

Scene on Radio
Season 5, Episode 3: “Managing” Nature
Transcript

John Biewen: *You all helped to make this season possible -- those of you who have donated to the show. We also received support from the International Women’s Media Foundation.*

John Biewen: Amy, there’s a word that I’ve been meaning to bring up. I came across it in doing research for this season.

Amy Westervelt: Oh, tell me!

John Biewen: The word is “thingification.” Martin Luther King, Jr., for example, spoke it, in a TV interview in 1967.

Martin Luther King, Jr.: “...the Negro was brought here in chains, treated in very inhuman fashion, and this led to the thingification of the Negro. So, he was not looked at as a person, he was not looked upon as a human being with the same status and worth as other human beings....”

John Biewen: But it seems Aimé Césaire coined the term—the Afro-Caribbean poet from Martinique. In a poem about colonization, in 1955, Césaire wrote, “Colonization = thingification.”

Amy Westervelt: Oh wow, that just hits so much harder than *commodification* or even *objectification* for some reason. I can see why this idea clicked for you. We ended last episode talking about the ways that Western culture came to *use* people, and the earth, and land, and other living things, as objects to profit from, rather than treating them as sacred beings with inherent value and rights. We looked at the forms that took through conquest and colonization, racialized slavery, and global capitalism.

John Biewen: And leave it to a poet. Along comes Mr. Césaire with a single word, in verb form, to name that process, that arrogant move. To “thingify” something or someone.

Amy Westervelt: Clearly a very useful term for so much of what we’ve covered so far.

John Biewen: We left off last episode in the 1600s, with the scientific revolution and thinkers like Descartes and Locke. They explicitly claimed humanity’s dominion over the rest of nature—our right to use it for our benefit, seemingly granted by God in the Book of Genesis. At least, based on these folks’ preferred interpretation of those Bible verses.

Amy Westervelt: Right. Which brought us right up to the Enlightenment. So, how did the Enlightenment figure into our story—this story of how we got this way, how the West went wrong in its understanding of how to live as part of the natural world.

John Biewen: It's such an interesting question because we've inherited a culture that sees the Enlightenment as nothing but a huge win. A giant shift for the better in human history. I mean, the American Revolution came out of it!

Amy Westervelt: Yes! Freedom, human rights, individual liberties, liberalism in the classical sense of that word—this is all the stuff the Enlightenment gave us, or so we're taught.

John Biewen: But in past seasons on Scene on Radio, we've bumped up against some hard realities about the Enlightenment. If it was so great, how did we emerge from it, in the early 1800s, with a Europe—and a new United States—dominated by a slavery-based economy, a racial caste system, stubborn patriarchy.

Amy Westervelt: *And* a culture that was aggressively ramping up its extractive, exploitative relationship to land and the natural world.

John Biewen: Amy, you're gonna help us make sense of all this. But first, you know, those of us making this show have never passed ourselves off as professional historians, and most of our listeners are not, either. So we interview real historians and

read their work. Based on your research for this episode, let's have you talk us through what the Enlightenment was, really, and what led up to it, how it came about.

Amy Westervelt: Oh, just that. No, I'm just kidding.

John Biewen: Yes. Just, you know, let's take two minutes and do that. [Both laughing]

Amy Westervelt: OK. The basics: Most historians place the Enlightenment in the 1700s, from the beginning to the end of that century, give or take a decade or so. And the core idea, the Enlightenment's real claim to fame, is reason. Rationality. Taking the place of, you guessed it, faith and religious authority.

John Biewen: So it's really the flowering of a longer-term trend in Europe—through the Renaissance, the Scientific Revolution. A gradual shift away from the Church as *the* organizing force in society, right? So last time we mentioned one stepping stone on that journey: the Renaissance embrace of ancient Greece and Rome.

Amy Westervelt: Right. That started, actually, earlier than I realized: all the way back in the 13th century, with Thomas Aquinas, who goes on to become a Catholic Saint. He's saying, Hey, this Aristotle guy had some interesting things to say. Maybe we should pay attention to him.

John Biewen: Which does seem kinda risky at that time. Aristotle was, uh, not a Christian thinker, having lived several centuries before Christ.

Amy Westervelt: But Aquinas sort of synthesized Aristotle's ideas through a Christian lens. He argued, for example, that people should use their senses and their intellect, along with religious revelation, to find the truth. It was an early flicker of this turn toward evidence-based thinking.

John Biewen: That took a while, though, didn't it?

Amy Westervelt: Right. Fast-forward to the 1500s, and you get another event that historians think of as a real catalyst for the Age of Reason, also known as the Enlightenment: the radical discovery that Earth is in fact not the center of the universe. Uhh—yeah [laughs]. There's some debate over who first saw this truth, but the first one to write it down in a book was the Polish scientist Nickolaus Copernicus. Listen to what he wrote in the preface to his book, *On the Revolutions of the Celestial Spheres*, published in 1543.

