Episode 107: Jacob Hamblin

# KL: Katie Linder

**JH:** Jacob Hamblin

# KL: You’re listening to “Research in Action”: episode one hundred and seven.

# [intro music]

# Segment 1:

# KL: Welcome to “Research in Action,” a weekly podcast where you can hear about topics and issues related to research in higher education from experts across a range of disciplines. I’m your host, Dr. Katie Linder, director of research at Oregon State University Ecampus. Along with every episode, we post show notes with links to resources mentioned in the episode, full transcript, and an instructor guide for incorporating the episode into your courses. Visit our website at ecampus.oregonstate.edu/podcast to find all of these resources.

On this episode, I am joined by I am joined by Dr. Jacob Darwin Hamblin. The author of Arming Mother Nature, Poison in the Well, and Oceanographers and the Cold War, Jacob writes about the history and politics of science, technology, and environmental issues. His work has appeared in the New York Times, Salon, and many publications devoted to the history of science, technology, and the natural world. He is Professor of History at Oregon State University.

Thanks so much for joining me, in the studio Jake.

**JH:** I am happy to be here.

**KL**: So one of your recent projects is called the Downwinders project. I am hoping you can share a little bit more about this, what’s it all about?

**JH**: What’s it all about? Well actually it is something that started from people here at OSU it didn’t actually come from me at all. It was something that we have the Special Collections and archives Research center to thank, because they do so much collecting in history of science and had acquired a pretty fascinating collection. Having to do with the Downwinders case, if you don’t know what the Downwinders case.

Was it has to do with Hanford nuclear faculty in Washington, Washington state from World War II forward produced a lot of the plutonium that the U.S. used for it’s nuclear arsenal. So in World War II the bombs that destroyed Hiroshima and Nagasaki where the plutonium for those bombs where manufactured in Hanford. And so in the process of doing that manufacturing they released radio activity into the natural environment. So, into the river the Columbia river but also into the atmosphere, and in doing that if you release radioactivity into the environment that radio nuclides are going to get all over the place. And lone and behold a number of people got cancer specifically thyroid cancer. And so the Downwinders case was once the U.S. government reveled this information that their had been these releases of radio activity material into the natural environment and that there was a pathway to the concentration of some of these materials into your body, specifically the thyroid. Once they released that they got sued. It wasn’t just the U.S. government that got sued, but also the laboratories that did this, the companies that manage the laboratories. So there was a major litigation process that went on for years and years, about the so called Downwinders. And Downwinders meaning they were down wind of this stuff that was put out into the natural environment. So it involves victims, it involves scientists.

We got interested in it because part of the case was very much connected to the history of science. That’s my train of thinking; I am a historian of science, and I found within this collection along with my colleagues Linda Richards and a graduate student Anna Dvorak. We decided that there was an interesting history science project here. Because what the scientist had to do once the court case was on going. Was to try to figure out, okay how do we know what these people were actually exposed to. We don’t actually know we didn’t take data for that purpose. We released stuff into the natural environment. There is a link between radioactive materials, radiation exposure and thyroid cancer, but can we really determine whether or not those specific thyroid cancers are a result of those that happened at Hanford. So what they did, and this is all in the late 80’s and early 90’s was to have a what they call the Hanford environmental dose reconstruction project. Where scientist got together and at the very beginning really of environmental modeling to try to figure out okay how do we project back in time. Usually we think of environmental modeling of projecting forward in time. Like if we are trying to predict that consequences of climate change. But they were trying to project backward in time, to try to figure out okay. What is a reasonable estimate of what these people actually where exposed to. And I thought that was a fascinating historical question for a historian of science. Because I wanted to know what kinds of questions they thought where important and coming up with those models. What kinds of people got to be a part of that discussion? What kinds of people got excluded from that discussion? Obviously it’s a political story, it’s a scientific story, it’s a victim advocacies story, it’s just a…it’s the whole ball of wax. So it was fascinating we applied to the National Science Foundation for some money and we eventually got it to have this project in which we in part are helping the library develop there archives in order to make it more digitized and make available to people. From all parts all perspectives of this to be able to see it, because people want to know what kind of information is there. But also we want to collect oral histories we want to get the recollections of people who were involved in it, some of them who are directly related to this Hanford Environmental Dose Reconstruction project, that is kind of a month full HEDR. And scientists who were involved in it, but really we are leaving the history part kind of open.

