When images outnumber encounters: Synthetic wilderness and ecological presence in an age of AI

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A growing share of what many people now call *nature* is encountered through screens rather than through the slow, vulnerable and multisensory conditions that shape ecological presence in lived environments. The rise of artificially generated wildlife and landscape imagery accelerates this shift by producing scenes that resemble ecological worlds while remaining detached from any specific organism, habitat, season or behavioural ecology. Such images circulate faster and more widely than lived encounters, and their aesthetic polish risks cultivating perceptual habits increasingly shaped by representation rather than by contact with places where climate, decay, time and other-than-human agency operate as active forces rather than visual themes. This article examines the emergence of synthetic wilderness within a historical moment already marked by declining human participation in local habitats, and argues that ecological ethics cannot be grounded solely in images, regardless of their realism. Ecological belonging arises instead through shared risk, patience, uncertainty and embodied attention to organisms and processes that resist curation and control. AI-generated nature should therefore be understood as a distinct cultural product rather than as a continuation of ecological encounter, and ethical commitments to multispecies communities must prioritize lived contact with the more-than-human world, including ordinary, unsettled and discomforting forms of co-presence.

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Certain environments convey a quiet impression that the world pays attention to itself, whether anyone is present to notice or not. During fieldwork in the Apennines and in the central Italian Alps, I learned to walk at a slower rhythm along narrow paths where the presence of other beings revealed itself not through spectacle, but through what remained after their passing. A shallow depression in wet grass suggested the warmth of a resting body that had already moved on; an abrupt withdrawal of birdsong near dusk conveyed shared alertness shaped by an unseen watcher; the faint scent of scat held in cold air disclosed diet and movement without any expectation of a human witness. In such places, relationships felt less like something gained through deliberate knowledge and more like something that unfolded through co-participation in a world that exceeded both my senses and my questions. They required patience, uncertainty and a willingness to proceed without verification. Ecological presence, in this sense, cannot be reduced to what is visible or confirmable.

Far from such environments, a different mode of encountering nature is expanding at a remarkable speed. Synthetic wilderness now travels far more quickly than ecological processes can form, recover or reveal themselves. Artificial intelligence produces wolves that appear to breathe in digitally softened air, forests that sway in winds that never touched a valley and oceans illuminated by the light of no particular season or latitude. Thousands of such scenes can be consumed in less time than it takes to wait beside a real clearing. Although many depict animals rarely encountered outdoors, none arise from tracks, dens, rivers, wounds or trophic exchange. They depend instead on the visual grammar of wilderness, while remaining detached from the slow conditions that sustain it.

Two distinct concerns arise here. One is epistemic: AI-generated nature material can contribute to false beliefs about animal behaviour, habitat conditions and ecological processes. The other is ethical, and it persists even when viewers recognize that the content is artificial. In this deeper sense, synthetic wilderness can recalibrate perceptual and affective habits by offering emotional satisfaction without the shared risk, uncertainty and causal reciprocity through which ecological belonging and responsibility are cultivated. As such imagery accumulates, imagination may begin to lean more heavily on curated representation than on weather, scent, distance or risk, and representational familiarity may begin to feel sufficient for many viewers. This concern does not deny that some mediated or simulated environments may support ecological reflection or empathy; rather, it questions the ethical consequences of AI-generated imagery when it circulates as a frictionless substitute for ecological encounter.

Across platforms such as TikTok, Instagram, YouTube and Facebook, AI-generated wildlife has settled into recognisable formats designed for rapid circulation. Many clips begin with familiar handheld or documentary-style aesthetics before shifting into movements no animal anatomy could sustain: octopuses gliding with an excess of limbs folding like cloth; bears bouncing across suburban gardens with an elasticity closer to animation than bone and

muscle; wolves holding prolonged frontal eye contact more characteristic of trained domestic dogs than of wild carnivores; or owls rotating their heads beyond vertebral constraint. While such material is often received as playful, humorous or astonishing, research suggests that hyperreal wildlife representations can influence expectations about animal behaviour and ecological context (Guerrero-Casado *et al.*, 2025).

This article focuses specifically on AI-generated and AI-augmented still images and short-form videos circulated on social media platforms, rather than immersive virtual-reality simulations, open-world games or virtual ecosystems, which involve different affordances, temporalities and ethical questions. Synthetic wilderness is not inherently harmful. It may support accessibility, education, rehabilitation or specialized modelling in ecological science (Frazier and Song, 2025). Ethical concern arises when it begins to displace or substitute for direct ecological experience rather than supplement it.

