Jim Acord Interview
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TC: 02:00:30

02:01:15 DW: Let's talk about the project you started at Hanford. JA: Yeah, there were actually you know we become what we behold, I mean, how does that poem go by Theodore Roffkee (?), "I wake to sleep and take my waking slow and learn by going where I have to go." When I went to Hanford, my principal interest was they were talking about long term long lasting markers to mark a hazardous radioactive waste site that would still be understandable if the English language changed. They were looking for a non-language based warning system. Well, that sounded like a project I was up for ! you know I mean we look back from everything from Mayan civilization to Mesopotamia ancient china you know India. Human beings do communicate visually in a way that language does not. And I don't want to digress too much on this and this is not to denigrate language, language is very important, but the image has a power to reach a portion of our brain that mere words don't. So my initial reason for going to Hanford was hey I can design long-lasting, non-language based radioactive warning markers for a contaminated site that is not gonna be farmed of lived on for tens of thousands of years. 020243 What a perfect challenge.

020246 I was into permanent materials, granite, you know, stainless steel, I mean, hey I had this down you know I was their guy. As I got there and I began learning more about nuclear science the actual technology, it went like a silver bullet right through my forehead. This is the transmutation of one elemental substance to another. Now the history of the dream of the transmutation goes back to classical Grecian times and probably earlier, but I mean Democratis and Euripides I mean they were talking about transmuting you know and this is when they were talking about earth, fire, water, come on give me the 4th one.... um earth fire water, wind you know you could transmute these 4 elemental substances into something else. All right, fast forward ahead 1500 years, alchemists you know believe they can transmute lead to gold, or change one elemental substance to another. Paracelsis (?), I mean all of these people that were alchemists, you know even Newton was an alchemist you know I mean, this just went with the territory I mean if you were curious and you were scientific, you thought, How could I turn one element into another? Well, with neutrons, we can do it. And I think, yeah Rutherford and Chadwick actually did the first transmutation they created a little bit of nitrogen in a bottle of oxygen by putting an althesarus against a sheet of cadmium which gave neutrons on the end.

020434 And I mean it was another 50 years before Thirme and Slazard and Otto Hann and everybody were really looking at the chemical results and saying wow, we've created new elements here. And the way this actually is done, is, it's very very simple. I don't think anyone really understands it fully, but I can certainly parrot everybody else's understanding. A neutron is one of the two elemental substances that make up the nucleus of an atom. A proton is positively charged. A neutron is not. Every element on

the periodic chart, the original periodic chart running from one to 92, has exactly that many protons. Hydrogen, 1 proton. Helium, 2 protons. Uranium, 92 protons. But they have a varying number of nuetrons. And you put neutrons in to a greater and greater extent the nucleus of an atom becomes unstable. And a very amazing thing happens . One of those neutrons gives off a negative beta, which is actually a particle; think of it as an electron, but a negative electron. And an anti-neutrino and rolls over and becomes a proton, so you've changed element to element y. and you can keep doing that and you can actually strip the other direction, but it's a lot less efficient. Normally what you're doing is that you are moving one element up the chart. OK. Uranium. Ahh Firme in Italy in 1936 bombarding uranium with ahh with neutrons, alpha alpha based neutron source right. Got a new element. And although the didn't catch neptunium, element 93, at first-it only has a 3 day half-life, it immediately decays to plutonium, element # 94 which has a 24,800 and some year half-life. And you know plutonium has become very important in our culture. It makes nuclear weapons and it can power nuclear reactors. And it is considered to be a very hazardous substance. And you can say it's hazardous, societally, spiritually, biologically, you know you could say a lot of things, you know but we make it.

020714 And ahh. You can actually turn anything into anything with a neutron source. And I can take this smoke detector right here and make a neutron source and I'm talking about a hundred atoms a second you know not talking about making tons of something. But I can do that here in the starlight hotel. And I just think this is the sharpest chisel a sculptor ever had for changing the world in which we live. So the concept of transmutation really only became a reality in the 30's and 40's of this century. But it was an age-old dream in every culture, I mean in all of main cultures I read about and you know I don't know everything.

020810 But to be able to turn one thing into another thing, I mean, boy if that isn't sculpture, I don't know what is.

020911 It's magic, It is it's totally magic...And I can do it in fiesta ware plates although I'm actually more interested in technesium....

