CHEMICAL HERITAGE FOUNDATION

PETER HANDLER

Imagining Philadelphia's Energy Futures

Transcript of a Research Interview
Conducted by

Roger Eardley-Pryor

Philadelphia, Pennsylvania

on

3 August 2017

(With Subsequent Corrections and Additions)

ACKNOWLEDGEMENT

This oral history is one in a series initiated by the Chemical Heritage Foundation in partnership with PennFuture, PennEnvironment, the Energy Coordinating Agency, Citizens Climate Lobby, and Planet Philadelphia on G-Town Radio. The series, titled "Imagining Philadelphia's Energy Futures," documents the personal perspectives of Philadelphia citizens interested in impacts on their city from energy use and climate change. The series records individual histories and then asks participants to imagine the future of Philadelphia, particularly with regard to energy production and use.

The "Imagining Philadelphia's Energy Futures" project is made possible, in part, through funding from Philadelphia's Climate and Urban Systems Partnership.

http://www.cuspproject.org/

Climate & Urban Systems Partnership

THE CHEMICAL HERITAGE FOUNDATION
Center for Oral History
Release Form for Research Interview

Title of the Research Study: "Imagining Philadelphia's Energy Futures"
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You, **Peter Handler**, are asked to participate in an interview with **Roger Eardley-Pryor**, representing the Chemical Heritage Foundation (CHF), on **August 3, 2017.** If you participate, your oral history interview will be made part of CHF's collections and will be available for educational, non-commercial use. This document is intended to inform you fully of what you are being asked to do and of your rights as an oral history participant. If you choose to participate, your recorded oral history interview will be transcribed and used in an educational workshop exploring storytelling, future visioning, and deliberation; possibly included in a local Philadelphia radio show and podcast featured on G-Town radio; and stored on a public website documenting the project, which will remain online as a model for local educators to host classroom workshops envisioning Philadelphia's energy futures.

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If you choose to participate, this interview will be recorded within the period of time previously agreed upon by you and Roger Eardley-Pryor. Should Roger Eardley-Pryor feel that more time is needed to

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Support for this Oral History Project

"Imagining Philadelphia's Energy Futures" uses a narrative approach that encourages deliberation, storytelling, and creativity to imagine a future where Philadelphia uses, produces, and relies on renewable energy. The project is made possible by through the Climate & Urban Systems Partnership (CUSP).

Questions or Concerns

If you have any questions or concerns about participating in the creation of this oral history before or during the recording of the interview, or about the processing of the transcript, please contact the Director of the Institute for Research at the Chemical Heritage Foundation.

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After you have read the information contained within this release form, and Roger Eardley-Pryor offered to answer any questions or concerns about this document or the interview, please consider whether you would like to sign this agreement. If you are interested in participating in this research interview and consent to the process as described above, please sign below.

(Signature)_____
Peter Handler

(Date) 8-3-2017

(Signature)_____
Roger Eardley-Pryor

(Date) 8/3/2017

(Signature of Parent/Guardian of Interviewee if under 18)_____
Parent/Guardian of Interviewee

(Date)_____

This research interview is designated **Free Access**.

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> Peter Handler, interview by Roger Eardley-Pryor Philadelphia, Pennsylvania, 3 August 2017 (Philadelphia: Chemical Heritage Foundation, Research Interview Transcript # 0144).

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Center for Oral History
315 Chestnut Street
Philadelphia, Pennsylvania 19106

The Chemical Heritage Foundation (CHF) serves the community of the chemical and molecular sciences, and the wider public, by treasuring the past, educating the present, and inspiring the future. CHF maintains a world-class collection of materials that document the history and heritage of the chemical and molecular sciences, technologies, and industries; encourages research in CHF collections; and carries out a program of outreach and interpretation in order to advance an understanding of the role of the chemical and molecular sciences, technologies, and industries in shaping society.

INTERVIEWEE

Peter Handler was born in 1947 in Brooklyn, New York, and spent much of his childhood in New Jersey. Self-described as a atheist-Jew, Peter spent teen-aged summers at the Shaker Village Work Camp in New Lebanon, New York. Much of his life since has focused either on building or making himself part of communities. Peter studied political science at Bates College in Lewiston, Maine, where he spent winters skiing at Sugarloaf Mountain. Upon graduation in 1968, Peter applied to his draft board as a conscientious objector. He spent the summer of 1969 living near Arcadia National Park and attended Woodstock Music Festival. For several years after, he lived in a commune near Ithaca, New York. In the late 1970s, Peter earned his Masters in Fine Arts in jewelry-making and metal-smithing from the School for American Craftsmen at Rochester Institute of Technology. Peter moved to Philadelphia in 1982, and became a furniture maker in 1984, where he still constructs custom studio furniture for people's homes. Early in 2012, Peter helped found the Philadelphia chapter of Citizens' Climate Lobby and became its group leader.

INTERVIEWER

Roger Eardley-Pryor is a historian of contemporary science, technology, and the environment. His work explores ways that twentieth and twenty-first-century scientists and engineers, culture-makers, and political actors have imagined, confronted, or cohered with nature at various scales, from the atomic to the planetary. Before earning his Ph.D. in 2014 from the University of California Santa Barbara (UCSB), Roger was a National Science Foundation graduate fellow at UCSB's Center for Nanotechnology in Society. After earning his Ph.D., Roger taught courses at Portland State University, at Linfield College in Oregon, and at Washington State University in Vancouver, Washington. In Philadelphia, Roger accepted a postdoctoral research fellowship in the Center for Oral History at the Chemical Heritage Foundation (CHF). Roger co-designed, earned funding for, and managed this place-based oral history project titled "Imagining Philadelphia's Energy Futures."

PROJECT

"Imagining Philadelphia's Energy Futures" is an oral history and public education project about energy, climate change, and the future of Philadelphia. The project uses a narrative approach that encourages deliberation, storytelling, and creativity. It asks the following questions: As climate change reconditions our lives, city, and planet, how do Philadelphia citizens imagine using and producing energy in the year 2067, or 2140, or 2312? And how might the personal histories of these citizens shape the ways they imagine Philadelphia's energy futures?

The project consists of oral history interviews with a small but diverse set of Philadelphia citizens. The oral history interviewees were selected in collaboration with the project's partners: the Chemical Heritage Foundation, PennFuture, PennEnvironment, Energy Coordinating Agency, Citizens Climate Lobby, and Planet Philadelphia on G-Town Radio. The

majority of each oral history interview records a participant's personal history. Next, interviewees share their visions of energy use and production in Philadelphia by imagining three time periods in the future. The future time periods are the year 2067, fifty years from the present; the year 2140, nearly one hundred twenty five years from the present; and the year 2312, nearly three hundred years from the present.[1] Content from the oral history interviews then serve as the basis for further storytelling, future visioning, and deliberation in a public educational workshop held at the Chemical Heritage Foundation in October 2017.

"Imagining Philadelphia's Energy Futures" is based on the idea that discussing visions of the future can help individuals and groups construct and articulate meaningful stories about the current challenges they confront, identify potential solutions to those challenges, and reflect on how these might influence themselves and their community as a whole. Research on ways to enhance societal capacity for governing complex energy transitions reveals that narrative and storytelling helps facilitate improved engagement and decision-making among mixed groups. Stories and narratives enable the incorporation of contributions from different groups of people to build collective frames of reference. In light of our need to transition to renewable energy sources, narratives offer communication strategies and practices that can help promote broader engagement and participation in energy choices, more diverse kinds of policy information and input, and greater capacity to imagine and invent new energy futures.[2]

Imagining and discussing Philadelphia's energy futures allows city residents to imagine—and inhabit, in their minds—multiple, alternative visions of the future that may result from choices made today. Energy plays a powerful role in any city's techno-economic systems, yet energy use and production is also inseparable from a city's social systems and environmental relationships. When Philadelphians imagine renewable and distributed ways of using and producing sustainable energy in the future, they are not just imagining new techno-economic systems. They are also re-imagining the ways social relations and political power works in their lives. And they are re-imagining interrelationships to our local, regional, and global environments.

"Imagining Philadelphia's Energy Futures" was funded, in part, by Philadelphia's Climate and Urban Systems Partnership (CUSP). The CUSP approach to climate change education emphasizes local, relevant, and solutions-focused methodologies. The oral history interviews and public education workshop for "Imagining Philadelphia's Energy Futures" takes place in Philadelphia with local Philadelphians. The project is relevant in wake of the recent failures by Philadelphia's energy industry and the city's environmental activists to find any compromise on a vision and framework for Philadelphia's energy future.[3] Collaboration to

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[1] The years 2140 and 2312 were selected to complement Kim Stanley Robinson's science fiction novels. See Kim Stanley Robinson, *New York 2140* (New York: Orbit, 2017); and Kim Stanley Robinson, *2312* (New York: Orbit, 2013).

[2] Clark A. Miller, Jason O'Leary, Elizabeth Graffy, Ellen B. Stechel, Gary Dirks, "Narrative Futures and the Governance of Energy Transitions," *Futures* 70 (2015): 65-74; Rob VanWynsberghe, Janet Moore, James Tansey, and Jeff Carmichael "Towards Community Engagement: Six Steps to Expert Learning for Future Scenario Development," *Futures* 35 (2003): 203-219; Jana-Axinja Paschen and Ray Ison, "Narrative Research in Climate Change Adaptation: Exploring a Complementary Paradigm for Research and Governance," *Research Policy* 43:6 (2014): 1083-1092.

[3] Katie Colaneri, "Philadelphia Fails to Find Common Ground on 'Energy Hub,'" *StateImpact Pennsylvania*, March 11, 2016: https://stateimpact.npr.org/pennsylvania/2016/03/11/philadelphia-fails-to-find-common-ground-on-energy-hub/. See also the minutes of the meeting of the Delaware Valley Regional Planning Commission Board

achieve Philadelphia's systemic energy transition to renewable sources must be broad-based and inclusive. This project seeks to produce and re-produce, on a small and manageable scale, efforts to build a shared vision of that renewable energy future, from the bottom up, with local Philadelphians. "Imagining Philadelphia's Energy Futures" is solutions-focused in that formulating and sharing visions of the future can help individuals and groups make meaning of contemporary challenges they confront; it can help determine possible solutions to those challenges; and it can help individuals and groups consider ways that certain solutions might impact their lives and their community as a whole.

Committee from January 28, 2016, http://www.dvrpc.org/Committees/Board/2016-01.pdf, accessed February 25, 2017; "Philadelphia Energy Vision Working Group," *Raab Associates, Ltd.*, last updated January 13, 2016, http://www.raabassociates.org/main/projects.asp?proj=134&state=Services (accessed February 25, 2017).

INTERVIEWEE: **Peter Handler**

INTERVIEWER: **Roger Eardley-Pryor**

LOCATION: **Peter Handler's Home**
Germantown, PA

DATE: **3 August 2017**

EARDLEY-PRYOR: All right. This is Roger Eardley-Pryor. Today is August 3, 2017. I'm here with an oral history interview with Peter Handler. We are up at his home in Germantown, right around where the Philadelphia School of the Deaf is. And we're here as part of Imagining Philadelphia's Energy Futures Project.

