

Outrageous Hypotheses: Selections from the MASC

[MUSIC PLAYING]

REBECCA STULL: Welcome. We're so glad to have you here tonight. My name is Rebecca Stull and I'm with Global Campus Connections, and we are very excited to be bringing all sorts of events to you this year, including this virtual tour of manuscripts, archives, and special collections, specifically the Outrageous Hypothesis exhibit, which Steve is going to be speaking with us about and showing us around.

So I just want to really quickly introduce Steve Bingo. He is the project archivist at Manuscripts Archives and Special Collections at Washington State University libraries where he is working on collections related to World War II incarceration of Japanese Americans and a project aimed at developing a network of tribal archivists to assist in the preservation of American Indian cultural heritage materials.

A native of Federal Way, Washington, Steve has worked in the archives and libraries in Bellevue, St. Louis, Los Angeles, and Missoula. Steve enjoys cooking Thanksgiving dinner, the poetry of Ann Carson, and movies starring Dwayne "The Rock" Johnson. So we're very glad to have him with us tonight.

Feel free to type your questions in the chat box. We'll be stopping at the end of the presentation to take questions and just chat about the exhibit, so we look forward to seeing your comments. Thanks, and enjoy.

STEVE BINGO: --to get a sense of the historical depth of our collection, I'm going to let head of mask, Trevor Bond, tell you about his favorite item in the collection in this video clip.

[VIDEO PLAYBACK]

- One of my favorites is a 13th century papal bull that we have. It's an edict from the pope protecting a house of lepers so nobody would come in and take their lands or do anything else bad. And it has a seal of the pope woven into it so you know it's authentic. And at the end of the document, the pope says, if anybody should violate this house, the wrath of God will be upon them. Good stuff.

[END PLAYBACK]

STEVE BINGO: This is from the 1200s and made out of vellum, which is calfskin. So as you can see, our documents date from the medieval ages up through the 20th century.

So getting to the exhibit of Being Wrong, so why did we decide to make this exhibit? Well, our collections like a lot of other special collections are full of bad ideas. So we thought what a

wonderful idea to in a very lighthearted way highlight our materials to talk about a topic that a lot of people in our quality community are going to be talking about.

And I think what this is an illustration of is the fact that no matter what period of time you look at, bad ideas are just a byproduct of getting a better idea of a particular time and place. So the first example that we'll be looking at from our actual exhibit is from the not-so-distant past in the depression of the 1920s, 1930s about something called the Gravity Plan, which was an alternative to the Grand Coulee Dam that was never put into place, but has an interesting story of its own. So we'll go ahead and play that clip in.

[VIDEO PLAYBACK]

- You know, I really like the Grand Coulee Dam one, and that's because I think it's close to home. And I have relatives that live at Grand Coulee Dam, so it's really interesting for me to see how it might have been or the plan that didn't work. So that's probably my favorite at this point.

[END PLAYBACK]

STEVE BINGO: So in this section, "It Shall Be Done," we describe a plan that was never put into action, specifically the Gravity Plan. So starting in 1918, a really serious push was made to irrigate the Columbia Basin. And as you may know from your Washington State history, the Grand Coulee Dam was built to irrigate an area from about the tri-cities on up north to the I-90 corridor. Well, this is the story about the other plan.

If you take a look at George Washington here, you'll notice this river that extends from the back of his head on down through to his cheek bone. Now, if you look at Google Maps, that river doesn't exist. What that is, it's a series of canals intended to divert water from the Pend Oreille River in Idaho down to the Columbia Basin, and these little streams in George Washington's jaw are the canals that would actually irrigate the farmland that's now irrigated from the Grand Coulee Dam.

Early on, this idea was actually the favorite plan in the 1920s. And there was originally come up with, actually in 1993, by a man named EF Blaine, and then picked up in 1918 when governor Ernest Lister decided he would commission a report to examine the feasibility of this plan to hopefully spur economic growth in the region. So following the Lister report, which predictably found in favor of the canal system over the Grand Coulee Dam, which itself was proposed in 1918.

