

The Stories We Tell About Cannabis and What They Can Tell Us About the Plant and Ourselves

Jon Christensen: [00:00:00] Welcome to *Story+World: Changing Stories for a Changing Planet*, the podcast of UCLA's Laboratory for Environmental Narrative Strategies. I'm Jon Christensen, the director of LENS, here with our producer, Liv Slaby, and our guest today, anthropologist Jeremy Narby. Welcome to *Story+World*, Jeremy.

Jeremy Narby: Thanks, Jon. It's good to be here.

Jon Christensen: And welcome to the Mathias Botanical Garden at UCLA.

Jeremy Narby: Welcome.

Jon Christensen: It seems fitting to be outdoors in this botanical garden, surrounded by plants from around the world, to talk about your new book, *The Book of Cannabis: The History and Future of the Plant and Drug*. As far as I know, there are no cannabis plants in this garden, which after reading your book might seem a little surprising since cannabis is one of the most [00:01:00] well-traveled plants in the world and has such a deep history intertwined with human cultivation, use, and culture.

We decided to give this conversation the title, “The Stories We Tell About Cannabis and What They Can Tell Us About the Plant and Ourselves,” as we're interested in environmental narratives across different cultures and histories and languages and genres. If you step back and look at the big picture of past, present, and future, where does that history begin, and what is the overall narrative arc of that story?

Jeremy Narby: About the cannabis plant specifically?

Jon Christensen: Yes.

Jeremy Narby: Well, the cannabis plant, it would seem, was one of the first that humans domesticated, so that's about 12,000 years ago. And it was a useful plant from the start, so it wasn't so much a plant that people told stories about. It's [00:02:00] like a Swiss Army knife.

You have one. Everybody has one, but you don't talk about it. You just use it. And so it had very nutritious seeds flexible and water-resistant fibers, resin that had medicinal properties. And so, early humans used cannabis in Asia, Euro-Asia. It would seem that the domestication of horses, for example, required rope that was resistant and solid.

And so humans domesticated horses maybe six or eight thousand years ago, and it would seem that they used cannabis fibers to do so. So when people started telling stories about cannabis, maybe they told stories that didn't get written down, so we don't know about them. There aren't really too many myths that [00:03:00] deal with cannabis because if you go to the Amazon, for example, there are plants that are important like tobacco and, ayahuasca, and they show up in the myths that people, the creation stories that people tell about how humans came to be and how plants came to be.

Cannabis has seemed to have a more modest trajectory, but when it showed up in written form it would seem the first solid writing, and literally solid, it was cuneiform clay tablets in Mesopotamia. And cannabis resin, the plant is clearly recognizable. It was called kunubu in the Mesopotamian language, so cannabis, kunubu, kanabu, cannabis.

And Mesopotamian doctors 2,600 years ago would use cannabis resin, or what we call now hashish, as an all-purpose remedy. So you had a headache or you had some cramps, or you'd go down to the doctor and he'd [00:04:00] light up his lump of cannabis resin and then pass it over you. You get to smell some and it'd take your pains away for a little while, and voila, next.

It was sort of all-purpose anti-pain medicine. And, I mean, we're not too far from UCLA Medical Center here, so nowadays when you have a medical problem, but 2,500 years ago when you had a medical problem, I mean, painkillers and plants that would actually make pain more bearable, these were important things.

So I think that people started writing about cannabis, commenting about it more for its psychoactive painkilling properties than for its nutritious seeds. Because the seeds are they have 20% protein. They also have a lot of oil, so the seeds could be used for light for in lamps. Also as just basically as food.

But once again, you don't really tell stories about the plant that produces [00:05:00] seeds that you use to make oil to put in your lamps. You just use the seeds to make oil and put it in your lamps and then you tell other stories.

Jon Christensen: But you have written records of some of those uses, or sources that you, the first sources that are part of your book.

Jeremy Narby: Yeah, well, those uses are obvious, you could say. I mean, the first comment on after- Linnaeus who was classifying plants in 1750 or so on, he named *Cannabis sativa*, meaning cultivated. L, meaning Linnaeus, named the plant. And 20 years later, in 1783 or so, Jean-Baptiste Lamarck, the French biologist, said there are two kinds of cannabis.

