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“Prometheus’ Gift of Fire and Technics: Contemplating the Meaning of Fire, Affect, and Californian Pyrophytes in the Pyrocene”

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Prometheus’ Gift of Fire and Technics: Contemplating the Meaning of Fire, Affect, and Californian Pyrophytes in the Pyrocene

Thunderbolt steers all things.

—Heraclitus, frag. 22B64 Diels-Kranz

The fire that has burned in humanity’s hearth from the beginning, the fire with which we have remade the world, is a profoundly double-edged symbol both of our Promethean power to control the earth... and of the frustratingly unexpected limits we repeatedly encounter in our exercise of that power.

—William Cronon, 2001, xiv, foreword to *Fire: A Brief History*, by Stephen Pyne

Our entire world is the *cinder* (*Asche*) of innumerable living beings; and what is living is so little in relation to the whole, it must be that, once already, *everything* was transformed into life and it will continue to be so.

—Friedrich Nietzsche, “Nachlass 1881,” KSA 9:499

Introduction

With the worst, deadliest wildfires of Northern California still breathing down our necks, leaving behind a devastating trace of loss—lost lives, homes, and businesses—the Anthropocene (or, perhaps better said, the capitalocene¹) makes itself more ominously felt: as the air becomes unbreathable, and plants, animals, and humans go up in flames, we realize how revered *anthropos*² has, with all due capitalist energy, radically turned the tables around and has made parts of its world—and the atmosphere—increasingly unlivable and unbreathable. What, if anything, *can* or *should* be our response to this drama beyond the initial fight and flight reaction? And what might philosophy have to offer in this regard? Where might we find the resources for installing a new epoch, with more livable, sustainable,³ and breathable conditions for all?

In order to answer these questions, this chapter will seek theoretical guidance in the myth of Prometheus, and, specifically, the interpretation of this myth through the eyes of Plato's *Protagoras* and Bernard Stiegler's *Technics and Time*, Volume 1. According to Stiegler, the myth of Prometheus indicates that humans are, originally, without qualities, and that the gifts of Prometheus are to compensate for this inherent lack (1998, 193). The gifts of fire and technics offer us an opportunity to invent and *be*, but may be dangerous and (self)destructive as well. My central argument is that the Promethean duplicitous gift—of fire and technical skills (*technē*)—to humanity has both led to the current tragedy of the anthropocene *and* may offer impetus to imagine a future beyond the anthropocene, but only if fire and technical skills come to be seen in a different light, and solicit different affects. In order to reimagine our own post-human existence⁴ as part of the presumed new epoch of the pyrocene,⁵ I propose to follow the meaning of fire and technics both on a local, Californian scale and on a global scale. For the local, Californian scale I focus on the enduring fire-adaptable existence of California's Giant Sequoias and the pyrodiverse practices of the California indigenous Miwok. Addressing the global scale, I will emphasize the need for a mosaical form of affect and habit to take hold. As part of this mosaic of affect, in line with the myth of Prometheus, respect (shame) and justice are pivotal to change our political-economic regimes and foster a broader community in solidarity with each other.

¹ As for its future impact, Isabelle Stengers writes: “it seems clear that the regions of the earth that will be affected first will be the poorest on the planet, to say nothing of all those living beings that have nothing to do with the affair” (2015, 46; cf. Haraway 2016, 47).

² Also known as *homo industrialis* (Benyus 1998, 1).

³ As I am using the term “sustainability,” I seek to use it in a critical way, not simply in its current form that promotes so-called sustainability while preserving the status quo of the neocapitalist regime, which is, in my view, fundamentally unsustainable. Read further in this chapter on my analysis of California's Giant Sequoias for a critical account of sustainability.

⁴ In using the term “posthuman,” I am playfully following David Roden's definition of posthumanism, which builds upon the idea that various technologies have arisen that may have “the potential to engender posthuman successors,” for instance through “cybernetic hookups between organisms or between organisms and machines” or biologically modifying current humans with certain features yet unimaginable (2015, 5).

⁵ “Pyrocene” is a term found in Edward Struzik's *Firestorm: How Wildfire Will Shape Our Future* (2017, 103).

Section 1: The Myth of Prometheus and Epimetheus and the Duplicity of Prometheus' Gifts

The Myth of Prometheus has various versions. In the version of Hesiod's *Theogony*, fire was already known among humans, but taken away by Zeus in anger at their sacrificial offerings. Prometheus then steals it from Zeus, and gives it back to humans:

Thus, Zeus, angry, whose wisdom never wears out.
From then on he always remembered this trick
And wouldn't give the power of weariless fire
To the ashwood mortals who live on the earth.
But that fine son of Iapetos outwitted him
And stole the far-seen gleam of weariless fire
In a hollow fennel stalk, and so bit deeply the heart
Of Zeus, the high lord of thunder, who was angry
When he saw the distant gleam of fire among men,
And straight off he gave them trouble to pay for the fire. (ll. 563-573)⁶

Prometheus' theft of fire brings humans difficulty: due to Zeus' punishment, life (*bios*) is no longer easily available; instead, humans have the obligation to work and "to handle instruments" (Stiegler 1998, 192). Additionally, having fire under human control establishes a rift between humans and the divine. Controlling fire comes with a hefty responsibility and price. Who controls fire, has power: the power to create—to cook, to build an environment conducive to living, to gather people around a central hearth, etc.—but also to destroy: to scorch and burn, to cleanse and fumigate, to turn what lives to ashes.

