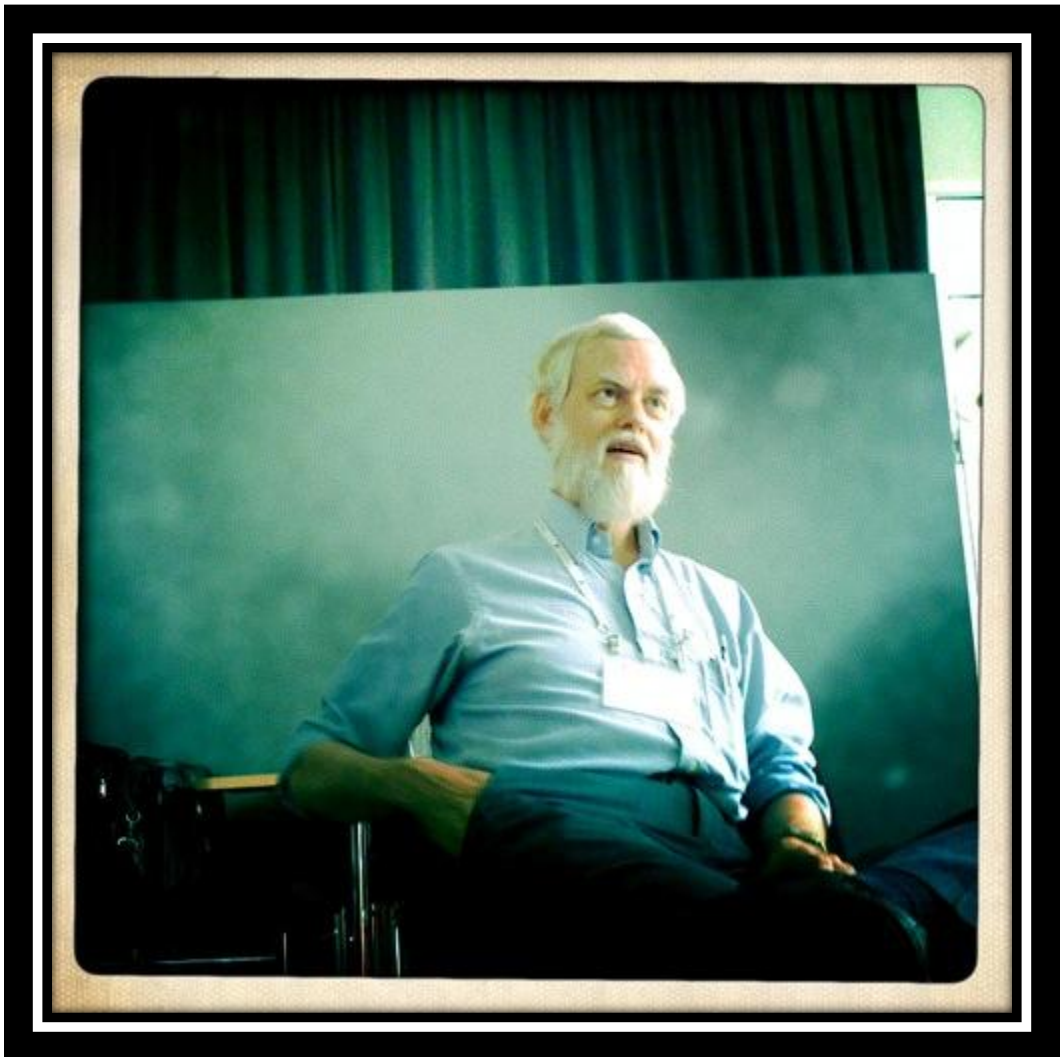

Oral History of William R. Freudenburg
Conducted the week of 17 May 2010
By Dana R. Fisher

(Photo from the meetings of the ISA in Gothenburg, Sweden, July 2010)

I had the pleasure of sitting down will Bill Freudenburg last May to talk about his life and his career. Below is a full transcript. The transcript has been edited for clarity.

FISHER: It's May 19th, 2010. I'm talking with Bill Freudenburg or you want to go by William R. Freudenburg?

FREUDENBURG: Well, when you're mad at me I want to be Dr. William Freudenburg and otherwise Bill is fine.

FISHER: We are going to go through a series of questions here. The first one is to talk a little bit about your background and the (history) of environmental sociology. So if you could just start by telling me a little bit about you background and your decision to become an environmental sociologist, talk as far back as you want to go.

FREUDENBURG: In Nineteen seventy, Earth Day, I was still in high school. And I was in a high school that had maybe two hundred kids in it, a very small town in the rural part of Nebraska. And one of the things, that was in at that time was talking about pet peeves. What's the thing that bothers you most? And mostly it was stuff like guys don't clean their fingernails, girls who are too fat. Mine was pollution. And so I was a little weird in that town but I went to college, you know, that fall, in the height of Earth Day and discovered that I was not the only person in the world that felt that way and it was very exciting and interesting.

FISHER: Where'd you go to college and what was your major?

FREUDENBURG: I went to the University of Nebraska as an undergrad. I started out as an engineering, major. I got the highest grade point average in engineering in my freshman year, but it wasn't that hard to do. You had to study, but I mean there was, a right answer and the wrong answer. And it was boring as hell. I had a scholarship, which is the reason why I started in engineering. I had to give it up when I left engineering because it was an engineering scholarship. But, it was just too boring to think about doing that for the rest of my life. So I said, "Well, let me instead go into something that's more creative." I picked communication, which didn't mean mass communication. It was an excuse to use what they call the integrated studies program. You don't like our majors, make up your own. If your grades are good enough they'd let you make up anything you wanted. And mine looked more like music than any other single kind of communication although it had computer science. It had German. It had English. It had lots of things. It was an excuse to have a liberal arts education, which I thought was kind of cool stuff. It was stuff I hadn't mainly had exposure to in my home town. But as I got close to the end, I started thinking "Engineering is too boring and music is too much like just salesmanship." I mean, I listened to what's supposed to be great contemporary music and what's supposed to be not so great and it's a flip of the coin whether I…I picked the one that the learned people in the field…is the good stuff. So this is not what I want to do for my living. And I started…I was in an experimental college that they had at that time for this student directed learning and professors actually would help you. And so I talked to a couple of professors whom I'd worked with. And at least two of them said to me why don't you try sociology because that's what your independent study stuff always winds up looking like? I had never taken a sociology course in my life at that time. But it sounded like good advice so I applied

only to sociology graduate programs. I took one sociology course the last semester of my senior year. It was an awful course. It was a lucky thing I hadn't taken it before because I would have said, "God, I don't want to do sociology." But at that point I think Yale was the only place I applied that took me. But they took me and there I went. Two of the key people there in my development were Kai Erickson (I just finished this Katrina book with him), and Bill Burch. And I had to look a little harder to find Bill Burch but they both helped me. It was also not too long after the OPEC Oil Embargo.

I figured that, you know, Yale was this worldly place and everybody was going to be very sophisticated. I was amazed at the number of people I met who had literally never been west of the Hudson River. And most of the ones who had, had an idea of the East Coast and of California and there was kind of nothing in between. And, you know, there was the *New York Times* as a consolation prize. But the only news I ever saw that had anything to do with my home territory at that point was after the OPEC Oil Embargo. It said something like: "We're the OPEC of the coal world. We've got all these places. We ought to just rip the coal out and thumb our noses at them Arabs." I was complaining, "hey, there are people who live out there." So somebody said to me "you ought to put you dissertation where you mouth is boy." And I actually talked to Kai about it who was always the first professor to get my latest hair-brained ideas. And that was the first hair-brained idea I tossed out to him as a potential dissertation where instead of saying why don't you think about it a little bit more, he said, "you know, you have an eighteen-year head start over understanding people in those small towns over most of the people here. Maybe you ought to try it." So that's what I decided to do. I started, let's see. This would have been the fall of 1974.

FISHER: So did you do anything between college and graduate school?

FREUDENBURG: No I went.

FISHER: Straight into graduate school.

FREUDENBURG: Yeah. I looked for an apartment in New Haven and showed up. Yeah it was about that quick of a transition. I figured if I took a break I would wind up not going back to graduate school and I decided, "instead of trying something else for a few years I'm going to try grad school for a few years." I discovered that there was just enough stuff that I found really, really interesting that I could keep doing that for a while. And, you know, what, after thirty-some years I guess it continues to be true. So somewhere around the fall of '75, then already, after my first year, I started looking around for places that I might want to do some sort of a study. And I was thinking modernization and microcosm. You know I'd been reading all this stuff by Durkheim that we're supposed to read and I actually even read some of Simmel and Tonnies and all, you know, and by golly here's a place to study modernization in a microcosm, you know, one place and get your arms around the community, really understand it. And so I got interested in it. But I was also interested in it because of the energy connection. But back in those days you didn't want to say energy or environment too loudly in a sociology department. Yale did have what was called an energy mapping group that got probably a whole lot of money from the Department of Energy to tell them what kinds of work on energy and society they ought to be doing, not to do any of the work you understand but just give them learned advice. And since I was one of the more

energetic graduate students (and peskier too), they let me hang around and encouraged me from time to time. Although it was actually an engineer that was the guy on that particular committee that was the most helpful or Roy Gould I think was also pretty helpful and Paul Stern, now at the National Academy.

Paul Stern came through there for a year or two and so I met some very interesting people and also Rob Mendelssohn who's one of the climate denialists now, but we won't go into that. He's a nice guy.

FREUDENBURG: Anyway, you didn't want to say environment too loudly in those days. So, I had to have an excuse that was very sociological and what can be more sociological than studying theories made up by a bunch of dead Europeans? I started writing to different places and my parents had moved from Nebraska to Colorado about the time that I was going off to Yale. So when I was "going home for Christmas", that year, I also arranged to borrow a car and make a…you know, about a two thousand mile swing through a whole bunch of different towns, got stranded in Buffalo, Wyoming, home of the Jackalope, the one on Main Street where they'd shut down the interstate because of blowing snow and all that. And so I couldn't get back to something that was really important. I forget what it was now.

I ended up picking a town that was not yet booming but was expected to. And sort of, at the last minute, I decided--it might even have been Kai that suggested this--that maybe I'd want to study a place where this development had already started and because maybe it would take a little bit longer and you could go back later to do a second big study. But for the dissertation why not do a sort of comparative study.

So thinking that I was being very shrewd about energy markets, I picked three town that had not yet boomed: one of which was the one I was going to live in, and then one that had, you know, probably would have been the place I would have picked if I'd have been able to start six or eight months earlier. And at that time it looked like every place on earth was going to be booming. But one of the people I met was a woman in Town X, Colorado who explained to me that her grandfather had ridden a horse to death so that he would get there before the oil boom started, you know, and here it was what, sixty years later and four or five booms later and still none of it had actually arrived. So, because I'd learned from people who were actually there on the ground, I thought I was being wise and picked three pre-boom towns. The footnote to that is none of them have yet ever had the boom that everybody was expecting. My dissertation wound up being comparing Town X, Colorado to Town Y.

FREUDENBURG: The theories at the time were pretty much all about: modernization makes you alienated, or no it doesn't. Tonnies was right.

Right before I was planning to leave to collect data, I had already started subscribing to one of the local newspapers and the headline was "coal company secretly auctions…or options land for rail spur." You know they bought up an orchard and they were going to…"Oh, my, God," I thought, "My pretty town is turning to post-boomtown. I got to hurry up!"

I had my last comprehensive exam on a Monday, I had my dissertation prospectus defense on a Wednesday, and by Thursday or Friday I had packed everything I could cram in to the back of a U-Haul and was ready to go. The exam was, you know, I passed whatever it was. The prospectus defense, Burch thought I didn't do a very good job on something or other. I think because I couldn't really answer the question "why do you want to do this project and what good is it for sociology?" But, it was good enough that they let me go.

As I was driving west, literally as I passed the city limit sign for New Haven on my way out, I went over a little tar strip and my radio went dead. So for the next two thousand miles in a beat up Volkswagen Beatle pulling a U-Haul that wouldn't go very fast, I had nothing to think about except that answer to Burch's question. So, when I got to Town X, Colorado and was starting some of my initial talking with people, an old fellow was in his back yard dusting his roses and saying "What exactly are you doing, fellow?" And I gave him the answer I should have given to Bill Burch. It went something like this: There's this body of research in sociology that says modernization ought to lead to these kinds of outcomes, and there's all of this evidence that it usually doesn't. But in boom towns we seem to see all kinds of social pathology…and I was just, you know, in the warm up phase for my answer and the guy turned to me, said, "Fellow, if you can't tell me, I don't want to know." Walked into his house and I can still hear the screen door slamming behind him.

So, I went back to the only place I could find that would rent a place to me because there was this pressure coming on and sort of sat there in a funk for about two or three days saying, "My, God. What am I doing? They don't want to talk to me." And I realized, being the brilliant sociologist I am, and it only took me about three days, to realize that I was giving a normal human being the answer I should have given to a professor. And pretty much with only a half a dozen exceptions over the next year and a half while I was out there, my answer was I am a student and I'm doing this for my degree. And most people didn't care where I was a student. They didn't ask what degree it was. You know, I looked enough like their grandchild or something that they were willing to help me…they would invite me into the back yard and give me tomatoes out of the garden and they were very nice people. What I learned was that…what I heard, the first time I heard it I wrote it down like a shrewd field worker: "This used to be the kind of town where everybody knew everybody else and now I go downtown and I hardly know any of the people I see or it seems like that. You know there are all of these strangers around." And I thought this is like spoken…this is it, the loss of coffee shop camaraderie.

I started hearing it so often that I stopped writing it down and I started thinking of it as a kind of spoken folk song is you just say it because everybody else is saying it. And it took me, actually the key was that the local school district had a very skilled grantsman, a guy who had some side activities that were not the best, but who was very skillful at writing grants, at getting money out of the fact that his school district was going turn into a boom town. And one of their grants had been they would get the students out there collecting scat for the people who were studying deer habitat. And I learned later that he said well we got all these things for boys to do but we need something for

girls to do and he saw a story about me in the local newspaper and said, oh, that's something girls could do. They can talk to people.

Someone who actually became a very good friend of mine who worked for the school district contacted me and said, you know, how would you like some free help from local high school students? I responded, "Are you kidding? No way. I mean this is my professional life is on the line, etc." And I just thought that I couldn't control them and it would be a terrible idea. And like a week or so later I saw her at a party and she asked, "what kind of town did you grow up in?" I answered, "it was pretty small. It was a farm town and, you know, we were greatly disappointed that we were going to be the first high school class of fifty in the history of the high school and one guy dropped out the last semester so we were only forty-nine and we thought it was the end of the world. Oh, man, it would have been great. It would have been…"

I suddenly realized how two-faced I was being. So, I started backtracking and said "well, okay, I'll let them work with me if, you know, the first time one of them giggles they're off the project." And, you know, I didn't really need to worry. They had an eighteen-year head start over me in understanding that town. In each town where I was doing my study, they contacted the one school in each town so that three girls could meet other high school students. And while they were doing that, I was feeling very resentful because here I was going, you know, eighteen miles out in the sticks on gravel roads where the gravel was the size of baseballs and getting myself beat to a pulp to get to that one more ranch house to get one more interview. And they were having a good time. And then sometime after that we met at one of the girls' parents' homes, which is what we did fairly often because meeting at the high school is just too much chaos. And they said, "tell us again, Bill, why you're only studying people eighteen and older?" I responded that there were two main reasons: One is that's what everybody does. Eighteen and older is adult. And, the other is that everybody knows that if booms are bad for anybody they're bad for the old people. Young people are flexible and they get the new jobs. And it's the old people who are set in their ways and who hate the changes.

And man, I didn't think I'd walk out of that room alive. They just lit into me: "You are crazy, Bill. You haven't even been into those high schools. We talk to those students. If anybody is impacted, it's the high school students." I said, "well, okay, Bill. You're going to be a professor some day. This is a teachable moment."

So we put together a second questionnaire, one person, one vote, which meant that some of my most cherished scales didn't make it into the high school questionnaire. But we worked it all over and we got the permission of each of the four towns' single high schools to do a survey of, I think it was the sophomores and seniors in each town. And let's see. Jack [John S.] Gilmore who worked at the University of Denver and who had written an article on boom towns showed up in *Science* and was a heck of a nice guy…who had been around for a long time. He had been a small town newspaper man and had heard about my study and was actually pretty helpful.

In exchange for doing a three page synopsis of something for him, he offered to get me time on the Denver University computer to start doing some analysis. And this is still back in the days of computer punch cards.

The students helped me code the stuff and we worked on all sorts of details. And, at that point, I had the adult results but didn't have the student results yet. And I ran some numbers and all of the significant tests looked like they should have been correlation coefficients. And the correlation coefficients looked like they should have been significance tests. There was nothing going on in all of the groups where something big should have been going on if what, "everybody knew was right." The old people especially, if anything, they were a little bit happier. Their town was finally showing up on the weather forecasts of the Denver TV stations, you know, a couple hundred miles away. So, "hey, we don't have to tell people where Town X is anymore."

We finally got the student results back and they…they blew me away. The students, the high school students, were absolutely right. They had talked to these people and I hadn't. And when we did the survey results the kids felt worse about everything. So, you know, I spent a long time trying to figure out how this could be. I was still out there in the field and I was still doing a lot of driving between these towns, which are on average maybe a hundred, hundred fifty miles apart from each other. I didn't have enough money for postage, so for the adult survey I was using the drop off, pick up technique: I had a clip board with a random number table I'd copied out of something. And I would go to the household, find out how many people were over eighteen and then pick the next number on my clipboard. For example, if there were three people, it would be the next number that would be between one and three in the random number chart. So the second person you mentioned, which is Edith (for example), should be the person to fill this out. And I'd come back and pick it up in a week.