Copernicus, voiceover: I can readily imagine, Holy Father, that as soon as some people hear that in this volume, which I have written about the revolutions of the spheres of the universe, I ascribe certain motions to the terrestrial globe, they will shout that I must be immediately repudiated together with this belief.

Amy Westervelt: Copernicus didn't just address the preface to the Pope, he dedicated the whole book to him!

John Biewen: Smart move if you're hoping the Pope won't have you arrested for heresy.

Amy Westervelt: Right. And it seems to have worked. Or he just didn't live long enough to get in trouble. Copernicus died shortly after that book was published. And it took the Catholic Church seventy years to ban it. But then, when Galileo came out with similar ideas in the mid-1600s, the Church hauled him in front of the Inquisition, and he lived out the last ten years of his life under house arrest.

John Biewen: Nobody expects the Spanish Inquisition!

[Noise: Drums, loud brass blare, laughter]

Amy Westervelt: John...!

John Biewen: Sorry. For people out there scratching their heads, that's a Monty Python bit. And it probably wasn't even the *Spanish* Inquisition in Galileo's case, was it?

Amy Westervelt: No, it was the Roman one. But you can see from the different experiences of Copernicus and Galileo that progress toward the Enlightenment was not

at all linear, right? Things lurched back and forth for centuries as Europeans struggled over this tension between faith and reason and whether one necessarily canceled out the other.

John Biewen: Sounds familiar. Is there anything else that stands out as a factor pushing European culture toward an embrace of reason over religious devotion?

Amy Westervelt: Yes, and that is war. Namely, the Thirty Years War. This is what a lot of scholars point to as sort of the big catalyst for the Enlightenment. So from 1618 to 1648, this huge war across much of Europe, with an absolutely staggering body count. Possibly as many as 8 million people die, up to 60 percent of the entire population in parts of Germany. It was just an incredibly bloody war.

John Biewen: And it's complicated, from what I understand, but basically it's Protestants versus Catholics, right?

Amy Westervelt: Yep.

John Biewen: A big bloody blowout that's been building for a century, since Martin Luther launched the Protestant Reformation in the early 1500s.

Amy Westervelt: That's right. So, because it was a war over religion, by the end of it, a lot of people have had it with the Church and with Church doctrine shaping their lives.

John Biewen: And, yes, a whole lot of people's deaths.

Amy Westervelt: And that leaves fertile soil for thinkers who want to move society toward reason. The people who came along and said, okay, faith is fine, but let's base our understanding of reality and our actions and our governance on evidence, science, knowledge. Not the arbitrary authority of church leaders and kings.

John Biewen: Which all sounds good. And a lot of what the Enlightenment delivered *is* good, I think most of us would agree today. But it didn't result in heaven on earth, did it?

[Music]

John Biewen: From the Center for Documentary Studies at Duke University, this is Scene on Radio, Season 5: The Repair, Episode Three. I'm John Biewen.

Amy Westervelt: And I'm Amy Westervelt. In this series on the climate crisis, we're exploring how and why humanity went wrong in our relationship with the earth and our fellow living beings. Some cultures, much more than others.

John Biewen: In later episodes we're gonna go global, to hear from countries already suffering disastrous consequences of climate change despite their having done little or nothing to create the problem. But this time, more history. Why was the Enlightenment

not a course correction? And did newer cultural values that took hold in the West in this period in some ways *speed up* our race toward ecological suicide? In our first two episodes we looked at how Western violence against the rest of nature is all tangled up with racism, male dominance, colonialism, capitalism. So, how did *those* forces survive, and even thrive, through the so-called Enlightenment? Tell us what you found, Amy, and we'll catch up on the other side.

Amy Westervelt: By the time the Enlightenment dawned, Western societies had been organized around Christianity, in its various forms, for a really long time. The Church made the rules, even for the monarchy, and nature was an unknowable mystery governed by God. Then along comes the Scientific Revolution, as it was named much later. Isaac Newton publishes his landmark book in 1687, offering, among other things, a mathematical description of gravity.

Devin Vartija: The important point is, is that, you know, very quickly people realized that the predictability of natural phenomena using Newton's formula for universal gravitation. The position of the planets at any given time could be calculated with an astonishing degree of accuracy. And I think, you know, so this just, what has been called sort of the mechanization of the world picture in the 17th century. I mean, this was just so revolutionary, so....

Amy Westervelt: This is Devin Vartija, assistant professor in political history at Utrecht University in the Netherlands and author of the book *The Color of Equality: Race and Common Humanity in Enlightenment Thought*. Instead of a mystery, he says the universe started to look like a set of processes that humans can come to understand and maybe even control. Could this apply to other parts of human life?

