

Film Discussion Guide

Developed by public school educator Laura Gluckman in collaboration with director Jan Haaken.

Questions and topics inspired by discussions with Chicago Public Schools students at National Teachers Academy and with students at the School of the Art Institute.

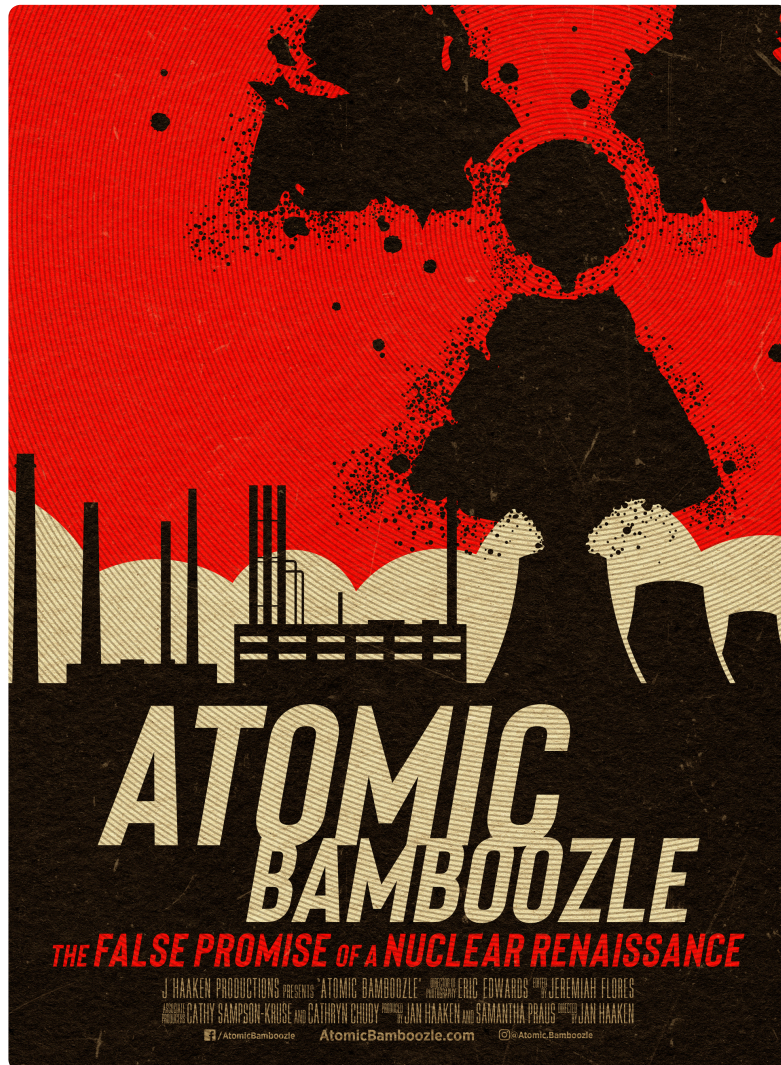


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Nuclear Entrepreneurs & Visions of the Future



About the Film



As political pressure mounts in the US to meet net zero carbon goals, the nuclear power industry makes its case for a nuclear “renaissance.” In place of the highly costly nuclear towers that have been shut down across many regions of the country, investors began in the 2010s to promote small modular reactors (SMRs). Atomic Bamboozle follows anti-nuclear activist Lloyd Marbet and attorneys Greg Kafoury and Lauren Goldberg from the Columbia River region as they draw lessons from the decades-long fight to shut down the Trojan Nuclear Power plant in Oregon and reflect on current promotional campaigns for SMRs. As the nuclear industry mounts its “renaissance” with small reactors, these anti-nuclear activists forge alliances with the Confederated Tribes of the Umatilla Indian Reservation and tribal activist Cathy Sampson-Kruse who calls out the nuclear industry and politicians who are using the climate crisis to push for loosening laws restricting nuclear power generation. The historical arc of the film is anchored by physicist and professor M. V. Ramana, a global leader and recognized scholar on nuclear power. He traces the history of nuclear power generation from the 1950s to the present and takes up the four main arguments by the nuclear industry—a structuring device for the unfolding story of nuclear power.



Featuring

Meet the people whose lived experiences and expertise helped shape the story of this powerful and informative film.