Peter, would you mind spelling your name for us?

HANDLER: H-A-N-D-L-E-R.

EARDLEY-PRYOR: Great. And when were you born? What year were you born?

HANDLER: Nineteen forty-seven.

EARDLEY-PRYOR: Nineteen forty-seven. Where were you born?

HANDLER: Brooklyn, New York.

EARDLEY-PRYOR: All right.

HANDLER: I lived across the street from Ebbets Field until I was four years old.

EARDLEY-PRYOR: Really? Tell me about your parents. What are their names?

HANDLER: My mother's name is June Handler. My father's name is Morton Handler. My mother is still living. She's ninety-four.

EARDLEY-PRYOR: Wow.

HANDLER: She spends her days at this point in life writing poetry. She was a teacher of early childhood education. She ran the department at Kean College in New Jersey for twenty-five years, and was the person who started Head Start in New Jersey.

EARDLEY-PRYOR: Wow.

HANDLER: But her greatest claim to fame—maybe not the most important thing she's done, but her claim to fame was that in 1962, she wrote a letter, among others to other companies, to the company that owns Crayola saying, "Flesh comes in many colors." And as a result of that letter, they changed the name only for the third time ever to this day of a crayon from flesh to peach.

EARDLEY-PRYOR: Huh. I remember growing up with a peach crayon. Yeah.

HANDLER: Well, it used to be called flesh and my mother was the one who got that color changed.

EARDLEY-PRYOR: That's really cool. What about your father?

HANDLER: My father studied journalism when he was in college, went into the war [World War II], actually served on Omar Bradley's staff. One of my regrets in life was never asking him questions about what he did in the war. I just didn't know to ask. He died twenty-three years ago, rather young at seventy-five. And after the war, he started out as a reporter and there wasn't much money in it then. Ended up going to work with his father doing real estate management, and then also was an insurance broker. My father was always—as I did not probably follow a course in life that was what they expected growing up—always very supportive of my choices.

EARDLEY-PRYOR: That's nice. So you would say you grew up in a loving family?

HANDLER: I did.

EARDLEY-PRYOR: Do you have siblings?

HANDLER: I have one sister who is fifteen months younger than I am.

EARDLEY-PRYOR: Fifteen months. So you all grew up pretty similarly.

HANDLER: We did. Her name is Bobbie Polton and she lives in now Glen Ridge, New Jersey. And she also taught early childhood education at the preschool level for many years.

EARDLEY-PRYOR: Sounds to me like you all lived in Brooklyn and then moved to New Jersey?

HANDLER: We did. We had—all my family on both sides lived in or near Brooklyn Heights. We weren't in Brooklyn Heights. We were near Ebbets Field, but it was a lot of very close Jewish family. And my parents decided to put two rivers in between, which is the critical distance in New York City in order to create a bit of emotional distance and independence. And we moved to Bergen County, New Jersey. When we moved there in 1951, there were still towns that were restricted.

EARDLEY-PRYOR: What do you mean by that?

HANDLER: By covenant that Jewish families would not able to buy homes.

EARDLEY-PRYOR: Wow.

HANDLER: We moved to Teaneck, which is where I grew up from four till when I went away to college.

EARDLEY-PRYOR: All right. So you spent most of your early life and teen-age years there.

HANDLER: Yeah. So I was born in Brooklyn, but I consider myself […] having lived and grown up in New Jersey. And those of us who grew up in New Jersey know that the big cities in New Jersey are **<T: 05 min>** New York and Philadelphia.

EARDLEY-PRYOR: You're right. Why do you think your family wanted to have some distance from the Jewish community that they were a part of in Brooklyn?

HANDLER: It wasn't being separate from the Jewish community. It was being separate—some distance from family.

EARDLEY-PRYOR: Oh, is that right? Overbearing other relatives?

HANDLER: Just too much family, and wanted just to be able to sort of be more nuclear and independent. We still saw the family plenty. But just to have some emotional distance.

EARDLEY-PRYOR: Yeah. Was Jewish religion a part of your growing up? Or was it more just the cultural aspects?

HANDLER: I grew up in a—we were Reform and we went occasionally to Friday services. We went to holidays. I was Bar Mitzvahed. I hated Hebrew school. I stopped the day of—you know, as soon as I had a Bar Mitzvah, I stopped. And I have been a lifetime atheist-Jew. One of my great heroes in life is Madeline Murray O'Hare who is the person who took school prayer to the Supreme Court and hat it outlawed. So as far as I'm concerned, humans invented gods in our own image tens of thousands of years ago to ameliorate the uncertainties of life. And it's been downhill from there.

EARDLEY-PRYOR: All right. Was that something that your parents also spoke about?

HANDLER: No.

EARDLEY-PRYOR: When did you come to your own realizations about atheism?

HANDLER: I think I never was able to imagine a god.—you know, just to me was inconceivable. And growing up in elementary school in the 1950s, where every morning, aside from saying the Pledge of Allegiance—where the under God was added in by Eisenhower, which I did not appreciate—we would have to do the Lord's Prayer in public school, in a school that was a third to half Jewish. And I knew it wasn't mine. And I think that, in some ways, just set me maybe against religion in general. And I also remember we had Christmas play and

Christmas pageants, and they might throw in one Hanukkah song as a concession. But religion was there, and it just felt like it's not mine and it's wrong.

EARDLEY-PRYOR: What are some of your memories of young childhood? Like what kind of things were up to playing, either with your sister or friends? What was life like in your memory?

HANDLER: Well, one of my earliest—before we left Brooklyn, my mother would put me in a playpen in front of our house on Saturdays, and with no concern at that time about security. And I would watch people walking to ball games. We were on Sullivan Place. It was a cross street. We were probably 200 feet from home plate of Ebbets Field. I grew up a Dodgers fan. We were a Brooklyn family.

And after we left Brooklyn, it was a number of years—I think six, seven more years before the Dodgers [left Brooklyn]. My father would, I guess when I was old enough, would take me back to Ebbets Field so I could see games. And I do remember seeing Dodgers' games at Ebbets Field and seeing Emmett Kelly, long before there was a fanatic [Phillie Phanatic], entertaining in between innings.

In October 1955, I was eight years old and the last game, the '55 World Series was on TV with our little black and white TV. And I managed to convince my mother that I was sick that day so I could stay home from school. And I watched the last game of the World Series, the only one the Brooklyn Dodgers ever won.

As a kid, I made things. I probably started making things when I was four years old.

EARDLEY-PRYOR: What kind of things?

HANDLER: Oh, I made structures out of glue and **<T: 10 min>** toothpicks. I would just take pipe cleaners and form them. I started like carving and whittling at a pretty early age. I made models of airplanes and cars, you know, just kits. When I was in junior high school, I was in a science fair. I think it was in eighth grade, where I had become interested in what's generally generically called hovercrafts. Ground-effect machines is technically what they're called.

And my then, maybe now, was when I became interested in something, I would pursue it single-mindedly, to the exclusion of other things, and sometimes including school. So I became really interested in these hovercrafts. And I talked to aeronautical engineers. I studied this. I learned what I needed to learn. I made models of the three different kinds of ground-effect machines. I made a test track, so to speak. I powered them the electric motors that were then available, which were three-volt motors, which weren't powerful enough to make them lift. So I powered them with six volts, which made them burn out very quickly, but did give me the

power I needed. I made this science project that got rejected by my eighth grade—by my junior high school science fair.

EARDLEY-PRYOR: Why?

HANDLER: They didn't think I'd made it myself. My parents were really pissed.

EARDLEY-PRYOR: Yeah.

HANDLER: And it did get entered into the regional science fair in northern New Jersey, and it won first place. And so they had to announce that over the PA system at the school, that the project that got rejected from them won. But I don't even think I drew these pieces. I just made them out of light plastic, and balsa wood, and I was constantly switching out motors. As one would die I would put another one in just to—but they worked. And then I dropped it. I got what I needed from it.

EARDLEY-PRYOR: That project was done.

HANDLER: The project was done. I think, had I had some technical assistance from somebody, I probably would have built a full-sized one. But I had gotten what I needed from it. I got involved with astronomy; my parents bought me a telescope. I lost interest in that after a while.

The one thing that I have done continuously from the time I was a kid till now is I starting doing photography when I was seven or eight.

EARDLEY-PRYOR: Wow. That's pretty early.

HANDLER: And I had a darkroom that my father helped me build in junior high school. And I've been doing photography continuously ever since. I almost—going to college, it was either study liberal arts, major in political science, go into politics and change the world, or study photography. I would have gone—my first choice would have been Rochester Institute of Technology, which was then and maybe still the best photography school in the country. For better or worse, I did the liberal arts.

EARDLEY-PRYOR: Well, before we jump into college—

HANDLER: I'll get back to that. Yeah.

EARDLEY-PRYOR: Okay. Let me ask you one—

HANDLER: So growing up, I mean, you know, I loved sports. I wasn't involved with organized sports, but just played sort of street ball with friends.

EARDLEY-PRYOR: Stickball, baseball, that kind of stuff?

HANDLER: Yeah. You know, I grew up in the suburbs, so stickball was less of a—you know, that's a city game. I was in the suburb. I rode my bicycle, then and still. I rode all over Bergen County—of course, without a helmet; of course, without cell phone. My parents, when I was on my bike, never knew where I was. There was a great pleasure in that. I rode miles and miles on my fat tire single-speed bicycle. And I think I rode my bicycle till my seventeenth **<T: 15 min>** birthday when I got my driver's license.

So I had, at any particular point—and this is probably true then as now—sort of a few very close friends. And I probably wasn't—and I knew a lot of people and was friendly, but not a lot of, lots and lots of a big network of friends, that some people manage to achieve and I never have. I was, I think in many ways, a sort of shy kid growing up.

And my parents in their great wisdom, when I was fifteen, sent me to a summer camp called Shaker Village [Work Camp] in New Lebanon, New York. And this was the site of the Shaker South Family. The Mount Lebanon area was the Vatican of the Shaker world. It was where it started, and where it spread from, and where its leadership came from.

A lawyer named Jerry Count bought the South Family [and West Family] when the Shakers left in 1948, and turned it into a summer camp for teenagers—as he called it, a chance for teenagers to take responsibility in their lives. What it actually was, was a sort of a—I blithely call it a Commie work camp. We worked three hours in the morning, three hours in the afternoon.

EARDLEY-PRYOR: What kind of work?

HANDLER: Well, the work was—it really ranged. There were jobs that were about maintaining the facility, about athletic facilities, or group housekeeping, or agriculture, or forestry. There were things like folklore.

EARDLEY-PRYOR: Folklore work?

HANDLER: Well, studying, teaching like folk dance, music, things like that. Photography, which of course, I did. Modern dance, theatre, publications. All of the work, whatever it was, was focused in on the community.