I had learned from Wendell Bell (a very nice guy but also I had worked on one of his projects) that the answer to anything when you're doing interviewing is that's fine, sure. And it was a very good lesson. I don't know if I've ever thanked him enough for that. But, you know I…most places they actually would have…they'd say well, you know, you know we'll be gone next Thursday but we'll leave it, you know, on the mailbox or we'll leave it under the mat out in front or someplace like that. Most places they did. There were other places I went back to six, eight, ten times…[and still nothing]. I'd learned from my roommate Dave Rajesky, who's now doing nanotechnology work and who was a designer, that I needed a different color on the cover so I could spot it in a pile of stuff and say, "oh, that's it over there. May I hand it back to you? I'll be back in another week."

The interviewing went on into the winter months. We did what we called a face sheet. You know, whoever answered the door we'd ask him just a few questions, basic questions and introduce the purpose for the survey and then ask if we could come back. And it got cold enough that the ink was freezing in our pens if we were writing, you know. I learned that Bic pens kept writing a little bit longer, I think because the ink barrel was a little bit thicker and it was plastic. You'd keep two or three Bic pens in your back pocket and you'd just whip out another one when your ink freezes.

But when we looked at the student survey, you know, that the numbers were huge. They felt worse about everything basically. It would just…it was all the things that according to the theory should have been true about the old folks were not true about them but were true in spades about the kids. I had a lot of time driving around

these back roads, and in those days there wasn't even that much radio you could get in…out in the sticks. And it's slow. It took forever for this to occur to me, too. I think because I initially expected something else. But, I slowly realized that that spoken folk song, I hardly know anybody else, instead of taking it as a lament of some sort, I should take it as a person's eye view of what was actually going on. None of them actually said nobody knows anybody. They just…you know, they still had the same old friends they'd always had. And that's what led to either the *American Journal of Sociology (AJS)* or the *American Sociological Review (ASR)* article eventually, after I rewrote it umpteen times. The *ASR* [Vol. 49, No. 5 (Oct., 1984), 697-705] was the findings from the kids and the *AJS* was the density of acquaintanceship argument.

My first example of the really easy to remember concept that what we in sociology were getting wrong. The other challenge is in those days to get into the major journals [is that they] had actually published quite a lot of stuff they called human ecology decades earlier. And a lot of that had real environment in it and Robert Park, at least, knew the ecology of his time reasonably well. But Amos Hawley, and the other people who came after him, were working with a human ecology that no longer had humans in it and no longer had ecology in it. It was the use of concepts, of metaphors from ecology applied to a city. So this is all going to be part of a long footnote here. They noticed that the first people to move into a neighborhood might be English and then after a while the Germans move in and English move out. Then the Irish would move in and then, the Puerto Ricans and the Blacks. They noted that it looks like a succession, the process of succession. So it's a cool metaphor. But it had no environment left in it.

Hawley's theory, in particular, was all about societal growth. You talk about resources and environment but it was also so society could grow. His version of human ecology sort of took over from the old Chicago more qualitative urban ecology of, you know, the previous decades around 1950. So 1970 rolls around and Earth Day and everybody in the social sciences is getting very excited. There's an environmental psychology. There is an environmental economics, not to be confused with ecological economics. The political sciences were getting into it. But in sociology, we were possibly the last of the major social science disciplines to make the conversion because everyone would say, "well, if this is anything about ecology let's send it to Hawley." But, if Hawley reviewed something about limits to growth he and his friends would say, "this is baloney, no way," and it'd get rejected.

I was at Yale where people probably didn't publish enough or didn't in those days. But the official party line was: don't publish anything unless I'm sure that everyone in sociology needs to read it, which is a good excuse for not publishing very often I guess. And they all got hired just before, you know, just as the baby boom was starting to hit. And if you had a pulse you could get tenure in a place like Yale, even at a place like Yale I should say. As I was going through, they would say "boy, it's too bad that he didn't get here like four years ago, five years ago, six years ago. Then he'd have had a job waiting for him you. But, you know, that's life."

There were all of these theories of human ecology, you couldn't say environment so it had to be disguised as something else, or it had to be about something else. And I had to show why is it that looking at this energy boom town would contribute something

to sociology, which I didn't know when I started. I mean the first couple of things I sent off to journals, I wrote them like the stuff that I found most interesting. They would start with the OPEC Oil Embargo of '73, '74, which led to a huge spike in prices and a tremendous rush of energy boom towns. And the bottom line of my argument was that they need sociology to understand. And I would send that piece to a sociology journal. And it would come back with rejection letters that you kind of needed to handle with asbestos gloves: "Doesn't this idiot, actually, let's see, flippant, rude, offensive, unprofessional, has utterly no place in a professional journal, sounds like something you're writing for your grandmother." Those are…those are just the ones I remember off the top of my head. At one point I was going to try to have a whole collection of these rejection letters to show them.

FISHER: On a wall?

FREUDENBURG: Yeah a wall of shame, blame, fame, show them to new assistant professors to say, "you know I got rejected a few times, too." But I'm skipping ahead here to when this stuff actually got published years later, which was at my first job at Washington State. And Riley Dunlap was one of the people who was very helpful to me in reading stuff over and saying, "you know, Bill if you're sending this to a sociology journal, maybe it shouldn't be that sociology has something to contribute. But make it a contribution to sociology. And that's what took me a while to figure out.

Back to what I was discovering way back then when I was somewhere between Town X and Town Y on a long, long drive…this is not a lament. It's just a statement of fact. And they're not saying that they don't have any friends anymore. And maybe what that means is that instead of looking where we've always looked, which is for alienation and psychological feelings of loneliness, which don't show up that much in cities either, we should be looking at the kinds of social functions that are only permitted when kind of everybody knows everybody else. And that's not psychological well-being, which is most dependent on your best four or five friends or six or the people you know really well. For the adults, all they had to do was to stay out of certain bars on Friday nights to avoid the fights, Friday and Saturday, not to be driving past the plant gates when the shift changes were going on and otherwise they pretty much continued talking across the backyard fence and watching football games with and playing bridge with the same friends they'd had for forty years.

Their kids were surrounded by strangers every day they went to class. There were new kids coming into the school every day. In terms of social structure, they were much more in contact with the change, the kids were. And the psychological stuff Erickson actually gave me this…this phrase that he said, "you know, when you say flexible another word for flexible is unformed." And it really was true that, I mean, one of the women I interviewed who was in her nineties, and I asked her "does this bother you." She responded, "Honey I been this way for seventy years. Why do you think a few more people in town's gonna bother me." She really had a very firm since of self. She knew who she was. But the son of the man that gave us the adolescent identity crisis was kind of aware of the fact that someone who's maybe sixteen might not have that same firm sense of self.

So you had the social functions that I argued in the *AJS* piece [Vol. 92, No. 1 (Jul., 1986), 27-63], that are permitted by a high density of acquaintanceship are control of deviants, socialization of the young and taking care of the weaker members in the community. Those are things that a more…a pretty cohesive community can do pretty effectively that can't be done informally. And, at the time there were a lot of environmental impact statements and so called socio-economic assessments that all talked about city services. But there are a lot of services in small and rural towns that don't have offices at city hall and that don't have lines in the town budget. Somebody would be watching that house next door and see somebody going in and they'd know right away whether that person belonged in that house or not. The gal who lived next door to me talked about the time when she saw somebody going into the house that I was allowed to rent briefly while I was there and the time somebody was out there and she didn't know if he belonged there or not, so she made sure she stood at her back door and looked suspicious and he turned and waved and said "Hi, Mrs. R. It's only me, so and so's, niece or nephew."

If somebody was doing something they shouldn't they would be spotted by someone who knew them who knew the person who owned the house who knew whether or not they had any business going in there. And if they didn't, they'd report them to the police by name. I mean there's just no percentage in getting away with things. Similarly with kids, in the town where I grew up, people would complain that a guy can't get away with anything around here. By the time I get home, my old man's already found out about it and he whips me or beats me for it. And, yeah, boy, it sure would be great to be free from that. But if…if you had…what I found by the way statistically matched what I saw with my eyeballs which is that the development probably was not bad and may have been good for the relatively high resource kids in town, the smartest fifteen percent of the kids in the class. But it was bad for the clear majority of them. And part of the reason was their parents had traditionally relied on a whole army of secret agents to find out what their kids were doing and used the "don't you ever let me catch you doing that" approach to child raising. If the kid did something wrong, the parents would find out about it before the kid got home.

If you suddenly have a whole lot of faces in town that are strange, then it may or may not increase your feelings of alienation or anomie or whatever. But it dramatically decreases the likelihood that somebody who sees your kid in a section of town where he doesn't belong would know whether or not your kid belongs there, would know you, would know whether the kids related to you would, if they pass all those hurdles, they might now want to get involved by telling you anyway. So suddenly the kids' ability to get away with bad stuff went up dramatically. At the very same time that, well, the ability to get away with bad stuff went up dramatically but the expectation had always been that kids would do the worst stuff they could get away with but it wouldn't be that bad. Town X, where I lived had a P at the end of Main Street in whitewashed rocks. The next town down the valley, Town Z, had an H that was made out of concrete. So a big thing was for the kids from that town to sneak out, always during the spring, never any other time of the year, and rearrange the P into an H.

The spring I was there the mayor, the chief of police, half of the city council camped out on the P hill as we all called it and caught the Hotchkiss re-arrangers red-

handed. Everybody said: "you know, kids will be kids." They wrote a very sincere letter of apology. They would never do it again. And, you know it…everybody kind of took it in pretty good humor or pushing over the sheriff's outhouse was the classic example. And that had to be done on Halloween night, not the night before and not the night after. I mean there were certain bad things that you're supposed to do. But suddenly when more of the faces in town were strange, the worst thing that a guy could do was no longer knocking over the sheriff's outhouse. It was knocking over a 7-Eleven. And these kids wound up with criminal records and the kids that didn't ever want to be with criminal records suddenly, instead of feeling like they were the kings of their domain in a high school in a small town, realized that they were far less sophisticated than all of these other kids moving in who had all of these bad habits and knew about bad drugs and things like that. So it was actually very, very stressful for the kids. To get that stuff published I had to write about the sociology of it and leave out the energy and the environment almost completely.

FISHER: Can I just interject a question that is related? You mentioned that you did have Burch on your committee? Was he, at the time, known as an environmental sociologist? Or what was he at that point?

FREUDENBURG: He was Bill Burch. He got tenure in forestry and environmental studies rather than in sociology at Yale. And even though they were just across the street from each other, very few people in sociology would say his name out loud. It was like, you know, from Harry Potter…

FISHER: Voldemort.

FREUDENBURG: Voldemort, yes. You don't want to say Voldemort's name. Erickson was fine with him. So that was all I needed but, you know, he was…he and sociology didn't have a lot to do with each other. He was seen as a sociologist who worked in the forestry school.

FISHER: When you thought of who you wanted to be when you grew up when you were done with you PhD, who did you want to be like? I'm just trying to get a sense of the feel as you were coming out of your PhD.

FREUDENBURG: Yeah. Actually when I was coming out of my PhD I wanted a job in a place where there were single females…I was having this monastic existence at Yale. It only started to admit female women as undergraduates like three or four years earlier. And number one, some of the women I met, you know, remembered guys hanging out of the windows and yelling and, you know, really sexist, awful behavior. But number two, grad school, unlike my undergraduate experience at this, you know, here I was thinking I was this kid from Nebraska. I was going to go to Yale. At University of Nebraska I had gotten a decent liberal arts education that really broadened me. And I figured if undergrad at a Midwestern college is like this, then surely going to Yale as a graduate student is going to involve even more of a blossoming. No. Grad school is conversion by immersion. We came in with thirteen students I think in my entering class at Yale and those were the people I saw about ninety-eight percent of my life every week: we took stats together, we took theory together…

The last thing I wanted to do when I had any time for social stuff was to hang around with the same group of students. I wanted to meet a butcher, you know, a female who did anything else. And the problem was that when you are studying that hard you kind of forget normal social graces. And so you're not any great catch yourself. Meanwhile your standards are so high because you only have an hour and seventeen minutes this week to do any socializing. Any female I would meet would have to be spectacular. I spent five or six years, whatever it was at Yale, and said, "Boy, once I get a job and an income, and all that, I want to be in a city where I meet females."

FISHER: That makes complete sense to me. We have this sense now in sociology where people come out and they say, "I'm a political sociologist or I'm a demographer or I do stratification." And when you came out, did you have a title for yourself?

FREUDENBURG: I probably called myself a community sociologist.

FISHER: Okay a community sociologist.

FREUDENBURG: In fact the next chapter starts in Town X but involves Riley Dunlap. I think it was probably Bill Burch who suggested to me that I ought to submit what I was doing to ASA. And I said "I don't have any findings yet." He said, "well, you got a literature review right? Submit that." So I did….It was a very extensive literature review on the boomtown literature as it existed up at that time and why we needed more sociology in it and, how it is we ought to draw on Durkheim and Weber and the stuff I was thinking about. That paper generated a reaction like no other paper I've given in my entire career. There was, like this riot of fifty, sixty people coming up to the front of the room saying "I need a copy of your paper right away." I figured, "gee, I'm a star, right?" It's never happened again in the rest of my career. But somehow hearing somebody actually using some sociological theory in talking about boomtowns it really struck a chord.

Riley Dunlap I think was one of the people that I met for the first time then. He was this real nice guy. And a couple of months later, when I was back out in the field, he called me up. He found my number, not that many Freudenburg's in the Town X phone book at that time. He calls me and says, "Hey, we've got this position open in Washington State. I wanted to make sure you knew about it." And I said "Well, gee, thanks, but I'm not going to be on the market next year. I've got to spend a year writing this up at least and then another… you know." He said, "why don't you apply anyway?" I talked to Erickson about it…I didn't actually talk to him since we didn't have email back in those days. I sent him a letter, or maybe I…actually that one I may have given him a phone call. He said "go ahead and apply. What can it hurt? It's practice. You'll find out what it's like. And it's not going to cost you anything except the postage. And it'll cost less than this phone call so go ahead and do it."

So, I did. And that was literally the only job I applied to because I wasn't planning to apply to jobs that year. And they offered me the job. As a result, I'm not a very good person to give advice to a grad student, who you know, sent out seventy-four applications and hasn't had any nibbles, because every job I've ever applied for I've gotten. I've been offered four and I've taken three of them in sociology, right, in

universities. The one where you get odds other than one hundred percent is always the first one and so I'm cheating there. But it just so happened that they were looking for somebody like me.

And a big issue for me is this is a rural soc department. And I am thinking rural sociologists study corn in Iowa right? I wasn't doing agriculture. He [Riley] says, "well, how would you describe Town X, Colorado? Would you say that's urban or rural?" Actually, it was rural even by the census definition of twenty-five hundred people or more making urban, so I guess it's rural. And Riley said, "okay, you qualify."

Sociologists usually study things that go together and good things go together, rich people are healthier, happier, live longer, get their kids better education, their kids have better teeth, their life prospects are better. Rural sociology is one of the few examples in nature where low status correlates with high resources because when the Dean, or at least back in those days. When the Dean was figuring out what your salary ought to be instead of getting compared to a philosopher who'd be unemployed if the university shut down you'd get compared to an agronomist who'd double in salary if the university shut down. So we actually had higher salaries with the expectation that you'd be on salary during the summer months to do the research you needed to do. So what was not to like?

What was not to like was unfortunately the town of Pullman. It was at the time, for environmental sociology, Washington State U was Mecca. And Gene Rosa showed up at the same time as I did, so it was even better as far as I was concerned. For environment in general and for sociology in general, it wasn't great but it was very good. And the university was fair. But the town I hated because I went from "maybe I'll have a social life in the future," to, a hypothetical "maybe I'll have a social life never." I spent a lot of Friday and Saturday nights going back to the office to get some writing done. So I wouldn't get depressed sitting around at home with nothing to do because I couldn't get any dates. Depression can contribute positively to your productivity not just negatively.

FISHER: You said that you self identified when you finished as a community sociologist. But you'd gone to Washington State and you said you were very excited there were so many environmental sociologists. Can you talk a little bit about that transformation?

FREUDENBURG: Well that happened while I was in grad school. It happened at I think the first ASA meeting I attended which may have been part of the excitement that I was a lucky recipient of, which was that ASA had formed a committee with Charlie Wolf, Charles Parker Wolf, C. P. Wolf, as a head of it to talk about whether there ought to be sociological standards for social impact assessments. The National Environmental Policy Act had passed just a few years earlier and it said there ought to be environmental impact statements. For major federal actions having a significant impact on the human environment and it ought to look in an integrated and interdisciplinary way at social and environmental, all these things put together. So I said, "hey, should sociology have something to say about this? Should we have our own standards?" And that committee came back with its report which must have been around '75, saying probably not yet but we really ought to be talking about forming one

of these things called sections. And Riley, Riley Catton and Bill Dunlap were…were the key driving forces.

FISHER: Riley Catton and Bill Dunlap?

FREUDENBURG: Well it's sort of like…

FISHER: You're on the record here.

FREUDENBURG: Yeah like Bob Freudenburg and Bill Gramling, you know.

FISHER: Exactly.

FREUDENBURG: Were the key drivers of that and Riley was the key driver, you know. Bill had quite a lot of stature at the time. Riley was a beginning assistant professor. But he had the energy and the drive. He was the spark plug that really made it happen. He had previously been engaged in getting the SSSP [Society for the Study of Social Problem] to set up their section on the environment, which is now the Environmental and Technology Division.

Riley's the only guy who's ever been the chair of the NRRG (the Natural Resources Research Group at the Rural Sociological Society), the chair of the ASA section on Environment and Technology, the SSSP section, and now the ISA [International Sociological Association] section on the environment [RC-24]. So, he's the only one who's ever done all that and probably will retain that…that distinction forever. But he is also the guy who got almost all of those started except for the NRRG of the Rural Soc Society, which started six years before Earth Day.

It started out as Sociological Dimensions of Forestry Research Group. And there was a big fight in Rural Soc as to whether they should allow that because everybody should do all of rural soc not just a piece of it. And, you know, Durkheim's bit about, you know, intermediating, institutions, medium scale institutions for people to feel committed, took a while to sort of take hold. There are very few people who have been in the Rural Sociological Society long enough to remember the days when that was ever in doubt because now the research and interest groups set up the program for the rural soc society every year. Back then it was a big debate.

