



### Transcript

## **The Active Opposition: The Nuclear Lullaby: What We Are Not Being Told**

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Peter Coyote: Good evening and welcome to The Active Opposition. It is our hope that tonight's show, The Nuclear Lullaby, will inform, outrage and perhaps even activate viewers into taking seriously a deadly subject, once thought safely laid to rest.

Tonight we'll be talking about nuclear proliferation and the destructive effects of nuclear radiation—whether from weapons tests a nuclear attack, by-products of the nuclear power industry, or the growing threat of tons of depleted uranium weaponry, used by our forces in Bosnia and most recently in Iraq.

The problem is compounded, because since the very beginning, our government has lied to us about radiation---repeatedly asserting that there is no danger, or at worst that the dangers are minimal, while scientific data was clear about the deadly effects of radioactive isotopes concentrating in milk and the fatty tissues of living mammals.

From 1945 until 1992, 2,060 atomic devices were tested—an atomic explosion somewhere on the planet every nine days for 47 years, sending clouds of toxic radioactive fallout into the upper atmosphere and across our country, girdling the planet in the contemporary equivalent of the small-pox laden blankets settlers once passed out to Native Americans. The government routinely warned the Eastman Kodak company in Rochester, New York, thousands of miles away of pending nuclear tests in Nevada and Utah so that Kodak film would not fog, while dairy farmers, a hundred miles away were never alerted to guard the nation's milk supply.

In late May, the House and Senate voted to lift the nuclear test ban. This was done as a 'procedural vote' within the \$400 billion dollar military spending bill. The current administration is considering breaking the post-Hiroshima and Nagasaki taboo against nuclear weapons and actually *using* them again. They are abrogating international treaties and developing new classes of "tactical" nuclear weapons, suggesting to the public that it is possible to build 'safe' nuclear weapons.

Simultaneously, other nations, fearing domination at our hands or the hands of other nuclear powers, are beginning or re-initiating their own pursuit of nuclear weapons. THE ACTIVE OPPOSITION believes it's time to end the lullaby before a deluded sleep leads to very real nightmares. We hope that tonight's show, The Nuclear Lullaby: What We Are Not Being Told, will serve as your alarm clock.

Let's go back to where it all began.

## [ ROLL-IN #2 THE BOMB, THE MILITARY & ROCKY FLATS]

Peter Coyote: A history of lies, of half truths..... a lullaby scenario for the general public. Tonight's show will explore the biological, medical, and political ramifications of radioactivity, and seek an answer to the question: Can we trust our government to speak truthfully about the nuclear issues?

With us tonight, we have a number of experts, people who know the facts and where they differ from what we have been told. Let me introduce them now.

First, in our New York studio, we have **Jonathan Schell** who has earned a reputation as one of the preeminent journalists of our day. He has had three nominations for the Pulitzer Prize, the National Book Award and the National Critics Award. His best-seller, "The Fate of the Earth" was hailed by the New York Times as "an event of profound historical moment." He recently published "The Unconquerable World: Power, Nonviolence, and the Will of the People."

Here in our San Francisco studio we have **Dan Fahey** - a graduate from the Navy's Tomahawk cruise missile school, Dan served in the Persian Gulf War on the USS Arkansas, and was later discharged as a conscientious objector. He has written extensively on the use of depleted uranium munitions in the wars in Iraq, the Balkans and Afghanistan. He earned a master's degree in International Relations from the Fletcher School of Law and Diplomacy and currently serves on the board of Veterans for Common Sense.

From our Washington DC studio we have **US Representative Lynn Woolsey**: Congresswoman from California and Chair of the Democratic Caucus Task Force on Children. She is the Senior Member on the House Science Committee's Subcommittee on Energy. On June 11<sup>th</sup>, she submitted a House resolution recognizing the dangers posed by nuclear weapons and calling on the President to eliminate these weapons of mass destruction from arsenals in the United States and around the world.

Also in Washington, we have **Jonathan Granoff**, President of the Global Security Institute. He is Vice President of Lawyers Alliance for World Security, Vice President of the NGO Committee on Disarmament at the UN, and serves on numerous governing boards, such as the Lawyers Committee on Nuclear Policy and the Middle Powers Initiative. He is Co-Chair of the American Bar Association, Committee on Arms Control

and National Security.

And finally in Washington, we have **Arjun Makhijani**. He is president of the Institute for Energy and Environmental Research. He has authored and co-authored many articles, reports, and books on nuclear weapons, waste, energy, oil, environment, and security issues. Dr. Makhijani is the principal editor of “Nuclear Wastelands,” which was nominated for a Pulitzer Prize. He holds a Ph.D. from the Electrical Engineering Department at the University of California at Berkeley, where he specialized in controlled nuclear fusion.

Peter: Arjun as a scientist and specialist in nuclear fission, can you explain to our audience briefly: What are the physical dangers of nuclear radiation? Give us a brief primer on the subject.

Arjun Makhijani: Well, nuclear radiations consists of high energy particles that are released from radioactive material, like plutonium, uranium, strontium 90, cesium, fission products when there is a nuclear explosion. These high energy products, when they hit human cells, they disrupt the chemistry of the cells, they break apart the molecules, they split the DNA, and when they create double strand breaks in the DNA they can create mis-repair [sic] problems and damage cells that when they reproduce then become centers for the production of cancer. Cancer is just one of the diseases, there are also genetic diseases possible, certain radioactive material like tritium in the form of water across the placenta can cause miscarriages. So besides cancer there are many kinds of problems like birth defects and miscarriages that can also be caused by radiation.

Peter Coyote: In New York, Jonathan, could you explain to us how nuclear policy has been handled by the United States and other nations historically. And more importantly has there been a change in those policies?