Devin Vartija: In earlier periods, language and religion were used to classify humanity. The use of these criteria or categories became increasingly, I think, ineffective or not up to the task of understanding the increasing complexity of the world in which Europeans found themselves by the late 17th and early 18th centuries.

[Music]

Devin Vartija: Whereas earlier, the tripartite distinction between, you know, Christians, Jews, and heathens, just to boil down something that's very complex into something very simple. This was no longer up to the task of really making sense of the immense complexity of, you know, understanding all of these—what for Europeans were, you know, newly discovered peoples, of the Americas, especially, but also in the in the 17th and 18th centuries, then, including indigenous peoples of Australia and New Zealand and the Pacific Islands, et cetera. So, you know, it became increasingly, I think, intractable to sort of use

language and religion. So it was no longer serving their needs to understand the complexity of the world.

Amy Westervelt: So, Enlightenment thinkers start to apply scientific thinking to humans too, to place humans into nature. And they begin describing different traits of groups of humans, beyond their language and religion, and initially this includes skin color but not yet the idea of race. They're not looking to create a new sort of hierarchy, at least not yet. Instead, they're classifying and categorizing everything in an attempt that seems almost desperate to understand the world around them now that all the rules that once governed everything are gone.

Devin Vartija: Sort of an older way of thinking about the Enlightenment is the idea that Enlightenment thinkers attempted to use the Newtonian way of thinking, applying his way of looking at nature, to humankind in society. Another aspect that we could point to would be negative, in the sense that Enlightenment thinkers, they formed a group not because they were all in favor of something but because they were all against something. And that is political absolutism and religious dogmatism. They had a great variety of opinions and of arguments, about how we should organize society, how, you know, the role of politics and society, what constitutes a just society. But I think we can say with quite a high degree of confidence that what united them, despite all of these differences, was that they were appalled by Louis the 14th, especially. The king of France.

Amy Westervelt: In particular his brutal persecution of Protestants. This kind of sectarian oppression had led to the gruesome 30 Years War earlier in the 17th century.

Devin Vartija: And so you see this reverberating across the 18th century. And so in combination with the religious dogmatism is often, you know, political absolutism, or what they would have called despotism.

Amy Westervelt: Enlightenment thinkers had soured on both religious rule and despotic monarchies, and that created space for new questions: What did humans, living in community, owe each other? If it wasn't all about the gratification of an afterlife, how could we improve the human condition in the present? As a lot of us learned in school, some started talking about a social contract, the idea that all people in a society share certain responsibilities and rights. And for some thinkers, a related principle emerged: human equality.

[Music]

Amy Westervelt: These swirling ideas eventually helped to spark what are known as the Atlantic Revolutions: the French and American revolutions, the Haitian revolution. Really, throughout the Western world, you had people who felt oppressed by hierarchy and aristocracy and, in Haiti's case, enslavement, revolting against it.

Devin Vartija: The inclusion of equality in state constitutions, so starting with the Declaration of Independence of the young United States, you know, going on to the French revolutionary Declaration of the Rights of Man and Citizens in 1789, then the Haitian revolution of the 1790s and the centrality of equality also in their state constitutions that they developed, I mean, that was a world historical moment. I mean, at no time in history had basic equality of *all* human beings been formulated in such stunning fashion as just a basic part of a state constitution.

Amy Westervelt: Haiti's revolutionaries forced the end of slavery there in 1793. The following year, France became the first colonizing nation to abolish slavery. But these revolutions faced a swift backlash.

Devin Vartija: If we take the example of the French Revolution, the need for achieving a measure of political stability, which, of course, eluded the French revolutionaries for, you know, quite a long time, that gave a lot of political ammunition to the reactionaries, or to the conservatives.

Amy Westervelt: French revolutionaries, of course, famously hauled aristocrats to the guillotine. That gave conservatives a key talking point: See, for all your talk about the violence of religious and political absolutism, you're violent too.

Devin Vartija: In the French case, but also in the Americas, I think the reaction against the Haitian revolution is really important. So, sort of the idea that absolute equality or too much equality will just lead to anarchy and violence. This really takes hold, especially after the terror in France and the violence that occurred during the Haitian revolution.

Amy Westervelt: Vartija says the conservative reaction to these revolutions, and to post-revolution violence, got some powerful people talking about deep, innate differences between so-called “races” and between men and women. To bolster those claims, they pointed to ... science.

Devin Vartija: So, the sort of theories of fundamental and unbridgeable racial and sexual difference are only really formulated in the postrevolutionary period. Because you don't need to, if there is no premise of equality, that people take for granted and people take seriously, then you don't need to justify unequal treatment.