If you are involved in radiation exposure, and we can get ahold of you, um we want to talk to you. That’s my long winded answer [laughs].

**KL**: That’s really interesting and I am always really curious about origin stories of projects like this. How did you stumble on this initially? How did you find this where did you hear about it? That got you so interested in it.

**JH**: You know I my career as a historian has been you know environmental history, nuclear history, history of science, history of oceanography—basically cold war science and technology. That’s what I do. So I knew about the collection I have worked in the collection. I have graduate students in the history of science, now environmental arts and humanities that is now another graduate program. Who work in the archives, just knowing the people who work in the archives especially Anna Bahde in the archives she alerted me to this collection. And we all thought wow that is really, really fascinating, we should try to do something with it. And so fortunately, we convinced NSF it was worth doing and we got some money to employee some graduate students to help us with the oral histories and the transcriptions and all that.

**KL**: That’s very cool so it sounds like there are several people involved in this. What exactly is your role in this project?

**JH**: I am the director of it.

**KL**: And what does that mean? For people who may not know what it means to direct a project like this.

**JH**: It just means that I have to make sure it all happens [laughs]. In the way that I want it to happen. Most of the work is done right now is in working in the archives and trying to do with the collections themselves. Things like I don’t know really how to describe this other than you are collecting meta data in order to eventually process it and make a finding aid for it. There are just hundreds of boxes that are collected from this Downwinders collection. And so part of it is working in the archives to try to get the collection into a shape where you understand what is redundant. Because I a lot of material may already be published somewhere, what is original, what is useful for historians, what is just taking up space. That’s a long audacious process.

I am not involved in that. That’s something that I mean I am involved in it that I want to know what’s happening, but really that’s a collaboration between the library, and then the student we are employing in there. The oral histories I am directly involved in conducting the interviews along with another graduate student. We have Kristina Beggen, but other than that other people are involved to like Linda Richards another faculty here at Oregon State she has conducted some of the interviews Anna Dvorak will be involved. And really other people will be involved too, because we are opening this up to…one thing I can say about it is I am learning more and more my idea of who is historically important is very limited to. We are asking this question about scientific importance and who do they leave out, I also will leave people out. So, I want to talk to as many people as possible, because you may know somebody who is connected to this. You may know somebody who knows something about a scientist who is involved or you may know somebody who is on the technical steering panels for the project. It was a very contentious project. So sometimes you have to walk this line of not only appearing to…trying to do a hatchet job on the other side. You don’t want to come across as “This is really the scientist side” we are trying to portray. This is really the litigant’s side we are trying to portray.

Initially that project back in the 90’s, it was something that the government did. The Pacific Northwest laboratory decided well we need to have this project, but at some point they and others agreed wow there is a certain conflict of interest here. And so it moved to the center of disease control in Atlanta which is a federal lab or center rather. But even that you could say that is kind of conflict of interest too because this is a government related thing. And so there were study’s after that at the national academy’s. So, it was kind of this hot potato even trying to do the science was hard to do, because its so sensitive because these are people’s lives.

So, I am kind of far field from your question about what it means to be a director, but those are the kinds of things that we are doing in addition to that. We have like a workshop at the end of this year, we will have a workshop. It’s a three year project so each year we have a workshop where we will bring in people who are either scholars or they are people who have some kind of stake in this. So, people who this year for example we are broadening it out to be a workshop called telling the stories of radiation exposure. So, we are not just going to have people related to Hanford we will have people who where survivors of Hiroshima and we will have either survivors. At least one person who wants to come participate or we will have organizations that represent people who were exposed to radiation because of the nuclear testing in the Marshall Islands. Or we will have someone who is thinking about coming, we don’t know if this will happen or not, who wants to talk about exposure of uranium minds in the Novaho nation in the Southwest United States. Combining that kind of a workshop in which we have those voices with the scholarly voices I think will help us to try to figure out what’s at stake in trying to tell these stories. Beyond what you would get at just a classic academic conference.