***Cathy Sampson-Kruse
Confederated Tribes of the
Umatilla Indian Reservation, retired
social worker***



***M.V. Ramana, PhD, physicist
and Professor of Public Policy
and Global Affairs, University of
British Columbia***



***Lloyd Marbet, anti-nuclear
activist, executive director,
Oregon Conservancy
Foundation***



***Lauren Goldberg, attorney and
executive director, Columbia
Riverkeeper***



***Greg Kafoury, attorney at
Kafoury and McDougal***

Discussion Guide Developers

Jan Haaken (Director), she/her

Jan is professor emeritus of psychology at Portland State University, a clinical psychologist, and documentary filmmaker. From refugee camps, war zones and abortion clinics to drag bars, dairy farms and hip-hop clubs, her documentary films focus on people carrying out stressful jobs on the social margins and in liminal spaces. Her feature films include Queens of Heart: Community Therapists in Drag, Guilty Except for Insanity, Mind Zone: Therapists Behind the Front Lines, Our Bodies Our Doctors, and the two-part series: Necessity: Oil, Water & Climate Resistance and Necessity: Climate Justice & the Thin Green Line. Our Bodies Our Doctors won Best Documentary Feature at the 2019 Portland International Film Festival, and Best of SIFF at the 2019 Seattle International Film Festival, where she also won the Lena Sharpe Award for Persistence of Vision.

Laura Gluckman (they/them)

Laura taught middle school science, social studies, and English Language Arts for 14 years in Chicago Public Schools. They are passionate about developing liberatory, interdisciplinary, and culturally sustaining learning experiences alongside young people. Laura believes in centering interconnectedness, care, curiosity, and critical consciousness building in the classroom. They believe that the role of the teacher is to guide students as they build a world they want to live in.

This guide comes out of rich classroom discussions with students after watching Atomic Bamboozle at National Teachers Academy, a Pre-K through 8th grade school on Chicago's near South Side. For the past 3+ years, Laura has collaborated with professors at DePaul University and The School of the Art Institute to develop curricular resources that empower middle school students to critically examine how so many social justice issues intersect with nuclear history, the development of atomic weaponry, and the devastation of radiation exposure from nuclear bomb testing and nuclear waste contamination. To learn more about this project visit <https://www.teachnuclearhistory.com>

How to Use This Guide

We've designed this discussion guide for educators, community groups, environmental justice organizations, and anyone invested in learning about the true costs of nuclear technology.

Each unit of this guide correlates to one of the film's chapters, with a brief description of the chapter, timestamp indicator, and questions to spark deep discussion. Feel free to focus on one particular unit that your group connects with, or explore all the units. We've also embedded short clips from the film that you can refer back to as you discuss the film (available on the web version).

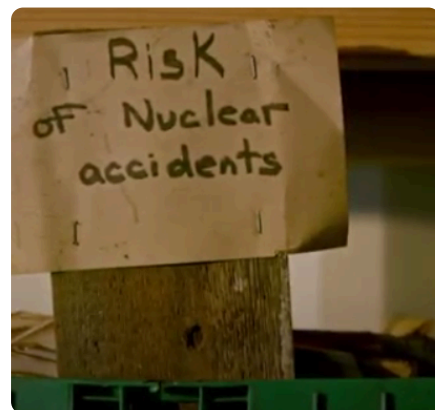
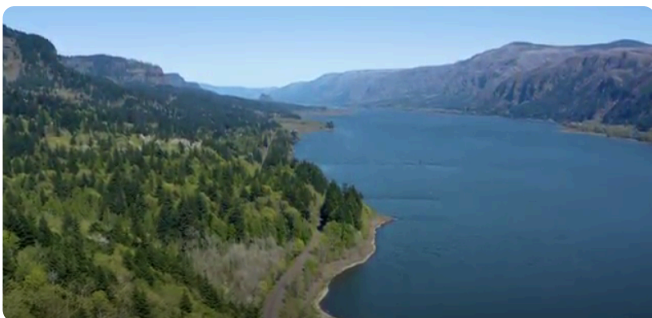
For more information about Atomic Bamboozle and nuclear issues, visit our website <https://www.atomicbamboozle.com/>. To further your discussions, we invite you to use the "Dig Deeper" resource collection on our website that was graciously created by Johanna Brenner, Professor Emerita at Portland State University.

