Fighting Smog in Los Angeles

The air pollution was so thick you could cut it with a knife.

I remember looking at the outside window and saying, “Oh my, there’s the smog.”

Here we are. You should be able to see the mountains, you should be able to see our beautiful city, but you can’t see anything. And it’s destroying not only our health. But our economy. From 50 to 70 percent of the junk that’s in the air comes from our own cars. Mine and yours.

Alexis: Hi, I’m Alexis Pedrick.

Lisa: And I’m Lisa Berry Drago, and this is Distillations, coming to you from the Science History Institute.

Alexis: Each episode of Distillations takes a deep dive into a moment of science-related history in order to shed some light on the present. Today we’re talking about smog in Los Angeles, in the final installment of a three-part series about environmental success stories.

Lisa: Our last two episodes, “Whatever Happened to the Ozone Hole?” and “Whatever Happened to Acid Rain?” are available on our website: Distillations DOT ORG, through Apple Podcasts, or wherever else you get your podcasts!

Alexis: If you live in Los Angeles, or even if you’ve just visited, you know all about smog. But what you might not know is that half a century ago smog in Los Angeles was already completely unbearable even though they had far fewer cars. As of June 2018, the United States has one of the strictest car emission standards in the world. Which is surprising, right? And we owe that to the state of California.

Lisa: Typically things like emissions standards are set by the federal government, but in 2012 the United States as a whole adopted California’s stringent standards. So how did California get to make its own rules in the first place? And what happened with the smog people were so worried about in those clips?

Alexis: If you’ve listened to parts one and two of this series you’ll remember the Five really complicated and not at all easy steps you can follow to solve an environmental problem. And we’re going to follow them again! Say them with me: Step one: figure out the problem, step two: get your evidence (and remember, you might not be the only one doing this step), Step three: let the public know (preferably in a way that captures their attention), Step four: get industry onboard and finally, number five: implement policy.

Lisa: Compared to the ozone hole and acid rain, the smog problem we’re talking about today was on a much smaller scale. It was confined to the Los Angeles region. So, instead of trying to mobilize the entire federal government, Los Angeles had the autonomy to solve the problem on its own. And there were a lot of ways they could have dealt with it. They could’ve addressed it through urban planning, issues of density. They could have changed their transportation infrastructure, really changed the culture of the city and how people lived.

Alexis: You probably know that this is not what happened. L.A. did not solve this problem by getting rid of its cars. So come along with us and find out what did happen.
Chapter 1: Figure out the problem

_Alexis_: Chapter One: Figure out the problem.

_Another coast. California in July. Mean temperature: 73 degrees. The sun that never quits._

_Lisa_: That's an archival clip from the 1960s that we all fell in love with because it perfectly encapsulates the dream of California. Since its inception, Los Angeles has always been a destination for the rest of the nation, and even for the world. Its biggest selling points have been its beautiful weather and its geography. It's got something like 284 sunny days a year, and it's got the ocean and the mountains. Los Angeles has always been known for its cobalt blue skies but it's also long been known for its smog.

_Los Angeles county, with four million cars, and the odd bike, suffers most, because it's in a basin. The breeze is her body. There is nothing to stir up that brown cloud that can make your eyes tear._

_AHHH, breathe in, city folk._

_Chip Jacobs_: We had had what we now realize were smog attacks going back almost to the turn of the century.

_Lisa_: That's Chip Jacobs. He co-wrote a book called *Smogtown: The Lung-Burning History of Pollution in Los Angeles*, with William J. Kelly. One of their key points is that L.A.'s geography is really key to the problem. The surrounding mountains combine with temperature inversions to perfectly trap pollution, like it did for the terrifying smog attack of July 8 of 1943. Here’s clip from a 2018 film called _The Instrumental Chemist_, produced here at the Science History Institute. The film explores the aftermath of that devastating day.

_In the summer of 1943, residents of Los Angeles County woke up to a noxious haze that hung over the region. A thick smog draped the city, blocking views and causing physical distress. Southern California residents suffered stinging eyes and respiratory irritation as a result. It was a problem that would plague the city for decades._

_Chip Jacobs_: And the initial response was that it was a chemical warfare attack launched by a Japanese submarine or airplane, and there was panic.

_Lisa_: So put yourself in the shoes of those Angelenos for one second. Pearl Harbor was just two years previously, and all of a sudden they wake up and there's a dark haze in the streets. People panicked.

_Chip Jacobs_: Eventually people understood it wasn't the outbreak of war. It was the onslaught of kind of a chemical monster they didn't understand.