[Music]

Amy Westervelt: So it wasn't so much that Enlightenment thinkers cataloguing human differences led to inequality, but that Enlightenment thinking required those who

opposed equality to somehow justify restoring and keeping the old hierarchies. And Enlightenment thinkers had—in many cases inadvertently—provided categories and classifications that their opponents could use to do that. It took France less than a decade to legalize slavery again. Napoleon called it necessary for maintaining control over France's colonies.

Devin Vartija: That is sort of the basis of what you get in the 19th century, sort of fanatical racist arguments about the need for Europeans to subjugate all others and the basic and inherent inferiority of non-Europeans. You know, that's only formulated in a really sort of theoretical way and, you know, for them scientific—obviously, for us it's pseudo-science, but for them scientific—that is only really happening in the post-revolutionary period.

[Break]

Amy Westervelt: The Enlightenment brought with it some radical new thoughts on the economy too. If everyone was equal, and neither the Church nor the King was in charge anymore, then there was nothing stopping any talented individual from changing their rank in life. And any enlightened government ought to do what it could to enable that.

That's how the thinking went. In 1776, Adam Smith formalized these ideas in the book *The Wealth of Nations* and birthed the idea of the "free market."

William Shatner, "American Enterprise," Part 5: Our government's first economic responsibility was to provide a framework of laws, protection for private property, deeds for land, patents for ideas, and enforcement of contracts. In a market economy, someone must ensure that a seller delivers and a buyer pays. Washington, Jefferson, and Adams, as farmers, knew the value of settled land. They turned government frontier land over to private owners.

Amy Westervelt: This is a clip from an educational series about the American economy, commissioned by Philips Petroleum in the 1970s and narrated by William Shatner. It's a wild ride, but this view of the so-called "free market" as a pillar of America's success really hasn't changed much since then, or since the late 18th century. And you can start to see how the confluence of racial classification and a laissez-faire economy, plus this newly flexible class structure, could lend itself to a philosophy that holds equality dear for some, but justifies viewing other humans as resources or capital. And then if some people could see other *people* as economic resources, it was easy to see other parts of *nature* that way, too.

William Shatner, “American Enterprise,” Part 2: The luck we've had. The land has powered us through four successive economic ages: industrial, electrical, gasoline and atomic. Without the land's resources, how far would we have advanced from a Jeffersonian society of small farmers? When we needed coal and iron, the raw materials of the Industrial Revolution, we had them. Right under our feet there were huge supplies of iron and coal.

Amy Westervelt: More from the American Enterprise series. There's this real entitlement embedded in the American experiment right from jump. This idea of an untouched land “discovered” by Europeans. Never mind that hundreds of independent nations already lived there. And of resources just waiting to be used for the enrichment of the chosen few.

[Music]

Amy Westervelt: For all of its Enlightenment ideals, America was also a very religious country, and many of the early industrialists felt these resources had specifically been given to them by God. That was true of the country's land and trees, water, soil, eventually coal and iron—and it was certainly true of oil, when drillers discovered it in the U.S. in 1859.

William Shatner, “American Enterprise,” Part 2: When we needed petroleum, we had it. Black gold in Pennsylvania and the Southwest. When we needed uranium for nuclear power, we had it. Our hills hold enough to last for centuries. The land has provided on a grand scale.

Darren Dochuk: Oil is first found in western Pennsylvania. This is a land of folk religion, right? Tucked away in Appalachia. Where does oil discovery and exploration go next? It goes to east Texas. It goes to California. It goes to regions where there is already kind of an established kind of folk religiosity, much of it very intensely evangelical.

Amy Westervelt: This is Darren Dochuk, a professor at Notre Dame University and author of the book *Anointed by Oil*.

Darren Dochuk: So, you know, just to say that where oil arrives, there's already a built-in mechanism that whether it's Pentecostal or Presbyterian, that allows, kind of the, this prosperity gospel to flourish at the ground level.

Amy Westervelt: The prosperity gospel is this idea common in some Christian faiths that if you are holy and righteous, God will bless you with material wealth and success. And that if you are wealthy and successful it's because God has rewarded you for being a good Christian. So you can imagine what being *unsuccessful* says about your righteousness and what God thinks of you.

Darren Dochuk: Now, oil, upon its arrival, of course, always accentuates that. And so there, you know, and there is a way in which, also, this is causation. I mean, oil arrives in east Texas at a very difficult period of time. This is during the Depression. You can only imagine how the poorest folk of this poorest region are going to celebrate the arrival of this mysterious source from underground. And in their minds, they have a theological system that makes sense of that already. This is God-given. This is mysterious. This is something that we can celebrate in the moment. So many of these smaller oil producers in the Southwest who are pentecostal, small-p pentecostal, and who are more kind of given to the high risk, kind of supernatural kind of renderings of their business, as if this is God-given and that time is short and we need to drill, drill, drill.

