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by

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With the ecomodernist environmental perspective emerging in the wake of the 2015 publication of *An Ecomodernist Manifesto,* many researchers have sought to critique the ecomodernists and their theories of separating humanity from nature, intensifying agriculture, expanding energy production, and relying on technology to resolve the environmental challenges of the 21st century. In this paper, I add to these critiques by examining the history of Stewart Brand, one of the coauthors of *An Ecomodernist Manifesto*, to highlight connections between his personal environmental perspective, his material impacts, and the ecomodernist project as a whole. By analyzing the discourse produced by and about Stewart Brand and the ecomodernists through a process of critical reading and comparison, I identify how Stewart Brand developed influence and credibility as an environmentalist while espousing an environmental perspective analogous to ecomodernism well before his association with contemporary ecomodernists. This

analysis demonstrates foremost that Stewart Brand's history can be traced through his associations with *network forums* – physical, digital, or rhetorical spaces within which disparate and even oppositional communities and their ideologies can be unified through the creation of new social networks, culture, and rhetoric. Because of this, I argue that the ecomodernist project can be better understood as a *network forum* seeking to expand its influence within environmentalism by merging the language and rhetoric of environmental movements with a post-environmental ideology.

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Introduction

In April 2015, a team of eighteen authors collectively published a document outlining their idea for an alternative to the environmentalist movement: ecomodernism. Titled *An Ecomodernist Manifesto*, the document establishes the set of principles that constitute the ecomodernist project (Asafu-Adjaye et al., 2015). At less than 8000 total words, the manifesto presents a distillation of at least two decades of writing on the topic of ecological modernization and environmentalism in the 21st century done primarily by Ted Nordhaus and Michael Shellenberger, two of the eighteen coauthors and the founders of The Breakthrough Institute, the think tank responsible for the manifesto's publication. The manifesto attempted to transform a branch of social theory into an actionable, ideological framework through which the authors believe humanity will best be able to meet the environmental challenges of the 21st century and beyond.

The publication of this manifesto did not pass unnoticed. Receiving both critical and complimentary responses in numerous publications (Holthaus, 2015; Monbiot, 2015; Nijhuis, 2015) the document wholeheartedly embraces "a different kind of environmentalism" (Holthaus, 2015, para. 2). Ecomodernism sets itself apart from "traditional environmentalism" with its support for nuclear energy and technology, and its rejection of the theory that there exist limits to human and economic growth (Asafu-Adjaye et al., 2015, p. 9). The Manifesto's proposed economic and technologic solutions to the unsustainability of modern life are a blend of economic and technologic measures. As such, *An Ecomodernist Manifesto* has led many, myself included, to seek to understand exactly what the manifesto argues by questioning its shortcomings and investigating the forces that shaped its creation.

In this thesis, I construct the foundations for a more comprehensive critique of ecomodernism as it is presented in *An Ecomodernist Manifesto* by expanding upon existing critical literature and situating the document within the broader context of the movements, ideas, and individuals that preceded it along with what has followed since its publication. This necessarily entails a critical reading and analysis of the text of the manifesto itself and a broader analysis of the individuals that have shaped the document and the beliefs they espouse. Combining these two elements will produce a better understanding of the role that ecomodernism suggests it should play in contemporary environmental discussion. Beyond the role that ecomodernism suggests for itself, this analysis builds upon extant critiques to provide a new perspective on the more implicit functions of the ecomodernist argument.

Examining the history of Stewart Brand, one of the coauthors of *An Ecomodernist Manifesto*, as well as the environmental perspective he argues for in his own work, I identify the important role he has played in both the counterculture of the 1960s and environmentalism. Through this examination, two aspects central to Stewart Brand's history emerge: his participation in the creation of network forums – interdisciplinary spaces within which new rhetoric, culture, and social networks can be generated and legitimized, allowing for connections between disparate and even oppositional communities to develop – and his long commitment to the idea of the Comprehensive Designer (a term that emerges from the work of Buckminster Fuller, an architect and social theorist popular among Brand and his peers during the 1960s) as an individual capable of translating knowledge into "tools" by combining the artistic, the industrial, and the economic without becoming a part of bureaucratic structures. From this, I argue that ecomodernism operates primarily as a network forum, not as a genuine effort to build an environmental social movement, and that this must be considered as a factor in the

development of future critiques of ecomodernism. This new perspective is significant when considered in relation to ecomodernism's attempts to both discredit and distance itself from traditional environmental perspectives, because it invites further questions about the underlying, potentially anti-environmental motivations of the ecomodernist project and how environmentalists should engage with ecomodernists.

Background

There is a growing body of literature that seeks to understand and critique *An Ecomodernist Manifesto* (Crist, 2016; Isenhour, 2016; Szerszynski, 2015; Kallis and Bliss, 2019), but there remains space for significant expansion and further research. Work critiquing the *Manifesto* is not limited to any specific field, discipline, or theory – it is highly interdisciplinary, including political ecology, the humanities, environmental sociology, and more. Taken together, the quality and depth of existing literature paints a vivid picture of *An Ecomodernist Manifesto*, as well as the ideas central to its formation, but more work can be done to understand the role that the rhetoric of the manifesto's coauthors as individuals plays in how environmentalists should make sense of the ecomodernist project.

Kallis and Bliss' 2019 article "Post-environmentalism: origins and evolution of a strange idea" is one of the most comprehensive critiques of the manifesto's authors to date. This article focuses on post-environmentalism, a term developed by Ted Nordhaus and Michael Shellenberger – two of the coauthors of *An Ecomodernist Manifesto* – through their critical discussions arguing against mainstream environmentalism and urging the creation of a "'post-environmental' movement which questions the prevailing assumptions of traditional environmentalism and develops new political strategies and alliances" (Buck, 2013). *An*

Ecomodernist Manifesto and the ecomodernist project are post-environmentalist because they are the culmination of Nordhaus and Shellenberger's efforts to create a "post-environmental climate movement" (Nordhaus & Shellenberger, 2011) that they imagined would be able to succeed where traditional environmentalism had failed. In building an understanding of how Nordhaus and Shellenberger developed their idea of post-environmentalism, Kallis and Bliss identify that it emerged at the theoretical level as they "combined intellectual ideas to ground their changing beliefs and political strategies that coevolved with the evidence they encountered…" (p. 7). As a result of combining a wide range of intellectual ideas on an *ad hoc* basis, post-environmentalism is rife with claims that Kallis and Bliss identify and dissect to point out flaws at the core of this movement.

First, post-environmentalism tries to view nature as both inseparable from humanity and as something that must be separated from humanity in order to protect it from the harms of technology, extraction, and growth. Second, post-environmentalists would have us believe that their position is objective, rational, and non-ideological, while mainstream environmentalism is overly subjective and dogmatic – a belief made all the more interesting through their decision to create and publish a *manifesto*. The third contradiction of post-environmentalism that Kallis and Bliss highlight is the claim that people's preferences are static and cannot be changed – part of Nordhaus and Shellenberger's reasoning for deeming other environmental movements ineffective – while simultaneously striving to alter people's opinions in favor of the ecomodernist's preferred policy solutions (Kallis and Bliss, 2019, p. 11).