020938 DF: isn't this dangerous shit to go messing around with elements and all.
JA: You know every single medium I have worked with as a sculptor and every tool that I have used is dangerous. All the welding fumes I've breathed, you know, all the foundries I've worked in, all the granite dust I've got in my lungs, you know. Life's a dangerous place. I' mean, I would rather wear out than rust out. And yeah OK working with radioactive materials can be hazardous but I don't see it as being any greater danger than anything else I've done in my life. I mean, how many times have I sliced a tendon with a wood chisel when I was working too late at night and the light wasn't very good? I mean, and like when I was doing silver soldering, you know. One day I got my silver solder in the mail and it had this big warning label on it you know Warning, Contains cadmium, only use with a respirator. I'd been using it for 15 years! You know. They just suddenly decided that cadmium fumes were extremely toxic. Cadmium actually is one of the 4 metals that is poisonous. Uranium and Plutonium are two of the others. And lead of course. There's only 4 toxic metals.

021103 DW: But the thing with your project is you had to rely on this whole structure of all these other people and facilities.... JA: Yes and that and that actually has a lot to do with the good and the bad of my 12 year residency at Hanford. One, I was not well equipped socially to work with other people. I often say in my lectures to art students, you know, art comes out of solitary rooms (wombs?) at midnight. And I do think that's where art is engendered. And for the most part you know I've needed to have a job so that I had access to the tools, I've need to earn the money so I could the materials, but it's been largely a solitary job. I wasn't going to be able to buy my own nuclear reactor. I wasn't gonna be able to buy my own hot chem seps plant, a chemical separation plant. You know. So for the first time I really had to have a cadre of human beings that would help me create a sculpture. And the complexity of it was really beyond my social skills. I had not trained for this. And I mean, I'll say in my own defense, I did my best you know. But I found it very difficult. You know. And people who aren't sure what you're doing try to trip you up. You know. They want to see you say something wrong, they want to see you make a mistake in you arithmetic. They want to see you make a mistake in you physics. And I was unused to that because most of the societal interactions I had would be like at the 2 Bells Tavern talking to a minimalist filmmaker, a poet and a painter, you know and we're not trying to trip each other up, we're just sharing information on how our art work is going. You know. Or who's the latest hot band in town or whether Nirvana's gonna play the Crocodile that weekend you know. So I was in...I was in a more hostile, is that the right word? Hostile environment.... 021310 I was in a much more demanding environment. Trying to work with people with backgrounds, which were so dissimilar from my own. And who were very leery of me. And were very unsure if I was there to help or hinder. It was hard for them to understand that as an artist I was there to be a part of their world and to contribute my art work and get them to contribute to me and we would put all this in a pot and would make great art and everybody would be happy, the world would be a better place. And there were a lot of people that just didn't see it that way.

021401 DW: But look what you accomplished there really. JA: I try to look at what I accomplished and I had and I, I do realize this too. I mean I , I still get well I mean not so much now cause I'm kind of on the float but I mean I got fan mail from nuclear physicist out of MIT and stuff after I'd lectured there. Get a X-mas card from em, saying you know, " James, we've never forgotten that wonderful lecture you gave at our annual dinner meeting, and you know How much we enjoyed going out with you for dinner and drinks afterwards. And you were so insightful. And I see art in a whole new way" I mean, I did do a lot of that. And that was great. But I didn't do it well enough to get somebody to finally say: "OK, here's what were gonna do. You know. I want you to move your drawings an tools into this shop, we got a reactor scheduled for January 1, we got Chem Seps scheduled for March 3rd. You know. We're gonna do this sculpture." I never got to that point. 021428 And it still hasn't quite. Although it looks like the Oxford RAL thing's gonna work

021505 DW What happened to the breeder blanket assemblies? I mean you look at that and you look at the granite.... JA Well, there all still in Richland. I have ahh. I just had to, I mean ahh. Financially, spiritually, emotionally,

I'd bitten off way more than I could handle. I got quarterly reports to file on the breeder blanket assemblies, I've got to make arrangements, I've gotta go out there, I've gotta have calibrated instruments, the instruments have gotta be re-calibrated every quarter, you know. Each calibration is a couple of hundred bucks, you know, It just went on and on. The granite, it's all still sitting there in my burned out studio. you know. Who's gonna move it? It weighs 50 tons for crying out loud. You know. But yeah the breeder blanket assemblies are sitting at Advanced Nuclear Fuels. And they'll sit there in perpetuity you know unless I can patch together some sort of incredibly impossible deal to go back and use em, and do a sculpture at the Hanford site. See I'm stuck on that. They can't leave the Hanford site. That was the deal. You know. They can't even go back to Germany. You Know. And this is federal, international law. I mean.... I'm in so far over my head on this. you know. And I went into it with all of the best intentions, you know and I mean...getting a radioactive materials license and passing these tests and everything you know.. It took a lot out of me. And then finally I had more daily, weekly, monthly, quarterly, annual stuff than I could financially afford, that I could spiritually handle, and that I could emotionally keep up with. And I mean that's the story.

