

Repent to the Primitive

John Jacobi

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Published by the Wild Will Coalition, N.C.

The most merciful thing in the world, I think, is the inability of the human mind to correlate all its contents. We live on a placid island of ignorance in the midst of black seas of infinity, and it was not meant that we should voyage far. The sciences, each straining in its own direction, have hitherto harmed us little; but some day the piecing together of dissociated knowledge will open up such terrifying vistas of reality, and of our frightful position therein, that we shall either go mad from the revelation or flee from the deadly light into the peace and safety of a new dark age.

H. P. Lovecraft

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Preface

Although the present form of the book only began two years ago, my work really started two years before, in 2013, when, homeless after high school, I involved myself in ecological and antimodern factions of anarchism.

During this time, I ran across an essay, “Industrial Society and Its Future,” and it had a profound effect on me. For the first time a text had expressed what I had been feeling, and it did so in a compelling, fresh way — appealing to me, since the only radical political arguments that I had heard up to that point lacked nuance, were steeped in faulty theory, and seemed to be solving nineteenth century problems rather than assessing problems of the contemporary world. But “Industrial Society and Its Future” was written by Ted Kaczynski, also known as the Unabomber, infamous for his 1978–1995 bombing campaign in the name of anti-industrial revolution. I was young and hot-headed enough for this not to bother me as much as it should have, but it still bothered me enough to wonder whether agreeing with

the manifesto was a bad sign.

But then I read a *WIRED* essay “Why the Future Doesn’t Need Us,” a personal account of a well-respected scientist and programmer, Bill Joy, experiencing the same dilemma. As Joy wrote, he “could easily have been the Unabomber’s next target,” yet he found “some merit” in the man’s arguments. Again and again I read similar accounts, and it strengthened my resolve to admit that the problems Kaczynski was concerned with were real. For example, conservative social theorist James Q. Wilson wrote in the *New York Times* that the manifesto was “a carefully reasoned, artfully written paper ... If it is the work of a madman, then the writings of many political philosophers — Jean Jacques Rousseau, Tom Paine, Karl Marx — are scarcely more sane.” Eventually, I decided that regardless of the man’s actions his ideas needed to be grappled with, an argument I lay out thoroughly in *Dark Mountain*’s “Ted Kaczynski and Why He Matters.”

So, I wrote the man. We exchanged a few letters until he broke from me because of some misunderstandings concerning restrictions on prison mail. But by the end I had learned enough of his current activity to carry on exploring the politic. I became moderately involved in Earth First!, a radical environmentalist organization that influenced Kaczynski; I researched the history of the ecology movement and its major figures; and, most importantly, I formed a coalition with some of Kaczynski’s political associates in Spain, Portugal, and Mexico.

The most important figure in the coalition was a Spaniard pseudonymously known as Último Reducto (UR). UR was a lot like Kaczynski in some significant ways, which is eventually why I broke from him too. But he was an indispensable influence on my ideological development. Apart from “Industrial Society and Its Future,” and a few texts from the early history of Earth First!, UR more than anyone or anything else helped me carefully, thoughtfully, and rigorously articulate a wild-centered philosophy.

Kaczynski’s associates, whom rival groups have pointedly called “the Apostles of Kaczynski,” had a twofold mission during the time I worked with them. First, they were, to put it simply, performing an exegesis of Kaczynski’s manifesto. For example, in “Industrial Society and Its Future” he writes:

94. By “freedom” we mean the opportunity to go through the power process, with real goals not the artificial goals of surrogate activities, and without interference, manipulation or supervision from anyone, especially from any large organization. Freedom means being in control (either as an individual or as a member of a small group) of the life-and-death issues of one’s existence: food, clothing, shelter and defense against whatever threats there may be in one’s environment. Freedom means having power; not the power to control other people but the power to control the circumstances of one’s own life. One

does not have freedom if anyone else (especially a large organization) has power over one, no matter how benevolently, tolerantly and permissively that power may be exercised. It is important not to confuse freedom with mere permissiveness ...

But later, when Professor Skrbina worked with him to publish a collection of his writings, he added a postscript noting that some aspects of his manifesto were outdated or somewhat wrong. He specifically mentions his definition of freedom above:

Último Reducto has recently called attention to some flaws in my work, [some] serious. ... in the second and third sentences of paragraph 94 of ISAIF I wrote: [see above]. But obviously people have never had such control to more than a limited extent. They have not, for example, been able to control bad weather, which in certain circumstances can lead to starvation. So what kind and degree of control do people really need? At a minimum they need to be free of “interference, manipulation or supervision ... from any large organization,” as stated in the first sentence of paragraph 94. But if the second and third sentences meant no more than that, they would be redundant.

So there is a problem here in need of a solution. I’m not going to try to solve it now, however. For the present let it suffice to say that

ISAIF is by no means a final and definitive statement in the field that it covers. Maybe some day I or someone else will be able to offer a clearer and more accurate treatment of the same topics.

To resolve this problem, UR advocated dropping the term “freedom” completely and replacing it with the term “wildness.” Under his framework (not my own), there was capital-N “Nature,” all that is, the same way the physicists would use the word. Some of this Nature is dominated by humans or technics, called “artifice”; other aspects of Nature remain untrammelled by humans or technics, called “wild Nature.” UR argued that this framework was a better one to express the ideology, because “freedom” is too ambiguous: freedom from what, freedom to do what, and freedom for whom?

UR pointed out that Kaczynski already implicitly answered these questions in his manifesto.

183. But an ideology, in order to gain enthusiastic support, must have a positive ideal as well as a negative one; it must be for something as well as against something. The positive ideal that we propose is Nature. That is, wild nature: Those aspects of the functioning of the Earth and its living things that are independent of human management and free of human interference and control. And with wild nature we include human nature, by which we mean those aspects of the functioning of the human individual that are not

subject to regulation by organized society but are products of chance, or free will, or God (depending on your religious or philosophical opinions).

184. Nature makes a perfect counter-ideal to technology for several reasons. Nature (that which is outside the power of the system) is the opposite of technology (which seeks to expand indefinitely the power of the system). Most people will agree that nature is beautiful; certainly it has tremendous popular appeal. The radical environmentalists already hold an ideology that exalts nature and opposes technology. It is not necessary for the sake of nature to set up some chimerical utopia or any new kind of social order. Nature takes care of itself: It was a spontaneous creation that existed long before any human society, and for countless centuries many different kinds of human societies co-existed with nature without doing it an excessive amount of damage. Only with the Industrial Revolution did the effect of human society on nature become really devastating. To relieve the pressure on nature it is not necessary to create a special kind of social system, it is only necessary to get rid of industrial society. Granted, this will not solve all problems. Industrial society has already done tremendous damage to nature and it will take a very long time for the scars to

heal. Besides, even preindustrial societies can do significant damage to nature. Nevertheless, getting rid of industrial society will accomplish a great deal. It will relieve the worst of the pressure on nature so that the scars can begin to heal. It will remove the capacity of organized society to keep increasing its control over nature (including human nature). Whatever kind of society may exist after the demise of the industrial system, it is certain that most people will live close to nature, because in the absence of advanced technology there is no other way that people can live. . . . And, generally speaking, local autonomy should tend to increase, because lack of advanced technology and rapid communications will limit the capacity of governments or other large organizations to control local communities.

And:

69. It is true that primitive man is powerless against some of the things that threaten him; disease for example. . . . But threats to the modern individual tend to be man-made. They are not the results of chance but are imposed on him by other persons whose decisions he, as an individual, is unable to influence. Consequently he feels frustrated, humiliated and angry.

Here it becomes clearer what kind of freedom Kaczyn-

ski is talking about: the ability for nature, including man's nature, to function with relatively little domination from other men or their technical systems. In other words, he advocates *wildness*.

Point by point, UR et al. combed the same intellectual razor through the entire manifesto, eventually creating a glossary of theoretical terms like “progress,” “progressivism,” “humanism,” “leftism,” and “techno-industrial society.” They also formalized the moral foundations of Kaczynski's critique by, intentionally or not, drawing on an age-old philosophical distinction between “natural” and “artificial” values. The specifics of the ideas are explained in UR's untranslated dialogue, entitled *Con Amigos Como Éstos*, with a neo-Luddite group in Spain. Though all this seems pedantic, these distinctions are precisely why UR's work has been indispensable in helping me communicate a philosophically rigorous account of primitivism.

Kaczynski's associates' second task was translating ecological texts, especially Kaczynski's, into other languages. The Portuguese version of Kaczynski's manifesto finished up just as I had started corresponding with the group, which explains why the man requested a Portuguese-English dictionary from me several months before. But the Spanish version had been finished by UR long ago — and published right around the time that a terror group arose in Mexico: *Individu- alidades Tendiendo a lo Salvaje* (ITS).

At the time I had limited knowledge of the group. I knew only that they were heavily influenced by Ted

Kaczynski, differing from him only in that they didn't espouse revolution, and that they had produced eight communiqués, which I had read. This and the timing of their appearance suggested that ITS was a direct, though unintentional, product of Kaczynski and his associates' propaganda work. UR himself voiced these suspicions in his critique of ITS, written right around their fifth communiqué, and which marked a drastic change in their discourse, as one can observe by reading the sixth, seventh, and eighth communiqués. Later, the suspicions were confirmed when ITS published their fullest critique of Kaczynski's revolutionary strategy to date, "*Algunas respuestas sobre el presente y NO del futuro.*" They note that they were indeed influenced by UR and Kaczynski, and that they vigorously disagree with the idea of revolution, preferring instead to act now as terrorists. Only later would they explain the ideological foundations of this view, when they grew from a single terror cell to a terror network.

Kaczynski's associates, especially UR, are not fans of ITS, and they do not want to be connected to them. Indeed, UR seems to view ITS as a thorn in his side, not a tolerable splinter group. Nevertheless, I noticed that the eco-extremists continued to use language and terms that the associates had been using and that I had made known through my popularizing them on the internet: progressivist, humanist, etc. In fact, many of these terms would appear very soon after their first appearance online, although I didn't notice this until much later. I also became weary of UR. While brilliant, he is difficult to work with, sometimes naïve, unneces-

sarily incendiary . . . To illustrate, one might note that his critique of ITS — a terror group — began with a note on their grammatical inconsistencies. And in his critiques of my own writings, he would take great, exaggerated issue with phrases like “more or less” because of their ambiguity. It was getting to be a bit much, and I felt I could be more effective as an autonomous actor. So I broke away with a few American associates to pursue my own projects, primarily a journal entitled *Hunter/Gatherer*. As this project developed a flavor distinct from Kaczynski’s brand of primitivism, we used new language and concepts that, to our surprise, ITS then used as well. It seemed that even after the split with UR, ITS was paying attention to us, which even now puts me in a precarious legal situation.

These events had visible effects on the forms my philosophy took. For instance, immediately after becoming convinced that Kaczynski’s core ideas were right, 17-year-old me was recklessly supportive of political violence. I remain firm in my opinion that political violence can be justifiable, but the opinions are tempered now. And during my time with Kaczynski’s political associates, I conceived of the philosophy in a classical revolutionary manner, attempting in many ways to emulate Marxists. This resulted in several absurdities apparent in my early writings for *Hunter/Gatherer*. Finally, while the vast majority of communiques by ITS contain nothing new or, worse, terrible innovations on original primitivist ideas, some of their critiques of Kaczynski and his associates struck me as sound, such as their polemics against revolutionary strategies. Their focus

on animist spirituality was especially influential — not because it was right or compelling or even nuanced, but because it reminded me that even if philosophical rigor is necessary to speak and make sense, it is not sufficient to speak and move. While Kaczynski's associates tried to focus on devising a doctrine, ITS reminded me that a more fruitful path was articulating a mythology.

Along this path, because of my initial experiences with Kaczynski and his writings, I found the doors to a world entirely invisible to me before. I had known that Kaczynski's ideas were not original. He has admitted as much, writing that he sought only to appraise revolution as a serious option in response to many thinkers' insights about modernity. But I did not know until university the extent to which the ideas permeated anthropology, literature, biology, philosophy, art. The "Pleistocene paradigm," or the idea that human nature is essentially Paleolithic, was especially ubiquitous. Crucially, this revelation meant that when I advocated primitivism, I would not be confined to the reasoning, approaches, and ideas in the manifesto. More importantly, it meant that I now had a niche to fill: there was a desperate need for a book that combined primitivist insights from the various sciences and books and pieces of art, one whose author name wouldn't pose a stumbling block because of murder. So for four years, I studied as many relevant sources as I could, bettering the language I used to express the philosophy and finally writing that book.

The philosophy as I have written it here seems to be,

more or less, where I've settled. I am not yet entirely sure what the political implications might be, something I outline in a larger, forthcoming text, *From Conservation to Reaction*. I am sure, however, of this much: a great clash of wills is raging, and I am on the side of the wild.



The purpose of this book is twofold.

First, I hope to provide what is to my knowledge the first philosophical framework for primitivism. Primitivism is an old philosophy, but its advocates have hitherto failed to articulate a coherent vision in one place, deferring instead to an amalgam of diverse and contradictory texts that leave advocates impotent in more ways than one.

My views, I believe, are especially suited to this purpose, because many extant primitivists continually fight on highly contested terrains that only distract from more core issues. I, on the other hand, often hold the positions that the enemies in these battles take, thereby demonstrating that the philosophy does not necessarily depend as heavily on these issues as some believe. I am a materialist where many primitivists contest materialism as a worldview that reinforces techno-scientific dominance — they opt for cosmologies like animism instead. I believe that rates of violence decline as civilizations progress where many primitivists believe this eternally damns the value of the primitive. I be-

lieve that the Pleistocene extinction event was at least in part caused by hunter/gatherers, which is rejected for the same reasons as before. I believe that values are subjective, while most, probably because it seems to lend weight to moral arguments, believe that the value of nature exists independently of human beings. And I emphatically do not believe that primitive peoples exemplified egalitarianism, peacefulness to animals, or intentional conservationism the way some primitivists, particularly anarcho-primitivists, believe they do.

Nevertheless, I remain a primitivist, and that is if nothing else useful to a philosophy continually marginalized because, somehow, its advocates keep tacking on ever-more-obscure positions.

My second purpose in writing this book is to provide for those unfamiliar a coherent text explaining values that will only play a greater role in world politics as civilization enters its twenty-first century crises. This is as important for any contemporary person to do as it was for the Romans to learn of the barbarians; the colonists to learn of the savages; the states to learn of the anarchists. Artificial intelligence, biotechnology, climate change, antibiotic resistance, mass surveillance, the sixth mass extinction — all are rapidly taking center stage in world politics, and with them the scientists and engineers, whom the general public is coming to realize have an inordinate amount of control over the circumstances of modern life. Likely some form of anti-technology populism will soon replace what was once an anti-government populism; whereas the main objects

of disdain were politicians, the new objects of disdain will be scientists and engineers, as well as technology itself.

Already we can see this sentiment in action. In the past few years we have seen TV shows about wilderness and outdoor-living, often with a tinge of anti-technological sentiment, skyrocket in popularity: *Mountain Men*, *Naked and Afraid*, *Duck Dynasty* . . . Books like *Wild* by Cheryl Strayed or *A Walk in the Woods* by Bill Bryson push a similar message of freedom, a search for purpose and meaning, and spiritual renewal in a decadent, materialistic world. Complaints about ubiquitous technology are becoming popular as well. TV shows like *Black Mirror* convey a fundamental skepticism toward the idea of technical progress, and books like *A Short History of Progress*, *Our Final Hour*, and so on, are all questioning, to various degrees, the technologies that dominate the modern world.

And it's pushing into the political arena. Environmentalist sentiments are popular today, and young people feel the need to address problems like climate change and the sixth mass extinction. But because of the way the problems are being ignored, sometimes by economic necessity, radicalization occurs easily among environmentalists. In fact, the FBI lists environmental terrorism, not Islamic terrorism, as the top domestic terrorism threat in the US.

All this is taking place on a stage that is largely being determined and shaped by the problems that define ecological thought. One headline in the *New York*

Times states “Researchers Link Syrian Conflict to a Drought Made Worse by Climate Change.” A headline in the *Guardian* reads “Global warming could create 150 million ‘climate refugees’ by 2050.” And the WHO has issued increasingly urgent warnings concerning antimicrobial resistance, which could, combined with modern transportation systems and densely populated city living, cause a global pandemic, or at least a formidable one.