One is this *Cannabis sativa*. The other is *Cannabis indica* because a friend of his had brought him a smaller specimen from India that was known to produce intoxicating resin, [00:06:00] whereas the European hemp-like cannabis was known for its fibers. And so Lamarck comments in his work on this. He says, "Well, the first kind of cannabis, *sativa*, it's so well known to us for its fibers.

It's so useful to us that I don't even need to make any further comments about it. It's what we use to make rope. But meanwhile, this other specimen, *Cannabis indica*, well, it deranges the mind, and it causes the brain to become confused," and so on and so forth.

Jon Christensen: So we start telling stories.

Jeremy Narby: So you start telling stories because it makes you tell stories even when you haven't consumed it.

Jon Christensen: Give us that kind of long arc of our human relationship with cannabis, you know, from the past to the present, and thinking about the future.

Jeremy Narby: The strange thing is, so you get, let's say, from 12,000 to 2,000 years ago, just this [00:07:00] multipurpose plant, in some places used psychoactively, but people...

Not in such a way that people made a big deal of it. And then it starts appearing in medical texts, Chinese, Arabic medical texts, so 200, 300, 900, so the last, let's say, more than 1,000 years ago. And it was an unproblematic plant. No one had ever said, "This is a bad plant," or, "This should be avoided," or, "This should be forbidden."

So for 11,000 years, humans in Asia and in Europe used this plant in different ways, and it was not controversial. And then suddenly, well, suddenly the controversy if you go looking for who first came up with the idea of being against this weedy plant that had been so useful up until now.[00:08:00]

Because I think it's, I don't wanna influence the story too much, but if you think about it, making a plant illegal is a pretty strange thing. Plants are the dominant life form. 90% or so of the biomass of all living beings, they're plants. They make the atmosphere we breathe.

They download sunlight and produce glucose so that everybody else can eat. I mean, we live on a planet of plants. Cannabis is a weed-like plant, so it's hard to suppress. And it grows fast, it's strong, and it grows quickly, and it produces biomass faster than any tree.

Jon Christensen: So where was it first controversial?

Jeremy Narby: In Egypt. And because it would seem that psychoactive cannabis was not present at the beginning of Islam. So we're talking seventh century when the Quran was [00:09:00] written. So there's nothing in the Quran about cannabis. Wine, on the other hand, is dirty. It is forbidden. You deserve to be punished for it.

And so, and intoxication is the same word as the word for wine, kamr, and so it should be avoided. Nothing about cannabis. Sufi-like Persians fleeing the Mongolian invasions, 11th, 12th century, start going westward and coming to Syria and Egypt. And these people used cannabis and used it as an intoxicant.

So, Dervish spinning in states of ecstasy. Not all Sufis used cannabis, but some did, and there was nothing in Islamic law to go against it. But the conservative non-Sufi, non-Persian Egyptian Muslims in the [00:10:00] 12th century saw these, And Sufis were often practicing austerity, deliberately poor, that was part of their spirituality, and using cannabis.

And the conservative Muslim clergy in Egypt said, "This is not good. Can we ban this plant?" So they started employing jurists, Muslim jurists to look into this. The problem was the Muslim law was based on the Quran, and the Quran said nothing about it. Ah, but it did say something about intoxication, so can it be said that this plant causes intoxication?

And so there's 150 years of writing and debating by conservative Muslim jurists about whether this plant was kosher, if I can say or not. It turns out that they did not manage to find an argument to single out one plant among all the other plants that God has made on this [00:11:00] earth as being worthy of banning.

And besides, declaring forbidden what is not forbidden is forbidden. And so that was the killer argument that was leveled against those who were trying to forbid it. In brief, they didn't manage to forbid it, even though they disliked it.

Jon Christensen: Almost sounds like Paris 68 or something.

Jeremy Narby: I think they might have got that from there.

But the Egyptians had an extra, because in Paris it is forbidden to forbid. So when the actual switch came was in Egypt in 1800. The French, the Napoleon, French Napoleon army had just invaded Egypt. And the French claimed that they were going to do a progressive [00:12:00] kind of colonial conquest.

And this involved invading, colonizing, becoming the masters, but trying to combine with the local elite. And so Napoleon asked his generals to marry the daughters of local Egyptian families and so on. And the other notion, even though the French revolutionaries were atheists, was to work with their religious beliefs.