So in addition to the Lister report, we have a report down here, which was written by a man named George Goethals, who was famous for being the lead engineer on the Panama Canal. Being a canal guy, he also found in favor of this gravity system. And then we also have a letter from Goethals to Roy Gill, who was one of the leading proponents and who really led the charge to have the gravity system built.

So for the next decade, an organization led by Gill called the Columbia Basin Irrigation League pushed to have legislation passed through Congress that would support the building of this canal system. So we have this brochure of a tour given to the members of the Irrigation Reclamation Committee of Congress, and here's a little itinerary of where they would go on train rides, view these sites, have nice dinners and breakfasts. That showed both the path for the Gravity Plan as well as some views of the site of a Grand Coulee Dam.

But if we look at the documentation of the Columbia Basin Irrigation League, they pretty much were wholeheartedly behind the Gravity Plan and only gave this little lip service to the Grand Coulee Dam. And the supporters of the Grand Coulee Dam decided they weren't happy with the Columbia Basin Irrigation League's efforts, so they formed their own organization called the Columbia River Development League, and they consisted of men shown up here namely Rufus Woods, who was a newspaper editor, over here, James O'Sullivan, and Senator Clarence Dill.

So as we know, the Grand Coulee Dam ended up being built, and the Gravity Plan was thrown on the scrap heap of bad ideas.

[VIDEO PLAYBACK]

- There's one of the quotes from the book that talks about how our brains do this wonderful magic about making us forget that we were ever wrong. And that would work except you have WSUR archivists that can dig up the fact that no, no, you really were wrong.

[END PLAYBACK]

STEVE BINGO: The Columbia Basin Irrigation League, who supported the gravity plan only accepted the idea of the Grand Coulee Dam after it became pretty clear that the Grand Coulee Dam was going to be the more acceptable plan. And in this cartoon, we see the narrative of the Gravity Plan supporters spun in a different direction.

So what this shows us is the events leading up to the development of the dam. And what we notice here are a lot of supporters of the Gravity Plan like Governor Ernest Lister who supported the first commission supporting the Gravity Plan, EF Blaine, who came up with the idea, George Goethals, who is the Panama Canal engineer who gave support to it, Roy Gill, who largely led the efforts to see the Gravity Plan put into action. And basically, what this narrative demonstrates is how the story line that was popular among supporters of the Gravity Plan was response so that it made it look like that they were actually the ones responsible for that dam.

Now, we have this back and forth occurring over the course of the next few years after the Grand Coulee Dam has been approved. And one of the responses by one of the dam supporters is seen in this letter to the Spokesman Review, and it's written by James O'Sullivan. And O'Sullivan specifically comments to an article that refers to EF Blaine as the father of the Grand Coulee Dam. And as O'Sullivan writes, "As valuable as Mr. Blaine's work has been, Mr. Blaine himself, I am informed, disavows credit for the Grand Coulee project."

So even after support for the dam coalesced in the 1930s, the exact story leading up to that was in dispute for the next few years. So the reason why I decided to start out with that quote was because it gives a good illustration of how these documents tell the stories that make collections like ours so rich. And the thing that archivists like to do-- and by the way, before I go too far into it, I'm going to talk a little bit more about the documents themselves. But if you want to ask questions about Being Wrong, passages from the book that relate to whatever it is I talk about, feel free. That's great. I have a copy of the book here, so it's all good.

But what I'm going to talk about here is a little bit about the story about the documents behind how they are created and used, kind of like the difference between if you get a DVD between the movie and the director's comments. So what archivists like to do is we look at the making of these materials.

So what I'm going to talk about are a couple of things about the Northwest Passage, and there's a section in the exhibit that we won't see tonight about the Northwest Passage, and Kathryn Schulz talks about it in her book as well. And in case you don't know, the Northwest Passage is a mythical water route across North America. And I have a map here from a publication called Gentlemen's Magazine from 1754. It's a British publication.

And it may be a bit hard to tell what's water and what's land, but here in the upper right-hand corner, you have Hudson's Bay. And you see there's this water path that goes into DuPont Lake and all the way out eventually to the Pacific Ocean right here. So this is one representation of a Northwest Passage that was believed to have been traveled by a guy named Bartholomew de Fonte I'll talk a little bit more about that later.