The crucial value of fire, as well as its connection with *technē*, emerges in another version of the Prometheus myth: the one recounted by Plato's *Protagoras*. Humans, due to the forgetfulness of Prometheus' brother Epimetheus, have no qualities at all: all qualities to be distributed (320d) have been doled out to the other animals (for example: as compensation for size, some animals receive a winged escape, etc.⁷). Close to the day that humans should come forth from the earth, Prometheus chooses as preservation for humans two attributes: skill (*sophia*) and fire (*pyr*) (321c).

Stiegler emphasizes Epimetheus' forgetfulness. The gift of fire and "technics" is for Stiegler inextricably bound to this act of forgetting—of "appearing through disappearing"

⁶ The *Theogony* presents fire as something naturally belonging to humans. Zeus' act of taking fire away from humans out of revenge for their disrespect, as well as his punishment for having Prometheus steal fire back (sending humans the "irresistible" yet troublesome first woman, Pandora) indicates the *crucial and irresistible* value of fire, both from a human and divine perspective. And maybe we could argue that the supposed "irresistible" trouble that Pandora brings to humanity is the other side—the punishment—of the *seductive ease* that (domesticated) fire brings. Certainly, this reading of the ease that fire brings finds additional proof in Hesiod's *Works and Days*, where Zeus, out of anger, keeps both fire and "the means of life" (l. 66) away from humans (cf. Stiegler 1998, 192).

⁷ This seems a *compensatory* attribution system, a protection against the seasons and ability to obtain food.

(1998, 188). At the heart of human existence stands a lack of being and essential qualities: “The qualities of animals make up a sort of nature, in any case a positive gift of the gods, a predestination. The gift made to humanity is not positive: it is there to compensate. Humanity is without qualities, without predestination” (193). Humans thus are gifted with *technē*, by artifice, and are therefore “prosthetic,” and not merely accidentally so, but “prosthetic in their very being” (198):

A prosthesis is what is placed in front, that is, what is outside, outside what it is placed in front of. However, if what is outside constitutes the very being of what it lies outside of, then this being is *outside itself*. The being of humankind is to be outside itself. (193; Stiegler’s italics)

In Stiegler’s perspective, the story of human origin is that of *non*-origin. We are grounded in a “de-fault of origin or the origin as de-fault” (188). Humans need to “invent, realize, produce qualities” (193), without any guarantee that these qualities will become their qualities. In fact, they may become part of the qualities of technics or they may become dangerous and self-destructive: “technics, art, facticity can harbor madness: the prosthesis is a danger, that of artifacts, and artifacts can destroy what gathers within an effective and active being-together” (198). Following the trace of forgetful Epimetheus, we *forget* about the prosthetics we use—from pens, to glasses to shoes—and are thereby forgetful of our own non-origin, of our own technical prosthetic nature (199).

Section 2: The Gift of Fire and the Mutual Evolution of Fire and Humanity

What happens if we read Stiegler’s account of the danger of *technē* in conjunction with the ambiguous power of fire, a gift that runs parallel with the acquisition of *technē*? If we follow the work of *the* leading authority on the history of fire, Stephen J. Pyne, then

Fire and humanity pushed and pulled each other around the globe. They advanced together—spreading like flaming fronts, spotting into favorable sites, probing into marshes, flaring amid thickets, smoldering amid peat, crackling through scrub, all as the fuels of environmental opportunity and the climate of culture allowed. (2001, 25)

As James Scott articulates in his book *Against the Grain*, the evolution of our species and the evolution of fire are mutually dependent, and their evolution informed and changed the material, geographic conditions of their encounter as well. In this encounter, as fire began to be used on the landscape, the landscape increasingly became engineered “to concentrate more subsistence resources in a smaller and smaller area,” and consequently became more “systematically intense” (Scott 2017, 39-40). As for the human species’ own body, fire’s implementation for cooking, and especially its ability to disassemble raw food, allowed for the human digestive process to become partially “externalized,” making the process of

eating and extracting nutrition from it far more concentrated and efficient (2017, 42).⁸ Thus, as digestion changed due to cooking and our bowels shortened, the material interface that is mostly associated with our sapience, the brain, expanded: “[i]n the archeological record the surge in brain size coincides with hearths and the remains of meals” (42). Additionally, cooking allowed for increased socialization, affording occasions of eating together around common meals, sharing cooked food (Wrangham 2009, 184-6).