021657 DW: Tell me about the last 6 months there and how you finally ended up just saying Im out of here. JA: Basically I didn't come back from my second trip to London. I'd done a 4-month residency in London. Would have been fall of '99. I got back around Christmas time to the United States and I spent Christmas with some friends. And things had already run pretty much to hell in a handbag. And I mean, my mail wasn't getting forwarded any more you know it was like the snowball was too big and I never went back. Ah in the year before that, I got back from England without a lot of cash. You know I mean. I wasn't getting paid a lot of money. And I had put 4 or 500 pounds into T-shirts with the Atomica logo and symbol on it. And so I'd go over to Richland and I'm going around and all this...xmas present for you, here's and Atomica T-shirt you know. It was great exhibit and here's photographs of the show and this that and the other thing. And ahh with very few exceptions, by reception was quite cold. And meanwhile the lights are off in the studio, I have no heat, there's no water and it's January. And I basically sat there with a candle on the table wondering what had gone wrong with my life. And the occasional ...scientist,....you know it's funny the support I got in some ways was terribly charming, but you know it wasn't what I needed. you know. I needed the lights on, I needed a heater. You know. I needed to have running water, so I didn't have to walk to the bathroom to take care of my body functions. 021917 And so in any event it was a very rough spring. I was there pretty much all the time. you know And I felt completely ostracized from the society. And I was alone, completely on my own by this time. Friends were less apt to come and visit when you don't have lights, water and heat. 021943 And ahh. I went into a real tailspin depression. I mean it was basically as simple as that. I knew I had the residency in the fall. And also I had the exhibit in Lubiana, Slovinia that summer. And I think that's when I left Richland, was to first fly to England and then onto Solvinia in June or something. And this would have been 1999. 022012 And I'm not sure. I did go back to Richland after I got back from Slovinia and before my fall 99 residency

started. But I mean I ..Suddenly I was no longer in residence there. I'd go there and I'd crash there for a few days. You know I mean. 022023. I'd sort of walk in and look at all the broken dreams you know that were clinging to the walls and the ceiling and the floor. And I just couldn't handle it. You know. And then it began to work both ways. I stopped trying to get together with the few engineers and physicists and stuff with whom I thought I'd had sort of camaraderie. I was on Board of Directors of the Hanford Nuclear Medicine Research group and I stopped going to meeting, I mean I just like . There was a fission you know there was a division was happening. I had tried to hold all this together for so many years and finally I just couldn't anymore. 022113. When I would go to an American Nuclear Society meeting I wouldn't feel comfortable there anymore. you know. I'm freezing to death in the dark you know and these people are going "atta boy, atta boy, we read about you in the Journal. You did a great job at Imperial College. You know, I had a friend that went to Imperial College you know" Good I'm glad you did. You know. It's a real good school. Tops in physics. 022142 Anyway it was just more than I could deal with.

022144 DW: Did you sense that they felt betrayed by you? JA : I think that I did not live up to their expectations in a few ways. You know. And I mean this is where it cuts both ways that's for sure. You know. I gave like an NPR interview when I talked about the problems at Hanford, as well as the good stuff that was going on there. I was a traitor. You know. People heard that. People talked about it, you know. Ahhh there was some Journal article or something in which I made criticisms of Hanford, not without being complimentary. But I was talking about the level of ineptitude and how slow it was going and how nobody was getting anything done and that all they'd managed to was clean up some anti-freeze that had spilled in the bus barn. you know. And see I now know stories that are insider stories and for me to give those to an outsider and have them end up in print or on the radio or on television, that was a sense of betrayal. And