EARDLEY-PRYOR: The community of the camp?

HANDLER: The camp. So it was basically boys fifteen to seventeen and girls fourteen to sixteen or seventeen. And it was about one hundred twenty kids and twenty or twenty-five staff. And then there was—about a mile away, there was a younger one called West Family that was kids one year younger. And it was run on town meeting democracy. So it was town council and a mayor.

EARDLEY-PRYOR: Did you like it?

HANDLER: I loved it. It was probably the formative experience of my life.

EARDLEY-PRYOR: In what way?

HANDLER: Well, like I say, when I started going there, I was a somewhat shy kid. It offered me, on the one hand, a chance to learn and understand the meaning of work in terms of something that one does well for its own sake. We would be evaluated by our staffers at the end of each work period, and we would do self-evaluations. And I remember one of the questions was always, you know, "understands the role of planning," which says a lot about what you do in the course of work. But also I… It's a place that, when parents came for visiting day, they often didn't recognize their kids. It changed everybody who went there.

One of the things about it was that we got to experience community, which I think is something that most people never get to experience in a real sense. I mean, you may get a bit of that, if you remember, at a house of worship, a church, or a mosque, or a synagogue, and some other communities. I mean, I'm a furniture maker. I used to be a jeweler. I'm part of a craft world. And that certainly is **<T: 20 min>** a community, but it's one that we get to experience when we're at craft shows. This was a community that was just completely enveloping. We lived in it.

EARDLEY-PRYOR: What were the things that you found yourself drawn to in that community?

HANDLER: Well, one of the—it was complete involvement, acceptance. One of the things that I learned—one of the high points every summer was when Jerry Count would—something would happen, there would be some catalyzing event and Jerry Count would say, "Now you're a group." It sounds sort of tacky, talking about it all these years later, but it was very meaningful. And what it talked about was there was something that pulled everybody together. And when that kind of sense of group existed, there was a kind of acceptance, what I would call sort of a rise of individuality and a lessening of individualism.

EARDLEY-PRYOR: Hmm. Tell me more—

HANDLER: The individualism is more focused on me. The individuality is more an acceptance of who each of us are. And that feeling of community is people caring about each other and really functioning, working together for the good of all. And that's a remarkable experience.

EARDLEY-PRYOR: It seems like it left an impression on you.

HANDLER: Much of my life ever since has been based on either building or making myself part of communities. So here in Philadelphia, I belong to a synagogue called Mishkan Shalom, which reconstructionist, which is—it's a pretty tight community. A lot of activists in it. The craft world has certainly been—that community has been really important to me. In the seventies, I started and lived in a commune in Upstate New York that became a commune of crafts people. The street I used to live on before I lived where I live now, on Penn Street, just a few blocks from here, was a very densely populated block. And there was a real sense of community there. And that's something that I value a lot.

So that place [the Shaker Village Work Camp] took me from being sort of a shy kid and helped draw me out. It helped give me the confidence to express myself more. And most kids went for one summer, about a third went for two summers, and a handful would go for three. I did go for three summers, and in my third summer I was elected a mayor. And it was a very interesting experience. It was the summer of 1964, when there was a lot of stuff going on in the world, including riots in Harlem.

I'll digress into a slightly longer story, but some of the—a few of the villagers wrote a letter in the name of Shaker Village condemning the police brutality in Harlem, and sent the letter in to the *New York Times*. Or was about to send the letter in, I think, to the *New York*

Times. And they just said, "We're doing this." I agreed with it and also felt that to do it in the name of the entire community, needed the approval of the entire community. And so I called a town meeting, because I thought that this was something—an emergency town [meeting]—we would have, I think normally, one town meeting a week. And I called an emergency town meeting, which superseded work. It was in the morning. And there was a vote to adjourn and five minutes into the meeting it was adjourned. I called another town meeting immediately and everybody came back, and it lasted for hours. And it was—

EARDLEY-PRYOR: Why did the first one adjourn so quickly?

HANDLER: Basically, the people who wrote the letter put the motion out. **<T: 25 min>** You know, people [said], "What's this all about? Talked about a letter, and it got adjourned?" And then I called another one and explained what this was about. And then it turned into a long acrimonious meeting. And a compromise was reached in terms of what the wording would be.

And so this was an eight-week summer camp, which is what camps were back then. And we worked in two-week cycles with councils in the boys' house and girls' house, and mayors. And that summer, there was lots of trouble that happened in the first four weeks—just people acting up, disobeying rules. Just stuff that went on. And my sense, on some level, was what that was about—and this was from observing from two previous years—that sometimes there wasn't a lot of trouble, but also that the groups weren't as strong then. There was just a lot of strong personalities, a lot of energy. And I think . . . .

We had a lot of extra meetings in my two weeks as mayor. It just, sort of, tumultuous and testing. At the end of that two weeks, there was a conference that Jerry Count had pulled together, bringing outsiders in, experts in sort of how teenagers could be of influence in our communities and the outside world. And this was right after all of this stuff happening. And we just wondered, "How are we going to pull this together?" And we did. We pulled it off, and it happened. And afterwards, he declared us a group. And the amazing thing that happened over the rest of that summer was the intensity of how that not only started at the—right in the middle of the summer, but grew over the course of the summer. And it was an intoxicating experience.

EARDLEY-PRYOR: In what way? What do you mean? What was it that intoxicated you about it?

HANDLER: The sense of closeness, the sense of people paying attention. In some ways, community is a hard thing to describe when you're not inside it. You know, it's a feeling that you have when you're there. Somebody coming from the outside may not see it. And how it manifests is not necessarily something that is easy to describe, except that you feel it. And there just this incredible sense of closeness, and of these—lots of strong personalities being able to flourish in a sense of acceptance. And everything worked just really smoothly over the rest of

that summer. It went from tumult to just this smoothly functioning machine. As I said, it really set a course for me in life of wanting to experience this again and again.

EARDLEY-PRYOR: Some of those years, those formative years where you're going to this camp and having kind of a sense of yourself and also a sense of belonging at the same time, [there are] also some pretty major events that are happening: the Cuban missile crisis, the March on Washington and "I Have a Dream," the Civil Rights Movement is becoming more and more prominent over the prior decade. How are some of those things shaping your sense of self and sense of belonging?

HANDLER: So what it [the Shaker Village Work Camp] also did was create in us a sense of being citizens and participants in the world, and in our ability to make a difference, and to change the world. And I think that that place probably played a strong part in my own sense of "I need to change the world," and that I have a sense of importance in being able to do that. It may sound a little egotistical, but a sense of . . . some kind of mission to do. **<T: 30 min>**

And many of us who went there, I mean, people have become authors, musicians, lawyers, doctors, but a lot of it also has been service in ways that we have important things to do. I think it also gave us, many of us, the sense of confidence of being able to do that which we wanted to do in the world. And those issues in the world that were happening were certainly things that we were aware of.

So speakers were brought in, performers. I mean, I remember Odetta [Odetta Holmes, folk singer and Civil Rights activist] coming to visit us and spending a weekend. Other people would come and—we were not insular in the world. We certainly—events that were happening were things that we knew about and talked about, whether it was officially or unofficially. But it was about teenagers having a place in the world and the sense that, "Yes. We need to be listened to."

EARDLEY-PRYOR: What did you do with that experience for the next stage of your life?

HANDLER: When I was graduating from college—from high school rather—when I graduated from high school, I had this sense of two potential directions to that that I could go in. One was—I came from a family . . . my father's—I'm sorry. My mother's father was a judge in Brooklyn. He had been a State Supreme Court judge, and then he, in New York, he retired from that to actually move up to become the surrogate judge of Brooklyn, of King's County, which actually is a bigger role than the State Supreme Court. The surrogates handle wills, adoptions, estates, things like that. And so there's a lot of power in that.

And he knew every Democratic official in the State of New York. So I grew up—they had, it would have been called a farm, a summer place about 60 miles north of New York. And

so I grew up meeting the Governor of New York, the Mayor, just all kinds of people that would be part of his circle. He died when I was actually a junior in high school, but politics was a typical family discussion. So that was something that was just part of life for me growing up, whether it was extended family.

My own parents were involved in stuff locally in Teaneck. My father was a lifetime member of ACLU and was a writer for them. Teaneck was, in 1964, the first town or city in the country to vote for school integration. And my parents were heavily involved in that, both in helping move the school board to that vote. And then, that fall, there was a school board election with two slates, one that supported, and one that opposed that choice. And the slate that supported it won in a very heated election. My parents were heavily involved in that. With my sister and I, one of our childhood games was arranging chairs for meetings. Sometimes even when there weren't meetings. So that—

EARDLEY-PRYOR: Were you drawn to that political world then?

HANDLER: Yeah. That awareness of politics was something that was always there, and tied that in with my own need to change the world.

EARDLEY-PRYOR: And having just been elected Mayor at the summer camp.

HANDLER: Yeah. You know, that sense of being able to make a difference.

EARDLEY-PRYOR: So it was either going to be photography or political science.

HANDLER: It was photography or political science. And I think had I had somebody outside of my family pushing me and saying, "You know, you have real ability here that you should really consider this as a career." I might well have gone that way. And given my politics, I probably would have become a photojournalist, whether a war photographer or some other direction. Photojournalism, and probably not as a reporter for a newspaper. **<T: 35 min>**

I mean, one of my own heroes in life is Sebastião Salgado, who is probably the greatest living photographer. And in the pantheon of great photographers ever, one of that handful up there with Steichen, and Adams, and Stieglitz, and Paul Strand. He very famously—he does large exhibitions. He did one workers, which was at the PMA in the nineties. One that is currently touring the world called Genesis, a massive exhibition, which is the first one he did that was not just about people. A black and white photographer and who would spend years putting exhibitions together, traveling the world.

EARDLEY-PRYOR: So that's not the route that you took, though.

HANDLER: It is not the route that I took.

EARDLEY-PRYOR: But you knew you wanted to go to college. That was kind of an assumed –

HANDLER: Oh, yeah. I was going to college, but I went to a high school where even the hoods went to college. And I was in a graduating class of over seven hundred and everybody went to college. I mean, that wasn't something anybody ever questioned.

EARDLEY-PRYOR: Where did you end up going?

HANDLER: I ended up going to Bates College in Lewiston, Maine.

EARDLEY-PRYOR: Why there?

HANDLER: Sugarloaf.

EARDLEY-PRYOR: Oh, really?! You wanted to ski?

HANDLER: I wanted to spend four years skiing Sugarloaf.

EARDLEY-PRYOR: Did you grow up skiing?

HANDLER: No. I started actually skiing at Shaker Village. Maybe it was after my first summer there? They had a winter program during Christmas break. And they set up a rope tow on a hill. And we started to learn—they had skis, and we were able to ski. And I loved it. I mean, I was not a kid who was a confident athlete. I was always picked last for baseball. I didn't think I was a very good athlete. I never thought of riding a bicycle as athletics. I was a good bike rider, but I never thought of that that way. And I loved skiing. And it was something that I found, "Yeah, I can do this." And—

EARDLEY-PRYOR: Did you end up skiing a lot through college?