Jonathan Schell: Well there's been a very radical change in recent years. During the Cold War, the government settled down with a policy of so called nuclear deterrents, otherwise known as *mutual assured destruction*, it had many wrinkles and variations, but the essential idea was that everyone would have so many nuclear weapons that if anybody started anything, everybody would die and therefore nobody should start anything. That's oversimplifying really, but it sort of catches the essence of the thing. In other words, there was a very strong defensive element in it. Another important aspect was that in those days the problem of proliferation, that is the spread of nuclear weapons to other nations, was dealt with entirely by diplomatic means, which included considerable success, especially the Nuclear Nonproliferation Treaty under which 182 nations now agree to forgo nuclear weapons. We have seen a very radical change under the Bush administration. Perhaps the most notable part of it is that we insist not only on retaining those large arsenals, somewhat reduced but still very high from the cold war, while at the same time seeking to lecture other nations not to have them. We not only do that, but we also stated in a very serious new departure in policy that we are ready to use those weapons first against a very large list of nations around the world. And not only are we

ready to use them first but we are ready to use them first in order to stop those countries from getting those very same weapons that we have and also other weapons of mass destruction. So we have enshrined an actual double standard that we are prepared to defend or to assert with military force, and in fact the entire Iraq war was fought in the name of enforcing that double standard because we went there to stop them from having weapons of mass destruction, that was the point of the war, not withstanding the fact, that it turns out, that there were none there, at least as far as we know so far.

Peter Coyote: Congresswoman how is nuclear nonproliferation and disarmament being dealt with in the Congress today and what are the challenges?

Lynn Woolsey: The major challenge Peter, is that we have a president, President Bush, and we have a Republican Congress that actually is leading our country down a path that is less secure than it was during the cold war. The policy, the doctrine of preemptive strike, is the core of their national security, leading the way for other countries to do exactly the wrong thing, to follow our direction, to get involved in nuclear threats. And it is a challenge because very few members of congress speak up against what they are doing.

Peter Coyote: Jonathan, in this regard, is the United States following or ignoring international law?

Jonathan Granoff: The International Court of Justice in 1996 unanimously ruled that there is a duty to negotiate to completion a treaty on the elimination of nuclear weapons. The core instrument of global security and nuclear weapons is the Nuclear Nonproliferation Treaty and that Treaty contains a core bargain in which 183 non-nuclear weapon States have promised to forgo developing nuclear arsenals in exchange for the solemn promise by the five nuclear weapons States to negotiate the elimination of nuclear weapons. That promise was embodied in the 2000 review conference of that treaty with 13 threat reducing steps that those five nuclear weapons States promised to make, which included a Comprehensive Test Ban Treaty, a lowered reliance on nuclear weapons, transparency and irreversibility in agreements dealing with them. The current posture of our government, rather than following those solemnly obtained promises to the 183 non-nuclear weapons states, is flaunting them to our security detriment. We are in a very dangerous situation. The American people are sleepwalking toward Armageddon, not realizing that the United States, rather than leading and strengthening the international legal regime, is ignoring it.

Peter Coyote: At the base of all these policies and laws there are human beings and I want to go to Dan Fahey for a minute: you were on the front lines of nuclear strategy on a US Navy Tomahawk unit on its way to the Persian Gulf. Maybe you were shown training tapes like we saw earlier. How did you find yourself there, and why did you leave?

Dan Fahey: Well, it was less than a year after I graduated from college. I'd been in ROTC and found myself being trained to shoot nuclear tomahawk cruise missiles. I was

22 years old. An interesting thing about learning this process is that they wrap up the whole process of shooting these missiles in so many procedures that you are actually very focused on the process, in an attempt, I believe, to get you to not think about the significance of what you are being trained to do. I found myself unable to stop thinking about it and losing sleep over it and after this went on for a series of weeks, I applied for discharge as a conscientious objector. Seven months later, I was honorably discharged as a conscientious objector on the condition that I repay my ROTC scholarship.

Peter Coyote: And why do you think they let you go so easily?

Dan Fahey: I had a very good lawyer, that helped. But the fact that I had been trained to shoot nuclear missiles - there was an understanding throughout the people on the chain of command, that it was very possible that I would have moral and ethical problems with being trained to shoot and actually being willing to shot nuclear missiles.

Peter Coyote: Arjun, how much fissile material is there in the world, and what do we need to know about it?

Arjun Makhijani: Well, fissile material is the stuff you make bombs with. There is a readily useable material in the military sector, plutonium. There is about 260 or 270 tons in the world; about 100 tons of that is in the US, and about 150 of tons of that is in Russia and the rest is in other countries. Let me tell you how many bombs you can make with that: 250 tons is about 50,000 bombs worth of plutonium. So that's a lot of plutonium. Plutonium is also being separated for commercial use. It is a very expensive fuel, not economical, but it represents the dream of the nuclear power lovers. And there is more than 200 tons of surplus commercial plutonium, so you can make tens of thousands of bombs with that. Plutonium accounting is not everything it should be. Just today there has been a controversy in Los Alamos about a tiny bit, 2 grams of misplaced plutonium that they can't account for; they can't find the documentation for it. They have two sets of plutonium waste books, the headquarters in Washington has one and Los Alamos has one, and they don't agree by 765 kilograms, that's 150 bombs worth that's probably out there in waste, but we don't know. Then there is highly enriched uranium. The United States has almost 800 tons of that. You can make about 50 bombs with one ton of highly enriched uranium. The Soviet Union made more than the US. It has over 1000 tons of highly enriched uranium in Russia. They are selling some of that to be converted to reactor fuel.

Peter Coyote: Actually we are going to develop that a little more fully later. I want to ask Dan, what about non-fissile nuclear material? Would you talk to us about depleted uranium? What is it? Why are we using it? What are the ramifications of its use?

Dan Fahey: Sure, the same Atomic Energy Commission, from the earlier video you showed, in the 1950s, found that they had accumulated stockpiles of depleted uranium. Depleted uranium is the leftover from the processed to create highly enriched uranium. It comes out of the ground, it is processed. So highly enriched uranium goes to nuclear bombs and fuel. Depleted uranium is put in containers and stored at several sites within

the US. But in the late 1950s with the accumulating stockpiles there was interest in finding other uses for this because they simply couldn't continue to store it. So there was experimentation in the 1960s and in the 1970s. The military fielded the first depleted uranium omissions and these are essential solid rods of very dense depleted uranium that are used primarily for armor piercing. The 1991 war in the Persian Gulf was the first time that we actually fielded this and used it in combat.

Peter Coyote: Is it actually depleted meaning, meaning it's no longer radioactive?