Clearly, primitivists are right about a lot, and unless someone offers a good challenge and alternative to their core ideas, the notion of “freedom in wild nature” is only going to continue attracting adherents. Dismissing the philosophy as crazy, marginal, beneath consideration is not going to work for much longer.

Acknowledgements

I am deeply indebted to the Chapel Hill anarchists, Ted Kaczynski, and *Último Reducto* for my early ideological development, no matter how divided we are now. Thanks to the early Earth First!ers, particularly Dave Foreman, John Davis, and Reed Noss, for being inspirations. Thanks to Dr. John Feeney for providing invaluable guidance and support; to Jonah Howell and Jeremy Grolman for sticking with our political projects even when they seemed destined to fail; finally, to my university friends and mentors, especially those belonging to the Dialectic and Philanthropic Societies, who put up with my constant propagandizing.

Introduction

Man possesses a will with a drive to flourish. He cannot choose his will, neither is the will a totally blank slate on which nature and man inscribe desires. Rather, the primitive will is a landscape, and like a landscape the highs and lows of the terrain limit how, exactly, it can be modified. One *can* run a train through the mountain, and this comes with the benefit of more efficient travel; but it also destroys aspects of the mountain's ecology and degrades aesthetic values. In every similar situation, the task of man is to assess the trade-offs. Few if any cases are totally good or totally bad. The question is whether they are good enough.

Life in civilization demands from man more than his primitive will can give, so he has had to become civilized, tamed — though not quite domesticated. Nomadic hunter/gatherers have successfully entered civilization, but entry is a process of education and cultivation; the beliefs and behaviors of modern humans are not the product of the womb.

According to the progress narrative, the historical de-

velopment of the civilizing process has been an upward-moving line. And sophisticated progressivists note that the line is jagged: civilizations collapse, regression occurs, stagnation halts development. Still, the project has more or less continued, and in the process material conditions select for the most efficient methods of moral or behavioral cultivation. As these methods arise, the need for large-scale social transformations dissipates, and what was once a great cultural project is achieved through childhood education. Man before the Middle Ages lacked even the most basic of manners; man after could only conceive of the unmannered as savage.

But the civilizing process does not work perfectly. On the one hand, it has not reached everyone at the same level of efficiency. On the other, some possess particularly indomitable wills, resistant to methods that work well enough to sustain cultural mores, not well enough to fashion the specific individual in the required way. "There are some who can live without wild things," Aldo Leopold writes, "and there are some who cannot." The indomitable ones are those who cannot.

They are repeatedly present throughout history. We can see the Wild Will in native resistance to colonization; in the Maroons, slaves who escaped captivity to live in the jungles and the forests; the Sentinelese, who respond violently to any civilized excursion into their land. We can also see it in profoundly civilized peoples. In 1753, in the midst of a "going native" phenomenon among American colonists, Benjamin Franklin noted that white captives freed from Native hands did not

wish to stay long:

Tho' ransomed by their friends, and treated with all imaginable tenderness to prevail with them to stay among the English ... in short time they become disgusted with our manner of life ... and take the first good opportunity of escaping again into the woods.

It goes on. John Muir, Henry David Thoreau, Hanshan, Geronimo, Ishi, William Kidd — again and again the Wild Will possesses individuals and places them in direct conflict with the surrounding civilized world. Something here is ineradicable, and even those who do not agree must contend with it.

This book provides one framework for doing so. I speak as one possessed, so I am prone — rather, jubilate in — polemics. I am no impartial observer. But I have spent several years carefully considering how to make these ideas most intelligible to those starting from radically different premises, and intend now to share the result.

The first three chapters outline the *whats* of my perspective before the *shoulds*. Possession comes with a calling, but a calling is only intelligible if understandings of reality are similar. A man called to preach against the evils of Satan is a lunatic to he who does not believe in Satan.

In “The Nature/Artifice Distinction” I give the different definitions of nature and, using what is in philosophy called a precisising technique, narrow down the

definition to eradicate vagueness that is unacceptable when explaining ideas that demand so thorough justification.

In “Human Nature and the Will” I precise the definition of “human nature,” the definition of “will,” and I give my understanding of how morality works.

In “The Meaning of Progress” I, again using a precisising technique, define “progress,” explaining its core components and how any anti-progressive ideology could challenge them. A sufficient challenge, I argue, involves an argument against the future (“A Promised Future”), an argument against the moral unit of progress (“The Origin of Civility”), and an argument against domestication (“Repent to the Primitive”).

In “A Promised Future” I explain all the reasons the civilized project will likely fail, at least in the eyes of most people — this includes some humanists, industrial citizens, third world citizens, wild wills. The future of progress doesn’t look bright for many people at all. Civilization tends toward collapse; future technical developments threaten to transgress humanist and liberal democratic values; and even if civilization doesn’t collapse wholesale, its stronghold will soon be loosened in some regions largely due to problems it is creating for itself.

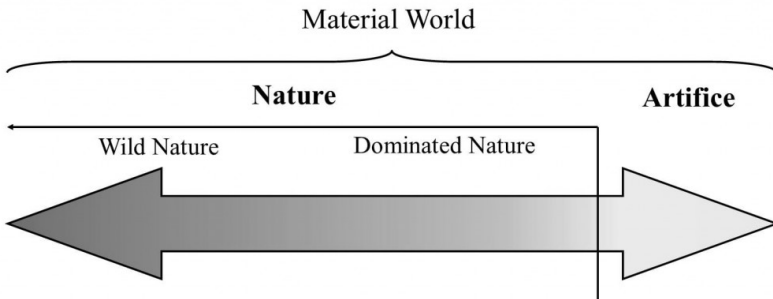
In “The Origin of Civility” I explain the process by which man is civilized, and the inefficiencies in that process that leave some men untrammelled by it.

Finally, in “Repent to the Primitive” I draw on all the

definitions and analyses to express a personal articulation of the Wild Will, its ideals and values and challenges and tragedies. I explain the value of the wild; the significance of the nomadic hunter/gatherer and of wilderness; and the intricacies of the broader worldview, including responses to the strongest or most frequent criticisms.

The Nature/Artifice Distinction

I.



Mill's *On Nature* long ago articulated two meanings of "nature." On the one hand, "nature" could mean everything that exists. If we are materialists we would say it is synonymous with the material world. This definition is popular in the physical sciences, because earlier in scientific history it was useful to distinguish between the domain of religion — the supernatural — with the

domain of science — that which is detectable through human reason rather than Divine revelation. For clarity, I refer to this concept as “the Cosmos” or “the material world.”

And I prefer the second definition of “nature”: anything that is not made or controlled by humans or their technical systems. The contrast here is the artificial rather than the supernatural. This definition is most popular in the biological sciences, especially where those sciences overlap with conservation, because human influence has such profound effect on the field of study. Animal behaviors change when they are domesticated; different plants grow, and plants grow differently, next to roads; ecologies transform downstream from a dam.

Mill made an appropriate observation: neither meaning allows us to look to nature for the *oughts* and *shoulds* of our moralities. If this is what Rousseau meant when he said we must live “in accordance with Nature,” then he made an error. For if nature is everything, then man can *only* live in accordance with it. And if nature precludes man, then man can *never* live in accordance with it.

This does not keep us from asserting that wild nature has value. Though nature cannot be the foundation of our morality, it can be relevant to it. Mill himself noted that nature in the second sense of the term is worth conserving:

Nor is there much satisfaction in contemplat-

ing the world with nothing left to the spontaneous activity of Nature; with every rood of land brought into cultivation which is capable of producing food for human beings; every flowering waste or nature pasture ploughed up; all quadrupeds or birds which are not domesticated for man's use exterminated as his rivals for food . . .

Following Mill, I make no claim other than this: wild nature, that which is not made or controlled by man or his technical systems, has value, and that value must be appraised.

II.

The nature/artifice distinction is descriptive, not normative. Something is not better because it is natural. Anyone from the most avid logger to the most avid conservationist could accept the nature/artifice distinction and impart different values onto each side. Plato wrote, "I am devoted to learning; landscapes and trees have nothing to teach me — only the people in the city can do that." Under the nature/artifice distinction, he would root for the artificial.

III.

The distinction is a spectrum as well as a dichotomy, like many wordpairs: good and bad, tall and short, loud and quiet. Because the distinctions are a matter of convention, their pure, abstract forms do not necessarily correspond to reality exactly, but this does not mean that

they are any less useful in explaining aspects of reality. Tall people still exist even with the ambiguous space between tallness and shortness.

IV.

A man may be tall in a room of midgets but short in a room of giants; similarly, a garden may be natural in the city but unnatural or artificial in a wilderness area.

V.

Nature as “that which is not made or controlled by man or his technics” does not mean that man himself is unnatural. It only means that all human behavior results in artifice.

Making a spear may be a natural impulse; the spear itself will always be artificial. Making art may be natural; the art, artificial.

An individual’s desires and behaviors can be artificial in cases where they are manufactured by man or his various technical systems. Elias’ *The Civilizing Process* explains how Church and education systems instilled in man artificial behaviors called “manners.” Today, advertising companies devise various techniques to feed into consumerism; and media manufactures consent.

Under this distinction, artifice is inherent in the human condition, so short of complete misanthropy, one cannot extol nature and denigrate artifice in all instances. The

question is what degree of both is acceptable. More accurately, the question is one of *wildness*.

VI.

The quality of *wildness* determines where something is on the spectrum of naturalness and artificialness. For instance, an animal that has been caged immediately loses some degree of wildness, and as his body and mind change to a form suited to artificial conditions, he becomes progressively less wild. Artificial control tames the creature, even more domesticates it. Conversely, a domesticated animal population that has been freed from artificial influence, if it doesn't die off, would because of its newfound wildness transition to a feral and eventually entirely wild state. To give another example, consider a dam: a river ecosystem is not made significantly less natural by it at first, but as the ecosystem responds to the edifice, artificial influence becomes more apparent. On the other hand, once we remove the dam, the artificial influence will eventually wash out from the landscape, allowing us to say that it is in a more natural state.

My concern is the value not of nature, per se, but of wildness, with nature and artifice as indicators of its presence or absence. A society with minimal human control over nature would result in bigger wilderness, more primitive technics, and more abundant wildlife. A society with extensive human control over nature would result in little to no wilderness, techno-industrial infrastructure, and an extinction crisis, as it goes today.

VII.

A brief response to critics:

The postmodernists say that modern conceptions of nature and wilderness are recent concepts. Even if this were true in all ways claimed, it is unclear why this should have any bearing on whether or not we value nature and wilderness.

Some assert that “nature,” defined negatively, refers to nothing in particular, and may not exist at all. But we have many words that are defined negatively — secular, for instance — and that says nothing about their existence.

Some say that “nature” is an ambiguous concept. But the ambiguity of “nature” is not substantially different from the ambiguity in other moral concepts that we do not question. “Health” and “wellbeing,” for instance, are the goals of most medical practice, but the concepts are inexact. We call a person “loving” even if they hate sometimes. An honest person can carefully consider their words for tact or even tell small lies and still be considered honest.

McKibben’s *The End of Nature* argues that few if any places on Earth are now free of artificial influence, thanks to powerful technics and global problems like climate change. He states,

If the waves crash up against the beach, eroding dunes and destroying homes, it is not the awesome power of Mother Nature. It is the

awesome power of Mother Nature as altered by the awesome power of man, who has overpowered in a century the processes that have been slowly evolving and changing of their own accord since the earth was born.

But he overstates his point. Human influence has clearly pervaded some of the darkest corners of the Earth, and it will take some time before that influence washes out, but just as clear are aspects of nature that humans have yet to make artificial. Hettinger points out that at the very least humans cannot be responsible for “the existence of sunlight, the photosynthetic capacity of plants, water, gravity, the chemical bonds between molecules, or, more generally, for the diversity of life on the planet.” He also points out that if naturalness is valuable and is decreasing, then “what remains [is] all the more precious,” not reason to abandon serious moral consideration of it.

And in any case, McKibben’s argument is most powerful if we assume that nature’s end is irrevocable; but it is not. The Chernobyl Wildlife Exclusion Zone has demonstrated that nature may rebound from human influence quite rapidly. Weisman’s *The World Without Us* gives many examples along these lines, noting how quickly residential areas would turn into forests or city infrastructure would collapse should human activity cease suddenly and completely. There is naturalness in the world yet.

VIII.

The relevant questions, as Mill wrote, are ones of value. To what extent do we want to conserve nature against artificialization in an age where artificial influence can be so powerful? Do we want to change our genetic make-up with biotechnics? Is wilderness something we can do without? Are climate engineering proposals worth considering? These, the questions of the twenty-first century.

Human Nature and Will

I.

Following the nature/artifice distinction, human nature consists of those parts of the human being that are not influenced by man or his technics. Breathing, walking on two legs, making tools, performing social favors, and so on are all natural human activity. By this definition an organism's nature is different from its behavior, psychology, or biology. Parts of each of these can be artificial, produced by techniques of social control. The same applies to innate tendencies: for example, the positive chemical response domesticated dogs have to humans is innate but artificial.

Some believe that "human nature" means "unchangeable." But under no meaning of the term is human nature unchangeable. This should be clearest in the case of the nature/artifice distinction, since it explicitly acknowledges that natural things can be made artificial.

It is also true for “biological,” such as when humans became lactose tolerant from pastoralism, or when humans are engineered through medicine and biological technologies.

II.

An individual’s nature determines his values. From his perspective, he would say that his values come from his “will,” his subjective experience of his inner nature. Note that will is not the same as spirit. It is nearly synonymous with the human biology, and thus his will can be made artificial just like biology can be made artificial. For example, while Phineas Gage was blasting rock for a railroad, a tamping iron shot through his brain. He survived the accident, but his behavior after was radically different. Dr. John Harlow writes:

The equilibrium or balance, so to speak, between his intellectual faculties and animal propensities, seems to have been destroyed. He is fitful, irreverent, indulging at times in the grossest profanity (which was not previously his custom), manifesting but little deference for his fellows, impatient of restraint or advice when it conflicts with his desires, at times pertinaciously obstinate, yet capricious and vacillating, devising many plans of future operations, which are no sooner arranged than they are abandoned in turn for others appearing more feasible. A child in his intellectual capacity and manifesta-

tions, he has the animal passions of a strong man. Previous to his injury, although untrained in the schools, he possessed a well-balanced mind, and was looked upon by those who knew him as a shrewd, smart business man, very energetic and persistent in executing all his plans of operation. In this regard his mind was radically changed, so decidedly that his friends and acquaintances said he was “no longer Gage.”

Because Phineas Gage’s biology transformed, his will transformed.

III.

Hume’s is/ought problem holds. One cannot determine what ought to be simply from the way things are. One might say,

Premise: If one leaves the house unlocked while out, thieves will steal from the house.

Conclusion: One should not leave the house unlocked while out.

But there is no logical reason why a person should or should not do anything about the thieves. Morality can never be wholly empirically and rationally derived. Instead, moral attitudes are in large part due to sentiments and feelings. Regarding things we consider wrong, Hume writes, “You never can find [the vice], till you turn your reflexion into your own breast, and find

a sentiment of disapprobation, which arises in you, towards this action.”

Morality, then, is a question of human nature. We might say that understanding moral evaluations is a function of a “moral sense,” an innate mechanism that allows us to assess morality in a similar way that our eyes allow us to assess hues. Like eyes, all moral senses have an underlying, universal structure, but where they diverge, where they “see” different things, individuals must either agree to disagree or find some way to resolve their fundamental differences.

I mean “morality” in the broad sense, “the rules that govern behavior.” Morality is not always imposed. If we are committed to our values, then in combination with certain conditions we commit to certain behaviors. It would make no sense for a person who values the wild to log the wilderness; for a person who values human life to indiscriminately murder.

IV.

The relativistic implications of the moral sense are not as terrible as might first be assumed. As Kaebnick writes in *Humans in Nature*, “If we are *committed to our commitments*, then we need not relinquish them just because somebody else disagrees with us.” Furthermore, this account of values adequately describes and explains the way moral reasoning occurs in the real world, by, for instance, making clear that appeals to the value of something are impotent among those who do not accept that value. In truth, even if moral value ex-

isted independently of a valuer, nothing about an independent value would cause it to be enforced outside of normal social methods, like persuasion or force.