EDUCATOR NOTE:

Do not feel like you have to discuss all questions for each unit! You can choose one or two to dig into, or "jigsaw" the question by having groups discuss an assigned question, then share their thinking with representatives assigned other questions.

You may choose to use the Claim, Evidence and Reasoning format as students draw conclusions about nuclear issues through analysis of images, graphs, commercial footage, and stories/perspectives of the people featured in the film.

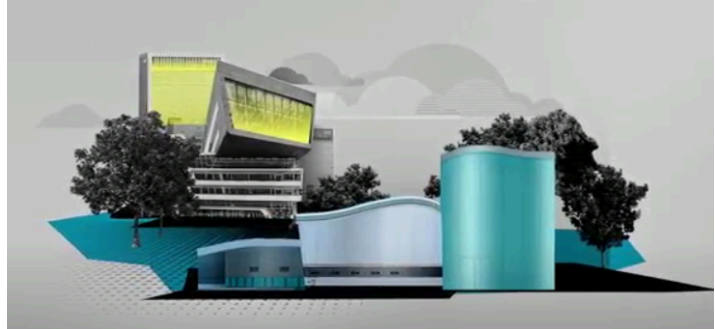
Look for our upcoming educator guide for more lesson ideas, activities, and resources to support your use of the film in your classrooms!



Discussion Questions by Film Chapter

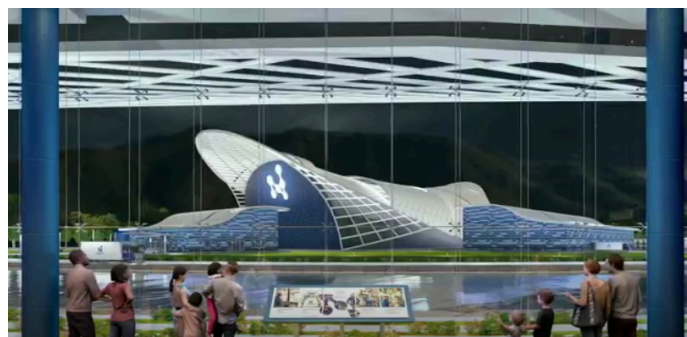
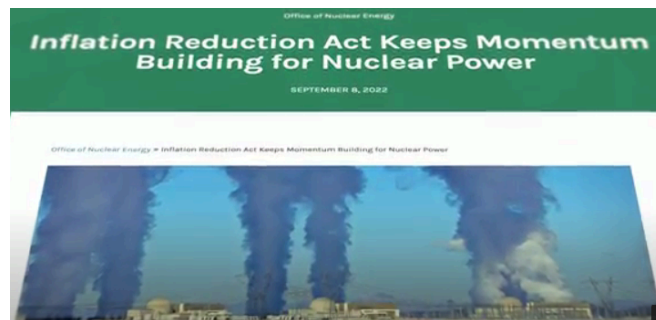
Opening Sequence: Prologue

- 1) The film begins with the voice of an engineer who worked at Hanford in the 1970's while we see a coyote who eventually stops to look into the camera. The coyote is a complex figure in many Indigenous communities, and invites us to pay attention. What is the coyote asking us to think about? Discuss how the opening images or words begin to shape the film's story.
- 2) What stands out to you about the "Millennials in Nuclear" group gathered by former Secretary of Energy Rick Perry? Why does he claim that we need to "make nuclear energy cool again"? What do you think it would take for this to happen and do you think this is a good idea?
- 3) What does NuScale founder Jose Reyes mean by a "nuclear renaissance"? Why does activist Lloyd Marbet label the current framing of nuclear energy as propaganda? What are the key "promises" being made by the people behind this "nuclear renaissance"?
- 4) What role does "fear" play in nuclear narratives and issues? When people claim that we have to "use every tool in the toolbox" or "throw everything we can at the problem" to solve climate change, what problem(s) are they leaving out?



