BETWEEN UTOPIA AND PRAGMATISM: CRITICAL DESIGN IN DEBATES ON CLIMATE CHANGE

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ABSTRACT: The article examines the role of critical design in the context of environmental pragmatism thus guided by the idea that, faced with a prolonged climate crisis, which is not only environmental, but also cultural and social, humanity must look for more creative solutions and more efficient ways of overcoming passivity. Taking into account the most common objections faced by an alternative form of engagement with climate change, the text identifies potential inaccuracies in the way doubts against critical design are justified, and then demonstrates the discipline's commitment to practical usefulness. The article builds on the thesis, that the critical design approach embodies open-ended inquiry dedicated to and bound up with the issues that eminent environmental pragmatists find pivotal, including moral pluralism, a decreasing relevance of theoretical debates, and the striving for environmental democracy. It takes into account such issues as the production of collective visions of the future and thus projected social change, countering the hegemonic narrative of the future produced by capitalism, methods and tools to engage audiences in action. As a result, the article attempts to synthesize environmental pragmatism and critical design as a visual-practical approach capable of inspiring and bringing alternatives to reality. Through theoretical analysis, examples of design practices, and reflection on criticism, it highlights the potential of critical design as a tool for shaping more environmentally responsible social attitudes.

Keywords: Critical design, Climate change, Environmental Pragmatism, Aesthetics, Utopia

> To captivate and to transform are the most fundamental ambitions of activism and art, which is why climate change, as subject matter, fares so poorly in both realms.
>
> (Foer 2019, 12)

Introduction

Multiple overlapping environmental emergencies, such as ocean acidification, biodiversity loss, depletion of water resources, irreversible soil degradation and public health crises, put the very existence of humankind at risk, yet they still fail to make us seriously concerned. Despite there being alternative and more sustainable solutions, we continue to rely on ineffective energy-supply systems, waste food, incinerate waste, and condone the cutting of rainforests. The global conjuncture we inhabit today, with its disintegration of democratic institutions, soaring populism, an upsurge in migrations and exacerbating social inequality, makes it challenging for us to believe that we have any agency. Consequently, it does not come as a surprise that environmental reflection in the 21stcentury has increasingly articulated frustration, helplessness, disappointment, inability to see any alternatives, and even apathy(e.g. Hansen 2010; Klein 2000; Klein 2014; Mann 2021; Norton 2015; Scranton 2016). Researchers of environmental policies warn that interventions launched to counteract climate change are ineffective, provisional, limited and entirely superficial. The belief that letting people know of the realities of climate change would be enough to mobilize them to act, a notion that was widely held until recently, has proven a painful delusion. The fact is that even though we realize ever more precisely how we affect the ecosystem and the geology of the Earth and we understand ever more clearly what a misrepresentation the myth of ongoing progress, based on the use of the planet's exhaustible resources, has been, we still do not find it either easy or obvious to proceed from awareness to action. One of the dramas of the Anthropocene seems to be that both the more ignorant we are (the problem of denialism)and the more we know in a purely rational manner (the problem of the intellectual comfort zone), the less inclined we are to act.

In their introduction to *Environmental Pragmatism*, the editors Andrew Light and Eric Katz suggest that the modest set of acceptable approaches to environmental ethics may be inapplicable to devising acceptable environmental policies and, consequently, that it is urgent to study other possible sources and foundations of truly moral ecologism (Light and Katz 1996). Light and Katz cite Anthony Weston, who insisted in his "Before Environmental Ethics" that "we should (…) expect a variety of fairly incompatible outlines coupled with a wide range of

proto-practices, even social experiments of various sorts, all contributing to a kind of cultural working-through of a new set of possibilities" (Weston 1996, 151). This idea is further developed to highlight that, faced with a prolonged climate crisis, which is not only environmental, but also cultural and social, humanity must look for more creative solutions and more efficient ways of overcoming passivity. At the same time, an inherent problem of such non-standard and abstract methods is that they tend to be dismissed as merely declarative, standing no chance of success or even based on naïve premises. Charges of marginality and ineffectiveness are often leveled at activist and performative ventures, engaged art, and grassroots social initiatives. In this paper, I examine critical design, one of such niche practices supposed to overcome the public's inertia through generating alternative andremedial scenarios. My argument aims to illuminate a practice whose uncommon form may contribute to fostering more environmentally responsible attitudes. Given that alternative forms of climate change engagement tend to provoke a lot of criticism, I seek to establish what role critical design can play in confrontation with the current environmental crisis. I discuss skeptical beliefs about critical design practice and attempt to identify defects in the premises of this criticism in order to show the commitment of critical design to practical utility.