Beyond the clear delineation of central contradictions within ecomodernism, Kallis and Bliss structure their paper around a methodological approach that is unique in the realm of

writing critical of ecomodernism. The application of their method, discourse analysis, sets the stage for this paper and many other potential investigations into ecomodernism's background. Discourse analysis will be discussed further in the "methods" section of this paper. When discussing the limitations of their study, Kallis and Bliss (2019) note that "we could have studied influential co-signatories of the *Manifesto* like Stewart Brand or Mark Lynas" (p. 3), highlighting two new avenues of research into the lives or Brand or Lynas. Interrogating the history of individual authors of the *Manifesto* is important for the development of a more complete picture of the ecomodernism, because the movement and its multitude of authors do not exist in a vacuum. Each of them has been shaped by other events over the course of their lives and carry with them a host of beliefs, ideologies, and notions of the world that in turn shaped their association with the ecomodernist movement and their contributions to its manifesto. As such, Kallis and Bliss have identified both a gap in the body of critical knowledge surrounding ecomodernism and an appropriate research method through which this gap can be closed.

Cindy Isenhour featured three critiques of how ecomodernists conceptualize technological progress in their 2016 article to better explain how ecomodernism exists in relation to environmentalism. First, ecomodernists turn to the gradual "decarbonization of the global economy" (Isenhour, 2016, p. 4) as evidence of the feasibility of decoupling. Decoupling refers to the process of separating economic growth from energy and emissions, primarily through the improvement of technology and energy efficiency. While a belief in decoupling is by no means exclusive to *An Ecomodernist Manifesto* or post-environmentalism (see Robert Fletcher & Crelis Rammelts' 2017 critique of the United Nations' Sustainable Development Goals), the ecomodernist movement happily celebrates the fact that "relative to economic growth, carbon pollution has been reduced" (Isenhour, 2016, p. 4) as a sign that society is moving in the right

direction. Isenhour challenges this assumption by demonstrating the difference between a decreasing rate of emissions relative to Gross Domestic Product growth, relative decoupling, and the ultimate net increase in emissions because of economic growth outpacing efficiency gains – something that can only be rectified through absolute decoupling (2016, p. 5). Challenging the efficacy of decoupling is nothing new either, with other authors (Fletcher and Rammelt, 2017) approaching the failure of absolute decoupling from a perspective broader than just ecomodernism.

Second, Isenhour identifies ecomodernism's ignorance towards the impact of rebound effects (2016, p. 6). Rebound effects refer to the phenomenon identified in Jevon's Paradox, whereby efficiency gains lower the cost of production, driving increased rates of consumption of a given resource (Gould & Lewis, 2021). Several authors associated with ecomodernism do identify the significance of rebound effects, but their implications of the effects differ from those of their critics (Isenhour, 2016).

The third critique that Isenhour raises – casting further criticism towards decoupling – has to do with how the extraction of materials and production of energy is geographically distributed. Mirroring Wallerstein's 1979 theory of world systems, Isenhour points out that the nations considered to be affluent and environmentally progressive have undergone shifts towards industries based around service, information, and technology (2016, p. 6). Instead of consuming less, this has only led these nations to source material goods from other countries, shifting the environmental burden of extraction and production to these locations (Isenhour, 2016: 6). This shift supports the idea that decoupling efforts can produce weak carbon leakage, "a process through which absolute environmental damage is not eliminated but is essentially displaced in a

highly unequal global market system" (Isenhour, 2016). This phenomenon is not purely a theoretical concern, as Isenhour (2016) highlights; analyses from the Organization for Economic Cooperation and Development have identified multiple cases in which environmental gains vanish nearly completely when the indirect flows from international trade are included (OECD, 2009).

In addition to their extensive research into the technical aspects of decoupling, Isenhour (2016) concludes by relating the theoretical background of *An Ecomodernist Manifesto* to a long history of Western thought about progress. Ecomodernism enables the status quo to be maintained and reproduced, requiring minimal systemic adjustment while obfuscating critiques of neoliberalism. According to Isenhour, these hegemonic economic positions of ecomodernism contribute to its dominance as a movement; doing nothing is easier than the doing something. This reticence to seriously challenge the hegemony of existing systems did not originate with the *Manifesto*. This uncritical treatment can be traced back before the formation of ecomodernism or post-environmentalism, to the theory of ecological modernization (Buttel, 2000). Ecological modernization theory (EMT) emerged as an independent social theory in the mid-1990s through the work of multiple scholars (Mol, 1995; Spaargaren, 1996), building upon earlier theories of economic modernization to discuss the role of technological innovation in solving environmental issues. Despite predating *An Ecomodernist Manifesto* by almost twenty years, the criticisms of ecological modernization theory bear remarkable similarity to the more contemporary literature critiquing the *Manifesto*, with the work of two of its authors – Ted Nordhaus and Michael Shellenberger - firmly cementing the connection between ecological modernization theory, post-environmentalism, and ecomodernism.

Criticisms of ecological modernization theory have approached the framework from a variety of angles. Prior work has highlighted ecological modernization's fixation on outlier case studies that support its claims, as well as its assumption of positive trends in environmental reform (York, 2004). From another angle, case studies examining the use of ecological modernization have identified its ability to enable capital to reassert its control over the environment by profiting from its own externalities (March and Saurí, 2013). Taken together, these critical examinations challenge the grounds on which EMT is founded.

The foundations of ecological modernization theory and by extension ecomodernism, have received repeated and robust critique from the environmental sociologist John Bellamy Foster. Through his work, Foster explores the connection between ecological modernization and its predecessor, modernization (Foster, 2012). reproduction of the Human Exemptionalism Paradigm – the notion that humanity exists both apart from and superior to the natural world – by ecological modernization (Foster, 2012). For Foster, the rejection of ecological modernization and its Human Exemptionalism Paradigm means applying a Marxian politico-economic critique as an alternative to EMT when addressing environmental problems (2012, p. 3). Foster's expansive critique does not merely challenge proponents of ecological modernization theory, it builds a well-reasoned counternarrative and argues that alternatives to ecological modernization exist and will produce substantially better environmental and social outcomes than ecomodernism.

While the total amount of literature about *An Ecomodernist Manifesto* itself may be small, the wealth of work critiquing the theories informing the ecomodernist position offers a picture of a political project that seeks to significantly alter how environmentalism operates. The

interdisciplinary nature of the body of work critical of ecomodernism lends itself to a wide array of methodological approaches for investigating the background and consequences of the Manifesto. In particular, the Kallis and Bliss (2019) investigation of post-environmentalism's history is a novel application of historical research methods to relate the work of two of the authors of *An Ecomodernist Manifesto* to the ideological position it establishes. Their work demonstrates the useful potential of this approach, opening the door for subsequent research on the role of the other coauthors of *An Ecomodernist Manifesto.*

Methods

By applying the same form of discourse analysis used by Kallis and Bliss in their 2019 article, I will expand further on the forces that motivated the development of *An Ecomodernist Manifesto* by zeroing in on another one of the more prominent authors who is deserving of an in-depth investigation, Stewart Brand. As a figure who has long been associated with environmentalism and culture of California's Silicon Valley, understanding Brand's personal history and contributions to ecomodernism and related movements will build a clearer picture of the context in which ecomodernism exists.