It is also quite clear that morality is *descriptively* relative. That is, whether or not we can abstract an objective moral system from our condition, or discover it through empirical investigation, the world as it stands contains individuals and groups who differ widely in their moral attitudes. Indeed, shared moral rules arise precisely because of differences in interests. The rules are a natural problem-solving technique. This means that they can be expected to solve some problems even if they are between two people or groups with incommensurable values, with moral senses that draw fundamentally different *oughts* from the *ises* before them. For example, The Wilderness Act has been supported both by groups who note the economic utility of natural resources and those who value wild landscapes intrinsically.

If all this is relativistic, then it is no more so than scientific investigation, since naturalism has similar implications for epistemology as it does for morality. Return to Hume's contention that moral attitudes are built from a basic moral sense that one either has or does not have; that moral attitudes cannot be derived through means other than this, e.g., through descriptive investigation. In a similar fashion, Hume argued that no one can fully justify their reliance on their senses, nor can they justify certain natural modes of human reasoning like induction or belief in causality. Since Hume, philosophers

have further demonstrated that even aspects of science more complex than immediate sense experience rely on values, power, and logical leaps. If we accept all these arguments, our philosophical starting point for epistemology must be “radical skepticism,” the idea that absolute knowledge is impossible, a position that Hume held. Yet even in spite of this position, Hume did not dismiss induction or sensory evidence, appealing to common sense by pointing out that we do have no choice but to interact with the world using the tools we have. This he called “mitigated skepticism.” In the end it makes epistemology a question of human nature just as morality is.

Evolutionary theory therefore sheds light on why we tend to speak of morality in terms of “opinion” and descriptive investigation in terms of “fact”: the disparity results from a difference in evolutionary restrictions on variability. In other words, some aspects of human nature will be more similar and consistent than others because of similar and consistent selection pressures. Things like sexuality, bodily functioning, basic *a priori* elements of human reasoning, and sensory experience have a basically universal shape. On the other hand, the distribution of moral attitudes is much more diverse. This is most obvious in the case of psychopathy, which tends to have a “low but stable” prevalence in a given population, a finding predicted by evolutionary game theory. So while the unity of human nature indicates some moral universals, universal norms that aren’t strongly selected will have to be a result of compromise between different values, if compromise is

possible. In other words, while communication, understanding, and moral argument are all possible, we can expect many moral differences between humans to remain intractable so long as we do not homogenize the human race biologically.

V.

Our values are innate, but we are not in possession of all our values at birth. A child is not born with fully developed sexual organs and drives, but the form these take at puberty are still innate.

VI.

Morality can change with empirical evidence. Consider, for instance, a historical preservationist who argues strongly that a specific document should be preserved because of its historical value. If someone demonstrated that this document did not actually have the historical value the preservationist thought it had, then he would have to abandon his case for that document even if he does not abandon his core normative commitment to preservation.

Or consider an individual whose immediate feeling toward GMOs, now a popular symbol of artificial modification of nature, is repulsion, because of their artificialness. Suppose he suggests a moral principle (indefensible but hypothetical) that values nature and denigrates artifice in all cases.

From there it is possible to engage in moral reason-

ing. For instance, a rival attitude might (and does) argue that human beings have been engaging in genetic modification of sorts at least since the Neolithic. This unnaturalness is precisely what allowed for population growth, and the so-called “gene revolution” in agriculture is the only apparent means to sustain it through the twenty-first century. The argument is convincing to a person who values the benefits of agriculture and increased population; but those who do not hold similar values will have to resolve the conflict through other means, such as through force (e.g., protests) or compromise (e.g., labeling policies). Alternatively they might be convinced that although they value nature, they also value things like peace, and since the consequences of not using GMOs could mean an increase in future violence (because of resource issues), they may then accept that peace should be prioritized over naturalness.

VII.

To say that values come from human nature does not mean that the value is derived from human pleasure. Philosophical discourse usually contrasts pleasure with pain, but one can value pain or tragedy. And to say that the pain produces a sort of pleasure reduces the power of the distinction by obscuring it.

The confusion stems from a terrible habit to translate the Greek “*eudaimonia*” as “happiness” or “pleasure.” It more appropriately means “flourishing”; etymologically it is derived from “*eu*” (“good”) and “*daimon*” (“spirit”).

A will cannot escape its drive for flourishing; it does so until it is extinguished. Thus, flourishing is the object of every individual — human and non-human — with a will.

The ancients believed that the flourishing of the will depends on the human character, or *arête*, translated as “virtue.” Aristotle, for example, wrote that the will could achieve *eudaimonia* through “virtuous activity in accordance with reason.” The virtue they had in mind extended beyond moral considerations, including such things as beauty and health. In other words, the linking of *arête* and *eudaimonia* establishes a similar framework as the linking of nature and will, and on this I concur with the ancients.

On the role of reason, I diverge on subtle points. The ancients would through reason devise the best way man could achieve *eudaimonia*, but with his conditions as a given. They did not consider that the new conditions came with trade-offs that reason couldn’t solve, because they denied the impact man’s origins have on his civilized character, believing that man’s nature was much more malleable than it is. Aristotle believed that the mind was fashioned as characters on a “writing-tablet” that starts blank; Locke later echoed the idea with his “blank slate.”

The blank slate theory of human nature allowed ancients, and now allows moderns, to unapologetically advocate conditions drastically different than those of primitive man. For example, cultivating the virtues of beauty, health, and strength helped an athlete achieve

eudaimonia as an athlete. Modern philosophy does similarly when it extols peaceful urges and condemns violent ones, an effort to achieve *eudaimonia* as an industrial man.

But the blank slate theory of human nature is false. Man's origins have impacted his whole being. Thus, like Kabbalists who study creation, the original expression of God's Will for the world, to discern how man's sin degrades that Will, through the study of our own origins we can discern the degradation of *eudaimonia* inherent to civilization.

The Meaning of Progress

I.

To paraphrase Bury, the idea of progress is the belief that civilization has improved, is improving, and will improve the human condition. Note the three elements of this idea: first, better days lie ahead; second, what is considered humanity progresses as a single unit; and third, nature must be controlled and manufactured to improve the human condition. These are the three pillars of progress.

Note that standards for judging whether a development is good or bad are not built into the idea of progress. Such a thing would, in fact, be impossible, since progress itself determines the values that will be appropriate. Carr writes, "But I shall be content with the possibility of unlimited progress — or progress subject to no limits that we can or need envisage — towards goals which can be defined only as we advance towards

them, and the validity of which can be verified only in a process of attaining them.” Thus, the standards for progress at any given time are usually determined by a civilization’s dominant ideology. Man did not rationally undertake industrialization because it would decrease rates of violence or create vast pockets of wealth, and that these things occurred are employed only as post-hoc justifications, ideological arguments determined by physical infrastructure and meant to inspire loyalty to it.

Attacking standards of progress would therefore be an arduous and endless task, since the standards change at every new phase of development. However, it is possible to refute the grand narrative of progress by refuting some or all of the three pillars: one could refute the “will improve” part of the narrative by demonstrating that civilization cannot continue (the argument against the future); one could also demonstrate that the unit of progress, like the nation or humanity, is illegitimate (the argument against civility); or one could deny the imperative to modify nature (the argument against domestication).

II.

We must keep distinct the colloquial meanings of “progress,” which can refer to occurrences as benign as walking from one point to another, and the precised definition of “progress,” which refers to a cultural narrative.

III.

Some, like Dienstag, try to explain the Idea of progress as if its main problematic was that of time and time-consciousness: things “get better over time.” But, while the idea does breed a certain relationship with time, especially the future, it is fundamentally about technical development, the backbone of civilization and the only good measurement of progress. That the improved human condition could be undone by technical regression is a testament to this. It therefore makes no sense to say that anything can be progress depending on what one values: civilizational collapse would emphatically not be progress in the precise sense, since progress is inherently a polemic for the technical development of civilization. It is true that polemicists have sometimes argued that pre-civilized conditions contain a modicum of progress, such as the domestication of fire. However, we can appropriately limit the scope of the idea to civilization since the polemicist really only notes these developments for the way they set the stage for what he truly hopes to defend. As Tsanoff writes, “... the march of civilization can fairly be called the march of progress.”

A Promised Future

I.

The first pillar of progress would, knocked down, not bring the entire house down with it. Reasonably one could support the project of civilization even if it were doomed to fail. Still, it is an important pillar to hack at.

The promise of a better tomorrow is what ties most men to civilization, little else. Abandoning these ties may not be a necessity when the promise is abandoned, but men will do so nonetheless.

And, at the least, the reasons for an uncertain future draw attention to the facts and objects of value civilization now marginalizes in the first place, so the argument against the future is if nothing else an indispensable didactic tool.

II.

Any promises, any exact measurements of progress, are

baseless, because beyond the three pillars all progressive values are baseless. Recall Carr — “goals which can be defined only as we advance towards them, and the validity of which can be verified only in a process of attaining them.” This is only a more flowery way of declaring that progress transgresses its own values. One moment, it preaches peace, because that is what it offers. Another moment, war. At the onset of the Industrial Revolution workers were promised leisure. In the technoindustrial age, intimate aspects of their daily existence are monetized — from friendships (through social media) to curiosity (through search engines). Because of personal devices the pulse of labor never dies, invading the worker even in his previously private domains. With the change, the ideal is no longer leisure; it is connection.

Because these values are shaped by material conditions and the structures built atop, rapid changes in these conditions amount to equally rapid changes in morality. The very means by which we measure “better” is a shifting goal post, rendering the whole concept of progress in some sense meaningless. Rubin writes in *The Eclipse of Man*:

It becomes harder and harder for our authors to imagine what will be retained, hence where change will start from. And if the rate of change is accelerating, that simply means we are headed the more rapidly from one unknown to another, while the recognizable old standards for judging whether the changes

are progressive are overthrown with our humanity.

Any effort to mitigate the problem by slowing progress will fail. A moratorium on technical fields like biological engineering holds only in a specified region. The research will simply go elsewhere. Even moratoriums sustained mostly through cultural inertia will eventually be broken, as we witnessed when Chinese scientists genetically modified human embryos. States, of course, have little incentive to let other states get ahead. The process is unstoppable, unless the technical base declines or collapses.

III.

Progress will transgress — indeed, is transgressing — current values as it does all others. Consider a foundational premise of the Enlightenment: a government organized such that the people hold the power. At least, the people must hold enough power that they can reform or even revolt against a government that no longer represents the popular will. The *philosophes* and revolutionaries devised intricate systems toward this end: they pitted sections of government against each other; they ensured a right to bear arms; they instilled in popular consciousness a sense of entitlement that no other populace before had freely. And in the main, the systems worked.

Since then, however, technical development has proceeded at so rapid a pace that the balance of (raw) power is fully weighted on the side of the states. Nearly ev-

ery great mind of the World War II generation recognized this as one of the nefarious implications of nuclear weaponry. Orwell said the atom bomb would probably “put an end to large-scale wars at the cost of prolonging indefinitely a *‘peace that is no peace.’*” Oppenheimer said of it, “We have made a thing, a most terrible weapon, that has altered abruptly and profoundly the nature of the world . . . a thing that by all standards of the world we grew up in is an evil thing. And by so doing . . . we have raised again the question of whether science is good for man.” Yet problems of a similar caliber have only proliferated — chemical and biological weapons, automated warfare, information warfare, etc.

Consider the way information technics are now undermining democratic values. Mass surveillance is once again a topic of major public discussion, but we need not get into the specifics of whether mass surveillance has or has not directly thwarted terror attacks; or whether it is or is not effective for other ends. All that matters is that the technical capability for mass surveillance is now here. Any restrictions on the practice, then, are a matter of policy and self-restraint, and nothing more.

The difference between structural limits and policy limits is vast. When a government (for example) is materially or structurally unable to oppress its populace, its populace has true freedom, a guarantee of certain rights, privileges, or abilities. When technical development transcends those limits and the government is limited by policy only, the populace is merely permitted

to carry on, and the problem becomes one of human nature and folly. And the consequences of human error in our current — not even future — conditions leave too much room for disaster. Behavioral science and cognitive sciences, for example, can now subtly dominate intensely personal decision making, even inner psychological states. In 2014 a journal article in PNAS revealed that Facebook has allowed researchers to conduct experiments on users' newsfeeds without their consent. The experiment demonstrated the ability to affect users' moods by modifying posts on their newsfeeds, moods that would spread through a process called "emotional contagion." The potential abuses are obvious.

IV.

Those less than keen on my sympathies for technical determinism will insist that technics can be used for good, if only humans would use them that way. But if a technology can be used for either good or bad, then when the repercussions of the technology can be as extreme as those of, say, biotechnics or information technics, we are justified in at least asking if the risk is worth it. And given that the development of these technologies is almost certainly inevitable with the continued existence of their industrial base, arguing that their development is *not* worth it necessarily implicates the arguer in an anti-industrial politic.

V.

Civilization must address threats in at least six major

areas before the end of the century. Other threats exist, but most are couched in a long chain of hypotheticals, so I will ignore them. The six are: antibiotic resistance, artificial intelligence, climate change, biotechnology, information technology, and population growth.

The World Health Organization wrote of antibiotic resistance in its 2014 report, “this serious threat is no longer a prediction for the future, it is happening right now in every region of the world and has the potential to affect anyone, of any age, in any country. Antibiotic resistance — when bacteria change so antibiotics no longer work in people who need them to treat infections — is now a major threat to public health.” Combined with densely populated cities and transportation systems, antibiotic resistance means, at the least, constant trouble at the level of the 2014 Ebola crisis. The only apparent ways to address the problem are to devise an alternative to antibiotics (which we do not have at the moment) or to devise public health systems that can mitigate crises when they occur. Both are enormous tasks.

The most pressing problems with artificial intelligence do not have to do with “the singularity” or a Matrix-like robot revolt, but with utter dependence on systems no longer controlled or even understood by humans. This, like antibiotic resistance, is a problem now. One example comes from an article in *Aeon*, “Is Technology Making the World Indecipherable?”:

Despite the vastness of the sky, airplanes occasionally crash into each other. To avoid

these catastrophes, the Traffic Alert and Collision Avoidance System (TCAS) was developed. TCAS alerts pilots to potential hazards, and tells them how to respond by using a series of complicated rules. In fact, this set of rules — developed over decades — is so complex, perhaps only a handful of individuals alive even understand it anymore.

The same thing is happening to society as a whole. In his talk, “How Algorithms Shape Our World,” Kevin Slavin pointed out that 70% of the stock market operates by algorithms that do the trading for brokers, but that no one truly understands (this is called “black box trading”). In fact, the sole duty of some is to examine the automated systems and pick out individual algorithms that run it. As a result, when something like the Flash Crash of 2:45 happens, that is, when 9% of the stock market simply disappears in seconds, no one can give an explanation. A 2013 article from *Nature* echoed this, the authors explaining that finance functions because of a “machine ecology beyond human response time.”

A side-effect of advances in artificial intelligence, widespread automation, probably will not result in permanent social tension, but it will certainly cause short-term social tension. One study predicted that 47% percent of the workforce is slated for unemployment due to technical advances. Unemployment during the Great Depression reached only 25%. And while a common argument is that technical innovation has always provided more jobs, this has been true only in the long

term. In the short term, rapid economic changes have led to quite a bit of instability, and this second wave of automation is occurring at a rapid enough rate for something comparable to happen. Self-driving cars, for instance, will cause immediate turmoil for one of the world's largest industries, transportation. Potential solutions to the problem, such as increased immersion in the virtual world, are unappealing and come with all the problems attached to information technology generally.

Many studies have pointed out that climate change is already set to quickly and harshly impact a handful of major cities, among them Charleston, SC, Tampa, FL, New York, NY, and huge regions of New Jersey. These, the studies say, are inevitable casualties. Likewise, the IPCC report on climate change declared that prevention is no longer enough; civilization now needs to grapple with climate change by mitigating inevitable threats. No solution so far, not even complete transition to renewable energy, adequately addresses the threat.