_Lisa_: At the time people’s understanding of air pollution was what they knew about coal-burning plants in east coast or Midwest. Smokestacks must be emitting stinky sulfur dioxide into the air!
**Chip Jacobs:** At first everybody thought it was a gas company butadiene plant causing the problem. They closed that down, and the smog still persisted. There was no smog technology. There was no fine equipment that could really pinpoint the chemical inventory in the air.

**Lisa:** So the theories about what's causing smog got pretty crazy.

**Alexis:** Like, how crazy?

**Lisa:** Really crazy. Bare with me for a second. So sulfur is known to corrode nylon.

**Alexis:** Oh, like as in like nylon stockings.

**Lisa:** Yes! Exactly. And in the late 1940s and 50s, women noticed that their nylons were ripping all the time. So instead of blaming what was probably the real culprit - cheap manufacturing standards, people tried to connect the dots by saying that the smog was made up of sulfur in the air. That's what must be degrading the women's stockings.

**Alexis:** Oh wow. No, that is crazy. That's crazy.

**Chip Jacobs:** And meanwhile the politicians were not helping. Even goodhearted politicians were saying, “Elect me and we'll get rid of smog in four or five months.” But how can you make a promise when you don't know what the basic problem is?

**Lisa:** In 1947 the Los Angeles County Board of Supervisors created the Air pollution control district. Their mission? To control air pollution. And for the first time they had the mandate and the money to figure it out and so they hired scientist consultants to figure it out. One of them was a local businessman, a chemist, an industrialist, and an inventor and developer of scientific instruments. His name was Arnold Beckman.

> Beckman precision instruments play a large part in America’s tremendous chemical industry, which in turn contributes to everything you eat, or wear, to your shelter, and to your household conveniences.

**Alexis:** Okay, so why Arnold Beckman? What does he bring to the table?

**Roger Turner:** Beckman is both a scientist but he’s also a business man and he’s heavily involved with the Chamber of Commerce. So, he can bring together the kind of business leaders in Los Angeles, who are so central to the area's politics, but he also brings this scientific understanding of the problem.

**Lisa:** Roger was the historian for the film *The Instrumental Chemist*. So despite the wild stocking theories, Beckman suspected that it wasn't a sulfur-emitting factory causing all that smog. Here's Arnold Beckman explaining in an oral history interview.

> I had a hunch that they were going down the wrong path. I am a chemical engineer from Illinois and we used to have to visit sulfuric acid plants in whiting Indiana. It's such a potent and pungent odor. You can smell it long before it has any physiological effects on you.
Lisa: To figure it out, Beckman turned to his friend Arie Haagen-Smit, nicknamed "Hoggie." He was a pineapple chemist and a Dutch immigrant.

**Roger Turner:** He really enjoyed boxing and rowing and so he had a reputation as having the largest biceps of any member of the Caltech Biology Faculty. And one of his colleagues remembered they could always check on the status of his biceps up until about 1960 at which point he becomes heavily involved in air pollution regulation and he starts wearing a suit and tie, so they could no longer see his biceps.

Lisa: Beckman hired a pineapple chemist to figure it out because his day job was to extract fumes from raw pineapples to isolate the chemicals that gave the fruit its flavor. Weirdly enough, this actually helped him in figuring out what were the components of smog.

**Roger Turner:** Well the same technique works for smog. So, they take away the pineapple and Beckman and Haagen-Smit suck about 500 liters of particularly smoggy air on a particularly smoggy day through their cold trap and they're able to condense out just a drop or two of this brown goo. Haagen-Smit takes this little drop or two of goo and analyzes it and deduces that it's made up of peroxyl materials, which are sort of organic acids and partially burnt hydrocarbons. So that's what, that's what begins him. So, that's what leads him to think automobiles are partly what's involved here.

Lisa: This was a huge revelation.

*There is nothing to stir up that brown cloud that can make your eyes tear. 85 percent of it attributed to cars.*

Chapter 2: Get Evidence

Lisa: Chapter Two. Get evidence.

Alexis: So now Haagen-Smit has a theory about how automobiles contribute the smog. He proposed that it was gas that doesn't get completely burned up in the engine or partially unburned hydrocarbons. But that wasn't enough; he had to prove it. And he wasn't the only one gathering evidence. Haagen-Smit's theory was a threat to the car industry and the off-shoot industry: oil. So, a powerful lobby group called The Western Oil and Gas Association hired a group to do counter researched. They hired the Sanford Research institute. And their scientists, well, they said it wasn't car exhaust created by gasoline, in fact, they said it wasn't caused by humans at all. It was just a weather pattern.