First, we must recognize and define what discourse is. To draw upon the 2019 Kallis and Bliss paper once more, "a discourse is material: we study the texts, oral statements, and biographies of the people articulating and embodying post-environmentalism in their lives, thoughts, and personal and intellectual journeys" (p. 3). Where their work focused upon studying the discourse of Ted Nordhaus and Michael Shellenberger, my work will turn this focus towards Stewart Brand. In so doing, I will be studying Brand's statements, publications, and associations throughout his life to demonstrate how he gained influence and espoused environmental thought

that overlaps greatly with what would come to be known as ecomodernism. I will also be looking at the work of the Breakthrough Institute, the think tank through which *An Ecomodernist Manifesto* was published, to further establish the similarity between Brand's personal beliefs and the ecomodernist movement at large. Limiting this to works about Stewart Brand does exclude the other figures associated with the *Manifesto*, but Brand's outstanding role in the wider context of environmentalism is deserving of dedicated inquiry.

By focusing on Brand's relationship with environmentalism and the ecomodernist movement, the goal is to "explain the personal and historical processes" (Kallis and Bliss, 2019, p. 3) involved in shaping ecomodernism. By narrowing the scope to just one author, unique characteristics and beliefs that Brand has contributed to ecomodernism may be highlighted and relevant connections to other groups and events made more apparent. In this case, just as with Nordhaus and Shellenberger, this process of discovery will place ecomodernism more squarely in a historical and ideological context that broadens our collective understanding of the role the project plays in modern environmentalism.

Within the scope of this paper, it is not possible to address all materials pertaining to Stewart Brand and the Breakthrough Institute. As such, material on Stewart Brand has been narrowed down to Brand's own book *Whole Earth Discipline: An Ecopragmatist Manifesto* and Fred Turner's 2006 biographical work *From Counterculture to Cyberculture* because of their direct connection to the subject and access to primary source material, respectively. Ecomodernist material has been limited to *An Ecomodernist Manifesto* and two publications from Ted Nordhaus and Michael Shellenberger: *The Death of Environmentalism* and a 2011 speech commemorating and elaborating on *The Death* titled *The Long Death of*

Environmentalism. By painting a broad picture of Brand's personal history and relationship with environmentalism, the relevant details and general trend of his contributions will be identified and can be questioned, paving the way for future work that will capture details originally missed. By illuminating elements of Brand's history and the ideas that shaped the *Manifesto* and the ecomodernist project, Brand's connection to both can be better understood. Analyzing Brand's relationship to the ecomodernist project will yield insight into the underlying ideologies of ecomodernism and contribute to a more critical understanding of ecomodernism's relationship to environmentalism.

Section one will address Stewart Brand's history, looking at the development of his personal beliefs through the groups he associated with prior to the publication of *An Ecomodernist Manifesto*. Knowing what Brand believes and how it led him to act throughout his life is necessary to understand why he became a prominent figure in American environmentalism. Section two deals with the ideology of ecomodernism, examining its origins with Ted Nordhaus and Michael Shellenberger's 2004 essay *The Death of Environmentalism* and comparing *An Ecomodernist Manifesto* with Stewart Brand's work in environmentalism.

Section One: Stewart Brand, 1960s Counterculture, and the *Whole Earth Catalog*

Before critically examining the relationship between Stewart Brand and ecomodernism, we must chronicle his rise as a figure in American environmentalism. By tracing the history of Brand through to the present day, a clear picture of the ideas, people, and social forces that shaped him can be developed. Multiple authors - Fred Turner, John Markoff, and Brand himself - are among those who have already sought to document and historicize the life of Steward Brand. The beliefs, experiences, and projects that have guided Brand through a life immersed in the 1960s counterculture and the Silicon Valley technology ecosystem that would evolve out of it (Turner, 2006; Cadwalladr, 2013; Harris, 2022) highlight the connections that ultimately bring Brand and the ecomodernists together for the publication of *An Ecomodernist Manifesto*. In the same manner that understanding the contributions of Ted Nordhaus and Michael Shellenberger to the ecomodernist movement yields critical questions about the impact of the movement (Kallis and Bliss, 2019), so too will understanding the contributions of Stewart Brand be essential in informing how we are to consider the role of ecomodernism in relation to the contemporary environmental movement.

Stewart Brand

In his own words, Stewart Brand is "an ecologist by training, a futurist by profession, and a hacker at heart" (Brand, 2009, p 21). To others he is "a huckster" (Harris, 2022), a "key figure in alternative culture of the US West Coast" (Murray, 2017), and a man renowned for having "a sort of genius for being in exactly the right place at the right time" (Cadwalladr, 2013). With such a broad range of descriptions, it leaves one wondering how Brand's work has led to these characterizations. To connect the wealth of stories about his life in a way that contextualizes his

impact requires that we return to the earliest days of Brand's life and trace his path as he rose to prominence in the countercultural, environmental, and technologist spheres.

Stewart Brand was born in the late winter of 1938 in the town of Rockport, Illinois. Growing up in a middle-class household, he was raised in an environment of technological optimism from a very young age with his mother playing a key role in fostering a sense of wonder towards outer space and the potentials of technology (Turner, 2006, p 42). His many experiences and the works he developed would see him bounce between communities and connect him with a wide range of people, from Ken Kesey of the Merry Pranksters to Jeff Bezos of Amazon.

Coming of age during the Cold War, Brand faced a series of ideological challenges as he strove to develop his own view of the world. His diaries from that time reflect a series of overlapping anxieties that lined his path to adulthood. Facing fears of nuclear annihilation, Soviet invasion, and an American working environment that threatened to strip him of his individuality, Turner (2006) notes that:

> For Stewart Brand, the national struggle to save America and the world from Soviet assault and nuclear holocaust was intimately entwined with his individual adolescent struggle to become his own person…For college students of his time, the imagined gray mass of the Soviet Army was a mirror image of the army of gray flannel men who marched off to work every morning in the concrete towers of American industry. (p. 42)

Navigating these tensions between individuality and bureaucracy led Brand to Stanford University, where he would study ecology and be exposed to systems theory, an emerging model for understanding the world that combined cybernetics and information theory, two fields that

had risen to prominence in the military-industrial-academic complex of the Cold War (Turner, 2006, p. 43). This exposure can be connected to Paul Ehrlich, a biology professor applying systems theory to the study of the natural world from whom Brand took a class while at Stanford (Turner, 2006, p. 44). Perhaps better known for his dire predictions regarding human population growth in he 1968 book *The Population Bomb*, Ehrlich had a direct and indirect impact on Brand, at one point even urging Brand to publish some of his work as a student (Brand, 2009, p. 21).