But the reason why the Northwest Passage was so coveted is even though, as Schulz said, its existence may be in question, its economic significance was not in question. So to give you an example, I have a letter from one of the early missionaries to Eastern Washington. This is from a man named Henry Spalding. It's a letter that he wrote in October of 1836 when he and the Whitmans made it to basically Walla Walla and made their settlement.

So it gives a description to basically the headquarters of where they are coming from, their particular church and back in New York-- about what they experienced, what they went through. And one of the things you'll notice, if I flip to that back and I'll flip it like this here, and it's really faint but hopefully, I'll point things out to you.

So down here it says HH Spalding, October 1836. That's when it was sent from Vancouver. Now at that point, anything going by water or by ship would go down the west coast of America, down the west coast of South America, then back up the east coast.

So this was sent in October of 1836. It arrived in Newburyport, Massachusetts in July 26 of the next year. So that's about eight months it took for this letter to make its journey from Walla Walla to Massachusetts. It hasn't even gone to its end point. So if you can imagine how much

time could be cut if there was a well-traveled waterway that cuts straight through the Americas instead of having to go around South America.

So the British, for about two or three centuries, tried very hard to find this Northwest Passage just for the very reasons I'm talking about, because of the economic boon it could create for developing the Western United States. So I showed you this map from a publication in 1754. It was originally published in 1708, and maps like this added fuel to the Northwest Passage frenzy.

And this map here is a bit dubious because there's no evidence there Bartholomew de Fonte even took this journey. So its credibility is in question. So that's one thing that I think actually makes it pretty cool, but one of the other things is the context of this particular map. It's in a Gentleman's Magazine, which is a hodgepodge of exotic tales and stories about new technologies. I think of it like that like Discovery Channel, where you have on one hand shows about surviving in the wilderness. On the other hand, next you'll have a show about revamping your hot rod.

So next to these maps of exotic places, you have a story about new developments in air pumps. So you have stories about technologies next to other stories that generally appeal stereotypically to men, so it's kind of like the guy channel back in the day.

So judging on the time, one of the things I'll talk about just really briefly before moving on-- actually, before I do that, are there any questions? So that's one example of a story, especially a story about being wrong that's illustrated in our particular special collections.

One other thing that I pulled and one of the nice things about this is this letter is actually online. So this is a letter to a man named Ryokichi Sagane, who was a nuclear physicist in Japan during World War II. It was sent by another nuclear physicist from America named Luis Alvarez.

Now, the story behind this letter is that Sagane and Alvarez worked together at UC Berkeley before the war, and Alvarez went on to work on the first nuclear bombs at Los Alamos. When he learned what was going to happen with these bomb, that two of them were going to be dropped in the United States, he decided that he would try to convince his friend, Ryokichi Sagane, to talk to his government to get them to stop the war.

So after the second bomb was dropped on Nagasaki, three copies of Alvarez's letter were dropped by plane over Nagasaki in the hopes that they would get to Sagane and he would talk to his government say, quit this now, otherwise, all our cities will be nuked off the face of the earth. It does have that hell-fire, end-of-the-world feel to it, even though he tries to be as non-aggressive as possible, Alvarez does.

So the reason why the letter came here is that surely after the war in 1946, Wash U President, Wilson Compton, visited Japan and ran into Sagane who gave him a copy of this letter to return to Alvarez. One reason why he may have given this to Compton was because Compton's brother was a colleague of Alvarez and also will noted nuclear physicist.

So you have this story of that bridges warring nations, bridges an ocean, and eventually in 1949, Alvarez and Sagane come back together, Alvarez signs the letter, and then the rest is history. So this is another example of how just basically one document tells a nice, little, short story.

All right. So this next scene uses some older materials to talk about being wrong, and a lot of this stuff is from our rare book collections. It's about mythical beasts. So without further ado, let's take a look at that. Oh, awesome. Yes.

REBECCA STULL: I was wondering how or if you can access online material like that letter.

STEVE BINGO: Yeah.

REBECCA STULL: --what's available.

