### TRANSCRIPT

INTERVIEWEE: Hal Flanders (HF) INTERVIEWERS: David Todd (DT) DATE: April 4, 2001 LOCATION: Alpine, Texas TRANSCRIBER: Robin Johnson REEL: 2154

DT: Mr. Flanders, at the end of the last tape you talked a little bit about the pessimistic outlook because people weren't trying to live in a sustainable way. I thought that it might be useful to show that there are some alternatives that are much more sustainable and perfectly feasible. There's some examples right here around us in the way you designed and built your house. The way you planted your garden. Could you tell us about that?

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HF: Well, that's been kind of an outgrowth of being in the desert and finding out that you have to live with the sun, you—you can't fight it. And if it's good and certainly it is good, we wouldn't be on the planet at all if it weren't for the sun. Then why don't we use it to our advantage? Is it necessary always to fight the sun? So comes solar heating, passive solar heating, in competition with manufactured and expensive and limited energy. But it makes money so that makes it all right. I don't think so. Learning from nature, you take advantage of it where you need it and find ways to avoid it where you don't. You know, we don't feel like going underground, so why not live with the sun and

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try to use it to your own advantage, which we do. There is passive solar, and if it doesn't work down here in the desert, where's that going to work? They have successful examples in Maine of solar passive. So we tried to incorporate that when we built this addition onto the house by coming up with solar panels allowing the—the sun to come through and get on this black wall behind me here as a heat sink, so that when the sun is low in the sky, it's coming in and heating this black mesic rock. When the sun is up overhead in the summertime, nothing gets past the windows there. It doesn't come in at all. In the shop I have twenty-seven gallon jugs painted black on the back half of the bottle, filled with water and again, the cutoff so that summer that's not touched, but when

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the sun comes down and comes in and heats it in the winter, I got heat when I need it. And I can go out there at night and feel and things are still warm. I consistently get twenty to

twenty-five degrees higher than the outside, just with the solar heat. And just in case, I deal with a lot of wood. I got wood scrapes out there to put in the furnace or the little stove, if we need it. Also we built with natural materials, this soil roof. I cheated a little. I got R-19 insulation above it and a metal roof which would be hotter than the devil but at least it doesn't leak when it hails. So, it's the best of combinations that we

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can think to put together. We've—when it comes to the planting on the outside, we started out trying to make it just as barren and remote and beautiful as the desert is. Miscalculated a little. Got a honey—honey locust tree in the front yard. And every fall the leaves fall down, so it's mulching up my garden and seeds fall on it and other plants creep in. But basically what we're after is cacti of several different kinds. Century plants, agaves, oh, I saw an interesting thing this morning. I have a Thompson Eye Yucca out in the front yard, big tall thing. And I saw a desert wren, cactus wren, swoop up into there. He's nesting there this year. In past years, the agaves, Century plants,

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they're called, because when the people first met them, the—the plant grew and grew and grew and got big and massive and no—no—no fruiting. Just leaves get bigger and fatter and stuff. Finally one day they mature and this year they sent up a stock and go into their reproduction cycle. But it's not a century; it's maybe seventeen to thirty-five years, somewhere in that area depending on the amount of moisture. You got to be big and

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strong before you can put up that stock. And you see behind me here one of the stocks that's sitting up on the shelf and that was the first one that came up for us in the front yard, right in the middle of the front yard. And it went up about twenty feet and five feet off the ground, a little ladder-back woodpecker came along and pecked a hole and moved out what he could from the outside and got a big hole and nested and successfully brought up young. Ask me later and I'll show you a picture that's made by a man—a friend of mine who was taking pictures at the speed of—well, his exposures run sixty

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millionths of a second. That's fast. And he has stopped the woodpecker in the air about an inch away from getting into the hole and his wings are fluttering terribly at that point. But he stops it so cold that you see every line of the feather. You never have seen birds like that in your life because your eyes aren't good enough. But he did it and that was the woodpecker that built the hole at eye level right in the front yard next to the sidewalk. And he never nested there but one year because the house sparrows beat him to it the rest of the time. But there's so many interesting things about the desert. I have a piece of resurrection fern out there leaning up against a rock, and it looks like straw. It's nothing

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until it rains. And on camping trips, going down to the river, I'd get a piece of that and the night before we'd leave, I'd send everybody to bed, we'd get a wet washcloth and put the resurrection fern on it. And when they got up in the morning, just as livid green as you can get. And that's out there. Several different kinds of—one of the trees is the juniper. And the juniper—Texas is odd. They have juniper trees, which they hate and