The importance of Brand's connection to Ehrlich is the introduction of systems theory into Brand's thought. At a general level, systems theory is concerned with challenging more traditional modes of scientific analysis, arguing that more importance ought to be placed on understanding phenomena in the context of the broader, complex systems they interact with (Montouri, 2011). Systems theory itself incorporates elements of cybernetics, a field developed primarily by the mathematician Norbert Wiener to explain the role of communications and feedback in controlling systems (most importantly, systems of machinery and society) (Turner, 2006, p. 22). To Brand, systems theory and cybernetic thought presented the answer to his anxieties – a way of moving beyond the Cold War American-Soviet dichotomy that had haunted him, a way of imagining that the choices of the individual were more important than ever before because of their role as a source of feedback in the vast systems of human life and evolution (Turner, 2006, p. 45).

Upon graduating from Stanford, Brand served in the US military for a two-year term as an infantry officer. Initially, Brand seemed to enjoy his military experience and even sought to become an Army Ranger. But as Turner notes, Brand's diary reveals how he grew less and less fond of the strict discipline of the military, ultimately withdrawing from the Ranger program to

serve the remainder of his term as a military photographer on the East Coast (2006, p. 46). For as much as Brand's diaries reflect a disillusionment with the rigid structures of the military, it was through these structures that he gained an ability to connect people and resources while effectively managing the resultant organizations. Stewart Brand's ability to draw on networks of people and resources also allows for a more critical reading of his military experience, "he haggled with bureaucrats and used his connections – including his sister's husband, a fast-rising commandant educated at West Point – to get better assignments" (Harris, 2022). In a 2009 interview with Austin Allen, Brand reflected on the impact of the military on his ability to lead, "when I came out of that [the military] and went off into a kind of freelance civilian world, I expected to be in charge of things and I knew how to be".

There are two components that make Brand's time in the military important to building an understanding of his beliefs – leadership and location. Brand's service as a military photographer would station him at multiple bases across the East Coast even the United States Pentagon. Critically, Brand served at Fort Dix, New Jersey, a location close enough to New York that he was able to spend his weekends fraternizing in the artist communities of Lower Manhattan (Turner, 2006, p. 46). One of the forces attracting Brand to these countercultural groups was the connection they shared with the system-oriented worldview of Paul Ehrlich. For example, the artists of the Lower Manhattan counterculture sought to challenge the traditional notion that art emerged from the artist's intentions, instead positing that art should be constructed from "systems of pattern and randomness" (Turner, 2006, p. 47).

During this next portion of his life, Brand rises in notoriety within the counterculture groups of the 1960s, and consequently alters his view of the world and his role within it. Associating with counterculture artists in New York City further entrenched his systems thinking

mindset while also introducing him to a related field, cybernetics, on a more personal level. Both systems thinking and cybernetics would go on to significantly guide Brand's beliefs and values. Even though these philosophies clearly have a noticeable impact on Brand's beliefs and actions throughout his life, he is not known primarily as a cyberneticist or systems thinker for reasons that will become apparent as we observe the interactions between further ideas that shaped his rise.

After the completion of his military service and subsequent discharge in 1962, Stewart Brand was now free to immerse himself much more deeply in the countercultural art community he had first encountered during his time at Fort Dix. No longer required to remain in one place, Brand traveled the country for the remainder of the 1960s, most consistently shifting between New York and the Haight-Ashbury neighborhood of San Francisco, now renowned for its role as a center of the '60s counterculture and "hippie" movements (Turner, 2006, p. 48). Outside of hopping between New York and California, Brand's other trips during this period would be influenced by the first of many groups he would find himself loosely associated with, the US Company.

The US Company, otherwise known as USCO, was a performance art collective founded in 1962 by the poet Gerd Stern and Steve Durkee in New York. Through the use of technology, music, and psychedelic drugs in their art, they sought to alter the consciousness of the audience and introduce a feeling of togetherness amongst themselves. Between 1963 and 1966, Brand travelled with them as a technician and photographer, producing images to be used in their multimedia performances and controlling the wide array of sound and lighting equipment used (Turner, 2006, p. 49). It is here, in the USCO, that Brand is exposed to the works of one of the most influential theorists in the countercultural milieu, Buckminster Fuller.

Buckminster Fuller was known for his contributions to many fields throughout the first half of the twentieth century, but he is most commonly referenced as an "architect-designer" (Stout, 2008[encyclopedia]). The popularization of the geodesic dome, a structure that would become emblematic of the many communes of the counterculture movement is attributed to him. Viewing the world as a series of interactive systems—another reflection of the systems theory already so influential to Brand— Fuller argued that traditional politics would lose their significance through the creation of a new type of person, the Comprehensive Designer (Turner, 2006, p. 56). These Designers would be able to synthesize the worlds of art, industry, economics, and research without becoming bureaucratic components of them, thus enabling them to "stand outside the halls of industry and science, processing the information they produced, observing the technologies they developed, and translating both into tools for human happiness" (Turner, 2006, p. 57).

It is this idea of a Comprehensive Designer that heavily influences the rest of Stewart Brand's life, from the 1960s to the present day. I argue that Brand's attempts to embody this hypothesized Comprehensive Designer, an influential figure translating collective knowledge into "tools", informs how he interacts with the many groups and individuals he has associated with. This perspective on Brand contextualizes his rise as a figure in American environmentalism. Through a lifetime spent gathering connections and ideas, Brand has built in himself a figure who can provide environmental insight without entertaining the perceived dogmas of a pure environmentalist. This places him in an advantageous position, allowing him to merge environmentalism and technology to argue for a more ecological society without challenging established political and industrial processes because he can draw from both fields without being viewed as a part of the structures responsible for controlling such processes.

At the same time Brand was associating with USCO, he began to associate with an even more well-known organ of the counterculture, the Merry Pranksters. The Merry Pranksters, originating in the home of Ken Kesey near Stanford, were less focused on the use of technology to make art. Instead, they directly championed the use of technology and LSD to alter human consciousness and social organization, serving as the nexus for the formation of a distinct subsection of the much broader "Counterculture" we are familiar with today (Turner, 2006, p. 63). This subsection, categorized as the New Communalists, was distinct from and opposed to the other significant faction, the New Left (composed of groups including the Black Panther Party and Students for a Democratic Society), in that they rejected the idea of participating in the existing structure of politics, favoring inward action that would change the world by changing how people thought and interacted (Turner, 2006, p. 64).

For Brand, Ken Kesey of the Pranksters became an important partner as they sought to merge the performance and art tools of USCO with the Prankster's notion of counterculture. This effort culminated in the famous 1966 Trips Festival, a multi-day, multi-media, mixture of music, LSD, art, and technology that would make the Pranksters and the psychedelic scene of San Francisco known to the public (Turner, 2006, p. 66). The Trips Festival offered Brand an opportunity to fulfill the role of Comprehensive Designer, creating an environment in which participants were connected through a "single, leveled social system" while simultaneously serving as a synthesis of New Communalist ideals with the technological products of the very same Cold War military-scientific-academic complex they existed to oppose (Turner, 2006, p. 67). Turner (2006) notes that it was through this experience that Stewart Brand was able to establish himself as "a countercultural entrepreneur – but in a deeply technocratic mold" (p. 67) and reaffirm his commitment to the ideal of the Comprehensive Designer.