Given the role that fire has played in adapting “our habits, diet, and body to the characteristics of fire,” humans could be called *pyrophytes*—based on the Ancient Greek “pyros” (fire) and “phytos” (plant)—a term used for plants and trees which have adapted to tolerate fire, as James Scott suggests (24). Signaling fire’s importance for our evolution as well as our future, Scott argues that “[i]f the litmus test of domestication for a plant or animal is that it cannot propagate itself without our assistance, then, by the same token, we have adapted so massively to fire that our species would have no future without it [...] It has in a real sense domesticated us” (42).

However, as fire domesticated us and made us into true *pyrophytes*, we should be mindful of the power of fire. Fire is not *simply* a tool: it is, as Scott reminds us, “at best, a ‘semi-domesticate,’ appearing unbidden and, if not guarded carefully, escaping its shackles to become dangerously feral” (38). Similarly, Stiegler argues that “[f]ire is not, however, the power of mortals, it is not their property; it is much more a domestic power that, when escaping the technical mastery of domesticity, reveals its wild violence, disclosing the powerlessness of mortals, only appearing in their hand yet, again, through disappearing” (1998, 194; Stiegler’s italics). Still, fire and technics are the *only* ways by which human existence can live—can *be*—by living prosthetically and dangerously.

Within the perspective of industrialization and the anthropocene, both the feral power of fire, as well as humans’ ability to increasingly manipulate fire through technics in the form of industrial fire, seem to have risen in prominence and scale. *Industrial fire* substitutes the controlled burning of renewable materials by the controlled combustion of ancient biomass extracted from beneath the ground (Pyne 1999, 91). Where natural elements such as flame, vegetation, and air had ruled before, now a technological setting defined by “combustion, fuel and machinery” (Pyne 2001, 156) coevolved, drafting biomass “from the geologic rather than the biologic realm” (183). It uses second-order technology (heated wires and electrical arts) and burns within enclosed chambers (156). Thus, while industrialization is mostly understood as a “social, economic, and perhaps political process that redefines the relationship of people to one another,” when defined in terms of fire history, it refers to a different *kind or process* of fire: “the burning of fossil biomass” (155).

⁸ See also Richard W. Wrangham’s *Catching Fire: How Cooking Made Us Human* (2009, 2). Wrangham’s “cooking hypothesis” argues that cooking informed and modified human evolution. It provided for more digestible and efficiently energy-dense food, allowing more energy for the brain to grow. He dates this transition to the time of the emergence of Homo Erectus, around 1.8 million years ago. “The extra energy gave the first cooks biological advantages. They survived and reproduced better than before. Their genes spread. Their bodies responded by biologically adapting to cooked food, shaped by natural selection to take maximum advantage of the new diet. There were changes in anatomy, physiology, ecology, life history, psychology and society” (14).

Industrial fire has had many consequences: it expanded fire's realm, increased the amount of fuels available (155), drew combustion closer to culture, and has made humans "designers of novel ecosystems that cannot exist without us" (184). It is exactly here that we encounter fire again in a very different manifestation: namely as feral fire. For instance, these days, megafires—defined as a "fire that burns at least 100,000 acres"—erupt more often, displacing or killing people, animals and plants and reshaping the landscapes, and ecosystems affected (Struzik 2017, 2).⁹ It is precisely these megafires that have impacted us deeply here in the American West over the past few years, and that will likely continue to be part of California's future.

If it is the case that the increased prevalence of such megafires, as well as the increased prevalence of wildfires as such, are related to industrial fire and, thus, human induced climate change, then we can argue that we have fallen victim to fire as "a profoundly double-edged symbol both of our Promethean power to control the earth... and of the frustratingly unexpected limits we repeatedly encounter in our exercise of that power" (Cronon 2001, xiv). The human proposition to "tame" fire as industrial fire (which extends fire's range, power, and quantity) seems to find punishment for its *hybris* in the "revenge" of the divine, Promethean gift of fire, at whose heart lies wild violence.

However, if fire has domesticated us and has made us into true pyrophytes, then might there be an option for us, as fire-adaptable species par excellence, to reimagine our attitude toward fire and toward our fire-engulfed predicament? This leads us to the issue of affect, and rethinking affect in light of fire and our current ecological predicament. What affects can or could fire solicit, and how might we prepare ourselves best for what may be called the new era of the pyrocene?

Section 3. Affect, fire, and the future

All things are an exchange for fire and fire for all things, as goods for gold and gold for goods.

—Heraclitus, frag. 22B90 Diels-Kranz.