Setting up an environmental sociology section was a big debate in ASA, too. It was an exciting time. Here I was, you know, a grad student. Of course you want to be on the radical pro-change side. And gosh, environmental sociology, never heard of it but that sounds pretty cool. And one of Riley's first, the first papers with Riley and Bill, the title of it when they presented it at ASA was "Environmental Sociology: Why Not Human Ecology?" And they didn't give the real answer which is that, you know, human ecology has their block of ivory and they're going to continue to polish it and they don't want somebody who's going to talk about limits to growth. They want to talk about why everything leads to more growth. So, there just wasn't any room for it, so they started their own new section. I joined as soon as I knew about it. By the time I had driven across the continent with another U-Haul and wound up in Pullman, Washington, there was a sub-field called environmental sociology and I could call myself an environmental

sociologist. But I couldn't publish in the mainstream journals as an environmental sociologist.

FISHER: Before you go into that, which is very important, I want to go back for a second because you talked about this question about social impact assessment which I know some of your early work focused on. And then you said that the ASA decided that social impact assessment shouldn't be a focus. I was just wondering the relationship between social impact assessment and the ETS section.

FREUDENBURG: Okay, that we shouldn't have an official ASA statement on social impact assessment and what ought to go into a social impact assessment because we don't know enough to do that yet. And I think that was actually accurate at the time. But we should set up one of these things called sections for people that want to do this kind of stuff. But it ought to be broader than just social impact assessment. It ought to be all of the environment.

FISHER: Okay and that's how it transitioned to that.

FREUDENBURG: And Riley and…and Bill Michelson were two key people in... And a couple other folks I'm…I'm forgetting the names of, in defining environment to include the built environment as well as the natural environment. And you can find some of Riley's old papers on, you know, the built, the natural and the modified environment like in an agricultural field it's more natural than downtown Manhattan, but it's not exactly wilderness either. They worked very hard, both of them, to make sure that it was both the built and natural environment. But the problem in those days was that out of two hundred members or so that you needed for a section, there were probably a hundred and twenty or a hundred forty who identified with the natural environment and sixty to eighty who identified with the urban and built environment in housing and crowding and all that. And so even very well known built environment people weren't getting elected to the environment section, you know, Council and things like that. And, you know, Bill Michelson I think did get elected as chair and did a wonderful job by the way. He's a very statesmanlike kind of fellow and was excellent. But there are some really good people who did built environment stuff who couldn't get elected and they were more distinguished probably than the natural environment people who were getting elected. But people voted for the folks that, you know, went to the sessions that they went to and who they recognized and knew. There was not any expectation that you could publish in the mainstream journals doing environmental sociology.

FISHER: We're back where we were going but…

FREUDENBURG: If you get Riley over a glass of wine, his version of this would probably be more interesting than if you do it over a cup of coffee. But here he was, you know, a brand new assistant professor with the fear that a lot of…most, any sane, assistant professor would have about getting tenure. And the…the key disciplinary gatekeepers were writing things about how this environment stuff is bogus and bullshit and there's an *ASR* piece that he quotes off that progress in the social sciences to date can be measured in how far we've gotten away from using nature as our explanation versus using true social things.

Riley's a few years senior to me but only a few.. And he…he was, you know, very nervous and I was just fresh enough out of Yale not to be, not to know enough to be nervous yet. I would say something before anybody had asked Riley about it. And I said "oh, yeah. We…we just have to publish this environmental sociological work in the mainstream journals." And Riley's eyes would get wide and terrified and he'd say "Are you crazy man, they don't publish this stuff," and he…and I go, "oh, they haven't seen *my* stuff yet." And then my stuff came back in flames as I've said earlier. And I wasn't willing to give up on the idea of publishing in the mainstream journals because I'd published in a couple of *AJS* pieces with Paul Burstein who was another important influence at Yale although he didn't do environment stuff, he did political sociology.

FISHER: So he was a professor at Yale when you were there?

FREUDENBURG: Yeah. He was one of the many really good, assistant professors who didn't get tenure even though he was probably better than most of the senior professors who were voting…who never voted to give tenure to anybody. They didn't want anybody who was a member of their club. The official policy at Yale was we were a small department so we couldn't afford to make mistakes. The department would bring in people never expecting that they're every going to get tenure. But we treat them well, you know. We let them use Yale on their stationary. That's enough. And they go off and, you know, Blalock is one of the people that didn't get tenure at Yale very shortly before I arrived there. You may have heard of the Blalock statistics text. Oh, okay, it's the one everybody had to use back when I was in school. I mean major name, Burstein, again, very major name in political sociology over the years. And most of the people they tried to get…anyway that's…that's another long story.

So I kept trying and eventually got a couple of these things that were accepted in *AJS* and *ASR* as well, as, you know, *Rural Sociology* is a lot easier. Because they actually had a tradition of publishing stuff from rural areas that didn't have to be about agriculture, which I didn't realize until I started looking at it. And I mean this…this is a footnote to a later comment if we get that far. Years later, Gramling and I, over beer and shrimp in Grand Isle, Louisiana started saying, "You know, what we've got to do is publish pieces in enough mainstream sociology journals that there aren't any journals left anymore that can say we never publish that kind of stuff because they will have published our stuff." And so, between us, I think we have published in *Social Forces, Social Problems, AJS, ASR, Sociological Inquiry, Sociological Spectrum, Pacific Sociological Review*, which is now *Sociological Perspectives,* and *Social Science Quarterly*, I mean just about anything that's got social in it has got a couple of publications in there from Gramling, Freudenburg, or some combination of us and our friends that is on an environmental issue in one way or another.

But the very earliest ones really had to be carefully disguised so that the environment is just almost incidental, which I discovered when the first things I sent off to *AJS* and *ASR* were all about this environmental issue about the energy crisis and all and just came back in flames. But if it's about the density of acquaintanceship or it's about how rapid community change can affect adolescents, certain groups of adolescents more than others, or affected the boys more than the girls, because the

girls were never expected to do the worst things they could get away with but the boys always were. And the boys did worse stuff and they didn't have as good a social network as the girls did, the girls had best friends, the boys had football teams and so the boys, you know, really didn't have the same ability to just hang around with one best friend they could talk things out with. Boys that age aren't accustomed to talking about stuff that really matters the way that girls were back in those days. I mean there are all sorts of reasons that the boys were affected more that you could talk about that were very sociological. And it just happened to be that it was America's addiction to petroleum that was translating into an addiction to coal that led to this phenomenon. But if you didn't care a wit about carbon dioxide, global warming, strip mining, water pollution, anything else, you could still care about what happened to those communities as a sociologist. That's the kind of art form that I had to learn that you don't have to learn anymore. *Organization and Environment* just did a tribute to the thirtieth anniversary of some of their major works starting to come out, defining the world of environmental sociology. And like…like the *ASR* issue that came out right before that had, I think, two articles in it that were both overtly environmental and nothing to do with…you know this is about environmental sociology as a contribution to environmental sociology. And they didn't have to pretend to be anything else and they didn't have to cite the dominant social paradigm or HEP-NEP distinctions, any of that which I figured was…was a sign that Dunlap and Catton had triumphed and that the field that they tried to put in place and then a couple of us were willing co-conspirators in the effort, had succeeded.

And, you know the ASA environmental section or environmental technology section. I renamed it. We read five different variations. I said "Section on Environment and Technology is the shortest of these options. Let's call it that." And I was on Council at that time and everybody goes, "that's fine." It took about that long to decide among fifteen different versions of whether we should add, "and technology," to the name, which we did way before the Section on Science, Knowledge and Technology added it to their name.

FISHER: So we've talked a little bit about the state of the field when you got involved. I want to, I guess, to the degree that you think this is a relevant question, what were the key issues in the field at the time and who were the key figures? And you've kind of touched on that, too, but, do you have more to say?

FREUDENBURG: Yeah the big question was: built versus natural and did it matter? There was a dinner in I think it was David's Deli in San Francisco, while I was still a grad student. Riley and Bill Catton invited me out and we had lunch with Stan Albrecht and Allan Schnaiberg I believe. This is going to be hard for you to believe, I know, but I was not talking. I was mainly listening at that time. They were discussing the work on HEP-NEP. Initially it was the human exceptionalist or exceptionalism paradigm and the new environmental paradigm and it was either Allan, or I think it was Stan Albrecht who said, "you know, it's not whether humans are exceptional. It's whether we're exempt." Oh, exemptionalism. "And it's ecological, not just environmental, so, you know what…what that new paradigm ought to be named…" That was a controversy that was settled, you know, over probably a corned beef sandwich at David's Deli in San Francisco.

It wasn't much of a controversy but the big thing was: are we going to save sociology and reform all of sociology or not? And there was a tremendous feeling of, you know, this exuberant revolutionary zeal that this is at the time when The Coming Crisis of Sociology was one of the books that everybody was talking about. You know there's great depression and long faces everywhere else and in environmental sociology there was excitement. There was passion. There was drive. We're going to do this. Yeah! Well, we didn't exactly convert the field. The field is kind of still kind of lumbering along. But, on the other hand, it's no longer the case that you hear any of the major journals saying we never publish environmental stuff. It's just that it's been around longer than the majority of the ASA sections that now exist. And it's, you know, healthy and doing well and there are lots of new people I don't know. For ten years I knew just about everybody in the section because it was the same group of people who came…each year passed and, you know, we were happy to see each other. But there was a little bit less of that revolutionary zeal.

So it was around 1980 when both Catton's book—*Overshoot*—and Schnaiberg's book—*The Environment: From Surplus Scarcity*—came out. And the big debate was whether we needed to talk about, you know, Catton's kind of "homo colossus," which is a pretty apolitical book. What Catton says in the opening pages of that book is essentially that as times get lean, people get mean. In his opinion, what we need to do is, instead of having intra-group vilification as he called it, we need to realize that all of our social and political problems actually have ecological roots, although we hadn't recognized them, but that was as political as he got.

Versus Schnaiberg's work, which was really very Marxist. He didn't use the Marxist lingo, but he was conversant with all of that. And he and O'Connor, I don't know if they were ever the best of friends because, you know, either…the two of them getting together would be like the old story about Theodore Roosevelt and John Muir. But, Schnaiberg did have a reference to O'Connor's very big hit book. But it sort of dismisses it in a footnote. And a couple years later, O'Connor comes along and returns the favor by talking about the second contradiction of capitalism, which is in more explicitly Marxist terms to me, but is almost indistinguishable from Schnaiberg's Treadmill of Production. In the early years, it wasn't that much of a debate between him and Catton and Dunlap. It's sort of discovering each other. Hey, you're a couple professors from Washington and one from Illinois and they're both writing about this stuff and Schnaiberg knew a lot of the real science. So did Catton, especially, the physical and biological stuff. One time he turned me on to what he thought was a great book on the social impact of the potato which is not the title but that's what it was about, about how the potato spread all around the world and then the potato famine and then rather than starve in Ireland you'll move to America and hope to make a, you know, survive, literally survive, you know. So a lot of the history of the United States you can just trace where the potato blight hit in Europe and see which group of migrants came over next. And but he says it was…I forget who it was but he said it was a brilliant work and it was…you know he knew the different species of potatoes and stuff like that, so.

Schnaiberg's first really influential article was on the societal and environmental dialectic, which is that as biological systems advance and age they slow down. As social systems age they speed up. So the dialectic between social growth increasing in

speed and biological systems, you know, slowing down as they approach a climax form of succession that was going to lead to this crisis. When he wrote that, Catton and Dunlap loved it. When he came out with his more, sort of quasi Marxist or neo Marxist take on the treadmill of capitalism or the treadmill of production Dunlap still liked it. Catton still liked it.

Twenty years later, the very first time I presented what the one piece of my work I wish I could get more people to pay attention to, the recent stuff, this double diversion, the notion that much or most of the environmental harm comes from a remarkably small slice of the economy and that it's made possible in part by the diversion of attention. So the first diversion is the differential resource access. Privileged access made possible in part by privileged accounts, privileged stories, things, that we take for granted.

FISHER: I remember that.

FREUDENBURG: Well the very first time I presented that at an ASA meeting I had seen Allan beforehand. And I said, "hey, Allan, you know, I'm going to be mentioning this to you in this presentation. I'd be really interested in your reaction." And he and a couple of his distinguished students were sitting in the front row, which they did in just about every session that year. [He seemed to look upset] as I mentioned him, Catton, Dunlap and O'Connor in kind of the same paragraph. And my argument was that for as different as all of those points of view were, they could all be boiled down to the argument that there are too many of us and we all use too much. You know one is a more political version of the IPAT equation, now the STIRPAT equation, another much less political and Dunlap blamed it on paradigms.

The other thing that Dunlap was arguing even way back then is we have these three uses of…human uses of the environment as living space, as resource supply, and as waste dump. And if you have a relatively small appetite you can have three different locations for those. But as we get to be greedier and hungrier the waste dump winds up being, you know, in an urban neighborhood that's also a living place. And that's where the conflicts arrive. So his argument was really a pretty apolitical one, too, I thought, even though he was already thinking then about the dominant social paradigm and how important it was, and how was it constructed. But he wasn't publishing that stuff. He's still thinking about it today and doing some really neat stuff on it. But back then, he wasn't publishing that because that would have taken longer to publish.

So I was saying that all of these different points of view were very similar in that they kind of took the average person's impact, at least within a given society and just kind of added them up and didn't really look, I felt, at the social structure. And Allan turned as red as I've ever seen any human being turn. And, you know, really lit into me. And I remember saying to him at the…I'd seen him the day before by the way, attack a doctoral student making her first presentation in a meeting. And what he did to me was entirely appropriate because I'd had tenure for years by that time. And there's this poor woman the day before, you know I actually was the next person to raise my hand the day before and say, you know I'm glad to see Allan hasn't lost a bit of his old spunk but let me ask you another question, you know, trying to make her not feel so bad. But, you know, that day he attacked me and I remember saying, so I take it you're not going to be sending me a check for my project. And he said "not a Czech, not a Pole, not a

Lithuanian." He was quick. But he was deeply offended at the fact that I had put him in the same category with Catton and Dunlap. And he and I had a long conversation out in the hallway afterwards, and we actually had an email exchange, you know, a couple of long, long emails of him telling me why he thought everything I was saying was something he'd already said and me writing back to him saying "I think you said this, and I'm saying something else, and that's different." And he'd write back and say, "No, it's not really different." We never resolved it. We…we did keep discussing it in a…you know, nice civilized way, you know, a properly academic way.

So back to, let's see, 1980. How do we keep the built environment people showing up? You know or how can we treat them better because they deserve to be treated better? And then suddenly, Reagan was getting elected and all of this, you know, the social impact assessment was built, sort of designed as part of an environmental impact statement and you had a new presidential administration that decided that social science was evil and the environment was evil, so anything that combined social science and environment had to be pretty evil. They gutted the regulations for environmental impact statements as best as they could. They appointed judges who hated the idea of environmental anything.

Most important of all, the environmental groups stopped suing on the argument that your environmental impact statement is inadequate because they didn't want to have the precedent established that some judge would say that it was fine. I mean it was easy to be all on the same side. There was an environmental impact statement for adding a new powerhouse to the Bonneville Dam, which is not too far from Pullman, a couple hundred miles. And the entire social component of it came down to like a sentence or two that, you know, flooding this area will eliminate the human habitat along with a number of rats and rodents and other vermin that are often found in association with humans. That was it. That was the total human social impact assessment. So, the target was pretty big for establishing that this process is not making integrated use of the biological, physical and social sciences and the environmental design arts in decision making. It may have an impact on man's environment. But suddenly, you know, and it was the lawsuits from environmental groups and from affected communities that they hadn't taken this into account that started to establish precedents for putting environmental stuff in.

I think it was a lawsuit by People against Nuclear Energy which is an environmental, anti-nuclear group at Three-Mile Island, versus the Nuclear Regulatory Commission saying that the environmental impact statement on restarting the undamaged reactor at Three-Mile Island was inadequate because it failed to take into consideration the likely psychological impacts on the people who live there where the Supreme Court said basically that they didn't have to do it. And there was actually very careful wording in the Supreme Court decision stating it didn't apply to everything. But if you were a Reagan appointee or a James Watt underling that didn't matter to you, that was close enough to saying we don't have to do anything. And James Watt [the head of the EPA under Reagan], in particular, was famous for taking the position that we're going to do exactly what we want to do, and if the environmentalists don't like it, they can sue us. And we're going to make them spend all their money trying to stop us and they won't be able to stop us all but let's not worry about getting sued. Let's just do it.

So, there was all of this enthusiasm in ’75, 6, 7, 8, 9. It started to go down a little by ’79 because Three-Mile Island came up in ’79 and it showed that clearly the world needed us. And Reagan came in and people in Wisconsin, one of the most influential environmental groups was actually called the Wisconsin Environmental Decade because nobody at that time imagined it would take more than a decade to fix the environment. You know it was a problem. We would just fix it and then we’d go on to something else. And here we are, you know, four decades after Earth Day more worried than ever in some ways. The group has changed their name to something like Clean Wisconsin. But they kept the name Wisconsin Environmental Decade for something like three decades.

FISHER: When did you move to Wisconsin?

FREUDENBURG: ’83 or 4. I was under pressure at Washington State from the Rural Sociology Department to do some work that was on Washington State. That’s what you do if you’re a land grant school. And I looked around for something that would let me sort of extend my boomtown work in some way. And I said “well, there is this new project that’s building nuclear power plants out in the western edge of the state which is a long, long drive. But, you know, hey, coal energy in a dry place, nuclear energy in a wet place, cool comparison.” I had a student at that time who got some funding. He managed to get a little bit of funding for him to live out there and we did a survey there that’s sort of patterned on the one we did in Colorado. Part of the Supreme Court decision was based on the argument that it would be impossible for a federal agency to tell the difference between genuine psychological stress, and stress that was caused, I think this is a direct quote, “merely by disagreement with a democratically enacted policy.” In other words, they were so upset that they lost that that would be why they would, you know, have all these psychological symptoms. We could test that hypothesis in western Washington because I had these psychological distress scales, some reasonably good ones. And we had a lot of environmental attitude kinds of measures. And we found more negative attitudes toward WPPS—the Washington Public Power Supply System—but most appropriate acronym in the history of initials [pronounced Whoops] because it turned into the biggest municipal default in history.