My choice of critical design as the central thematic concern of my paper is bound up with the intrinsically pragmatic approach of critical design to the steep challenges posed by climate change and environmental crisis. Lightand Katz defineenvironmental pragmatism as "the open-ended inquiry into the specific real-life problems of humanity's relationship with the environment" (Light and Katz 1996, 2), which focuses on ethics, responsibility, and practical solutions in the face of the environmental crisis. In this paper, I posit that the critical design approach embodies such an open-ended inquiry dedicated to and bound up with the issues that eminent environmental pragmatists find pivotal, including moral pluralism, a de-

creasing relevance of theoretical debates, and the striving for environmental democracy. As a result, critical design can be regarded and used as a tool for visualizing and implementing these ideas. Light and Katz identify at least four forms of environmental pragmatism. I believe that critical design is mostly aligned with the one they dub "the articulation of practical strategies for bridging gaps between environmental theorists, policy analysts, activists, and the public" (Light and Katz 1996, 5). At the same time, emphatically, I do not identify critical design with the promise of comprehensive social change; rather, I locate it on the trajectory whose vector is turned toward "the better," where "better" does not mean more attractive, newer, or competitive, but connotes the capacity to step beyond what is and envisage what can be. In this way, I agree with Monika Rosińska, who professes in her *Utopie dizajnu* (Desing utopias): "Against the common-sensical perception of design as a practice that solves instrumental problems and effectively improves reality as it is, I arguethat the vitality, power, charm, and allure of this practice stem from thoroughly its utopian and poetic qualities. What is it exactly that I mean by utopian and poetic (…)? I mean that it makes it possible to experience a better future not so much in its imagined reality as in potentialities and boundless possibilities expressed in the present" (Rosińska 2020, 23.)

Sources and Theoretical Underpinnings

My reasoning and conclusions are underpinned by examination of the premises of critical design and interpretation of selected critical-design projects. The theoretical framework of my argument is provided by environmental pragmatism, and I also draw on the classic studies on design, regarded as representative for critical design (Dunne 1994; Dunne 2006; Dunne and Raby 2001; Fry 2011; Papanek 1971), and on the recent accounts of the history of critical design and its relationships with other disciplines, such as philosophy, ethics, technology and politics

(Bardzell et al. 2018;DiSalvo 2014; Malpass 2017; Manzini 2015;Tharp and Tharp 2019). This literature is particularly helpful to me, because the authors express their concerns and doubts about the critical design approach and its limitations. I believe that common critiques of critical design coming from academics, theorists, and writers, voiced in public debates, and expressed on social media must be contextualized (i.a. Malpass 2015; Bardzell and Bardzell 2013; Ansari 2015; Ward 2019). At the same time, in my view, this criticism, though not always fully warranted, can be useful to the constantly evolving design practice as such. By bringing together and confronting a range of opinions, I develop the hypothesis I offer in this paper, and my conclusions, which largely assert the advantages stemming from critical design, logically follow from this confrontation. At the same time, I substantially rely on the literature on environmental ethics, which seeks to go beyond theorizing and enables the environmental movement to devise new policies. Thus, I build on publications by philosophers dedicated to developing the debate from the positions of environmental pragmatism (Garvey 2008;Fesmire 2020; Light and Katz 1996; Norton 2015). They are all unanimous in their apprehensions about the unfolding crisis of action, which is also a point of departure for my argument in this paper.

Knowledge Is Not Enough

Jonathan Safran Foer explicitly stated in his *We Are the Weather: Saving the Planet Begins at Breakfast*(2019) that the narrative of planetary crisis was not just difficult to convey; first and foremost, it was not a good narrative. When he was writing this, much more was known about climate change than ever before, yet, despite that, in 2018 alone, humans produced the greatest amount of greenhouse gasesin history, at the pace three time as quick as the increase of the world's population. Foer's book pivots on the fact that even if climate crisis matters something to us as humanity, we do not seem to real-

ize that we are part of this event. Rather, we think of it as a "war being fought 'over there'"(Foer 2019, 9). Even though we acknowledge that our sheer existence is at stake, we do not engage in fight for survival.

The second chapter of Foer's book, titled "How to Prevent the Greatest Dying," leaves the reader most overwhelmed. It cites innumerable and vivid data to convey the gravity of our situation:

> If human history were a day, we were hunters-gatherers until about ten minutes before midnight. Humans represent 0.01 percent of life on Earth. Since the advent of agriculture, approximately twelve thousand years ago, humans have destroyed83 percent of all wild mammals and half of all plants. (...) During theGreat Dying, a series of Siberian volcanoes produced enough lava to cover the United States up to three Eiffel Towers deep. Humans are now adding greenhouse gases to the atmosphere ten times faster than volcanoes did during the Great Dying. (Foer 2019, 58, 63).