Dan Fahey: No, it is still radioactive, but it's depleted in uranium 235 isotope. So it retains a low level of radioactivity, it's highly chemically toxic, and the radioactivity that it emits, which is alpha radiation, is the most dangerous form to have inside your body. So externally it doesn't pose a great radiation risk, but when you shoot this in combat you are contaminating the impact sites with a very fine uranium dust that does pose a great hazard if it's inhaled in the body or if people are wounded by the fragments.

Peter Coyote: It causes a hazard to our own soldiers doesn't it?

Dan Fahey: Yes, it poses a hazard to not only our soldiers, but also to civilian populations. Scientists and international organizations have called attention to the fact that children are particularly at risk. And there have been numerous photos, coming out of all the wars where we have shot depleted uranium, of children playing on tanks, and that's exactly the type of scenario that scientists have warned us could be of great risk to those children and the civilian populations.

Peter Coyote: Jonathan Granoff, nuclear weapons and nuclear power are huge industries – who are the players and proponents?

Jonathan Granoff: The laboratories in Los Alamos and Livermore are very fascinated with the power that nuclear technology has given us, but there are different constituencies. I believe with nuclear power it's really the quest for greed and profit that drives it, but with nuclear weapons it's more the quest for absolute power. We haven't really talked in human terms of what a nuclear device does. The devices that were dropped on Hiroshima and Nagasaki were about 12,000 to 15,000 tons of TNT, they were in the kiloton range. The weapons we have now are in the megaton range, which is millions of tons of TNT, and the triggering devices of these are the size of the devices we dropped on Hiroshima and Nagasaki. So within 1,000th of a second there is a release of heat and energy three times that the face of the sun: four miles out winds at hundreds of miles an hour, and an enormous fire ball, just a vision of the apocalypse. And that kind of power seems to be intoxicating to our politicians, and that is driving it. It is almost a psychological fix on absolute power, and as long as a few countries claim the right to this power, others will want it and if they want it they will get it, and that's why we are so passionate about working toward the elimination of these weapons.

Peter Coyote: You have led me to my next question to Jonathan Schell: this would seem to be an issue calling for the widest possible scrutiny and public debate and yet it seems

to be absent. Why are we not having that debate? Are there actually psychological barriers that prevent people from grasping the enormity of the issue?

Jonathan Schell: You know, that's a profound question. People love not to think about this issue. I think in certain respects it's very natural and human. Jonathan Granoff was just describing the effects of a nuclear weapon; when you consider what they do to human populations, when you consider that any city on earth can be annihilated by a nuclear weapon of the appropriate size, and that all of them together really puts the survival of our species at risk, you can see it's a tough thing to think about. But, I think we got a special problem here in the United States, and that is... first of all we are the only country in the world that has used these weapons. You know, nothing is harder then for a country to face than the evils of its own creation, you see that all over the world, with the Japanese, what they did in the Second World War, the French during the German occupation and so on and so forth. So, I think there is a special difficulty for Americans in examining this issue honestly and candidly because of our record, but there is another thing that is of equal importance here, and that is your consciousness, it seems to me, it really depends in a critical respect on what your orientation is toward action, and what I mean by that is, if you are depending on this instrument for your security or if you have been told you are depending on it for your security, and if in fact you are developing new weapons and you are devising new missions for them, it becomes very difficult under those circumstances, on a human level to look at the really inconceivable horrors of what their actual use means. And so there is sort of a divided consciousness in this country, it's almost a human thing, and sometimes it wells up, sometimes it bursts forth, and this happened in 1982 around the time of the nuclear freeze movement. It's happened at other times in the nuclear age, but then it's just stuffed back underground again, it's very difficult to sustain the interest, to sustain the concern, to keep looking at that fireball, so to speak, it's just very human, like looking at the sun, you want to turn away. Right now though, just to conclude, I think that we are at a moment when this issue, having been almost entirely buried in the decade at the end of the Cold War, is now rising back into consciousness in new forms, in the form of proliferation and the form of the very acute danger and the consciousness of that danger, that these weapons could be used again in an American city. Not such a great danger of the overall apocalypse that we had, that's still technically there, but the use in a city or in several cities here in the United States or somewhere else in the world. So, it's kind of bubbling back into consciousness right now, so maybe it is a moment when people will be able to think about it again, I certainly hope so.

Peter Coyote: We have a question bubbling up from New Hampshire. Welcome Isabel to the Active Opposition.

Caller Isabel: Hi, yes, thank you for taking my call. It's actually more of a comment or rather a personal experience than an actual question. In 1986, I was 12 years old and I was living in Holland at the time, in Europe. I was out in a fielded playing softball with my family, and suddenly we saw the sky turn various colors and the temperature dropped. It was a beautiful spring day and suddenly these strange things started happening, and we didn't really understand what was going on until a few days later when we realized the

Chernobyl reactor had exploded in the Ukraine thousands of mile away. After that time we were basically forced to sit inside for months, we ate canned food. Even though we were thousands of miles away it really brought home the horrors of a nuclear reaction or a nuclear explosion of that nature. I've lived in America now for about 10 years, and I think what has happened here is that Americans have forgotten or have never even really realized what power they hold with all this nuclear arsenal stocked here, and now our government is possibly willing to use. I think it is just something we just need to keep in mind.

Peter Coyote: Thank you very much. Just a little over a decade ago, when the dissolution of the Soviet Union occurred, the nuclear world changed. An extraordinary amount of uranium, stored in decrepit facilities with minimal security was suddenly potentially available to the world terrorist community. The world's most dangerous (and valuable) substances were being guarded by people earning \$100 a month. We have video on this issue, from a film WorldLink is broadcasting this week called: The Nuclear Iceberg, which equates the now-submerged nuclear capacity of Russia with the iceberg that brought down the Titanic.

[ROLL-IN #3 THE END OF THE SOVIET UNION, AND OF SUPERPOWER PARITY]

Peter Coyote: Arjun, Have we lost control of fissile material?

Arjun Makhijani: There's been some fissile material that has been stolen; there's been documented cases of attempts. Some of this has been recovered, of course we don't know if fissile materials have been successfully stolen. There's has been nothing that has been stolen and lost for months and months or years that has then been recovered, say after a war, such as the one in Iraq or after some kind of raid after it has been stolen and secured by who ever stole it. There are 100s of attempts to steal and some sting operations that have shown it can be stolen. The problem is that we don't have a system of materials accounts even in the US, as I said earlier, and in Russia, that's solid enough for us to know what all was made and where it is now and we are not spending enough money. The Nunn-Lugar Initiative was a very important one, but certainly not sufficient to initiate a material accounting and security program which we desperately need.