From an ecocentric standpoint, the value of wildlife does not arise from its capacity to be seen, recognized or emotionally gratifying, but from its autonomous existence within ecological relations that neither require nor benefit from continual human attention. Visibility is, therefore, a poor proxy for ethical relevance. As synthetic wilderness becomes easier to access, share and prefer, the slow, reciprocal learning found in lived environments may become peripheral to daily perception, with implications for how ecological value is formed, prioritized and defended.

In what follows, I explore three interconnected movements: the cultural emergence of synthetic wilderness; the psychological and ethical consequences of encountering wildlife primarily through representation; and the significance of ecological presence as a condition through which belonging within the living world may be sustained.

The emergence of synthetic wilderness

Human cultures have long represented the other-than-human world through cave paintings, carved figurines, pastoral poetry, totemic practices and, more recently, wildlife documentaries. These representations, however imaginative, were shaped by lived ecological encounters. Photographs require a body before a lens; drawings and carvings follow the form of actual organisms or landforms; and stories once travelled orally through environments that informed both rhythm and imagery.

The development of generative artificial intelligence introduces a different mode of nature representation. AI-generated wilderness does not arise through ecological immersion or sensory familiarity, but through the statistical extraction and recombination of visual patterns from large training datasets, guided by text prompts and stylistic inference rather than by any originating encounter with ecological processes. As a result, it can produce representations of animals, behaviours and habitat assemblages that do not correspond to any known ecological conditions, raising concerns for conservation communication and public perception (Guerrero-Casado *et al.*, 2025).

This difference is not merely one of degree. Wildlife documentaries may be

selective, edited or narratively framed, often with conservation or educational intent, but they remain constrained by the behaviour, elusiveness and resistance of living beings in particular places and times. Cameras must wait; animals may not appear; weather interferes; and environments impose limits on what can be shown. Even highly stylized documentaries retain an indexical relation to organisms and habitats that existed independently of the image. AI-generated imagery removes these constraints. It produces convincing scenes without accountability to behavioural ecology, seasonality, decay or refusal, and without any historical encounter anchoring representation to a living being or place. What is ethically distinctive, therefore, is not mediation as such, but the shift from representation *as a trace of encounter* to representation *as fabrication unconstrained by ecological reality*.

Social media platforms such as TikTok and Instagram operate not only as distribution systems but also as interpretive environments that shape how images are received. All imagery is interpreted within narrative and social contexts, and framing influences perceived meaning, affect and acceptable relations with animals (Riddle and MacKay, 2020). Visually appealing but ecologically misleading content can therefore shape public attitudes even in the absence of direct behavioural consequences, as shown in analyses of viral wildlife media (Clarke *et al.*, 2019). Generative AI intensifies these dynamics by increasing both the volume and perceptual plausibility of such imagery. Perceptual studies indicate that viewers frequently judge AI-generated images to be as natural – understood here as photograph-like and ecologically plausible – as camera-generated ones, even when measurable ecological features differ (Chen *et al.*, 2025; Göring *et al.*, 2023). Familiarity cues can override ecological plausibility, particularly where lived reference points are limited (Osińska *et al.*, 2025). In creative contexts, AI-generated landscapes often reproduce idealized visions of wilderness that privilege visual coherence and dramatic clarity over ecological complexity (Foka, 2025).

At the same time, direct ecological experience is declining in many industrialized societies. Soga and Gaston (2016) describe this process as an extinction of experience, through which reduced contact with biodiversity weakens ecological knowledge and concern. Where such contact is limited, mediated representation increasingly shapes ecological familiarity. Genovart and co-workers (2013) found that children recognized exotic charismatic species more readily than local native ones, indicating that representational exposure can outweigh proximity in shaping ecological awareness, a longstanding pattern shaped by media exposure which AI-generated content may intensify through sheer volume and algorithmic optimization. This perceptual shift has occurred alongside worsening ecological indicators, including substantial declines in monitored vertebrate populations since 1970 (WWF, 2022).