STEVE BINGO: So now this particular letter is online. It's not online through us. It basically happens to be on a blog. So what I've done is, at the end there'll be a PowerPoint, and everything that I know that's online from this presentation is going to have a link to it or a URL on the concluding PowerPoint.

So in the case of the Nagasaki letter, yes. In the case of the false map of the Northwest Passage, no, but there is actually a pretty awesome site illustrating the history of the Northwest Passage through maps. I think that's run through Princeton. But Nick, if you have any questions, you can feel free to email us that mask.

[VIDEO PLAYBACK]

- There's a lot of stuff that I find really fun. The weird animals always catch your eye.

[END PLAYBACK]

STEVE BINGO: In this section called Bewildering Beast, you see animals, people, and microorganisms hatched from the imagination. So we'll begin in the 1600s and 1700s as European explorers are encountering animals that they've never seen before, and they're having to describe these animals to printers that are very eager to publish their findings.

And what we'll see are imaginative renderings of real-world animals. So to begin with, we'll look at this rendering down here. So most of you will probably recognize this as a llama or as they call it a wool camel. Now it's a pretty good representation of the actual thing until we look at these front feet. You notice those big gnarly claws that, as one of my colleague points out, calls to mind one of the beasts from where the wild things are.

More imaginative into the spectrum, we get this creature here. Now this, in the book from where this picture comes, this animal is described as being as large as a large dog with the head and mouth of a hog, 12 teeth on each side of its mouth, two of which are 12 inches long. Now,

it does look a little larger than a large dog, and we do have this caveman, woolly mammoth scene back there. But what this likely describes is a babirusa, which looks more like a pig than a deer as portrayed here.

So now as European explorers were exploring beyond the ocean, Europeans scientists were exploring the world underneath the microscope. And what we see with these depictions of the microscopic world is how we rely on what we know to describe what we don't know.

So for example, this picture here is supposed to be the face of a tapeworm. It has the eerie appearance of the scarecrow's face with two eyes, a mouth, and even a nose. Now, if you've ever seen a tapeworm face before, you know that has neither eyes, nor nose, and what we call a mouth are actually a couple of rings up big suckers.

And in this image down here, which is taken from a book roughly translated as things that are born in the body of man, we have this little parasite that has the head of a horse, a human foot, a talon, that looks more like a mythological farm animal than anything that grows inside the human body.

So what these strange beasties show us is the way that the imagination fills in where no knowledge exists and the way that that imagination can invite an element of fiction into describing things that are particularly exotic and unknown.

[VIDEO PLAYBACK]

- I think my favorite thing in the exhibit is that copy at the Nuremberg Chronicle, which is more than 500 years old and shows fantastic creatures that are non-human and it's a real delight to see.

[END PLAYBACK]

STEVE BINGO: So when talking about mythical people, we have some examples of monstrosities from what's known as the Nuremberg Chronicle. Now, this was printed in about 1500. The first edition was printed a little before in 1493. Now, the Nuremberg Chronicle was the Wikipedia of its day, and that it attempted to bring together a wide body of facts into one place. And moreover, it leveraged a new technology to make this information accessible to anybody with the resources and technology to come into it.

So what we see here in terms of the people represented are from an account by Pliny the Elder, who was a first century naturalist in the Roman Empire. Now, one of the things that Pliny describes are we have a fellow with big ears down here. This person is from the people called the [? Pinode, ?] and they are believed to have lived in Scythia, which is the modern day Ukraine. And one of the things that Pliny describes is that they would use these ears to cover themselves up like blankets if the weather got too cold.

And here you have all sorts of strange and exotic people-- this fellow with the big foot, this guy with no head over here is believed to lived in Nubia in Northern Africa. And one of the things that you see here is that while scholars scour the libraries of Europe to bring together facts, we see that the misunderstandings from previous generations are being passed down through the Nuremberg Chronicle.

And like many other information technologies, print is wonderful for the spreading of information. It's also wonderful for the spreading of misinformation. And what we see here is that imagination is crucial for understanding the world around us because it allows us to negotiate the unknown. However, it also opens up a world of speculation and an element of fiction to enter our into our models of the world.