We Are As Gods

With his newfound notoriety in the wake of the overwhelming success of the Trips Festival and changes in the New Communalist subculture, Brand saw an opportunity to fill a countercultural niche that remained empty. Towards the end of the 1960s, Brand saw that many of the New Communalists were beginning to withdraw from the cities to establish their own communes in the countryside, a physical manifestation of the sentiment that traditional politics were bankrupt and not worth engaging with, and when they got to their new communities they would be in need of "tools and information" (Turner, 2006, p. 68). With the help of those around him at the time, Brand capitalized on this niche through the creation of the *Whole Earth Catalog.*

The catalog was intended to connect the New Communalists to the ideas, information, and tools necessary to subvert traditional society and build alternatives to existing structures of politics and interactions by offering its readers access to a massive catalogue of the items necessary to build self-sufficient communities, books and publications espousing relevant ideas, and emerging technologies (Kirk, 2001). In addition, Brand's views on the environment would shape the format of these alternatives, placing a focus on feasible technology and relatively little on political theory and action (Kirk, 2001; Turner, 2006). Brand's environmentalism and his understanding of how humanity ought to conceive of itself in relation to nature is not hidden either, with the opening purpose statement of each *Catalog* reading "We are as gods and might as well get good at it" (Cadwalladr, 2013).

In understanding the importance and impact of the *Catalog*, Fred Turner stresses its role as a network forum – a place where members of many communities are able to gather, exchanging ideas, connections, and legitimacy, and develop new frameworks and social networks (2006, p. 72). By bringing together the largely libertarian ideals of the New

Communalists with emerging mainstream and alternative technologies, ideas, and products, Brand was able to construct a huge network capable of generating legitimacy, with himself and the *Catalog* as its center.

From its very beginnings, the *Whole Earth Catalog* reflected ideals that were more in line with the New Communalist wing of the counterculture than any others. Through its impressive array of information on topics ranging from self-sufficient communes to personal computers and its editorial publications, the *Catalog* was committed to the idea that individual lifestyle choices were much more important than the political activism of the New Left (Kirk, 2001). This focus, on building a world in which "lifestyle became the primary form of political expression" (Kirk, 2001, p. 11), imbued the *Catalog* with a sense of pragmatic libertarianism and distanced it from the New Left's attempts at more structured political engagement.

The libertarian bent of the *Catalog* is worth noting when understanding its impact because, ostensibly, the *Catalog* was meant to be a purely apolitical publication, serving its users with access to information and tools and not a political analysis of them. In addition, it cannot be overlooked that the *Catalog* was the recipient of numerous contemporary critiques during its publication, with other counterculture figures pointing out that – for a catalog claiming to offer a new, more holistic way of viewing the world – the initial editions were distinctly lacking any real discussion of race, women, and indigenous peoples (Turner, 2006, p. 98). These apparent contradictions did not go unnoticed by the *Catalog's* publication team either, with one former staffer writing a letter towards the end of its publication criticizing Brand's explicit restrictions on publishing art, religion, and politics in the *Catalog* while in reality publishing all three (Turner, 2006, p. 99).

Though the original *Whole Earth Catalog* was only in publication for four years, from 1968 to 1971, it left a lasting impact, an echo that would remain for years. Throughout the remainder of the 20th century, the legacy of the *Catalog* would be felt by way of numerous spin-offs, sequels, and continuations (*The Next Whole Earth Catalog*, *The Whole Earth Epilog, The Millennium Whole Earth Catalog, CoEvolution Quarterly* and more) that sought to provide updated access to tools, information, and ideas (Gillespie, 2018). Ultimately, the focus of the *Catalog* and *CoEvolution* morphed over time, losing the simple technology that appealed to New Communalist communards in favor of high-tech alternative energy systems and personal computers (Kirk, 2001).

Just as the catalog's role shifted over the last decades of the 20th century, so did Brand's. As early as 1970, the counterculture as a whole had begun to wane. For Brand, one of the most prominent figureheads of the New Communalists, this meant a gradual transition from his original countercultural audience towards the emerging cyberculture, a transition made easy because of the *Catalog's* preestablished merging of technology, ideology, and tools (Turner, 2006, p. 120).

Later in his life, Brand is very clear that, even though systems and cybernetics drive his interpretation of the world, he never fully commits to either as a way of life out of a deeply held sense of pragmatism. In his conveniently titled 2009 book *Whole Earth Discipline: An Ecopragmatist Manifesto* he goes so far as to declare "my opinions are strongly stated and loosely held…my opinion is not important; it's just a tool" (Brand, p. 21). Brand's pragmatic view of environmentalism and counterculture also reflects his internalization of Fuller's notion of the "comprehensive designer" and, although he would later distance himself from Fuller's

architecture and ideas (Murray, 2017), he retains the interdisciplinarity and ideological flexibility correspondent with a lifelong effort to immanentize within himself the Comprehensive Designer.

His legacy as a countercultural entrepreneur and environmentalist firmly established, Brand was able to make use of the credibility he had built by founding and participating in many of the groups that sought to revolutionize and individualize computer technology in the 1980s and '90s. One of the groups that would define Stewart Brand's continued relevance in the technological and environmental worlds was the Global Business Network, a scenario planning consultancy cofounded by Brand that capitalized on his past experience and allowed him to once again occupy the role of Comprehensive Designer, albeit in a more mainstream manner. In the very first paragraph of GBN's background alludes to this, stating that GBN "was founded in 1987 by five friends who envisioned a worldwide learning community of organizations and individuals – a network, connected by the open and generous exchange of ideas, 'out-of-the-box' thinking, and ruthless curiosity" (GBN, 2010).

In 2024, at 85 years old, Stewart Brand continues to serve as an important figure at the nexus of modern environmentalism and Californian technological thought and innovation. Exemplifying this, he continues to serve as the president of the Long Now Foundation (*Long Now Board Members*, accessed 2024) — a group dedicated to the promotion of "long-term thinking" as a more abstract form of environmentalism and as cofounder of Revive and Restore — an environmental group focused on the use of modern bioengineering and genetics technology in environmental conservation (Revive and Restore). Both of these organizations are built around the idea of integrating technology and environmentalism, a goal that is shared with the broader ecomodernist movement.

In this section, we have walked through some of the many events in the life of Stewart Brand, building an image of a man drawn to the counterculture of the 1960s in an attempt to resolve his concerns about his individuality, who would emerge as one of its most prominent and credible figures, a "countercultural entrepreneur" mixing together the forces of mainstream technology with the cybernetics and systems theory popularized by the New Communalists and developing an optimistic but pragmatic view of environmentalism as a result. With this working understanding of his beliefs and his role in the creation of several important network forums, it becomes easier to understand how the skills and experiences he possesses generated the context for his collaboration with the rest of the ecomodernists.