The discourse following the alarming recent wildfires in California indicates a surge of feelings, such as anger, anxiety, sadness, and resignation, which is understandable given the fires' range and devastating effects. If we follow the descriptions of affect in Struzik's book *Firestorm: How Wildfire Will Shape Our Future*, the affective charge of fire and its aftermath is described in terms of fire as a "beast" or "wild animal," "unpredictable" or independent of and unaffected by human actions, and the consequent human affect is discussed in terms of "defeat," "desertion," "scared," "unsightly," and "apocalyptic" (Struzik 6, 26, 47, 60, 89, 111, 122).

Given that these fires are closely linked to climate change, the emotions could be said to take place under the main umbrella affect of *solastalgia*, a term coined by

⁹ We can discern as major factors, contributing to the cause and consequences of these megafires, a warmer, drier (forest) environment, more lightning and longer fire seasons, more burnable fuel on the ground (due to drought, invasive species, and disease), and more people living in the forest/wildland interface (cf. Struzik 2017, 8-9, 13).

environmental philosopher Glenn Albrecht to address a new form of mourning based on two Latin roots, solace and desolation, with the Latin suffix “algia” designating pain (2017, 300). Albrecht defines solastalgia as “the homesickness you have when you are still at home” (299). This new form of mourning is “connected to negatively perceived and felt changes to a home environment, changes that one is powerless to prevent” (299). For Albrecht, “[s]olastalgia defines the existential, lived experience of the loss of value in the present as manifest in a feeling of disorientation, of being undermined by forces that destroy the potential for solace to be derived from the home environment” (300).

What heightens this feeling of disorientation and mourning is a sense of human responsibility (given that climate change and its consequent environmental losses are due to human action) and a sense of powerlessness in the face of the global factors influencing our losses, such as multinational corporations, global economic systems, politics, etc. (297). As Albrecht writes: “In the Anthropocene there is no longer mystery attached to a great deal of disaster and misfortune since, to a very large extent, there is an element of self-imposed vulnerability to what are euphemistically called ‘natural disasters’” (296).

However, while Albrecht focuses on this new form of mourning instigated by the anthropocene, I want to access the problems of fire in the anthropocene through a different lens. My question is: how can our affects toward industrial fire and wildfire transform, beyond simply becoming adaptable and resilient, and truly prepare us for a new era beyond the human-centered epoch of the anthropocene? How might affects toward fire be productive in moving us *toward* a new era of living-creatively-together, provocatively called the Pyrocene, full of new opportunities, new potencies, and new forms of habituation and life?

One key component in rethinking affect in preparation for such a new era is contemplating the ontological and physical status of fire. As we have seen, for both the Greek mythical tradition as described by Hesiod and the philosophical tradition as described by Plato’s *Protagoras*, fire is a divine force, provided to humans through illicit actions or as compensation for a radical absence at the core of their being; and the ownership of fire comes at the hefty price of divine revenge and extreme danger to humanity. However, if we go deeper into its ontological and physical significance with pre-Socratic thinker Heraclitus, we find fire involved as a stable power underpinning the everlasting change and cycle of all things. Not only does fire, for Heraclitus, “steer all things” (22B4) but “all things are an exchange for fire, and fire for all things” (22B90), indicating that fire is a fundamental mover of change—a stable flame that keeps the cycle of life and death going precisely in and through its changes.

If we follow this Heraclitean track of thinking of fire as the ontological mover of change yet also as the very physical manifestation of stability-in-change, then the corresponding affect it may give rise to proves productive. It is true that we sometimes feel the force of fire as a completely deleterious force (as indicated by the above descriptions of apocalypse and terror) which transforms everything into an unrecognizable, uninhabitable space and leaves our home and our lifeworld shattered in pieces. However, if we follow the Heraclitean trajectory, then we may observe that many fires allow us, even beyond or amidst the devastation and the uncanny, elements of continuity-amid-change—certain elements that, seemingly at random, are completely unaffected or other elements that are recognizable *even as ruins* (e.g. tree stumps, ruins of garages, burnt car frames, etc.). If there

is such constancy amid change, then this offers some room for rethinking a productive space of affect beyond simply feeling devastating loss in the face of fire.¹⁰

Of course, what complicates the reimagination of affect toward fire beyond the anthropocene is the often *hidden* component of that very other kind of fire—industrial fire—that is the culprit of much of our current predicament and that is far too often sheltered from our direct phenomenological experience. However, I want to argue that the feeling of shock-and-recognition in the wake of wildfires may offer us a possibly affective productive space for bringing the hidden element of industrial fire into our imagination and into our affective space. If Pyne is correct in saying that “[t]he competition for combustion—hidden from most people by the machinery of modern industry—must surface as the value-laden choice it has always been” (2001, 181), then it may be through the altered, “value-laden” space of the affects provoked by recent or currently raging wildfires that we may find the resources for a different affective regime regarding industrial fire as well. In other words, in my view fire’s ontological and physical status indicating constancy amid change, offers a potentially productive space for affect beyond simple mourning. Rather than simply focusing upon loss, I would like to argue for a mosaical space of affect promoted by trust. I choose trust rather than hope, given the more enduring, participatory nature of trust¹¹ which contrasts with the more fleeting, and often deceptive, nature of hope.¹²