**Roger Turner:** So Arnold Beckman knows that Haagen-Smit is very competitive, and he plays on this in a pretty clever way. So when the Western Oil and Gas Association starts to challenge Haagen-Smit's research, Beckman invites their chemist in to give a talk at Cal Tech and he makes sure that Haagen-Smit comes along and he sits next to him in the audience. So the industry chemist here says that he also analyzed these proxy materials, this brown goo, and he says it didn't... he didn't find that it irritated his eyes, he didn't find that it smelled. And he said, "Oh it's such a shame that a chemist of Haagen-Smit's caliber could be so misled" and Beckman is sitting next to Haagen-Smit and Haagen-Smit says, "Well who is he to tell me I'm no good at what I do."
Alexis: [Laughs] Sorry. That's such a sick burn. Oh. It's clear to me now why they needed Arnold Beckman on this team.

Roger Turner: And so this really... gets Haagen-Smits dander up and he says well I'm gonna, you know, devote some real time to this smog problem and prove that I'm right.

Chip Jacobs: He said, you know what, if I get fired, I get fired. You think whatever you want to, but the truth doesn't lie, and I know the truth and it's the fact that most of our smog is caused by our love of the automobile.

Alexis: So by this point, Haagen-Smit is on a mission. First, to prove that he wasn't a fraud and second to prove that the smog was man-made and not the result of some weather pattern.

Roger Turner: So they're looking around for places where combustion is occurring in Southern California and to find that they need to move around and so they set up some of these mobile laboratories on either old package delivery vans and then later on retro... refitted RVs. So you have these kind of mobile homes that are driving around but it's all equipped with different kinds of air pollution sensors. And they're going out and they're sampling while driving down the highway, they're sampling while sitting next to a factory, they're sitting next to or downwind of a chemical refinery.

Alexis: I like to picture it as savvy businessman Arnold O. Beckman and the dutch pineapple chemist with the giant muscles driving around in a Breaking Bad style Winnebago measuring air. Just another day in the life of two LA chemists.

Roger Turner: So, they look around for places where things are burning in southern California and they see that nearly every backyard has a trash incinerator.

Alexis: These incinerators burn at low temperatures. So they produce partially burnt materials that get released into the atmosphere. And remember, it's these partially burned hydrocarbons that cause the problem.

Roger Turner: Another source is automobile exhaust and then a third source is the evaporation from these uncovered oil tanks or the gasoline that's spilled when people are pumping gas into their cars, this is before the creation of automatic shutoffs for gas pumps.

Alexis: After gathering their evidence, they publish their findings in 1953. And the Los Angeles air pollution control district used the report as a blueprint for action against smog. The spilled gasoline problem had an easy fix with those automatic shut-offs. Ending backyard incineration was trickier, because it meant a fight with the mob, who controlled the private trash hauling industry. By 1954 they'd figured out that the biggest problem was also the hardest to solve—the exhaust from cars.

Chip Jacobs: Los Angeles was a place built in reaction to the East Coast lifestyle of vertical living. We were a horizontal culture. Right? And more and more cars were coming in. We were promising mobility. We built the first freeways. I mean, it was a whole economy devoted to the
car, and so now we're saying the car is actually a menace to society. A lot of people stuck their head in the sand like a pack of ostriches. They didn't want to believe it.

Chapter 3: Let the Public Know

_Not even strong winds can turn back the smog. Unfortunately, we must to live with this lid of warm air. Any scheme to counteract such a vast force of nature would seem impractical._

Alexis: Chapter Three: Let the Public Know.

Lisa: It’s now October 1954. 11 years removed from that unforgettable smog attack. The smog has become unbearable for many. Average people are becoming activists: an insurance salesman calls a meeting in Pasadena City Hall. There’s an overflow crowd of more than 3,000 people plus 500 people outside.

**Roger Turner:** And they see a film of cars driving down a parkway [00:38:30] with no visible emissions, which is then contrasted to refineries and industrial plants that are billowing smoke and steam and the speakers at this meeting ask, "Has the public been fooled by facts and figures? Does the crowd believe the governor's health expert that smog doesn’t cause any bodily harms?"

Lisa: The people at this meeting, which may have been the largest anti-pollution protest ever before Earth Day in 1970, they get really riled up. They organized the Anti-Smog Action Committee. Their goal is to quote-unquote "take the problem of smog out of the scientific laboratories and into the hands of the people."