But there were very negative attitudes toward them, all kinds of concerns, like the kind that hearing about now with the [BP] oil spill. It’s sloppy management. But this is with a nuclear power plant that they’re putting in our backyard, very negative attitudes on par with Three-Mile Island a month after the accident. So you want negative attitudes we got negative attitudes. And we had psychological stress scales. So you see, is there any correlation at all? And the answer’s no. There was absolutely zero correlation between attitudes and stress. So it would be a real piece of cake to test the difference. So that’s a *Social Forces* piece testing the Supreme Court hypothesis [Vol. 69, No. 4 (June 1991), 1143-1168.].

I was one of the first people to think about risk. Gene Rosa was too. And around that time ASA said hey, we should start a congressional fellowship. You know congress doesn’t understand sociology. We should start a congressional fellowship. And I said, “Hey, that would be cool.” And that gave me an excuse to get out of Pullman. So I applied and I was actually…they picked, I was their second choice [with my proposal on

"The Non-Use of Sociology in Policy Decisions]. A very well known sociologist ,but I'm blanking out on her name, Carol Weiss, was their first choice. But they said they'd take me, too, if they didn't need to spend much money on me. So she went to the Senate. I went to the House. I was in the House in the John Dingell Committee until recently, the Energy and Commerce Committee.

Richard Ottinger was a congressman from New York who was very interested in nuclear power. And I offered my services and they were the ones who took it. They said, "oh, you can do the risk analysis stuff." And risk analysis was just starting to spread. Again, a policy connection, which is that the nuclear industry had said for years, this stuff will be perfectly safe. The biggest peacetime propaganda campaign in history at that time was to convince people about how wonderful my friend the atom was. And it was very successful up until about the mid seventies.

Up until about the mid seventies you had…I have a Seagram's ad someplace. In the future deserts will bloom by men who think beyond tomorrow because of atomic power, so the way…

FISHER: Seagram's alcohol?

FREUDENBURG: Seagram's Seven whiskey, so you…

FISHER: So they talk about nuclear energy in a whiskey ad?

FREUDENBURG: Yeah. It was a way to…

FISHER: That's weird.

FREUDENBURG: Yeah, and in Las Vegas they would sell room…sitting areas on the top of the tall casinos so you could watch the above ground nuclear tests out in the desert. It was just at the casino this really cool stuff for a while and, you know, people downwind started dying from leukemia a few years later and some nasty stuff started leaking out in I think Hanford in the mid seventies and then at Three-Mile Island in 1979. Rod Baxter and I did an article of host community attitudes and Gene Rosa and I did a lot of stuff on overall attitudes. And favorability of nuclear power was very high until '72-3, somewhere around there. Sierra Club was pro nuclear. It was because it was cleaner than coal which, you know, at least in pollution.

FISHER: '72-3, though, you were still in grad school.

FREUDENBURG: Right and things started to look a little worse for the nuclear industry, so they said what we need to do is to prove that the people who are opposed to us are ignorant fools. They started commissioning risk assessments. And the first one they ever commissioned was they were asking the question how bad can this be? And they got back an answer. It could be really bad. That one was never turned into a final report. It just stayed in draft form forever and they [found]…you know clearly methodological flaws and they hired somebody else. It produced someone who's won awards from the Society for Risk Analysis for helping establish the field. But it

established in what's called "Wash 1400." Back at that time it was the promotion and the regulation of energy were both in the Atomic Energy Commission but they concluded…

FISHER: Kind of like the oil clean up and the oil…

FREUDENBURG: Yeah, yeah, just like MMS today, Minerals Management Service. But it was, you know, it concluded that well, yeah it could be bad but the odds of it are less than the odds of being hit by a falling meteorite so you ignorant fools, leave us alone. And it was the sort of thing you could roll up into the shape of a baseball bat and then hit people who disagreed with you. So they loved probabilistic risk analysis. That came out sometime in the late seventies I think, certainly by the time Reagan was in office. So by '82 or 3, the Nuclear Regulatory Commission full of Reagan appointees was really hot to trot on nuclear stuff. And I'd actually done a little bit of stuff on risk perception but I was actually more interested in the organizational component. And that's what I offered to the House committee. So I went there and got to meet a bunch of people who were doing nuclear stuff and went back home and started writing more about risk, home being Washington State. But that was, I think, the fall of '83 I spent there.

FISHER: Fall of '83 you spent in D. C.

FREUDENBURG: In D. C. And it was around that time that Wisconsin was advertising and I jumped at the chance to apply, got that job and thought I'd stay there forever. But I think I owed Washington State another year after I took the job. And that let me, you know, finish a couple of students who were doing dissertations and things. So it was mid-eighties when I moved there.

And what I was working on at that time was either finishing up the earlier boomtown stuff. I, you know, I was gonna be "Boomtown Bill." Oh that was it. I actually had a…a sabbatical in Denver to finish the book that was based on my dissertation.

FISHER: After the congressional fellowship?

FREUDENBURG: Before the congressional thing I think, must have been before. I got there shortly after what's still remembered in Colorado as Black Sunday which was when Exxon, you've heard of them, pulled the plug on what would have been the biggest boom-inducing project of all. And ever since I'd first heard about OPEC in, you know, '72-3, whatever it was, up until that instant there had always been one boom coming up in the intermountain west that was bigger than the last one. And Town X was just at the middle and the next one was going to be bigger. And if one of them fell through, no big deal, you'd just go on and study the next boomtown. And suddenly there wasn't a next one. One of the high school students I'd been working with in Colorado called me up and said, "Bill. it's amazing. This guy showed up for work that morning and the…the gates were padlocked." I remembered that woman whose grandfather had ridden the horse to death, you know. And I had been at an oil shale conference. And I was the only one there who said this may not happen. And they said, "oh, come on." They're spending amazing amounts of money. But it was less total money than they were spending on one dry hole trying to look for oil up in the

Arctic. So, you know, they apparently had a board meeting on Sunday and said we don't think…the oil is there but it's really crummy stuff and it's expensive and hard to get away from the rock and, you know, they're trying to do it in the tar sands of…

FISHER: Alberta.

FREUDENBURG: Of Alberta right now and they're barely getting out more oil than they're putting into it. Oil is valuable enough that they're still making a tiny profit, making a huge mess, but apparently in Colorado and western…northwestern Colorado and eastern, northeastern Utah they couldn't make a profit at it. And one of the people I had talked to in Colorado said that he'd been watching it for thirty years and for that whole time oil shale had just needed the price of oil to be like thirty percent more expensive and then it would be profitable. The price would go up thirty percent. They'd say okay. They'd rev up and it turns out it's going to be more expensive than that, so it'd go up another thirty percent. They'd rev up. And that seems to be what happened in what's still remembered as Black Sunday. I think that was 1981, May, 1981.

It was right around then when I showed up in Denver to write my boomtown book. I did a fair amount of field work thinking well this'll be worth doing as a kind of a longitudinal study of rural communities or something. And yeah, studying the bust is kind of interesting too. That was where I started looking at the assumed connection between prosperity and environmental harm. Because even the booming places had a lot of poverty, even in the booming times. There were a lot of coal mines in the area that would only operate you know, fourteen weeks of the year, something like that. And, you know I knew some of those miners. And they, well, you know, can't sell enough coal at a profit. But they would tell me that they would stick around because "when they open the mine up that's the best wages you can get around here and meanwhile I'm, you know, fixing lawnmowers to try to make a few more bucks and, you know, keep ends together." So there was a lot of underemployment there in what was supposed to be this thing that was driving the prosperity and it just, you know, I just sort of made a mental note of it at the time and didn't start looking at it until much later so.

By the time I was moving to Wisconsin, I was either looking at the resource dependency issue in a longer term cycle, not just what happens during this short term boom but let's see if we can understand this whole relationship between rural communities and…and resource extraction. Why is it that so often where the resources are rich, the people are poor and the very things that they are supporting, because they want the prosperity. The places they get it are poorer than the places that don't get it seem to be. And years later with Lisa Wilson I actually looked into that and found that yeah. It really is true, if anything, getting the mine that you're looking for may be bad for your economy after more than four or five years.

FISHER: So one of the things that we've talked about a lot is the key turning points in your…you know, in your intellectual trajectory for lack of a better term. And one of the things that I wonder about is if there were ways that the changes in the world have affected the changes in the questions you asked, the changes, you know in oil, policy. In a lot of ways it sounds like political decision-making contributed quite significantly to the different ways that you were thinking about the world and asking questions of the world. One of the questions I was wondering about is if you saw that

there were changes in the literature and in the field that were also driving changing questions.

FREUDENBURG: There was one non-change in the field that drove me nuts.

FISHER: And it was.

FREUDENBURG: And it took me a long time to figure out what to do about it, which is from probably the third or fourth discussion I ever had with Riley Dunlap. It's understanding opposition to the environmental movement, you know, the importance of traditional American values or something like that is the title of one of his early papers. I don't remember if he ever published it or not. And I got into all kinds of arguments with him about that. Because I said, you know if…you know my grandmother cans pickles, and, raises enough tomatoes for the whole family. She lived through the Great Depression. She's got traditional American values: "waste not, want not." And it just hurts her to see a light that's left turned on because that's wasting money and…as well as energy. That's traditional American values. How come only wasting the environment is supposed to be a traditional American value?

Catton's *Overshoot* or Schnaiberg's *Treadmill of Production*, it's all about the root of the problem: there are too many of us and we all use too much. And I said "no. We're not all using the same amount." Those remained basically a lot of arguments often, you know, over beer at a meeting or over coffee with Riley next door at the Student Union because Riley would come in four or five in the afternoon and work until three or four in the morning and I'd be the only one still there when he'd come in. So we'd have a conversation, quite a few conversations late at night where Riley would come in and you could see the paper sort of flying off the top of his stack as he was hurrying to his office to do something. But I didn't really know what to do about it. And the change in the field that sort of helped me understand what I needed to do was actually the rise of the environmental justice literature. Because, for the first time, well, actually not for the first time. If you go back to '70, '71, you have the *Un-Politics of Air Pollution* by Matthew Crenson.

FISHER: Right, right, right.

FREUDENBURG: You have Harvey Molotch's very important stuff on…

FISHER: *The Growth Machine*.

FREUDENBURG: *The Growth Machine*. But before that there's Oil in Santa Barbara and Power in America, you know, Power and Differential Power. You had Gaventa's *Power and Powerless-ness,* but that stuff, each one of those pieces got a lot of excitement and attention. And, but not a lot of citations and follow-up work that I could see. Because the main body of the follow-up work was always in the early days, it looked like what the biologists were doing, you know, bringing…you know a big part of the mission of the early environmental sociology folks was to bring the environment to sociology. And one of the things you had to do was explain thermodynamics or ecology or, you know so just some basic stuff that high school students probably learn a

reasonable amount of today but that a well-educated social scientist forty years ago might not have heard of before Earth Day.

What the biologists were doing they were paralyzed with fear at the idea of being accused of being political. So Garret Hardin's *Tragedy of the Commons* it's all blamed on all of us, you know. We're all herders on planet Earth and we all want to put one more sheep or cow on, on the common pasture. And so we're all to blame. Everything is absolutely apolitical I would argue. Schnaiberg would have disagreed with me bitterly on that. He'd say my whole idea is political. And it's a Marxian political thing. But it's that or O'Connor's version, you know. It's a contradiction of capitalism that capitalism as a whole, not pieces of it, but the whole thing, requires so much from the earth that the earth won't be able to provide it. And so if capitalism doesn't collapse from its first contradiction which is exploiting the workers who can't afford to buy the stuff, then it'll collapse finally…by its second contradiction, which is the earth won't be able to support it. And, you know, he may still be true. It may still be right because we're surely trying to prove him right today in 2010 or Schnaiberg as well. But my argument was that we seem to be missing the social structuring of pollution.

When the environmental justice literature came out a number of people, Bob Bullard, Paul Mohai are the first two names that pop into my head, did a fine job in explicating, and then in Paul Mohai's case, showing statistically that it is clearly not true that we all suffer in the same way. I mean Paul's work I believe has now shown that race is a better predictor of who gets hit with bad stuff in America at least than is income. So we, and I think it's pretty much taken as a given among people who call themselves environmental sociologists today, that environmental justice concerns are real, at least in the US. It's less clear in some other countries whether race is that big of a factor. But it's a big factor in who gets hit with the pollution and it's not equal. It's not a tragedy of the commons outcomes.

Well the flip side of that for me, which is still not getting any attention outside of a few friends and Mary Collins, whom I still have to introduce you to, is that there may be an inequality in the production of harm, too. I have been sort of pushing this argument for years. One change is an undergrad came into my office one day in Madison. And said he was looking for a summer job, wouldn't cost any money, "do you have anything I can do?" And I thought, you know, I was out there in western Washington State in a bar one night talking to a guy with, you know, muscles that looked like his shirt could hardly hold them together and a cap that said, the Grids, who seemed to be kind of a friendly guy. He was a logger and so I was talking to him and made the mistake of asking in that bar where the air outside smelled almost as thick as the air inside because of a papermaking plant, whether environmental regulations were really hurting his job. And it…it looked like he was about ready to transform into a real grizzly bear, ripped that bar right off the floor and used it to crush this scrawny university-type who had the nerve to ask him in a working man's bar in his town, whether those God-damned environmentalists were gonna cost somebody his job. And, you know, "God-damned-environmentalist" is one word. It looked for a minute like he was gonna kill me. I mean he finally decided I was just bone stupid and he explained to me those God-damned-environmentalists don't give a dah, dah, dah, and boy…I was nodding, "oh. I see, thank

you." I bought him a beer when he was done, thanked him for explaining to me, you know, got out of there as soon after that beer as I possibly could and panted, you know.

But that was in the heart of spotted owl country. And that conversation took place during what was supposedly the good old days, ten years before anybody in that bar had ever heard of the northern spotted owl. And according to all the people writing after 1990, which by this time I'm in Wisconsin, it's clear that the spotted owl was killing people's jobs and environmentalists were already killing people's jobs. So I got Dan O'Leary who's a student to work calling the state employment agencies in Washington and Oregon, and, you know, trying to get unemployment data on various counties and individuals and, you know, SIC codes and all that and putting together the numbers with Lisa Wilson again. And we found that, lo and behold, even though, "everybody knew that the spotted owls were costing workers their jobs," the only statistically believable spotted owl effect started the day we started collecting employment data which is 1947, which should have been the boom in housing that followed World War II if you read the standard history. And it stopped in 1964. I mean the rate of job loss in logging was ten times as high up through 1964 as it has ever been since that time nationally. And even if you just look at Washington and Oregon, kind of the heart of spotted owl country, it was three times as high. It's basically the same shape. That's I think the only paper of mine on which Allan Schnaiberg was a reviewer, that he liked. Everything else I ever got reviewed by him said "nothing in this paper is new and everything in it that's interesting was already said by Allan Schnaiberg."

That one he found genuinely surprising and he complimented me on it and, you know, with Allan he was always real clear about where he came from. You knew where you stood. So, you know, I could publish these individual pieces. And people would always say, boy, that's really surprising isn't it? No, that's the point. It's not surprising. Trying to get the overall argument published took me a lot longer and that's…that took until my double diversion article in *Social Forces* which yeah sometime after 2000 [Vol. 84 Number 1 (2005) 89-114]. So, it took me like fifteen years to figure out how to say it and how to respond. Every place, every journal I sent it to seemed to have three reviewers. One reviewer would say this is brilliant path-breaking work. Another one would say this is impossible. It can't possibly be. And the third would be somewhere in between or else would never get the review back in and the journal would say well the reviewers are so mixed we can't publish this. And it was finally a version I sent to *Social Forces* where I think my response to the editor letter with all the detailed responses to all of the reviewer claims was probably longer than the paper was, you know, very, very great detailed going through stating what I'd done but also why I disagreed with some comments, and further evidence that they wanted to see. So, I think now that that's published, after that was published, must have been 2005 or so.

FISHER: That sounds right.

FREUDENBURG: That was the time when I really wanted to get started on the book that was going to lay out this whole double diversion thing. And that was when Katrina hit, 2005, August 29th, not like it haunts me to this day. And on August 30th, Bob Gramling and Shirley Laska called me. Shirley had been evacuating from New Orleans. And she'd started to head to the east but she had Bob's cell phone number. And she called him up as she was driving out. Being a good "risk" person she knew to get out of

there even though her home never flooded. She bought a home on high ground. And it didn't flood but it was really close to an area that did and she was just too smart to be running that risk. But Bob said "actually, the storm is headed east. Why don't you head west? I've got plenty of room on my floor here." She and he had working phone service at his place which is enough west of New Orleans to be out of the impact zone. But they didn't have working Internet. So, I was the one who was looking at the satellite photos as Shirley was sort of talking about this Mr. Go thing that, you know, I'd heard about once and all about, but, you know, that was what started this obsessions that turned into *Catastrophe in the Making*. And that just now finally came out about the fourth anniversary of Katrina last year (in 2009).

I was in the hospital for the cancer surgery for that when we were doing final proofs. It was in May of last year. I've forgotten the exact date, when I got my diagnosis that I have a cancer that will almost certainly kill me and that, you know, I had a ninety-seven percent chance of being dead within a year. And I woke up the next morning saying "Well, the one thing I want to do before I go is to finish that God-damned double diversion book." So I haven't gotten as far on that as I wanted to because as I told you I don't have the energy to put in as many hours of the day. But I…I'm getting there and I will get it done, that plus spending time with son, Max.

FISHER: Right, of course. I have a bunch more questions. I want to just see if we could take break.

FREUDENBURG: That would be a great idea.

FISHER: Alright, now we're recording, so speaking of equity.