Section 4: Native-American Practices, Redwoods, and a New Pyrophytic Affective Regime

How can we move toward this new space of affect, using trust in the continuously regenerative nature of fire as the soil out of which this mosaic of affect may arise? My first suggestion turns to the local level, here in the American West, and seeks guidance in the local fire regimes that have proven productive and creative. In California, there is a long history of pyrophytic practices, for instance among the Sierra Miwok, who have used fire to instigate productive transformative changes in a landscape, which also have had beneficial effects for the natural world as such: they enhanced “the diversity, productivity, and

¹⁰ Artists Amiko Matsuo and Brad Monsma provide in their art a look into both the constructive and destructive features of art. This was apparent, for instance, in their exhibit: “Pyrometric: Earth and Ash in the Anthropocene” which was on display in the Kwan Fong Gallery of Art and Culture on the Thousand Oaks campus in 2018. “There are hand-built and -thrown ceramic traffic cones that Ventura County firefighters placed in controlled burns and cones that were fired with a dusting of ash from previous fires. Like pyrometric cones, which are used to gauge heat in kilns, the cones suggest the nature of the fires they experienced. The artists used contemporary and ancient techniques, including a Japanese coil-building method called nejitate.”

¹¹ In Adriaan Peperzak’s words: “[t]rust creates a kind of participation between you and me, and this changes my life, including my feeling, working, and thinking, at least in some aspect and to a certain extent” (2013, 10).

¹² Cf. Marjolein Oele’s “Priam’s Despair and Courage: An Aristotelian Reading of Fear, Hope and Suffering in Homer’s *Iliad*” (2019, 298-304).

availability of the wild resource base by complementing and working with ongoing natural ecological processes” (Lightfoot et al. 2009, 143). What resulted from these fires is not only “an anthropogenic mosaic of productive habits” (114), but also “the creation and enhancement of environmental mosaics—complex quiltlike environments with multifaceted habitats” (117).

What we may learn from these Native American practices for our own pyrophytic future is the opportunity to reimagine the connection with fire *creatively*, as a life-inducing force that can support *many* forms of life as mosaics—rather than just the monoculture of the human species. However, given the fact that, as current anthropological research has it, in previous late prehistoric or early historic ages “a staggering 6 to 16 percent of the state” would be on fire, and that a “distinct haze would have hung in many places in California during the summer and fall months” (143), then this provides ample warning against romanticizing Native American practices as well, thus offering incentive to handle new fire regimes—and smoke—carefully and responsibly, in light of air quality and air pollution.

Secondly, we may follow the trace of yet another local pyrophyte, that of the giant sequoia trees (*Sequoiadendron giganteum*) that have lived and still live in the Sierra Nevada’s and in Yosemite Valley, and whose existence and symbolic imagery may serve to recalibrate our affects towards fire for the future. In the case of the giant sequoia, we find a tree which stands out in terms of both size and age (it can become 3,200 years old) (Purslow 2006, 4-8). Sequoia trees are well adapted to fire, as fire allows them to prepare seedbeds, cycle nutrients, and allows for a mosaic of age classes and vegetation types in the forest, etc. (Kilgore 2017). Compared to fungal and bacterial action, fire offers a faster, and more complete, process of decomposition, which allows “minerals and energy to recycle faster within the ecosystem’s operation” (Kilgore 2017).

Based on their pyrophytic existence, we might discern a few qualities that are of metaphorical import to reimagine our own post-human existence as part of the pyrocene. In the first place, the general ability of Giant Sequoia’s to embrace fire to live and propagate is a helpful reminder for rethinking our own affect toward fire for the future. Secondly, sequoias’ thick bark and resilience to fire offers a helpful image for long-term human resilience toward fire. I am not thinking here of short-term solutions such as fire-resilient buildings or other forms of resilience that sustain the *status quo*, but rather of *sustainable, long-term forms of resilience* that rethink our interactions with fire and that draw upon broader, long-term temporal regimes that truly foster resilience for the planet.¹³

Relatedly and thirdly, given sequoias’ connection to deep time,¹⁴ their enduring existence should give us pause to rethink adaptability in the face of change, and the need to

¹³ As Albrecht critically writes about problematic uses of resilience: “Instead of helping us rebound into configurations of successful models of living after disturbance, we are now seeing resilience being used to justify the ongoing existence of processes and activities that are driving humans to extinction” (2017, 304).

¹⁴ David Wood’s book *Deep Time, Dark Times: On Being Geologically Human* investigates the question how deep time, and thinking about multiple durations that have taken on geological shapes, put to the test the question of who “we” are and what “life” is (2019, 17). Rather than focusing upon geological time, David Roden in *Posthuman Life* emphasizes deep technological time, articulating that certain properties cannot be understood on the

ponder our own 24/7 regimes that merely excrete affect as based on the present. Fourthly, given the ability of sequoias to form underground communities that clonally reproduce through massive, underground lignotuber (Noss 1999, 114),¹⁵ we find an illuminating image of a *subversive yet powerful affective community regime* that informs and transforms symbiotic connections in the face of threats, such as logging. This image of rhizomatic communal life in the face of threat empowers the thought of communal regimes of affect that subvert the status quo and that strengthen individual lives through communal effort.