So the section about Bewildering Beast, part of the story is about how a new communication form. The printed book, is used to talk about some new and exciting findings from there what was to Europeans the new world or some new scientific discoveries. So in talking about the way that communication has changed over Western history, I'm going to begin with this item here, which is from the 1500s, so it is from the period where print existed in Europe. And what this is, this is Spanish.

And this is called the mithal. So this is mostly music for masses given at a Catholic church for various celebrations. And the dates for these masses range from July to September. And you can see they're starting to use the five-line bar that we're familiar with, but the notations are obviously different. The writing is in Latin.

And the thing about this is that unlike a lot of the other books, this is actually handwritten. And I believe this is vellum and cowhide. And this would have been somewhat contemporary to the Nuremberg Chronicle, which we talked about in the presentation about the Bewildering Beast.

Now, if you think about this particular book and how it was actually used by its sheet music, so it's meant to be performed. In other words, it's a remnant of our oral tradition in Western culture. And if you think about the 1500s, while there was a small class of literate people, the vast majority of people were illiterate in Europe at that time. So if you think about a book like the Nuremberg Chronicle, which even though it has these awesome pictures and family trees and funny people, the actual audience for this was quite small. And just to give you a sense, the first edition of the Nuremberg Chronicle, about 1500 were produced in Latin and about 750 were produced in German. This one is actually in German.

Now by the 1600s and 1700s, print becomes more widespread, which is predictable. And you get a varying range of documents in terms of quality. So this is a pamphlet called "Ladies Miscellany." I love the subtitle of this. It's "A curious collection of amorous poems and myriad tales." It's a little to the laying, kind of like a Harlequin perhaps. And as you can see it's small-- I'll flipped through it-- not a whole lot in the way of illustration, mainly poems.

And something that's a little more substantial is this copy of Paradise Lost from 1688. It's the fourth edition. And the pages have stood up a little better. The binding is very nice. And then also in this book, there are some pretty awesome illustrations here at the beginning of each book. Paradise Lost, I think has 10 books to it, so you have a lot more craftsmanship too. It's something like this than the miscellanea.

If you think about how print was changing the way both entertainment and information during the time, you'd consider a book like this, which it's not too exciting to look at but it's a pretty famous novel called Tom Jones by Henry Fielding. This edition was written in six volumes. The first edition was written in 10 volumes over the course of 1949.

Came out periodically. It's a serial novel. It's kind of like an early version of a television show. So you had to wait before the next edition came out, and then you got to learn a little bit more about the story.

So I think one of the things that comes through here, especially with the illustrations you see we have this interesting mix of entertainment and information that combine in the early print culture.

REBECCA STULL: They're wondering if it's okay you are touching it without gloves?

STEVE BINGO: It is, yeah. I was going to ask that question. So the thing that we tend to use gloves for, at least here and in most places that I worked, is for photographs. And it's basically the nature of the material itself. So a photograph, the bottom of it is paper, but the top is what we call an emulsion, which contains all the pigments and things like that.

So that's really sensitive to finger oils. But paper, there is some sensitivity there. But the concern with cotton gloves and paper is that it catches, so it's really easy to rip brittle paper with cotton gloves, so it's actually probably better just to use your bare hands than cotton gloves with plain old paper. There you have it. Straight dirt. Were there any more questions before I talk a little bit more about photographs?

REBECCA STULL: [INAUDIBLE].

STEVE BINGO: Oh, this one here? Yeah, it's got this awesome hardware and these brass knobs. And I was going to bring out-- we actually have some medieval scores as well from the 1300s and 1400s, but those are actually on loan, unfortunately, so I couldn't display those for you. And I don't read Latin, so I don't know if you sing these songs, if a giant or an ogre will appear out of nowhere, but it's fun to think about.

So as we begin to move forward in time-- there were no more questions, right? Awesome. We begin to develop new ways for documenting ourselves and methods that are much more immediate in the way that they capture life, so for example, photographs and sound recordings.