To make the magnitude of these and other issues palpable, Foer employs evocative comparisons, statistics, and apt observations about what obstructs our perception of global warming. Further in his book, Foer makes a candid confession and "reveals" his own weaknesses. For example, he admits that even though he had spent long years studying factory-farming, touring the world with hundreds of talks, and writing a book expressively titled *Eating Animals*, he would eat meat every now and then on the promotional tour of this very book. Worse even, the meat he ate often came from factory-farms, against which he was vehemently campaigning. Foer reproves his own choices, when confessing that the reason why ate meat made his hypocrisy even more horrendous; specifically, burgers improved his mood (Foer 2019, 50).

We Are the Weather perfectly epitomizes contemplation on our incapacity to absorb the lesson of the harrowing scientific findings. I dwell on Foer's book, because it captures—and censures—the human condition with impotence at its core. This standpoint, I believe, parallels the attitudes of environmental ethics, where, to quote James Garvey, "[f]ailing to act in accordance with moral reasons when you have them is something probably worse

than meaninglessness" (Garvey 2008, 41).While *We Are the Weather* does not offer easy answers and is rather a record of searching for them, there are issues in which it leaves nothing to doubt about. Taking the truth expressed in the subtitle, which indicates the role of animal products in aggravating the climate crisis, as his starting point, Foer appears to suggest the attitude that forms the cornerstone of environmental pragmatists' thought. Ultimately, what matters most is our action rather than our intentions, experience, or knowledge. Too much attention is lavished on the distinction between those who accept science-based knowledge and those who deny global warming, while too little is said about the split into those who engage in action for climate and those who are complacent with knowledge alone. In identifying the problems faced by environmental ethics, Light and Katz argue: "The intramural debates of environmental philosophers, although interesting, provocative and complex, seem to have no real impact on the deliberations of environmental scientists, activists and policy-makers" (Light and Katz 1996, 1). Eye-catching charts, appealing calculations, and scholarly jargon are useful, but they often render the planetary crisis in purely intellectual ways as an intriguing computation, instead of as an immediate existential hazard. This does not force people out of their cognitive comfort zone, which impedes practical action. From the viewpoint of pragmatism, we should actually do things to counteract climate change, instead of debating the terms and conditions of such preventive action. The latter is reminiscent of the traditional and conventional manner of presenting and preserving a certain method of world perception, in which technical, objective, and quantifiable (hard) knowledge served to marginalize ethical, moral, emotional, social, psychological, and cultural (soft) issues. As most powerfully motivating and inspiring, these soft aspects are the fundamental pillars of critical designers' practices. Their focus on cultural norms and social attitudes makes them flexible, open to experimentation, and willing to venture beyond narrow design definitions, traditional institutions, and entrenched practices.

A Short Story of Critical Design

Although the genesis of critical design goes back to the counterculture, protests, and pursuits of situationists of the 1960s, critical design as a distinct design discipline developed in the early 1990s, mainly powered by academics affiliated with London's Royal College of Art. This research community did design research as a direct response to the development of ICT and electronic products. The notable RCA figures included, in particular, Anthony Dunne and Fiona Raby, whose designs and publications are considered crucial to the dissemination of possible future explorations. This impact primarily resulted from the kind of questions they asked (and still do) about the role of the techno-utopian frenzy of the early 21th century. The development of "thinking" machines not only prompted a revision of ideas about the nature of the mind, but also sparked new desires and encouraged establishing certain relations with them. This is a salient context in terms of the aspirations of critical design at the time, as it aimed to undermine unreflective techno-optimism and, at the same time, "prevent certain material realities taking shape and encourage others to flourish" (Dunne and Raby 2013, 37). Aware that materiality has an axial capitalist dimension to it and that it expresses a certain ideology (in this case one subordinated to the dominant market regimes, where objects are economy-fueling commodities), the designers began to search for creative and intellectual autonomy, while also propelling the demand for design services different from the previously prevailing ones, heavily exploitative of the planet, as they were. Critical design came then to be recognized as a response to consumer culture, which was one cause of the passive attitudes and eschewal of social responsibility among the Western public and diluted people's awareness of their potential as decision-makers. Yet, to contextualize critical design as part of an older critical tradition is not my aim in this paper; this has already been done, and superbly too, by, for example, Matt Malpass, who identified the social

and technological conditions conducive to the emergence of critical design (Malpass 2017). In pinpointing the key and recurrent factors in its development, Malpass insightfully observes that "examples of critical practice emerge out of turbulent political, economic, and technological shifts. Whether it was the disillusionment with functionalism, the political turmoil of the 1960s, or the technological shift from the mechanical to the digital paradigm, designers active at this time find their voice throughdesign practice" (Malpass 2017, 45).