Biotechnology intersects with several risks, but its most tangible negative consequences involve biological warfare and genetic modification of life. Both have been practiced to some extent since the beginning of civilization, but the power of current technics, and the possibility of novel life-forms propagating autonomously, magnifies the threat into a global one. Furthermore, genetic modification of humans has special philosophical implications. If we accept that man is entirely, or even mostly, a material, biological creature, then ge-

netic modification will not just affect his appearances; it could also affect his mind. This development runs up against some of the most deeply-held human values, like autonomy, self-determination, and identity. It also holds the same potential for totalitarian abuse that information technologies do.

Information technology is a problem because of its totalitarian potential, like with biotechnology, and because of human dependency, like with artificial intelligence. Information warfare or unpredictable natural occurrences like solar flares could easily knock out large regions' electronics, leaving them without the basic infrastructure required to keep the large organizations that underpin civilization running.

And population growth is a problem not only for ecological reasons, but for social reasons as well. Regions set to have the most population growth over the next century are often among the poorest and in terrorist strongholds. And immigration, an inevitable consequence of so large an explosion, has repeatedly caused the same social stresses between left and right, citizens and immigrants.

VI.

Civilization would have a hard road ahead if its future held only one of the six major problems. In all likelihood, several of them will intersect over the next 50–100 years. Martin Rees, in *Our Final Hour*, writes, correctly, I think, that by the end of the century we will have conquered the hurdles adequately, and in a way

that ensures reasonable stability for the far future, or the project of civilization will have failed, and civilization will be in decline. He predicts we have a fifty-fifty shot.

If civilization is to make it, it will have to transition to cleaner energy rapidly; it may have to devise means of reversing damage already done; it will have to decentralize and distribute its technical systems to make them more resilient; and, crucially, it will have to overcome the problem of human nature, which, through problems like general discontentedness, terrorism, and prejudice (especially ethnic), cause relentless inefficiency.

VII.

The philosopher W.W. Bartley demonstrates the essential rejoinder of progressivism:

How can our lives and institutions be arranged . . . to optimum examination, in order to counteract and eliminate as much error as possible.

Thus a general program is demanded: a program to develop methods and institutions that will contribute to the creation of such an environment. Such methods may be expected to be generally consistent with, but not restricted to or limited to, science.

Wealth and power disparities, ecological destruction, degrading mental or physical health . . . ? Progress will

fix all that, say the neoliberals, say the Marxists, say the ecomodernists. But there is a problem with this faith: it overestimates human control over technical development. More regulatory systems cannot, therefore, be the only or even main solution to the six major problems.

VIII.

We don't have sufficient knowledge to devise blueprints for complex systems. At the time cars or cellphones were invented, no one knew the far-reaching changes they were going to bring to society, and no one could have known. How, then, could any group of people have directed these inventions to ensure that their consequences were “good” ones?

Consider that many technologies and scientific discoveries were invented or discovered by accident, including anesthesia, x-rays, dynamite, electromagnetism, ozone, radioactivity, and penicillin. Many times these accidental inventions or discoveries change the technical landscape profoundly, invalidating any previous blueprint or efforts to implement it. This is unavoidable; no scheme could overcome such a limitation.

Part of the problem is that humans cannot or do not fully understand technical systems. Who really understands the dynamics of a corporation or the stock market? Nobody, of course. A CEO, for example, simply can't take into consideration all the consequences his decisions could have — on his image, on his profit, on his consumers, on his employees. Much of this has to

do with the way human behavior is unpredictable. For example, in 2010, when the AP Twitter account was hacked to announce that the White House had been attacked and Obama injured, the stock market suffered another flash crash that resulted in a 130-point plunge in the Dow Jones Industrial Average. All this doesn't keep technical systems from running, but it does mean that any attempt to direct them for "good" has to face possibly insurmountable practical problems.

IX.

Blueprints for complex systems often ignore human irrationality. The psychologist Daniel Kahneman discerns two systems in our brains. System 1 is intuitive, fast thinking, and it utilizes various shortcuts in order to come to conclusions. For all its imperfections, System 1 can be surprisingly accurate, especially when making decisions closer to the kinds our Stone Age counterparts would have made. In contrast, System 2 is analytical, slow thinking, the part of the mind that humans use to write or do complicated math. Kahneman argues that the fast, intuitive system is more influential and that individuals often come to or act on its conclusions without the analytical mind ever knowing about it.

The psychologists Kahneman and Tversky once told experimental participants about an imaginary character named Linda. Linda, the story went, was single, smart, and outspoken on the issues of discrimination and social justice. After explaining this, the two psychologists asked if it was more probable for Linda to be a bank

teller or for Linda to be a bank teller who was active in the feminist movement. Of course, basic lessons in statistical probability would reveal that the first answer is the correct one. Only a subset of all bank tellers are feminist bank tellers, so adding the extra detail will necessarily decrease the probability. But most participants said the second answer was correct.

Another phenomenon Kahneman reports is called the “availability heuristic,” which means that the easier something comes to mind, the more probable the human mind will judge it to be. For example, Kahneman and Tversky asked participants in one experiment to judge whether words that began with the letter *k* were more probable, or whether words with *k* as their third letter were more probable. Because we recall words by their onsets, words beginning with the letter *k* are easier to recall. Thus, the duo predicted, rightly, that participants would judge words beginning with *k* as more likely, even though the opposite is true. One could repeat this experiment using almost any letter.

The availability heuristic helps explain why people seem to fear things in a way that is totally incongruent with statistical probabilities. For example, death by falling furniture is much more likely than death by murder, but because it is easier to recall instances of murder, perhaps from the news or even novels, people fear it significantly more. This may explain why individuals in nations with extremely low crime rates but oversaturated with news media suffer from undull anxiety about crime, so much so that it can create a whole electorate

who actively fear wrongdoing against them by terrorists or gangs or lone murderers or scammers.

X.

The Deepwater Horizon was a normal accident, a system accident. Complex technologies have ... ways of failing that humans cannot foresee. The probability of similar accidents may now be reduced, but it can be reduced to zero only when declining [energy returns] makes deep-sea production energetically unprofitable. It is fashionable to think that we will be able to produce renewable energies with gentler technologies, with simpler machines that produce less damage to the earth, the atmosphere, and people. We all hope so, but we must approach such technologies with a dose of realism and a long-term perspective.

— *Drilling Down*, Joseph Tainter and Tad Patzek

Blueprints for complex systems do not go as planned. For example, there have been numerous attempts at calendar reform. The Gregorian calendar is notoriously inefficient, especially for industrial economic purposes. Indeed, the inefficiency has resulted in loss of large sums of money and several lives, motivating many to popularize calendars much more suited to their industrial purposes. They have all failed. This includes the *Positivist calendar*, created by August Comte; the *Pax calen-*

dar; the *International Fixed Calendar*; the *World Calendar*; the *French Republican Calendar*; the *Invariable Calendar*; the *World Season Calendar*, created by Isaac Asimov; and the *Tranquility Calendar*. Some of these were even proposals in international organizations like the League of Nations but nevertheless failed to be implemented.

Consider Paolo Soleri's "Arcosanti," a city he designed from scratch in order to demonstrate the principles of "arcology," or ecologically-informed architecture, the dogma of modern "green planners." Arcosanti is an odd, futuristic city that, although capable of supporting around 5,000 humans, has only a population of around 80, mostly dreadlocked alternative-culture types. The Japanese corporation Shimizu tried to implement another arcological project in 2004, but it has similarly failed.

These examples reflect the similar and ubiquitous failure of utopian communities that became common in the U.S. in the 1800s. The Nashoba community, for instance, closed its doors within a year of its debut; and only months after the creation of New Harmony, one of the most famous utopian communities, various groups splintered off from each other and the project failed.

Communism, the most striking planning project of all, was met with equally striking failure. Marvin Harris explains that Soviet communism failed precisely because its ideologically-derived social structure was not suited to infrastructural conditions, including ecol-

ogy, something communist dogma ignored. Whether or not Soviet communism equals real communism is irrelevant; the point is that the management scheme that *was* attempted failed.

Human folly exacerbates the problem. In 2014 the Center for Disease Control accidentally sent live anthrax and deadly H5N1 samples to two different labs and a poultry lab, respectively. The same year, scientists at an NIH lab discovered nearly 330 unapproved vials of an array of deadly pathogens, including smallpox, dengue, and spotted fever, in a cold-storage room. Mistakes like these are unacceptable when the minimum requirements for disaster is so low.

One might, of course, argue that there are at least some cases where humans have knowledge and power enough to control some system. Indeed, humans have already attempted to gain such a level of knowledge and power in creating a now-infamous project known as “Biosphere 2.” And it too failed — twice.

Biosphere 2 was an attempt by some scientists to create a totally controlled ecological system with five biomes. It was a highly popularized project, with implications for biologists, ecologists, and various technicians’ dreams of space colonization, because it offered, or was to supposed to offer, a way for scientists to carefully control ecological variables and learn how, precisely, ecosystems work.

However, Biosphere 2 suffered from frenzied CO₂ levels that caused many species to die, including most verte-

brates. Pest insects prospered, and some species killed off and dominated other species. The humans inhabiting the system ultimately had to leave.

The second time around failed largely because of disputes between the scientists, compounded by alleged vandalism by some of the more upset individuals. This may seem irrelevant, but it is in fact highly germane, since it reminds us to temper our planning schemes with greater awareness that it is humans coming up with and implementing them.

XI.

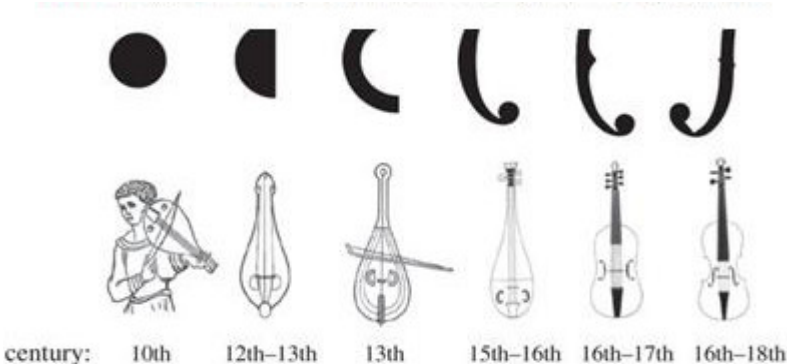
Rational blueprints always have unintended consequences. Consider that most technical innovations supposed to decrease human work have actually increased it. Cell phones and PCs, by making communication and several other business functions more efficient, did not decrease the workday; instead, the workday began bleeding into the home, often without wage compensation. Similarly, cars, among other things, fostered the isolation of suburbs and exacerbated pollution.

XII.

Schemes to implement rational blueprints often fail because they have a faulty understanding of technical development. Human energy and creativity may drive it, but forces greater than man determine the spectrum of possibilities.

In a version of UNO I often play with my family on

holidays, individuals keep a tally of how many points are in their hand after each round has ended. When someone surpasses 500 points, the game ends, and the winner is the person with the least number of points. However, if someone hits 500 exactly, they go back to zero. Sometimes individuals end up with a number of points very close to 500, and they try to keep just the right amount of points in their hand so that when someone else goes out, they will have 500 points exactly, go back to zero, and have a shot at winning again. The problem is that no matter how much skill and reason someone puts into trying to reach 500 exactly, there are still an enormous amount of factors, like the chance distribution of cards, that the person could never control, and that ultimately determine whether he will actually achieve his goal; reason isn't enough. Cultural evolution works similarly.



Nia et al. provide a real example of this idea as applied to violin acoustics. They analyze 470 instruments across several centuries and note that the change of

the shape of the “f-hole” on either side of the violin strings was “gradual — and consistent.” They demonstrate that as each change provided superior sound, the creators replicated them at the expense of inferior designs. This occurred until the changes reached equilibrium with current f-shape. Note that the forces behind this change were not only or even predominantly human intention; instead, markets and physics were stronger determinants.

A final example: in a fascinating excerpt from *The Evolution of Everything*, Matt Ridley points out some trends in technical development occur with such regularity that humans control is unlikely to be the cause. Instead, Ridley writes, these regularities suggest that technics evolve:

... some scientists have begun to notice that cities themselves evolve in predictable ways. There is a spontaneous order in the way they grow and change. The most striking of these regularities is the “scaling” that cities show — how their features change with size. For example, the number of petrol stations increases at a consistently slower rate than the population of the city. There are economies of scale, and this pattern is the same in every part of the world. The same is true of electrical networks. So it does not matter what the policy of the country, or the mayor, is. Cities will converge on the same patterns of growth wherever they are. In this they are very like

bodies. A mouse burns more energy, per unit of body weight, than an elephant; a small city burns proportionately more motor fuel than a large one. Like cities, bodies get more efficient in their energy consumption the larger they grow. There is also a consistent 15 per cent saving on infrastructure cost per head for every doubling of a city's population size.

The opposite is true of economic growth and innovation — the bigger the city, the faster these increase. Doubling the size of a city boosts income, wealth, number of patents, number of universities, number of creative people, all by approximately 15 per cent, regardless of where the city is. The scaling is, in the jargon, “superlinear.” Geoffrey West of the Santa Fe Institute, who discovered this phenomenon, calls cities “supercreative.” They generate a disproportionate share of human innovation; and the bigger they are, the more they generate. The reason for this is clear, at least in outline. Human beings innovate by combining and recombining ideas, and the larger and denser the network, the more innovation occurs. Once again, notice that this is not policy. Indeed, nobody was aware of the supercreative effect of cities until very recently, so no policymaker could aim for it. It's an evolutionary phenomenon.

XIII.

Consider a parable. A magician, through a great feat of sorcery, creates a golem that provides everything he needs. The catch? The magician must continually offer the golem his blood. The golem, who wants to survive and carry out its purpose, develops techniques that encourage the magician to keep giving the blood offerings, and eventually they become so efficient that when the golem stops providing, the magician cannot break away, and he lives in sickness and despair the rest of his life.

XIV.

Humans have two potential futures if civilization succeeds. On the one hand, advanced technics could significantly lower the value of human labor and creativity, leaving them cheap and disposable material for economic production. It is probably impossible to predict how this would manifest materially, but in spirit it would probably look similar to the hard capitalism that characterized the early Industrial Revolution.

On the other hand, advanced technics could leave humans with a large amount of leisure time, to be filled with creative activity, entertainment, and drugs. But this sounds little better. At the least, human behavior will still have to be managed, perhaps to an even greater degree since older systems of obligation, like work, would not exist. Alienation from nature will probably still typify civil life. And the condition will be one of permissiveness rather than true autonomy.

Marshall Brain, the founder of HowStuffWorks, wrote a short story about these two futures that later became a cult classic. The story, entitled “Manna,” presents the two futures just given, the two consequences Brain predicts could ensue after achieving the technical ability to build a post-scarcity economy. Interestingly, in his utopia, the main character decides to live more or less primitively by his standards:

But with all of this technology available, I choose to live my life by setting time back 300 years and living a very simple, completely physical lifestyle. I grew my own food and built my own simple house with my own hands. I was able to be a kind grandfather to dozens of children in the village, to make clay pots in the sun and to grow flowers in my garden outside my bedroom window. I was as happy and fulfilled as I ever had been at any time in my entire life — my life was perfect, because it was exactly the way I wanted it to be.

The catch? The same character had a permanent implant in his brain connecting him to a computer-driven global consciousness. In short: surveillance, management, direction. In fact, in a society that can so efficiently modify man, the individual cannot even be sure that his satisfaction is manufactured, or if it is a true flourishing of his own will. Even in so simplistic a story, one that doesn’t properly examine the neurotic symptoms and harm to nature that stem from exces-

sive wealth and boredom, the terribleness of the “good” future is clear.

XV.

In *Our Final Hour*, Rees, apart from outlining the hurdles we must overcome, suggests a safeguard for the project of civilization: advance space travel technologies so, in case of failure, a small group can carry on the project, potentially by colonizing other planets. Elon Musk has put forth essentially the same idea.

The poverty of a view that hopes to continue the very thing that will have destroyed so great a gift as earth is apparent. The idea also stands out as strikingly vile. Who, exactly, will be on that ship?

XVI.