Unit 1: The Resurrection of Nuclear Power

- 1) What "fuels" the "power" of the nuclear energy industry? In this chapter, what key words and phrases did you notice that the industry uses to shape the narrative of why SMRs are the future?
- 2) Discuss your response to the imagery of computer generated SMR "plans," including those used in the footage from a commercial at the beginning of this chapter. How does this commercial send the message that SMRs are "Safe. Simple. Secure."? How does physicist M.V. Ramana, PhD respond to this claim made by the nuclear power industry?
- 3) What do you know about political lobbying? What tactics might lobbyists use to convince legislators and secure their support? Do you think lobbying practices are helpful or harmful to the legislative process? How could people other than industry lobbyists influence nuclear policymaking?
- 4) Are there nuclear development policies in your state or region? What tactics do you think the nuclear industry uses to get legislators to change laws and lift moratoriums (especially when those laws are citizen initiated, like in Oregon)? How might people react and work to resist the plans of the nuclear industry? What would you want to do if you knew there were plans to build an SMR in your area?



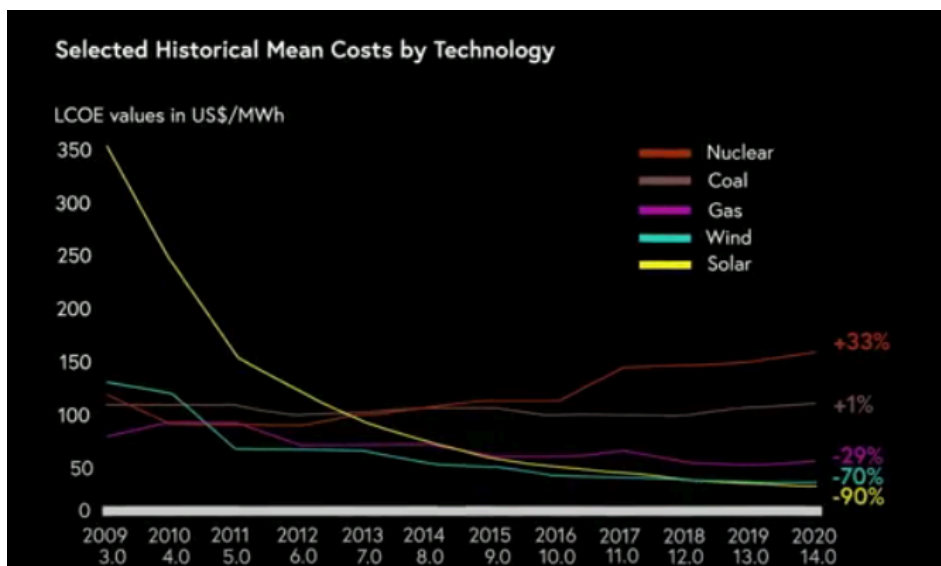
Unit 2: Bringing Down Trojan

- 1) What role did public protests and acts of civil disobedience play in shutting down nuclear power plants like Trojan? What other techniques were used to galvanize the public?
- 2) Why did Lloyd Marbet say that it was important to show that they had tried all other strategies? Which strategies do you think were most effective and why? What evidence did he and lawyers like Dan Meek present in the courtroom and how does that evidence support the argument that Trojan should be shut down?
- 3) The filmmaker includes footage of disability justice activist Art Honeyman and the nurse who said they were there because their job was to protect the public health of the community. How are health and disability justice connected to nuclear energy issues?
- 4) What images and words from the footage of anti-nuclear protests (both past and present) stood out to you and why? How are these movements for environmental justice connected?
- 5) How can learning from past anti-nuclear activism support today's young environmental activists and what are some new strategies of resistance? Are the questions that older generations of activists were asking still relevant, or are there new questions we should have? Discuss a list of new questions we could be asking of those in power, whether they be the CEOs of the nuclear industry or policymakers.



Unit 3: Repackaging Nuclear Power

- 1) This chapter outlines four main concerns about nuclear technology - COSTS, ACCIDENTS, PROLIFERATION, and WASTE. Before watching the film what did you think you knew about at least one of these concerns and where did you learn that information from?
- 2) What stood out to you about the data shown in the graph "Selected Historical Mean Costs by Technology"? What claims could you make about nuclear energy after looking at this data, and how does this stand up to the idea that SMRs will be a better energy solution compared to other sources of energy? What further information may you need?
- 3) How do the images of nuclear disasters and the testimony of those affected by nuclear accidents contribute to the storytelling of the film? What role does the act of remembering the effects of nuclear accidents play in the counter-narrative to the promise of a "nuclear renaissance"?