And they understood that the conservative Egyptian elites had long wanted to ban cannabis. And the French found that their soldiers were not only getting drunk while stationed in Egypt, they had also taken to consuming cannabis. So the first modern prohibition of any drug and of any plant occurred in 1800 by the French colonial authorities in Egypt [00:13:00] trying to do two birds with one stone by keeping their soldiers sober and keeping the Egyptian elites happy.

And many people consider that to be the first modern ban.

Jon Christensen: So we had 12,000 years of acceptance, 200 years of prohibition from early 1800s, you say, to today. Mas o menos, where are we now? Or where have we been for the last, say, couple decades?

Jeremy Narby: Well, so you're going fast forward there.

Jon Christensen: Yeah.

Jeremy Narby: I mean, here we are in California.

I mean, I'll answer because California is an interesting case. It's I think the second state in this country that passed a ban on cannabis in 1914 and it became the first state to re-legalize cannabis in 1996 with the Compassionate Use Act. [00:14:00] And that was really a sea change moment because what prohibition

that was subsequent to a single convention of United Nations in 1961, which made cannabis as illegal and dangerous and useless as heroin and two other semi-synthetic opioids, so it became public enemy number one through the '60s, '70s, and '80s.

The Compassionate Use Act here meant that, okay, if medical doctors are gonna be administering cannabis to people who have AIDS and so forth so that they get their appetite back, we've got to study it like we'd study any other remedy. So what prohibition had done was make scientific research on cannabis difficult, so there's like an absence of knowledge.

After the Compassionate Use Act, science started studying cannabis again, and that changed the game. And then other states in this country, but also Canada and different countries, [00:15:00] started following California's example at the end of the 20th century, early, like say 25 years ago.

And so medical cannabis started becoming acceptable again. And then there have been, there's been the legalization of recreational cannabis, so this is people who wanna consume psychoactive cannabis even though they're not ill, for pleasure, for recreation, or for whatever reason. People actually consume cannabis for many different reasons, but still, if it's not medical, it's called recreational.

California also Oregon but a country like Uruguay. Uruguay was the first country that legalized recreational cannabis use in 2013, and different countries have been following simply because so many people consume it anyway, and it's becoming more and more obvious that it's not really the evil that it had been made out to be.

I mean, it's not fentanyl by any means. So where we [00:16:00] are now in the world California has led the way really in re-legalizing. Illegalizing is already pretty strange, but then re-legalizing is also a little bit strange. And that's the trend where you have countries... In Europe, it's interesting to see that a country as big as Germany in 2024 decided to do what California has done.

So they re-legalized recreational cannabis And they've set up-- I mean, Germans are pretty thorough people, so they have a 70-page law of all the ways in which you may or may not use cannabis. So like in pedestrian zones in Germany, you may not smoke cannabis between 7:00 a.m. and 8:00 p.m.

But at 8:01 p.m., hey. But just next door in France, the French are still in [00:17:00] 1800 in Egypt in their own minds. It's this is forbidden. It is bad. It is

a drug. So where we are now is in a pretty patchworky world. I think that even in the United States, depending on the state you're in, not all states have legalized and in some states medical and other states not.

Jon Christensen: And it's different at the federal level.

Jeremy Narby: And then the federal.

Jon Christensen: Yeah. So you and I met when you were-- first met more than 40 years ago when you were working on a PhD in anthropology at Stanford and, you know, we've been friends at that time and, you know, fellow travelers and have seen your work, you know, at doing field work with the Asháninka in Peru.

It was you know, great learning experience to be able to join you for a little while, while you were doing that work and, travel into the remote areas of the Peruvian Amazon. You've done a lot of work that built on that of work to [00:18:00] support land acquisition and land control for indigenous people of the land being that really important connection with the land.

But as you were doing that, you know, you also heard from your informants, as they call them, your sources, your friends that you were working with that they learned from the plants around them and the plants that they used, and particularly from a combination of plants in a brew called ayahuasca.

And you're, you know, you're-- you were "how is this possible?" And you investigated that and that was your book *The Cosmic Serpent*. You went on to write a book about the intelligence of nature, so the intelligence of plants. And then a book you co-authored about tobacco and ayahuasca, and now cannabis.

This is a deeply researched book. About [00:19:00] 40% of it is footnotes which are kind of stories within a story, and I highly recommend them to you if you're interested to follow those winding paths into the footnotes. Why did you decide to take on cannabis?