**KL:** So it’s interesting because it sounds like that these oral histories in particular there is kind of this ripple effect. Where you talk to one person and then maybe tell you about someone else and you realize “oh I should be thinking about this other aspect of research here.” How are you deciding who counts guests like who should be interviewed? And also are you mapping this in some way is there like a graphic way you are trying to connect these people and how they are related to one another?

**JH**: This sounds like a question from someone who knows a lot about digital media [laughs]. I am just a historian, you know. I got my little excel spreadsheet you know

**KL:** Oh I mean doing in hand written like there would be hand written map of trying to figure out how all these things connect.

**JH:** I wish I could think as visually as that and have those tools in mind. But you know when we started this we had a wish list of people we didn’t want to do it in a haphazard way. We said, okay look, we need to find out who’s alive, who is involved in this HEDR project. We call it the hedr project. The Hanford Environment Dose Reconstruction project. We want to know focusing specifically on that, but then in addition to that we want to find people who are very involved in the litigation process. Not just wanting to interview lawyers, but people who maybe activist communities. People who didn’t feel like they were involved a lot of Native Americans tribes, where not involved. Or some of them where and some of them tried to be but they were not able to be involved. And we really want to be able to find a way of talking to some of them.

We are trying to tell the whole story. But the as your question suggests the more we work through people we thought we wanted to talk to you hit walls and you have to adjust. You are not going to be able to talk to people who are not around anymore…obviously. One of the interesting things that happen when you do this kind of research especially if you apply for funding from the national science foundation or do it through OSU. You have to say well you have to go through the human subject’s process, you know. Is this um…I am blanking on what this is called at OSU when you um when you have to go through this process, sorry.

**KL:** You mean like exempt or expedited the level of risk?

**JH:** No, it’s more about when you work with humans you have to follow a certain procedures. And it requires a lot more. Oral history is kind of a funny zone of it is really it is not generalizable research. And so I am not asking everybody the same questions, a social scientists would cringe to hear me say that. But I don’t have a research question that I am trying to find out the answer to when I talk to all these people. It is much more open ended than that. It is broad in the sense that I know these people are historically significant. I just know their stories are worth telling, and I am trying to identify as many people as I can connected to it. But when I go to them I have to kind of let them tell the story that they want to tell. Which puts it in a slightly different class of work it is not that I am asking everyone the same questions, plug it into a data base and come up with a standard deviation and have some results where my subject said this and that. I am talking to real people you are going to know who they are there historically significant actors. So the interviews are all different.

**KL**: Okay, that is really interesting. So what is next for this project? What are you hoping will kind of come out of it? You said its three years long. Do you have kind of longer term plans? A book project or other kinds of things you are kind of hoping or do you know yet.

**JH**: Yeah. One of the one of the interesting kind of ethical issues of this particular kind of project. Has come up recently and that is you know the first workshop is all about what do we need to think about when we tell stories of radiation exposure. And I have some colleagues who have feel very strongly about well you have to consider yourself as a researcher and part of a process of exploitation too. If people you are talking to feel like they have been used in this process and not listened to especially when you start talking about indigenous communities. Have a long history or being used and not listened to. To go in there and say “Hey I want to interview you because I am going to publish this book”, it sounds a little bit like oh why are you doing this. And so, we are trying to develop outcomes of this project that are not necessarily about us. We applied for this money, we got this three year grant. We will have some projects and we are trying to make them all collaborative as they can be. So if we publish from it, it will be or I should say when we publish from it. It there will be collaborative things maybe an edited volumes in which there are many authors. And the goal of them will be to get these stories out there. Not necessarily for me, Jake Hamblin, to publish my next book.