Unit 3: Repackaging Nuclear Power Continued

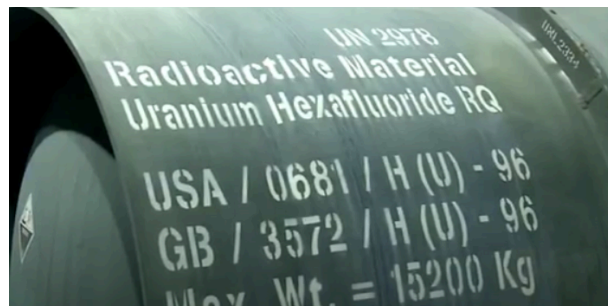
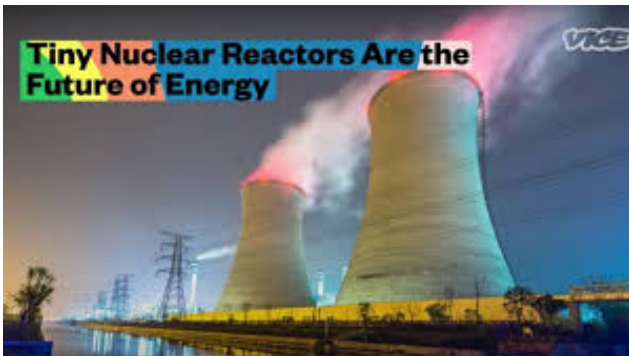
4) The International Atomic Energy Agency (IAEA) strives to make sure that states are only using nuclear materials for peaceful purposes. Do you think this is possible? In the next chapter of the film you will learn even more about who and what spaces are most affected by nuclear technology. What would qualify as "peaceful"?

5) Radioactive waste remains hazardous to human and ecosystem health for 10,000+ years. SMRs are projected to produce even more waste per unit of energy output that would need to be managed. What does this make you think about and feel, knowing that radioactive waste will continue to be here for generations to come? Who is (and who will be) most affected by this waste?

6) "The next generation of nuclear starts here!" "New Nuclear" "Future of Energy" "This is not your grandparents' nuclear"- these phrases tell a story that the nuclear power industry wants us to believe. What do you wonder about these messages? What audience(s) are these for and why?

Discuss the role propaganda plays in the expansion of the nuclear industry and how the industry uses the problem of climate change. How can we dismantle the power of this propaganda?

7) The Department of Energy gave \$80 million for proposed SMR projects near the Columbia River. The plan is to bury the waste in dry casks in locations vulnerable to earthquakes and flooding. What does this information reveal about the "nuclear renaissance"? What solutions to energy outside of nuclear power does Lauren Goldberg propose and what are your thoughts on those solutions?



Unit 4: The Hanford Nuclear Reservation

- 1)** Why does the filmmaker begin this chapter with a description of nuclear materials being buried at Hanford along with the map of their path? What is the significance of Cathy Sampson-Kruse then powerfully stating "We will always be here"?
- 2)** Why does Cathy Sampson-Kruse say that the nuclear industry "already has a stake in the ground" at the Hanford site? What does this mean for those in power vs. what this means for the Indigenous peoples near Hanford and their land, the Columbia River, etc?
- 3)** What is the historical and political significance of the Hanford site? How does this history demonstrate the connection between electrical power generated by nuclear energy and the manufacturing of nuclear weapons (proliferation) that was discussed in the previous chapter?
- 4)** What were your reactions to the footage of John F. Kennedy saying that Hanford enables the U.S. to "find a chance to strike a blow for peace, and to find a chance to strike a blow for a better life for our fellow citizens"? By following his words with footage of the Trinity Test Nuclear Detonation, what message does the filmmaker convey?