Amy Westervelt: So you have a country ostensibly founded on the ideals of the Enlightenment, but with a particular religious bent. One that says God is rewarding you with this land of riches. But *also* one that stems very much from Luther and subsequent Protestants who had a critical new take on theology: namely, that every person had

their own individual relationship to God. The Calvinists and Puritans who made their way to the New World followed in Luther's footsteps and rejected the idea that a bishop or a priest should interpret the Bible for them. Instead, they believed every man should interpret the Bible himself. And those gendered nouns are intentional. While the French salons might have been very into women inhabiting the public sphere, the American colonizers were decidedly not. Women were to take care of the domestic arts, with one exception: religious education, which was handled by the man of the house. He was responsible for the salvation of his family's souls. This is a group of people that almost immediately starts to cock their heads to the side, squint a bit, and interpret Enlightenment ideas in a way that suits them and *only* them. The classifications endemic to the Enlightenment quickly became a way to assert dominance over everything they could classify. Think of Adam in the book of Genesis naming the animals. By the end of the 19th century this approach had made its way into America's official, governmental approach to nature, too.

Melissa Aronczyk: If we want to look at the beginning of a 20th century national awareness about the need to protect the natural environment, we have to look at the naturalist John Muir and the forester Gifford Pinchot.

Amy Westervelt: Melissa Aronczyk is a media studies scholar at Rutgers University and co-author of the book *A Strategic Nature*, all about how Americans came to talk

about “the environment” in the way that we do. John Muir was an early conservationist, and Pinchot really saw nature as a resource.

Melissa Aronczyk: And we especially have to look at how they interacted because each of them came to stand for a very different idea of what nature and forests in the environment meant in the United States.

Amy Westervelt: You might be familiar with the name John Muir, but Gifford Pinchot is not exactly a household name. He used to be really famous, though. He was the country’s first forester.

Melissa Aronczyk: In the sense of somebody who was professionally trained to manage forests, to manage nature in the United States. And that's really important because it introduces the idea that nature is something that should be managed.

[Music]

Melissa Aronczyk: John Muir is considered, in a way, America's first naturalist, first environmentalist, even though the word, the “environment,” was not used at this time in history. But John Muir made preserving the natural environment his life's work. So we could, if we had to distill Muir’s vision of nature and Pinchot’s vision of nature, we would say that Muir was interested in the preservation of the natural environment, or the preservationist movement, as it's come to be known. And Pinchot was invested in the idea of conservation of nature. And those two terms, if you read about them now, people tend to mush them together or sometimes use the synonyms. But if we think about it in that time period, preservation is what Muir stood for, was really about protecting the natural environment. That meant creating parkland, creating forests or protecting forests and having boundaries drawn around them so that they were owned by the federal government and could not be used for any private purpose. And they could not be, you know, you couldn't cut down the trees, you couldn't use the water for anything but the enjoyment of nature. Whereas for Pinchot, for Gifford Pinchot, natural resources were just that: resources. They were, it was lumber that Americans needed for development. It was water that may be needed for serving cities. And there was an economic benefit to protecting forests, but you had to protect them for the service of American enterprise and the American economy.

Amy Westervelt: Of course, a lot of this land that both Muir and Pinchot wanted the U.S. government to own, for their respective reasons, already belonged to someone else.

Melissa Aronczyk: Neither John Muir's nor Gifford Pinchot's visions included the Indigenous people who were living on this land long before either of them came along. And that entire story of what the Indigenous peoples on the land did with nature, how they viewed nature, their relationship with nature, that was completely ignored in this American story.

Amy Westervelt: In fact, this time period we're talking about, with Pinchot and Muir, is the late 1800s, right around the same time that the U.S. military is in the last stages of forcibly removing many Indigenous tribes from their land.

Councilwoman Amber Kanazbah Crotty: That history is a very painful but an experience that continues to shape our current situation here back home.

Amy Westervelt: This is Amber Kanazbah Crotty, a Councilwoman for the Navajo Nation. The Navajo are somewhat unusual among tribes in North America because after the government forced them off their land, they negotiated the right to return. Many

other tribes still live today hundreds of miles from their ancestral homelands. That's that idea of an untouched land given to the colonizers by God—Manifest Destiny—on steroids. That history is still very present for Native people today.

Councilwoman Amber Kanazbah Crotty: Our relatives tell of stories where children were taken, where women were abused, and, and for those who did not make it back. And there are stories where when they traveled through different territories like the Santa Fe area, that children and others were taken and the family still yearned for them to come back home. The family would still talk about them and they would talk about them so that they would return and never forgot about those who they lost and those who were taken. And so, when the elders and the leaders were able to negotiate Navajos to return back to our homeland, there's songs and there's prayers that we sing like when we pass the Rio Grande River, because we recognize those that we lost. We—there's songs and prayers that we sing when we see our mountains because that is where our umbilical cords are, are connected to the land, to this place that was placed here for us, specifically for us. And so the land is like our womb. And coming back, we are slowly recovering from that experience and the experience of what has happened. So we are back home, although not the same size of our territory because we were continued to be encroached on by different ranchers and others. But the land itself and the animals and the elements, whether it's the water, the plants, the herbs, it's here for us and it's for us to take care of.