HANDLER: Constantly. I mean, the outing club had trips every Sunday. And so my first two years, before I had a car, I was on the bus every Sunday morning from late November, early December till the snow went away, skiing. And my friends were—we had a club ski team and my friends were on the ski team. And I learned to be a better skier. And I got to be a pretty good skier. Skiing big mountains certainly helped. I grew to love winter. I still do. I love Philadelphia, spring, summer, and fall. I hate the winters.

EARDLEY-PRYOR: Why?

HANDLER: Thirty-four degrees and damp. I would much rather 15 degrees, cold, dry and snow-covered. I miss the snow. I miss the winter. And of course, winters are getting less and less because of climate change, which we'll talk about at some point.

And I went to a pretty good college. It was very small. It was under a thousand students, which in retrospect, I think was too small. It's now about eighteen hundred students, which is a very nice size. And I got a great education. So my choice at that point was to study political science, which fascinated me then. I probably, had I pursued photography, would have also studied that [political science] somewhat, in whatever liberal arts I took along the way.

And when my classmates were applying to graduate school and law school, I was applying to my draft board. This was 1968, the fall of my senior year, to be a conscientious objector. My father's only question when I told him I was doing that was, "What took you so long?" **<T: 40 min>**

EARDLEY-PRYOR: Really? What did that entail, being a conscientious objector to the draft board?

HANDLER: Well, that's actually a sort of a two-part question. The first part is what does it take to get there? And then the second part is what happens if you are? What it took to get there for the most part was you filed a statement about—and it had to then be couched, for all practical purposes, in religious belief. So I—there's enough things in any religion that you can find to quote about religious belief. Well, now there's no draft, so it's not an issue.

And you had to get support letters. And one of the support letters—I mean, I got one from my parents. I got one from my rabbi. One of the support letters I got was from my major professor, who was gone my sophomore and junior years in Carlisle, Pennsylvania as Director of Research at the National War College. And so –

EARDLEY-PRYOR: What did that letter say?

HANDLER: Well, what that letter basically said was he told in the letter what he had done for two years, that he totally disagreed with me, and that he absolutely vouched for my sincerity. And I really think that that was probably maybe the biggest single piece, aside from what I wrote, that got it.

Now, the pattern, almost always—and I worked with draft counselors from various places, including Conscious—Committee for Conscientious Objectors, and the American Friends Service Committee, which, of course, is based here in Philadelphia. Typically, you would apply, you would get rejected, and then you'd have to be interviewed by your draft board, and they would ask questions, not all of which were valid, but they had the power. The classic question was called the grandmother question, and there were variants of it. But the basic question that got asked by kind of every draft board was: You're walking down the street with your grandmother. You have a gun. Somebody jumps out and tries to rape her. What do you do? Well, the answer, of course, they want you to say is, "Well, I'd shoot him." They say, "Well, then you're not a conscientious objector." And—which is actually not a valid question, because technically what it was about was being a conscientious objector was about being opposed to organized military service.

I got it without appeal. One day my parents called me. This is—by this point I was living in Ithaca, New York, in the fall or winter after I graduated, and they said, "We got a letter that you were classified as a conscientious objector," just—and this was in Bergen County, New Jersey, where everybody went to college. So it—the draft board did not have an easy time filling their quota.

EARDLEY-PRYOR: What was it that motivated your objection?

HANDLER: It was the Vietnam War. There was no way I was going to fight in the Vietnam War.

EARDLEY-PRYOR: Is that something you had studied or talked about in college, I assume? In your studies?

HANDLER: We did not study it in political science classes at that time. Certainly we talked about it with faculty informally. I had one teacher of international relations who said to us, "Take away the war, Vietnam is paradise. It's a beautiful, wonderful country." But this was in the early—it was actually at the height of the war.

There was a speaker who came to talk to us at Bates, who was actually a Bates grad, named William Worthy. He was a black journalist that Bob Dylan actually wrote a song about. And he said something to us that really stuck with me, which is: when you're faced with an issue, learn all you can about it, and then don't fail to take a stand for not knowing more. As you learn more, you may change your position, but take a stand. And so that was an important realization. And I think it was in the course of college that I really turned against the war strongly. <**T: 45 min**> We were pretty isolated.

EARDLEY-PRYOR: In Bates?

HANDLER: In Lewiston, Maine. We were pretty far from Washington, DC. I didn't go to any demonstrations when I was in college that were going on in Washington. We were just—I mean, we were like, I don't know, eight, nine hundred miles from Washington. It was a long way to go.

Several times a year the New England Committee for Non-Violent Action would come up and set up literature tables in the student union. And I remember there was a guy who was in the class behind mine who had been in the Marines in Vietnam in the early years of the war, like '62 to '64. And I think that Tom got his GED in the Marines. I'm not sure. But the Marines were the best thing that ever happened to him. He was kind of a working-class kid from Lynn, Massachusetts. And what I later learned about him was that he had what we now call PTSD, and that he took a lot of drugs, prescribed drugs, to keep him going. I didn't know about that at the time. But he had a hair trigger. And he didn't like me, because I was outspoken.

One time—we all ate in—everybody lived on campus, so we all ate in the cafeteria. And the CNVA [Committee for Non-Violent Action] had a literature table set up outside the cafeteria. And he came over and just got pissed, and just took and flipped the table. Just—was just really angry. And the reality for him was anybody criticizing the war, it was personal. The Marines were his family, and this was personal.

And we also then didn't have a really good understanding of how to relate to soldiers as they were coming back. Later on, when I had moved to Ithaca—this was the late sixties—I became friends with many guys who'd come back who were involved in Vietnam Veterans Against the War. But at that point, the war was early. We really didn't understand it, but by the time I graduated it was clear that I wasn't going. Just, I was not going to go into that war.

EARDLEY-PRYOR: So when you graduated, then you moved to Ithaca. What was it that brought you there while you were waiting to hear back from the draft board?

HANDLER: So after I graduated college, my girlfriend at the time lived in Bangor, Maine, and I went to New Jersey, after graduation, and then went back to Maine to be close. I ended up on a farm for a little while outside Augusta, somehow, and then ended up in—moving to Mount Desert Island. And—

EARDLEY-PRYOR: To—for work, or for . . . what were you doing?

HANDLER: Oh, I was—I learned about a house on MDI [Mount Desert Island] that a bunch of people had that—in Southwest Harbor that were—it was a summer lease. And so we were there. We—

EARDLEY-PRYOR: Just being there, being young.

HANDLER: We were just being there, on the island where Acadia National Park was. We were just there. We worked when we had to, and no more. We ate well. We did drugs. It was the summer of 1969. My parents were actually up visiting, and we watched on a TV, I think, outside when we landed on the moon.

EARDLEY-PRYOR: Wow.

HANDLER: In early August—

EARDLEY-PRYOR: You were outside?

HANDLER: I think we took a TV outside so we could just look at the TV and—

EARDLEY-PRYOR: Sit under the stars.

HANDLER: —look up at the moon. And so we were all watching the walk on—Neil Armstrong landing on the moon. And not long after—and throughout that summer everybody who came through, young people, were saying, "Oh, man, see you at Woodstock," which was, I don't know, 700 miles away.

And in **<T: 50 min>** early August of that year, a guy who had a jewelry shop in Bar Harbor, who was making soldered circle-wire jewelry—his name was Seth, I don't remember

his last name—came to the house and asked if anybody wanted to run his shop for him for a week while he took a vacation. So I said sure, and he taught me a little bit about hammering and soldering, and he took off, and paid me ten dollars a day. And he came back, and I used that to—I actually bought a ticket for Woodstock, which I think was twenty-five dollars. And with three or four friends, we drove down to Woodstock. Got there, I think, Thursday afternoon, and I left Monday morning, after Jimi Hendrix, after playing "The Star-Spangled Banner."

EARDLEY-PRYOR: What was the experience like?

HANDLER: [Laugher.] It was one of the greatest experiences of my life. At times it was miserable. I slept through probably as much music as I saw, because I just couldn't stay awake all night. I remember Saturday afternoon it had rained. I was—I think the one time I took acid was that afternoon. I remember just the side of the crowd was this big, muddy slope, and we were mud-sliding down the slope. And I remember picking mud off my legs, and then later going right in front of the stage, when Canned Heat was playing. Sunday morning there was a pond that everybody just took off their clothes and went into. And this woman came over, equally naked, with a bar of soap, and just soaped my whole body, didn't say a word, and walked away. I was in love.

Food just appeared. I mean, nobody came in with food, it just happened to us. And this was in the Borscht Belt, so people in the area, just Jewish—and the movie *Walking on the Moon* actually included that. And so the Jewish community in the Borscht Belt, just people bringing food for the kids at Woodstock so they wouldn't starve, and people walking up naked, taking food. And this sense of, there we were, half a million, three quarters of a million people together. Talk about community.

And this was—everything else that had happened in terms of the young world community, the movement, back then had happened in California. This was in the East. And we all knew while it was happening. I mean, I had asked—we were coming down from the north. I'd stopped on the throughway and asked how to get there. Even the cops didn't know how to get there. This was Thursday. Of course, Friday the roads were closed. The whole world knew about it. And we heard stuff. And what we knew was something's happening here that has never happened before, anywhere. And there was just this sense of wonder and excitement and joy and just all this amazing music, and that this was an experience that probably none of us would ever happen again. And I swore I'd never go to another rock festival.

Four years later, living in a commune in upstate New York, the Watkins Glen Festival happened 35 miles from us. And it was the Grateful Dead, the Allman Brothers band, and The Band, arguably three of the greatest rock bands in the country, all playing together, all at the peak of their form. And we went. And we worked ourselves up front, and there were people on Quaaludes, "Anyone got any Quaaludes?" And it was like, what are they doing? This is like trying to get depressants, downers, while all this was going on. And I remember leaving—it was a one-day festival—and talking to people in the drug tent. And some of them had been at

Woodstock. And I said, "What was the difference?" They said, "Well, the Woodstock—it wasn't bad acid. It was just people couldn't handle tripping in the middle of half a million, three quarters of a million people. It was just they weren't—or they'd never done it before. They weren't handling their drugs, their acid." And so talking people down. They said, "Here, it was keeping people walking, from barbiturates." It was a very different energy, and I've never been to another one since. <**T: 55 min**>

EARDLEY-PRYOR: How did you transition from this experience in the jewelry shop, going to Woodstock, to being on a commune?

HANDLER: So after Woodstock I went back to Mount Desert Island, and . . . turn it off for a second?