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cut down and make posts out of them. And they come out of cedars, cedar posts, I don't know how they do this, but they do it. And it—it lasts well. That's what you have to do if you're going to be—exist out here at all. We get very little rain, we're just about ending up a eight-year drought or so. But right now, we're up against global warming, and everything in global warming says it's going—going to be more rigorous, hotter, colder, whatever characteristics of nature are going to be emphasized as a result of that. And we're seeing it here. And it's laced with mustard now. And mustard seeds are plentiful. And so it's kind of getting covered up. I got to get somebody to come in and clear out that landscape. But it is an attempt to simulate what I consider to be beautiful,

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just as it is out there in the desert. Why so—why are we so stuck with grass? I was interviewed once down on the river by a young man who asked me the question, what do you think about this golf course that they got down here right on the river? And I said, golf, I'm sure is a wonderful game and if people like to play that then what they should do is go to Boston, because Boston has lots of rain and you can do very well with the golf course back there. But not out here. Senseless. Why do we do it? So we can attract

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easterners out here? They—they go away again and take most of their money with them, so, what do we need with them? Nature should dictate what we do pretty much, and I think when we successfully emulate the lessons we learn from nature, we'll do fine. We're never going to out—out escalate nature. We—we can improve by wrecking something in nature, but nature will get around that. I've enjoyed going into the desert

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plants, but I'm amazed at the amount of business that is carried on by stealing plants even out of the national park and taking them to the big cities where they're sold and someplace—and the people who get them water them to death. Ridiculous.

DT: Speaking of desert plants, can you maybe talk about how the landscape in the Chihuahuan Desert has changed over the recent times since people began settling this area?

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HF: Well, from what I can gather, even talking to some of the old ranchers, they described to me how the grass here used to be belly high to cattle. There's certainly no evidence of that sort of thing now. But what happened over the years to change that? In the old days the buffalo came down here and stomped all over the place for up to a half a year, maybe a little less, and then they went north again. And the rest of the year everything out there recovered and the soil was broken up so that seeds could get a possibility for growing and so forth. And there was plenty of food the next year because of that. But now came the cattle and the cattle are in the place. And if you're making

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money on selling cattle, you're breeding more and they stomp the hell out of the whole desert and that doesn't—it's all year, it's continuous. Nothing gets a chance to grow. And only the hardiest plants, which the native and folks coming down here at that time hate mesquite. Mesquite's a remarkable tree. The root system has been measured in one

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instance, a hundred and ninety-five feet. Got to have water down. That's tough—tough—tough—tough battle. But they make it and they don't like juniper because, I guess because it's there. I would think they'd want to leave some for cattle to sleep under, but I don't know. And I think it's pretty ridiculous. We could have—we have the makings for everything down here to have a really lush place if the sun weren't so hot. We could have lush in a more limited style. You don't have to be overflowing. The Saguaro is one of the most beautiful and well-known plants in the whole United States

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about deserts, but it's only found in the Sonoran Desert, not here. There are indicator plants here, which are interesting. Blind Prickly Pear is on. There are no prickles, no—no spines. Cattle love it. And if you notice on the way out in my front yard there's a whole bunch of cactus and it's badly chewed up. Well here I am in the city, but the deer are down here at night chewing up the—and if down low you notice there's just as many bite marks down there. Javelina. They know how to get along.

DT: I was wondering if you would might tell of some of your interests in astronomy, because I understand that you've been a member of Big Bend Astronomical Society and I guess you've enjoyed looking at the stars just as they do over at McDonald. I was curious if you might tell a little bit about your experiences there and how that might, maybe that sense of scale, the astronomical scale, time and space, affects your attitude about life here on the planet. A big question

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HF: It is a big question, and why getting interested in that in the first place, was to learn something and now that I've begun barely appreciating what I'm seeing a little bit, I'm beginning to wonder. I go over there and I—I love to look at Saturn. It's—that's—that's

really a showpiece. And there are double stars and there are all sorts of things you can't see with your naked eye, but with telescopes that we've got, you can. And I asked someone the question, well, how far away is that? And they tell me millions of light years. Uh huh. You think it'll change? Don't know. Do you think it's still there? No. What are you studying it for? They've got good answers and they do do a lot of

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remarkable research and I'm sure that's a juvenile way of looking at things, but I've lost a lot of interest in Orion with his sword and his sword belt and so forth. The double star in the middle of his sword is fourteen hundred and fifty light years away. And the double star, may come closer and develop more—or may fall apart and spin away. Don't know. But we won't know for fourteen hundred and fifty years yet. What is the value in being amazed? It sure gives you the respect for nature and what it's done, no question, and it raises some eternal questions, but right now, when we're literally fighting for our lives and we don't know it, I wonder if that's the most valuable thing we could look to as a lesson. The talent that's behind that is vast. These people are very intelligent. But what are they going to do with it? Canadian geese on my clock. 5:00.