Peter Coyote: I'm going to ask the Congresswoman about that in a minute, but first I want to ask Jonathan Granoff: there are a variety of issues regarding nuclear security, and to a beginning student like myself, they are confusing. There's counter proliferation, non proliferation, threat reduction, disarmament. Would you just briefly explain these different camps to us and the strategies they represent?

Jonathan Granoff: The legal regime calls for nuclear disarmament. That's the bargain that we have made. The non-nuclear weapon States have agree, promised that in exchange for the negotiation of the elimination of nuclear weapons that they would not obtain nuclear weapons: that's nonproliferation. Nonproliferation also means the nuclear weapon States not developing more weapons, more sophisticated weapons, so that they



stop proliferating. Then there is the issue of counter-proliferation. Counter-proliferation is the contemplation for the use of force and coercion to prevent the proliferation. Those of us that believe in the rule of law believe that in order to obtain nonproliferation, stopping the spread of nuclear weapons, we need to move toward disarmament. Then there are initiatives like the Nunn-Lugar Initiative to gain control of over nuclear materials that would be a threat reduction measure. Now all of us believe that threat reduction is important, but threat reduction alone does not move us toward disarmament. We believe that we must abolish nuclear weapons and that in the long term there is no responsible guardianship of nuclear weapons: we must get rid of them.

Peter Coyote: Congresswomen: How is this fan of opinions reflected in the Congress, and is this variety of opinions in itself an impediment to the effective dealings with nuclear issues.

Congresswomen Woolsey: Well, it is very clear to some of us in the Congress that this discussion we are having right now is very important to the very survival of our planet. It is the essence of what we should be paying attention to right now. Now the United States ought to, because we are the world leader, take the lead in stopping all nuclear proliferation and eliminating all nuclear weapons worldwide. I have introduced a bill that would call for the United States to initiate worldwide negotiations towards total disarmament. We have a long way to go. We are the power of the world; we can decide to do the right thing with that power or we can risk the survival of our planet.

Peter Coyote: Thank you. We have a call from Arizona. Joe, go ahead.

Caller Joe: Yeah, just a general question for the assembled panel. The end of the Cold War and the collapse of the Soviet Union led to a radical reshuffling of the nuclear deck as it were, suddenly these break away republics found themselves in possession of piles of nuclear weaponry. They were both conventional and non-conventional weapons that suddenly flooded the black market. Where are we going with this, how trackable is it, and what future do we have in terms of controlling this kind of material? Thank you.

Peter Coyote: Arjun, would you like deal with that technically?

Arjun Makhijani: Sure, actually individual nuclear weapons if they are hidden from sight are not very easily trackable, especially small ones. Plutonium can be relatively easily shielded; you need very sophisticated means to detect it. It is very hard to detect it from space. One of the most dramatic moments immediately after the Berlin Wall fell in 1991 actually was the greatest single disarmament initiative, which related to these nukes that you were asking about, which was withdrawing all tactical nuclear weapons from deployment. And the Soviet Union brought in from these various republics the nuclear weapons they had deployed all over the place and put them in Russia. But there certainly was not any accounting for all of them because there is no agreement between the nuclear weapons States about inspections or disarmament.

Peter Coyote: Thank you Arjun. We have to go to Jonathan Schell now because he has to leave, he has a long drive back. Jonathan, before you go I want to read you a quote from your new book, The Unconquerable World. You wrote the following: *"Never have the possibilities both for horror and for hope been more extreme, and never, therefore, has the scope for effective choice been wider."* So before you go, I'd like you to talk to us about hope. What can the average citizen do, hope for, try for?

Jonathan Schell: You know, to translate that or to speak to that issue in terms of the nuclear danger we are discussing today. Really, the United States has embarked on a policy that I think not only doesn't solve the problem, but it worsens it, it worsens nuclear danger. The reason is that we have decided to turn to force as the means of dealing with nuclear danger. At the beginning of the nuclear age, Niels Bohr said we've been handed a problem that cannot be decided with war, and that's as true today as when he said it back in 1945. We've really entered upon an era of what you could call disarmament wars. The first one was Iraqi, and already we are clearing out throats about North Korea and Iran and so forth. If you try to deal with nuclear proliferation by military means, it's a formula for endless war. Now, that's the dark side that leads really to a world of nuclear anarchy, to an unacceptable world for our children and grandchildren, if there are any grandchildren. On the other hand, there is another path that is hugely hopeful and one that, by the way, did not exist until the end of the Cold War because obviously the great nuclear powers were divided between themselves and nuclear disarmament was very difficult and so forth. At the end of the Cold War, Michael Gorbachev did propose the mutual abolition of nuclear weapons in partnership with the United States and other nuclear powers and we turned that down. So did Boris Yeltsin, rather less dramatically and more briefly and again we paid that no notice. But, the fact is that there is enough commonality now, politically, among all the nuclear powers, with the possible acceptance now of North Korea, that is a new situation, but otherwise there is a commonality politically that really provides a new foundation, a new opening that we could take really to move maybe slowly, carefully, cautiously, with due safeguards and assurances and enforcements and so forth toward the goal that Congresswoman Lynn Woolsey is going to be putting forward in the House of Representatives tomorrow. And that's the way to go, and I do congratulate her on that endeavor.

Peter Coyote: Lynn, would you like to respond to Jonathan just before he leaves?

Congresswoman Woolsey: Thank you very much Jonathan. It's minds like the three of yours, and the young man that's sitting with Peter, and Peter's interests and WorldLink that makes this possible to get this message out. Otherwise it's very difficult in this world of very narrow media. So, thank you for your contribution.

Peter Coyote: Jonathan Granoff, did you want to speak to this issue of hope for a minute from your perspective?

Jonathan Granoff: Absolutely. The women's movement, the environmental movement, the labor movement, none of these movements arose from within governments, they all arose from civil society. We now, for the first time have a global civil society. People all

over the world know that the environment integrates us into one human community and that the threats that we really have to address: global warming, gross disparities of wealth, protecting the ocean, stopping the depletion of ozone cannot be done by any small group of nations, even by the most powerful nations: they require multi-lateral, global cooperation. People know that's the course we have to go, and nuclear weapons and the reliance on the threat to kill hundreds of millions of innocent people in an illusory quest for security, is simply incompatible with that vision that the great consciousness of humanity is calling for. We are one human family, and most of that family realizes it.