EARDLEY-PRYOR: Sure, we'll pause. [Recording paused, then re-started.] OK, so you were telling me—

HANDLER: So I went back to the house on Mount Desert Island, and went back to the jewelry shop, and he taught me more about a little bit of what—in reality, he didn't know that much. He was making soldered circle-wire jewelry and selling it back at a time when you could get away with that, which was the summer of 1969, in a tourist town. And a guy who worked in a leather shop, a sandals shop, in Bar Harbor went to me and said, "Hey, you want to start a shop in western Maine?" It would've been Northampton. "You make jewelry, I'll make sandals, and we'll . . . ." So I was waiting for my draft board to act on my application as a conscientious objector, and I said, "Sure," really barely having made anything original in my life with jewelry. I had done some copper enameling as a kid. We had a little trinket-enameling kiln, and I'd always made things.

So, backing up a little bit, if you're a musician, and you're a kid, and you have serious talent, it shows. I think with musicians, particularly the prodigies, you know and everybody around you knows that what you have is something that is something that everybody doesn't have. As an artist—and I was not one of those people who drew. I've been married to two women who can draw anything, and who grew up drawing. I wasn't one of those kids. I didn't have a sense of myself as an artist, or as a crafts– I mean, no one knew what a craftsperson was back then. And I—

So I—the summer ended. The lease was up on our house. I went back to New Jersey. I went to All Craft in New York and bought some tools and some materials and silver wire and stones. And I spent a few months, couple months, in the attic of my parents' house teaching myself how to make jewelry. And in the course of that, the shop fell through, and I thought, "Well, I might as well do this for the time being. I don't know what's going to happen next, but this seems like a good thing to do."

EARDLEY-PRYOR: And your parents were cool with all that?

HANDLER: My parents, yeah, just—Yes. My parents were—I don't know if there was much they could've said at that point. You know, "What are you doing? Why aren't you going to law school?" Well, I had missed that bus. I was waiting for the draft board to reclassify me, with the expectation—I was pretty sure I would get it.

EARDLEY-PRYOR: Did you think you'd go to law school after you—the next year or something?

HANDLER: I wasn't thinking that far ahead. But as a conscientious objector, back then, if you had CO status, once you were granted that, you had two choices. If you were drafted, they would tell you where to go to do your alternative service. If you volunteered, you could choose, and you'd have to get it approved by the draft board. Typical things was like working in a hospital or something like that. But there were many things you could do that were nonprofit or working what sort of later became like [AmeriCorp] VISTA kinds of things.

So you could find work and get your draft board to approve it, and you'd spend two years, which is the period of the drafted military service, two years doing alternative service. So I expected that I would, for my own arrogance or whatever, that I would be granted alternative service status, conscientious objector status, and that doing alternative service would determine the course of my next two years. <**T: 60 min**> And then I would go on from there and worry next about what I would do.

And I think it was late in the fall when the letter from the draft board came, and then it was almost immediately afterwards the lottery happened. And my lottery number was 285. I don't think there's a guy from that era who went through the lottery who does not remember their number, whatever it was. I was 285. I knew that I was not going to get drafted. So there was nothing that could force me to do alternative service. And I figured at that point, my own politics, of course, had moved well to the left. I thought, this is an illegitimate government, illegitimate situation with the war. It's an illegal war. I'll be damned if I'm going to do alternative service. So I didn't do anything.

But that point already I was living in Ithaca. And when I was living in my parents' house and making jewelry, I did a lot of visiting, because I knew I couldn't stay there. I didn't want to stay there. I couldn't stay there. I think that's changed a little bit in—kids do come back now. Among the places that I visited was Ithaca. I had a cousin. My first cousin was five years older than me, was a math professor at Cornell. And I went up to visit my cousin, Moss, and fell in love with Ithaca.

And I went back to my parents, and then got in touch with Moss and said, "Could you find me a place that I could set up and make jewelry?" So he—there was a store in Collegetown, a couple blocks from his house, called the Magic Mushroom, which made leather clothes, and sold pipes, papers, candles, and incense. And he talked to them, and they said, "Well, yeah, he could set up a jewelers' bench in the front of the store, and we would sell his jewelry on consignment." So two weeks later I was back in Ithaca. That was just before Halloween in 1969. So just a little more than two months—about three months after I started, two and a half, three months after I started making jewelry, I was selling it, not knowing that I was making bad jewelry, but neither did the people who were buying it. [Laughter]

EARDLEY-PRYOR: Did you get pulled into any of the early Earth Day [events]? Was there a scene that was happening in New York and Cornell?

HANDLER: I did not. That actually came later.

EARDLEY-PRYOR: OK. I want to be conscious of time. I don't want to—we only have so much. We've been talking for about an hour, and I want to make sure we have enough time for future visioning, but also to bring this story from this post-college experience up to the present.

HANDLER: So, yeah, I did—I lived on the land. I ended up in the store, and then a group of us started a commune. It became a commune of craftspeople. I lived out in nature, you know, in the middle of just beautiful land, in the southern tier of New York.

Earth Day happened after the photograph of Earth, the big blue marble—that was what started, aside from Rachel Carson, it was that photograph which started the environmental movement. I did not get involved with that at the time. I—moving well forward and skipping a bunch, I mean, I ended up—the commune ended in 1977, '78. All of us wanted to go in different directions. I was in a relationship that had ended. I was at that point responsible to nobody but myself. That doesn't happen often in life.

I thought I had been making jewelry, self-taught, learning too slowly for nine years. If there's a point where—I need to learn more if this is going to be my work, or my life. I applied to and, to my surprise, was accepted at the School for American Craftsmen at Rochester Institute of Technology, ironically where I would've gone to college—

EARDLEY-PRYOR: For photography. [Laughter]

HANDLER: —through the double doors down the hall for photography years earlier.

EARDLEY-PRYOR: Did you like the jewelry making?

HANDLER: I did.

EARDLEY-PRYOR: You pursued it, so—

HANDLER: I did. I—<**T: 65 min**> my MFA is jewelry and metal-smithing. And I had people back then who—somebody said, "You should be working bigger." And I said, "No, I really like working on this scale." I also at that time had the thought that there was a conceptual continuum between jewelry and furniture and architecture, never dreaming I was going to end up making furniture. I still think that's true. It's all about the body.

EARDLEY-PRYOR: What do you mean by that?

HANDLER: Jewelry goes on the body. The body goes on furniture, and serves the body. And architecture—the furniture—it designs about enclosures for the body. It's buildings for people to be in. So the body is, ultimately I think, the reference point with all three media.

EARDLEY-PRYOR: So you went to this training school, and then –

HANDLER: Well, it's actually art school.

EARDLEY-PRYOR: Art school.

HANDLER: I had gone, previous to that in 1975, when I realized—began to realize this was my life's work, I went to a spring concentration at Penland School of Crafts in Penland, North Carolina, which was an eight-week program from March to May. It was basically summer camp for adults.

EARDLEY-PRYOR: Did you find community there?

HANDLER: I did. I did. And also I had never been—I had never taken an art school—an art course in my life. What I didn't understand was that going to art school is an exercise in

surrender. And I did not surrender to my teacher, probably made life a little miserable for her. I was this cocky twenty-five-year-old kid, and I was very confident. My ability to go to new places was limited. My ability to make whatever I could conceive was total.

When I got to graduate school I had figured that out, that when you go to art school it's because you need a kick in the butt. And I did surrender to my teachers. And it was after—my entire academic career through college had been academic. Being in a situation where I was in art school, and I had two academic classes in two-plus years—I had to take also twenty-four hours in undergraduate drawing and design classes, basically a foundation program, which I knew I needed concurrent with my graduate work. It felt like a playground. Just make things! And then what I also learned, which any art student will confirm, is that nobody works harder than art students. Nobody puts in longer hours than art students. I mean, you just—you live it. And I did that for two-plus years.

And what we also had a sense of was that RIT [Rochester Institute of Technology], at that point, had an amazing group of faculty and students, and we were the hottest program in the country. And it was—the School for American Craftsmen was one hundred thirty-five, one hundred fifty students, undergraduate and graduate, five studios—metals, glass, wood, ceramics, and fiber. And it was the best decision I ever made was to go there. It totally raised the ante, changed my life, taught me things that I would never have learned on my own.

EARDLEY-PRYOR: Changed your life how? Where did that trajectory send you to?

HANDLER: Well, as an artist, it just made my thinking bigger, made my explorations bigger, gave me technical instruction that was fabulous, gave me a sense of perspective with other students who I was in school with. And when I came in, I was the only person in a graduate class—two classes of fifteen or so graduate students in the metals program that—who didn't have a BFA. And I felt early on like, "I don't belong here." And one of my classmates who had come down from Toronto, who was actually a jewelry instructor at a college in Toronto, getting his MFA, said to me, "A lot of people come into art school who have gotten by over the time through their lives with lots of ability, and just blast through on sheer talent. And they don't always know they have to work hard, and often fall by the wayside. And, in general, <**T: 70 min**> it's the people who work the hardest who succeed." And that was a lesson that never left, to this day, and I've always thanked him in my mind for sharing that with me. And it really made me—gave me a sense of, "Yes, I do belong here." And it put me into a much bigger world as an artist than I could've been in otherwise.

EARDLEY-PRYOR: I know some of your artwork now, many years later, does involve issues of climate and environment. I want to move us towards that direction. So how did your career, or your thinking, or your life move towards that direction?

HANDLER: So when I was a jeweler I sometimes made pieces that were polemic, that were about things that were happening in the world. After Attica [Prison rebellion], I made a large pendant that was sort of a dumdum bullet squashed. And I was so mad at Nelson Rockefeller. I just never forgave him for the murders that happened of the inmates by the police. When I became a furniture maker in 1984, I had the sense that this was a medium that didn't suit itself to polemic, at least not for me, and I would find other ways of expressing myself.

EARDLEY-PRYOR: Why did you make that transition in '84?

HANDLER: I graduated—I knew when I was in graduate school that I wasn't going to sell any of the pieces that I made in graduate school, that they were—I had been doing craft shows for, like, nine years when I went to grad school—that this was a time out. I stopped doing shows. I took two-plus years off from selling my work, knowing that I had to allow movement and change to happen wherever it went. And I also knew that I wasn't going to sell any of the pieces that I made in school, because they were a place out of time, and I needed to keep them.

I also needed a body of work that I could sell, and my ideas had changed. I started making aluminum pins, sort of an inch by an inch and a half long, that were epoxy resin—colored epoxy resin—and aluminum. And that was pretty radical for 1981. And in, I think it was '81, I was doing a craft show, a street show in Rochester, and an interior designer came to me and said, "Can you work bigger?" Well, in this field we're all whores. The answer is yes. The question is what and how much. She wanted a 30-by-40-inch tabletop that looked like one of these pieces of jewelry. So I did that. And that got me making—I had also taken four wood courses, furniture-making classes as a graduate student, as an elective, never dreaming this was going to end up being my work.