Amy Westervelt: You might hear echoes there of what we heard from David Pecusa in episodes 1 and 2, and from Enrique Salmon about “kincentric” relationships with nature. The Navajo removal happened in 1864. Pinchot was espousing his approach to natural resource management just a decade later, emphasizing the use of nature for the enrichment of Americans, *not* the stewardship of nature. And it probably won’t surprise you to hear that this is the approach that won out. Here’s Melissa Aronczyk again:

Melissa Aronczyk: One of the ways that Gifford Pinchot's vision of conservation ended up winning out was that Pinchot worked in the federal government with Theodore Roosevelt. And Theodore Roosevelt knew John Muir as well, but I don't think John Muir was ever taken quite as seriously. He was not a bureaucrat by any stretch of the imagination. He was an outdoor, wilderness explorer, he, you know, he was very poetic and lyrical. And he attempted to use PR in his way to get Americans to understand the value of nature. But the team of Gifford Pinchot as Chief Forester in the federal government and Theodore Roosevelt would end up dominating and defining what the public interest was when it came to the environment. And that just came down to, you know, Pinchot’s vision for forests was much more practical. It was more, so to speak, scientific.

Amy Westervelt: Here again, Enlightenment brain! It's important to note, though, that not all Enlightenment thinkers were so dogmatic about a "scientific" approach. Just like not all of them embraced Adam Smith's approach to the economy and the public good. From England, John Locke and Thomas Paine, and from France, Jean-Jacques Rousseau, came up with and refined what they called "the social contract" over the course of the Enlightenment. Paine, a founding father of the United States, famously detailed what he called "Agrarian Justice," an approach to property rights that would take care of the land *and* prevent widespread poverty. Here's just one passage from Paine that Americans living today might be surprised to hear.

Thomas Paine: All accumulation, therefore, of personal property, beyond what a man's own hands produce, is derived to him by living in society; and he owes on every principle of justice, of gratitude, and of civilization, a part of that accumulation back again to society from whence the whole came.

Amy Westervelt: The key to embracing and espousing Enlightenment ideals while also flouting them entirely was in how you told the story.

Melissa Aronczyk: One other really important feature to mention with Pinchot's vision and why it won out was that he was an absolute expert in managing not just natural resources, but also managing publics. From the very beginning of his

life as a professional forester, Pinchot was constantly promoting himself and his work. He was very aware of the value of public support for his vision of forestry, and he used every means at his disposal to accomplish that. He wrote textbooks that he expected would be taught from kindergarten on up about forestry, and indeed, they were. There were thousands of copies of his books sold. He created what we would today call, I guess, press events, PR events, sometimes with Teddy Roosevelt, where he would be sure to invite all of the news media of the time to cover the event when he appeared to announce a new policy or in front of an important natural resource. And he also made very close behind-the-scenes connections with lumber operators and others who would then, of course, end up supporting Pinchot whenever he wanted a new policy to be put forward. He was able to show us that forestry was a public matter and that that particular vision of forestry as a resource to be managed was the way to think about nature.

[Music]

Amy Westervelt: And again, Americans are just discovering oil around this time, too. It was first discovered in the U.S. in Pennsylvania in 1859, just two years before the Civil War began. And yes, that was a war about slavery. But that meant it was also about the values the U.S. was supposed to embody—those core principles of equality that emerged in the Enlightenment—and the ones many in power had begun to embrace. And you can't ignore the fact that amidst all this, the oil industry emerges.

Darren Dochuk: The importance, whether it's metaphoric or symbolic, but more than that, I think, is oil's discovery in the heart of war, in a region not so far from Gettysburg. I mean, Lyman Stewart went to Gettysburg.

Amy Westervelt: Darren Dochuk again, the Notre Dame historian. Lyman Stewart was one of the first leaders of the oil industry in America. He went on to start Union Oil company, which we now know as Unocal.

Darren Dochuk: These are warrior heroes who, you know, fought and then tried to make a living in this highly volatile industry that was just emerging, tucked away once again in western Pennsylvania. So, but then out of that kind of tucked away reality comes this mythology of what oil can do as the Civil War ends and as it emerges as a viable industry—not just for the North, which uses it for its own economic gain during the Civil War, but to rebuild a nation itself, that's broken. And so I just think oil in subsequent decades after the Civil War really assumes a unique quality, more so than, let's say, coal or other natural resources. And again, the nature of oil, searching for it is always mysterious. So it just lends itself to this mythical, mythological kind of understanding of a nation reborn.