Jeremy Narby: It's true that my Asháninka consultants opened my eyes to well, plants, to looking at plants differently.

45 years ago as a kid from the suburbs of Switzerland and Canada, I thought that plants were just green things. You know, you mow the lawn and there it is. Or, "Oh, here's some flowers," or, and that was about it. So it was a long education for me to... at first when Asháninka people would say, "Yes, this plant

is a teacher, and this plant enjoys being next to that plant," and, "Oh, this plant, now that it's been in a pot in a city, it's feeling lonely," all these kinds [00:20:00] of points of view, at first I'd grapple with them.

But my job as an anthropologist was to try to take seriously what my indigenous consultants were saying. But over the years in looking into it their point of view became more and more coherent. And I would like to say, too, that as a Westerner, I take science seriously, and any time I would take what the Asháninka people would say and then try to understand it in terms of what science at that point had discovered, if science had advanced far enough along to be able to actually be dealing with these questions, each time the Indigenous point of view was confirmed.

That the more science has looked at what plants do, what actually goes on inside a plant in real time as it's going about its business, the more it has confirmed that plants are sentient beings, that even though they don't have central nervous systems, they [00:21:00] perceive, they learn, they share information and substances.

They seem to have memories. And of course at each turn, I've always found this interesting, and I think anthropologists would find this interesting, is that the concepts that we have to even talk about it are limited. So when you say, "Okay, this plant's behavior," they say, "Well, wait a second.

Behavior means to to have a behavior means you have to move, so plants don't move, so they can't have behavior." If you use time-lapse photography, you see that plants actually do move. That's one thing, and the other thing is that, yes, plants are not animals, and animals are animate. Plants are they're sessile, so they don't move around.

But what they do is produce chemicals. And so once you include the production of chemicals- In your definition of behavior, then you can say, "Oh, yes, well, plants do have behavior." And it's the same with something like memory. Can you say that a plant remembers something? Well, [00:22:00] you can demonstrate that plants remember things with specific tests and experiments.

You know, so would you like to hear just one... Would you like to hear about plant memory, or are we... Is this going too far off of the deep end?

Jon Christensen: Go ahead.

Jeremy Narby: Thank you. Thank you. I like... Because, you know, these plants, they're sensitive plants. You touch them, and they retract their leaves.

And so this woman called Monica Gagliano constructed this apparatus where the plants would go around on a carousel, and then reach a hole and fall, and plants aren't used to falling, and they would fall onto a cushion. And these sensitive plants would retract their leaves. But after 50 attempts or so, the plants figured out that there was no point in wasting energy in retracting their leaves, and so they stopped retracting their leaves on the 51st fall.

Then those plants got set aside for a month and brought back to the carousel a month later, and those that had learned [00:23:00] not to retract their leaves remembered not to retract their leaves, so that you could demonstrate simply that there was plants learn, plants remember. But can you talk about learning and memory without a nervous system, without nerves, without a brain?

Jon Christensen: Which kind of brings us to agency, and, you know, where I think, the author Michael Pollan famously in *The Botany of Desire*, tells these stories about plants that have agency. So that the grasses, have enlisted us in their fight against the forests, for example, or, the spread of potatoes or of apples that there's some agency in the plants.

Where do you land? Do you see cannabis as an agent or maybe as, a modification of that as, you know, Bruno Latour said, as an actant?[00:24:00]

Jeremy Narby: The more I look at cannabis, but also at plants in general, but cannabis, it's more planty than other plants. It's an intense plant, so it grows fast and it does a lot of things that other plants don't do. So it draws toxic substances and heavy metals out of the ground and stores them in its above ground tissue without any apparent ill to the plant.

It sort of actively does things that other plants don't do. There's also the fact that, I mean, we're talking about psychoactivity. So it acts on our own psyches. So arguing that it doesn't act, that it's not an actor or an actant it was kind of strange.

But it's also painfully obvious, at least to this anthropologist, that if you say, "Yes, plants are doing this, and plants are [00:25:00] perceiving that," that people will come at you as being anthropomorphizing it. So this is a very delicate question. Also, who is anybody to speak for plants? You know, we humans, we Western scientifically informed people especially, we know so little about what it is to be a plant.

You know, there's that essay, "What It's Like to Be a Bat." So okay, we can kind of... Even though bats, well, they're mammals, but they fly, they sleep upside down. It's kind of strange for us to even think about what it might be like to be a bat. But the problem is compounded when what we're talking about is a plant, because they don't even have a brain.