Synthetic wilderness expands within this widening gap between representation and encounter. It offers wildlife without plausible unpredictability, ecosystems without decay and habitats without ecological limits. Coral reefs appear perpetually unbleached; forests are rendered without deadwood or insects; and animals interact with implied observers in ways that field researchers rarely

encounter. Such depictions do not require ecological plausibility so long as they provide visual familiarity and emotional appeal. While synthetic environments may hold value for accessibility, education, rehabilitation or computational modelling (Frazier and Song, 2025), they cannot reproduce the perceptual, relational and ethical qualities that arise from encounters with living beings and places.

For ecocentric ethics, the concern here is not limited to misinformation or aesthetic distortion. It is also ontological, concerning what counts as nature, presence and relation in the first place. If synthetic wilderness becomes a dominant imaginative reference for what nature is or ought to be, ecological meaning risks detaching from the living systems that generate it, and from the responsibilities that arise from their independent existence.

Ecopsychological and ethical consequences

Ecopsychology maintains that perception is not a purely optical or cognitively detached activity, but a relational event emerging through the interplay of body, environment and the situated conditions of attention. In embodied encounters, the world becomes perceptible not only through what is visually present but also through uncertainty, resistance, and partial access. Holding breath on a fog-laden ridge, unstable footing on wet ground, or prolonged waiting without confirmation instructs through vulnerability and exposure rather than through clarity or completion. Such encounters reveal that the living world is not a tableau arranged for observation, but a field of relations in which the human is only one participant among many.

AI-generated environments operate without these conditions. In synthetic terrains, animals do not flee, weather does not injure and time does not stretch into waiting. Movement leaves no tracks; contact alters no habitat; and the viewer's presence produces no disturbance, alarm or ecological consequence. While research suggests that virtual nature exposure can offer short-term affective benefits for individuals with limited access to outdoor spaces (Chan *et al.*, 2023), such environments remain consequence-free perceptual fields. They place the viewer outside the ecological web even while presenting the appearance of immersion, because they remove friction, refusal and withdrawal, which are among the primary sources of ethical awareness in relations with other-than-human beings.

Philosophers of perception have long argued that experience is cultivated through situated participation in a world that resists full disclosure. Abram (1996) characterizes perception as an ecological event involving the entire sentient body rather than a disembodied mind, while Ingold (2000) describes it as a skilled mode of dwelling that unfolds through engagement with materials, weather, gradients, and organismic agency. Synthetic wilderness interrupts this mutuality by offering a world that aligns with perceptual desire rather than ecological constraint. Animals appear perpetually visible, expressive and approachable, whereas in lived ecologies other-than-human beings are often fleeting, peripheral or entirely unseen, with their autonomy grounded in their capacity to remain opaque, indifferent or absent.

This distinction carries ethical consequences that are not reducible to misinformation alone. Where ecological meaning forms primarily through visually gratifying representations, multispecies relationships may become progressively detached from the responsibilities that arise through lived relation. A world in which wolves appear ever-present and expressive may obscure the behavioural ecology that renders real wolves elusive, wide-ranging or locally absent. Forests rendered as perpetually lush may dull perceptual urgency regarding degradation, even while imagery proliferates. These effects align with extinction-of-experience research, which suggests that declining direct contact with biodiversity can weaken ecological knowledge and conservation-relevant attitudes when mediated experience becomes more emotionally rewarding than uncertain, multisensory encounter (Soga and Gaston, 2016).

Synthetic wilderness may also recalibrate affective dispositions. If images become the dominant substrate for ecological imagination, what is unseen, unheard or unresolved may begin to feel irrelevant, even though ecological presence often resides precisely in what exceeds perceptual capture. Rustling grass without a visible body, silence sharpened by cautious observation, or traces indicating nocturnal passage depend on the possibility of concealment and withdrawal. AI-generated environments rarely allow for such non-appearance. Without the possibility of absence, alterity risks being replaced by aesthetic familiarity.

Ecocentric ethics depend upon recognizing that other-than-human beings possess autonomy that extends beyond human perceptual, affective and epistemic horizons. Ethical humility arises when a being does not respond, cannot be located or withdraws, because responsibility becomes anchored in acknowledging that one's presence is neither central nor decisive. Synthetic wilderness, by contrast, centres the viewer through constant legibility and affective availability. As a result, the perceptual foundations of ecological ethics risk attenuation, as responsibility is displaced from lived relations toward representational satisfaction.