022306 You know so many of these are emotional feelings and I have difficulty finding words for how I felt and how I perceived that community felt about me and what sort of nuance I read into sidelong glances and stuff. You know I mean. This has suddenly become the realm of poetry and I can't really do this. So I think there were a lot of people in the community that said: "Great we've got an artist. And this artist is going to go to bat for us each and every time, and is going to win over Greenpeace, the Hanford Education Action League, the Downwinders, you know. This guys gonna really help alot." And I did. But I couldn't be dishonest about it. And the longer I lived there, the more I saw how deep the rot went into the nuclear community. These were now 3rd generation people that built the bomb we dropped on Nagasaki. right? And they were pale shadows of their grandfathers and grandmothers. And they were suckin up 2 billion and a half a year you know and not getting anything done. And because of my life style, 2 1/2 billion dollars a year looked like a really big waste of money when all you're doing is shoveling up some spilled antifreeze in a bus barn. 022440 And I know I cast this in a very harsh black and white sort of way, but that's how I felt. And when I spoke out to that effect, publicly outside the community, I was chastised for it. And I made, I made

other mistakes too you know.... What was the name of my teacher for introduction to nuclear systems? Nichols... No, Lindstrom. I took a bunch of classes. Doctor Duane Lindstrom. I gave a lecture. I don't remember. I think Chicago. I think it was University of Chicago. Yes it was, it was the University of Chicago. I got to see the Henry Moore sculpture at the sight where the 1st reactor was built. It's a really nice sculpture and everybody hates it cause it looks like a skull, right, you know.

022534 Animosity runs deep between art and science in many ways.

022543 anyway I gave a lecture in which I was depreciating myself you know. Saying I have familiarity with this science, I don't have an understanding of it, but I believe I know enough to be able to create sculpture and I'm gonna need the help of scientists and engineers you know to be able to pull this off... And I mean even when I took introduction to nuclear systems with Doctor Lindstrom, He told me that you know we understand the Hydrogen atom pretty well and beyond that we're sort of guessing. So I used that in my lecture. Alright, so i get back to Richland and like a week later, Dr Lindstrom comes to my door at my studio on Saint St. at like 9:30 at night (knock knock) "Hey you told everybody I don't understand anything but hydrogen"" And you know I mean i was powerless to explain that. I said. "Well, you did say that in the class." And he said: "how dare you say that at the University of Chicago" I lost a friend, I mean not that he was really a friend friend, but I mean I'd taken a class from him and passed it. I used to make appointments with him too, when I really didn't understand something. You know. And he was pretty good about it. You know. I mean.

022650 But you know what I felt like in a lot of ways? I felt like everybody's pet monkey. you know. I I know how to shell peanuts and how to dance a little jig and I wore a little funny hat and I could play the accordian. you know. "That's our artist. That's our monkey" And it wasn't always true and it wasn't a 100 percent true, But I began to feel that way., And there were dozens of little incidents like Dr. Lindstroms' coming and knocking on my door at ten o'clock at night and saying "hey you're telling everybody I only understand hydrogen" Woah you know outa context you know....

022733 I really am in many ways powerless to explain the 12 year residency at the Hanford Nuclear Reservation except to say this: I went over there with good intentiions. I worked really hard. I did my very best. The gap was too big. I couldn't span it. And alot of other people did try to help. Dr. Lindstom would give me an hour after class to try to explain why neutrons thermalized and then didn't slow down anymore. you know. And these are really hard concepts. you know And I mean, he's on the blackboard and he's doing math I've never seen before, you know I mean.

022810 Alot of people tried. Including me. But in the end, it just didn't work. and I'm still kind of bleeding from it. I am gonna move on. I will not get myself in that kind of position again and when i say that kind of position: one it was an engineering community rather than a theoretical community. And you know it's so funny, I thought I would do better in an engineering community than in a theoretical community because sculptors are sort of hands on guys and enginners are sort of hands on people. Right? And

turns out, that was, that was a mistake. you know. I mean that was a misperception on my part. I do better with the blue sky guys.

022901 So, you know like I say, i did my best. Alot of other people did their best. It didn't work.

022910 DW: And it nearly killed you, you said. JA: It did pretty much. I damned near drank myself to death. I was so depressed. I spent x-mas.. would that have been 1999, no that would have been christmas of 1998, In a studio that was probably around 5 degrees above zero, no electricity, no water, the toilet bowl had frozen and cracked so even though I might have had a bucket of water, I couldn't use it. And I had loaded 38 revolver on the table and a 2 liter bottle of vodka. And that's how I spent christmas with a candle. And I read...what did I read....it wasn't TS Elliot...what was another favorite??? ahh it doesn't come to me now. And I just read some sad poems over and over again you know. And I'm lookin around in the dim flickering candle light you know at all by books, all my sketch pads. You know and I'm going...."how have I screwed up this bad? How did I get here? How did I get from there to here?"

023038 I sat and read "The Wasteland" over and over again. And wept. you know and felt sorry for myself. And felt despondent. And knew the dream had come to a bad end. But you know life goes on if you don't put the revolver to your forehead life goes on.