Section Two: Ecomodernism

In the previous section, Stewart Brand was introduced as a prominent figure in American environmentalism. This framing presents a sufficient method for interpreting the actions of Brand, but it does not fully explain his connection to *An Ecomodernist Manifesto* (2015), one of the core texts of the ecomodernist movement. To better understand this connection, its importance, and Brand's role as a co-author, we must extend our analysis to the ecomodernist movement. This section questions what the sources of ecomodernism are, including their 2015 manifesto, the beliefs they hold and arguments that they make, and the impact of the ecomodernist project. Answering these questions reveals that Brand's personal ecopragmatism is ideologically comparable to ecomodernism, and that both argue for a more limited view of environmentalism and environmental action than the current environmental movement. This similarity justifies why both Brand and the ecomodernists strive to attach Brand's credibility and influence to the project.

Contemporary Ecomodernist Thought

Although the ideas that have shaped the ecomodernist movement are varied, there are three texts central to understanding the beliefs espoused by this group of environmentalists – *The Death of Environmentalism,* an essay published in 2004 by Ted Nordhaus and Michael Shellenberger, *The Long Death of Environmentalism,* a 2011 speech given by Nordhaus and Shellenberger, and *An Ecomodernist Manifesto,* the 2015 publication that presented the "new environmental vision" of the ecomodernists (*About Landing*, 2024).

The Death of Environmentalism established the foundation of contemporary ecomodernist belief, providing the background necessary to justify the creation of a distinct

ecomodernist project. Nordhaus and Shellenberger make it clear that they are arguing for a new approach to environmentalism, going so far as to say, "we have become convinced that modern environmentalism, with all of its unexamined assumptions, outdated concepts and exhausted strategies, must die so that something new can live" (2004, p. 10).

In 2011, Nordhaus and Shellenberger presented a speech at Yale University further expanding on their beliefs, titled *The Long Death of Environmentalism*. This speech further solidified the position they attempted to carve out in their 2004 essay and began to shape their discontent with "20th century environmentalism" into a concrete framework of policy preferences and actions – the same framework that would be used in *An Ecomodernist Manifesto* only four years later. The speech is centered around Nordhaus and Shellenberger's "Twelve Theses for a Post-Environmental Movement", a list of lessons that they draw from past environmentalist movements as they make the case for a "post-environmental climate movement" (Nordhaus and Shellenberger, 2011) that should replace the environmentalism they claim has died.

Many of their twelve theses deal with the changes they argue are necessary to address the emergence of global warming as the preeminent concern of 21st century environmental politics. They make the case that we do not need more climate science, because a deeper understanding of the mechanisms behind climate will make it harder for us to contextualize its impacts, we must stop focusing on the role of individual behaviors in our climate strategies, and we must forget our attachment to renewable energy in favor of making energy cheaply available in order to improve the appeal of environmental energy policy (Nordhaus & Shellenberger, 2011). In addition to these, the tenth and twelfth theses stand out as fundamental to ecomodernist thought. Respectively, these theses propose that "there is no credible path to reducing global carbon emissions without an enormous expansion of nuclear power" and "the solution to the ecological

crises wrought by modernity, technology, and progress will be more modernity, technology, and progress" (Nordhaus & Shellenberger, 2011).

Nordhaus and Shellenberger's beliefs as established in *The Death of Environmentalism* and expanded in their subsequent speech are neither unique nor revolutionary in the realm of environmental thought. What stands out then is not their ideas, but the fact that they choose to frame their school of thought as "a new, post-environmental climate movement" (Nordhaus & Shellenberger, 2011). Since the earliest days of environmentalism in the United States, there has been a central split between environmentalists that embrace an anthropocentric view of nature (one with humanity as the primary focus) and environmentalists that focus more on ideas of preservation and conservation (Pak, 2011). This divide is especially pronounced when it comes to nuclear energy, a contentious technology for environmental movements since the 1960s (Pak, 2011). With this context, little of what Nordhaus and Shellenberger are saying in their discourse has not already been said and critiqued before.

An Ecomodernist Manifesto

Keeping in mind Nordhaus and Shellenberger's desire to create a post-environmental climate movement, *An Ecomodernist Manifesto* (2015) can be understood both as an optimistic document outlining its authors' belief in their vision of the environment and as a structural document informing the actions of ecomodernist politics based on Nordhaus and Shellenberger's prior writing. The decision to call it a manifesto suggests that the document is meant to be a political text and communicates to audiences that it must be read as such. Subsequently, understanding the ideas presented in the manifesto and how they are presented is crucial to interpreting the way that ecomodernists envision the world, and how they seek to change it.

The first line of the manifesto reads, "To say that the Earth is a human planet becomes truer every day" (Asafu-Adjaye et al., 2015, p. 6). This anthropocentric sentiment immediately positions the ecomodernists in alignment with the more technology-focused side of environmentalism and bears a striking resemblance to statements made by two of the coauthors, Mark Lynas and Stewart Brand. Lynas establishes a similar concept in his 2011 book *The God Species*, declaring that "Nature no longer runs the Earth. We do. It is our choice what happens from here" (p. 18). Stewart Brand has expressed the same view of humanity's relationship with nature within his *Whole Earth Catalog* by including the opening statement "We are as gods and might as well get good at it" (Cadwalladr, 2013) in every edition of the catalog.

This language frames the ecomodernist perspective on nature and humanity while also separating the movement from traditional environmental perspectives, part of accomplishing Nordhaus and Shellenberger's goal of creating a post-environmental movement. The notion that we must eschew the value that traditional environmentalism places on nature is central to ecomodernist thought and is an idea that has generated significant controversy. In an article discussing this phenomenon, Ned Hettinger points out that this belief confuses and distorts the causal influence of human action, misidentifying the large impact humanity has had on natural systems as evidence that humanity has become dominant over nature (2021).

The coauthors conclude the opening section by explicitly stating the connections between this new ecomodernist project, and their previous work. The influence of Stewart Brand is made clear through the direct statement that "although we have to date written separately, our views are increasingly discussed as a whole. We call ourselves *ecopragmatists* [emphasis added] and ecomodernists" (Asafu-Adajye et al., 2015, p. 7). Directly referencing Stewart Brand's beliefs reinforces the importance of studying his relevance to the ecomodernist movement and allows

for more solid connections to be made between *An Ecomodernist Manifesto* and Brand's own *Ecopragmatist Manifesto*.

Beyond this introduction, the manifesto is structured around seven sections, each of which combines an environmental issue with an ecomodernist analysis and recommended course of action. Several of these sections closely echo Brand's ecopragmatism, connecting his ideas with a more general ecomodernist explanation for why they matter to the movement. Comparing the overlap reveals that both Brand and the other coauthors are concerned most about issues of urbanization, modernization, energy, and technology. For example, section two of *An Ecomodernist Manifesto* introduces the topic of urbanization and relates it to the concept of decoupling, the theoretical process by which economic growth can be separated from increased environmental impact using technology. It is subject to criticism, as it remains the case that "our economies are growing faster than efficiency gains, resulting in net emissions growth" (Isenhour, 2016). The ecomodernists use this idea of decoupling as part of their advocacy for increasing the urbanization of humanity, stating that "cities both drive and symbolize the decoupling of humanity from nature, performing far better than rural economies in providing for material needs while reducing environmental impacts" (Asafu-Adjaye et al., 2015, p. 12). This perspective on cities and urbanization is a component of Brand's personal beliefs too, writing "environmentalists have yet to seize the enormous opportunity offered by urbanization. Two major campaigns shough be mounted – one to protect the newly emptied countryside, the other to Green the hell out of the growing cities" (Brand, 2009, p. 69).