As viewed by critical designers, the currently worsening climate crisis is not only a political and economic issue. It is also relevantly correlated with social responsibility, informed by the belief that the degradation of the environment results from human actions and, more importantly, that to save the planet should become a strategic goal of actors who are not part of the decision-making mainstream. If the decisional design trend does not feel obligated to commit to this goal, an alternative design practice should arise to help humanity assume responsibility for the environment. The pragmatic position holds, as Dale Jamieson elucidates, thatit is crucial to "develop new values and conceptions of responsibility" (Jamieson 2003,377). This might support the transition from material overproduction to the production of things non-material, such as ideas, reflection, responses, commitment, and action. "There are professions more harmful than industrial design, but only a very few of them," Victor Papanek wrote in the preface to his *Design for the Real World*(Papanek 1971, xxi). I believe that critical designers subscribe to this view in and through their insistence that traditional design, which is integral part of a greater economic system, is co-responsible for the exploitation of the natural environment.

What does "critical" mean in critical designs and what isit that sets them apart from the consolidated design tradition that is regarded as dominant? Dunne succinctly explains that "[t]he critical sensibility, at its most basic, is simply about not taking things for granted, to question

and look beneath the surface" (Dunne and Rickenberg 2009).In this sense, critical design can be thought of as a performative action in which objects are supposed not so much to work in an efficient way or to look pleasing as to "challenge the legitimacy of thinking of them in such terms. In this way, critical design practice negates the meaning that modernism developed for design by relativizing the notions of aesthetics, utility, and functionality, and, above all, it re-directs the fundamental model of effectuating design by fostering a fertile space of speculation with a potential to undermine the status quo" (Rosińska 2020, 180).In critical design, things are not just functional objects whose efficiency and mass sale are determined by the market; rather, they work as designed ideas that are expected to appeal to users, make them think, and motivate them to act for change. The non-obvious, puzzling component of critical designs, regarding their forms, the strategies they use, and even the theoretical tenets behind them, not infrequently exposes them to questioning or belittling. In the following part, I address the most frequent accusations critical design encounters and illuminate this practice in more detail as developing the pragmatic approach to the challenges of climate change.

The Post-optimal Function and Moral Pluralism

The most direct accusation against critical design stems from the belief that design should focus on solving real-life problems and abide by the modernist dictum that "*form ever follows function*"(Sullivan 1896, 408; italics original). This notion results from the assumption that design is lucid and neutral and that, as such, it should reinforce the status quo, that is, meet the social, technical, and economic expectations of capitalist ideology. A vast majority of design projects belongs to this category. While these disciplinary norms are endorsed as a dogma in and by dominant affirmative design (dedicated to creating solutions), they are not heeded in and by crit-

ical design (dedicated to spotting problems and identifying their scale, causes, and consequences). The critics of critical design claim that this approach does not offer a concrete, measurable value in the form of effective solutions to real problems in real time. In a debate between Ahmad Ansari and Jamer Hunt, which was held as part of the inaugurating MIT Media Lab summit, suggestions were voiced that, before starting to imagine a new future, design must first meet current human needs. Ansari argued: "If the critical project claims that it can, and I quote 'inspire us to imagine that things could be radically different than they are today,' then I see little evidence that this kind of radical reimagining is rooted in an understanding of the today' (Ansari 2015). The opponents of critical design claim that it is a useless, if not downright egocentric, practice which not only is a waste of time but also is devoid of any specific function. Doubts like those expressed by Ansari overlook the fact that the horizon for the future identical with the world we now inhabit is still determined by nothing else than the functional, increasingly intelligent, and ever moreeffective devices and systems catering to the needs of today. The point is that being innovative does not change either the obvious mode in which products are present in our daily life or the manner in which they are co-constitutive of this life. The critical designer creates an alternative to utilitarian design in the semblance of, to quote Kelly Parker:

> [t]he pragmatist [who]attends to difference and change as well as to similarity andconstancy. As the world evolves, and as human thought and activities change along with it, new kinds of ethically problematic situations inevitably emerge. To cope, we need to develop new ways of comprehending what is right. No list of virtues, no list of rights and duties, no table of laws, no account of the good should be expected to serve in every possible situation that we confront. (Parker 1996, 26)