Thus, if we follow the trace of the symbiosis of Giant Sequoia's and Native American Pyrodiverse Regimes, then the lesson this holds for our own pyrophytic future is that of instigating an environmentally sustainable politics based on tapping into long-term affective temporal regimes. Beyond emulating the controlled burning practices that may be productive for certain parts of California however, a recalibration of the broader economic and political regime is needed that is grounded upon some of the same affects that made a flourishing symbiosis between fire, native Americans, and environmental context possible. Such a recalibration of the political regime has to address broad questions of economic growth and capital accumulation of property as well as tackle specific questions such as the need for expanding homes into the forest/wildlife interface.

If it is the case that fire has not only changed physical landscapes, but has informed and transformed our bodies, culture, and social and economic institutions and thereby our existence at large, then we need to think through the existential repercussions of the current fire regime. The case of California's transformation is telling of such existential repercussions. In the wake of a series of wildfires, PG&E, the American investor-owned utility with publicly traded stock, had to declare bankruptcy. In addition to the legal consequences of prior years, the company was deemed, most recently, liable for the deadliest wildfire in California history so far, the Camp Fire, that raged in 2018, which resulted in 86 killed, 14,000 homes burned, 52,000 people displaced, and about \$16.5 billion in damages. Given the enormous claims for liability, PG&E had to file for Chapter 11 in January 2019. In a conciliatory yet empty gesture, PG&E replaced all members of the board and committed itself to proactive damage avoidance by spending money cutting down trees near power lines. Public criticism has been voiced advocating for a government takeover, or a forced subdivision of PG&E into small regional operations.

Many of these disasters involving PG&E have invoked the public's ire, but the fault lies not only with PG&E and its infrastructure; it involves a complexity of factors including climate change and increased fuel load. Nevertheless, the legal doctrine of "inverse condemnation" holds PG&E "responsible for wildfire damage caused by their equipment—whether the companies acted negligently or not" (Baker 2019).

Both public outrage and an outdated legal system are preventing more transformative and constructive legal and political rethinking. Without denying PG&E's involvement in some of the unfolding dramas of wildfires in California, it is high time to think through the meaning of PG&E's bankruptcy on a broader level. What ramifications

basis of their initial conditions, but rather through grasping the "temporally extended process" (2015, 118).

¹⁵ Noss continues: "One report describes a colony of forty-five redwood trunks that formed a third-generation fair ring 17 m by 15 m across, whereas another illustrates a lignotuber exposed by erosion that was 12.5 m across and weighted 475,000 kg" (1999, 114).

does PG&E's bankruptcy have for liberty in the age of climate change? What does appeal to liability say about the affect of trust? Since PG&E represents the "industrial fire" model based on fossil fuels, while it simultaneously experiences the dire consequences of this model in the form of raging wildfires and now undergoing bankruptcy, we may ask: in what ways does the collapse of the Californian industrial fire model due to its own consequences (climate change and ensuing megafires in California) transform thinking in the West, the California Dream of gaining wealth or fame fast,¹⁶ and the current political-economic regime as we have it?

If the colonial-settler California dream focuses on individualism and on the issue of accumulating private property fast, then the recent wildfires puncture this ideal. If recent megafires are—broadly speaking—caused by factors related to human induced climate change and colonial settler-ideas of fire suppression, and if multinational companies are largely accountable for such climate change and perpetuate the disturbed fire load balance, then the existential effects of megafires show the limits of unbridled neoliberal capitalism which, supposedly, has at its core the human individual and its freedom, but, in fact, serves the social, collective power of corporations and their accumulation of profit (Krueckeberg 1995, 306-7). In the face of the damage done, should such large and powerful corporate institutions (which in some sense constitute now "the public" [306-7]) not be held responsible, rather than the so-called "public" utility companies that find themselves accountable, even despite their under-funding and being subject to abstruse legal liability rules?

This suggestion, of tackling the broader economic infrastructure of our society and the major "players" in producing climate change rather than the local utilities, should go hand in hand with a revision of how we relate to property and to the natural resources that we hold in common with all other living beings. Ownership is not just a relationship between a person and a thing, "but a set of relationships between the owner of something and everyone else's claims to that same thing" (307). Moreover, as the much discussed, provocative "statement of progressive property" indicates, property implicates "plural and incommensurable values," and the pursuit of such values requires "virtue, particularly humility, and attentiveness to the effects of claiming and exercising property rights on others, including future generations, and on the natural environment and the non-human world" (Alexander et al. 2009).