So in 1984, I was doing the ACC [American Craft Council] craft show in Baltimore, and I brought a black and red—I had been making jewelry, but also covered jars, lathe-turned pieces that had epoxy inlay, and desktop pieces, and also making some anodized pieces, and I had made a couple of wall pieces, and a few tables with epoxy resin, and sometimes acrylic or aluminum. And I brought a black and red anodized table with me to the show, and it was the only thing people saw. And I said, "I guess this is what I'm going to do." And so that was my transition to being a furniture maker. And—

EARDLEY-PRYOR: And the environmental pieces came . . . ?

HANDLER: Much later.

EARDLEY-PRYOR: When was it that you first heard about climate change, or those kind of issues?

HANDLER: I first started reading about climate change in the late 1980s, when I read the book that Al Gore wrote as a senator.

EARDLEY-PRYOR: *Earth in the Balance,* maybe? [First published in June 1992.]

HANDLER: Yes, *Earth in the Balance*. And it was about climate change. And it was a serious concern of his, which, of course, he never talked about when he was running for president, or he would have won. And that got me interested about climate change. And I occasionally read more books about it. And then in the mid—it might have been after seeing *An Inconvenient Truth*, which I actually just saw the sequel.

EARDLEY-PRYOR: I just saw it last night.

HANDLER: Last night. I was there.

EARDLEY-PRYOR: Yeah, ditto!

HANDLER: I actually got a free showing of it with—through Interfaith Power & Light. <**T: 75 min**> I realized that this was the issue that needed to be focused on, and I switched from reading novels—I've always been one of those artists who reads. And I switched from reading novels to reading about climate change. And initially I was just reading science. I think the third book I read was *Storms of My Grandchildren*. It would've been better to read that later, because the science was challenging for me at that time, Jim Hansen's book, who has since become a friend.

EARDLEY-PRYOR: Oh, really?

HANDLER: I know Jim through stuff I've done with Citizens Climate Lobby, who lives on a farm in Bucks County.

EARDLEY-PRYOR: I didn't know that.

HANDLER: And so I've read scores of books about climate change: science, economics, politics, spiritual aspects. I mean, everything I could put my hands on about climate change I read and underlined. And still to this day, most of what I read is about climate change.

EARDLEY-PRYOR: What was—when you're reading these things, what was it inspiring in you?

HANDLER: I wanted to give myself a graduate education about climate change, without going back to school, in the broadest way possible, to learn everything I could about it.

EARDLEY-PRYOR: Why?

HANDLER: Because it was important. Because this—the more I read, the more I realized that this was the issue of our age, or any age. It was and remains the most important issue that humans have ever had to face. The fate of the world is in our hands right now. And—

EARDLEY-PRYOR: How did it change your life's work, or the path that you were on?

HANDLER: So in 2008, when the recession hit, I was a furniture maker. I am a furniture maker. I've made my living since 1984 making furniture, custom studio furniture for people's homes. And I finished my commissions, and then there weren't any more. It just stopped happening, like the summer of 2008. And that fall I was talking with a friend who's a ceramic artist, and he said, "You know, in times when I've had no work I make things that I want to make." I thought, well, that's a good idea.

And so I began—I made a table about the Maldives, about sea level rise. And that began a slow series of pieces called "The Canaries in the Coal Mine," which is now number six. I make them ever year or two when I have time around commissions. I know what the next one's going to be. I haven't had really time to make it. But it's pieces that focus on different aspects of climate change. And the whole idea of "Canaries in the Coal Mine" is miners would take a canary down, and if the canary keeled over and died, it's like, "The air is getting bad. We've got to get out of here, or we're toast."

And so after the piece about sea level rise, I made another piece about bleaching and dying coral reefs. And then I made a piece about the eighth—the sixth great extinction, that centered on the golden toad of Costa Rica, which went extinct in the late eighties due to a climate-induced early El Niño, which made the rainy season early. And then I made a piece about disappearing arctic summer ice. And then I made a piece about wildfires. And then my wife and I went to Alaska in the summer of 2015, because the next piece I wanted to make was

about thawing permafrost. And so—which I have done, and it was about a drunken forest, about birch trees falling over because the ground is no longer stable <**T: 80 min**> when the permafrost thaws.

In 2011, so I was in the midst of studying about climate change, and wondering what to do about it, and wanting to do something about it. I went to the Keystone Pipeline demonstration, the first one, in Washington, in November of 2011. And before the demonstration started there was a guy walking through the crowd with a clipboard, saying, "If you want to make a difference about climate change, this is the organization to work with. It's called Citizens' Climate Lobby." I'd never heard of it. And I gave him my contact information.

And the director, Mark Reynolds, called me the next day, and we spoke for about 45 minutes. The founder, Marshall Saunders, called me the following day, and we spoke for about 45 minutes. I went on the next introductory phone call the week-and-a-half later, and then went into outreach mode. And in January, late January 2012, Mark Reynolds on an East Coast swing came to Philadelphia and did a group start workshop, and helped start the Philadelphia chapter of Citizens' Climate Lobby, which I've been the group leader of ever since.

EARDLEY-PRYOR: What kind of work do you do with it?

HANDLER: So this takes me back to much of the earlier things that I've been talking about. The name of our organization is Citizens' Climate Lobby, and that is the central focus of the work we do. We are citizen lobbyists, and we are working to get Congress to pass a revenue-neutral fee on carbon with a dividend.

We work with Democrats. We work with Republicans. When I joined we had forty-five, forty-nine chapters in the United States and Canada. As Mark says now, back then I talked with every group leader probably once a week. In the United States, we have over three hundred chapters. Worldwide, I think we now have close to four hundred chapters. I think Mark—we've become much, much, much bigger. I don't think Mark knows the names of all the chapter leaders now. I know he doesn't. And this organization teaches us—It changes us, in that we talk with people who we don't necessarily agree with about everything, but they all matter. And what we know is that if we're going to get our bill passed, the leadership has to come from the Republican Party. They need to be the sponsors. They need to be the initiators of our bill. So we work with them. We honor them.

We have bios of every Member of Congress. The first thing that we do when we go into their office is thank them specifically for whatever it is that we're thanking them for that they do. With Pat Toomey [Republican U.S. Senator from Pennsylvania], typically, it's both his position on pets and protecting them, and animals, and also his gun control policy. Everybody—and what I learned when I first did it was that the Members of Congress and their staffs are really there because they want to make a difference. I may not necessarily agree with the difference they want to make, but they're very dedicated people, for the most part. I suspect

there are some Members of Congress who may be self-serving. Anybody I've talked to—and it's some face-to-face, and a lot of staff meetings, and I've had eight times lobbying in Washington now since 2012—is people care about what they're doing.

I mean, my first meeting with the staff of a Republican Senator from Louisiana, he met with us for ten minutes, took no notes, and dismissed us. Later, the staff of that same Senator two years later—it was a year or two years later—spent half an hour taking notes and asked really good questions. We don't get questions about climate change. I don't think that's an issue anymore, with very few exceptions—maybe Jim Inhofe and a few others. The questions are: what do we do about it? <**T: 85 min**> We don't argue climate change. We are there to support them, not to pigeonhole them, not to put them into corners. To make them want to meet with us. Our members are very, very educated about our issues. We have hundreds of laser talks, which basically pinpoint any issue that we need to know about. And so we know our stuff, but we also—as Mark says, "We're the organization that's for, not against."

And it has brought me, in my own life, full circle. I was going to go to college and study political science, and go to law school, and go into politics. The likelihood is that what I would have ended up with is, on a state or national level, working as a legislative aide. So in 2012, in July, in my first time lobbying, I get to Washington, and here's all these young people. The joke is that the country is being run by twenty-year-olds, which is true. I mean, they basically tell their Members what to do. They're the ones who are the experts. The Members are generalists. And any Member of Congress will have certain areas they're expert in, but they have to be able to know and act on everything. That's where the aides come in. And I realized, that would have been me. And in that sense, it has brought me full circle, and brought me back to the interest that never left—through all my time as an artist—in politics, and political science, and understanding how things work, and making change. And so that really brings me pretty much to where I am.

EARDLEY-PRYOR: Well, let's use this as a point to take a break, and we can transition into the future visioning portion.

HANDLER: Sure. [Recording ends, then re-starts.]

EARDLEY-PRYOR: All right, so for this part here, to transition into our future visioning, some of these abstract questions, I'll start off: what are some of the things that you value most, that you love most?

HANDLER: Interesting question. When I do group starts with Citizens' Climate Lobby, one of the processes we do with our trainees is the question about save and savor. And that is, to want to save the world, you have to know what it is that you savor. What is it that you love, that you care about, that you have to have first? So I think for me it's many things. I mean, in terms of specifics, I love the Chesapeake Bay. I'm a sailor, and I love being on the water. I love the Bay.

I've lived out in the woods, and just the sense of, the importance of, just being in the wild, being in nature.

I think on a bigger perspective, I have this sense that the world is worth keeping. It's the wildlife. It's the animals that we're losing. It's heartbreaking to see—to know that an awful lot of what we live with now are things that will be stories for our grand-children and great grand-children.

EARDLEY-PRYOR: So the nonhuman world is something that you savor.

HANDLER: Absolutely, both plants and animals, the beauty in the world. I sometimes think that as we have, in this country and in other places in the world, national parks, that in a science-fiction world, that there would be some planets just aren't that pretty. Some are just filled with just amazing beauty, and that they would be universe parks, and that this would be one of those. There is just such incredible beauty that exists in this world that—but also, just the animals that are just so amazing. To think about the intelligence, the community, the life of elephants, of dolphins, of monarch butterflies, just . . . .<**T: 90 min**> You go on. And the thought of losing these things is just tragic.

EARDLEY-PRYOR: Well, the next question would be: what is it that you fear?

HANDLER: What I fear is that we're not going to take the steps that we need to take. As President Obama said, and people have said before him and since him, we're the first generation to feel the effects of climate change. We're the last one to have the chance to make a difference.

If we keep doing what's called "business as usual," that we will end up with runaway climate change, that we will end up with a world that is barely livable, if that. The climate scientist James Lovelock wrote a rather dystopian piece a few years ago in *Rolling Stone* which actually covers climate change very well, where he suggested that if business as usual is the pattern that continues, that by the end of the century there might be half a billion people left on Earth.

And so my fear is that as climate change builds, that we know we're going to have climate refugees. If we do all the right things now, and immediately follow the course of Paris [the December 2015 Paris Climate Agreement, within the United Nations Framework Convention on Climate Change] and more, and begin to convert the world immediately to carbon-free energy, we're still going to experience a path that has been set that we can't stop, which is profound climate change. The only thing we can do is pull it back, is to mitigate it to keep it from being catastrophic. No matter what we do, we're going to experience profound climate change. There's no stopping that.

And so we're going to have forced migrations. We're going to have starvation. We're going to—all these terrible effects of climate change. Illness. Areas that become uninhabitable. Too much rain, which we're experiencing in the Northeast, and Eastern United States, and other places. Incident after incident which we're not—wildfires—that aren't publicly, necessarily, being liked that these are all pieces of the same thing, that the planet will become much less habitable.