Defending ecological presence

If ecological belonging is shaped by the textures through which attention is formed, then perceptual ties with living places hold a value that representation cannot replace, and perhaps should not seek to replace. This is not a call to reject digital imagery or to deny its practical or creative potential. Digital archives can support ecological education and conservation awareness, and certain synthetic or virtual environments may provide psychological relief or assist ecological modelling and research. The ethical task, rather than rejection, is to maintain clarity between two distinct domains: representations of nature produced for human perception, and participation in ecological presence within worlds that are not organized around that perception.

Hood (2022) suggests that some online virtual worlds, particularly those involving role-play and consequence-bearing participation, may contribute to the cultivation of ecocentric dispositions by allowing players to co-inhabit

non-anthropocentric perspectives over extended periods of time. What is significant for the present argument is not the virtuality of such worlds *per se*, but the conditions they instantiate: sustained attention, narrative continuity, limitation and the possibility of consequence. These features distinguish participatory virtual worlds from the AI-generated imagery considered here, which circulates primarily as rapidly consumed visual content and offers no comparable field in which responsibility, restraint or reciprocal orientation can take hold.

Ecological presence is not confined to visual appearance. It may announce itself in sound, scent, trace or absence: the dull impact of wings passing unseen in darkness; the cessation of insect noise that signals a predator's passage; or a faint trail across thawing snow that reveals a body that moved in order not to be observed. In each case, presence is inseparable from partial concealment and from relations that do not fully disclose themselves. Much of what binds a person to a place arises not from what is readily offered to view, but from what withholds itself and requires patient, situated attention.

AI-generated environments rarely grant other-than-human beings the capacity to withhold themselves. Their underlying logic rewards legibility, recognition and affective clarity. Yet relational ethics depend upon forms of not-knowing: upon recognizing that other-than-human beings inhabit worlds that exceed human vantage and may remain invisible, indifferent or silent for extended periods. A forest is not only a collection of visible tree forms, but a dynamic mesh of growth, decay, microclimate, fungi, territorial movement, sound and silence. A river is not only a flowing surface, but also sediment, temperature, oxygen, organisms, history and absence. To treat ecological presence as equivalent to representation is, therefore, to mistake a process for its trace.

Defending ecological presence thus involves cultivating attentiveness to nearby habitats, even when they are modest, fragmented or shaped by human infrastructure. A hedgerow at dusk, a muddy path after rain, a vacant lot where ruderal plants reclaim compacted soil, or wind carrying salt across a coastal street do not require wilderness to foster ecological humility. They require time, a willingness to be inconvenienced and a readiness to be addressed by what exceeds visibility and control. The living world is not located solely in distant sanctuaries or spectacular landscapes; it persists in ordinary places where other-than-human lives continue alongside human activity.

For those who live primarily in urban environments, ecological presence may begin with acknowledging that the world is never only human. Birds navigate thermals between buildings, mammals trace routes along rail lines and verges, fungi bloom overnight in damp margins and plants occupy cracks in asphalt. These encounters do not replicate intact ecosystems and should not be romanticized as such, yet they remain genuine forms of co-presence through which ecological belonging may be sustained. They provide opportunities for counteracting the extinction of experience described by Soga and Gaston (2016), particularly when pursued with attentiveness to the independent lives involved.

Ecological presence is ethically distinct from synthetic wilderness because it calls humans into humility, restraint and attentiveness. Where synthetic wilderness offers worlds in which vulnerability is backgrounded and consequence suspended, ecological presence renders vulnerability and interdependence palpable. Where synthetic wilderness centres the viewer and adapts to their preferences, ecological presence decentralizes them within a web of agencies and constraints. Where synthetic wilderness collapses otherness into legible and emotionally gratifying forms, ecological presence sustains otherness as a condition for responsibility, because beings that cannot be fully known or managed can still command limits, distance and care.

If ecocentrism takes the intrinsic value of the Earth's communities of life seriously, and if movements such as Earth jurisprudence and the rights of nature seek to affirm this value in law and governance, then these commitments must be grounded in perceptual practices that keep the living world present as more than an image or concept. Whilst synthetic wilderness may supplement such practices and may occasionally invite curiosity or compassion, it cannot substitute for the slow apprenticeship to specific places and beings through which ecological responsibility becomes lived rather than abstract. To defend ecological presence is therefore to defend the conditions under which ethical regard for the more-than-human world may continue to grow: not on screens alone, but within the shared, vulnerable spaces through which life persists and upon which it depends.

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