[Music]

Amy Westervelt: So there was this perfect storm happening in the U.S. at the dawn of the 20th century, a convergence of factors all leading to an extractive society: a philosophy that extolled the virtues of independence and freedom, and that attempted to understand nature in categorization and classification; a religious narrative that said God has created this land for you; enough wiggle room in both to cast gross inequity as somehow okay; a new economic paradigm in which competition and individual success reigned; seemingly abundant natural resources that needed only to be found and managed. And, a brand-new country in which the government was almost indistinguishable from industry.

Melissa Aronczyk: Pinchot was really the earliest example of that, and it's important to think about that because it reminds us that the state and corporations were often very, very much on the same side when it came to talking about nature and the environment.

Amy Westervelt: This is Melissa Aronczyk from Rutgers University again. She's spent most of the past five years studying how certain ideas about nature emerged in the U.S.

Melissa Aronczyk: In other words, you know, if you think about the monopoly companies of the early 20th century, these were mainly in heavy industry. These were in rail, in steel, and in coal. And these industries relied on the favors of the government to achieve their size and their power. So as we know now, of course, those industries were also terrible for the environment. And we also know that back in that era, in what we call the Progressive Era, Americans were becoming increasingly worried over the size and power of corporations. And so we could think about how public relations was essentially designed to reassure Americans that these companies were good citizens and that their vision of how to use the environment as a resource was the right vision.

Amy Westervelt: In 1887, a little more than 20 years after the end of the Civil War, the U.S. Congress passed the country's first ever regulation on industry, the Interstate Commerce Act, aimed at making railroads safer. Workers on the railroads and in the country's mines began striking for safer working conditions and higher pay. Muckraking journalists like Ida Tarbell, Upton Sinclair, and Ida B. Wells began pointing out class and racial inequality in the country. For the first time, the public really kind of soured on America's captains of industry. And almost immediately, the modern PR industry was born, another key American invention that emerged right alongside the oil industry to help corporate America take control of the story, and of their destiny.

Melissa Aronczyk: I really like the quote or the concept that the historian Roland Marchand uses where he says that PR was charged with a mission to invest corporations with a soul. That's really key, I think, to understanding how that vision of nature, and of the environment as something for people to use and not something to be protected, came to be so popular.

[Music]

Amy Westervelt: So again, we come back to this question of inevitability. Was a country born out of the Enlightenment by this particular group of people destined to be extractive, to privilege individual success over the common good? Or, was it chance? A single driver or a confluence of events? It's a bit of, yes, all of that. And Dochuk says there's almost a subculture around oil in and of itself that does turn up in other, non-American oil fields.

Darren Dochuk: Why is it that Nigeria, for instance, the southern part of Nigeria is one of the epicenters of kind of prosperity gospel evangelicalism today? Many of them attach to the oil industry or attach to the dreams of oil that have come to Nigeria in the last few generations. You know, so, if we look globally, I think what's striking is the way in which oil creates a particular kind of, if you want to say, conservative religiosity. And, you know, Norway's oil region is the most

evangelical of the whole country. You go to Oman, you go to Indonesia. There's ways in which there's a particular encounter with this resource, I think, that helps generate or at least legitimate a particular understanding of the here and now and the life thereafter, of a particular dependence on a supreme being who giveth and taketh but who is always there.

[Music]

John Biewen: This last bit, Amy, from Darren Dochuk, about fervent Christian faith among the oil men of the world, you're gonna tell us more about that in episode 4, aren't you.

Amy Westervelt: Yep, I sure am.

John Biewen: But I want to pick up on the part about the development of the public relations industry, which you and Melissa Aronczyk talked about. It's a fairly recent innovation and such a very American thing. But I couldn't help hearing it all the way through the episode: PR, spin doctoring, ideological sleights-of-hand. Don't look there, look over here! Going back to the Enlightenment itself. I mean, even that term: the Enlightenment.

Amy Westervelt: Right? I know! How grandiose can you get? The Enlightenment wasn't all that enlightened, was it.

John Biewen: There was some darkness in there, too.

Amy Westervelt: Yes. But I agree with you about PR. I think powerful people in Western culture have been avid salesmen, hucksters really, for a long, long time. Standing under banners of high principle: Christian faith and "civilization" to justify colonial conquest. And then, with the Enlightenment, it's all about reason and science and individual liberty.

John Biewen: Equality! But not really. And freedom, but not really. Not for everybody, anyway.

Amy Westervelt: Yet somehow that inequality is justified and explained with science, itself an Enlightenment value. So, you get grotesque hypocrisy and brutal injustice, justified with logical loop-de-loops.