EARDLEY-PRYOR: What are some of the things that give you hope?

HANDLER: What gives me hope is that there is a growing sense in the world—and probably more strongly everywhere but the United States, but here also—that this crisis is something that humans everywhere have to act on. The fact that all but two or three countries in the world signed on to Paris is astounding. Even if the goals weren't strong, the fact that they all signed on to it, after all the struggles of the previous—and particularly the failure of Copenhagen—that one hundred ninety-six or one hundred ninety-seven countries signed that, and agreed on it, was amazing. So there is a growing sense that climate change is real. When you hear stories on the radio about climate change now, it's not questioning. It's just, this is happening. You see them in the newspaper. This is the environment we now live in. There are a declining number of people who are deniers.

But, I mean, last summer we were at Cape May, [New Jersey]. I'd meet people on the street—this was in August, through that just stinky, awful heat—and they'd say, "Oh, yeah, there's no climate change, right?" People accept this, for the most part, and know that we need to act, we need to do something. And the question is, will we do it fast enough?

EARDLEY-PRYOR: Another question I wanted to ask has to do with the meaning of home, and it made me realize we didn't ever address how you came to live in the Philadelphia area. So I was going to ask—the Philly area is where you live now. So do you consider that home?

HANDLER: Yeah, I've lived here—I came here for a long-distance relationship <**T: 95 min**> in 1982. I've lived in Philadelphia more than half my life.

EARDLEY-PRYOR: As a furniture maker for that whole time, too.

HANDLER: Yes.

EARDLEY-PRYOR: That was around the transition point.

HANDLER: Well, just before I became a furniture maker, that's right. So when I'm at shows, people ask where you're from, and I say, "Well, I live in Philadelphia. I'm not from there." You have to be born here to be from here.

EARDLEY-PRYOR: Well, to answer that question, when you think of home, what kind of things come to mind?

HANDLER: I love this city. I mean, I grew up in Bergen County, New Jersey, and in New Jersey we knew that the biggest cities in New Jersey were New York and Philadelphia. And my reference point then was New York. I also had family who lived in Philadelphia, and we would come to visit my favorite aunt and uncle, who when I first moved here were a block and a half away. It was the best thing about moving to Philadelphia. My aunt still lives here. My cousins grew up here, three of my cousins.

I love the scale of Philadelphia. Compared to New York, you can make things happen here. It's a—you can find the locus of what's important. It—you can make connections in Philadelphia that I think are much harder to make in a bigger city like New York City. As an artist, real estate is affordable, so it's a much less expensive place to live in than New York. There's a great community of artists here. There are many communities, and it's a small enough city. It has, in many ways, more of a feeling of a big town, that we get to know each other. The communities can link up. For better and worse, the climate and environmental communities, which don't always like each other, at least sort of know each other. It's a city where you can make a difference.

EARDLEY-PRYOR: Another sort of abstract question, what comes to mind when you think of energy?

HANDLER: Energy is the currency of the world.

EARDLEY-PRYOR: What do you mean by that?

HANDLER: More than money, energy is what—energy, as fossil fuel, is what created our abundant Western culture and economy in the developed world. It was the energy of fossil fuels that really created this very rich—too rich—world that we live in. But this abundance—the food, the manufactured goods, the ability to travel, everything—depends—I mean, there isn't anything we touch in life or in the world, in the Western world, that isn't touched by fossil fuels. But it has created this world we're in. And in the world and in the developing world, the key is

energy. And the question is, will it be fuel, or will it be electricity? Will it be fossil fuel, or will it be sustainable energy, is the key as to how the world survives.

EARDLEY-PRYOR: Well, let's use that as a transition point to get into our visioning portion here. The first visioning I'd love to hear from you is fifty years into the future, so the year 2067. What is Philadelphia like? And what is its energy story?

HANDLER: Well, that's a really interesting question. In meetings with City Council representatives, and meetings with the Office of Sustainability, one of the things we've talked about is the Eighty in Fifty Pledge, which is an 80% reduction in Philadelphia of fossil fuel use, of our carbon footprint, by 2050. That is—and huge numbers of cities in the country have made that pledge. And to achieve that, as cities only, I think is kind of visionary, and, in some ways, problematic. <**T: 100 min**> I think we can't achieve it in the big picture without having a national energy policy, basically without a fee on carbon, that will begin to change the equation in every aspect of energy use.

EARDLEY-PRYOR: So if we're going to imagine life in Philadelphia in the year 2067, what is that world like then? Has that happened?

HANDLER: Yes. I think that we're going to pass that fee on carbon. Our goal is to pass it in this Congress. I think it's going to happen much faster than people think. The first thing that I think about in Philadelphia—

EARDLEY-PRYOR: In the year 2067?

HANDLER: —moving toward that, is that we have a city of rowhouses. We have flat roofs all over the city of Philadelphia. And my vision is that all of these roofs become part of a shared program with PECO [formerly the Philadelphia Electric Company] and homeowners and home renters to have kind of a joint business of sharing in the benefit of putting solar cells on top of the whole city, so that Philadelphia becomes a giant grid of electric generation. And actually, it would end up producing more than we need by a long shot.

EARDLEY-PRYOR: So if that does happen, and—within this next fifty years—then what does it feel like to be in Philadelphia? What does it . . . ? Does it look different? Does it feel different? Are there more people? Is it—are people moving around in different ways?

HANDLER: Well, yes. I think first off, one of the things is that we won't be driving gas-powered cars anymore.

EARDLEY-PRYOR: What will—how will people get around?

HANDLER: I think people will get around—Well, that actually is an interesting and bigger question, because one of the things we have learned—and I think in some ways this probably goes back to the Civil Rights laws. When you change laws, you change behavior, and the laws themselves don't change attitudes, but the change of behavior does. So I think that developing Philadelphia as a solar city, as a city covered with solar cells, where we have electric generation, changes our consciousness, and we become aware of ourselves as a sort of free-energy city, as a city where we generate our own power, where—and I think this will also be green roofs. I think the movement that we're seeing already of local agriculture will expand.

EARDLEY-PRYOR: And so in 2067, will people be farming on their roofs, along with these solar panels?

HANDLER: I think people will be farming on their roofs. I think that people will also be farming in vacant lots, that there will be a much stronger movement toward enabling farming so that we have local agriculture, but we're not necessarily bringing in food from far away, but that we're growing a lot of our own food. The cars will be electric. If we look at current trends, a lot of them will probably be more generic than privately owned, with self-driven cars, but it'll all be electric. People will be amazed that we used to drive gas-guzzlers, gas vehicles.

EARDLEY-PRYOR: Will fossil fuels—

HANDLER: I think bicycles—

EARDLEY-PRYOR: More bikes.

HANDLER: I think there will be a lot more bicycles.

EARDLEY-PRYOR: Will there be more people in Philly or less? Or the same?

HANDLER: I think that there will be more people in Philadelphia, because I think—on the one hand, it will be a more attractive place to live, with more green energy. But I think also that the trend that has been happening of people being aware that living in suburbs is not so desirable. Some of the suburbs may become sort of mass places, but people pulling into more densely populated areas is more sustainable. It is less energy-use when people live more densely, which will allow <**T: 105 min**> outlying areas to become—let's be optimistic—some of the places that now may become farms that people are living in now, that we can be surrounded by more agriculture.

Of course, in order to be more dense, it would mean that maybe some of the row houses become vertical, and it's hard to say does that change—do we build more tall buildings for people to live in because it's more efficient?

EARDLEY-PRYOR: Well, let me ask you, in fifty years, which isn't too far along—do fossil fuels still have a role to play? Are they still around?

HANDLER: From the work we've done with Citizens' Climate Lobby, one of the things that we have looked at is where the energy quotient will be as we move towards sustainable. And the largest part will be wind and solar. There are some who think that nuclear will remain part of the equation, but with newer reactors that are not—are actually using the waste that now exists to produce longer-lasting fuel that essentially don't produce waste.

EARDLEY-PRYOR: What about your vision of Philly in fifty years?

HANDLER: And that the one place where fossil fuels may still exist is that the need for electricity is, at the moment—so, at least for a while, natural gas, which can start up and turn off instantly, will be part of the equation. I would hope that natural gas is no longer being used, that we're using electricity for everything we now use fuel . . . that heat will be electric—

EARDLEY-PRYOR: In fifty years.

HANDLER: —that cars will be electric. Airplanes, I don't know, but maybe instead of airplanes we'll be using airships, blimps that can be solar powered. And they're starting to develop biofuel-powered airplanes, and solar airplanes are also starting to happen.

I think that as this energy revolution starts to take place, it will greatly increase jobs. It will increase manufacturing. We're going to have wind generation from Maine to Florida along the continental shelf. I mean, scientists tell us this is the most fertile place in the country for wind generation, and it's far enough away from the coast that "not in my backyard" is not an

issue, and that the wind always blows. So manufacturing will need to take place near the water, because these things are too big to take on roads. So you'll need ships and barges that can just go right up to the factories along the rivers and ocean coasts, and load the wind turbines and the blades and the pylons onto them. So we'll have manufacturing. The Navy Yard [in Philadelphia] could become a place to manufacture wind turbines. It would be a great place to have factories for sustainable electric generation.

EARDLEY-PRYOR: Great. So—

HANDLER: Now, my—

EARDLEY-PRYOR: Go ahead.

HANDLER: One of the things that I think about is that climate change is not stoppable, and we're going to have sea level rise. And the likelihood is that—later in this century, perhaps by fifty years from now, maybe by the turn of the twenty-second century—that parts of Philadelphia will be underwater.

EARDLEY-PRYOR: Well, let's use that as a transition to move to the next visioning portion. You can fulfill that vision in the year 2140. What's Philly like in the year 2140? And what's the energy story then?

HANDLER: Well, by 2140, I think that parts of Philadelphia will have adapted to being underwater. There may be canals. Many of the buildings will have fallen apart. But the areas—you know, the airport will be underwater, as it exists now. The low-lying areas along the Delaware may not be part of Philadelphia anymore. <**T: 110 min**> But the parts of—I mean, Philadelphia will probably be more centered on the hilly sections. It will be totally sustainable energy.

EARDLEY-PRYOR: Still solar and wind? Or will there be a new sort of invention?

HANDLER: Well, I think there will be many new inventions. I think that we can't even dream at this point of the things—outside of science fiction, and even they have trouble—of what the changes that will be brought about by the change in culture, by the change in the move towards sustainable energy, by a changed economy. You know, if somebody from the 1700s walked into a building, a room now, and saw us just push a button and have lights go on, it would be magic. They couldn't imagine something—what is that? I think, by the same token, I don't think we

can imagine some of the changes that will happen technologically between now and the next one hundred twenty-five years.

EARDLEY-PRYOR: If you were trying to imagine some of those things, what are things that might come up for you, be like, "Wow, wouldn't that be a neat thing to have be in Philly?"

HANDLER: I think that—boy—well, for one, we would have energy-free buildings.