FREUDENBURG: Okay, we were just talking about equity. You know the people who do environmental justice, you know I probably wouldn't be one of the first half a dozen names they think of people who do environmental justice. I think their work has been more important to me than mine to them. I mentioned Paul Mohai, Bunyan Bryant, too, but…

FISHER: You also mentioned Bob Bullard.

FREUDENBURG: Yes, Bob Bullard, also Dorceta Taylor has had a lot of influence I think. But Bob Wilkinson and I, by the way chemo brain is not just a theory. It's an excuse. I use it all the time because it really has affected my ability to concentrate on anything more than one narrow thing at a time. But Bob Wilkinson and I have this volume that came out last year [William R. Freudenburg, Robert C. Wilkinson (2008), Equity and the environment: a pressing need and a new step forward, in Robert C. Wilkinson, William R. Freudenburg (ed.) *Equity and the Environment (Research in Social Problems and Public Policy, Volume 15)*, Emerald Group Publishing Limited, pp.1-18].

In the volume we argue that really equity needs to be at the center of environmental social science work for the next century. And at least as an essential framework we talk about five equity issues and I may even be able to remember them. The obvious one is the environmental justice issue—who gets stuck with the bad stuff,

equity and inequity. The second though is equity and inequity in access to the bare necessities of food, water, you know, it's an international development issue. The third is equity and inequality across time, which is we argue the right way to think about the so called sustainability issue. But then there's a fourth and a fifth one that don't get any attention at all so far. And the fourth one, you and I have been talking about a lot this afternoon which is equity and inequality in the creation of bad stuff (environmental bads). And the fifth one is related to what economist Jim Boyce says when he talks about inequality as a cause of environmental degradation, in terms of not just who gets it, but how much there is. And his argument in a nutshell, although he actually writes it very succinctly himself, is that there aren't many cases that anybody can think of where resource use patterns by poor people have created problems for the rich and powerful. It goes the other way: the bad things that the rich and powerful do hurt those who are not so powerful. And therefore the greater the amount of inequality in a society, the worse we should expect environmental problems to be. And there's a surprising amount of not terribly strong, but pretty consistent support for that. And it's everything from the fact that in 1970 when the U. S. had pretty strong environmental laws relative to the rest of the world, we also had levels of inequality that were not that much different from the rest of the world. And now our levels of inequality are comparable to what you find in Latin American dictatorships as measured by the Gini coefficient. And our environmental record is not nearly as strong. It is applicable at the level of counties that have higher levels of voter turnout in their elections have stronger environmental laws and better environmental conditions than do counties that have low levels of voter turnout.

FISHER: Oh that's interesting.

FREUDENBURG: So the five equities we offer at least in that book. There are probably some others we can't think of, ought to become the focus of environmental social science work or work on environment and society more broadly we hope over the coming decades of the twenty-first century. And now it's Miller time.

FISHER: And, now it is Miller time, alright, the end, thank you continuing tomorrow.

FISHER: We're continuing our interview.

FREUDENBURG: This is with Freudenburg.

FISHER: So I guess, well I guess this is the usual question to just start with first. We talked a little about turning points in the discipline of environmental sociology. And one of the questions here is: were there any turning points that were particularly worse or better for environment sociology in your opinion.

FREUDENBURG: Let me…I'm not thinking of any right offhand but let me sort of think back on it just out loud which is there was this initial sort of revolutionary fervor. Reagan came in. A lot of people got depressed. The initial burst in attention in energy from ASA kind of leveled off and like I said there was probably a period of about ten years there where, you know, it was fun to go back and see your old friends but you tended to see about the same people every year. So that was bad. In a way that was

bad. Oh yeah, it was nice in other ways…let me answer it this way: around 1980 there were such important foundational works for the field that were coming out. What's been bad I believe is that it's now 2010, thirty years later, and you could, I argued that Catton's, *Overshoot,* Schnaiberg's, *the Environment*, and maybe Dunlap's work on the HEP-NEP Distinction and New Ecological Paradigm are still the kind of foundational works of the field. And as someone who spent his whole career doing inter-disciplinary stuff I'm acutely aware of the fact that when I hang around with the biologists, theory means taking a complicated world and simplifying it down to something that's simple and crisp enough you can test it empirically. When I hang around philosophers, theory means taking a world that seems fairly complicated but then showing how it's far more complicated than you realized. And sociology has feet in both of those camps. When it comes to the idea of progress there is not a biologist out there who really cites Darwin anymore unless it's really just kind of out of respect, you know. Darwin wrote this Species thing a long time ago and it's actually pretty readable. You ought to read it sometime. But the idea, somewhere in one of Merton's essays he quotes somebody who says that a science that fails to forget its fathers is lost. And of course they were all fathers and no mothers, versus, there's not a philosophy department in the world that would not want you to be exposed to Aristotle. I mean the whole idea of the humanities is this sense of perspective. And so sociology has this tension in it, this fault line in it that runs from philosophy and the humanities on one extreme to the sciences in the other extreme.

There's this tension in the field and that's part of what makes it a cool place to work. You look out our window here in Santa Barbara. You can see some of the richest ecological zones of the whole ocean are right here in the inter-tidal zone. You get out in the middle of the ocean there's still life out there but compared to this area it's a real desert. It the place where the water meets the land where there is this interchange of light and water, the sun meets the sand meets the sea and, you know, the energy. And part of the reason Santa Barbara Channel is rich is that there are a lot of upwellings here that stir up all that sediment that fell to the bottom and it mixes. So sociology can be a neat place. And the edges of sociology I think are neat places, the places where sociology meets the environment in particular. But sociology's also a place where there's, all kinds of contestation that reminds me of what Russ Newman whom I first met, one of those assistant professors at Yale, once called the Russ Newman eighty-percent law (but he doesn't remember ever having said this anymore but I remember it). It is that whatever field you're in, whatever kind of people you're dealing with, your best bet is that at least eighty percent of them won't really know what they're doing. And I've repeated that to him years later and he said, "well it's probably closer to ninety percent." But he didn't remember saying it anyway.

But it's true kind of by circularity that if you're smart enough, you find out what the smartest people in the field are doing and a lot of other people are not going to be as smart and…and that's just the nature of human endeavor. But there are a lot of people in sociology who really, really want to be like philosophy and are bitterly opposed to having that science stuff. There are other people in sociology that really, really want to show that they know the numbers stuff really well and they're more methodologically macho than anybody else. And those kinds…that kind of extremism seems to me to

miss the potential vibrancy of sociology. That the ancestry…one of Riley's papers early on was about…

FISHER: Ancestor Worship.

FREUDENBURG: Yeah, he had written things about how sociology didn't really respect the environment and that's why you couldn't get things published in sociology journals. And Don Field, another friend of mine, took great umbrage of that because he had worked with some of the grand old men of Rural Sociology. And he said hey this stuff is all over rural sociology. And that's what led to the Field and Burch book, *Rural Sociology and the Environmen*t, because Bill Burch also knew a lot of those people and a lot of that work. And they demonstrated in great detail that a lot of rural sociologists had paid great attention to the environment. And unlike the case in mainstream sociology that didn't stop around 1950 when…when the first edition of Hawley's Human Ecology came out.

And Riley responded to that with a piece on disciplinary myopia and the dangers of ancestor worship. You know not exactly hiding his disagreement. But it's true that, you know, as flattered as I am by the fact that you'd be asking me all these questions and maybe someday somebody will listen to this or, you know, read what you summarize out of these hours of comments, that I hope that what I'm doing right now in the double diversion lets us build on but move beyond 1980. And I hope it's not too many years after now when somebody looks at what I think is the most brilliant thing ever written on human-environment relationships and how it's not all of us equally. It's not a tragedy of the commons. It's a tragedy of the enclosure movement and of a few who are disproportionately creating impact and negative impacts to the environment, that we don't notice on top of the fact that there are three hundred million Americans who consume a lot of stuff which is also true. I'm not saying it's not. But that…that they're gonna take what I'm writing right now and say, "Freudenburg was, you know, reasonable for his time. But what he didn't realize was…" and there will be something there that they're right about that I've missed.

Pete Nowak, whom I've worked with already says that I'm missing something because I look too much just at the human part of it. And if you really want to understand what's going on he looks at farm practices. And he says "everything is logged, normally distributed…not everything. But in general." Here's a footnote or time out, left centered distributions come to be log normally distributed. Since it's hard to put out less than zero pollution. It's hard to create fewer than zero crimes. It's hard to live for long on less than zero income. So incomes we know are log normally distributed. Crimes are logged normally distributed. I argue that pollution is too—that's pollution creating activities as Nowak tells me. And I bet he's right, that it's not just the activity but it's also the setting. So there are some farm fields where you can engage in environmentally inappropriate behavior and it won't hurt that much. But you can engage in the same inappropriate behaviors on land that's right next to a stream and all of the excess fertilizer, phosphates, pesticides, whatever, goes right into the stream and kills fish and does great damage in siltation downstream. And he's probably right. You know there's an interaction that is probably also log normally distributed. That's a minor example.

But there was an old line of theory in psychology I believe called "constructive alternativism," clever title. It means we all use constructs to think about the world, sort of mental models, and it's the ones that seem useful to us that we use. Because we use them more, we're more likely to find out sooner what their limitations are. And that's how we get smarter. Or as Pete Hind, the Dutch mathematician once wrote, the way to truth is simple and easy to express, to err, and err, and err again but less and less and less.

So I guess my biggest complaint with the field would be that from, 1980 when these very important works came out, and at the same time Reagan came in and everybody started getting depressed, up until probably after Bob Bullard started writing about environmental justice or several years after that, not just the first, and not when toxic wastes and race came out, but after several other pieces started coming out and it got to be not just one or two people saying this. But by golly, look at it. There's this body of evidence, that the negative impacts of environmental disturbance are not evenly distributed. That…that was a time I think of insufficient criticism toward our own thinking. And I would argue that we're still in that stage of insufficient criticism toward the assumption that the creation of harm is more or less evenly distributed. I mean the STIRPAT equation…basically says that there are stochastic differences from IPAT, the impacts equaling population, times affluence times technology. And if you've looked at that literature you know that technology is usually just in there as kind of a statistical fudge factor. It is population and affluence predicting impacts. So, at the national level you can make everything come out and it does look like affluence is a bigger predictor of environmental harm than, you know, it certainly doesn't fit the ecological modernization notions of Mol and Spaargaren in particular. And you notice that it's taking me until now to mention them even though they are sort of the main alternative to what I'm calling the foundational works you know, in environmental sociology.

I think in part because Allan was so forceful and outspoken we're still seeing papers at A S A in 2010 contrasting the treadmill of production against ecological modernization even though Fisher and Freudenburg wrote this brilliant piece years ago [2004 "Post Industrialization and Environmental Quality: An Empirical Analysis of the Environmental State." *Social Forces.* Volume 83, Issue 1: 157-188.]. The piece said there are things that look a lot like ecological modernization and there are other things that look a lot like the treadmill of production. Therefore, neither theory can be completely right. We have to start talking about variables. Under what circumstances does it look more like ecological modernization? Under what circumstances does it look more like Schnaiberg? And I'm absolutely convinced that's right. Although I think we may have even moved beyond that. We also need to ask under what circumstances, do you start seeing this kind of double diversion that Freudenburg and a few other brave souls are writing about, including Pete Nowak, Lisa Berry, my friends Bob Gramling, Shirley Laska and Kai Erickson. But not that many…not enough people are looking at it yet, so even though the empirical evidence that's been found is very strong, it's extremely limited.

We know that the majority of the air pollution from cars comes from a tiny fraction of the cars. We know that if we're looking at water use in the west about eighty percent of the water goes into one industry that makes up about two or three percent of the

economy of most states. And it's not golf courses. It's agriculture. And then you get more specific and in California, which is the state where I know the water numbers best, over half of the water that's used in agriculture goes into not the high value crops like wine, grapes, almonds, it's raising hay and alfalfa and to a lesser extent rice and cotton being grown in the desert. Hay and alfalfa to be fed to cattle so that they can make milk and…and hamburgers. So we should conserve water and I give my students a real hard time for their water bottles. But the average American consumes in liquid form, three to five liters a day of water. And in the food we eat we consume three to five thousand liters per day of water, three to five, so a thousand times as much water in the food we eat as in everything from coffee to beer.

FISHER: It sounds almost like "the oil we eat" argument except for dealing with water instead of oil.

FREUDENBURG: Yeah with water. And it makes a huge difference if you're a vegetarian or not, good for you, you know, because cattle are some of the least efficient, especially if you eat beef which is a very inefficient producer of protein. But we're…we're not seeing where the real environmental impacts are coming from and why are we growing all that cotton and alfalfa in the desert? Well partly it's because the Bureau of Reclamation for years, thanks to our federal government, which was taxing people who raised cattle in Wisconsin so that their tax money could pay for Bureau of Reclamation projects that would, "sell water to farmers in California for three dollars and fifty cents per acre foot." That's an acre about the size of a football field, a foot deep. It's about a third of a million gallons. It comes down to about two cents a ton. When Santa Barbara wants more water for its urban growth and you hear we need more water development because California's going to grow. At least you hear that if you live out here. Santa Barbara's going to pay two to three hundred dollars per acre foot. And these farmers are getting it, some of them, still for around two or three dollars per acre foot. So guess who wastes it? Not the people who are paying a hundred times as much, but…and the farmers of course would tell you it's not waste. They'd say "We're feeding the nation." But we have agricultural surpluses all across America. We have other farmers who are paying taxes so that they can get subsidized here in the state that pays my salary. It is not that there are too many of us and we all use too much. It's not that alone. It's also the fact that we have all kinds of institutional signals that, well, as Bob and Shirley and Kai and I say in our *Catastrophe in the Making* book, it's like John Lafitte, in New Orleans, the pirate, and you know, Lafitte Square and all that Lafitte stuff is named after him.

Lafitte played an important role in the War of 1812. But he was a pirate. And he is remembered today quite fondly in New Orleans where they like sort of cantankerous characters, but almost certainly what we have is very much like his kind of piracy. A few people make out like bandits, in his case literally. A few more actually benefit some because they would raid slave ships and other kinds of shipping and steal things and sell it for less than you could otherwise get it in New Orleans. But the world economy as a whole, and probably even just the regional economy, actually suffered rather than benefiting from the piracy. And if you watch how world leaders today react when the pirates off Somalia are hijacking ships it's…it's a terrible thing. I forget who it was who wrote, "They steal the man and hang the woman who steal the goose from off the

common, but they let the greater thief loose who steals the common from the goose." And that continues to be true all of these years later that the petty thieves we catch and we put in jail. But the…the people who are stealing your share of clean air and water, and mine, and our children's shares of it and claiming that that's for the benefit of American capitalism, are then attacked in sociology not for stealing but for being examples of American capitalism.

You know we're failing to critique this apolitical stance that I believe we still inherited from those biologists we were talking about seven hours ago who didn't want to say anything that sounded political so Garrett Hardin writes about the "Tragedy of the Commons" and doesn't write about the enclosure movement that actually is what kicked…there are a lot of…there are commons' grazing areas in Europe today that have been in existence for a thousand years. Industrialism has been around for two, two hundred and fifty years, something like that, so that's way more sustainable than anything we put together as demonstrated empirically. And most of the commons' grazing arrangements that ended, it was not because of the acts of the illiterate peasant. It was because of the acts of the rich land owners and the lawyers who worked for them who would enclose…if you could prove in writing that your great grandfather had the right to graze cattle there then you could stay there. But of course if you're illiterate you're screwed. And the lawyer would help make sure you got kicked off. England initially, the Church, and the State were very much opposed to these acts of enclosure. But after many, many decades of fighting, the British Parliament actually had an 'Acts of Enclosure' and made it all official and made it very legal for the landlords to steal the land from the commoners, which provided a great labor source for industrialism, but was quite a tragedy at the time for the people involved.

But it was a tragedy not created by the illiterate many. It was a tragedy created by a rich few who were politically connected. And a…the industries I've been able to get the data on so far have consistently looked like that so far, that it's, you know the *Social Forces* article where I tried to spell this out using the Environmental Protection Agency's Toxic Release Inventory data. Over half of the toxic releases in the whole country came from about four percent of the economy, not half, but four percent. And that's rounding up and doing it by dollars. If you do it by jobs, it is less than one and a half percent of the jobs, and yet we say this is a pollution versus jobs' issue.

With Hardin's Commons, if you have ten percent too many sheep you take, pick any ten percent of the sheep take them off and then at least theoretically you're back down to the carrying capacity of that pasture if you could ever predict it that precisely. For any industry that I've been able to get the numbers on so far, and this is working with Lisa Berry who's from here. If you could get the worst ten percent of the polluters, not kicked off the common completely, but to be only as bad as the median polluters in their own industries, and this, I think, handles the technological necessity argument. Anything that half of the industry, the companies in your industry can do, is something I would submit, is technologically feasible. You can't say they can't do it if they're doing it. If they were only as bad as the median polluters in their own industries, it would drop total pollution, the entire industry, the dirtiest industries in America by anywhere from seventy to ninety-five percent, depending on which industry you're looking at. That it seems to me is a big enough number that people who care about environment and

society relationships ought to be saying “Whoa! What’s going on here?” And at least some of them ought to say “Freudenburg’s got to be wrong. I’m gonna look at a different industry and show why he’s wrong.” And my guess is it’s probably a variable that there are things that vary that make it worse in some cases, not so bad in other cases. But it’s only going to be by doing new empirical research that actually imagines that it’s possible for this to be out there, that we’re gonna find out.

Catton says in his book, someplace that we see not just with our eyes, but with our ideas. Perrow says in *Normal Accidents* that it’s not necessarily the case that seeing is believing, sometimes it’s necessary to believe that something can happen before we can see it. Anytime you’ve lost your keys and looked around for them you’ve probably looked straight at them and not seen them even though they’ve been physically there…This has been lying in front of us for thirty, forty years now. And it’s been bugging me for about fifteen years before I could actually come up with words and start coming up with some numbers and ways of testing it. But now I see it everywhere I look and I wish I could get more people to spend time looking at it to find out where I’m right, where I’m wrong and where they’re going to be the people who are going to figure out what’s really going on. We need not to bury our ancestors but also not to worship them, but to stand on their shoulders and see if we can move forward, not stay in one place.