Peter Coyote: Thank you. Just as radioactivity respects no borders, Uranium travels freely as well, passing through the former Soviet Union and the US, usually destined for peaceful nuclear applications, such as nuclear power plants. However, it has been proven that the French provided enriched uranium to Israel, the Russians to India and Iran, and the Chinese to Pakistan. Let's have a look at a video segment concerning nuclear proliferation in the Middle East and South Asia, starting with the story concerning the fate of an Israeli nuclear whistleblower named: Morducaï Vanunu.

[ROLL-IN #4 "Good Bombs/Bad Bombs" "ISRAEL – INDIA PAKISTAN"]

Peter Coyote: - Arjun, not to be flip about this, but we can say that there is a "Christian" bomb, a "Jewish bomb," which nobody mentions, a "Hindu" bomb and an "Islamic" bomb. Clearly some bombs are more acceptable than others. Have we entered new era where the dangers of religious rivalries are now being played out with nuclear weapons?

Arjun Makhijani: Well I wouldn't put a completely religious cast on it as you have. For instance, the Pakistani bomb as was seen in that film you just showed, was built as a national instrument of power in the same way that the American bomb was. I don't believe the American bomb was built as a Christian bomb. However, the events of the last couple of years have pushed the Pakistani bomb toward becoming an Islamic bomb. There is a tremendous amount of opposition to US policy in the region, to the war on Iraq, to the way the war on Afghanistan was handled, to the abandonment of Pakistan, saying there is a war of liberation in Afghanistan, and so on. So, there are now two provinces in Pakistan that are ruled by Islamic fundamentalist governments, the states are. So today there is more sentiment I think in Pakistan that perhaps that the bomb could become an Islamic bomb. Of course, it's a Hindu chauvinist government that has built the bomb in India, but I think the Indian bomb is really an instrument of national chauvinism, if you will, a very wrong-headed idea throughout the whole of the wonderful legacy of the Indian independence movement that was led by Gandhi. So, I think nuclear weapons have been seen from the beginning as you said, as Jonathan Granoff said, as instruments of absolute power, and that message has migrated from Washington and London and Paris and Moscow and Beijing to Islamabad and Delhi and Tel Aviv and now to the caves of Afghanistan. So it's the same message that is now spreading and sometimes it has a religious cast and sometimes not.

Peter Coyote: Dan Fahey. Like Vanunu, you are a conscientious objector. What would you say to the young people in this army who might be forced to face what appear to be

truly insane orders, to release a missile that could set a chain of events in motion that could destroy the world? What do you say to people were in the same position you were?

Dan Fahey: I think there is a lot of denial on this issue, not only within our society, but among people in the military itself. And that the issue here is for each of us to ask, am I willing to push that button, do I believe enough in this, and am I willing to live with the consequences individually, and also as a society, of destroying entire cities or potentially the world with these types of weapons? So, I think it's very difficult to look down inside yourself and ask yourself what do you truly believe in, and when I was forced to make that decision I came to the realization that I could not fire this missile. And I think that if most people, including people in the military, really took the time to ask themselves the tough questions, we would have a lot more conscious objectors in this world.

Peter Coyote: It must be very tough though because you are surrounded by a culture, and as you mentioned, a set of procedures that makes the space and time to ask such questions extremely difficult, I think.

Dan Fahey: That's correct, really in the military you are not trained to question and to be an independent thinker, you are trained to obey orders. And so when the order comes down to initiate the process and to shoot the nuclear missile there is no room there for asking who the enemy is and do I agree with the foreign policy that is putting me in this position to fire the missile. It's to simply fire the missile itself. So, we have to ask those questions now. We can't wait for the conflict to arise where we are about to use these weapons. We need to be asking the tough questions now.

Peter Coyote: Jonathan Granoff, in a conversation once you said something interesting how you couldn't really call nuclear weapons *weapons*, do you remember that? Because they actually... normally the definition is something that hurts your opponent, but spares you, do you remember this conversation?

Jonathan Granoff: Absolutely, nuclear weapons are really a misnomer, they are devices of an entirely different quality because if they are actually used we all become down-winders, that's number one. I'd like to make comment about Dan's comment about the actual use being shooting them. I would say, we can step back and say the threat to shoot them is a use. If somebody puts a gun to your head and doesn't pull the trigger, putting the gun to your head is a use. So, I would say that the continued deployment on hair-trigger alert that we have right now, that both Russia is engaged in with thousands of nukes pointed at us and we have thousands pointed at them, and there are the three other nuclear weapon states in the Nuclear Nonproliferation Treaty, France, the UK, and China, and then the three other nuclear weapons States of Israel, Pakistan, and India, not parties to the NPT... All of these states threatening to use nuclear weapons should be understood to be in fact using nuclear weapons as instruments to manipulate the conduct of others. And, that threat to annihilate hundreds of millions of innocent people has to be questioned as something different than just a big explosion or a weapon, it's a device of a different quality, it's ecocide, and it has effects on generation yet to come. It's an

abomination in a way. The weapon itself is the problem, not just the policies. The weapons should be eliminated.

Peter Coyote: We have a call from Peta, in New Hampshire. Welcome

Caller: Good evening. My question is what is the psychology behind the politician whose fascination with power is so great, that he can't see that this obsession will leave him with no one over whom to exercise it?

Peter Coyote: That's a good question. I'm going to throw that to the Congresswoman.

Congresswomen Woolsey: Well, I think you should. I ask that question over and over and over again. The idea that this wealthy nation that we live in, the wealthiest, the biggest, and the grandest in the world can't see that we could destroy ourselves along with our enemies, it just boggles my mind. And I think one of the reasons that this debate continues without resolution is that we are not educating the people in this country the way we ought to, we are not teaching them to research, to question, to argue, to stand up for what they believe is right. During this Iraq war there was a lot of: you are not patriotic if you are not with us. Believe me, some of us in the Congress were referred to as not being patriotic. Believe me; I believe that you are unpatriotic if you don't stand up against what you know to be wrong. But, Peter, you and Dan and I live the Bay Area where people are well educated and not afraid to stand up for what they know is right. But, a lot of the country is not like that, and I suggest that we put more energy into working with the education of our people and folks in the third world, where there are great health care needs. Their poverty is putting them in a position where they become puppets of others, and their education needs to be improved. So they will be able to speak up against what's happening.

