

## Unit 9: Video 1 Transcript

### Q1: Introduction

A: My name's Ruth Sandwell, and I teach at the Ontario Institute for Studies in Education at the University of Toronto. And I'm a historian by training, but I also do quite a bit of work on not just the history of education, which of course, I do teach that, but I also work in history of teaching and learning. So kind of how do we learn history? How do we teach history? So that's the kind of two different divisions of my work. As a historian, I've been a historian of education, as I said. And my background's actually in the history of rural Canada and the history of the family.

### Q2: What interests you about the history of fossil fuels and their connection to society?

A: Well, I started out being interested in energy. And I still really am interested in energy more broadly. And that came out of really my interest in the history of the family. Because what was so clear to me when I first started researching the history of the family was all of the work that people, but particularly women had done, that actually wasn't considered doing anything at all. So I'd been thinking for a long time about just how do we understand and categorize the kind of work that I now would call "work of the informal economy," outside of the commodification of labour, outside of selling your labour and receiving money for it. So part of my interest in energy was just that study of—like, another way of thinking about what people do all day, how they spend their time, is to really focus on how are they getting the energy that they need in order to survive as beings. So that was partly how I got interested in fossil fuels and energy.

The other branch of my interest is my work as a rural historian. And so one of the big differences between rural and urban society in the late 19th and 20th century is in different kinds of energy use. Rural societies were much later than urban societies to use most, not all, of the new forms of energy, the new fossil fuels. And the reasons for that are not because rural people are naturally backward and cautious, and don't like new things. It's because most of the modern energy comes through really complex and elaborate networks that work really well in small, condensed spaces like urban areas and don't work so well over the tundra or the prairies. Our spaces are just too large in Canada for those. They do work now, but it took probably 70 years more, later, that these changes happened in rural areas because of that. So

those two areas of my interest, which are the history of the family and rural history, kind of converge on energy.

And actually, the energy stuff came directly from oral histories that I did with people when I was interviewing people for an earlier project on the history of Salt Spring Island. Those—everybody wanted to tell me about when they first got electricity. And first I could tell that they really wanted me to be shocked that they didn't get electricity until the 1960s or late '50s for the most part. And it was such a big deal to them. And I kept thinking, "Why are they so keen to tell me about when they got electricity?" Is this some coded message for modernity or what is it? And now, looking back—these were interviews that I did in the early '90s. Now, looking at it, it's because it made such a huge, huge transition in people's lives. The impact of fossil fuels and hydroelectricity in Canada, we have to add that because most of our electrical energy was from hydropower until quite recently. So it really has transformed people's lives. So all of those advertisements from the early 20th century that said, "Electricity will allow you to live like a king," that's not quite true. But actually, the reason that our society is so incredibly wealthy compared to any other human society ever, I mean with more people being that wealthy, is because of these new forms of energy and power that have replaced human labour. It is true, with a flick of a switch, we can light a room. It used to be quite a complicated procedure to light a room and, in fact, nobody really did light a room. They would light a little part of a room where they were working or where they had a particular task. It was the same with heating. Most people never heated an entire room, let alone an entire house. They just would heat the place where they were, or they would be where the heat was, say around the kitchen stove. So that's, to me, the history—at this point in my research, everything is about energy. In a sense, everything is about energy: how we find energy, how we use energy and, of course, now we're living with the byproducts of that decision that we made as a society to move from organic forms of energy like wood, wind, water. We still, of course, have food. That, so far, is still organic, for the most part. But we're living with the consequences of fossil fuels, which are totally, totally different from organic.

**Q3: How was energy consumption and collection different prior to the fossil fuel age?**

**A:** Yes. I mean in a sense the modern world, or the world that I used to think of as "modern", now I think of it as the fossil fuel, the mineral economy. A huge difference is that people used to live their lives in a way—we can think about them going through their daily activities capturing different kinds of energy

from their environment. And almost all of that energy, almost all of it came directly or indirectly from the sun. So people used to have to live—so this is the definition of the organic energy regime is that the energy comes from the sun. Or in the case of wind energy, the effect of the sun on water and wind patterns creates wind energy. Water energy is tied into these hydrological cycles that have to do with the sun.

And, of course, people used to have to live their lives according to the daily rhythms of the energy available for the sun. So people weren't up at 3:00 in the morning checking their email. It's not just because there was no Internet. It's because people simply couldn't do most of the tasks at night because it was dark. And it was really difficult to have artificial light. People did, of course, have artificial light in the form of fire. And then later, people found out ways to burn oils. Again, from animals or from plants, so vegetable oils of various kinds. Or fish oil was a big one, very smelly and not very pleasant to use. And whale oil, of course, became hugely, hugely important in the 18th and 19th century. But for the most part, light was expensive. It was difficult. It was often very dangerous, as it still is, to have an open flame. So it was difficult for people to have light. And so they confined most of their activities to daylight.

In Canada, where we have very long nights, and we have very long periods where there's not very much light in our long winters—that's why Canadians have always been really big consumers of energy, because of our cold and because of our darkness. So from the time you got up in the morning, really, most people spent their time capturing energy. Doing things that they needed to bring energy, whether that energy was in the form of heat or light or the various kinds of work that people needed to do. Most, the massive amount of energy that people used came from their own selves, from their own muscles. They also, of course, relied on animal muscles. But historians now—historians of energy, which there are, calculate the vast amount of energy that people consumed and had access to came from things that they actually did and made. If you wanted to eat, you had to go out there with your hands and perhaps with your animals, plant seeds. And then when it came time to be able to harvest that, you had to do that with your own muscle power or with the fossil power. And so in a sense, that's what people did all day.

That's not what we do all day. We do things to make money. And we use the money to purchase the energy that we then use for a variety of tasks. Mostly without even thinking about it now. I mean that's just a huge difference in itself. People used to be so viscerally and intimately engaged with the forms of energy that they had to use. So if you wanted to have some transportation

to go somewhere, then you had to saddle up your horse, and make sure that the horse had enough food, and make sure that it didn't have to work too hard or go too far or slip on an icy surface, all of those things. Now, we just get in the car, and turn it on and go. And just pay money for that, instead of knowing—so when I say that the changing kinds of energy have changed just about everything in our lives, I think it's quite literally true. If we went back to the time of the organic energy regime, I think the thing that would startle us most is just how much energy people had to expend themselves in order to get the heat and the light. And the other kinds of work, making and fabricating things, that they need just to get through the day. Just to make sure that they had enough shelter and enough food.

**Q4: How did the kerosene industry start?**

A: The kerosene industry started with hundreds of people just setting up their own—basically stills. They were just like whiskey stills, and it was the same technology. And that's why we talk about barrels of oil, for example. Because the first of the oil industry, they used the only containers that were available at that time, before there were big steel tanks and things. And they had the barrel makers make the oil that they would then transport by horse and cart and then by boat, usually. And that kerosene was—of course, the first oil boom in Canada was for lighting. It was not for heating. It wasn't for power or to make engines go. It was just simply to provide light.