FISHER: Okay. So now I’m gonna ask you the Riley question.

FREUDENBURG: Okay which one? Half of this is about Riley. He and I know each other longer than just about anybody I guess.

FISHER: Well this is…so…so you’ve spent the bulk of your career at three different universities, Washington State, University of Wisconsin-Madison, now UC Santa Barbara.

FREUDENBURG: Right.

FISHER: How do you think your research interests and intellectual perspective more broadly were affected if at all by working in each of these three universities and within different institutional settings in each?

FREUDENBURG: Wow, okay. Well I’ve talked a lot about the Washington State connection.

FISHER: This, by the way, means that you can ask a tough question when we do this for Riley, so remember that. Go ahead.

FREUDENBURG: Well except that he and I continue to see each other often enough that the questions that I was bugging him about either over beer or over coffee thirty-some years ago are the ones he’s working on now with his new work with Aaron McCright and with Peter Jacques, I guess is how he says it, and other people on the right wing counter attacks on…on global warming science, global climate destruction work. And, you know, he’s actually looking at the social construction of the dominant social paradigm. And that was what I was giving him a really hard time for not doing,

one of the two things I gave him a really hard time for not doing back in some dusty…musty Pullman basement in 1979 or ’80 I guess for the first time. The second thing was the disproportionality and impact and that that’s not his issue. It’s mine. So that Riley and Bill Catton also, Bill Catton and Kai Erickson are probably the only two editors I’ve ever had outside of Gramling, whom I work with all the time, who I thought actually improved my stuff with their editing. Neither one had a very heavy hand but both of them, everything they did I said, “oh, wow. That’s so much clearer. Good, oh, thank you.” I mean it’s just usually I think this dumb editor didn’t get it you know. Gramling knows me well enough that he says, “Freudenburg this is bullshit.” So by the time he and I are done, we can’t tell where something came from in the first place.

So I moved from there [Pullman] to Wisconsin. The first big change in Wisconsin was that I didn’t have Riley, but I started hanging out with a whole lot of Tom Heberlein who is a very witty fellow, a very good methodologist, and very good at keeping me from stepping into things, or he tried to along with Fred Buttel. And Fred was probably the key person, and Pete Nowak, whom I’ve already mentioned. Fred was probably kind of the socio-metric star of my life in Madison. I was one of many people who considered Fred to be my best friend. I probably wouldn’t have been the person Fred would have named as his best friend in Madison just because he was that kind of a guy. And Fred was the kind of guy I also had beer with, had coffee with, got into all kinds of arguments with, more arguments than with Riley, you know, because it would be a new argument the next month. And some of them showed up in print.

I thought his notion of natural resource sociology versus environmental sociology was really dumb, you know. I literally couldn’t tell you which one I was supposed to be. And so I wrote something there with a word I learned from Bob Gramling—omphaloskepsis—which means belly button gazing, you know it’s useful to do a little bit of this kind of self reflection. But I’ve seen all kinds of folks who spend all of their time doing that kind of omphaloskepsis and I think we should do a little bit of it and then go back to our real work. So Fred was important to me. Also working with Pete, quite a few of the biologists and the environmental historians there, Art McAvoy probably more than Bill Cronin, Nancy Langston was also very important. Paul Hirt, actually an environmental historian in Washing State is somebody who had a lot of influence on my thinking and gets cited a lot in my work. My next article coming out, which will be with an undergrad here, Violetta Muselli, on the Asymmetry of Scientific Challenge. He doesn’t know this and I don’t think he agrees with it but I think it grows out of his work on the conspiracy of optimism which is that, the asymmetry of challenges to how many trees can the national forests grow, and one side had all of the money. All of the studies they funded tended to be ones done by people who had good models for why we ought to be able to grow even more trees.

And they came up with numbers that were higher and higher and higher and two to four times higher than what most scientists will tell you today the forests can actually physically grow. But that was because…it was not just that they were funding the research they liked, but also if somebody came up with a new theory or new set of findings about how the national forests couldn’t possibly grow that many trees, somebody in the forest industry, either the industry or the government, the forest service would hire the sharpest minds they could to cut it to shreds. So you had an asymmetry

of challenge. You know, one set of theories got praised and those people were invited to do the luncheon speeches at the national conventions and whatever and the other people were attacked and very similar to what's been happening with climate science today. I find that the asymmetry of science, what everybody worries about in the mass media, is whether the climate change predictions are too dire or overstated or exaggerated. And what we predict and what the asymmetry of scientific challenge perspective predicts is that no. They won't be nearly pessimistic enough because a new theory that comes out that looks like it's going to be even worse gets attacked by the sharpest people out there. And so to survive it really has to be a solid piece of science.

Whereas the new theories and ideas coming out saying that "Oh, it won't be so bad," almost any hair-brained idea out there somebody's going to pick out, provide funding for it, and give a megaphone to it, and make sure that there's a PR campaign behind it so it gets into the newspapers. And scientists are nothing if not fair, even to points of view with which they disagree. If you look at the Intergovernmental Panel on Climate Change (IPCC) assessments, or the U N's latest compendium on climate change, you know they keep sort of edging toward "it's probably a little worse than we thought last time." And the UN, especially the UN Environment Programme back in the compendium six months ago or whenever it was, was saying things that were at the high end of the possible range of what we're actually seeing now. But those things all get attacked by the right wing. So what Violetta and I do is to take the same four newspapers that Boykoff and Boykoff found to be over reporting the "it's gonna be awful," that scientists can't agree and not reporting what scientists actually report. And we use them as our source of new stories, news stories on the science.

Another important influence in Madison was Sharon Dunwoody and all of her students in mass communication who kept me up on the latest mass communication stuff. And some of her former students and some other journalists I've met since then, I rant and rave at them at the lousy job the American media are doing at covering the science of climate change. And they say "oh, you don't realize, you know, if you're going to get this past an editor as a science story, it gets buried on page B-78. If you want somebody to pay attention you need to make it a policy story. A science story you quote a scientist from the University of Kentucky and somebody else from the University of Nevada-Reno who are experts on that particular thing and they offer learned comments. But the policy story where you invite one environmental spokesman and one person who works for the Heritage Foundation. And one says 'yes this is good science.' The other says 'this is the biggest hoax ever perpetrated on the American people.' And you publish that side by side."

Well the same newspapers that on page one are doing these IPCC news releases, which get attacked by critics as having no credibility, would then publish a news story on an interesting little piece of science...And so, if you use the assumption that scientific journals, like newspapers, are always going to be looking for…not for something that says, "well I did a new study and it proves that what we already thought is basically right." But instead, "we're too low or we're too high." And you ask what's the ratio between those two. If it really is the case that the scientists have been overstating it, then the new science coming out should be finding that we've overstated

it. And it's… It's like three percent of all the stories find that by a ratio of more than twenty to one, twenty-five to one or so, the new stories coming out on the new science that's not the IPCC stuff but just the emerging scientific ordinary science showing up in *Science* and *Nature* and major journals saying "it's gonna be worse than the IPCC says." So that also comes out of that background. Back to Wisconsin, I started to mention Steve Carpenter.

FISHER: Yes.

FREUDENBURG: Because it was working with Steve and with, also with Pete Nowak and Tom Heberlein on an IGERT that you know something about where I met some very important and influential people that we were looking at what is the connection between the social sciences and the physical and biological sciences working on these (links). And, you know, the disproportionality was one of them. And it was working with Steve that sort of gave Pete, and me some of the lingo for it, the words for it, that, connected with the biologists who by that time were actively looking at biological hot spots, the three percent of the earth's surface that support, you know, seventy percent of the biological diversity or whatever the numbers are. I ended up thinking, "why don't we look at the three percent of the economy that's responsible for seventy percent of the environmental harm. And, you know, that was really cool.

The other major influence on me at Madison, more than either before or since—I spent the majority of my professional career at Madison—so, that ought to be a big chunk of our time. Tthe other big influence on me there, much bigger in Madison than either before at Washington State or since I've moved here to UCSB were the students. You know I was working with bright students who've gone on to places like Columbia University and the University of Alberta and who had pushed me. And, I looked at that citation gadget the other day and my number one cited paper ever is something I was working on with the good doctor Deborah Davidson. She was taking a class with me, and said, "Let's see if we can work on a paper." I said, "Hey, I've got some data from this nuclear site or this proposed nuclear waste site in Nebraska that looks a little different from the rest of the nuclear literature. Let's try to turn that into an article. And, your job is to sort of update this literature review and I've got some numbers here." She started working on it, got really frustrated and came back to me and said "I don't want to do just a regular literature review. There's such a mess. I've got to put this into some sort of order." And so we sort of agreed that we'd do it in two papers or no actually we didn't. We sent it off to a journal and the journal said they only wanted half of it or…actually I don't know. I don't remember which order it came in anymore. Too many articles anymore, but at one point we decided to separate them out. And Deb came to me and said, "you know, this literature review really was my idea so I ought to be the first author on it." And, I thought for a good five or ten seconds to see if I had any excuse to say no and I didn't. So it was the article that she was the first author on, on gender and concern about nuclear and other risks that turns out to have been cited more times than anything else I've ever written [Davidson, Debra J., & Freudenburg, William R. (1996). Gender and environmental risk concerns: A review and analysis of available research. *Environment and Behavior* 28(3):302-339.]

It also came out something like ten years before the one that I was taking the lead on that, you know, that's the Freudenburg and Davidson one, which is where we

used all the numbers and discussed why this one place in Nebraska is really weird [Freudenburg, William R. and Debra Davidson. 2007. "Nuclear Families, Nuclear Risks: The Effects of Gender, Geography and Progeny on Attitudes toward a Nuclear Waste Facility." *Rural Sociology* 72 (#2, June): 215-43]. It was a county that was proposed for a low level nuclear waste facility. They don't call them dumps, where there was already an operating nuclear power plant in the east edge of the county. And the proposed waste site was in the west side of the county. And there were different cultural backgrounds in the farmers in the two sides of the county. It was a really interesting, because it looked like this is the only place ever documented where women with children at home didn't have higher concerns about a nuclear facility than the men. And we wanted to understand how this could be.

It turns out that women in the eastern half of the county, where the nuclear power plant is a major employer, were the ones who really liked the idea of a nuclear waste site in the western half of the county. And the ones in the western half of the county looked like women in every other study, especially the ones with kids. They said, "no way, I don't want that anywhere close to us." So it was an apparent reversal where an accident in geography, you know, made it possible to do kind of a neat test which is what I was interested in, in the first place. But she was right. The literature really was a mess. And there was a lot of it that focused on so called "worry wart women." One article actually used that phrase and was asking what's weird about them. As we were working on the article, I think it's Flynn, Mertz and Slovak who came out with the first piece ever to control for race and sex. They found that if you took white versus non-white men and women and you make a four by four table there's only one group that sticks out like a sore thumb and it's the white men. And it turns out it's a subset of the white men…The ones who think that nuclear risks are safe that are also the ones who think that it's okay to lock up people without so many civil liberties and the push for equal rights has gone way too far and, you know. They're the Newt Gingrich white guys who make white men stick out from other samples on almost every kind of risk that was out there. It's not quite that simple but it looked that simple back then. But anyway the paper was an instance where Deb was taking the lead and it really was her idea that's gotten more citations than anything else I've ever published. It breaks my heart, but okay. That's what happens when you work with good, smart people so.

FISHER: So Santa Barbara…

FREUDENBURG: In Santa Barbara I've spent more time hanging around with and working with people outside of sociology than in sociology. We're doing this interview in my office in the marine science building, you know. And I've been having a lot of fun working with different kinds of biologists here. And I continue to work with some very bright grad students. And this…I'm working more with undergraduates here, too. When I came here I said I'd teach any one large enrollment class they wanted me to teach because although I'm not getting paid enough to buy housing in Santa Barbara I'm getting paid more than anybody ought to be paid for, you know, teaching small classes. And I need to sort of do my share in paying the bills. And I thought they'd ask me to teach the…we have three introductory courses in this environmental studies program. I thought they'd ask me to do the one on the environmental social sciences and humanities, but that's actually being taught very well by a guy who's an historian

and who uses a historical way of organizing it. So they said, “no, we want you to teach ES I, the introduction to the whole smear. “ ES II is introduction to the environmental sciences, ES III introduction to environmental social sciences and humanities. Of the thousand or so environmental programs out there, this is one of the five or ten percent that believes in what we call a comprehensive approach, which is everything from the humanities through the social sciences through the physical and biological sciences. And then somewhere on that dimension you add engineering, the law, planning and other professions.

And so ES I was supposed to be this intro to the whole thing. And Lord, how do I do that? And in the place where Garrett Hardin lived and gave us the whole term of the Tragedy of the Commons, and the answer is that with all due respect to his contributions, because he was a scientist, I say he gave us a lot and he got it wrong and here’s where he got it wrong and I teach about the double diversion. But while I’ve been here, I’ve spent a lot more time with the undergraduates. Overall, with a few exceptions like Dana Fisher who of course is this brilliant scholar, graduate students complain a whole lot. I did too when I was a graduate student. The undergraduates are amazingly energetic, and you can ask them to do all kinds of work and they think it’s kind of cool if they’re doing something that may matter. For example, Violetta, whom I’ve just mentioned to you, is a brilliant student, a wonderful human being, an incredibly hard worker, head of…co-director of the Environmental Affairs Board which our…our university president hates because they’re always getting into trouble, getting the university to do more green stuff, but she is also a fine researcher.

So she’s the one I worked with on this *Global Environmental Change* article [Freudenburg, William R. and Violetta Muselli. 2010. “Global Warming Estimates, Media Expectations, and the Asymmetry of Scientific Challenge.” *Global Environmental Change* 20: 483-491],and another one that she and I have just submitted to this special issue of *American Behavioral Scientist*. So I’m working with more undergraduates here.

I work with graduate students too. I just mentioned Christine Shirer. I’ve worked more closely with Lisa Berry, who’s actually given me some great ideas on the disproportionality stuff even though that’s not what she did for her own dissertation. She actually changed my thinking on how we structure our teaching at the university, and with Mary Collins. Lisa basically is interested in how, for her own work, in how people learn about statistics and did a brilliant convincing dissertation that I, for the life of me, can’t shame her into publishing yet that basically shows that we got it all wrong: We make people memorize the way mathematician were for years and years and years of prerequisites. And then, when they finally get good at it then they can do something interesting about toxic waste in your community. And she said it’s, especially for environmental stuff, most of the people who have minds like mathematicians can handle it just as well. And the other ninety percent of humanity can handle it far better if, instead of worrying about math anxiety and claiming that that’s a condition of the individual students, ninety percent of the students in your class think, I would say more sociologically. So, maybe there’s something about how we’ve structured the curriculum in the classroom that’s failing ninety percent of our students. If instead you start with the fact that there’s a toxic waste incinerator on the edge of town and you’ve got an unusually high incidence of childhood leukemia, and you ask “how would you decide if

that really is connected to that incinerator or not." In the process the students learn about probabilities and statistics and testing and all…all of that. Then you can teach them more. They learn better. It sticks better. It works in their heads better. And the ones who are interested in the beauty of mathematics, they're the ones you can then give them the courses on how mathematicians think and they'll love it.

But we're teaching it backwards. Instead of teaching, making everybody take the "how the blank's think", the biologist, sociologists, think, for Sociology 1, we ought to be starting with real world problems in Sociology 1 and getting on to the graduate seminar kinds of courses for the seniors who are actually interested in becoming sociology majors. And that's sort of the approach. I've taken Lisa's approach in teaching Environmental Studies I. The last time I taught Intro was about my first couple of years at Madison where I taught Intro to Rural Sociology, a lot easier to teach by the way because I…you know the stuff in sociology you don't know, it's not that hard to find it. And you know which people you're going to believe, which ones you're not when you look up their stuff.

And when I try to know the difference between bio-magnification and bioremediation, I have to look it up every time. Or bio-magnification and bioaccumulation, I have to look every time. I can't remember which one is going from the water to the first critters. But that's easy. The hard sciences are not physics and biology and not even sociology. The really hard ones are the humanities, because in sociology and the social sciences it still, kind of, comes down to testable hypotheses on good days. But the folks who are seen as being the leading edge of environmental literature and the ones who are not seen as leading edge, again I sometimes after all these years after having been a music major, I can't really tell the difference. But people whose intellects I respect can tell the difference and they seem to agree with each other. So I've learned that it's actually taken me a lot longer to learn the humanities' end of environmental studies as we talk about it here, than to learn the science end. The science end is dead simple, sometimes boring but it's right or it's wrong and you can look at the numbers and decide for yourself.

Mary Collins is the other one I mentioned. Because she's doing some brilliant work that she thought of herself on connecting the disproportionality in the creation of harm to the disproportionality in the suffering of harm. She went to work for the Environmental Protection Agency (EPA) in the Chicago region last summer for a month or three. And they wanted some work done on, it happened to be Milwaukee, and she said, "well, let's look at where the harm is coming from. You know there are certain neighborhoods that seem to have really high levels of exposure. Maybe it's not just coming from nowhere. Maybe it's coming from specific facilities." Lo and behold, there are just a couple of facilities in Milwaukee that are responsible for the gross…for a huge fraction of the environmental harm that's hitting the most minority intensive neighborhoods. And, you know, if it's the case that even today when there's a lot of evidence that race on average is a better predictor of who's exposed to harm, environmental harm, than income even in the United States, there are still some exceptions. It's not uniform. And maybe one of the reasons is we're talking about real small sample sizes. I mean, if there are really only three facilities in Milwaukee…I don't actually know, I picked that number out of thin air. It's a small number. But if there

were only three, and if all of them happened to close down suddenly, the exposure to new environmental harms would stop being so disproportionate. So, a new study in Milwaukee might say "hey, this earlier study was completely wrong unless you looked at where the stuff is coming from." So failing to look at the sources of the pollution or in the case of water use in the west, failing to look at the sources of the resource demand, may tie pretty directly to the failure to see the environmental justice implications.