It seems our civilization is not unique, that civilizations as a whole have a propensity to collapse. Nearly every major work on civilizational collapse has agreed on this point. Joseph Tainter, in *The Collapse of Complex Societies*, argues that civilizations tend to collapse because of declining marginal productivity. Increased management requires energy input, and that energy has to come from somewhere. But the energy required to maintain the management systems may actually end up being a net loss and unsustainable. Farmers are quite productive when they begin on fertile land, but as they expand into harsher soil they struggle to keep productivity levels high. On how this relates to civilizational development overall, Bardi gives the follow-

ing analogy:

Think of yourself swimming in the sea. Physics says that you should float, but you need to expend some energy to maintain a homeostatic condition in which your head stays above the water. Now, suppose that your feet get entangled with something heavy. Then, physics says that you should sink. Yet, you can expend more energy, swim harder, and still keep your head above the water — again it is homeostasis. But, if nothing changes, at some moment you'll run out of energy, you get tired and you can't keep homeostasis any more. At this point, physics takes over and you sink, and you drown.

Tainter demonstrates that this even applies to intellectual, i.e., scientific, progress. He ends his book with a warning that modern society shows all the major signs of a declining civilization.

Jared Diamond, in *Collapse*, suggests that civilizations collapse primarily because of ecological problems and resource issues. It is a different model than Tainter's, but Diamond similarly believes that our civilization is in a precarious place. He lists, for example, twelve environmental problems facing the world today, eight of which have historically contributed to civilizational collapse, an additional four of which are entirely new threats.

XVII.

If industrial civilization collapsed, it probably could not be rebuilt. Civilization would exist again, of course, but industry appears to be a one-shot affair. The astronomer Fred Hoyle, exaggerating slightly, writes:

It has often been said that, if the human species fails to make a go of it here on Earth, some other species will take over the running. In the sense of developing high intelligence this is not correct. We have, or soon will have, exhausted the necessary physical prerequisites so far as this planet is concerned. With coal gone, oil gone, high-grade metallic ores gone, no species however competent can make the long climb from primitive conditions to high-level technology. This is a one-shot affair. If we fail, this planetary system fails so far as intelligence is concerned. The same will be true of other planetary systems. On each of them there will be one chance, and one chance only.

But even if Hoyle is incorrect, and through some path unknown to us now a future generation was able to rebuild industry, it would take thousands of years. Technology today depends on levels of complexity that must proceed in chronological stages. Solar panels, for example rely on transportation infrastructure, mining, and a regulated division of labor.

Knowledge of how we achieved these things before may help us progress more quickly, but there are also insur-

mountable material and economic limits. For example, much of the world's land is not arable, and some of the land in use today is only productive because of industrial technics developed during the agricultural revolution in the 60s, technics heavily dependent on oil. Without the systems that sustain agriculture in those areas, agricultural civilization cannot exist there. And some resources required for industrial progress, like coal, simply aren't feasibly accessible anymore. Tainter writes:

... major jumps in population, at around A.D. 1300, 1600, and in the late eighteenth century, each led to intensification in agriculture and industry. As the land in the late Middle Ages was increasingly deforested to provide fuel and agricultural space for a growing population, basic heating, cooking, and manufacturing needs could no longer be met by burning wood. A shift to reliance on coal began, gradually and with apparent reluctance. Coal was definitely a fuel source of secondary desirability, being more costly to obtain and distribute than wood, as well as being dirty and polluting. Coal was more restricted in its spatial distribution than wood, so that a whole new, costly distribution system had to be developed. Mining of coal from the ground was more costly than obtaining a quantity of wood equivalent in heating value, and became even more costly as the most accessible reserves of this fuel were de-

pleted. Mines had to be sunk ever deeper, until groundwater flooding became a serious problem.

Today, most easily accessible coal reserves are completely depleted.

Beyond material limits, most, who are exploited by rather than benefit from industry, would probably not view it as desirable. Though today citizens of first-world nations live physically comfortable lives, their lives are sustained by the more wretched lives of the rest of the world. "Civilization ... has operated two ways," Paine writes, "to make one part of society more affluent, and the other more wretched, than would have been the lot of either in a natural state." This may not be a problem forever, especially if civilization achieves something akin to a post-scarcity future, but such a future is unlikely.

Even industrial man, from the same primitive starting point, would not want to go through the phases required to reach the industrial stage of development. Consider the case of two societies in New Zealand, the Maori and the Moriori. Both are now believed to have originated out of the same, ur-Maori society after some individuals who become the Moriori people settled on the Chatham Islands in the 16th century. Largely due to a chief named Nunuku-whenua, the Moriori had a strict tradition of solving inter-tribal conflict peacefully and advocating a variant of passive resistance; war, cannibalism, and killing were completely outlawed. They also renounced their parent society's agricultural mode of sub-

sistence, relying heavily on hunting and gathering, and they controlled their population growth by castrating some male infants, so their impact on the non-human environment around them was minimal. In the meantime, the Maori continued to live agriculturally and developed into a populated, complex, hierarchical, and violent society. Eventually,

an Australian seal-hunting ship visiting the Chathams en route to New Zealand brought news to New Zealand of islands where “there is an abundance of sea and shellfish; the lakes swarm with eels; and it is a land of the karaka berry ... The inhabitants are very numerous, but they do not understand how to fight, and have no weapons.” That news was enough to induce 900 Maori to sail to the Chathams.

Then,

... over the course of the next few days, they killed hundreds of Moriori, cooked and ate many of the bodies, and enslaved all the others, killing most of them too over the next few years as it suited their whim. A Moriori survivor recalled, “[The Maori] commenced to kill us like sheep ... [We] were terrified, fled to the bush, concealed ourselves in holes underground, and in any place to escape our enemies. It was of no avail; we were discovered and eaten—men, women, and children indiscriminately.” A Maori conqueror explains,

“We took possession . . . in accordance with our customs and we caught all the people. Not one escaped. Some ran away from us, these we killed, and others we killed—but what of that? It was in accordance with our custom.”

Additionally, something similar to colonization and the Trans-Atlantic Slave Trade would have to occur once again. In *Capitalism and Slavery* Eric Williams noted that global chattel slavery enabled the industrial revolution by financing it, extracting resources so they could be accumulated at sites of production, and exporting products through infrastructure that slavery helped sustain. Though a future system would have to function differently because material conditions would be different (e.g., resources have already been assembled in some areas at the expense of others), human nature makes coercion and violence inherent to any similar project of production. It is hard to get a man to willingly change his traditional way of life; even harder when his new life is going into mines.

XVIII.

Increased civilizational complexity in response to existential threats presents a problem: it makes complex societies less attractive for the classes who have to pick up the tab. For instance, when the Roman Empire increased the size of its military and bureaucratic structures, it raised taxes on the peasants, who, when they couldn't pay the taxes, abandoned their lands. In re-

sponse the Empire debased its currency, deferring its problems to the future, and used money it had already accumulated, the pot slowly diminishing. Of course, it eventually collapsed as a result. For many these facts are enough to motivate a search for new values.

No matter what one's analysis, this search is for some irrefutably rational. Even if a global collapse is not in our future, localized collapses and general economic turmoil are inevitable. Examples like Syria and Somalia make this clear even in the present.

This underlines a fundamental lesson from the history of civilizational collapse: the fixes to these issues are unlikely to benefit the masses. Indeed, often the same who are worst affected will be taxed, killed, or marginalized by solutions. And even among those who do not face an imminent physical threat, there is a large faction discontented with life in industrial society. In an op-ed for *The New York Times*, Brooks compares this to the discontent colonists felt around the time many of them abandoned their way of life for Native societies, a trend that occurred well into the 18th century. "It wouldn't surprise me," he wrote, "if the big change in the coming decades [will be] ... more people making the modern equivalent of the Native American leap."

The Origin of Civility

I.

Hume made a distinction between “natural” and “artificial” values. Natural virtues are those that arise in humans without a high amount of influence from human systems — they do not require indoctrination, education, or any kind of system of production. Such virtues include, according to Hume, compassion, courage, friendship, parental devotion, and so forth.

Artificial virtues, on the other hand, depend on social systems and must be produced through schooling or some other method of acculturation, and they include such things as justice, allegiance to a large social body, chastity and modesty, and the moral rules governing state-based organization, such as respect for sovereignty, property rights, or borders.

Note, however, that Hume is not arguing that artificial virtues are completely contrived. Rather, they must be derived from the natural materials we have to work

with. He writes, for example, that “though justice be artificial, the sense of its morality is natural.” Elsewhere he writes that natural virtues are “augmented by a new artifice, and . . . the public instructions of politicians, and the private education of parents, contribute to the giving us a sense of honour and duty in the strict regulation of our actions.” In this sense, artificial virtues are cultivated from human nature much in the same way agricultural products are cultivated from the land.

II.

Although the analogy is illustrative, one important difference separates being civilized from being domesticated: the latter is a genetic change. But the domain of culture is largely phenotypic, so it is much more flexible and can be modified without changes to an organism’s genotype. Of course artificial conditions can still impact an organism’s evolution, but cultural evolution has gone at too fast a rate for its impact to go beyond trivial things. Humans are still, on the whole, biologically the same as their hunter/gatherer counterparts.

III.

In *The History of European Morals* Lecky noted:

The moral unity to be expected in different ages is not a unity of standard, or of acts, but a unity of tendency . . . At one time the benevolent affections embrace merely the family, soon the circle expanding includes first a class, then a nation, then a coalition of na-

tions, then all humanity, and finally, its influence is felt in the dealings of man with the animal world.

This tendency is a logical consequence of technical development, which expands, and, during expansion, absorbs peoples and their cultures. Since a society with constant inner conflict would operate inefficiently, the material conditions select for social manners that promote unity between the absorbed cultures. This is usually not a pretty process, as is demonstrated by ethnic conflict being one of the main sources of instability for the nation-state system established after WWII.

IV.

The tendency for the moral circle to expand with technical development requires a civilizing process, since in natural conditions man usually confines his altruism to 40 or so people. One might assume that altruism is naturally limited to 40 or so people because only 40 or so people were around, but the limitations are to a large extent biological. The reasons for this are complex.

The field of sociobiology was borne out of a central question plaguing the theory of natural selection since Darwin devised it: why are organisms altruistic? Eventually, evolutionary biologists explained the phenomenon with the concept of *inclusive fitness*. Natural selection, they argued, does not operate primarily on the species or even the organism, but on the gene, whose one “desire” is to propagate itself. It often does this

through the organism. Put colloquially, one might say that the chicken is just the egg's way of making another egg.

Understanding natural selection this way makes altruism significantly less mysterious. When evolution is understood as competition between organisms, each organism has a strong incentive to kill most others, who constitute a threat to survival. But under the new framework, the genes themselves are waging brutal war, which seemingly paradoxically expresses itself as altruism at the level of the organism.

The key is that some organisms share genes, so they would better ensure these genes' survival if they cooperate in some contexts. This is the origin of social behaviors. But the evolutionary trick is limited: after a certain degree of separation in relatedness, the organism no longer benefits its genes by acting altruistic. Thus, the altruism selected by this process only evolves if it benefits close or immediately-extended family. For example, if one group does not murder its uncles, and the other does, the mortality of the second group will make its genes less likely to propagate and survive.

Of course, natural selection isn't a conscious process; it doesn't design. It just happens. So behaviors that evolve under the selection pressure of inclusive fitness do not have to work perfectly, only *well enough*. For example, a woman may be more likely to act altruistically toward her child because of biological cues signaling the baby is hers; but the same cues might in unusual circumstances work for a foreign baby. So long as the net

gain to fitness is better than no biological cues at all, the cues will remain.

Social behaviors also evolve from *reciprocal altruism*. This is a phenomenon whereby an organism temporarily reduces its own fitness to benefit another, with the expectation that the favor will be returned. For example, a group of monkeys may develop the behavior of mutual grooming, allowing them to eradicate otherwise hard-to-reach bugs and improving their overall fitness.

But two limits prevent this phenomenon from extending far. First, reciprocal altruism will only arise when cheaters, or those who don't return the favor, can be detected. This is because, as game theory demonstrates, a group of purely altruistic beings who do not cease being altruistic toward a cheater will be ruined rather quickly, depleted of resources. To avoid this, evolution selects for organisms that withhold resources from or otherwise punish a cheater, either eliminating the problem or incentivizing him to cooperate. Sociobiological experiments confirm that instinctive cheater detection mechanisms do exist in many observed social behaviors.

The cheater-detection requirement imposes a second limitation: organisms will only evolve reciprocally altruistic behaviors in circumstances where the individual receiving the favor will have ample, repeated opportunities to return it. Thus, even reciprocal altruism only selects for social behaviors that favor relations.

Once again, although evolutionary theory explains the reasons for certain behaviors, it does not ensure that the behaviors will always express themselves in the “intended” way. Thus, conditions in one environment may produce a behavior that will be detrimental in other environments. And suitable artificial pressure, or particularly unusual environmental pressure, can tweak the behaviors, though usually not change or repress them completely.

Furthermore, we cannot assume that reciprocal altruism will always be the best strategy for a given social behavior. When natural selection favors reciprocal altruism over pure self-interestedness, it is because, as with monkeys, altruism enhances overall fitness. Otherwise self-interested behavior will be selected for.

There is a final limitation to human solidarity: these behaviors stem from physical changes in the organism, and the form these take impose limits. For example, in primates social behavior is directly affected by the size of the neocortex, which the scientist Robin Dunbar found limited human beings to approximately 150 stable, close relationships. After this point, group cohesiveness can only be maintained through more restrictive rules or norms. And in hunting/gathering conditions a number that large was unlikely because it would require a high amount of time devoted to social grooming, time that the society in question couldn't often afford.

V.

Because human social behavior is limited, we can reasonably predict that moral decisions will be more clear-cut in small-group contexts, but more ambiguous or difficult when our Paleolithic morals confront modern conditions. The evidence seems to bear this out. For example, humans have a very difficult time making moral decisions concerning large groups, a well-known problem in population ethics. Patricia Churchland put it this way: “no one has the slightest idea how to compare the mild headache of five million against the broken legs of two, or the needs of one’s own two children against the needs of a hundred unrelated brain-damaged children in Serbia.”

Consider an experiment by the psychologist Paul Slovic during which he told volunteers about a starving girl, and measured their willingness to donate money. He then told the same story to another group but with the added detail that millions of others were also starving. The second group only gave around half as much money as the first. In fact, Slovic found that even adding just one more person would begin the process of “psychic numbing.”

But in modern conditions, this kind of numbing is morally unacceptable, and decisions must be made that affect large populations. A large group can only maintain its cohesiveness and strength if its members maintain their solidarity, even if the solidarity is only behavioral or institutional (e.g., through charities or NGOs). Artificial modification therefore becomes an absolute necessity for the society.

On the other hand, natural human behavior is clearly prejudiced toward in-groups. To test this idea, social psychologist Henri Tajfel once split experimental participants into groups based on a coin flip and then asked them to appraise a piece of art in a style none had seen before. Tajfel found that, in spite of the group membership's irrelevance and arbitrary nature, participants "liked the members of their own group better and they rated members of their in-group as more likely to have pleasant personalities." And the biases affect behavior. In a number of studies, experimenters divide their subjects into arbitrary groups and tell them to allocate objects of value, like money or points, to other subjects, who are identified only by a number and group membership. Participants give more than would be expected if they were purely self-interested, but they have an undeniable tendency to allocate more resources to members of their in-group.

So we must distinguish between mutualism in the natural state of man, which we will call *solidarity*, with mutualism in the civilized state of man, which we will call *civility*. Civility must be cultivated from solidarity according to the demands of civilization, and, as civilization gets larger, so does the sphere of moral consideration.

VI.

Norbert Elias writes about a historical example of moral cultivation in the first volume of his magnum opus, *The Civilizing Process*. Elias argues that, instead of sim-

ply adopting European social mores, the people of the Middle Ages underwent a long period of education that shaped their behavior through shame, guilt, disgust, and other such feelings.

For instance, Elias reviews several etiquette manuals and points out that commands now reserved for children were being issued, regularly, to adults. People of the Middle Ages had to be told not to defecate on staircases and curtains, not to defecate in front of women, not to touch their privates in public, not to greet someone who is relieving themselves, not to examine their handkerchief after blowing into it, not to use various pieces of public fabric as handkerchiefs, not to use their eating spoon to serve food, not to offer food that they have bitten into, not to stir sauce with their fingers ...