So I continue to write and I certainly had my books and my research projects and I will continue to write on my projects. But for this one I feel like the outcomes will not just be you know sole author type projects.

**KL**: Well this project is fascinating we are going to turn our attention to your latest book project in the next segment. But first we will take a brief break. And then we will come back and hear a little bit more about Jake’s work on researching nuclear solutions. Back in a moment.

[Music plays in background]

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# Segment 2:

**KL:** Jake your latest book project is about the history of global promotion of nuclear “solutions”. Um I love it when there are quotes around words. So, can you tell us a little bit more about this project and what are you doing here?

**JH**: Yeah if I were visible right now I would have my fingers up in the air with the air quotes around solutions. Before I say anything about this particular book project I have to clarify it is not a pro or anti-nuclear book. And when I say solutions in quotes that is really a reference to the many different technologies that are perceived as being part of the atomic age. Back let’s say in the 1950’s and 60’s so this book project is actually about the promotion of certain kinds of technologies, specifically nuclear or atomic ones. From roughly the end of World War II to the end of the 20th century. So we are talking a pretty big timeframe. And I am focused specifically on the idea of kind of selling the idea of nuclear technology to countries of the so called developing world. Poor countries, countries that recently I say recently not from now, but from at that time. That were only recently colonies or had recently been military occupied like Japan. Recent colonies like Ghana in Africa.

It’s a project that is kind of funny to think about when I was writing my last book. My last book was very grim, in terms of content and I thought the next one I am going to have to write about flowers or something to cheer myself up. And I ended up weirdly choosing a topic that also ended up being grim, but in part is about flowers. Because one of the applications of atomic energy was this notion you could eradiate plants with radiation and induce mutations that could possibly be beneficial. The idea was that you could use nuclear technologies of all kinds. We usually think about nuclear power, but that’s only one you can use nuclear technologies of all kinds to uplift the people of the world.

I was so fascinated by this topic, because it also connects to environmental rhetoric. Because what I found is from let’s say the late forties forward there is this long history of nuclear power advocates or nuclear technology advocates using environmental rhetoric. And by that I mean saying that nuclear technology will actually help solve environmental problems where it is population problems or controlling diseases or even climate change (you hear a lot about that today). So I was kind of fascinated by that tension and I wanted to focus specifically on why the United States wanted to do this in countries of places like Africa, places like in Asia, but specifically Japan but also other countries in Asia and places like Iran in the 70’s. Lots of countries around the world which of course we, many of them associate them with nuclear issues today like nuclear weapons. But there are places like the U.S. trying to promote nuclear energies, nuclear technologies and all the rest for half a century.

So, it touches on weapons proliferation it touches on kind of the idea of manipulation of environmental rhetoric and it focuses on that kind of post-World War II decolonization era.

**KL:** So I can imagine that this project could have gone in a number of directions. There is probably a lot of different examples you could have offered a lot of different regions of the world you could have focused on. So I would love a glimpse into kind of where are you starting in terms of looking for “data”, for more air quotes. You know where you might be drawing from for this and how are you making the decisions on what to include here?

**JH:** That’s a great question. And it’s actually the one I struggle with most. Trying to figure out how to frame this story, because to me I find it fascinating. But it could become, at different parts in the evolution of this project has been more of an environmental story and then maybe it was more of a nuclear proliferation weapons proliferation story and then it became more of a let’s look critically at the international atomic energy story. And I think having to make those decisions is good, but it can be very painful.

