necessarily anthropomorphizing them—is as a mode of visualizing the responsiveness of the Earth to our impacts.

Art has a significant role to play in the Anthropocene. What modernist film aesthetics might offer to the Anthropocene is an antihumanist means of imagining environments and of registering our effects on them. For Eisenstein, the reconciliation of humanity and nature through the construction of pathos presents idealized images free of contradiction, but even as they appear as harmonious, their utility, he argues, is that “they incandesce the striving inherent in the people to create a similar harmony in the actual reality of their social existence and environment.”24 But Eisenstein is ultimately an ambivalent figure for the Anthropocene, as for him, like other modernists, nature requires the creative productivity of the human subject to activate its elements and to unleash its capacities. Eisenstein retains the triumphalism of humanity’s technological mastery over nature. If the hubris of modernity was that it tried to liberate itself from natural limits, then what we are called to do in the Anthropocene is to make ourselves aware of when those limits push back or retroact. Latour calls this developing “sensitivity”—feeling the feedbacks of one’s own actions. Donna Haraway suggests “cultivating response-ability,” which entails avoiding an “unprecedented looking away” or “ordinary thoughtlessness” by concerning oneself with the messy entanglements of our troubled present.25 For Eisenstein, art is a “seismograph,” a remote sensing of the earth, an attunement between humanity and its environment, and can thereby register the geological or climatological forces that might otherwise exceed our narrow perceptual and sensory grasp.26


Ecodiegesis: The Scenography of Nature on Screen

by Jennifer Peterson

The Anthropocene is a concept that reveals monsters. Among its many horrors is the catastrophic realization that climate change is an unintended consequence of industrialization. Another horror is its unpredictable time frame, with traumatic backstories and impending deadlines lurching in and out of view. Then there is the dread of uneven suffering: the terrible knowledge that, while everyone will be affected, those harmed first and worst are not the humans who are most responsible for creating this condition. These are monsters of such
vast proportions we can hardly comprehend them, and we would not be off base in observing that some of their qualities are cinematic. Indeed, although the Anthropocene is more than a spectacle, as a discourse it bears structural and affective resemblance to both horror and melodrama. As I argue here, we can even find traces of the Anthropocene in the Hollywood musical. The Anthropocene is a kind of narrative structure: from its perspective, we understand that human stories are not autonomous but bound up with the history of earth and the environment. From this perspective, anthropocentrism is knocked on its side, and setting (or habitat) becomes newly prominent.

It is the contention of this short essay that film history can help us unpack the idea of nature as it developed in the Anthropocene epoch. How has cinema produced “nature”? Not just in stories about nature but in its most basic characteristic of rendering the world, cinema constructs a sense of the environment. Films set outdoors, particularly those staged in wilderness, frontier, or rural settings, have defined a range of possibility for imagining the natural environment. Each film’s diegetic world can be thought of as a dramatic ecosystem, and film can be considered a machine for envisioning a series of ecosystems. It is well known by now that nature does not stand outside of history. What we understand as nature—a densely signifying word that conventionally refers to the nonhuman realm of plants, animals, mountains, oceans, stars, space—has been displaced from its once-secure definition as pure material (subject to analysis by science) and has come to be understood as a category that is both material and a product of culture, or what Bruno Latour calls “nature-culture” and Donna Haraway refers to as “natureculture.” It has become a task of the environmental humanities to destabilize this combine.

In tracing the history of nature visualized on film, we can observe how conventional ideas about nature changed across the twentieth century. Although a clear break is not discernible, one measurable change is the shift between nature rendered as eternal to nature rendered as something endangered. Science historians Fernando Vidal and Nélia Dias call this the “endangerment sensibility,” which is a “particularly acute” way of understanding the world through an attitude attuned to preservation, loss, and disappearance. The endangerment sensibility can be traced through the history of film style, specifically by focusing on the history of mise-en-scène. Following the lead of climate scientists, we can begin to measure how the visualization of nonhuman nature shifted from eternal to endangered during the Great Acceleration after World War II.