Peter Coyote: Congresswoman, while you have the floor just expand on it a little bit as a politician, and explain, give us vision, if you would, how America might be using it's pre-eminence to foster global stability instead of global insecurity. What's another way we could use our power?

Congresswoman Woolsey: Well we can use our power to help third world countries build their infrastructures, we could use our power to first of all and foremost and start the debate and the negotiation for all nuclear disarmament worldwide. And we could use our power to help third world countries educate their people. We don't have to tell them who they have to be religiously, what they do with their economy, but we can help. And we can be part of the treaties, the environmental, the Kyoto Treaty, be part of the CEDAW Treaty, the Convention on the Elimination of all Discrimination Against all Women. There are so many ways that we can lead by example, and we just seem to refuse to do that. It's an embarrassment to me. I hope the people of this country are going to catch onto this. One we thing we need is to make sure we have a communications media that will talk about the real issues.

Peter Coyote: Well that's why we have WorldLink congresswoman.

Woolsey: You bet.

Peter Coyote: Jonathan Granoff, in fairness, neither India, Pakistan, nor Israel have signed nonproliferation or inspection agreements. Doesn't this situation support the Bush administration's decision to be the pre-eminent nuclear power at all costs? That we'll be the biggest monster on the block, and the logic is that by being the biggest monster we can stop everyone else from being bad.

Jonathan Granoff: On the contrary, it goes exactly the other direction. There are only three States outside of the nonproliferation regime. There are 183 states that have refrained from developing those nuclear arsenals. What we should be doing is strengthening the commitment to the nuclear nonproliferation regime, by fulfilling the disarmament commitment contained in that. India for example has supported a Nuclear Weapons Convention for decades for the global abolition of nuclear weapons. We have the capacity to lead in that endeavor. As long as we have policies that say we are going to rely on nuclear weapons for the indefinite future, we can expect others to try to obtain those weapons. Also, for the argument of if there are any cheaters, their argument is let's get rid of the law. Well that would be like saying because there are people that commit murder, we'll get rid of the murder statues; it's ridiculous. The International Atomic Energy Agency, which safeguards atomic energy plants, has inspections, and has a yearly budget less than 100 million dollars for the whole year, for all of the planet earth. The United States alone spends about 97 to 100 million dollars a day on keeping the nuclear arsenal ready to attack. We have to change that equation. Safeguards lowering the reliance on these weapons of mass destruction lowers the heat, and then restrain their proliferation and then work to get rid of them. That's the example we should set.

Peter Coyote: We got an email that I'm going to read. A question from Roger H. at EnergyNet.org: "The mainstream media's, non coverage of the weapons and the power industry, via the major TV industry, which is mostly owned by Westinghouse and General Electric, have left the public ill informed. This program is a good start, but how would you go about generating the kind of sustained interest in the broader population that is being purposely being left in the dark." I'll throw that up for a volunteer.

Congresswoman Woolsey: I'd like to say, I was talking about education, and if we have a public population that is not educated to question these issues, then we can't keep them interested.

Peter Coyote: We have a Victoria from Florida on the phone. Welcome Victoria.

Caller Victoria: Hi, thank you for taking my call.

Peter Coyote: Welcome.

Caller Victoria: I would like to ask the panel if they might address or talk a little bit more about the issue of Israel's nuclear arsenal. I'm specifically interested why Israel is an

inspection free zone? And what we know about their arsenal and what is the chance that they might use their weapons?

Peter Coyote: Jonathon Granoff.

Jonathon Granoff: Israel is one of only three countries that has not joined the Nuclear Nonproliferation Treaty. So, because of their restraining themselves from joining that treaty, they are not subject to the safeguards. One of the parts of that treaty is that in exchange for the promise not to develop nuclear weapons, the 183 non-nuclear weapon States parties are granted the right the peaceful uses of nuclear energy and thus granted the right to build nuclear energy plants, whether it's a good idea or bad idea is a different issue. But they have the legal right to do it. Along with that legal right comes the willingness to open themselves to the International Atomic Energy Agency's safeguards. Israel has not joined the treaty, neither has Pakistan or India, the rest of the world has. The problem with Israel is that they are in a region in which their problem cannot be solved militarily, neither can the problem between India and Pakistan, and they are not going to put the fact that they have around 200 nuclear weapons on the table until there is regional security progress. And the problem with nuclear weapons in some areas is that the nuclear weapons are more dangerous than any problem they seek to solve, but they are interrelated with regional problems that you simply cannot ignore. That's the problem with India and Pakistan, and also with Israel.

Peter Coyote. Jonathan, thank you. I want to move on now to the issue of nuclear terrorism. And review another video clip with some rather chilling facts.

[ROLL-IN #5 NUCLEAR TERRORISM ]

Peter Coyote: This is very scary stuff. Just last week in Thailand, a man was caught with 66 pounds of radioactive cesium 137, and in the former Soviet republic of Georgia, yesterday's press reported two metal containers filled with radioactive materials and mustard gas found in a taxi cab en route to Turkey. Meanwhile, the Bush Administration's development of "tactical" read "usable" nuclear weapons is being sold to the public as the most logical response to nuclear terrorism.

Jonathan, will smaller, smarter nuclear weapons help us deal with these kinds of nuclear threats? What are we not being told here?

Jonathan Granoff: The idea of building smaller weapons that break the taboo, that break the threshold, nuclear weapons that are usable, is exactly the worst message we could be sending because what we are saying is that the United States with the most powerful military in the history of the planet earth, for it to be secure, a country that spends more on its military than the next 17 nations all combined, a nation with no bordering states threatening it, needs to have nuclear weapons for its security, it sends exactly the wrong message to the rest of the world. We should be working to get rid of nuclear weapons more vigorously than anybody because we would be in the preeminent security position.