DT: You say we are fighting for our lives, perhaps you could tell us what you think the most serious environmental challenges are that are making life's prognosis not so good?

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HF: Well, the biggest problem we got is the one that's least talked about and most often hidden and tremendous battles are being fought over it. Too many people. We have overpopulated. And now much of what we do is being shopped. China's might and size are great, that's all true, but boy there's a lot of people over there. They are however, doing more about population control than anybody else. And here we are, the richest country, and we're doing our best to populate just as much as we can. In—in the past, creatures have disappeared because there were too many. If—sustainability is the

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answer. How many wolves should we have? Well, that depends on how many deer there are. How many deer will we have? Well, that's going to depend on how many wolves there are. The wolf is built so that he can just barely catch the weakest ones. He's pruning out the bad ones. Is that what we're doing? We could end up paying for that. So I think that's the biggest environmental problem that we face is how to cope with too many people and we don't talk about it largely because of religions. And everybody is mad at everybody else for what they think about it. I come in for my share, I'm sure. But we're not listening to nature. Nature prunes the weak ones and the smart ones are just good enough to catch the fleeter prey. So that's what I think and you'll probably get comments about that because that's—that's not blessed by the pope and a lot of other people. And somewhere along the line, we can't become an overpopulated, over regulated, undermined health race. It's—you got the seeds of its own destruction right there. I think it's—I don't know.

DT: Considering what a challenge it is, do you have any advice for the next generation that's going to have to confront, maybe this current generation that's feeding these environmental problems?

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HF: Well, the people who think about things like that seem to be working toward space travel in the hope that we can move to another location. But I don't want to go fourteen hundred and fifty years back to get on Orion. That could be a tough colonization. But space travel is being looked at as a possible, and it probably is. These people are a lot smarter than I am at what they can do. There again, that age-old question that Einstein asked, yes, but should we? Should we? We need to consider the consequences. And we're not considering the consequences, we're coping with the results that we're producing.

DT: Well, it sounds like Orion is not one of your favorite places, but maybe you could tell us about one here on earth that is a favorite spot that you like to visit? Gives you some comfort?

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HF: Oh, yes, that's easy one to answer. But I can get just as ecstatic about a whole lot of places. I think the favorite of them all is the Four Corners country up in Colorado, Utah, Arizona, New Mexico. The Hopis and the Navajos live up in that country and it is magic. See that picture over there on the wall? Arches National Monument right near four corners country. And the mittens and—it's a pretty starchy place. It's—not many organisms live in there that you can see. You really have to dwell there a little while and get the feel for it. But I guess I'm not a religious person, but I am very struck with beauty

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that nature produces on its own. And that's a place where your thoughts become uplifted a good deal. Whatever brings that about is whatever people call it, but I sure think that four corners country is great. And interestingly, I read a lot of mystery stories and the ones by Tony Hillerman are some of my favorites because when he talks about making his way from Cayenta to Dennehotso, I know what he's talking about, I've been there. In 1949, before they discovered uranium down in that country, I had to do some acceptance work for the telephone count—company, on four central offices in that area. And we came back through there in a little old Chevy two-door and two kids and the most worthless cocker spaniel I ever saw. He didn't have any sense at all. But we had a fine

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journey through that country when it was really pristine. Now it's chopped up with fortune hunters, of course, but the parts that are the most austere are away from everything else. Very few people up there yet, but the Indians. And it's interesting to note that now what commerce does go on up there, an Indian is behind the cash register, which I find very nice. Instead of working for the white man, for nothing, he's coming into his own a little bit. The trouble is he may not have sense enough not to follow our lead. I'm—I'm—I'm pleased with the continuation of their ways. Is anybody listening?

DT: Well, those are are listening to this tape, do you have anything else that you'd like to ad that we may not have covered so far in your conservation interests?

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HF: Well, I remember stopping in the redwoods country on the side of the road and walking about a quarter of a mile back in and it's silent back there. All the sounds that distract us constantly, not there. Sit down in the middle and listen. When the sun comes slanting through the trees and so forth and a little dust is in that, I've been in a lot of cathedrals but I've never been anything like that. Look to nature for guidance. It's there. I think that's it.

DT: Good advice. Thank you.

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HF: You bet.

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