Brand and the ecomodernists use this logic of cities as evidence of and as cause for decoupling as the reason for painting an optimistic picture of current environmental progress, concluding the second section of the manifesto with the line, "Taken together, these trends mean

that the total human impact on the environment, including land-use change, overexploitation, and pollution, can peak and decline this century" (Asafu-Adjaye et al., 2015, p.15). Decoupling is present throughout the entire manifesto and is celebrated as the force driving many of the positive changes the ecomodernists argue have begun to occur. The ecomodernist idea of "modernity" is central among these, with section three of the manifesto being dedicated to the idea that "the processes of decoupling described above challenge the idea that early human societies lived more lightly on the land than do modern societies" (Asafu-Adjaye et al., 2015, p. 16).

The ecomodernists take an interesting, self-contradictory position on how modernity ought to be understood. First, they celebrate the role of "modern technologies" for their ability to support increased living standards and larger populations, making these technologies central to reducing our reliance on the natural world. The manifesto elaborates even further, declaring that human reliance on the natural world is a problem to be solved through the introduction of technology, writing "whether it's a local indigenous community or a foreign corporation that benefits, it is the continued dependence of humans on natural environments that is the problem for the conservation of nature", followed by "Modern technologies, by using natural ecosystem flows and services more efficiently, offer a real chance of reducing the totality of human impacts on the biosphere" (Asafu-Adjaye et al., 2015, p. 17).

After this celebration of the efficiency of modern technologies, the manifesto attempts to respond to potential criticisms of such an optimistic view of modernity. The ecomodernists accomplish this by recognizing that "it is also true that large, increasingly affluent urban populations have placed greater demands upon ecosystems in distant places – the extraction of natural resources has been globalized" (Asafu-Adjaye et al., 2015, p. 17). Acknowledging the

global reality of environmental impacts would communicate an effort by the ecomodernists to identify the potential weaknesses of their movement, but this is unsuccessful as they go on to undercut themselves, "…those same technologies have also made it possible for people to secure food, shelter, heat, light, and mobility through means that are vastly more resource- and land-efficient" (Asafu-Adjaye et al., 2015, p. 17). This claim is not false, but the argument it is used in – that the development of these modern technologies ought to be accelerated even if they have had a known negative impact on natural resources – is not an environmental argument, instead it is a thoroughly pragmatic analysis.

Stewart Brand shares a similar celebration of modern technologies throughout *An Ecopragmatist Manifesto*. While *An Ecomodernist Manifesto* provides a vague definition of what exactly counts as modern technology, providing a list containing "urbanization, agricultural intensification, nuclear power, aquaculture, and desalination" (Asafu-Adjaye et al., 2015, p. 18) as examples, Brand invests more time into exploring the technologies he believes are necessary for modern environmentalism and have been overlooked by traditional environmentalists. Brand's own *Ecopragmatist Manifesto* from 2009 dedicates two chapters each to urbanization and genetic engineering, one chapter dedicated to the benefits of nuclear energy, and one chapter exploring the potential for the use of geoengineering (large-scale projects to mechanically alter Earth's climate systems). Out of all these technologies, Brand and the ecomodernists are most focused on expanding the role of nuclear energy as a power source.

A common theme across all the ecomodernist texts discussed, nuclear energy is seen by the ecomodernists as one of the most powerful tools for achieving environmental goals. The role of nuclear energy in environmentalism has long been divisive (Pak, 2011), but in the case of the ecomodernist movement, it is important that we consider how they contextualize energy. For the

ecomodernists the primary energy concern is that "plentiful access to modern energy is an essential prerequisite for human development and for decoupling development from nature" (Asafu-Adjaye et al., 2015, p. 20). In this regard, the ecomodernists again demonstrate that their concerns are more about human development than the environment, a perspective anathema to traditional schools of environmentalist thought, but the logic remains internally consistent with the ecomodernist belief that further progress of humanity through the modernization process is necessary to protect the environment.

Developing a richer comparison between the ecomodernist movement and the work of Stewart Brand as an individual is useful in answering two of the questions posed at the beginning of this section. Ecomodernist thought is built around the veneration of modern technology and the forces of modernization, the belief that humanity – for better or worse – is now in total command of Earth's ecosystems, and a rejection of the traditional environmental notion that humans are connected to nature. Within this perspective, elements of the Comprehensive Designer can be seen through the focus on humanities ability to effect near total control over the environment through technology and modernization, further connecting ecomodernism to Brand's own history. This school of ecomodernist thought directly descends from Ted Nordhaus and Michael Shellenberger's *The Death of Environmentalism*, but indirect connections to the contemporaneous idea of ecopragmatism provide even more context for understanding ecomodernist principles. Since the publication of *An Ecomodernist Manifesto* in 2015, the source of official ecomodernism and thus the main site through which ecomodernists have worked to have an impact, has been an organization known as the Breakthrough Institute. This provides the source for investigating how the ecomodernists have tried to turn their theory of post-environmentalism into action.

Although it was founded in 2007, the Breakthrough Institute has become the core of the current ecomodernist movement because of its role in publishing *An Ecomodernist Manifesto* in 2015. The Institute is a think tank, created by Nordhaus and Shellenberger to pursue new environmental strategies in the wake of *The Death of Environmentalism* concluding that 20th-century environmentalism was no longer relevant or applicable (*About Landing*, 2024). What makes the institute a unique think tank is its connection to the broader political sphere. Data reveals that the Breakthrough Institute has played a vanishingly small part in lobbying for policy interests and their record of donating to individual politicians is inconsistent (OpenSecrets, 2024). Instead, the institute sponsors ecomodernist environmental events and publishes the Breakthrough Journal, in order to update and develop ecomodernist thought and "get in front of environmental debates and take them to new places" (*About Landing*, 2024).

To the ecomodernists, the Breakthrough Journal "exists to modernize environmental thought for the 21st century" (*Breakthrough Journal,* 2024). It is through this journal that the ecomodernists generate much of their impact, publishing articles, essays, and editorials responding to criticisms and developing a body of ecomodernist ideas that extends beyond their manifesto. By "challenging conventional wisdom" (*Breakthrough Journal*, 2024), the ecomodernists manage to take controversial stances on just about every topic discussed in contemporary environmental discourse. A selection of article headlines from the current issue of the journal includes "Do We Have A Moral Obligation to Abolish Wilderness?", "How climate change communication came to signify nothing", "There Is No Climate Tipping Point", and "There Are No Villains in Climate Change" (*Breakthrough Journal*, 2024). Contrarian and sensational, each issue of the journal appears to respond to traditional environmental discourse in the same way, asserting that the optimism of the ecomodernist approach is based on a rational

and pragmatic analysis of material conditions whereas the urgency and difficult questions generated by other schools of environmental thought is dogmatic and utopian. This pattern of criticizing environmentalists gives the sense that the journal is almost purely an internal publication, one that does not seek to constructively develop ecomodernist beliefs based on external feedback.