Thus, as megafires burn properties and entire forests down here in the American West, they affect not only the so-called owners, but the general structural way we relate to the land and property as such. As we think of the scale and the impact of those fires, perhaps it is time to consider another relationship to the environment and to land. Following past Native American practices, we may ponder whether alternative relationships to property may offer a more productive vantage point. More specifically, we should look to Native American property rights regimes and use of the land to better manage the ongoing risks of wildfires.

¹⁶ As Wikipedia defines it, "The California Dream is the psychological motivation to gain fast wealth or fame in a new land. As a result of the California Gold Rush after 1849, California's name became indelibly connected with the Gold Rush, and fast success in a new world became known as the 'California Dream'" (Wikipedia, last modified June 11, 2018).

For Native-American peoples, “the idea that human use *ensures* an abundance of plant and animal life appears to have been an ancient one” (Blackburn and Anderson 1993, 19). Land and culture are thus integrally connected for Native Americans, also because “the very bones of our ancestors are present in the earth and help make the soil that grows our food” (Gonzales and Nelson 2001, 499). Even if it is *not* the case, as myth has it, that Native American peoples had no private property (Bobroff 2001, 1589-90),¹⁷ then still the way Native Americans tribes in California approached property rights—as part of an evolving system of responsibility to plant and animal life—should give us pause. If it was the case that the various geophysical features of the land and water gave rise to specific tribal regimes in California, then the task is to again align our property rights and our usage of the land with the needs of the current “social, economic, political, and ecological conditions” (1563). The task is thus to re-create functioning property regimes “that meet local needs (...) and evolve to meet future conditions” 1622),¹⁸ of both human and non-human life.

Such a broader perspective resonates also with current scientific studies into California forests, which support the idea that, to combat megafires, we need to start managing forests not just on “a relatively small spatial scale (e.g. 20-100 acres), but at the watershed scale (20,000-50,000 acres): “By combining mechanical thinning, prescribed fire, and naturally ignited wildfire, one could “restore/reduce fuels on a significant proportion of a watershed such that there is limited potential for large wildfires with extreme patches of high severity effects (all trees are killed).”¹⁹

The problem with many current resource-specific policies is that they are “so focused on individual concerns that they may be missing the fact that there are “endangered landscapes” that are threatened by changing climate and fire” (Stephens et al. 2016). Following the idea of “endangered landscapes” rather than individual, short-term concerns, I want to similarly plead for a renewal of efforts to reconsider our energy and fire policies in California.

Only a political regime that is open to such broad issues and questions, such as the meaning of an “endangered landscape,” “how to have an alternate economy” or “how can fire become less polluting and less influential in promoting climate change” can be successful in moving us toward the pyrocene. The cinders of past fires that are housed within our own present point toward the future. Only when, at the local Californian level,

¹⁷ As Bobroff specifies: “Among tribes in what is now northern California, along the Klamath River and the nearby Pacific coast, property was held in individual private ownership and included ownership rights in other tribes’ territories (...). Ownership could be divided over time, with several individuals each having rights to the same fishing spot at different times of the year. (...) In much drier areas further south, the native peoples recognized property rights of various kinds at the time of Spanish contact.” As Bobroff continues, it included both individual and family ownership, special ownership connected to shamanism and medicinal plants, and intellectual property privately owned, such as songs and dances (2001, 1589-90).

¹⁸ While Bobroff specifies this in the context of addressing Native American issues of allotment, the issue itself is applicable to our entire situation, in my view.

¹⁹ Brandon Collins of US Forest Service-PSW; UC Berkeley-Center for Fire Research and Outreach, email message to author, June 30, 2019

we move beyond issues of strict legal liability (i.e. a “legal” super-structure of trust) and again develop authentic, localized trust in engaging our land, fires, and each other, can successful collective action toward a more sustainable future emerge.²⁰

Conclusion

For fire will advance and judge and convict all things.
—Heraclitus, frag. 22B66 Diels-Kranz

If it is the case that fire is a necessary part of the evolution of human, pyrophytic existence, and if it is the case that fire can bring about regeneration and is the underlying mover of change, then we have to admit that the current fires that have been undergirding industrialization and that have wreaked so much havoc on our planet—both indirectly as industrial fire or directly through climate change and consequent megafires—are putting to the test our *trust* in the regenerative and life-affording power of fire. I propose that Prometheus’ gifts of fire and technics have to be reassessed both in terms of the locale out of which we operate, as well as the general political-economic climate and habits that has made these fires possible.

On the local Californian level, the enduring existence of the Giant Sequoia points at the possibility of long-term regimes grounded in deep time, creatively adapting to fire in seeking new opportunities, and strengthening life through forming powerful subversive communal bonds. Additionally, on the local level, the recollection of the past pyrogenic practices of the Miwok indicates the possibility of a reinvented pyrophytic regime that embraces fire as a co-creative mosaic force, potentially unlocking and empowering the potencies of life for a diverse range of beings, and not just humans.