Beyond direct instruction, European society also developed taboos around sex, defecation, and urination; they passed laws; and they made non-compliance of cosmic importance by employing Christian dogma. In other words, the European “second nature” developed only through multiple, interlocking systems and over a long period of time.

Elias argues that instilling a second nature into Europeans became necessary because right around the same time the patchwork of feudal territories, chiefdoms, and cities were being consolidated into much larger state-based societies. Nowadays, with states and their systems of education already established, a large-scale social transformation is unnecessary, and citizens usu-

ally go through the same processes of education in their youth.

VII.

Today the dominant ideology of global civilization is humanism, the belief that humans belong to a single moral community in which they each have equal standing.

“Dominant” is measured by power, not numbers. The majority of the world population still holds traditional values, like belief in a strong family, ethnic loyalty, and continuing tradition. Where these have been disrupted by colonialism they assume a particularly modern aroma, but the values are traditional nonetheless. Still, some of the most powerful organizations, and those which have the most ability to shape global civilization, preach humanist values: the United Nations, NGOs, many large religious orders, universities, most transnational corporations ... Note, however, that these organizations are not stably dominant; their project to add another layer of moral cultivation to civilization is an ongoing one.

Despite its name, humanism has tension with human nature. It is not interested in humans as they are, only humans as they can be fashioned. For example, to humanists, social problems are often caused by humans not being cooperative enough within the social system. Their solution, then, is to change the humans rather than the society.

VIII.

Radical environmentalist philosophy has traditionally tried to extend rather than reject the humanist project. We will call the philosophy *progressive ecocentrism*, or the idea that non-humans have equal standing too. It is not quite the same as animal rights ideologies, which hope to extend the moral circle only to a subset of animals, usually those believed to be sentient. Ecocentrism goes even further, including non-sentient animals, non-animals, whole ecosystems, and even the entire biosphere.

This moral circle approach has some interesting consequences. For example, ecocentrists can feasibly be against industrial society because, on the whole, it causes more suffering than wellbeing. This position is not as easily supported by humanism because, unlike humanism, ecocentrism includes the suffering of non-humans into its calculations. For the same reason, ecocentrists can often be outwardly misanthropic. It allows for the utilitarian calculation that, since all suffering is equally bad, and since ending humanity would (according to some progressive ecocentrists) decrease overall suffering, the end of humanity is worth it. This is comparable to saying that killing one person is better than killing five.

But these are only potentials, ones that have been taken, but potentials only nonetheless. Ecocentrism usually does not go hand-in-hand with strict anti-industrial politics or misanthropy. In the main, ecocentrists wish to radically transform society such that it de-

creases its impact on the natural world and includes the standing of non-humans into its social systems. This does not necessarily mean, say, that animals could sue; only that their interests *as wild animals* are considered, perhaps by establishing wilderness areas. To not do this, to reaffirm only the value of the human, is what ecocentrists call “anthropocentrism.”

The philosophy, however, is inconsistent. Whereas it measures non-human wellbeing by a standard of wildness, it does not do so for human wellbeing. Instead, humans are supposed to reaffirm civility between all human beings, thereby legitimizing the systems and infrastructure that inculcated that civility; and they are supposed to go still further by extending their moral behavior toward non-humans, thereby legitimizing new systems and infrastructure. Man as wild animal himself — unconsidered.

IX.

On how altruism evolved from inclusive fitness can be extended beyond relations, Pinker writes:

The cognitive twist is that the recognition of kin among humans depends on environmental cues that other humans can manipulate. Thus people are also altruistic toward their adoptive relatives, and toward a variety of fictive kin such as brothers in arms, fraternities and sororities, occupational and religious brotherhoods, crime families, fatherlands, and mother countries. These faux-

families may be created by metaphors, simulacra of family experiences, myths of common descent or common flesh, and other illusions of kinship. None of this wasteful ritualizing and mythologizing would be necessary if “the group” were an elementary cognitive intuition which triggered instinctive loyalty. Instead that loyalty is instinctively triggered by those with whom we are likely to share genes, and extended to others through various manipulations.

On how reciprocal altruism can be extended beyond relations, Pinker writes:

One cognitive twist on this formula is that humans are language-using creatures who need not discriminate reciprocators from exploiters only by direct personal experience, but can also ask around and find out their reputation for reciprocating with or exploiting others. This in turn creates incentives to establish and exaggerate one’s reputation (a feature of human psychology that has been extensively documented by social psychologists), and to attempt to see through such exaggerations in others. And one way to credibly establish one’s reputation as an altruist in the probing eyes of skeptics is to *be* an altruist, that is, to commit oneself to altruism (and, indirectly, its potential returns in the long run, at the expense of personal sacrifices

in the short run). A third twist is that reciprocity, like nepotism, is driven not by infallible knowledge but by probabilistic cues. This means that people may extend favors to other people with whom they will never in fact interact with again, as long as the situation is representative of ones in which they *may* interact with them again.

X.

Consider the way commercials about African poverty exploit natural tendencies to extend cooperative behavior. It is normal to respond to a desperate child with sadness. And it usually makes sense to aid the desperate, even bureaucratically. But *guilt*, of the kind the sinful experience, is an unnecessary feeling. Aid has only been made an obligation because large organizations need it to be. Corporations survive off of the social connection, whose trade and consumption are their profit and labor. Governments run more efficiently if they use the powerful incentives of the social instincts to manage behavior. In the same way that farmers cultivate more land for better yields, cultural institutions must build new social connections for cultural cultivation.

They sustain these connections with psychological manipulation. Aid commercials are so effective because young, vulnerable animals, including humans, have (biologically) evolved cute facial features for the exact purpose of eliciting tenderness. Organizations in turn (cul-

turally) evolve techniques of social control that most efficiently shape human nature for civil purposes, like those above. As the number of organizations interested in a certain behavior increases, so too do moral precepts that better assure it. And ethicists, uninformed or unenthusiastic about human origins, mistake current moral intuitions for actual insights into human nature, declaring humanism the morality of reason. Resultingly, modern man does not simply hurt when he can't or doesn't act on empathy, and sometimes he is not struck with empathy at all — but always he feels guilt.

In *Civilization and Its Discontents* Freud echoed these ideas. He also noticed the tendency of civilization to expand the sphere of moral consideration as it grows, writing, “Civilization is a process ... whose purpose is to combine single human individuals, and after that families, then races, peoples and nations, into one great unity, the unity of mankind.”

But he throws a wrench into the whole thing. Freud's central thesis was that human nature contains some biologically innate drives that need to develop without artificial interference but that are contrary to the project of civilization. So, he writes, civilization sublimates or represses them for its own stability, and this leaves the individual in a neurotic, guilty state that can only be avoided with escape from civilized institutions. Freud writes that his intention is:

... to represent the sense of guilt as the most important problem in the development of civ-

ilization and to show that the price we pay for our advance in civilization is a loss of happiness through the heightening of the sense of guilt.

XI.

Civility is instilled or sustained through means other than expanding the moral circle. When cooperative behaviors cannot be induced through familial metaphor, or otherwise, governments and corporations will use psychological tricks to induce compliance. Many of these are well known and relatively harmless. For example, in some countries citizens are automatically organ donors and have to opt out, increasing the number of organ donors. Other methods are a little more nefarious.

Population management techniques, for example, are an essential part of civilization, both for mass events and heavily populated areas. For example, universities around the 1960s often designed confusing floorplans for new buildings to prevent vandalism among protesters. Metal studs on short cement walls prevent skateboarding. City planners sometimes specify that benches be divided by armrests so people cannot lay on them, or that bench seats tilt forward slightly to encourage people not to stay long. Municipal governments have figured out that only a few design elements, like large windows on buildings near sidewalks, low landscaping, and gapped fences, will deter crime by creating the illusion of surveillance.

In a similar vein, advertising employs behavioral psychology to determine which jingles will stay in consumers' heads the longest or which brand images will translate to the most buys. This kind of manipulation is also used in physical spaces. For example, in well-designed stores, tiles will get smaller where there are products the store especially wants to sell, because it creates the illusion that the shopping buggy is going faster and causes customers to slow down.

Or, consider this insight on gas pump design by Lisa Margonelli:

Nobody gets up in the morning and thinks, "Wow! I'm going to go buy some three-carbon-to-12-carbon molecules to put in my tank and drive happily to work." No, they think, "Ugh. I have to go buy gas. I'm so angry about it. The oil companies are ripping me off. They set the prices, and I don't even know. I am helpless over this." And this is what happens to us at the gas pump — and actually, gas pumps are specifically designed to diffuse that anger. You might notice that many gas pumps ... are designed to look like ATMs. I've talked to engineers. That's specifically to diffuse our anger, because supposedly we feel good about ATMs.

Elsewhere she explains that profits did go up after the redesign.

XII.

The structure of modern society is unique in its psychological damage because it employs a multiplicity of interlocking, autonomous systems of control, much more than did pre-modern kingdoms and religious orders.

The problem reveals itself through a simple thought experiment: what aspect of your daily routine doesn't make somebody money? Very little, probably. And in trade there is an incentive to colonize every aspect of the consumer's life that will turn a greater profit or increase efficiency. Google wants your attention; the university, your time; work, your labor. More, the story of technoindustrial development since WWII demonstrates a process of constant expansion, constant and total colonization at an awe-inducing speed. Previously private domains, like social relationships, are now directed by technicians at social media companies and the incantations of their behavioral sciences. The individual, as a result, is left in an anxious state, pulled in many directions and sucked of independence and creativity, or dazed and confused into a stupor until the end of his day, when he find himself drained of any energy to exert for his own will.

Being pulled at all sides by obligations and rules and psychological manipulation has a negative impact. The need for autonomy from these is so crucial that even relieving individuals of a few of the burdens has a positive effect on their wellbeing. For example, when patients are carefully attended to, health declines; but when the patients have the ability to control even small aspects of

their life, the effect reverses. Prisons that allow prisoners to reposition furniture and TVs see fewer revolts and health problems. And individuals in homeless shelters that allow their residents to choose their food and bed are more likely to find an apartment or get a job.

XIII.

The consequences of rejecting the wild are apparent in non-human animals. The biologist John B. Calhoun documented some of the effects in a study that would later be the inspiration for *The Rats of NIMH*. The experiment centered around a roomy box containing several mice that Calhoun hoped to breed about 5,000 others from. He provided the critters with nearly everything one would expect them to need to live fulfilling lives, including sufficient food and water, climate control, and comfortable living quarters. However, the population never exceeded 150, much lower than his target; they developed aggressive behaviors; and instead of normal burrowing, they rolled dirt into balls for no apparent reason.

Calhoun repeated the experiment with some modifications several times, but each time he encountered another array of negative consequences. For example, one of the rat populations doubled every two months, growing so rapidly that social conventions, like those around mating, stopped working properly. They also exhibited abnormal aggressive behaviors, even toward their offspring, and they spent most of their time grooming, sleeping, and eating instead of engaging in normal so-

cial activity. After only two years, the population collapsed, and with it the mouse utopia.

In his paper, Calhoun draws many parallels with human society and muses on potential solutions to the problems. Although he never settles on one exactly, he put the most emphasis on increasing abstract creative space to satisfy innate needs for creation and autonomy — abstract spaces that now exist in the form of information technologies, and that have been taken to their logical conclusion in fictional commentaries like *The Matrix*.

Zookeepers also repeatedly encounter captive animals with a wide array of behaviors that look uncannily similar to depression or anxiety in humans, a phenomenon known as “zoochosis.” Animals suffering zoochosis will pace in their cages, self-harm, intentionally puke, or become randomly aggressive. Like with humans, these behaviors can be managed by providing entertainment or by making normal tasks slightly more difficult than they need to be. For example, zookeepers might place food in a toy that the animal has to figure out how to open before he eats. Zoo animals also receive regular doses of antidepressant and anti-anxiety medication, like Xanax and Prozac. In fact, it is not often talked about, but most animals behind the zoo glass are on medication of the sort.

XIV.

Humans display symptoms comparable to caged animals. This should be unsurprising. A gorilla and a

rat display unique symptoms to being tamed or domesticated, but the overall impact is fairly similar, and they don't differ too much from each other. Man is an animal. He is not so separated from the others that he wouldn't have a comparable response.

For example, individuals living in urban areas have an increased risk of psychosis and urbanity exacerbates symptoms in those already diagnosed with a psychotic disorder. A twin in an urban area is more likely to receive a mental health diagnosis than a twin in a rural area. Drug use is quite common in times of rapid urbanization, indicating that the process has significant, negative psychological effects. And while in already-developed cities drug use varies, diagnosed mental disorders increase at a rate faster than would be predicted based on the increased population alone.

Or consider the case of the Oji-Cree. Up until the 1960s, the Oji-Cree people of the Hudson Bay maintained their indigenous way of life even while in contact with modern society. But then the 60s hit, and industrial technics took a stronger hold. With this transition came many of the benefits of civilization: the Oji-Cree now no longer work as hard to build transportation technologies and winter is not as difficult or deadly. But, as one writer explains:

... in the main, the Oji-Cree story is not a happy one. Since the arrival of new technologies, the population has suffered a massive increase in morbid obesity, heart disease, and Type 2 diabetes. Social problems

are rampant: idleness, alcoholism, drug addiction, and suicide have reached some of the highest levels on earth. Diabetes, in particular, has become so common (affecting forty per cent of the population) that researchers think that many children, after exposure in the womb, are born with an increased predisposition to the disease. Childhood obesity is widespread, and ten-year-olds sometimes appear middle-aged. Recently, the Chief of a small Oji-Cree community estimated that half of his adult population was addicted to OxyContin or other painkillers.

Of course, the symptoms are not confined to the Oji-Cree. In fact, most are widespread problems in industrial societies, and evolutionary psychologists have come up with a few explanations for them. Diabetes and obesity, for example, are probably common because in evolutionary history, sugar was hard to come by but a necessary nutrient, so humans evolved a special taste for it; but this only causes health problems in sugar-rich modern societies, which also include corporations who exploit the human sweet-tooth for profit.

Conversely, most hunter/gatherers are neither struck by degenerative disorders or diseases to the degree industrial humans are, nor are they struck by many now-prominent mental health issues. One article in *The American Journal of Medicine* explains, “There is increasing evidence that the ... mismatch [between our hunter/gatherer biology and civilized conditions] fos-

ters ‘diseases of civilization’ that together cause 75 percent of all deaths in Western nations, but that are rare among persons whose lifeways reflect those of our pre-agricultural ancestors.”

XV.

I wish to speak a word for Nature, for absolute freedom and wildness, as contrasted with a freedom and culture merely civil — to regard man as an inhabitant, or a part and parcel of Nature, rather than a member of society.

— Thoreau

Man is linked to nature by virtue of their joint material condition. This is not an obvious fact to many, and the fight for acceptance and recognition of it has a long history. Darwin, for instance, in a world gripped by Christianity, initially avoided applying evolution to humans, and it took Thomas Huxley’s bellicose manner for the issue to be brought forward publicly in the man’s famous debate with a bishop (of course). Later, Huxley’s *Evidence as to Man’s Place in Nature* and Darwin’s *The Descent of Man* further established that human beings are animals and subject to evolutionary processes as much as any other living creature.

When Jane Goodall reported on apes using tools in a time when tool use was considered unique to humans, the anthropologist Louis Leakey said, “Now we must redefine ‘tool,’ redefine ‘man,’ or accept chimpanzees as

humans.”

E.O. Wilson, when he suggested that humans are indeed subject to the processes of evolution, had water poured on his head by an upset activist and suffered profound backlash from many academics. This was more than 100 years after *Descent of Man*. Similarly, Paul Ekman, when presenting his findings that a core set of facial expressions are universal among humans (and so probably biological in origin) found himself interrupted by a prominent anthropologist in the audience, who stood up and demanded that Ekman not be allowed to continue because his views were fascist.

The greatest thing humans have to learn about their condition, then, is not what makes them separate from the rest of the material world, but what tethers them to it.