Where I started with the project is I was actually in Rome at the archives of the food and agricultural organization which is a UN a United Nations specialized agency created at the end of World War II like World Health Organization and United Nations Education Scientific and Cultural Organization. All these were created after the end of World War II to try to prevent the world from plunging its self into these things that were perceived as having to been a cause of the Second World War. Anyway I was at the archives and I was researching my last book, *Arming Mother Nature,* which was about the use of nature to imagine fighting World War III. And what I wanted to find was evidence of an international agencies really thinking about food security and thinking about vulnerability to environmental change. And I wanted to see a connection between that kind of thinking and military thinking. And I found some of that stuff, but what I really found there that just really caught my eye was there was a particular person working for FAO Food agriculture organization in the 60’s. Who had a stack of files devoted to him that was just enormous. And the archivist said well this is Dr. Celo’s work, I can’t remember if it was pronounced Celo or Sealaw, Silliow. And I had never heard of him before and I open it up and I saw all these hand written memos with large parts of them crossed out, and it just looked like almost like the ravings of a mad man. And I thought this is weird and fascinating and I read them and he was accusing the agency not FAO, but the international atomic energy agency of corruption of fooling countries of the developing world. And he really was on kind of his own personal crusade to bring the international atomic energy agency this is back in the 1960’s. And I thought oh this is kind of weird and interesting and the more I read the more fascinated I became and I didn’t necessarily become an advocate of it and this particular person. But it’s hard not to be routing for the underdog. They did this process kind of where they demoted him tried to force him into early retirement. They took away his type writer, they took away his secretary. They tried to stop him from reading drafts of things because they saw him as a trouble maker. And then when I looked for references for him in books that were published by the international atomic energy agency they would just refer to him as our advisory, wouldn’t mention him by name. And then when I went to the international atomic energy agency archives in Vienna. I went there and I couldn’t find much information about him at all you know except that for prior to the date he kind of turned sour on them. And I saw there was one document I found and his name was crossed off I thought this is just so intriguing.

And that kind of started me down a couple different paths. One thinking about a controversy about promoting these solutions in the developing worlds. He was mad specifically about telling the people of India that there was a wheat that had protein in it that was higher than existing wheat. Which hadn’t been proved by the IAEA jumped on it as a success story, you know. For nuclear for the atomic age. And he was mad about that and he kind of faded into insignificance and I used that as a way to start thinking about this as a controversy. As a right to promote these particular kinds of solutions and why? Who is behind this? Why are people doing this at all? Anyway and a working at the IAA archives I think I was the…they would tell me I was the first historian to work there. To try to use them as an archive. Because they had a this was you know some years ago now, but it was they have a forty year rule so they don’t get let anything out, until forty years have passed. And it was only created in 1957, so it’s a younger international agency an FAO. So they are really wasn’t at the time that I went I think I was there 2008, there was only about ten years of the agency’s life. So people really hadn’t started to come in to try to use it as an archive. Lots of people have used it now and I have been critical of them because of their access policies and they keep stuff secret even though I think they shouldn’t. But they are evolving and changing, I hope.

**KL**: This sounds like a mix between like a Michael Creighton novel and a Dan Brown novel [laughs].

**JH:** I don’t know which one I would rather be in…I choose Michael Creighton.

**KL:** Right. I mean I am already like, “okay tell me about this book.” I want to learn more.

**KL:** So in addition to kind of ordinance stories I am also really curious about how you have written multiple books. How your later books kind of connect to the earlier project they have done. You know like is this something where it is building off of? Is it a departure from? So I am curious how this project is related to your earlier books and research on radioactive waste and environmentalism. Do you see this as a direct result of that earlier work?

**JH:** Yeah, I think so I would love to say I am a super super creative person and in some ways I feel like I am not writing the same book over and over again, but I am defiantly writing in the same period that I have been writing in since I was a grad students. When I was a grad student I was interested in the Cold War and I wanted to I was working with a historian of science who was an expert of radio activity. And I said no I want to do something environmental, so I chose to write about oceanography. While all along the way learning a lot about the atomic age and the history of radio activity, because that was my advisor of nuclear affairs and all that stuff. And I ended up writing a book, a dissertation, a PhD dissertation on oceanography and international cooperative. And I wanted to know why and what where the real reasons behind all the international cooperative projects back in the 1950’s and 1960’s, because everybody thought it was you know we are all getting together lots of didn’t countries cooperating on the high seas, but its really the navy that is funding it all. So I wanted to get into that story.