Environmental pragmatists conceive of moral pluralism as the belief that no single moral principle orsuperior moral theory of what is right is properly applicable to all the problematic ethical situations (Parker 1996, 31). In this very spirit, critical design asks questions and sparks discussions instead of imposing unambiguous ethical solutions. Promoting interaction and user engagement, critical design prioritizes multilateral dialogue over any one-sided perspective. This approach seems to counter dogmatic models of morality and to invite varied viewpoints on ethical questions. Problem-solving or, more precisely, supplying ready-made solutions may not be the major intent of critical designs, but they can hardly be accused of lacking utility. From the perspective of environmental pragmatism, which expands our notions of the environment and society, central to critical design is affect as an outcome of its appeal to users and influence on their behavior. In this sense, critical design is absolutely functional, but it is up to us to discern, grasp, and, so to speak, "operate" this function. Rosińska points out that speculations on other possible interpretations of functionality can be replaced with Dunne's concept of "an aesthetics of use" (Dunne 2005). She clarifies that "it is about shifting the focus from how a device performs its assigned function and how it looks onto what it does besides that, how it 'behaves,' how it is integrated with the user's life, and what feelings it triggers. In other words, an aesthetics of use seeks to fathom a deeper level of objects and devices of everyday use" (Rosińska 2020, 194). Even if subtle, very fine and ethereal, this difference is deeply meaningful. Critical design delineates new practical goals and areas that do not promise to improve the quality of life by means of efficient objects but create conditions that make it possible to perceive other perspectives and, paradoxically, "gain" more. The notion of "non-rational design," which has been theorized by William Gaverand others, involves developing, elaborating, and communicating ideas in the form of prototype designs based on deliberate ambiguity(Gaver, Beaver, and Benford 2003).The method of "reclaiming" functionality thus aims to demonstrate than objects need not be limited to having their ends explicit or their use readily spelled out. Rosińska notes that "[t]heoretically, functionality could be something else than it is, and it could

be fostered by a different kind of imagination than the one underlying effective sales of commercial commodities" (Rosińska 2020, 199). This encourages users to interpret situations on their own, to tackle conceptually objects, systems, and their contexts, andto relate more deeply and personally to the meanings they bear. Sometimes bizarre and sometimes controversial both in their form and in their message, critical designs activate users' irony, humor, imagination, and senses.

For example, *Climate Dress is* a design of an interactive dress which responds to air pollution by shrinking to a degree determined by the surrounding air quality (Climate dress 2009). NatalieJeremijenko's *Environmental Health Clinic* imitates a health care facility, but only responds when one reports not individual ailments but environmental problems related to them (Jeremijenko n.d). Instead of drug prescriptions, its visitors obtain a list of concrete things to do for the sake of the planet. *The Guide to Free Farming* is an ironic handbook with instructions on how to become a farmer in an urban setting (Protofarm 2050: The Guide to Free Farming, n.d). Informed by environmental pragmatism, critical designs defy a-priori deductions and aspire to be appreciated on the basis of experience and perception. Parker directly states that:

> The central emphases on experience and on the experimental approach to establishing our knowledge and practices, make for a value theory that highlights the aesthetic dimension, sees ethics as a process of continual mediation of conflict in an ever-changing world and lays the groundwork for a social and political philosophy that placesdemocratic and humanitarian concerns at the center of social arrangements. All value emerges in experience. (Parker 1996, 25)

Developing new functionalities of designs promotes receptivity to new values, which can be grasped through active experience, indeterminacy, and change. This form of design can be a platform for a collective redefinition of the ways of relating to reality, because it "thrives on imagination and aims to open up new perspectives on what are sometimes called *wicked problems,* to create

spaces for discussion and debate about alternative ways of being, and to inspire and encourage people's imaginations to flow freely" (Dunne and Raby 2013, 2).

Art and the Decreasing Role of Theory

Another broadly discussed polemic is pervaded by viewpoints deriving from art history, history of aesthetics, and visual culture. The crux lies in defining critical design in terms of designart, which is taken to mean any artwork that experiments with the place, function, and style of art by combining them with architecture, furniture, and graphic design (Malpass 2015). Artists were in fact the first group to integrate social critique with the use of everyday appliances. Presumably, critical design practice, inspired by conceptual art, employed this tactic to dismantle traditional design norms. Because of this similarity, critical design faces charges that ensue from the context of arts and are fueled by the fact that conceptual vocabulary strongly associated with art (e.g., "sense impressions" and "aesthetic experience") is overused in relation to critical design and, more importantly perhaps, that designs are identified as artefacts that work aesthetically beyond global capitalism, foregrounding transgression, relying on provocation, and exposing cultural presumptions. In critical design, aesthetics is a dynamic, immanent, and social property that hinges on practices which situate a designed object withing the system of use. Dunne and Raby have time and again emphatically denied that art and critical design share the same field:

> It is definitely not art. It might borrow heavily from art in terms of methods and approaches but that's it. We expect art to be shocking and extreme. Critical Design needs to be closer to the everyday, that's where its power to disturb comes from. (…). If it is regarded as art it is easier to deal with, but if it remains as design it is more disturbing, it suggests that the everyday as we know it could be different, that things could change. (Dunne and Raby n.d).