John Biewen: The point of all this is not to completely dismiss the Enlightenment. It seems undeniable that Western history did take a turn there, toward a more secular, reason- and science-based underpinning of society. And, as we've said, there are essential parts of that shift that I think most of us would be thankful for and want to hold onto. It's telling, for example, that people fighting for justice later on, really right up to the present, would use Enlightenment principles to argue their case.

Amy Westervelt: Oh yeah, for sure! I mean you can think of Frederick Douglass and Martin Luther King, Jr. and many, many others pointing to "all men are created equal," that very Enlightenment-inspired line that Jefferson wrote into the Declaration of Independence, to argue for abolition and civil rights. But yeah, the truly monstrous injustices and inconsistencies that folks managed to justify for so long, during and after the Age of Reason—it's kind of breathtaking when you let it sink in.

John Biewen: To bring the focus back to the theme of this season: humans and our planet and the rest of nature. I was so struck by what Devin Vartija said, that the people who ended up codifying the idea of multiple human races, as a scientific so-called "fact"—this unspeakably damaging, tragic intellectual move—one of their initial motivations was something quite sensible: to put humanity back where it belonged, within the story of the natural world.

Amy Westervelt: Right! People like Carl Linnaeus, the “father of modern taxonomy,” in the 18th century, smack in the middle of the Enlightenment. Guys like him were saying, look, humans are part of the animal kingdom. And in the same way that we’re drawing up classifications and nomenclatures for the rest of the plant and animal worlds, we’re gonna do the same for human beings. So in that sense they were taking humans down a peg. We’re not separate from nature, we’re part of it, alongside all the other critters.

John Biewen: Unfortunately, they did that in a culture that had decided a few centuries before to divide humanity—primarily, between the Black and the white so-called “races,” with white people the superior race. They repeated that lie and gave it the scientific seal of approval.

Amy Westervelt: So we’d have to struggle for several more centuries to shed the lie, and we’re still struggling. But we can acknowledge that the Linnaeuses did give Western culture a useful push toward an evidence-based understanding of the world, paving the way for people like Darwin, and evolutionary archeology, and gene science. So scientists could later confirm the truth that humanity is one species—all of us, in fact, pretty close relatives. And now, science is very clear that we humans are deeply embedded in the web of nature. We depend on it, and our actions can affect every other living thing.

John Biewen: Jumping forward a century, another detail that thumped me over the head: the discovery of oil in the U.S. in 1859. Now, I gather that people, especially in Asia, had burned oil and gas in small amounts for a couple of millennia. And starting in the 1840s, some enterprising men in places like Russia, Scotland, and Canada had started to figure out the potential of coal and oil as energy sources and had dug the first oil wells. But really it's the U.S. that sets off the modern petroleum industry, isn't that right?

Amy Westervelt: Yes. And, as you say, it's in Titusville, Pennsylvania, in 1859, that a U.S. corporation drills the first oil well using steam power. With the country marching toward civil war.

John Biewen: So often we separate these kinds of story lines, but let's put them side-by-side, as you and Darren Dochuk did. This cataclysmic war is getting ready to break out, and it is all about the contradiction at the heart of this country—which is also the contradiction at the heart of the Enlightenment, as you've laid it out here. On the one hand, a nation that claims to be all about liberty and the essential equality of every human being, but in reality it's a nation built on the violent exploitation of otherized, thingified human beings and land.

Amy Westervelt: And, as it turns out, that big, bloody war will settle a *few* things. The Union's victory and the end of chattel slavery are huge. But the war doesn't end the bigger fight. It doesn't really shove our society off its fundamental course—as you showed in your Season 4 series.

John Biewen: Yeah. The U.S. is still gonna be an imperial, settler colonial project, steered by the ownership class. They will go on wielding their power to extract wealth from workers and from natural resources, at home and abroad. And practically on the eve of that war, as if foreshadowing future chapters in the story, Edwin Drake drills down 70 feet near Titusville and strikes oil. Black gold.

Amy Westervelt: Texas tea. [John laughs] And six years later, in 1865, the year the Civil War ends, John D. Rockefeller will establish the firm Rockefeller and Andrews. Which a few years after that will become Standard Oil.

[Music]

John Biewen: Next time, Amy takes us into the twentieth century. Through a couple of world wars, the explosion of the global oil economy, and the birth of the environmental movement.

[Music]

John Biewen: Our story editor this season is Cheryl Devall. Music in this episode by Lili Haydn, Kim Carroll, Chris Westlake, Lesley Barber, and Cora Miron. Music consulting and production help by Joe Augustine of Narrative Music. Voiceovers by Bogdan Frymorgen and Alan Hall. Our website is sceneonradio.org. I tweet @Scene on Radio, and you should follow Amy, @amywestervelt. Scene on Radio is distributed by PRX. The show comes to you from the Center for Documentary Studies at Duke University.

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