The Scenography of Nature. Generally speaking, we can identify two broad tendencies in the representation of nature in film history: the analogical and the artificial. These tendencies correspond roughly to films shot on location versus films shot on a (sound)stage, although the relationship between realistic nature and artificial nature is

dialectical rather than a static opposition. While films shot on location remain committed to mimetic realism—similar to what Timothy Morton has described as a process of “ecomimesis” in literature about the environment—there are equally strong traditions of constructing artificial nature on the studio set, producing what I call “ecodiegesis,” or theatricalized nature.\footnote{4}

Shooting on location is a fundamental cinematic strategy for creating the sense of a concrete, objective world of landscapes, bodies of water, vegetation, and so forth (as well as cities, streets, and the built environment), and the history of this practice can be traced to the emergence of cinema in the 1890s.\footnote{5} Alongside location shooting, though, there is a parallel history of artificial renderings of nature on studio sets, which we might call the tradition of staged nature.\footnote{5} Cinematic renderings of artificial nature are indebted to the historical practice of representing woodlands, rivers, and mountains on theatrical stages, and the entire tradition leans heavily on artistic and technological tools.\footnote{7} Although critics and audiences alike have long praised the analytical or realist tradition for its fidelity to nature, the tradition of artificial nature has been much maligned. The time has come to historicize both cinematic traditions. By analyzing the scenography of nature—or ecodiegesis—I am not interested in the ways in which a film’s setting becomes like a character; in fact, I mean quite the opposite. Ecodiegesis is not nature in an anthropomorphized form; rather, it is the rendering of an environment or habitat, usually as a backdrop for a human drama (but not always—sometimes the characters are animals). The stage of nature is the place where the nonhuman material that constitutes the environment is envisioned as a cinematic ecosystem.

Often in the classical Hollywood era, these two tendencies were used together in the same film. Take, for example, the moment in \textit{Duel in the Sun} (King Vidor, 1947) when Jesse McCandles (Joseph Cotton) drives Pearl Chavez (Jennifer Jones) up to his family ranch, and the film shifts between long shots filmed in Arizona and close-ups filmed in the studio. The spatial disjunction is highly noticeable, which contributes to the film’s heightened melodrama. Laura Mulvey has described the technique of rear projection as cinema’s “clumsy sublime.” Mulvey writes that “the image of a cinematic sublime depends on a mechanism that is fascinating because of, not in spite of, its clumsy visibility.”\footnote{8} The “clumsiness” of these effects—a result of available technology, stylistic convention, and budgetary constraints—calls attention to the rendering of nature through artificial means. More important, the artificial nature tradition (whose


\footnote{8} Laura Mulvey, “A Clumsy Sublime,” \textit{Film Quarterly} 60, no. 3 (Spring 2007): 3.
techniques include more than rear projection) was not always clumsy but could also produce self-conscious effects.

André Bazin famously describes cinema’s essence as “a dramaturgy of nature” in his 1951 essay “Theater and Cinema—Part Two.” Although Bazin expresses his disapproval of what he calls “filmed theater,” proclaiming The Cabinet of Dr. Caligari (Robert Wiene, 1920) and Die Nibelungen (Fritz Lang, 1925) failures, his complex understanding of the “scenic essence” of drama (whether theatrical or cinematic) is less about the relative naturalism of a decor and more about the handling of setting and its effect on the spectator. Bazin praises Grand Guignol plays, for example, for producing in the spectator “self-awareness at the height of illusion, creat[ing] a kind of private footlights.” While an exploration of Bazin’s ideas about nature and cinema lies beyond the scope of this brief essay, his notion of the “dramaturgy of nature” can help us understand that a historicization of cinematic nature in the context of anthropogenic climate change need not focus on the human drama, but should look for places where the human drama is subordinated to the setting. I amend Bazin’s formulation slightly by using the term “scenography” (which can be defined as “the totality of visual creation in the stage space”), which is closely related to, but distinct from, the theatrical concept of dramaturgy (which refers more broadly to the dramatic shape

Figure 1. Set reference still, Brigadoon (Metro-Goldwyn-Mayer, 1954). From the collections of the Margaret Herrick Library, Academy of Motion Picture Arts and Sciences.


of a performed story). There are many places in which to trace the Anthropocene’s markers in film (including not only in location shooting but also in nature documentaries), but my discussion here offers a brief consideration of the foregrounded artificiality of cinema’s theatricalized nature.