Caging and taming wild animals is widely considered repulsive. Their captive lives exist along a spectrum. On one end, their physical conditions are worse than in the wild, especially at zoos or circuses. And except in cases of regulation, this will always remain a secondary concern to profit and efficiency. On the other hand, their physical conditions can be comfortable, but they develop neuroses and exhibit signs of boredom, depression, or anxiety; their social behaviors change; their mating patterns differ. It is easy to see how both ends are less than ideal for the animal, and similar to the divide between the third and first worlds among humans.

The supposed benefits of civilization, like longer life ex-

pectancy and greater peacefulness, do not distinguish man. Captive non-humans sometimes live longer in captivity, or they are more lethargic, and therefore more peaceful. But how odd it would be to suggest that a lion's peacefulness dignifies his cage!

Repent to the Primitive

I.

... as the weapon became more and more effective, man imposed more and more limitations on himself as the animal's rival in order to leave it free to practice its wily defenses, in order to avoid making the prey and the hunter excessively unequal, as if passing beyond a certain limit in that relationship might annihilate the essential character of the hunt, transforming it into pure killing and destruction. Hence the confrontation between man and animal has a precise boundary beyond which hunting ceases to be hunting, just at the point where man lets loose his immense technical superiority — that is, rational superiority — over the animal.

— *Meditations on Hunting*, Jose Ortega y Gasset

A world completely dominated by human and technical

power: nearly everyone agrees it is undesirable. Domestication has limits. But why? The negative approach argues that one limits domestication because of human folly, error, vice; the destructive impulses of technical development; and the limits of human reason and power. The affirmative approach upholds what the world is without human power, the wild world.

Ecomodernists, for example, claim that wilderness is compatible with civilization. A negative approach would attack this idea by pointing out human folly, destruction inherent to technics, and limits to human reason and power.

But, more important, ecomodernists have missed the point. Civilization *is not worthy* of preservation. The wild will does not ask for wilderness because he wants a few nature reserves that look aesthetically similar to nature in the Pleistocene; he asks for wilderness because he wants the wild.

II.

I wish to appraise the value of the wild. I do not embrace misanthropy, denigrating artifice in all cases. But the world should be much wilder than now, and the justifications for cultivating wildness and destroying what it sustains, especially those few areas where wildness still reigns, strike me as false, repugnant, or forceless.

But to appraise the wild before the masses of men is a quest fraught with limits. The moral terrain is harsh and tenuous. If our values spring forth from the will, I

am powerless against a will that cares nothing for what I eulogize. At best, my words can find those already convinced, providing them a new individual's perspective and approach; or they can give a conscious expression of the unease many individuals feel but cannot articulate.

III.

A trope in primitivist politics is the notion of return: return to the primitive, return to simplicity, return to the land. But too often the language is botched, ironically, by the idols of progress. "Return" is seen as a nostalgic call for a lost Eden, leaving open the obvious rebuttal that that great garden's gates are still guarded by an angel wielding a fiery sword.

This is a simple linguistic misunderstanding. "Return" does not, in fact, only have meaning in the context of something lost to history. The something can merely be lost spatially or spiritually, both of which are the case here.

The Hebrew word "*teshuvah*" provides an analogous case of ambiguity. It, like its English counterpart, can be understood as either "return" or "repent"; but, unlike its English counterpart, the overwhelming connotation rests on the latter meaning. The Jews, then, perform *teshuvah* when they turn their face from the world's idols and back toward the light of God, who, though invisible to them, was never lost.

The primitive has never been lost to us, not yet. Though

civilized, man is not domesticated. And in this lies the origin of the intractable wild will.

IV.

The success of the civilizing process has been uneven. Looking at history, material progress can only be conceived as a broad trend picked out of an upward-moving but jagged line. In the present, progress is ongoing: it has not touched everywhere and has not had the same effect on everyone. A clear cause is irregular access to civilizing institutions. For example, the less educated commit more crimes.

It also has to do with differences in personal disposition. The mass of industrial humanity lives on the uneasy border between happiness and anxiety with modernity. But some are utterly discontent, and, if they can identify the source of their unease, they rebel against or refuse to participate in civilization. These are the individuals who cannot live without wild things, and, like Leopold, I write, primarily, for them.

Though the mass is discontent enough to be convinced that civilization ought to be rejected, at least temporarily, they lack the will to do anything about it, and an expectation of conversion is a superfluous use of energy. But throughout history there have been individuals with indomitable spirits, with wild wills, who, often independently, reject a myopic orientation toward the future, reject civility, reject domestication, and live under the edicts of nature rather than the edicts of man.

For instance, in 1785 a group of freed and runaway slaves and white indentured servants settled in a wilderness area now known as Indianapolis. Peter Wilson writes:

They mingled with Pawnee indians and took up a nomadic life modeled on that of local hunter-gatherer tribes. Led by a “king” and “queen,” Ben and Jennie Ishmael . . . , they were known as fine artisans, musicians and dancers, abstainers from alcohol, practitioners of polygamy, non-Christian, and racially integrated. . . . By about 1810 they had established a cycle of travel that took them annually from Indianapolis (where their village gradually became a city slum) through a triangle formed by the hamlets of Morocco and Mecca in Indiana and Mahomet in Illinois . . .

Later “official” white pioneers detested the Ishmaels, and apparently the feeling was mutual. From about 1890 comes this description of an elder: “He is an anarchist of course, and he has the instinctive, envious dislike so characteristic of his people, of anyone in a better condition than himself.” . . . The observer continues: “He abused the law, the courts; the rich, factories — everything.” The elder stated that “the police should be hanged”; he was ready, he said, to burn the institutions of society. “I am better than any man that wears store clothes.”

Over half a century later, John Muir, a pivotal figure in the wilderness movement, echoed the same ideas. Muir spent much of his time in the wilderness that still existed in the U.S., camping primitively, often without much more than a few blankets and a knapsack. He was a prolific writer, in his essays extolling the value of the wild, rebuking the materialism of American society, and advocating for the creation of a wilderness reserve system. He writes:

Thousands of tired, nerve-shaken, over-civilized people are beginning to find out that going to the mountains is going home; that wildness is a necessity . . .

V.

Some value wildness because of the physical world that results from wild conditions — nature; some value wildness in itself. In the first case, wildness is instrumentally valuable because it sustains biodiversity, recreational areas, or aesthetically pleasing landscapes. In the second case, my own position, wildness is valuable even if it does not provide biodiversity and aesthetically pleasing landscapes. And nature as it happens to be under the wild is valuable because it is where one can commune with wildness.

To say that nature is instrumental in this way does not desacralize it. Though wildness is valuable apart from any particular thing it sustains, it is inextricably bound with other natural values such that they cannot be separated save conceptually.

For example, the physical state of nature under the wild, rather than under man, is relevant, because man cannot mimic wild states exactly. This is obvious, for example, in the case of Biosphere II.

VI.

Wildness is valuable, but so are happiness, traditions, and family. The question is always, To what degree? The answer cannot be exact, because wills are different. Some may value so fragile a wildness that they could argue for roads and electricity covering the earth; but this is clearly not what I appraise. An ideal fixes the problem by drawing close those who truly relate to the values in the same way, vice versa. A man who gives Thomas Jefferson as his ideal politician reveals a lot about himself.

The primitivist ideal is dually Paleolithic: wilderness, in the case of non-human nature, and nomadic hunting/gathering for man. Two sides of the same coin.

Note that the ideal is unlike ideals in political philosophies, in that it is not a blueprint to impose. Rather, by the very nature of wildness, it is an ideal that arises as one resists imposed blueprints. The socialist ideal would not be socialist unless the society functioned a specific way. Rewilding, however, is concerned only that whatever functioning evolves does so outside of civilization. In some societies this might mean violence, in others it might mean peace; in some it might mean hierarchy, in others it might mean stark egalitarianism.

I employ the Paleolithic ideals much in the same way that conservationists employ benchmarks, a term in conservation science for turning points in man's relationship with nature, such as the transition to agriculture, European colonization, the onset of the Industrial Revolution, and the first use of nuclear bombs. Though imperfect, not all of these benchmarks are arbitrary. For example, that the transition to agriculture fundamentally transformed human-nature interactions is undeniable.

Note that the concept has two mutually exclusive uses. On the one hand, those who are concerned primarily with biodiversity often use historical benchmarks to determine what is natural. For example, an idea in classical conservation work considered the state of ecosystems prior to European colonization as the natural state that conservationists should attempt to preserve. However, this is an incoherent use of benchmarks for the ethic of wildness. Although influential, the idea of ecosystem stability is not consistently true or applicable. Consequently, restoring levels of wildness does not necessarily restore ecosystems to a "stable state" that can be seen in some previous historical period. We might therefore use benchmarks not as points on a historical timeline, but as rough measures of potential human impact. Rather than simply advocating "nature in the Pleistocene," it would be more accurate to book-end the benchmark at the beginning and end of hunting/gathering.

Historical states of nature are still relevant. The sci-

ence of ecosystem stability is consistent enough for historical time periods to function as rough indicators of what ecosystems might look like should some level of wildness be restored. As Angermeier writes, though “ecosystems are too poorly understood to allow precise measurement of all human effects,” they do “have functional and evolutionary limits and natural ranges of variation, which provide a basis for [an] objective assessment . . .” Nevertheless, these limits have changed through geologic history, and human effects such as climate change and extreme rates of extinction signal that the limits may again be shifting permanently.

VII.

The wilderness movement has accumulated a myriad of arguments in favor of physical wilderness preservation. We ought to distinguish which ones are instrumental, meant to convince those who start from other values, and those which stem from the wilderness ethic.

To argue that wilderness protection puts invaluable economic resources on reserve is not actually convincing to the core of the wilderness movement, but it has occasionally been useful to activists seeking to broaden political support. It is a way of striking a deal with individuals who hold values incommensurable with wildness. The same applies to wilderness as a reserve of scientific biological data, a space for recreational activity, or a source of national pride. Again, the arguments are true, politically useful, and should not be abandoned; but they do not illustrate the wilderness ethic.

Wilderness is valuable because it contains the ecological building blocks necessary for nature to run itself. Wilderness is wildness dignified; thus the losses of wilderness are the losses of wildness to an exemplary degree. In the context of wild nature, nature provides the necessary components for survival. Humans do not need to subordinate themselves to large organizations and technical systems in order to exercise their wills. But when humans modify nature, they must keep up the process of perpetual modification, because the rest of the natural system has not evolved to function in that state. Artificial labor must fill in the gaps. For example, without any human intervention, natural processes deal with animal feces. But a toilet requires entire technical systems of human labor, waste disposal, state management, and so forth. The plumbing is convenient, this is true, but at the cost of great overhead, necessary policing, and further modification of nature. A civilization is the same kind of problem magnified a thousandfold.

Some arguments for wilderness do not exactly overlap with the value of wildness, but the distinction is less obvious than, say, the economic resources argument. For example, evidence suggests that wilderness experiences are good for mental health. This is relevant, but only because it is indicative of human animality. Ultimately the source of the wild will is biological. Man would not have it if he did not evolve in conjunction with the rest of the natural world, and if the mismatch between civilized conditions and the primitive will did not reduce his primitive well-being. But health is not what the wild

will desires, per se, only a consequence.

Aesthetic arguments for wilderness are just as complex. Aesthetic value does not seem to differ much from moral value. And wildness is a specific kind of moral value: less like the golden rule and more like astonishment, or awe, before God. Hettinger and Throop write, echoing Mill:

People rightfully value the existence of a realm not significantly under human control — the weather, the seasons, the mountains, and the seas. This is one reason why the idea of humans as planetary managers is so objectionable to many. Consider a world in which human beings determine when it rains, when spring comes, how the tides run, and where mountains rise. The surprise and awe we feel at the workings of spontaneous nature would be replaced by appraisal of the decisions of these managers. Our wonder at the mystery of these phenomena would not survive such management. People value being a part of a world not of their own making. Valuing the wild acknowledges that limits to human mastery and domination of the world are imperative.

Humans also need to be able to confront, honor, and celebrate the “other.” In an increasingly secular society, “Nature” takes on the role of the other. Humans need to be able to feel small in comparison with something

nonhuman which is of great value. Confronting the other helps humans to cultivate a proper sense of humility. Many people find the other powerfully in parts of nature that do not bend to our will and where the nonhuman carries on in relative autonomy, unfolding on its own.

In other words, wildness is an aesthetic, moral, and spiritual value, but it is first of all spiritual. And aesthetics, too, seems to derive its force from the Divine, or the Sublime, or the Numinous, or whatever one wishes to call it. Burke, for instance, writes:

The passion caused by the great and sublime in nature . . . is Astonishment; and astonishment is that state of the soul, in which all its motions are suspended, with some degree of horror. In this case the mind is so entirely filled with its object, that it cannot entertain any other.

VIII.

My focus on the hunter/gatherer is based on a tradition in political philosophy that considers the natural state of man before moving on to an analysis of the civilized state of man. This is the tradition of Hobbes, Rousseau, Locke, Hume, Paine . . . The latter writes explicitly, "To understand what the state of society ought to be, it is necessary to have some idea of the natural and primitive state of man." In other words, the nomadic hunter/gatherer ideal has pedagogical utility be-

cause of its stark contrast with civil life, but whereas the previous philosophers used the hunter/gatherer to justify progress, primitivists use the hunter/gatherer to rebuke the idols of civilization.

Note that the focus is not on the ins and outs of the hunter/gatherer way of life, but on the limits the hunting/gathering mode of production imposes on artifice. To be a primitivist, one does not have to believe all that hunter/gatherers believed; to see the world as they saw it; to revive indigenous rituals; to adopt their hairstyles and dress. If one lives like a hunter/gatherer in a zoo, one has not achieved what the ideal signifies to the wild will.

However, just as Paleolithic levels of biodiversity signify what Paleolithic levels of wildness would produce, the ways of life in hunter/gatherer communities indicate what human nature defaults to in wild conditions. Consider a fantastical scenario where all industry collapsed overnight. Psychology has demonstrated that animistic thinking probably arose as an evolutionary shortcut for understanding the world: because evolution would not have endowed man with innate knowledge of germ theory, animating the world with spirits gave humans a framework for understanding why, e.g., they shouldn't touch the person with a ghastly skin disease — and that did the trick well enough to keep them alive to reproductive age. So should industry collapse, humans will not suddenly all become animists, but the belief systems in regions unamenable to agriculture will likely develop animistic elements naturally.

This process is comparable to the way a river ecosystem rebounds after a dam removal. Slowly, because of the removal of the artificial impediment, wild processes take over again. But, crucially, it is impossible to achieve the same thing with the dam still there. Say we want to keep the dam but also possess the scientific knowledge and technical power to make the ecosystem exist in the same physical state as the rebounded, post-dam ecosystem. What we have achieved amounts only to aesthetics because the end result lacks the crucial quality of wildness, which was presumably the core concern in the first place.

Thus, forcing an animistic worldview onto a modern human feels much like forcing a river ecosystem into a wild-like state artificially but without any actual rewilding. To rewild, the artificial impediments must be removed, and we must wait. There are, unfortunately, no shortcuts. Echoing this sentiment, Paul Kingsnorth, a co-founder of the Dark Mountain Project, points out that extinct species are gone forever; that lost wilderness will not be renewed in time for this generation; that most modern humans have been permanently deprived of many aspects of natural human interaction. We should continue to conserve and rewild, he says, but given the magnitude of our losses, we might need to do it in sackcloth and with ashes on our faces.

One might wonder how useful a nomadic hunter/gatherer ideal is if modern man can't usually fulfill it. But the ideal is not something to be fulfilled. Its purpose beyond the pedagogical is solely to

bring together those who relate to the value of wildness in the same way, that is, to communicate the breadth of their grievances.

IX.

Do you *really* want to live in premodern conditions? the progressive humanists ask, perhaps pointing out a handful of problems besetting premodern and third world societies. It is *the* question, but the utter presumptuousness makes it particularly enraging. Inexorably, the humanist follows by demanding a chain of justifications while he, couched in the privilege of the dominant ideology, does not examine the weaknesses of his own assumptions.

So let us begin with *the* question for the humanist. Why do humanists believe that every human should have equal moral standing? Related, what about a human grants him that standing?