So what I have here are some examples of photographs in our collections. And so the photograph started to really develop over the course of the 1800s. And as the technology became more widely available, it became used for various purposes. So one purpose is to document one's own life. So I have those two photos in the background there of--

So this is a story from earlier I mentioned the Japanese-American incarceration. This was from one of those camps in America during World War II called Heart Mountain. And you could see the guy at the camera there, Frank Kuwahara, who was imprisoned in Heart Mountain. And so he used the camera to document his life and this very unusual circumstance.

And his documentation gives you a sense of the landscape and in a lot of ways, the daily life at Heart Mountain. And we have that other more dramatic photo of Heart Mountain in the background and the man facing off towards it.

In addition to documenting one's own life, you see-- switch sides here-- people documenting for publicity. So this is from a collection called the Pangborn Collection. Now, Clyde Pangborn was a barnstormer, which means he basically, did stunts on airplanes, which were pretty cool. So if you look at this poster here, we'll see death-defying stunts, and you see the wing walker.

And Pangborn, I don't know if that's Pangborn on the wing. No, that's Diavalo on the wing. So Pangborn did this mainly in the 1920s, and he was actually a flyer during World War I, which is where he learned the craft. And just to relate this to Being Wrong, we have a series of photos from a stunt that he attempted at Coronado Beach. That's him on the car, and they're trying to move this person from the car into the airplane.

So you see here the airplanes come in, dude's on the car, grabs onto the ladder, and whoops, he fell off the ladder. So this was obviously a stunt that went wrong. That was one of the few stunts, actually, of his that did go wrong.

So I think this is a good example of being wrong, and I think it probably holds also to Kathryn Schulz's theme that life is full of risk. And part of being alive is taking those risks and on occasion, suffering a miscalculation.

Now, the nice story about Pangborn is that in the 1930s, he ultimately does go on to be the first person to cross the Pacific Ocean without stopping. So after his barnstorming days, he does achieve a certain amount of fame that hopefully lives on to this day.

So in addition to documenting life and publicity, photographs were also used to document the lives of others for anthropological purposes and largely that's photography with a boon to anthropologists studying different cultures. So this is from a collection called Edward Curtis Collection. And it's called "The North American Indian." It was published we've decided it's from 1907. I can't remember how many volumes. It's over a dozen, so there's a lot of volumes of these. It's a massive collection.

And the idea with this is that Curtis believed that Native Americans, they were a dying race, so if we don't document the people and their culture now, we would lose all trace of it, all memory of it. So he went on this mission to photograph tribes across the United States to try to preserve, again, what he saw as a dying way of life.

So I have a volume here that's from this particular area of Nez Perce and [INAUDIBLE]. And I've taken a couple of photographs here. This is of a Nez Perce chief named Yellow Bull, who was involved in the Battle of Big Hole and the march of the Nez Perce from their land in the Northwest in an attempt to flee to Canada.

Have a nice photo here from a tribe called the Wishram along the Columbia River, as they are fishing for salmon. And if you think about the longevity of different documents, the pamphlet that's obviously made for distribution, not necessarily to be to stand the test of time, these volumes cost a lot of money. And the idea was, hopefully, that they would stand in for these dying people in perpetuity. So this documentation is meant to be a little more permanent even though a portion of the paper is acidic, so that choice wasn't so good.

But I can't remember the exact number, but I think there was a goal of 5,000 to be sold. He didn't quite fill that goal, but the number of these published was in the low thousands, whereas at the time other books would have been published in much greater quantity.

And I guess one last thing that I'll go straight in, if you think about the way-- wrong gloves-- that Curtis documented in [? in the end ?], he took photographs with a camera that used glass negatives. So sorry for leaving the camera here. This is really heavy, and these aren't Curtis's photos, but this is an example of a glass negative from our Washington State University collection.

So when Curtis would have been taking photographs, he would have been lugging around a big camera with a tripod. He's not doing a point-and-shoot thing with his iPhone. It would have been awesome if he had an iPhone at the time, but he would have been loading these glass plates into his camera, which captured-- I don't you know if you could see it from there-- which captures the image like film did for us today. I don't know that many people use film nowadays. It's a weird world.

REBECCA STULL: New glass negative.