**Roger Turner:** This is very much smog populism.

Lisa: People felt like they were lied to about smog. They thought they were being lied to about the source of smog. They didn't believe it really came from their own cars. They didn't want to believe it, but they also thought they were being lied to about the effects of smog so the Anti-Smog Action Committee, the smog populists, were looking for answers, and now they were on a mission, too. And they knew how to use the media.

Alexis: Yeah. We can't emphasize enough that these were average citizens who wanted to be heard, but they were pretty savvy. Here we are at step three, talking about letting the public know, and this group is the public. They knew how to communicate.

**Roger Turner:** Protestors were really aware of the power that visual images could carry and they were quite consciously constructing scenes that would make for effective photographs and persuasive photographs in newspapers and in television news. There's a wonderful picture of the Highland Park optimist club having a meeting, conducting a meeting wearing gas masks and behind them is a banner that says "Why wait until 1955. We might not even be alive." And so, these are the optimists of 1954.
Lisa: In the other two installments of this series, we've been talking a lot about how scientists had to learn to talk to the public. But with smog, we had members of the public quickly learning science. One noteworthy group was a gathering of concerned L.A. moms called Stop Out Smog, or SOS.

Chip Jacobs: These people were brilliant. They create ... first, they would drag their kids to long, boring hearings and newspapers would take pictures of the children asleep. And the inference was these kids have got smog drowsiness, right? Or they’re ill. They created an annual event for smog's birthday with a black and white cake decorated with skull and cross bones. They started doing their own research, going around talking to experts and initially, the politicians mock them as kind of dabbling housewives that didn't really know jack about science. However, they got up to speed quite quickly and it was a real feather in the cap, I think, of the early feminist movement. They did put a collective boot in the butt of the APCD and others that, we can’t wait a generation to cure this.

Lisa: The public was impatient for a solution. But they wanted one that didn’t involve their cars. So, in response to public pressure, the APCD brings in a new public relations guy. Somebody that we would probably call a "fixer."

Roger Turner: Smith Griswold was this naval reserve officer, and he has this great talent for PR and he understands that part of selling the war against smog is making it really visible. So he puts lights and sirens in the enforcement cars so they can chase smoking vehicles down the street and like pull them over police style, they all get radios so they can radio in a smoking vehicle back and forth at a central dispatching office. He even rents a helicopter and hires a former Royal Air Force pilot whose name is Scotty, you can't make this stuff up, to fly around and look for industrial... sources of industrial smoke.

Lisa: Under Griswold, the APCD also established a warning system for smog attacks. Just a couple of years earlier twelve thousand people had died in the Great Smog of London, and Donora Pennsylvania’s smog accident was pretty recent too. No one wanted to suffer a similar fate.

Los Angeles has enacted the strictest control. It can stop all vehicle traffic if it comes to that. Something that other urban centers may yet have to consider. The air isn’t getting any cleaner.

Now if a third stage alert should become imminent, all government business and industry would be shut down. And the 7 and half million people living in greater Los Angeles would be asked to stay at home. Will that ever come to pass? It’s hard to say. We’ll wait and watch through dry, red, and irritated eyes.

Lisa: Los Angeles’s smog attack warning system....all thanks to Griswold. He launched a weekly radio show...scientists.

Roger Turner: So, these radio shows are both educational [00:58:00] but they are also persuasive pieces and they’re an important part of this largest public relations blitz that is set up to try and persuade the public that smog is caused by cars and backyard burning as well as industry.
Lisa: And Griswold wasn't afraid to put himself on the line. In July of 1956, he went into a greenhouse that had been turned into a smog chamber. And he sat for two hours in the heat so he could experience twice the level of ambient ozone that had been measured in Los Angeles at that time.

Roger Turner: It makes his Coca-Cola taste funny, it leaves him slightly disoriented, he feels really constricted in his chest, he has to think very carefully before he talks. So, he really is demonstrating to the public that he is suffering along with them.

Lisa: Griswold and his PR team also got a boost from the L.A. Times. In the 1950s the paper was conservative, but they took smog extremely seriously. But they dedicated two of their reporters as smog correspondents, which was unheard of then, and still is now. The L.A. Times helped Griswold and city leaders regain control over the smog story. Chip Jacobs explains that at this time people actually tended to believe the news media, and newspapers like the LA Times had a lot of power in swaying public opinion.

Chip Jacobs: They were, in a way, sort of the greatest champion of Los Angeles and they had a lot to lose. If people started leaving LA by the tens of thousands, who were gonna read their paper, right?