**Brigadoon, an Anthropocene Musical.** One of the last and most fabulous of Hollywood’s staged nature sets can be found in Vincente Minnelli’s 1954 MGM musical *Brigadoon*. What could be more unnatural than the Scottish Highlands re-created entirely on MGM’s vast soundstages in Culver City? And yet what could be a more strangely evocative exploration of the postwar predicament of human dwelling on the planet than *Brigadoon*? It is through its scenography that this Freed Unit musical presents a vision of postwar artificial nature at its height, as shown in Figure 1. *Brigadoon* constructs an entirely artificial natural world that resides outside of historical time, a place to which we might like to escape, but a place always endangered by the threat of sudden annihilation.

*Brigadoon* begins with a magnificent two-minute sequence of tracking and crane shots that luxuriates in the film’s set. Mise-en-scène is foregrounded through the use of numerous theatrical devices: mists blow gently through the set, birds fly across it, water trickles under the bridge, and stage lights glide across it to indicate dawn. The two human characters who appear briefly here are ancillary to the setting. Not until we have been thoroughly acquainted with the film’s diorama-like landscape does the narrative begin.

The film’s plot concerns two jaded executives from 1954 New York (Tommy, played by Gene Kelly, and Jeff, played by Van Douglas) who get lost in the wilderness while on a hunting trip in Scotland. Stumbling through the mist, they come upon a remote village called Brigadoon, which magically appears for a single day once every one hundred years. Twentieth-century Tommy falls in love with eighteenth-century Fiona (Cyd Charisse) as they gather heather on the hill. Tommy learns the town’s secret: a spell was cast so that Brigadoon would remain uncorrupted by the outside world, leaving the village stuck in the (pre-Anthropocene) year 1754—only two days have passed since the “miracle” happened. The catch is that nobody can leave: if any villager crosses beyond its boundaries, Brigadoon will vanish forever. Tommy can stay with Fiona, but he will have to leave his world and shift to Brigadoon’s time. Despite several romantic dance numbers and a profession of love, Tommy reluctantly leaves Fiona and returns to Manhattan. Urban modernity offers no escape, however, as Tommy and Jeff drink their alienation into oblivion in a crowded bar. Tommy flies back to Brigadoon, where the lovers are reunited, destined to wake for one day every hundred years, forevermore. Tommy’s decision is presented as a return to premodern nature (and sexual consummation) that resembles a kind of death. Nature here becomes the site of refuge, a place where we might like to rest, if only we could find it. *Brigadoon*’s woodland artificiality is not a mark of its ridiculousness but a mark of its impossible

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11 Pamela Howard, foreword to *Theatre and Performance Design: A Reader in Scenography*, ed. Jane Collins and Andrew Nisbet (London: Routledge, 2010), xxiii. Bazin’s writing anticipates contemporary debates about scenography, a term that has gained critical attention in recent decades.
perfection—the longing for which, one reviewer wrote, was “a decision not hard to make considering the state of the outer world.”

The threat of Brigadoon’s evaporation hangs over the plot. Merely crossing the bridge can trigger a kind of nuclear reaction that will vaporize the place. When a disaffected young man named Harry Beaton (Hugh Liang) proclaims “I’m leaving Brigadoon! ’Tis the end of all of us! The miracle is over!” the villagers’ fear of annihilation motivates a chase number that concludes with Harry’s death but saves the village. When Tommy cries out “Oh, Fiona! When I think what could have happened! Your whole world . . . gone forever!” he might as well be describing the threat of nuclear apocalypse—or from a retrospective perspective, climate change’s civilizational threat. Raymond Bellour has written about an element he calls “panic” that can be found across Minnelli’s body of work. Bellour argues that in Brigadoon, two special forms of panic are defined: “the territorial limit that can’t be crossed” and the “made in America horror” of modern-day New York. A further panic articulated by the film, I would add, is the fear of nuclear war. Made in the era of nuclear testing and classroom duck-and-cover exercises, Brigadoon’s ghostly existence seems to hover around the edges of nuclear annihilation.