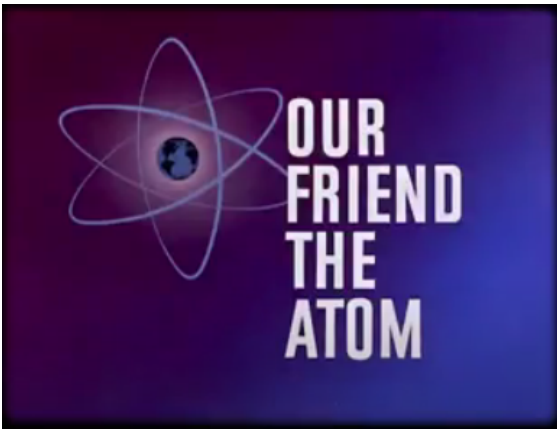


Unit 4: The Hanford Nuclear Reservation Continued

5) What story does this clip from the Disney production "Our Friend the Atom" tell about nuclear energy? Why did the Disney Company produce this program? What did Dr. Heinz Hopper mean when he said, "We had a science story, but suddenly we realized it was almost like a fairytale"?

6) "Our fable had a happy ending...an atomic blast is more than a threat. It is also a regretful waste of heat and radiation." - Dr. Heinz Hopper

Can nuclear energy have a "happy ending"? Think about the significance of this quote in relation to the bombing of Hiroshima and Nagasaki footage that follows the Disney clip.



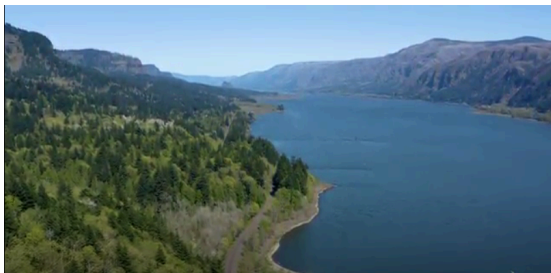
Unit 4: The Hanford Nuclear Reservation Continued

7) How do the testimonies of Indigenous activists like Cathy Sampson-Kruse and Dr. Russell Jim play such an integral role in the story of this film? Describe the significance of the land near the Hanford site for the Yakama Nation and the Confederated Tribes of the Umatilla Indian? How has the U.S. government and the nuclear industry violated Indigenous lands and the rights of their communities?

8) According to Dr. Russell Jim, government officials declared that the "area had abundant cold water, clean water that they needed to cool their reactors" but they also claimed that the area as "an isolated wasteland and the people were expendable." What connections you can make to other examples of people being labeled as expendable and/or ecosystems being exploited?

9) Dr. Russell Jim tells us the "mass public deception" about Hanford continued through the 1980's, and that his community was told scientific studies along the river falsely proved "everything is fine." What does this say about the ethical responsibilities of scientists when it comes to nuclear technology? How and why can scientific data be used for "mass public deception"?

10) What does "true progress" at Hanford look like, as described by attorney Lauren Goldberg? How does the filmmaker portray the Columbia River as if it were a "character" in the story of the film? Why is the characterization of the river as "the lifeblood of the Pacific Northwest" so important for the message and intent of the film? How would you describe the relationship the nuclear industry has with the river versus the relationship that Indigenous Nations and other people in the area have with the river?



Unit 5: Nuclear Entrepreneurs

- 1) In the opening of this chapter, Cathy Sampson-Kruse implores people to think about nuclear power as an environmental threat just as they do with coal, oil, and gas. Why don't people do this already and what role does the nuclear industry play creating the perception of nuclear as "clean energy"?
- 2) What do you notice about the way Bill Gates discusses nuclear technology? Do you think we've "had a good century" with nuclear technology as he claims? How would you respond to what he says in this clip?
- 3) How do nuclear industry executives profit from proposed nuclear projects like SMRs even when these projects fail?
- 4) What is the problem with Jose Reyes of NuScale saying "Can't nuclear and renewables just be friends"? Why are billionaires invested in framing nuclear as a compliment to renewable energy? What more might you want to investigate about the relationship between the fossil fuel industry and the nuclear power industry?

Epilogue: Visions of the Future

- 1) What does Cathy Sampson-Kruse mean by a "thin green line"? What actions must we take to "rise up against false solutions" and cultivate hope? What responsibilities do we have towards the future? How can you use what you have learned from this film to plant what she calls "green seeds towards our future"?
- 2) Why does M.V. Ramana say that small modular nuclear reactors are a "lose-lose proposition" in solving climate change? Will SMRs address the urgency of climate change? Why does he say that nuclear power becomes a distraction in the pursuit of climate solutions? What solutions does he describe as more effective than investment in small modular nuclear reactors?



For more information about
Atomic Bamboozle:
The False Promise of Nuclear Energy
visit www.atomicbamboozle.com