Lisa: In the end the public accepted that their cars were the problem, but the pill was made easier to swallow because no one asked them to give up their beloved automobiles.

Chip Jacobs: No politician, to be honest with you, wanted to stand up and say, we are the problem. Our driving is the problem. You know, this is where you get to some of the contradictions of the American soul. We want clean air, but nobody's jumping on a public transportation system. Nobody is walking instead of driving.

Lisa: While Griswold was convincing the public that their cars were causing smog, he was also telling them science and technology could solve the problem.

Roger Turner: They re-framed the issue as a problem best solved by scientists and engineers, rather than by political action, mass political action.

Lisa: Instead of convincing people to say goodbye to their cars, they wagged a finger at the auto industry for making problematic cars in the first place—and tasked them with making vehicles cleaner.

Roger Turner: By blaming car exhaust, the people of Los Angeles didn't have to investigate more deeply and more critically the ways that their lives and their life ways were responsible for this problem. And so it was much easier to put a filter on the end of a car than it was to rebuild Los Angeles.

Chapter Four: Get industry on-board/Implement Policy

Lisa: Chapter four: get industry on board. Or drag them on board.

Alexis: Scientists got to work on a tech fix, with a lot of funding from the Air Pollution Foundation, a non-profit and non-partisan group tasked with finding a technological solution for the problem that
wouldn’t radically change business, or the economy, or the culture of Los Angeles. But it had to satisfy the public outcry over smog.

Roger Turner: The Air Pollution Foundation was trying to develop filters to stick on the end of cars, to reduce the noxious emissions that were coming out, that were being produced by the engines.

Alexis: Scientists came up with three options. The first two didn’t stick, but the third one probably sounds familiar to you: the catalytic converter. It was a huge milestone. Catalytic converters break apart the hydrocarbons coming out of the exhaust and turn them into carbon dioxide and water. Essentially they convert the toxic pollutants from car exhaust into less toxic pollutants. Catalytic converters are now used throughout the world.

Lisa: A basic form of the catalytic converter was patented in 1956 by French mechanical engineer Eugene Houdry. So in some alternative historical timeline that’s the year when every car got a catalytic converter and L.A.’s smog began to clear up. But I think you can guess that this is not what happened.

Alexis: Right. Not at all. And for so many reasons! One issue was that the catalytic converter wouldn’t work on cars that ran on leaded gasoline. And guess what? In the 1950s all cars ran on leaded gasoline.

Lisa: So that was a huge infrastructure shift that needed to happen. It also probably won’t surprise you that the auto industry was not excited about any of this.

Chip Jacobs: The car industry, today, as was then, is fiercely competitive and if you build a car with an emission trapper of some sort on it, it’s going to raise the cost. They did not want these regulations. It really turned out to be a 20-year campaign of equivocation, collusion, and conspiracy and the federal government later sued them.

Alexis: So just a note: here we are, in chapter four: getting industry onboard, but chapter four and five are about to start bleeding together. Because while there was a tech fix, California politicians also needed to implement policy to help clear the air, and to get car companies to adopt the technology.

Roger Turner: And it takes a tremendous amount of political organization and a lot of arm twisting, and a lot of work to get them to adopt these technologies.

Chip Jacobs: Politicians here started writing Henry Ford and others, asking them, please stop thinking about what your CPA is telling you and start listening to what your scientist is learning. People were dying. Animals were dying. Agriculture was dying because we introduced a product before we understood its ramifications.

Alexis: By 1959 the auto industry was still not on board, but they were starting to feel the heat from politicians, citizens, and the media. This is a clip from a documentary called Clearing California Skies, produced by the California Air Resources Board.

A record was set today for the longest duration of hazardous air in the history of Los Angeles and the smog conditions will be just as bad tomorrow.
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In 1959 the legislature passed laws, making California the first to establish air quality standards based on the public health effects of smog.

Alexis: Haggen-Smit later wrote that this 1959 law was “a most significant conclusion of the first ten years of pioneering work.” California continued to pass air pollution policies throughout the 1960s, and the task of enforcing them created an interesting new job. This is a clip from the 1971 documentary, People Who Fight Pollution:

I’m an air pollution inspector. My job is to uncover sources of air pollution, control it where possible and eliminate it if I can. And that’s a big job. That’s why I like it.