Treating specimens of critical design as works of art triggers a misconceived discussion on the objects them-

selves and the symbolic meanings generated around them. Malpass is certainly on the mark when he notes that: "A problem with criticism grounded in art is that it feels like an attempt to fit critical design practice into a discourse in which product design aspires to be art, or at least places design on the same critical footing" (Malpass 2017, 89). This discourse flagrantly tends to perceive design in a very narrow fashion and to reduce discussion on critical designs to the question: Is it not just art by any chance? Skeptical commentators talk of a hybrid form of critical design that merely aspires to achieve new aesthetic and conceptual potentials. This breeds a double contradiction as, besides their alleged failure to fulfil their fundamental utilitarian role, critical design objects are perceived by sceptics as an excess of form over content, carefree play, or abuse of form. The generation of utopian or dystopian worlds, extrapolation, and sensory experiences are treated as aesthetic and sometimes also ethical experiments that violate good taste. Other detractors suggest that the vision of criticality is but an engineered "maneuver" and a ploy mobilized by designers who internalize guilt for their choice of a contentious "industry" and use the imagination to pay back an ultimately unpayable social debt.

Meanwhile, critical design deliberately permits sensory and imaginative engagement with a critical idea so that it could suggestively appeal to the users. Pragmatic philosophy is preoccupied with consequences of actions and their practical impact on humans and the environment. Therefore, in the context of critical design, actions should be evaluated on the basis of the actual effects of changes that designs can trigger in users. The performative dimension of critical design as a vehicle for social interactions, emotions, and actions is what intrigues the Dutch designer Marije Vogelzang. Vogelzang develops new consumption scripts woven around alternative rituals of eating and the production, transport, and disposal of food. For example, in *Eggchange,* a project she developed for the poultry farmer Twan Engelen, she launched "an exchange office

for fertilized eggs (capital)" (Vogelzang n.d). Buyers could obtain fertilized or unfertilized eggs and then behave like investors buying shares in a company and making business decisions about what to do with their new capital. They could choose to take their egg home and eat it or to let it hatch. Hatching gave investors a broiler chicken they could keep for meat or a hen, which could lay eggs. However, the accumulation of capital was not really viable without taking care of it. Interest rates were determined by the laws of nature rather than by the market forces. Vogelzang's project shed light on the production chain underlying our food industry and questioned the ethics of our economic systems. Participants in the debate on farm animals often hurl accusations at one another and come up with moralizing answers. Consumers should have different shopping habits, farmers must change their system, and governments must adopt better legislation. We dispute with one another, but fail to see that we are all stuck in the same economic system. Vogelzang's project thus created a physical place where ideas about poultry farming, the economy, and ethics could be shared. The participants could become involved in social interaction and take part in a consumer "ritual," in this way engaging in dialogue without fathoming any theoretical framework. As the central element of the project, the egg morphed into a metaphor for capital, the economy, life, and ethics. Owing to this symbolic layer, there was no need for intricate theories, with the concrete representation that supplanted them being likely easier to understand and emotionally acceptable to the audience.

For her part, the designer Andrea Vlad chose to explore how some design decisions made by the meat industry affected consumers' perceptions of meat, and how psychological triggers and responses disclosed these perceptions (Vlad n.d.). Disgust and empathy are regulatory factors that can potentially reduce meat consumption, but they are themselves diminished by cognitive dissonance caused by the visual representations of packaging. Therefore, Vlad remade the materiality of the packaging

and developed its prototype by imitating on its surface the skin and fur purportedly coming from a given animal. The potential of aesthetic values should thus be treated as an auxiliary strategy for reorienting consumer behavior. Because eating meat is underpinned by a complex system of beliefs that mold our values and behavior when making food choices, the project aimed to redefine our dietary decisions and relations with other creatures. Pre-eminence was given to the arousal of emotions, such as disgust and empathy, in response to the aesthetics of packaging. Instead of theoretical deliberations on morality and meat consumption in relation to the condition of the environment, the project explored very practical aspects of the influence that sensory representations of animals have on consumers' minds. This approach dovetails with the pragmatic idea that feelings and practical experiences are key factors in establishing ethics. Pragmatic necessity means that any analysis of problems that does not promote the building of a larger community or problem-solving actions is philosophically misguided. Such an investigation usually "petrifies" the participants of theoretical discussions in their fixed positions, and its only outcome is that each party consolidates its theoretical argumentation for the policy it supports. Paul Thompson opposes traditional applications of theory to the solving of issues in need of repair, proposing, instead, "pragmatic deconstruction," which

> is the pedagogical tool for ending moral gridlock, and beginning the reconstruction of community. Nevertheless, it is not appropriate to propose solutions here. For one thing, proposing a policy mechanism may be inappropriate in advance of the reconstruction needed to form a community capable of addressing key problems. For another, there will be few universal solutions to generalized problems. (Thompson 1996, 205).