Singer writes in *The Expanding Circle* that reason provides us with the ability to expand the moral privilege we usually grant to our natural social groups outward, toward humanity or the nation or, maybe, the biosphere. But what is it about reason that demonstrates that we should expand the circle outward? Singer writes:

A dog may growl at one stranger and wag her tail at another without having to justify the apparent discrimination; but a human being cannot so easily get away with differ-

ent ethical judgments in apparently identical situations. If someone tells us that she may take the nuts another member of the tribe has gathered, but no one may take her nuts, she can be asked why the two cases are different. To answer, she must give a reason. Not just any reason, either. In a dispute between members of a cohesive group of reasoning beings, the demand for a reason is a demand for a justification that can be accepted by the group as a whole. Thus the reason offered must be disinterested, at least to the extent of being equally acceptable to all.

Singer justifies this approach with Hume, who wrote that a man making moral judgements must:

depart from his private and particular situation and must choose a point of view common to him with others; he must move some universal principle of the human frame and touch a string to which all mankind have an accord and symphony.

But Hume was not arguing that this is how ethical judgements can be assured as good, only that it is how they must be made if they are to hold sway. In other words, even if a moral principle is popularly held, it may be a bad moral principle, and, in any case, it may not be held by all. The sciences of human social behavior demonstrate that the urge to expand the moral circle doesn't come naturally. Instead the obligation is produced and reinforced by technical progress. The hu-

manist could certainly say that he is nevertheless committed to expanding the circle, knowing full well that the commitment has been manufactured into him. But this essentially leaves man with a choice of gods: wild nature, or the idols of progress?

X.

One might be disposed to dismiss the humanist critique by pointing out that various ills besetting most pre-modern societies are absent, or in fundamentally different form, in nomadic hunter/gatherer societies. But, as is often the case in primitivism, this confuses the ideal for a blueprint. In the process of rewilding we will not immediately adopt the condition of the nomadic hunter/gatherer, just as a dam removal does not immediately restore the naturalness of a river. So if primitivists are serious about rewilding, they must be able to contend with the results at each step in the process.

XI.

Here I cannot respond to every premodern ill the humanist takes great issue with — higher rates of violence, low life expectancy at birth, fewer medical technologies, etc. They are notable criticisms, but each requires special attention, and all are secondary to the core of the primitivist philosophy. But some general considerations apply to each.

For one thing, primitivism is not a solution to all of man's ills. Unchained from civilization, individuals will

still draw blood against thorns, will still fight and kill, will still feel the shadow of existential dread. But consider a madman who finds a hammer and cannot control his irresistible urge to bash and smash and trash everything he sees. It compounds his madness and consumes him. What man of grace would not gently pry the hammer from the lunatic's hands, even if it does not cure his fundamental madness?

Secondly, for each problem, we must ask whether the consequences are worth the benefits. Humanists point to evidence that citizens in industrial nations often have a much lower chance of being victims of a crime. But by itself this does little to advance the conversation we should be having. Imagine a nation in which it is practically impossible to commit any significant crime. What would this require? Is it a world we want to live in? Can't we ask the same question about our current situation?

Finally, many of the problems humanists have with pre-modern life are sideshows, and as a critique against primitivism they cannot stand alone. For could I not name many ills associated with civilization's domination of nature, most of them several orders more impactful than any problems humans could have merely among themselves? I cannot help but note the ills of climate change, rapidly increasing population growth, the threats of genetic engineering, the impacts of roads, the massively increased rates of extinction, and the fundamental unrest of all human beings, and then I cannot help but challenge any individual to come up with an

approach to these problems that does not in some ways have unsettling implications. Clearly, this is impossible, and in a reasoned assessment of what we can do from where we stand, we would do well to admit that we are, unfortunately, in a time where the best we can hope for is the least damage done — and this is no fault of the primitivists.

XII.

It is no measure of health to be well-adjusted
to a sick society

— Krishnamurti

As with the religious prologues of humanism — Christianity, Islam, Confucianism — humanist guilt has the unfortunate side-effect of producing excruciatingly pious people. The pious of Judaism were the Pharisees and Sadducees; but the Pharisees and Sadducees of today include society's most highly socialized elements — professors, students, scientists, corporate elites, executives of international bodies — in short, the technician class.

A study on the concept of “microaggressions” on college campuses illustrates their piety well. It found that a number of new structural conditions defining the university are producing a “victimhood culture” that relies heavily on moral language, victimhood identity, and garnering massive peer support for real or perceived offenses. These conditions include pervasive and easily-accessible authority figures; fewer options

for autonomous problem-solving, like dueling; reliance on large peer groups for support because of alienation from traditional social groups like the family; and settings where equality is nearly the norm, highly valued, and therefore extremely taboo to violate. The end result is a crop of individuals who defer to authorities and moral support from masses rather than those who address their problems autonomously. This is often called being “well-adjusted,” but it is no different than taming a horse.

Consider the way many university students and professors react to minor offenses to equality with over-righteous vigor. For example, in 2015 Yale professor Erika Christakis responded to a mass email asking students not to wear culturally appropriative costumes. She wrote:

I don't wish to trivialize genuine concerns about cultural and personal representation, and other challenges to our lived experience in a plural community. I know that many decent people have proposed guidelines on Halloween costumes from a spirit of avoiding hurt and offense. I laud those goals, in theory, as most of us do. But in practice, I wonder if we should reflect more transparently, as a community, on the consequences of an institutional (which is to say: bureaucratic and administrative) exercise of implied control over college students.

Controversy ignited. Students held mass protests, and

in a video recording of Erika Christakis' husband talking to one of the crowds, some students can be seen crying and screaming at the professor because he could not remember their names, and because he would not apologize for his views. When he offered to agree to disagree, the students pressed him still further to comply to their extreme version of humanist morality.

Piety is an important means of enforcing and sustaining civility. Consider Ellul's insights, as communicated by Daniel Bois:

One of the ironies of propaganda to work is that its population must be educated. ... So the more educated you become, the less aware you are that you are a victim of propaganda and the more you are ready to spread your ideology to others who will in turn reinforce you and be reinforced by you in a horizontal process. Leaders aren't telling you what to think (directly), you are being told by your peers what to think and you pass along this information to others to inform them what to think. Then when this ideology has reached a substantial portion of the population, you demand the leaders to comply and they reluctantly do so (which was their intention 30 to 40 years previously, but they won't tell you this). This is the essence of what Ellul says ...

Ironically, some of the most pious profess to be against capitalism, industry, or progress. This is especially

true after WWII, when the Nazis and the Bomb demonstrated that moral and technical progress are not inextricably linked. Vietnam, the 60s, and the Cold War only exacerbated the ensuing disillusionment. Many on the far left found difficulty with the historical account of progress, since they cannot easily say that the world they live in is good when it was built by and, in some respects, continues to be sustained by the blood and labor of Africans, natives, non-human life, and the third world. For all these reasons, a particular kind of humanist, the regressive humanist, professes to be against society — and often he appears to be.

Note that piety can harm society even if its overall effect is beneficial. The vandalism and missed class that resulted from the Yale controversy, for example, was both economically and socially inefficient.

But this is not always the case: sometimes riots can force a society to pay immediate attention to problems that it would have otherwise ignored to its detriment. In this way the usually negative side-effects of piety instigate a social self-correction process. For example, the riots in Ferguson, Missouri were clearly a result of inefficient material conditions in the area. Much of America still operates because of the vestiges of racial hierarchies, left over from Jim Crow and the Trans-Atlantic Slave Trade. But unlike those times, racial hierarchies are no longer required for economic production; wages and integration, economically possible because of technical advances, are a more efficient route.

The Ferguson rioters were not necessarily asking for

economic and technical development; they were simply acting on their discontent. In fact, in many cases average people don't care much for corporate or governmental solutions to their problems, preferring instead to be left alone to work it out for themselves. But the riots, as they do, drew in all sorts of activists with various causes and pious ideologies to quell revolt with accommodations like economic development or a "national conversation."

Regressive humanists will insist that corporate and governmental accommodations are breadcrumbs, nothing more; that corporations and governments actually have no interest in achieving the moral ideals of equality and justice. But this view operates on a confused analysis of social progress, which is evolutionary. Of course civilized institutions are not going to eradicate racial bias where it still sustains them. And of course civilized institutions are not going to exert more energy quelling the revolt than they need to; if this means half-baked solutions that nevertheless stop the property damage and violence, they will go with half-baked solutions. But the effect overall is a gradual movement toward humanist social values (as with, e.g., the labor movements at the dawn of the Industrial Revolution). By acting in a way they consciously perceive as rebellious, the pious actually advance society.

All this is to point out that there is an intrinsic problem with regressive humanist ideologies: one cannot effectively resist a society based on that society's own values. The pious will and do find that their projects to abolish

aspects of the industrial system in the name of a less racist, less patriarchal, more cooperative, more egalitarian society will always be set back when industrial societies, retaining their allegedly inadequate institutions, accede to the demands. In other words, humanist piety will never be able to motivate a true rejection of progress because at base, it is unwittingly an embrace of it.

XIII.

Aristotle believed that for man to flourish, he must engage in the *polis*, or political community — one that he equated with the Greek city-state. Following the same logic, I argue that for man to flourish, he must have a *fellowship*.

The center of the nomadic hunter/gatherer's fellowship is the band, which functions very much like a friend group, but with higher stakes. For example, bands have a more pronounced emphasis on shared tradition, status within the group, rules about food distribution, regulation of conflict between members, etc. They usually consist of a high number of blood relations, but this need not be the case, and some evidence suggests that relatives were actually scattered throughout neighboring bands. Like friend groups, decisions are made anarchically, natural leaders taking their place but regulated by gossip, force, social norms. Leaders also have a fundamental inability to dominate other fellows, who do not depend on them for survival the way modern man depends on the state for survival.

With the onset of civilization, fellowships began to break down, their members yoked to artificial communities, even more extensively in recent centuries. Ellul explains:

... a systematic campaign was waged against all natural groups, under the guise of a defense of the rights of the individual; for example, the guilds, the communes, and federalism were attacked, this last by the Girondists. ... There was to be no liberty of groups, only that of the individual. There was likewise a struggle to undermine the family. ... Revolutionary laws governing divorce, inheritance, and paternal authority were disastrous for the family unit, to the benefit of the individual. And these effects were permanent, in spite of temporary setbacks. Society was already atomized and would be atomized more and more. The individual remained the sole sociological unit, but, far from assuring him freedom, this fact provoked the worst kind of slavery.

The atomization we have been discussing conferred on society the greatest possible plasticity — a decisive condition for *technique*. The breakup of social groups engendered the enormous displacement of people at the beginning of the nineteenth century and resulted in the concentration of population demanded by modern *technique*. To up-

root men from their surroundings, from the rural districts and from family and friends, in order to crowd them into cities still too small for them; to squeeze thousands into unfit lodgings and unhealthy places of work; to create a whole new environment within the framework of a new human condition (it is too often overlooked that the proletariat is the creation of the industrial machine) — all this was possible only when the individual was completely isolated. It was conceivable only when he literally had no environment, no family, and was not part of a group able to resist economic pressure; when he had almost no way of life left.

Such is the influence of social plasticity. Without it, no technical evolution is possible. For the individual in an atomized society, only the state was left: the state was the highest authority and it became omnipotent as well.

Today, movements toward multiculturalism achieve the same thing that Ellul described, but to serve the needs of globalized civilization: removing the individual from fellowships, yoking him to artificial community.

Thus, industrial man lacks a fellowship or possesses only a degraded one. Outside of traditional communities, the strongest extant fellowships are those whose conditions, usually ones of tragedy, put men outside the bounds of civility: gangs, junky houses, bands of out-

laws, crews of pirates.

For example, the homeless are often forced to live outside the bounds of the state because of drug use or family problems or criminal records. But the social networks that arise have some interesting qualities. When I was homeless, the norm was that if two people did not get along, we did not invite them both to the hobo fire. If someone wronged someone else, we solved it through social pressure, exile, or physical violence, though the latter was regulated (for example, harm that required extensive medical attention was usually not allowed). We regulated individual social statuses through gossip, much in the same way Boehm found hunter/gatherers do:

... Boehm found that all of these societies had sanctions to deal with deviants, free riders, and bullies ... The sanctioning process begins with gossip as an exchange of evaluative information about who is doing their fair share and who isn't, who can be trusted and who cannot, who is a good and reliable member of the group and who is a slacker, cheater, liar, or worse. Gossip permits the group to form a consensus about the deviant that can lead to a collective decision about what to do about him.

We also shared food, cigarettes, and information about the area. Some of the homeless were disabled. One woman, for example, was in a wheelchair. On days when she could not, her best friends would push the

wheelchair for her. They often spent days like this, sharing what they had with each other when together.

There wasn't a widespread feeling of unity with the human race, except when individuals were heavily integrated into Christian communities. The fellowship was the primary moral community, and it was prioritized over strangers. Furthermore, the most disruptive elements of our lives were, by far, institutional ones: the police, the homeless shelters, the businesses. Thus, even when fellows wronged each other, they agreed to solve the problems outside of these institutional bounds; snitching was strictly prohibited.

Imagine what these sorts of social behaviors would amount to if they were not operating within the tragic conditions of drug use, mental problems, or criminal records; or without the constant disruptions from government and business. Something rather desirable might arise. The question, for the primitivist, is to what extent this is possible, and to what extent he can achieve it in his own life.

XIV.

Those who say that nature dominates man just as much as civilization dominates man have missed the point, succeeding in little more than setting themselves up for nihilism, for how can an individual resist domination on all fronts, by everything? The point is that there is a difference between the domination of nature and the domination of civilization. The tragedy of a natural disaster is different from the tragedy of a bomb; an animal

who dies neurotic, flabby, and dependent in a zoo lacks a certain dignity possessed by an animal who dies at the hands of a predator.

In *After Virtue* Alasdair MacIntyre recognizes a difference between “man-as-he-happens-to-be” and “man-as-he-could-be-if-he-realized-his-*telos*.” “*Telos*” here is a concept borrowed from the ancient philosophers, meaning “end” or “purpose.” MacIntyre believed that the role of ethics is to move man from the first, untutored condition to the second. This is the meaning of a good life.

Convinced enough of contemporary materialism, the idea of a *telos* does not sit well with me. Man’s nature is not necessarily his purpose. Of course, in some senses *telos* is compatible with modern biology. A lion who walks on two legs contradicts, in some fundamental ways, his nature, his “purpose,” so to speak. But if this intuition is all that *telos* can capture, then we must dispose of it because, in most other respects, it inhibits understanding. For example, biologist Ernst Mayr points out that evolutionary adaptedness “is an *a posteriori* result rather than an *a priori* goal-seeking.” That is, evolution, understood through a materialist lens, does not imbue its products with some purpose the way a watch is imbued with purpose.

But even absent the concept of *telos*, MacIntyre says something useful. We are creatures imbued with a nature and will, with an ineradicable urge to flourish. But in our movement toward “man-as-he-could-be,” we have an option of tutors: wild nature, or civilization?

Contrast a week in Disneyland with a week in the wilderness. In the wilderness man is subordinate to nature — the weather, wild animals, the soil — a condition that forces him to build up from the bare facts of existence. His quest for food, shelter, and solidarity is not easy, but it imbues his life with purpose and keeps superfluous sources of stress at bay. He makes, hunts, and collects what he needs, sometimes a little more for band-members who will one day return the favor. Death is not something he can ignore, and though painful he and his society cope with ritual and collective myth-making. Struggle teaches him to be confident in his abilities to exist in the world, lowering his tolerance for subjugation by other men.

In Disneyland the object is pleasure and entertainment. The individual wakes up and, his fundamental needs fulfilled, experiences that distinctly modern feeling of *boredom*: What do I do today? he asks. Purposelessness abounds. His experience is a baptism in wealth extracted from people and places left dry. His pleasure results from a willing suspension of disbelief: if the illusion of spontaneity is shattered, his memories are left shattered as well. His joy is managed. Smells and sounds evoke place and time that isn't there. Shops are air-conditioned below room temperature to sell sweat-shirts. Pavement is dark to attract heat and deter crowds. And if there is a death — corporate panic. This is no collective ritual; the frenetic pacing is solely about loss of profit. On the other hand, if any part of the park malfunctions, still, timid crowds wait like sheep to be told what to do. It is the height of civility.

The fundamental question is this: Which life do you will?

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