Alexis: In the 1960s smog became a problem in in cities throughout the country as urban centers expanded into suburbs and built freeways of their own. In 1963 Congress passed the first Clean Air Act. In 1966 California pioneered annual car emissions inspections and in 1968 the EPA adopted those same standards on a national level. It was a move UCLA law professor Ann E. Carlson calls “iterative federalism.” A growing list of laws was putting pressure on the big three U.S. car companies to adopt the technology that would make their cars run cleaner.

Lisa: The definitive blow came with federal law, in 1970’s Clean Air Act. After winning a legal battle with auto-makers the EPA ordered that all new cars must have catalytic converters, starting with the 1975 models. On top of that, a special waiver was written into the Clean Air Act that allows California to set stricter emission standards than the federal government does as a whole.

Alexis: Right. California has so much power because, well, they’re the largest car market. So whatever emissions standards they set has a lot of weight. It would be impractical to have two separate standards, which would essentially create two separate car markets. Hence the saying “As goes California so goes the nation,” right?

Lisa: Exactly. And if you’re wondering what happened to leaded gasoline, the EPA also ordered its producers to start making unleaded gasoline, and the two were sold side by side until the mid-nineties, until leaded gasoline was finally phased out.

Alexis: And here’s a really random fact that Roger Turner dug up for us: all around the world crime levels went down about 18 years after leaded gasoline was banned. There’s biological evidence that people exposed to lead as children tend to have less control over their impulses as adults. Freakonomics, are you listening?

Chapter Five: Success?

Alexis: Chapter Five. We don’t know exactly what to call this one.

Lisa: Today Los Angeles’s ozone levels are about 40 percent of what they were in the mid-1970s, even though it has more than twice the number of cars. But like the ozone hole and acid rain stories, smog in Los Angeles is a success story with some caveats.
Roger Turner: This story is a success story, in a certain way. There is a real bipartisan agreement to create genuinely powerful regulations that have teeth, that matter, and that make the air cleaner in very particular ways. The amount of ozone that is produced goes down dramatically, the amount of tangibly irritating, smelly, eye-watering smog decreases. It’s this kind of activism and organization is the foundation for the Clean Air act, and it's central to the emergence of the environmental movement in the United States in the 1960s and the 1970s. But even after catalytic converters become standard equipment on automobiles all across the United States, other kinds of air pollution remain a problem. And those other kinds of air pollution are still the result of too much driving, and landscapes that require, essentially require the ownership and operation of automobiles.

Chip Jacobs: I would like to tell you that Los Angeles embraced environmentalism, and demonstrable percentages of the population stops driving their car, but that wasn’t the case. The case was, we wanted our cake and wanted to eat it too. From 1955, when Dr. Haagen-Smit made his groundbreaking discovery, until 1980, there was not one approved ballot measure for public transit. Right? Think about that, a whole generation later, and we’re endorsing the first campaign to get out of the car. That tells you a lot about the Western lifestyle, of wanting to be able to stomp on an accelerator and being able to see blue sky through the windshield.

Alexis: If you haven’t had enough of this smog story you’re in luck—we’ve also made an online game about it! Starting June 30th you too can be a smog crusader in Instruments of Change, which you can find at Instruments DOT science history DOT org. You’ll get to see Smith Griswold inside the greenhouse and put yourself in his own shoes.

Lisa: A lot of the instruments featured in the online game are part of our collections, and if you want to take an even deeper dive into our collections you should check out another cool project we’re working on. Alexis and I are hosting a new video series called Distilled. Each month we’ll be highlighting an object from our museum, library, and archives that’s a personal favorite of one of our staff members.

Lisa: Hi Amanda,

Amanda: Hi Lisa

Lisa: I hear you have something really cool from our collections.

Amanda: I do. I have this cute little container of “vitamins.”

Lisa: The videos are on our YouTube page, and they’re also on our website: Distillations DOT org. The first episode featured a mid-20th-century quote unquote vitamin, that—spoiler-alert—is really a caffeine pill with an ungodly amount of caffeine in it. Our next episode comes out on July 3rd and will feature an early IUD!

Alexis: Distillations is more than a podcast. We’re also a multimedia magazine.

Lisa: You can find our videos, our blog, and our print stories at Distillations DOT org.

Alexis: And you can also follow the Science History Institute on Facebook, Twitter, and Instagram.
Lisa: This episode was produced by Mariel Carr and Rigo Hernandez.

Alexis: This show was mixed by James Morrison and our theme music was composed by Zach Young.

Lisa: For Distillations I’m Lisa Berry Drago.

Alexis: And I’m Alexis Pedrick.

Both: Thanks for listening!