Brigadoon was originally envisioned as a location shoot. Gene Kelly later remembered: “This was our hope: that we would do Brigadoon as an outdoors picture the way John Ford would do a picture as a Western. We would do it as a Minnelli and Kelly musical, but do it outdoors.” When Kelly and producer Arthur Freed returned from a scouting trip in Scotland discouraged by the gloomy weather, they were assured that they could shoot on a substitute location in the mountains above Carmel on the central California coast. But ultimately, MGM production head Dore Schary decided the film would be shot entirely on the studio’s soundstages. This was done to maintain complete technical control over the production and to save money, but it also allowed Minnelli—a former department-store window dresser and theatrical set designer—to carry his highly theatrical style to its extreme realization, along with his team of studio collaborators, including art directors Cedric Gibbons and Preston Ames and cinematographer Joseph Ruttenberg. One of the most important components of the Brigadoon set was a giant scenic backing that curved around the stage like a nineteenth-century panorama, created by scenic painter George Gibson.

Through the use of forced perspective and other trompe l’oeil techniques, scenic

15 Davis, Oral History, 49, qtd. in Pomerance, The Eyes Have It, 197.
16 Ansco Color film stock was also used, instead of Technicolor, as a cost-saving measure.
17 See Pomerance’s account of George Gibson and Brigadoon’s scenic backing in The Eyes Have It, 209–218.
backings provide a convincing illusion that the diegetic landscape continues as far as the eye can see.\textsuperscript{18}

Numerous critics and spectators then and since have been displeased by the film’s artificiality. \textit{Time} magazine complained that “every plastic daisy on the village green [was] set in by hand, the sheep marcelled like chorus girls.”\textsuperscript{19} The film earned a less-than-impressive $2.25 million, compared with the $4.75 million earned by \textit{Seven Brides for Seven Brothers} the same year.\textsuperscript{20} \textit{Brigadoon} was out of step with its time in shooting entirely on soundstages, and the artificiality of its sets has often been blamed for its underperformance at the box office.\textsuperscript{21} While film musicals certainly have a robust tradition of theatricality, during the post–World War II era location shooting became an increasingly important production strategy, even in musicals such as \textit{The Harvey Girls} (George Sidney, 1946), \textit{On the Town} (Gene Kelly and Stanley Donen, 1949), and \textit{Oklahoma} (Fred Zinnemann, 1955). By this time most Hollywood musicals utilized a combination of location work, soundstage work, and process shots.

And yet there is arguably more at stake in \textit{Brigadoon}’s artificial illusionism than a failed attempt to reproduce nature. While the decision to shoot on MGM soundstages 15 and 27 may have been instrumental, it had powerful aesthetic effects. \textit{Brigadoon} tells us that that postwar nature is a kind of fantasy space, anchored in real geography but distorted and idealized; that nature is precious but endangered and could disappear at any time; and that film is a medium that fabricates and freezes nature in its ideal form, like a terrarium or a snow globe. This Cold War rendering of artificial nature can be seen as an ambivalent celebration of film’s ability to fabricate nature. \textit{Brigadoon}’s controlled outdoor world feels like a memorial: cocooning, denatured, sweetly melancholy, just the kind of habitat one might crave in the wake of the nuclear trauma casting its shadow over the Anthropocene.

\textsuperscript{18} Scenic backings were so large that they were often painted simultaneously by multiple artists; additional scenic painters who worked on \textit{Brigadoon} included Wayne Hill, Clark Provins, and Duncan Spencer. See Richard M. Isackes and Karen L. Maness, \textit{The Art of the Hollywood Backdrop} (New York: Regan Arts, 2016), 6.