So do they think? Do they feel? How can you feel if you don't have neurons? I'm here [00:26:00] reviewing what a lot of people have said before. What do we know? We talk about what they don't have. So they don't have brains, they don't have neurons. But I'm, I don't think that we have a large enough grasp yet on how plants work.

And so if they don't feel, and if they don't think, they're perceiving, they're communicating, they know the difference between themselves and the plants around them. And science, I think can, even though it has had some prejudices against plants, sort of animal prejudices, we are animals after all, science has also allowed us to understand, for example, that so plants don't see. Because to see is to have eyes. By definition, they don't have eyes. But what they do have is a photoreceptive proteins that are almost identical to the rhodopsin, which is the photoreceptive protein [00:27:00] in our own pupils, so that they don't have their photoreceptor proteins concentrated in the pupils, but all over their body. So that it would seem that a blade of grass knows if you're standing next to it, and if you're wearing blue or if you're wearing red.

So there's always this problem. But yes, here's this being that doesn't have a centralized nervous system, but it's covered in photoreceptive proteins. It perceives. I mean, it makes sense that it needs to perceive where the light is, where the other plants around it are.

It gains by having this kind of perception. But the words that we have at our disposal to actually feel confident that we know what... So it's probably useful to stay away from they think, they... What do they, what are they thinking? What are they feeling? Even do plants sleep is [00:28:00] a question of research.

It would seem that actually they do, depending on how you define sleep. So we're still at the beginning of understanding these beings. We think we know so many things, but what do we know about the bottom of the ocean? Not much. Same with plants.

Jon Christensen: You credit cannabis as an editor in your book.

Which kind of implies some agency. But I also wonder, what about that and just, you know, should cannabis maybe be credited as a co-author in this book?

Jeremy Narby: Yeah. I knew that was gonna be a delicate question. What I said was that I said in the intro that it worked for me like a plant editor.

And so this is the thing where and I think this is what Indigenous Amazonian people are saying when they talk about a plant teacher. This is a plant [00:29:00] that when you ingest it and then you pay attention to what happens in your body and in your mind at that point that is the agency of the plant.

That is its subjectivity. What it's gonna bring up in you as a person, and its effects on your personality, that's its personality. So it's not saying it has a personality. It's rather that everything happens as if it has one, as far as I can know, because I can feel its impact on my personality. And so whether cannabis is actually as good an editor as some people sitting here right now is a question that philosophers can deal with.

What I'm interested in is that when I consume the cannabis that I grow in my garden, it actually has that effect on me or with [00:30:00] cannabis in me, but not too much, but some, and not all the time. But having written, returning to what I've written with cannabis in me, I can look at the text as if somebody else had written it.

So that it's easier for me to be an editor of my own text when I consume this plant. So it's like an editor. And when I got to the end of writing the book, a book about this plant that has for all these years worked so dependably for me as an editor I thanked it.

I thanked certain people. I also thanked our dog. Yes. But, you know, so the, there's a bunch of human beings, a dog, a smart dog. And a plant. [00:31:00] I'm not asking anybody to become an animist or to believe anything or to even believe that I believe anything, but I am grateful to the plant, and I find it remarkably dependable, so worthy of sustained thanks.

Jon Christensen: I was thinking it's kind of the opposite of the famous dictum to write drunk and edit sober. You know- You find it more useful to write sober and edit-

Jeremy Narby: Stoned, you could say ... stoned. Okay. Yeah, because ... I also think that everybody has their own intoxicant.

I mean, some people don't like intoxicants, and that's good, so it's au naturel, and bless them, really. I know Hemingway was the write drunk, edit sober fellow. Personally I like wine, but I hate writing when I'm under the influence of alcohol. In other words, the words don't come out, and editing is even worse.

It's not my cup of tea, alcohol. So he could have been right [00:32:00] and as well, He could have... For him- Yeah ... I think he was right. Yeah. And I think, like, a guy like William Faulkner, I mean, he was notorious for drinking a bottle of whiskey before he'd even get started. But that wouldn't be for me.

And I think that in a case of a book like this, so thank you for pointing out the seriousness of the research and the footnotes and so on, but it... So it really is sober in the morning, wake up, crystal clear, caffeine, some more caffeine, and nice and focused. And then after four or five hours of that kind of focus I'd go for a run with the dog and then come back, and then at that point reconsider what I'd worked on with a little bit of cannabis.