EARDLEY-PRYOR: Energy-free buildings.

HANDLER: So they would be carbon-neutral buildings. So there's no carbon footprint for heating. There's no carbon footprint for cooling. There's no carbon footprint for generating electricity. We're certainly going to have a lot more rain because of climate change in the Northeast, so the water becomes, probably from cisterns and purified, and agriculture, again, on the roofs.

EARDLEY-PRYOR: What do the buildings look like? Are they taller?

HANDLER: I suspect they will be, I think because of the desire of people to live in community together. You know, I think about Paolo Soleri and Arcosanti, who was, I think, a visionary architect that outside of the sort of alternate community of his team really may have forecast directions that the world is going to move in. I mean, he saw floating cities on the ocean. He saw tall cities with agriculture being produced. And I think that he may be looked on as a prophet in the future in ways that he never was in his own time.

EARDLEY-PRYOR: Do you see Philly moving in that direction?

HANDLER: I do see Philly moving that way, because I think people will, because of the desire to live in communities, will be moving toward the city. I think its boundaries may grow.

EARDLEY-PRYOR: Philly's gotten bigger?

HANDLER: Perhaps. But the parkland will remain. I think Fairmount Park is one of the glories of the city, and will remain the salvation of Philadelphia. People need to have that. One of the things that—for psychic survival, people need to be able to experience nature, in whatever

ways. Being able to go into the Wissahickon is such a powerful thing, that it connects people, that we're not—you know, if you live in New York, take away Central Park and you're in this stone and concrete mass, and you have a sense of being totally disconnected. You are a city person. The world is city. There's a loss in that. There's a loss in connection to what's the world. And I think that the disconnection from needing to do something about climate change comes in some part from feeling that disconnection from nature.

EARDLEY-PRYOR: So will Philadelphia in 2140 have more trees throughout the streets, then, or will it just be these kind of enclaves of parks?

HANDLER: <**T: 115 min**> I think that we will have more trees, and I think part of that is the consciousness that the strongest thing we can do to combat climate change, to work with climate change, is the best converter of carbon dioxide to oxygen is trees. So I think here and around the world, planting trees and sustaining trees is going to be really important.

EARDLEY-PRYOR: What about how people are moving around? In 2140, what's transport look like, either for people or for goods?

HANDLER: Well, I think that the public transit we have now will be superseded by, I don't know, possibly monorails, electric powered. There probably will be intra-city travel that is much faster. Electricity—I mean, Elon Musk is talking about it now with—

EARDLEY-PRYOR: The hyperloops?

HANDLER: Hyperloops, which would be underground tunnels, that are—they have to be built in a vacuum to be able to go that fast. It's sort of hard to imagine, but we will be in a more connected world. I think the Internet, as we see it now, is probably just a baby step. It's hard to imagine how the connectivity will exist.

I think about my grandfather, who was born in 1891, and died in 1986. And he lived—he remembered—I remember talking with him about seeing the first cars, and remembering the first airplanes. And he lived to see photographs being sent back from the outer planets. He couldn't have imagined those when the first airplanes were taking off. The Wright Brothers thought that the airplanes would prevent wars. I think that there is—

I know you're trying to vision what it's like, but I think we'll be traveling, a lot of it, on boats, because part of the city will be underwater. I think Central City will be Venice, of sorts, because it's flat, and it's low, and there will have to be reinforcement so that buildings can survive being submerged, partly. I think parts of the city may disappear and become just water.

And people will use the water. People will use it for recreation. People will use it for travel. I've been in—I remember being in Bangkok, and the city [river] that flows past Bangkok is more used for transportation of all sorts than anyplace I've ever seen.

EARDLEY-PRYOR: The river in Bangkok?

HANDLER: The river, the Chao Phraya River. I think that will happen. Everything, of course, will be electric powered.

EARDLEY-PRYOR: Well, let's take another step forward into the future and jump to the year 2312. It's two hundred ninety-five years from now. So, just as a reference point, that almost three hundred years from today, in the past, was in the 1720s. So that's—Native Americans still dominate North America. There's pretty strong colonization efforts from Europeans on the coast. Wood and plant and food were the main fuels. Coal was really not on the scene, certainly not oil. Wind and water were still utilized, but mostly people used wood. That was the energy scene, and that was the story. Philadelphia was about forty years old, was still a small city, but one of the growing cities on this—in the new continent. So that was almost three hundred years in the past. From 2017, two hundred ninety-five years into the future is the year 2312. What is Philadelphia's energy story, and what's life like in Philadelphia in 2312?

HANDLER: Well, I would hope that by 2312 the world population <**T: 120 min**> will actually be smaller.

EARDLEY-PRYOR: Will Philly's be smaller, or will Philly's grow?

HANDLER: I think it may be somewhat larger, but I think also that in a developed culture, population replacement tends to be pretty static. So it may not grow all—past a certain point, it may not grow all that much. In educating, the developed world will become—the developing world will certainly not be the developing world anymore. Educating women changes everything. And so in places where populations are very large now, they will shrink. The world will be smaller. The ability to feed the world will be eased.

EARDLEY-PRYOR: How? In this future vision of three hundred years?

HANDLER: I think that climate change will be stabilized, because of actions that were taken in the early/mid part of this century. And by that point, I think we will have brought our—not only our carbon footprint will be very, very low, but I think that the CO_2, which is now up to

about 402 parts per million, and will probably go up to 450 or more before it starts to go the other way, will start to move back to the 280 to 350 that [Bill] McKibben talks about, or even perhaps start to move back toward the 280 parts per million that it had been throughout the Holocene epoch, so that climate change will ease. On the other hand, there are parts that were set in motion so that the sea levels will be twenty, thirty, forty, fifty feet higher than they are now.

EARDLEY-PRYOR: How? In 2312, are there technologies that are helping reduce the climate impacts? Are they taking carbon out?

HANDLER: I think by then, certainly we will have developed synthetic photosynthesis, that will pull carbon out of the atmosphere, that will help reduce the greenhouse gas content. Manufacturing will be much greener. I think it's possible that we will have figured out how to use fossil fuels in the most important way we can, which is to make plastics, but to make them in a way that are recyclable, so that we can use them over and over again. And that plastics will be used in manufacturing, but particularly for building materials, in a way that is sustainable.

EARDLEY-PRYOR: What do buildings look like?

HANDLER: Well, I think we will have much less concrete. Concrete—the making of concrete, and the use of concrete, actually has a huge carbon footprint. This is something that isn't widely talked about, but a significant part of the warming that the world is creating now is coming through the use of concrete. The Romans, interestingly, had a way of building concrete that was different, that stood up to time and saltwater in ways that the concrete we build now doesn't. And I think that their concrete actually had a lower carbon footprint than ours. So –

EARDLEY-PRYOR: So in 2312, Philadelphia is running on synthetic photosynthesis that's pulling carbon out of the atmosphere. The population of Philadelphia has grown. Buildings are made of synthetic materials.

HANDLER: I think so, yes.

EARDLEY-PRYOR: What else? You mentioned the sea level will rise, and that you mentioned that would happen in 2140, too. Is that—so is it higher now in Philadelphia in three hundred years?

HANDLER: Sea level will be higher everywhere in the world, and certainly by then hopefully that it will have stabilized, so that it's not rising higher. Where it's going to affect the most is coastal cities.

EARDLEY-PRYOR: So how does that impact Philadelphia, then?

HANDLER: Well, the way it impacts Philadelphia will be that the flat areas that are two and three and four and five feet above <**T: 125 min**> sea level, either we build seawalls to protect that, which is something that likely will happen, at least for parts of it, and other parts will be let go and will be water. And—

EARDLEY-PRYOR: Will people abandon Philadelphia?

HANDLER: Well, I think people will move where I live, in Northwest Philadelphia, and other parts of the city that are—Philadelphia, Center City is flat, but outside of Center City it's a pretty hilly place. So Northwest Philadelphia and North Philadelphia, parts of West Philadelphia, are higher, and that's really where will become the center of Philadelphia. And those parts will change. Those parts—I mean, Germantown, Roxborough, East Falls, Mount Airy, Chestnut Hill—have a sort of more green and suburban feel to them. I think that on the hills, moving up, we're going to see a lot of the buildings that are now—the infrastructure that runs the city will go to the higher places. But also the buildings that are in Center City will find ways to protect the low-lying areas, the bottoms of the buildings, so that they can sustain being underwater. And you might see bridges between buildings. You'll see higher walkways. People will walk more.

But there's other aspects. The economy is going to be different. Of necessity, we're going to be living in a world that recycles more. We're going to be living in a world that, of necessity, can't sustain the pattern of capitalism as we know it now of continued extraction from finite resources, because the world can't keep going that way. So we're going to find ways of changing that, and of recycling our resources, and of a different kind of economy that doesn't look like the capitalism we know now. And it's very hard to understand what that might look like.

EARDLEY-PRYOR: What does it feel like?

HANDLER: Well, I think education. I think that our work weeks will be much shorter. There'll be more automation. There'll be more focus on quality of life issues for people, and I think by that time we will have dealt with a lot of the medical and poverty issues that we're facing now. The air will be cleaner.

EARDLEY-PRYOR: Will technologies have done that?

HANDLER: I think it will be a combination of technologies and the changes in social attitudes that happen as our physical environment and our technologies change. We can have a kind of prosperity—I don't think, I can't imagine work going away. I don't think we can psychically survive that. I think we'll find other ways of doing work. We'll still need to manufacture, but I think there'll be a lot more automation in doing that, so the nature of that will change.

People need to have meaningful work. Without meaningful work, we become slugs. People become depressed without meaningful work. But I think the nature of meaningful work will change to be more focused in on the wellbeing of society. I think Martin Luther King was right when he talked about that the path of history moves toward the better. I don't remember his exact words, but we move toward justice. And I think we will experience justice in different ways, and I think that we will move toward a place where we experience that.

And my fear, again, is, <**T: 130 min**> if we don't act, that we move toward totalitarian rule, that in times of trouble people look toward strong leaders. And one of the reasons we have to deal with this crisis right now is to move toward this vision rather than toward a dystopian vision where we haven't dealt with the problem, and it gets worse and worse, and then we're looking at a really awful world that we don't want to live on.

EARDLEY-PRYOR: Well, do you have anything else that you wanted to add about your future visions?

HANDLER: I think to get to the visions of one hundred and two hundred years from now, the most important thing we can do is to act in the short term. We have to look toward 2030 and '40 and '50 and '60 to get us toward those later visions. We have to do the things we need to do to solve the climate crisis that exists right now and will continue to get worse. We have to act quickly. We have to pass a carbon fee, and that's just the beginning. We have to bring about ingenuity, and we have to provide jobs for people. The renewable field will provide many more jobs than coal and fossil fuels do now. And this is really critically important. We have to move toward this world.

EARDLEY-PRYOR: Thank you so much for your time today.

HANDLER: You're welcome.

[END OF INTERVIEW]