So, it is exactly the wrong message, just like the idea of building a national missile defense is somehow going to protect us against these kinds of threats, and it certainly wouldn't. An intercontinental ballistic missile has a return address on it. What we are threatened by is the nuke in a tugboat or a nuke in a bail of marijuana, which we seem to be unable to stop from getting into our country. And to do that we have to strengthen export control regimes, we have to strengthen the cooperation amongst countries, we have to strengthen the very basis of our human interaction with others, we have to strengthen democracy, the rule of law, and the integration of peoples; not America first and the rest of the world second, but America as a part of the world and has an obligation to lead this integrated, interdependent world.

Pete Coyote: Arjun, would you like to amplify this?

Arjun Makhijani: Yes. The most difficult part of making a nuclear weapon today is getting your hands on the materials, the plutonium or the highly enriched uranium. We know how to account for these materials, put them under safeguard, lock them up so that they are very difficult to steal, and put them into forms where if somebody stole them it would be very hard to make nuclear weapons out of them. But, this cannot be done without cooperation among all the nuclear weapon States and all the nuclear capable States. The United States is leading the world in the wrong direction by undermining inspection regimes, undermining the International Atomic Energy Agency, and doing all of these things: that's item one. The other thing is, you know, you can't deter Osama bin Laden by threatening nuclear weapons against him, you only get their back up, get them even more determined. You may say if somebody does acts of terrorism we are going to catch them and punish them, but many of them are already dead, they are ready to die. So, in that kind of situation, you have to say where is Osama? So, we have two wars, we don't have Osama bin Laden, we don't have Saddam Hussein, you don't have the intelligence even to target smart bombs to go after terrorists. How are you going to use nuclear weapons? It's a completely nonsensical enterprise to think just because you have a bigger bomb somehow you can target a whole mass of caves and get everybody. Mostly, you are going to kill civilians, which is going to aggravate the problem tremendously. The short of it is, we know how to control this problem, not reduce the risk to zero, but reduce it to a very low level by gathering up the materials and the weapons and putting them under safeguard, and that requires global cooperation.

Peter Coyote: Lets hear from Arnold in Texas. Arnold, welcome to the Active Opposition.

Caller Arnold: Thank you, how you doing Peter?

Peter Coyote: Everything I can, thank you.

Caller Arnold: Well, we are trying to do the same out here: out on the streets, in the cities, and so forth.

Peter Coyote: Did you have a question?



Caller Arnold: Yes sir. My question is about North Korea. Is North Korea a real honest to goodness, objective threat or do we sense that their economy is in such disrepair that they are in such a state whereby we can cause their collapse...actually not really that they have nuclear weapons now, but that our threat causes them to ratchet up their spending on such projects so that their economy goes kaput, supposedly as the Soviet economy did in their collapse?

Peter Coyote: Congresswoman, do you want to answer that?

Congresswomen Woolsey: Well, certainly North Korea is a threat if they have the nuclear arsenal that they say they do. And, why don't we go after them? Well, they don't sit on a sea of oil do they? So, we have to be aware of why we decide to go after a nation and call them terrorists, when there are a lot of bad people around this world. Peter, at this moment - can I talk about the issue, where you asked how to keep it in people's minds? I think that we ought to make sure it is central to the presidential debates in 2004, that will help people remember to think about it and help them think about how war is really an outdated concept.

Peter Coyote: Thank you. I want to ask Dan a question. There is something catastrophically charismatic about these huge bombs that can obliterate a whole nation in a moment, but there is something else going on that you know something about, which is that various portions of the earth are being kind of prepared as "sacrifice zones." We are leaving thousands of tons of depleted uranium in the Balkans, in Bosnia, in Iraq; they are radioactive. Are these substances ticking changes into the gene pool that are going to be bred for centuries? What are we doing to the population there and as populations intermingle and marry and travel, what are we doing to our future?

Dan Fahey: That's an excellent question, and really on the issue, specifically on depleted uranium, we don't have a lot of epidemiological studies; they just haven't been done yet. We have a lot of anecdotal evidence, causing effects in the countries where we have used it, and also among own troops who are fighting these wars. I should add too, it's not just in foreign lands, there are many sites within the United States that are "sacrifice zones." An excellent example being in Indiana where a large amount of depleted uranium was shot and tested. The area has been fenced off. They have found depleted uranium in deer that live in the area. It's entered the ground water in Concord, Massachusetts, where depleted uranium is manufactured. It's not just the United State's problem either. Russia is manufacturing and selling depleted uranium on the world market, so is Pakistan, and the British and French, at least the British have used depleted uranium in combat. So, this is an issue in the future where we are basically distributing our waste on battlefields in foreign countries and there's great concern that these effects haven't been studied enough. We know that in rats depleted uranium can cause cancer, but at this point, in my opinion, we need to stop studying the rats and start studying the humans and really stop using this weapon.

Peter Coyote: There was a study in the San Francisco Chronicle last week that said the incidents of birth defects in the children of soldiers who served in Iraq was significantly higher than the children of soldiers who hadn't served in Iraq. And whether that's nerve gases, whether that was depleted uranium, we don't know. We got a tough email here that I'd like to throw out to anyone because it seems like a fair question. This is from Culver Minnesota: "Thanks, WorldLink for your program, your guest Lynn said America should cause all nuclear weapons to disappear. If my government threatens to take Iraqi or Korean nuclear production out you scream, and people like you say America shouldn't go to war. So, just how do you suggest disarming these bad people? You make the statement, but you never come up with an answer. What's your answer?" Jonathon Granoff.

Jonathan Granoff: There is the Nuclear Nonproliferation Treaty that sets forth an answer. It sets forth, one, to enter into a Comprehensive Test Ban Treaty to stop the spread of these weapons. Two, to have deep cuts with verifiability and transparencies so that we know how the deep cuts are going to go. Three, if there are breakouts, if there are proliferations, then it is through the United Nations system, through the Security Council of the United Nations that there has to be the enforcement, and if necessary the use of force to stop that. But, you are not going to convince a teenager to stop smoking if you have a cigarette in your mouth. We are not going to be able to enforce a disarmament regime unless there is a clear commitment to move in that direction. Now, it may take decades to get down to the very low numbers that we know we have to get to because it took decades to build up to where we are now. But in the name of consciousness, in the name of sanity, in the name of what's right, we need to be going that direction, so we then have the moral authority to stop countries and to stop non-state actors, roughs, criminal syndicates, terrorists from developing these weapons. And, if that means the use of force, then so be it. But, we will not be able to do that alone, we will not be able to effectively do that alone. It is also the legal duty as an American to point out that under our constitution the treaty to which we are a party, such the UN treaty, is the supreme law of our land and we flaunt those treaties to our own detriment. If you love this country then you must say to every political candidate, what is your plan to move toward the global elimination of nuclear weapons as we are required under our treaties? What is your plan? If you don't have a plan, talk to Lynn Woolsey, talk to non-government agencies like the Global Security Institute. Talk to leaders who are pointing the way toward that elimination and get a plan.