And that I find is a kind of a useful... I see it like weaving. You know, you sort of have normal consciousness, plant influenced consciousness, normal consciousness, plant influenced consciousness, and then you... And so that's... it also you... why it takes so long. But I think that the overall result is...

[00:33:00] Because finally maybe it's also just a question of spending enough time on each semi-colon and each footnote and making sure that, you know, you maybe it just helps put up with the time that you need to invest in it to go into such detail.

Jon Christensen: There's a couple of other sort of interesting, to me, changes or a trajectory kind of in your own story of your relationship with cannabis.

And this, as you point out, is not like some of your other work where, you know, there's the character Jeremy Narby who's really in the book. There's not so much of you as a character in this book except in the introduction and the and the conclusion. But there is a change, I think, over time in your own view on two levels.

One of them has to do with the extraordinary capacity of cannabis to be a [00:34:00] hyperaccumulator of what's in the environment around it. You know, if that's contamination or lead or other things, it's very good at this. And that has led you to be a little bit cautious about where you source your own cannabis.

The other one, and I wonder if you could, you know, say a few words about each of these, is discovering that and it's another cautionary tale about dosage and the effects of dosage.

Jeremy Narby: Yeah, certainly. I tell a story of something that happened in Switzerland where the Swiss authorities said, "Okay, we're gonna imitate the Germans. We're gonna do some pilot studies, and we're gonna grow some cannabis for recreational users and distribute it in an orderly fashion. So we've gotta grow some pure, organic, uncontaminated cannabis and the, get a private company to do this behind security [00:35:00] fences and so on. We'll analyze the soil first. The soil has no contaminants in it."

Switzerland has advanced laboratories, so the lowest level of detection is the lowest possible level with the means that exist right now. So they planted the cannabis and when the first flowers were about to be distributed, the cantonal pharmacologist analyzed them, and they were contaminated by a fungicide that had been used in the land that had been fallow for, like, 10 years.

But the previous owner was a flower grower. In brief, the cannabis plants had sucked out the toxin in the subsoil that was under the level of detection in the soil and concentrated it 10 to 30 times more at higher concentrated levels in the plant. So it's not just that it draws it out, but it draws out and concentrates.

And so it made [00:36:00] what was sub-threshold contamination visible. And the people running this the private company that was supposed to produce the cannabis, they said the only way to know that a plot of land is uncontaminated and can be used to grow pure organic cannabis is to grow cannabis there first and then analyze that cannabis because what it's gonna do is concentrate the toxins that are there.

So that's pretty powerful if you can- Yeah ... and it draws out not just fungicides and pesticides, but also heavy metals. I mean, it's quite ... And some heavy metals more. It's good with zinc. It's good with copper and radioactive elements. I mean, the whole, the hyperaccumulator capacities of cannabis were discovered in Chernobyl five or six years after the disaster.

They noticed that cannabis grew And that it was actually actively extracting radioactivity from the soil. So, you can use it for [00:37:00] bioremediation that way, where you extract the toxins in the soil and then get rid of the plants and destroy them elsewhere, but that at least makes the soil usable again.

So that's for the hyperaccumulator part of it.

Jon Christensen: And then the dosage.

Jeremy Narby: Then the dosage. Well, it turns out that the word that they use for the effects of the, several cannabinoids is that they have a biphasic nature, and this means that at a low level they'll have one effect, and at a higher level they'll have the opposite effect, so that, for example if you smoke some cannabis so the THC it contains...

If it's just a small dose, it can make you relaxed. But if you take a high dose, it'll make you anxious and paranoid. And so, it would seem that all the pleasurable, positive, creative effects that people report occur at low to medium [00:38:00] dosage, and all the negative effects of the paranoia, the anxiety, the, even momentary temporary psychotic moments that can occur, all these problematic effects occur at a higher level.

So you learn, if you are a cannabis user like myself, I only ever used the plant without ever reading about it. But doing all the reading that I needed to do to write this book and learning about, for example, the biphasic effects, I realized, "Ah, yeah, that's true." And so you take a little bit and it helps you edit your text, and then you think, "Oh, maybe if I take a little bit more it'll help me even more."