But while doing the research for that a lot of it was about trying to convince people to fund research. And one of the people the oceanographers where routinely asking for money was the U.S atomic energy commission. And oceanographers would say things like “Hey you should fund us. You should use the ocean to dump all your radioactive waste”. And I thought that’s interesting as an aside it’s not what you except oceanographers to say, but that’s what they were saying back in the 1950’s.

And then I was doing some international research I was at the U.K. national archives in London and um on this project trying to figure out what I was going to do to make the book or dissertation into more of a book more international. And I found some documents there that were really cover ups of major spills of radioactive waste in the Bay Basque off better you know Spain and France. Where I found some ship logs where they would talk about you know the need to hide the stuff. They would throw the canisters into the ocean and they would see a Spanish fisherman off in the distance and realize that the waste hadn’t sunk and they would try to spear it try to shoot it to try to get the thing to sink. [**KL:** Wow] And I thought well this is an interesting story, but I kind of set it aside. But when I was done with that book I thought I got so many documents now I could write a story a history of the first international history of the controversy of putting radioactive waste into the ocean. Which is what I did. And you know years later I should say you know, because I had that beginning story kind of at the U.K. international archives. Finding these documents, year’s later one of the sailors on the ship contacted me. And said I had written about the book and said “I was looking up references to my ship” It was called the Housence I think. “And I found your book”. It must have been like through google books or something. And he wanted to connect with me and tell me more of these stories. He told me a story that wasn’t something he knew personally but he told me this kind of heroine story. That he has heard [laughs]. He told me that they didn’t like the sailors, he was just a he wasn’t a scientist or anything he was just a sailor. Who was getting paid to hall waste from the docks on to the ships that where going to go out in the ocean and dump all the stuff. And he said we didn’t like to do the radioactive waste ones we preferred like the cyanide missions [laughs]. We kind of knew what was going on there. But he was telling me about a friend of his who went on one of these and again the drums didn’t sink. And they sent a sailor down to the galley to get a knife from the to just hack away at the drum. Just to get it to sink, you know. These are the kind of story’s you hear. This was years later. And I don’t even know, I shouldn’t say that I guess now this is really an unverified story. But it was also kind of satisfying to know like where I had started with those documents years later somebody had read it, and said yeah here is some more stuff that happened.

But it was a long answer, but it was also in writing that book that I discovered other documents. Every once and a while I would find somebody saying something like “Well what would happen” an innocent letter better some scientists saying “What would happen if we exploded some hydrogen bombs you know in the polar ice pack up North? Do you think it would raise sea levels? Do you think the Russians would ever try this as a way of using nature to fight in World War 3?” The more I would find things like that, that just seemed kind of crazy ideas. The more I started thinking about this idea of total war. And how powerful it was at the end of World War II that, that was how you were going to fight all wars. Whether it is nuclear weapons or strategic bombing you know of Tokyo and Dresden. That was how it was done and there was a lot of biological weapons research at the end of World War II and the beginning of the cold war, chemical weapons. All that stuff was fair game. So, I thought this is an interesting entrée into writing a book about how the U.S. military and their allies imagined fighting World War 3 and is there a connection between thinking about environmental vulnerability in that way to later the environmental moment. And it turns out a lot of the same scientist were involved in both and asking essentially the same question. That came from a military concept how vulnerable are we? And transitioning into actually how vulnerable are we to changes of our own making to the earth. And a lot of the early modeling that you see in the environmental movement, but also in the environmental sciences. A lot of the scientific questions are actually rooted in military questions.

So I was writing about that and arguing Mother Nature and I already told you about researching that kind of lead me to this current book. So yeah it’s all related [laughs].

**KL**: That is very cool. Well Jake I want to thank you so much for talking about some of your work projects and also the current pathway into what you are now. This has been really great!

**JH**: This has been fun for me. I could talk all day. I appreciate you having me.

**KL**: Thank you!

Also thank you to our listeners for joining us for this week’s episode of Research in Action. I am Katie Linder and we will be back next week with a new episode.

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