STEVE BINGO: Right. Instead of the film, it was a new glass negative. So yeah, I mean, if you think about the documentation back in Curtis's time, it was a lot more cumbersome, so the challenges were certainly greater.

So the reason why I talk about these developing technologies and I guess to give you a sense of our technologies over the ages is because the next section is going to highlight the use of two technologies to prove a hypothesis, photography and flight. And just to give you a sense of how

fast we've gone through technologies in the 20th century, this is just from one collection. We have some film.

This is audio tape, reel-to-reel. So if you open it up, see, before we had cassette tapes. You stored audio and things like this, but that's basically cassette tape tape, but on a bigger spool.

And then, of course, our handy-dandy VHS tapes. And we're starting to get some computer disks as well. So in this next section, we'll be talking about the development of the Columbia Basin and partly about how photography was used to prove a thesis by a guy named Harlan Bretz.

[VIDEO PLAYBACK]

- You know, this is such a cool thing because it's such a good example of what we used to think was right and now we're completely wrong about it.

[END PLAYBACK]

STEVE BINGO: So in this section, Cataclysmic Mega Floods, this is about the role of certainty in our ability or inability to spot error. And it begins with another quote by Kathryn Schulz, and that is, "One of the most defining and dangerous characteristics of certainty is that it is toxic to a shift in perspective."

Now to give you a little back story, in the early '20s, a geologist named J. Harlan Bretz had this idea that the Channeled Scablands, which you'll find much of the Columbia Basin were caused by this huge flood. Now, he had a lot of evidence for this, the big rectangular canyons that we call Coulees the ripple look to much of the landscape, but unfortunately, this idea went contrary to one central concept of geology at that time, which was that the Earth was formed by slow, gradual processes, and that's largely known as the uniformitarian principle.

And so in order to prove this hypothesis, J. Harlan Bretz needed a few things. One, you needed a source of water that would account for such a flood, and he was given help by a man named JT Pardee, another geologist in the '20s, who came up with the idea of this large, glacial lake in Western Montana and northern Idaho called Glacial Lake Missoula.

So once he had the water and the idea, he needed to convince other geologists that this idea was, in fact, sound. So one thing he did here is we see in this photograph up here, he led an expedition in 1928 of some Princeton scholars and journalists into the Columbia Basin to show them what he was talking about in terms of his evidence for this cataclysmic mega flood.

And this journey is documented down here in a copy of Intermountain Motorist, which is published by the AAA, and the title is given this wonderful name that's very evocative of the jazz era, "Red Hot Coulees." And in addition to leading this tour, what he thought would really sell his idea was aerial photography. So now this was back in the late '20s, early '30s, where

aviation was still in its early days. So this was one of the early uses of aerial photography for describing the Earth's geology.

So in order to have these aerial photographs taken, he needed sound financial backing. So what we have here is a letter to a Spokane banker named EF Vincent and in an attempt to get funds for his aerial photographs. Now we don't know whether or not Vincent gave him the funds, but we do know that he did get them eventually and produce the aerial photographs that we'll see shortly.

[VIDEO PLAYBACK]

- That's the stuff that really appealed to me is just the fact that there is some, not validity necessarily since it was, obviously, wrong. It's been proved wrong, but well meaningfulness in science behind it even if it ended up wrong. It's not just crackpots.

[END PLAYBACK]

STEVE BINGO: So Bretz finally did manage to get the money for the aerial photography, and this is a 1932 volume produced with those aerial photographs called the Grand Coulee. Now, what you'll notice in addition to his arguments and the various photographs in the collection, there is one of the aerials, is that he provided some of these stereoscopic views, which provided a three-dimensional perspective at the time. And what these would record is the depths of the Great Coulees that Bretz was trying to describe.

So the way this worked was you would slide it into this handy-dandy thing, look through here, and then slide it until you get this three-dimensional effect that reminds me of some of those magic eye paintings that were popular back in the mid '90s. You would get this holographic effect.

So debate over the formation of the Scablands persisted for decades after this until the 1970s. And in 1979, Bretz was given the Penrose Metal, which is the highest honor from the Geological Society of America. And what Bretz's challenge to science demonstrate was that difficult and at times, long process of changing entrenched beliefs.