But no, the... You actually reach a point fairly quickly where the returns start diminishing. Or going negative. Well, diminishing and then going negative. Yeah. So, you learn that less is more. Less is more.

Jon Christensen: I wanna end by asking you, the word the future [00:39:00] of the plant and the drug is in your subtitle of your book.

So I mean, where we're at now and, here we are in Los Angeles California, we're surrounded by shops selling highly potent cannabis. And you know, we've been through this long, varied usage, a period of prohibition, now an opening, an acceptance, and how do you see the future of the plant and the drug?

Jeremy Narby: I was, I try to avoid making recommendations for policy 'cause I don't think that's my business. More as a storyteller, historian, a writer, the point is to make information, stories, knowledge available to people so that they can ... and so that readers don't get the impression that I'm trying to guide them one way or the other except only to know more about it.

So that, yes, this is a book that I [00:40:00] think policy makers could read and get something from and think about. Still, that said, I wanna try to answer your

question. If somebody asks my personal opinion, and it's not in the book, but you can find it, it's in between the lines, it seems fairly obvious that, okay, so we're gonna stop making it illegal, and we're gonna re-legalize it. But I don't think that the re-legalize in the world that we're in means that anything should go. I think the idea that, okay, so now what's gonna happen is big cannabis gonna be like big tobacco? Please, no. It's, it should not become this hyper-industrialized product.

To start with, it's a weed. It grows easily. It's the plant of the poor. Historically, it's been the plant of people who have no means the grass of fakirs. A fakir means a poor person in Arabic. So the idea that it becomes this [00:41:00] heavily industrialized, manipulated thing with ultra high THC levels.

And then that's the other thing is if you look at how has alcohol been tamed in the industrial world. So you need quality control. You don't want bad quality alcohol-- people can die if they have bad quality alcohol. And you need to limit the strength of the alcohol, and the times at which it's available, and the ages at which you can--

And so that some containment makes sense. So I think that this is something that needs to be figured out in the re-legalized industrial world, is to look at, you know, do we really need pre-rolled cannabis that is 42% THC so that if somebody who has not used the cannabis at all takes one puff on it, they get ill?

You know, it's so strong. If you want, you don't need to have cannabis that strong. And [00:42:00] instead of taking one puff of 42%, you can take four puffs of 10%. It just doesn't need to be made that powerful, it would seem to me. So that, you know, you have the friends of cannabis who are against prohibition.

Therefore, let's open it all up and let's whatever, make it stronger and more available. You know, there's nano THC. Nano, you-

Jon Christensen: Like microdosing or something?

Jeremy Narby: No. Nano THC is that because THC dissolves in lipids, in fat, not in water, and so it takes a long time when you ingest it.

So you go through, it goes through the liver. By the time it gets into the blood, it takes 30, 45 minutes. By taking the THC molecules and putting them in high processing blenders, and some emulsifiants and some water, they coat the

individual [00:43:00] oily THC molecule with water molecules, and they make it water soluble, not lipid soluble.

So it becomes like alcohol, so that you swallow a nano THC drink, and it doesn't take 45 minutes to work. It takes five minutes to work. It already starts working in the esophagus, and it gets absorbed in the mouth. And because we're 70% water, and something that's water soluble is completely compatible with the...

They're making, I actually bought my first nano THC product today here in Los Angeles. Because I'm writing about it, I figured I've got to try it. I kind of disapprove of... do we really need to mechanically manipulate the THC molecule that the plant has produced and turn it into a water soluble substance so that it works faster?

I'm gonna try it. I'll get back to you on my personal opinion.

Jon Christensen: You haven't tried it yet?

Jeremy Narby: No.

Jon Christensen: Oh. No. We can't report it here. Well, [00:44:00] it sounds like the future is going to be at least as complex as the past, that the future is going to have a lot more questions about this plant and the drug.

And I think that's a good place to end here. And I'd like to thank our producer, Liv Slaby, and Jeremy Narby, thank you for joining us and for *The Book of Cannabis: The History and Future of the Plant and the Drug*.

Jeremy Narby: Well, thank you, Jon.

Liv Slaby: This has been *Story+World: Changing Stories for a Changing Planet*, where we explore environmental art, activism, policy, and imagination in California and beyond. It's the podcast of the Laboratory for Environmental Narrative Strategies, or LENS, at UCLA. Thank you for [00:45:00] listening, and we hope you'll join us in our next storyworld.