Peter Coyote: Arjun

Arjun: The United States, during the 1971 war in south Asia between Pakistan, India, and Bangladesh, sent a nuclear-armed aircraft carrier into the Bay of Bengal. Up to that time the legacy of Gandhi had prevailed in India, there were always pro nuclear advocates for 20 years in India, but they were restrained, they were not allowed to test the bomb. They wanted to, but they couldn't. After the United States threatened India with nuclear weapons in 1971, they won the day. That's exactly what is going on in Iran today. The United States has named Iran as part of the axis of evil. Seven and eight years ago, Iran was a foremost champion on nonproliferation, and it has until recently been in complete

compliance with their inspection obligations. Now they are moving away. I think the pro nuclear advocate in Iran seem to be winning out because they are feeling threatened by the United States. I believe until people understand what has been said earlier that we are part of the human family. 20% of the children in this county live in families that have one foreign born person. 40% of the people under 25 are some kind of mixture. So many rainbows of mixtures exist. This country is the meeting place of the world, we should celebrate that and we should see that the politics of this country actually reflect that idea of the human family. Currently it is very very constricted into the most narrow and prejudice ideas, and I think we need to liberate this country from that. I think that's the hope.

Peter Coyote: I want to throw out a term to the panel, and I'd like a quick review as our time is closing down. There is a wonderful local magazine in the Bay Area called "Planet Drum" and many years ago I read an article in it about taboo. What the author pointed out is that we usually think of a taboo as a primitive thing, that primitive, uneducated people do. But in fact what a taboo is, is the recognition that we have more power than wisdom. And, so people decide not to do something, we decide not to sleep with our children, we have the power to do it. But we make that taboo because we don't have the wisdom to deal with it. And it would seem to me, nuclear weapons, nuclear power, nuclear issues are really something crying out for a taboo. We have the technology to make it, we have the power to do this, but it is humanly beyond us to exercise the wisdom, and I'm curious for last thoughts about this. Dan, let's start here.

Dan Fahey: I think you've raised an excellent question, and it's one that obviously a lot of people in other countries have grappled with because there are many countries that have forsworn the desire to have nuclear weapons or to have depleted uranium weapons or to even have nuclear programs. So, it's something that must be particular to certain societies as opposed to others. I think those are questions we need to ask. Why is our society more predisposed to accept these weapons while others are saying we don't want them, we understand the effects and we don't want them?

Peter Coyote: Congresswoman, taboo?

Congresswoman Woolsey: Taboo. It should be taboo to step into any arena that could destroy humanity, and that's exactly, of course, what nuclear weapons can do. And it should be taboo to be the richest nation and care so little for others.

Peter Coyote: Jonathon.

Jonathon Granoff: The gift of science is like a horse running without the necessary restraints of law and morality, and the first horse out the barn that is most dangerous in the nuclear arsenal. Science will continue to gift us with greater and greater powers. We have to set a standard that says weapons of indiscriminate effect, weapons of such horrific magnitude are simply taboo, and they must be restrained with that moral taboo, that moral part, and then legal regimes that pull them in. We have the legal regimes, we know the moral restraint, and right now the United States is lacking the

political will. That is our responsibility, mine and yours, and hope that our conscience is strong enough to give us the passion to bring that responsibility into action.

Peter Coyote: Thank you. Arjun, the last word on the subject for tonight.

Arjun Makhijani: Thank you. Well, we have to ask, I think, a question about children. Is it right to wield weapons. When grownups who have a fight with each other say we are going to wield weapons against the other side's children, as if children are somehow the enemy. I think it would be good to promote this taboo with the idea that threatening the killing of children should be completely taboo. If we don't respect the future, and don't respect the past, what are we to do as human beings? We are really threatening children when we have nuclear weapons, and threaten their use, and that as already happened in Hiroshima and Nagasaki. We cannot trade off the lives of children for the lives of adults. If men have a fight with each other they should sit down and talk about it. They may even take a gun and shoot it out, and have a duel, but nuclear weapons should be taboo.

Peter Coyote: I agree with you. I'd like to thank tonight's guests for joining us: Congresswoman Lynn Woolsey, Jonathan Granoff, Arjun Makhijani, Dan Fahey and Jonathan Schell. Each of our guests has contributed a piece to what is emerging as a mosaic representing global destruction on an unprecedented scale. All human life is being threatened with mutation and annihilation, while we, like passengers on the Titanic, quibble about the arrangement of the deck chairs. We will list a series of publications and web-sites you might visit after tonight's show to deepen your knowledge and understanding, hoping that further knowledge will motivate committed action. It is clearly time to chart a new course. For The Active Opposition, I'm Peter Coyote. Goodnight, from WorldLink Television.

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Rep. Lynn Woolsey,  
[woolsey.house.gov/](http://woolsey.house.gov/)

Arjun Makhijani,  
Inst. of Energy & Environ. Res.  
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<http://www.thenation.com>  
<http://www.nationinstitute.org>

The Nuclear Age Peace Fdn.  
[www.wagingpeace.org](http://www.wagingpeace.org)

Abolition 2000  
[www.abolition2000.org](http://www.abolition2000.org)

Physicians for Social Responsibility  
[www.psr.org](http://www.psr.org)

Women's Action for New Directions  
[www.wand.org](http://www.wand.org)

Union of Concerned Scientists  
[www.ucsusa.org](http://www.ucsusa.org)

#### RECOMMENDED READING

“The Unconquerable World” by Jonathan Schell

“Rule of Power or Rule of Law” by Arjun Makhijani

“The Nuclear Weapons Convention”  
by Rep. Lynn Woolsey, w/ preamble by J. Granoff