Bob Wilkinson's the other guy I work with here a lot. There are really good environmental economists. But Bob is the guy I've been working with the most. He and I have an (edited) volume on equity in the environment. And we make the claim that really for the new century, it was still new when we started writing it…if the twentieth century version of the environment-society relationship was all about studying the Tragedy of the Commons, then in the new century we need to look at equity because we're looking either at equity across nations, in access to…within nations in excess to good stuff, water, resources…

FISHER: Alright, we just lost a whole bunch of stuff from section five [due to a technical malfunction]. But what we were gonna do is try to talk a little bit again about…talking a little bit about how you see your work engaging with policy and what role you see for environmental sociology in terms of how it can inform and contribute to policy. And you started by talking about that two by two table. And I thought that was really telling.

FREUDENBURG: Okay, this is based on an argument I had several times with Jack Kloppenburg in Madison. In the table…the row across is the question of if you are working as a scientist or as an activist. And across the heads of the two columns, are you doing the kind of work that will be useful to the few, the rich and the powerful, or to the many and the not-so-powerful. And I mentioned that if you're looking for people who do activism for industry and the rich and powerful they're easy to find. We usually call them consultants or, you know, PR agents or lawyers. And it's also very easy to find folks who do science for industry, for the captains of the industry in particular. Some of the finest scientists out there get very well paid.

When you get to the other column though, the poor and the powerless, there are an awful lot of environmental sociologists and other sociologists who leap immediately into action in the activist role. They want to help the downtrodden, but they want to do it as activists. And they write important critiques about why you shouldn't try to be objective and you should take a position. And that's…I've never found that convincing, at least for me, and I used to get into arguments with Jack Kloppenburg about what I thought we ought to do instead, which is go into the cell that's almost empty. That's is where I've spent most of my life, my career I think, doing what I hope is first rate science, balanced, fair, accurate, legitimate, credible. But on questions that are being ignored by the scientists who are only working for industry, because it strikes me that any political change always depends on a combination of light and heat. And the activists have plenty of heat. And I'm not very good at adding to the heat. So they don't need me doing that. And I don't…wouldn't be very comfortable doing that anyway, but where I…what I can do is provide, I hope, genuine light, you know, genuinely good quality science that happens to be on questions that other people are ignoring. So, as I just mentioned yesterday the forthcoming piece with Violetta Muselli on the "Asymmetry

of Scientific Challenge." I mean anybody could have written that but somehow nobody else did. Recreancy, the notion of the public opposition to risky things being related, best explained, I argue, not as that irrational silly public, but as coming from the failure of responsible institutions, hope you can hear the quotes here," to act responsibly."

Those were things that seemed to me to be perfectly balanced, fair, legitimate, but that needed to be said in part because nobody else was saying them. And the fact that work might be used in a politicized setting to me has always meant it actually has to be better science. It's not that you get into the policy world and that's where you get sloppy and biased. If more people are going to be looking at it, and a lot of my career I've been working on the other side from some of the richest industries in the world and I try to do it in a way that I'm not taking sides. I try to say, "look, it's only your friends that tell you your faults." Especially if you read that first book that Gramling and I did together, *Oil in Troubled Waters*, and you compare that to the book that he wrote a couple of years later: *On the Edge*. You'll see not only is it the case he's kept me from going off the deep end a few times but that I must have kept him from going off the deep end a few times, too, because you know, one tries very, very hard to be fair to all sides but looks at questions that the pro-industry side wasn't looking at before. The other just kind of lets it all hang out and says these guys have been lying, not quite, but it's a much more forceful attack.

FISHER: Do you see there what you're calling kind of this activist sociology I guess we could call it that. Do you see that as the same as, you know, more public sociology? Or do you see that as different?

FREUDENBURG: I've read and reread the stuff on public sociology. And I think, even though I know we have very smart people who have written about this, I have a really hard time seeing how that's anything other than an argument for how even smart people at Berkley can do applied sociology and not have to apologize for it. But what you do is you call it something else. You call it "public sociology" and that's cool. That's not what I advocate for environmental sociology, not just a sociology that goes public, although that's certainly what some of my own work has done and I think that's important.

FISHER: When you say going public can you just define that? I mean is that like going and writing OpEds about your findings or talking to policy makers?

FREUDENBURG: In my case, I've decided, actually right after Katrina, that I was going to do tithing the rest of my career.

FISHER: Tithing?

FREUDENBURG: I wanted about a tenth…I'm never gonna stop writing mainstream journal articles that nobody else is gonna read because that's kind of what I do out of habit and, you know, I've yelled at so many students over the years that they had to do that, that it would be hypocritical of me to just stop. But maybe a tenth of all the words I write for the rest of my career I hope somebody besides my hundred closest friends in environmental sociology will actually want to read them. I actually have added a new chunk of my vita someplace on things that are written for broader public and, you

know, quite a few of the things on it are with Gramling, Laska and Erickson including *Catastrophe in the Making*, but also including a magazine article in *World Watch Magazine* and an Op Ed in the *Houston Chronicle*, a couple of things that are showing up in blogs and things like that where I'm trying to reach out.

I even joined the Society of Environmental Journalists (SEJ) a couple of years back partly because they were meeting just up the coast here right before classes started, they were cheap to join, and I'd always enjoyed some of their news digests. So I said I want to go meet these people. And they drink beer and have fun just like sociologists do, so that was kind of cool. But the real reason I joined is so that I could eavesdrop on SEJ talk, you know, where they're batting things back and forth. Because I realized after Katrina…actually, back up. Before Katrina, I had written a sum total of one Op Ed piece in my whole life, actually wrote it with Bob but he decided to take his name off of it because he was about to go onto a National Academy committee and he didn't want to look too biased. And it was published in the *Washington Post*. So I said, "Oh boy, I'm good at this. How hard can this be, one for one" After Katrina I wrote lots and lots and lots of OpEds with some other smart people and I think I'm now one for seven hundred fifty-eight or maybe two I guess because we got one in the Houston Chronicle finally. So, two for seven hundred fifty-eight. Obviously, what I thought I understood about the journalists I didn't understand. I said, "well, if I'm going to be serious about trying to reach out to the public, then I need to do a better job of learning what it is that actually makes these weird people called journalists tic." So I am doing a fair amount of public sociology. But that's not what I advocate for all of environmental sociology.

FISHER: So what do you advocate?

FREUDENBURG: What I advocate is something that may or may not be on your tape because now I can't remember what's been taped and what hasn't. Remembering the importance of not just asking what is it that sociology can contribute to the study of the environment, but also asking what the study of the environment can contribute to sociology. My first answer to that for me and in almost every case is it tells us an awful lot about power. And it does so in a way that is particularly interesting and particularly likely to lead to some insights. For example, if there is a welfare reform bill in Wisconsin, what happens to the people who were on welfare? Do they suffer more? That's an empirical question but it's kind of hard to get good numbers on it. And even if you do, it's very easy for right wingers to say "ah, that's just a bunch of liberal sociologists, you know, what the hell do they know." But when you're writing about things that are measured to the parts per trillion by some of the finest scientists in the world, some of whom are employed by the same industry, it gets to be a lot harder to denigrate the quality of your numbers. And if what you're doing is an honest, fair analysis of those numbers, you can show it to any critic who wants to look at it and it stands. I mean an organization called "Western Forest Economists, Inc." invited me out to their annual meeting in Oregon. I guess it was after the spotted owls paper came out [Freudenburg, William R., Lisa J. Wilson, and Daniel O'Leary. 1998. "Forty Years of Spotted Owls? A Longitudinal Analysis of Logging-Industry Job Losses." Sociological Perspectives 41(1): 1-26]. And…I had people writing ominous notes to the Dean saying "what kind of junk is the University of Wisconsin funding? Who is putting this

out?" And, to the credit of the deans, I never heard a word about any of those ominous notes. They really did their job of protecting the scientists. So, it was only when a friend of mine would get a copy of one of those notes that I'd get the copy from my friend to see what kinds of attempts at suppression were going on that never affected me. Wisconsin was very good about that. These guys were not doing it that way. Brian Martin, I think, has a wonderful article on suppression of dissent in science. And one of his indications of whether it is dissent is whether the communication goes directly to the scientist or to the scientist's superior trying to cut off the funding.

These [forest economist] guys communicated directly with me and they brought me out to try to defend my ridiculous idea. And I had the numbers there. They were the right numbers, so it was a really…it was great fun to go out there and show this whole room full of economists that they were wrong. And I'm sorry if it didn't match their religion but the numbers are what they are. And I wouldn't have been able to do that with such glee if I had chiseled on something. I mean you can only do that, at least if you have the simple mind that I have. I can't lie and remember what lies I've told to what people, so it's just a lot easier to try to tell the truth every time and especially when you're trying to do good quality work to do the best work you possibly can.

Doesn't that "help the man?" One of my students once asked. And the answer is "it all depends on what question you're answering, trying to answer." If you only try to answer the kinds of questions that the people in power want you to answer, then odds are it will help them out, but it doesn't always. Sometimes they don't…they wish they hadn't asked the question. That's one of the great things about research is you don't know the answer until you've done the research. But if you are also asking the questions they don't want to have asked, but asking by the very same rules and maybe a little bit higher standard of rules using the very best science you can do, that is a way that you can take the discursive high ground. So it's not even a case of speaking truth to power, which is what…the way we've always loved to put it. That was the way we thought about it at Yale, too, that since we were at Yale we would do it, invite those of us at Yale to tell them what the truth was. Instead, it's speaking the truth whether the powerful people want you to speak it or not which…which is a different role and it makes you much less subservient to power or to the powerful people who are paying your bills. And it's one of the joys of the academy is that as long as you're playing by the rules of science, which is to do it fair, do it well, and do it carefully, then no matter how pissed off they are, there isn't much they can do to get you.

FISHER: Right.

FREUDENBURG: And it's a great way…it's a good skill to pass on to students too who can then become professors and trouble makers themselves.

FISHER: Or they can try.

FISHER: We are resuming the Bill Freudenburg Oral History Project.

FREUDENBURG: Okay and you're actually getting something then.

FISHER: And I am getting something and it's all good. It's all good so here I'm going to start with the last question. And then we'll go back to rural sociology to the extent that it makes sense. And the last question is "how would you describe the position or role of environmental sociology within a larger discipline of sociology?" And having been somebody who's written a number of very influential things within the mainstream sociological literature about the environment to the extent that you feel like that's changed and where, you know, what are the big directions you think the field needs to go, just a little question.

FREUDENBURG: Well I'll take those as two different questions.

FISHER: Okay.

FREUDENBURG: The place of environmental sociology in the larger discipline I'm actually quoting Fred Buttel here who said it's now a specialty. I mean it just like criminology can be a specialty or, you know, it's narrower than criminology or social psychology. It's broader than sociology of animal rights. But it's no longer something that's on the outside trying to get in and reform the whole discipline. [I remarked on this when I was preparing an introduction to a piece by Bill Catton to be published in *Sociological Inquiry* a few years back]. My essay for it sort of celebrated the fact that the latest issue of *ASR* which I just happened to dig out of one of these piles, the day before that thing was due, bam. Here are two environmental sociological pieces in it. I can't remember even which ones they were, but neither one was trying to revolutionize all of sociology. They were just good solid pieces or what *ASR* considered to be good solid pieces of environmental sociology. So you now see, you know, environmental sociology showing up in *ASR* every now and then.

I hope that environmental sociology will continue to educate our sociological brothers and sisters on the fact that the environment is not something we have to run away from and it's not even just a stage on which social actors dance but it's actually part of the action. I talked about that conjoint constitution or the mutual contingency between what we think of as being social and what we think of as being an environmental. And you can't separate them anymore than you can saw apart the north and south poles of a magnet; saw a magnet in half you get two magnets, each of which has a north and south pole. It's a relationship of environment and society. And not only does it not help to try to separate the environment from society, you can't really do it and still say intelligent things. So I hope that that's, you know, one of the things that we'll be doing for the rest of sociology over the years ahead.

And then you've got hours of me ranting and raving on tape about how, I guess here we're making a transition to what do I see as the future of environmental sociology. But this is also something I think we can bring to the broader discipline of sociology, which is again, not just asking what sociology can contribute to the study of the environment, but what the study of the environment can contribute to sociology, and one of the major contributions that's just sort of so big in my brain that I can hardly see anything else is [an] understanding of equity and inequality and power. And that, too, I think is something we can bring back to the rest of sociology. We can study power in ways that go well beyond the way sociologists have traditionally thought about it or legitimacy.

I mean a piece of mine with Maggie Alario that comes complete with magic acts, the Wizard of Oz, chest thumping gorillas, all kinds of, you know, good solid academic, stogy things, we argued that as brilliant as Weber was and as brilliant as many other people who have written on sociological aspects of legitimation or legitimacy, they've all tended to think in terms of what supports it like it's a physical thing like the roof of the treasury building as Maggie and I put it [Freudenburg, W. R., & Margarita, A. (2007). Weapons of mass distraction: Magicianship, misdirection, and the dark side of legitimation.*Sociological Forum*, 22 (2), 146-173]. And some people talk about the pillar of charisma or more often of tradition and or of prosperity or of science. And then there are other learned theories that argue about the tensions among the pillars and which one's more important. And all of that says to me that something that I've put down. I may have…probably in an article with Gramling someplace, that with apologies to Dickens, academics have the best of minds, the worst of minds, that we have an unusually well developed ability to come up with abstract ways of thinking about the world that allow us to come up with insights that ordinary mortals may have missed. But that's the good news and the bad news because we become so fixated upon, so enamored with our models that we can forget that the purpose of a model is to help us understand reality not to be a substitute for reality. And, so, Maggie and I are saying, "well, this is all very good. In fact a lot of it is brilliant work. But it tends to lead people who have written about legitimacy to forget that legitimacy is not a thing like a roof. It's an abstraction, you know. Habermas' legitimation crisis was about how capitalism creates a problem that kind of wasn't around before. There's enough prosperity that the problem is how to distribute the goodies unequally according to criteria other than simple heredity but in a way that is nevertheless accepted as legitimate." I think [that] is exactly the right question but [that he] came up with utterly the wrong answer.

Because all of the answers that are out there, Foucault and the Panopticon, you know, different or Zerubavel stuff. It's all things about control. The capitalists are controlling you. The Panopticon was, Jeremy Bentham's original version of it was, a central tower that was designed for a prison so the guards could watch all the prisoners without necessarily the prisoners knowing whether they were being watched at any given time. And Maggie and I argue that in this article called "Weapons of mass distraction: Magicianship, misdirection, and the dark side of legitimation" that it might be true of totalitarian states and of certain totalitarian type institutions within, even a democratic state. But most of the time what's going on is not…the important question isn't whether or not the state is watching you. It's whether you're watching the state while people are hauling out wheelbarrows full of cash from the side doors of the treasury building while you're watching the pillars out in front. So, you know, the Wizard of Oz piece in there is that, you know, there's a scene where Toto the dog pulls back the curtain and the Wizard says "pay no attention to the man behind the curtain." Even a seven year old watching that for the first time immediately gets that's exactly where he should be watching.

And most politicians know well enough that, with that rare exception of Richard Nixon's "I Am Not a Crook," they distract by talking about something else. That's that diversionary reframing rearing its ugly head again. So, you know, here you have BP making billions of dollars off of resources that you and I and three hundred million other American taxpayers own, and they're, even before the spill, they were being charged for

that at a rate less than half of what they'd have to pay in Norway or for God's sake even in Burkina Faso, you know, eighty and ninety percent is the total government take from publicly owned oil reserves in most of the world. In the US, however, it's been, you know, around thirty percent, forty percent if you add everything together. And in 1995, Congress passed a Deep Water Oil Resources Relief Act so that they could pay even less than that. So it's a sweetheart deal for giving public resources over to private profit. And the amounts involved are spectacular so that you can't say this is trivial in terms of societal power or money. But we have the opportunity if we study the environment seriously and in a way that takes power seriously to start identifying and talking about the power dynamics that are in play, you know the diversionary reframing.

Why should you steal all of our oil or why should you be able to get all of our oil at fire sale prices? You must be one of those Americans that thinks that people should have to park their cars and walk to work every day. Don't you care about jobs? And as long as you're arguing about whether or not you care about people getting to work then you've forgotten all about arguing about whether or not BP and Exxon Mobil should be able to get access to the resources that we own at a rate that's only half of what's charged in the rest of the world. And, by the way, under the Oil Pollution Act, even if they create billions of dollars in damage, somehow the law that was supposed to help the environment had a little provision in it someplace that I'd not heard about until a couple of weeks ago, that the maximum liability's at twenty-five million dollars, which, you know they can burn up in getting the Deepwater Horizon fired up and just driving out to the ocean. It's nothing compared to the magnitude of the harm that they can do. How'd they get away with that? We've got to look at that kind of thing in more detail. And I think if we take power and inequality seriously, we will not only improve our environmental sociology and our understanding of environment-society relationships but we'll improve our understanding of power and society in a way that'll benefit all of sociology.

FISHER: That was good. Well I guess the last, the two last things I want us to talk about and we actually have time, is thinking about the future of the rural sociology-environmental sociology nexus. So we're skipping a little although I think a lot of the rural sociology stuff we do have throughout. I know we missed…

FREUDENBURG: Yeah we missed this big chunk this morning.

FISHER: But I also wanted to talk about Gramling and your history with Gramling, because you had that good story on there that we lost. Maybe we'll talk about Gramling first.

FREUDENBURG: Well, yeah, you were asking about rural sociology and environmental sociology and how did that affect me?

FISHER: And how you got involved and then you started talking about how you got involved in working with Bob Gramling?

FREUDENBURG: And it basically made it easier for me to work on the kinds of things I enjoyed working on anyway. And somewhere in the middle of that story, I started talking about how when I was a professor at Washington State I got this phone

call from the Minerals Management Service, you know, the same people who are, you know…

FISHER: Getting split apart.