From *The Death of Environmentalism* and *An Ecopragmatist Manifesto* to the publication of *An Ecomodernist Manifesto* and the ongoing publication of the Breakthrough Journal, this outline of ecomodernism has clarified an understanding of the movement. Ecomodernist's attachment to modern technologies and questionable processes of decoupling that have been challenged by the traditional environmentalists they reject can be understood better with the knowledge that the philosophy at the very core of ecomodernism and ecopragmatism builds on an idea that humanity has replaced nature and must now act to manage the world's ecosystems. This movement, through the Breakthrough Institute and Breakthrough Journal, have directly accomplished little in the way of concrete action, opting instead to develop through annual ecomodernist seminars and essays in reaction to the suggestions of traditional environmentalism. By unpacking the ecomodernist perspective, Stewart Brand's connection to the movement has become clearer, given that his personal beliefs as presented do not meaningfully diverge from the ecomodernist position and that *An Ecomodernist Manifesto* directly references his work by including "ecopragmatists" (Asafu-Adjaye et al., 2015, p. 7) as part of those who constitute the ecomodernist movement.

Conclusion

Three main points to be considered are: the harmful impact of ecomodernism's contradictory ideology, the need for environmentalists to believe the ecomodernists when they say they are "post-environmental", and the importance of recognizing that ecomodernism's role as a site of networking and social capital exchange supersedes its need to be an effective social movement.

First, the ideological core of the ecomodernist project is rife with contradictory language and ideas that are harmful to environmental efforts. *An Ecomodernist Manifesto* consistently suggests that there is a divide between nature and humanity because of our impact on nature. *An Ecomodernist Manifesto*, as well as Brand's own ecopragmatist manifesto, presuppose a set of dichotomous relationships between humanity and the natural world that are both contradictory and untenable because of how they separate humanity from the environment and suggest that the ways humanity has altered the world do not also constitute an environment. Cindy Isenhour points out that this separation reinforces the dominant perspective that nature and culture are divided, leading the ecomodernists to the conclusion that it is only poor, developing populations that are ultimately responsible for environmental damage, whereas affluent populations in developed nations experience nature as something external to society (2016, p. 324). This view of the world neglects the indirect use of natural resources in technology, manufacturing, and mass consumption.

The contradictions of the ecomodernists, noticed and studied by many other researchers, give rise to questions about the efficacy of their belief system and the motivations behind the ecomodernist project. While we would expect these challenges to hinder the project's ability to justify its existence, ecomodernism's appeal to the status quo makes it possible for the group to

persist because "even if the post-environmentalist discourse is contradictory then, as its makers intended, it has the power to remake reality in its own image, precisely because it swims with, not against, the current of power" (Kallis and Bliss, 2019, p. 14). This position is exactly what allows the ecomodernists to reject the dogmatism of other environmentalists without recognizing the impact of their own beliefs on the conclusions they draw about the world. Because of this, other environmentalists, both academic and activist alike, should be critical of ecomodernism's promise that through their project, "human prosperity and an ecologically vibrant planet are not only possible but also inseparable" (Asafu-Adjaye et al., 2015, p. 31).

Second, we must take Nordhaus and Shellenberger at their word when they claim they want to make a "post-environmental climate movement" (Nordhaus and Shellenberger, 2011). This is crucial to understand their role within the broader context of environmentalism. Linking this to their efforts to change the appeal of environmentalism by moving in a more conservative and economically oriented direction, this post-environmentalism placed the Breakthrough Institute and the ecomodernist project squarely in opposition to other environmentalists. As Kallis and Bliss identified in 2019, "the post-environmentalists of the Breakthrough Institute became specialists in debunking environmentalists" (p. 13).

Through the declaration that environmentalism is dead, post-environmentalism must take its place, and the persistent efforts of the Breakthrough Institute to discredit the environmentalists challenging the ecomodernist project, it is evident that ecomodernism considers its primary enemy to be environmentalists. In *The Death of Environmentalism*, Nordhaus and Shellenberger are clear that one of the ways to save environmentalism from itself is to change how environmentalists present their movement, losing the focus on specific policies in favor of "framing our proposals around core American values" (2004, p. 33). To accomplish

this, *The Death* argues that "Environmentalists have a great deal to learn from conservatives" (Nordhaus and Shellenberger, 2004, p. 31), and that by changing environmental messaging to appeal to a broader audience environmentalism can escape the limits it has placed upon itself.

Third, the nature of the relationship between Stewart Brand and the ecomodernist project is simple in its definition but complex in its implications. The direct comparisons that have been drawn between Brand's independent work in *The Ecopragmatist Manifesto* and the ecomodernist manifesto he coauthored demonstrate that little in the way of ideological change was necessary to draw Brand to this project. This invites the question: if these independent ideas of ecopragmatism and ecomodernism are largely indistinguishable, what led Brand to connect with the ecomodernists instead of working to turn his personal ecopragmatism into a larger project? For this question, we must reconsider what it means that Brand has been influenced so heavily by Fuller's concept of the "Comprehensive Designer".

I argue that the primary goal of ecomodernism is not the formation of a new environmental movement. Instead, ecomodernism serves as a site through which existing networks of influence are leveraged to expand upon the credibility of its members by creating ecomodernist discourse. This constitutes what Fred Turner calls a network forum or, "networks within which members of multiple communities could meet and collaborate and imagine themselves as members of a single community" (2006, p. 5). Viewing ecomodernism as such affords a new perspective on the project and is reinforced when considering that the coauthors of the manifesto represent a wide array of disciplines, including economists, ecologists, filmmakers, think tank founders, philosophers, environmental studies professors, and more. Bringing these people together in one project not only allows ecomodernism to gain legitimacy in each of its authors respective fields and boost their influence as individuals, it allows for the creation of

"new social networks, new cultural categories, and new turns of phrase" (Turner, 2006, p. 5). It is also worth noting that this ecomodernist network forum, in all of its ability to connect the ecomoderns and develop their legitimacy, has not been used to effect policy changes, mobilize on their beliefs, or bring about their vision of the future.

Creating and managing the new networks, categories, and language of ecomodernism is the role of the Breakthrough Institute. This is something that ecomodernists are aware of, and changes how we understand the line, "Breakthrough matters in the world when we get in front of environmental debates and take them to new places" (*About Landing*, 2024). This acknowledges that the role of ecomodernism and the institution that represents it is more about the language and culture used to present and argue for environmental concerns. The ecomodernist's apparent lack of impact makes sense if we view the group as a project to construct a network forum around a shared set of assumptions about the world in an effort to legitimize and expand the influence of its members.

These conclusions do not fully capture the post-environmentalist ideology, and the potential for future critical scholarship on ecomodernism is sizeable. The Breakthrough Institute's status as a think tank is worthy of further exploration because of its noticeably small impact as a lobbying organization. A more complete analysis of the networks that the institute associates with would expand critical political and social science research on this group of post-environmentalists. Future work should also deconstruct the rhetoric of the ecomodernists more thoroughly, striving to question how ecomodernist rhetoric reinforces hegemonic understandings of humanity and the environment through their communications.

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