The relevance of the performative dimension of critical design is only amplified by the decline of the role of theory, and the aesthetic qualities of designs do not simply speak to the stylization of the objects, but above all mediate their message and directly affect their users.

Participation and Environmental Democracy

Art-based criticism is probably also sparked by the distinctive space that critical designers use as a basic platform for disseminating their concepts and communicating with the users. Their opponents believe this thwarts the circulation of reflection, which is sustained in closed discourse, circumscribed mainly to art galleries, museums, design journals, and niche publications. This accusation presupposes that users of critical design are primarily educated individuals, and that the discourse produced by critical design practice is founded on expert culture. The critics of critical design complain that critical design is unable to fulfill its promise of fostering an inclusive, space because its impact is restricted to recipients who are anyway conscious and, additionally, affluent and white. Notably, the same educated, "enlightened," and, again, white and rich people live in a parallel reality as lobbyists for the fossil fuel industry and deforestation, who fund ventures of high environmental risk and embrace unreflecting consumer lifestyle, determining the demand on the market. Given this, even if critical design is indeed only an emotionally triggered, value-based ethico-moral pursuit, morality, ethics, and values appear as the most pragmatic starting point in our situation. If success-pursuing people and organizations will be losing their raison d'être as the planetary conditions deteriorate, people and organizations abiding by the moral approach will be able to continue their activity, and the ethical grounds for action will be ever more relevant. Thus, critical designers seem to feel the consequences of inability to fulfill one of the most important obligations modern society places on us, specifically, the obligation of agency.

Being confined to museum spaces, though not ideal for critical design, has a significant effect for the product itself, making it independent of the whims of the mainstream market. Should critical design be ushered onto the mass market and commercialized, it might lose some of its impact as a result of factors such as capitalism. As part of

the market, critical design would no longer focus on questioning human perception and exposing presuppositions, but, instead, aim to produce and sell. The power of critical design chiefly stems from the fact that it is an alternative to affirmative design. If critical design can imagine a new world through recasting the ultimate end and intention of the product, the entire process of "delivering" these objects to users must also be altered. Inspiring visions of the future that diverge from the popularly known technological versions demands other methods and research tools that those geared to promoting the current market trends and capitalist standards. Rosińska points out that, unlike the utopia understood as a vision of an all-encompassing and revolutionary transformation of the social order,

> real utopias" are interested in remaking individual social institutions and practices in real, even if minor ways. (…) The aim is to find concrete ways of "tinkering" with the system to change it, rather than designing radical systemic makeovers. Furthermore, the concept of "real utopias" holds that the notion of the contradiction of dreams and reality or of phantasy and practice is intrinsically wrong. What is made real is not independent of the imagination or distinct from it; rather it is shaped by visions, fantasies and dreams. (Rosińska 2020,203–4)

While discussions are rarely generated in consumer culture, museums and institutions of art offer convenient space for discussions around the meanings of designs. Limits are differently conceived in such settings; they are not dictated either by corporate language or by any set of guidelines to be included in the design, but by the imagination. The language of design is to be freed from the hands of the market, and an alternative discourse is to be sparked through material culture, which illustrates selected values, norms, rules, and ideologies. Essential to this activity is the emancipation and autonomy of design from the market. Critical design can then develop an imagination approximating that of sociology, anthropology, and culture research.

I perceive the potential of critical designers whose work responds to an array of initiatives including, besides

museum projects and curatorial themes, institutions that want to collaborate with designers and tap into their practical experience to launch more sustainable solutions. The idea of open spaces where critical designs can be displayed also presupposes more democratic relations between experts and the non-expert public, researchers and the researched, designers of social change and beneficiaries of this change. Environmental pragmatists believe that the participation of the public, therein of various stakeholder groups, contributes to better and more sustainable outcomes, and critical designers likewise assume that various social interests must be taken into account and balanced. This democratic facet encourages considering design activity not only in the context of the indispensable activation of people as subjects, but mostly through endorsing and supporting the existing forms of legitimate and valuable bottom-up actions. The effectiveness of change depends on the capacity to marshal the existing practices and to catalyze the processes through which communities create an organized social world on their own.