FREUDENBURG: Getting real red faces about their real black record right now. And I thought it was just because, you know, I was this brilliant social impact specialist. But it probably also has something to do with the fact that they were trying to expand their oil leasing into the Pacific Northwest and so the fact that I was from Washington State probably had something to do with it. That…that story I think I also mentioned [but] that you can't prove it. None of this is official. But the story I heard is that, I know that when James Watt was the Secretary of Interior what he did was to take chunks of two agencies, the Bureau of Land Management and US Geological Survey and he ripped out anything that had to do with offshore leasing…wanted to do offshore and onshore leasing. Onshore the ranchers didn't want to lose their captive agency, the B L M, thank you. And a Republican administration did not want to irritate the western ranchers. So the onshore part died. But there were no significant Republican interest groups that opposed doing that offshore. So Watts set up this new agency without congressional authorization with a name that gave…left no doubt about what his main purpose was, which is the Minerals Management Service which is second only to Uncle Sam as a source of money for the U S Government. He, at that time kicked off several of the people or let them retire, who had been on the Scientific Advisory Committee. The staff came up with a bunch of new names. The bunch of new names were submitted to the Republican National Committee and they nixed most of them. Nobody will say who those names were. Informally, we've been told that what happened after Watts left office in a scandal and was replaced by William "Judge" Clark as the Secretary of the Interior. Clark said I can get political advice from anywhere, from my scientific community. I want scientific advice, and that they just took the same names and put them through. And that was when I got this phone call [asking] "would you like to be on this advisory committee?" And I said, "sure, cool."

So it was in one of my early meetings on that advisory committee that we got a briefing from this active researcher in the Gulf of Mexico named Gramling. We got lots of briefings, but Gramling was clearly the brightest guy we heard from. And so, you know, he and I had talked some. At some point he and I also did an article, for *Sociological Inquiry*. I think it was what we were talking about this again earlier, they wanted to do a series of articles featuring people who were not the biggest names in sociology, not Robert Merton, but the up and coming types and Dunlap and Catton were among them. And Gramling and I worked together on that. But I don't remember if that was the first one we did or if that was a later one. The one I remember is that Gramling had published something about the…the Gulf region. After Black Sunday, meaning after all of these bust stories started popping up all around the Intermountain West, saying "Gosh, there hasn't been any bust here in the Gulf. Maybe there's something about the Gulf of Mexico or this region or offshore oil that just makes it immune to busts." And as Murphy's Law would predict, between the time he sent in the last version of that, and the time when the journal article actually came out, the bust hit big time. I think it was around the end of 1985 to the middle of '86 like the world price of oil

suddenly fell by about half. And suddenly every drilling operation out there just shut down completely and the bust hit like crazy.

So by the time I saw this article and read it I sent him a letter saying, "Dear Professor Gramling, I'm just now reading your really interesting hypothesis in your latest article about such and such. And I find this so intriguing. I wonder if you'd like to consider doing a joint research project where we might explore this hypothesis in greater detail." And a couple days…and I mentioned this morning, this is during the days before email so this is like three or four days later the letter would have arrived. And he called back, actually. He spent money on a phone call instead of what was probably about an eighteen cent first class postage stamp at that point, laughing and saying "Well, wouldn't you know it [the bust hit]." But he also said, "as a matter of fact I've got some data we ought to work on. You know I'd be interested in working on that." And it was the "Communities, Commodities and the Collapse of the Coast" article which I think was in *Rural Sociology* [Gramling, Robert and William R. Freudenburg. 1990. "A Closer Look at "Local Control": Communities, Commodities, and the Collapse of the Coast." *Rural Sociology,* Volume 55, Issue 4: 541-558]. The paper looked, not exactly at the question of whether the Gulf coast communities were immune to bust, but at the claims that a lot of people were making about how this also shows that the oil companies control everything, that they're just…they decided to screw these communities. And we said, "you know, they're big, they're powerful, they don't care, maybe. But they didn't do this to the communities deliberately. And, in fact, the oil companies themselves, as big as they are, the world oil market is even bigger. And they are at the mercies of the world oil market as well." That may have been our first trip to Grand Isle because he said, a woman who became his wife later on, Eileen, had a camp, which is what you call, any old place that's close to the…water down at Grand Isle, which has just got some globs of oil today finally, big globs, bad news.

FISHER: Do they have anything on the coast or detected?

FREUDENBURG: I don't know. Well, they've got a lot of booms out, you know, thousands of miles of booms, but the oil is getting past the booms. The thing, Harvey Moloch wrote years ago of the dramatic contrast between the expense and sophistication of the offshore drilling rigs versus the clean up technology, which is, you know, tossing hay bales out there and just trying to pick it up with pitch forks and trash cans. And, we're a little past that. We're now all the way up to boom…the same kinds of oil booms that were being [used] fifty years ago that weren't very effective back then either. But the difference between that, versus being able to keep a ship stationary, drill through a mile of water and then go another thirteen thousand feet down and…or in this case hit a, you know, a pipe that's only a few inches in diameter and hit it dead on. And they probably will be able to do that. But that's something they've made money from, so that's what they've invested heavily in. The contrast between our ability to mess things up, to do damage to the environment, versus our ability to undo the damage is, I mean, it's so spectacular I don't have words for it. But that's what Moloch wrote years ago and it's still true today.

Anyway, Gramling said let's go down to this camp in Grand Isle. They have great fresh oysters. And, you know, you can hardly get a phone call in and out of there, so nobody will interrupt us. I lived in Wisconsin. It was winter time. That sounded

pretty cool. So I carried one of the early, my first laptop, which was a small suitcase in size. I mean a heavy sucker. But it had SPSS on it, and we…I flew in to Lafayette where he lives and we were driving to Grand Isle which is quite a few hours, four or five hour drive. And as we were driving we started talking about it. I said, "oh, that's a great idea." And so I whipped out my lap top and fired up SPSS and and…both of us remember this to this day, going over this very high bridge, high enough so that ships can pass under it, over Whiskey Bay, that, you know, I hit the send key or the enter key on the computer and SPSS came back with an R squared of 1.0000. And we felt like the dark lord had somehow, you know, reached in the car and Satan was going to take our souls next.

Actually, it was a small error. We did get R squares of .97 or .98, something like that in the end. But there was a small glitch that I put in that I shouldn't have put in. But we looked at that. I said "Oh, my God." But that…that…the cleaned up version of that is the first article I remember doing with Gramling. And it was a lot of fun. And it was the kind of thing that for…we've worked on enough articles since then that I guess I said this yesterday when the tape was running that our usual rule of thumb by the way is the first author is just who writes the first draft. And that was one of the cases where he wrote the first draft. And I actually may have done the majority of the work because he was busy with something, building his house or something. There have been other articles where I did the first draft but he did the majority of the work. But it was just easier to divide it up that way because usually by the time you're done, we're done, you can't tell who came up with what phrase, what sentence, etc. So that's what I can remember.

FREUDENBURG: That's the Gramling connection.

FISHER: I remember one question I actually have about Gramling is now was he more active in the rural sociology world or?

FREUDENBURG: Not as much as I was. I think I was the one who was more active in the Rural Sociological Society because I had a rural sociology appointment and he didn't. And [he's] a little bit like me before I ever had been told that there could be a rural sociology appointment for somebody like me. I don't think he'd paid a whole lot of attention. But we decided to present one of our papers at a Rural Sociological Society meeting. We published that, "Communities, Commodities and the Collapse of the Coast." That was in *Rural Sociology*. And once he started coming to the rural sociology meetings he found, as I often have, that they're actually more…there's more, good environmental sociology there per square inch and they also tend to be more enjoyable meetings because, you know, ASA sections kind of all have personalities. And, you know, the Science Knowledge and Technology section is…well, their noses are elevated just a bit.. The demographers like to be macho and tougher than thou. The Environmental Sociology section of ASA from its earlier days, earliest days, has been one of the friendliest. And again, I think that's the influence of Riley in particular and Bill Catton who made very sure that people could feel as welcome as possible. They didn't want to get…they wanted to make sure that they didn't treat others the way that environmental sociology had been treated by the mainstream discipline at the time. But you get outside of the environmental sociology parts of an ASA meeting and there's some really good work everywhere, but there's often also an incredibly high level of

pomposity. And as is the case with country folk the world around, pomposity's not a welcome commodity in rural sociology. So he started coming to the rural meetings pretty regularly after that.

FISHER: Okay well that's good. So I feel like we fleshed out the Gramling story. The final thing is just going back maybe for five minutes or so.

FREUDENBURG: Before Dana does her guest lecture.

FISHER: Exactly, before I do my guest lecture. And I get a chance to kind of wake up a little bit because it's that time of the day where I…since I did give a lecture at eight this morning too I'm a little pooped, to talk for a few minutes about rural sociology and…and I actually do think that in talking about your history and your experience being in rural sociology departments you did talk about some of this. But the question I guess was how your involvement in rural sociology and environmental sociology together has influenced the types of questions you've pursued. And I think that's how we ended up with Gramling before.

FREUDENBURG: Yeah, that is.

FISHER: And where you see the rural sociology-environmental sociology nexus is going in the future, which we actually didn't talk about and that's when I realized the tape wasn't working. I mean, and you had said, before you said to the degree there will be rural sociology in the future. And I actually wanted to add a pressing question there which is just to say, I mean, I know that Washington State closed down the Rural Sociology department. Madison has changed their Rural Sociology department to be called, what is it, Community Development and Environmental?

FREUDENBURG: Something with community and environmental.

FISHER: Right, the department at Cornell is Developmental Sociology. Is that what it's called? So, I was wondering if you can talk, I mean that doesn't necessarily mean that rural sociology's not happening but rather than these departments are changing names. And I'm just wondering how you see moving forward, the relationship between rural sociology and environmental sociology and where you see rural sociology going. You were the President of the Rural Sociological Society so one would imagine you have opinions about this.

FREUDENBURG: Yeah I was only a few years ago. Well, the answer to how environmental sociology and rural sociology affected me, a summary of the thirty minutes from this morning that's not on there, is that it made it even easier for me to do the kinds of things I want to do and enjoy doing, which is looking at real world or practical questions. Although sometimes the lessons I draw out of looking at real world practical problems are the sorts of things that only a sociology journal could love. I try to write the things that I think would be of interest for the policy world in…I try to write those things down into something that'll get read by more than just sociologists. But there are an awful lot of things about everything I study that I still see through sociological lenses. As far as the future, I'm going to be a little more evasive. You know the quick answer is "I don't know." It's always hard to make predictions and

predicting the future is especially hard. But I guess I've always argued that the future of rural sociology should not be so deeply tied to the…production agriculture and the land grant mission. I still have a lot of respect for, you know, the boundaries of [the University of] Wisconsin are the boundaries of the state as we must have both heard a thousand times in Wisconsin. And trying to do top quality scientific work that is nevertheless of value to the people in your state I think is really…really a wonderful idea. The problem tends again to go back to power and who is it who will be most likely to have co-opted what we mean by good science for the value of the people in the state. And you're…if you have two guesses and the first one doesn't count, the one that you should make count is that it won't be the people who are relatively low in power and numerous who will capture a symbol.

I think Fred wrote about this at some point, too, that, you know, the…part of the problem with the environment is that, I mean… this is Bill here rather than Fred. Environmentalists almost, in this country, have rarely achieved victories. They've achieved partial victories. So back when the Forest Service was put into place that was actually a great victory because up until that time people were torching thousands of square miles of forest just to watch them burn, you know. The whole idea that we would try to use these, we would…rather than give these lands away to the highest or to one of the lowest bidders fast, that we would name them national forests and try and get some good, for the greater good, for the greater number out of them to try to manage resources in a way that was sustainable and sustained yield, multiple use sustained yield, or " MUSSY." That was a major partial victory. It wasn't a John Muir victory which would have, you know, made them cathedrals. But it was at least the Pinchot version of a victory over the rapaciousness of the years before. But, because it was an ambiguous victory or partial victory, ambiguous fuzzy symbols are much easier to co-opt than real crisp black and white ones. So sustainability today is going to be in the same boat I would predict in a few years. Over the years in the forest service what started out as a great victory for conservation wound up being, going through a linguistic erosion very much like the bureaucratic slippage kind of thing, so that by the time environmental sociology was getting started in the 1970's multiple use sustained yield meant cut more trees.

The Forest Service didn't say when they looked at different options for an environment impact statement or for a forest plan that one of them was going to be "take them trees and make them horizontal as fast as you possibly can." Instead they say one option is to manage for water and watersheds. And one is to manage for wildlife and for recreation, and one is to manage for multiple use, and "multiple use," by that time, within the forest service had come to be indistinguishable from "cut more trees." I'm sure that didn't happen overnight. It was a series of reinterpretations that happened in a lot of meetings.

But, Clarence Stone, a political scientist, has written about what he calls systemic power. And I find his work on some of the less visible aspects of power more insightful than just about anybody else, certainly including even Steven Lukes and some very well respected people in sociology. And he notes that business interests, organized business interests, don't always win. This is not a case where the capitalists win everything and that explains everything. But they don't lose that often and they very

rarely lose the war. And how do you…it's a variable as we were talking about the difference between ecological modernization and sort of the Overshoot version of environmental sociology. It's not that one is always right and the other is always wrong because neither is always wrong. So we have to start understanding under what circumstances does it look more like ecological modernization, under what circumstances does it look more like Overshoot, and then the treadmill of production. And in this case we need to look at under what circumstances do… does the victory go to what Stone calls democratic power, the fact that if there are a lot of people they literally can outvote the few people who are benefiting from some rapacious arrangement. And the alternative, systemic power is not just from the fact that industries are rich and powerful, but that politicians like to get things done and be able to take their grandchildren out and see that big new building that was because…that's there because I helped build it while I was in office.

If you want to get something done, it's a lot easier to do if you have a small group or one organized industry to work with than if you're trying to work with five thousand cantankerous activists. So they tend to line up, the systemic power tends to be the power of the few over the many. And so when do the…when does democratic power win and when does systemic power win? Stone's answer basically has to do with whether or not something's in the headlines. While the spill is spewing out in the Gulf of Mexico and oil performance, environmental performance is on everybody's minds there is a window of opportunity for democratic power over environmental management to make some significant in-roads and to set new policies in place. But sooner or later and in today's media environment, it's probably going to be sooner, that's going to disappear from the front pages, which will go on to, you know…

FISHER: Well the good news is that with the…the "good news" and that's in quotes with the oil hitting land now all of a sudden there are going to be all these animals that are going to die who are going to wash up on the land and that's going to…

FREUDENBURG: Boy, aren't we cheerful.

FISHER: But they're going to get a lot more media attention for that, which could save the energy bill [in the Congress] and I'm going to talk about…

FREUDENBURG: The pictures are much more vivid now. But that will disappear and systemic power will take over, which is what happened with the forest service over time. And systemic power, you know the…

FISHER: This has something to do with the "repeat players," right?

FREUDENBURG: It's repeat players and it's concentrated versus diffuse interests.

FISHER: I remember reading that in your class.

FREUDENBURG: Yeah, there you go.

FISHER: Concentrated versus diffuse, that's what it was there. I remember that.

FREUDENBURG: [As Stone says] concentrated interests, who tend to be repeat players and who are rich and powerful. And that means that the people who are going to get together and march and express anger can have a great deal of influence over the policy process for a short period of time. But as it disappears from the headlines, you're not going to have ten thousand people marching to stop big oil from polluting something maybe a year and a half from now or maybe a month and a half from now. But the lobbyists who get paid by the hour are going to get paid by those concentrated interests, those relatively few actors who make a ton of money from things that aren't necessarily good for the environment. They're going to be the ones who keep showing up in the agency meetings and for…or at least meeting with people from the agencies and trying to convince them that it's not just the wording of the legislation that matters but it's how the agency writes the specific regulations to implement the laws that's really going to affect the enforcement over time.

FISHER: Well this was…I'm now very interested. I'm trying to remember how that ties into rural sociology and its future.

FREUDENBURG: Well it's more environmental sociology and what we can contribute, realizing that "Hey, here's a testable hypothesis in the year 2010 that sustainability is the…a big rage right now."

FISHER: So that's one [idea] that's going to die, is that what you're saying?

FREUDENBURG: Well, no, it's…it's never going to go away. But already you can find learned articles on, you know, thirty-seven different definitions of what sustainability means, which makes it perfect for co-opting purposes, for co-optation. And in a very short period of time, sustainability is going to have very little to do with what's going to be good for Margot and Max [our children] in the next generation. And it's going to have everything to do with "well, we have to meet our needs now and we have to meet our needs now," in quotes, is not going to meet all of them…mean all of us. It's going to wind up remarkably lining up with the interests of those who have the most concentrated power and the most at stake in that particular decision. And that I believe should be our starting null hypothesis for environmental sociology, but maybe for other kinds of sociology as well.

And to me that…that's going beyond saying "capitalism always wins" and just you can turn off your brain and just turn on the tape recorder and say that. But instead it's asking how is it that the few and the organized win? What are the specific techniques? And what does that tell us for making decisions about what's best for all of us. And that's a kind of leadership that…well rural sociology has also, does have a pretty good track record of working for the downtrodden as well as working for…those who control things. And this is, I think, what the transition was: that if you're supposed to have a land grant university working for the good of the state, the people who are really going to be able to watch that day after day, month after month, are going to be Monsanto and their buddies who stand to, you know, maybe they can make a few million more dollars if they spend a few hundred thousand in lobbying. Whereas Joe and Judy Six Pack have kids to raise, have bills to pay, and even though they might prefer something other than Roundup ready weeds that are now really spreading like crazy and all of the Roundup ready crops are, you know, no longer doing great things

for agriculture that they were supposed to because the weeds have developed resistance to that. You know the solution to that is going to be what? More chemicals, well that's okay if you're a chemical company and it's not so okay if you're a farmer. It's not so okay especially if you're an organic farmer or somebody who's trying to avoid getting those pesticides in your food. But guess who is there at the table every day? Well ,the people who are at the negotiating table are not the same people who are making the food for the home table.

FISHER: That was nice.

FREUDENBURG: Oh, I just came up with it.

FISHER: That was Bill Freudenburg after two days and many many hours.