However, such local regimes need to be supplemented with a more global approach. When we look at fire from a global perspective in our current age, then “fire combusts more than what the biosphere grows” (Pyne 2001, 185), indicating that we need to stimulate the biosphere’s growth and restrict fire “to the cycles of what can be grown” (185). Additionally, given such need for the restriction of the fire-load, we need to create “other sources of power than controlled combustion” (185). Such efforts—encouraging biosphere growth and creating new technical fire regimes, can only happen, in my view, when our political-economic regimes and affects and habits are changed on a global scale. Only then can we become the regenerative pyrophytes that embrace, with new trust, the forthcoming era of the pyrocene. As Roy Scranton articulates: “Humanity’s survival through the collapse of carbon-fueled capitalism and into the new world of the Anthropocene will hinge on our ability to let our old way of life die while protecting, sustaining, and reworking our collective stores of cultural technology” (2015, 23). Similar to fire’s ability to instigate death *and* regeneration, “[l]earning to die as a civilization means letting go of this particular way of life and its ideas of identity, freedom, success, and progress” (24), and unlocking new forms of political-economic regimes, habituation, and affect.

²⁰ On the centrality of trust for collective action in relationship to the commons, see: Poteete, Janssen, and Ostrom’s *Working Together: Collective Action, The Commons, and Multiple Methods in Practice* (2010, 226-27).

It is precisely at this point, as we contemplate our global-political sphere, that we may reinvokethe ending of the myth of Prometheus for further suggestions. For, in the version of the myth in Plato's *Protagoras*, humans, after having received the gifts of fire and skill, receive a final gift. As the myth has it, fire and *technē* allow humans to procure food, but they are still threatened in their existence, since they live "scattered," lacking the means to live peacefully together, therefore making them vulnerable to the attacks by wild animals. For that reason, Zeus sends Hermes to bestow on humans the gifts of "respect (shame) and justice (*aidō kai dikē*)" so that there should be "regulation of cities and friendly ties (*philia*) to draw them together" (Plato, *Protagoras* 322c).

How may we turn our attitude toward fire around, creating a more sustainable life for all, keeping not only ourselves, but other parts of our joint ecosystem as well? The answer, Plato's myth seems to say, is to *feel* our own lack through the affects of shame and respect (*aidōs*), affects that connect us to what Stiegler calls the de-fault at the core of our being: the finitude and mortality that is our way of life (1998, 200-2). It is also to feel and habituate ourselves—through a sense of justice—as part of a broader community, of a wider political landscape, that needs to contemplate what resources are available and with whom and how to share them. Paradoxically, only through these senses of respect and justice and by accessing the political skills that all point at our de-fault, can we *come together* instead of being polarized and driven apart (201).²¹

How can we *begin* anew, feel the weight of our mortality, and (re)install the feeling and meaning of justice as we enter the pyrocene? The starting-point, I want to articulate, is trust in the enduring power of fire. In the novel *Frankenstein: or, The Modern Prometheus*, the protagonist Dr. Frankenstein abandoned trust in his own creation, and, thereby allowed for all the havoc to happen; the monstrosity at the heart of the novel is thus, in the end, not due to his so-called "monstrous" creation and its actions, but due to Dr. Frankenstein, the Modern Prometheus, himself (Shelley [1818] 1984).²² Have we, modern prometheuses in the 21st century, perhaps similarly given up trust in our own pyrophytic existence and its ensuing pyrotechnical, industrial fire "monsters"? Whether we want it or not, our lifestyle has been changing, following the wake of industrial fire and its ensuing tragedies. The example of Dr. Frankenstein may give us pause: only by turning ourselves—and our current lifestyles—into cinders²³ can a new space of affect—a mosaical space permeated by trust toward fire—emerge.²⁴

²¹ Stiegler addresses that another *technē* is needed, that will ground community and politics; "Politics is the feeling of the default" (201). It is this technics that we need—through *aidōs*—to battle eris and to come together: "politics is an art, a technics, imprinted in every mortal as the originary feeling of the divine coup of technicity itself" (201).

²² This idea concerning Dr. Frankenstein's loss of trust is based upon Bruno Latour's interpretation in "Love Your Monsters: Why We Must Care For Our Technologies As We Do Our Children" (2011, 22).

²³ In *Cinders*, Derrida quotes Francisco de Quevedo's sonnet, *To Vesuvius/Al Vesubio*: "I am cinder that darkens in the flame/nothing that remains to consume the fire/that in amorous conflagration" [is dispersed], and "will be cinder, but will remain sentient/will be dust, but amorous dust" ([1987] 2014, 55-57).

²⁴ In its various iterations, this paper benefited from conversations with my USF colleagues Kim Carfore, Tim Iglesias, Gerard Kuperus, Anne Mairesse, Sam Mickey, Omar Miranda,

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