgia, that defines Paci’s peacebuilding reason.

Peace is not a state but a phenomenological *method*, i.e., the rhythm of attention that keeps communication possible across distance and time. The ethics of the future, then, is not reducible to regulation or optimism. It is an ethos of perception: the commitment to remain sensitive to the unseen consequences of our acts. If the bomb inaugurated the age of disproportion, and AI extends it, phenomenology remains the art of proportion, as the effort to keep reason and world in conversation. To detonate the image, as this essay has argued, is not to destroy vision but to reopen it. The flash that once blinded becomes a source of awareness. In the ruins of mastery, another form of light appears: not the glare of revelation, but the slow illumination of understanding shared across generations.

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