One frequent charge against critical design is that critical designers are allegedly elitist and, simultaneously, politically naïve in simplifying and banalizing broader causes behind problems. Critical design practice is time and again accused to originate from European privilege, one culturally colonizing, to boot (Prado de O. Martins and Oliveira, 2014). As its prime (and notorious) example, this discussion usually cites *Republic of Salivation* by Michael Burton and Michiko Nitta, exhibited as part of the Design and Violence series at the Museum of Modern Art in New York. The work, unfortunately representative enough to provide a basis for judging the movement as a whole, envisages the situation of food shortages and hunger that compels governments to implement a rigorous nutritional policy: food is apportioned to individuals, depending on the physical, intellectual and emotional requirements of their work. This makes the audience confront a vision of dietary changes hinging on one's occupation and also find

out about possibilities of altering one's body for synthetic feeding. The project has provoked heavy objections, among others from John Thackara, who denounced it, interestingly, on the MoMA website, writing that "this kind of work masquerades as radical (…) it belongs squarely within the neoliberal worldview that only Man is smart enough to correct the odd mistake that He may have made" (Thackara 2013. This accusation sparked a broad discussion in the comment section and proved quite divisive. Some posts deplored the naivete of the project that might seem dystopian in some places of the world but had long been a reality in other regions. Other posts emphasized that the work was deliberately not founded either on scientific accuracy or on a moral connection to our values, or even on the probability of enacting them.Rather, it was founded on the capacity to make the audience discuss and respond to its pivotal theme—food shortages and hunger. Consequently, the proposal of a scientifically viable solution could only evince the effectiveness of the project, while denouncing it as a neoliberal demonstration could not possibly be more off the mark.

To re-emphasize, critical designs do not adhere to the problem-solution paradigm, but seek to contribute to consciousness-raising and public debate by generating fictional scenarios, even if the designers themselves do not necessarily endorse those. At the same time, to furnish their projects with practical nuances and comply with the democratic order, critical designers must embed the future they envisage in the sphere of experiences intelligible and relatable to the audience. Fredric Jameson's frequently rehashed remark: "Someone once said that it is easier to imagine the end of the world than to imagine the end of capitalism" (Jameson 2003)has become a colloquial shorthand for today's crisis of the imagination. Importantly, the crisis of the collective imagination springs not only from our lack of language in which to conduct public debate on environmental issues. Therefore, the solution cannot be limited merely to illuminating the area that has gone unnoticed before. It is far more pressing to present the urgent issues in ways that not only capture attention, but also trigger certain responses.

Conclusion

This paper grows out of my belief that experimental, explorative, and discursive forms of tackling climate change are underappreciated, whereas they appear to fulfill the desire of building a better—safer, cleaner, and more equitable—world. I believe that the vision of this world can attract even those who are not concerned with issues related to concrete planetary mechanisms or are skeptical about them. Given that the challenges of climate change are exacerbating today, I view critical design as a tool for binding utopian aspirations and practical solutions more closely. The pragmatic approach to environmental challenges foregrounds the exigency of focusing on ethics, pursuing environmental democracy, and abandoning purely theoretical debates. In this context, critical design appears to be a normative practice that not only assesses and analyses reality, but also points to potential paths toward change. Although critical design does not state clearly what should be done to overcome our passivity, it does project various routes leading from beliefs to actions. It attends both to the structural causes of our activities (contemporary capitalism and consumer culture) and to individual responsibility. If we are unable to switch to veganism (Foer himself could not bring himself to that), we can at least reduce the amount of animal products we eat before dinner. Foer warns that"our descendants won't distinguish between those who denied the science of climate change and those who behaved as if they did" (Foer 2019, 28), and I deliberately draw on his observations, because he argues that, all in all, we need total and comprehensive action; we must not limit ourselves to technological solutions or market regulations alone:

> When it comes to working against the destruction of our home, the answer is never *either/or*—it's always *both/and*. (…) We must strive to end the extraction and burning offossil fuels and

invest in renewable energy, and recycle, and employ renewable materials, and phase out hydrofluorocarbons in refrigerants, and plant trees and protect trees, and fly less, and drive less, and advocate for a carbon tax, and change our farming practices, and reduce food waste, *and* reduce our consumption of animal products. (Foer 2019, 94).

Irrespective of criticisms levelled at critical design, its practical value lies in its capacity to think out of the box and generate new possibilities of action. Confrontation with objections and doubts can hopefully prompt the further development of critical design and help better understand its role in the ecological context. Reflection on the potential of critical design practice represents a fundamental step toward building more effective and sustainable societies prepared to take on global environmental challenges. Of course, some people will remain unconvinced, but a reconfiguration of foci can win over new allies, including those who do not know yet that they may become engaged. Ultimately, it is not about amassing new data, facts, and evidence; the point is what I, you, and we will do in our everyday life, the only real life that we live.

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