So while the certainty that developed around uniformitarian beliefs likely helped the advancement of theories used for understanding certain landscapes, in the case of the Channeled Scablands, this certainty blinded the imagination to the possibilities offered by Bretz's novel observations.

So what I hope that this exhibit emphasizes on one hand, the richness of special collections like [? Mass ?] and others across the world. And in terms of the book, one of the things that I think that this emphasizes too is that no matter what time period you look at, you'll find tons of examples of being wrong, this particular time period not accepted.

So on a concluding note, since for all are the Was U community, I thought I'd talk about this concept of couging. And we actually have a little display about the origin of the term couging it. Now, the exact origin of it is perhaps someone in question, but we could trace one source to 1985.

Now, these are some football programs from that year. This is their press guide. And this is from a game against Arizona State University. Now, after this game there's a Spokane sports writer who claims to have coined the term. Now let me just give you a little context here.

So in 1985, Washington State University had a pretty loaded team. They had a running back named Rueben Mayes, who the prior season set the single game rushing record for the NCAA in 1984. They had Mark Rypien, who had gone to be a Super Bowl MVP, so they had a lot of talent and a lot of returned freshmen. In 1984, they finished 6 in 5. Being a year better, they thought they'd do better than, maybe even compete for the Rose Bowl.

Well, by mid-season, they were 2 and 5, big disappointment, and they were facing Arizona State. In that game, they lost a close contest, 16 to 21, and there was a very famous-- well not famous. There was a play that was referenced in this article by John Planshet that they really choked or couged it. And in this article, Planshet didn't come up with the term couging if, he just came up with the verb, to couge from which our beloved term couging it comes from.

So now one way to think about couging it and even if you think about this particular season as well, it's one of the consequences of taking on a large challenge and having high expectations. And then so sometimes what happens is you don't meet that expectation. So couging it is a way to deal with these setbacks with a grudging sense of humor.

So in conclusion, Kathryn Schulz knows that this is a very liberal paraphrase, but that a life well lived involves straying from those hard and solid truths that give us comfort. There's this quote in her book, "To err is to wander, and by wandering we learn about ourselves." Well, you could substitute couge in there, I think. By couge, we explore the world around us and eventually come to know ourselves as well.

So with that, I hope that gives you a solid note to end with relating the book to your own identity as a couger, and I'll give a couple of slides here that give URLs to some of the materials that I talked about and ways to explore special collections from your location. So PowerPoint slides up.

So like I said, this is a list of some of the materials that are referenced, the atomic bomb letter. A lot of these are from our collections here at Washington State University. And one thing that I didn't get to was the propaganda posters, but we have a wonderful display of propaganda posters at Washington State University that's worth checking out. And we also have our own YouTube channel of archival videos. Check out "All Hail Washington State University." It's a promotional film and a theme song. It's like a beer commercial. It's pretty awesome.

So this next slide is some ideas for how you might, if you were interested in looking at some special collections, whether it be old books or manuscript materials, how do you go about doing that from your location, wherever you are. So in terms of books, as a Washington State University student, you have access to something called Early English Books Online through the Was U libraries page, and it has old, obviously, English books from the 1600s and 1700s that are digitized.

Also there is a mass digitization, projects like the HathiTrust and Google Books, and those are easily Google-able. In terms of looking at what I would call manuscript materials, like photographs and letters and diaries, there's this great website called ArchiveGrid where it's basically a map of the United States, and they ask you to select a State.

If you click on a State, it will give you a list of archives in the area. So you click on that, and it will show you where it appears on the map. So you can see what archives are in your area. And of course, you can always contact us as well.

One tip, make sure to contact the Special Collection ahead of time because their hours tend to be limited, and the collections tend to be fairly specific, so you want to make sure they actually have something you're interested in. And your question can be anything from I'm interested in old maps or maybe more subject specific. I would like to see some letters from the Civil War, what have you.

So that concludes my presentation, and thank you for your questions, and thank you for viewing. It's been a pleasure.