We, Pacificans, are blessed with the biggest, the richest and mightiest ocean. In it our islands, big or small, stand as symbols of our common ownership of this Pacific; our ancestors entrusted it to us.

We who are alive today are the trustees of this great Pacific and we are duty bound to pass on this ocean, and the airspace above, free of harmful substances to those who will come after us.

A new chapter in our Pacific history is being written and you are writing it.

Mariano W. Carlos
Western Caroline Islands (1980).

What you can do...

Declare your own body and personal space at home and at work a Nuclear Free Zone.

Invite your relations, friends, neighbours, everyone at work to do the same.
EDITORIAL...

Through this and following issues of Freezeonews we hope to provide information about the Pacific, so that we, the people of the Pacific can begin to better understand the forces which are shaping our future.

Without such information it is impossible to try to take control and be part of the shaping of our own future.

How little many of us know about the Pacific and the rich and diverse culture which we share.

We are concerned that people know what is happening in the Pacific and understand the implications for themselves and their communities.

Freezeonews is, as we envisage it, a point from which individuals can begin to independently inform themselves about the struggles of Pacific peoples, about their independence struggles, the reality of nuclear power and nuclear weapons in the Pacific and the economic and political alliances which pay scant regard to their basic rights.

It is intended through the coming issues to have a section giving basic facts about nuclear material and weapons - an area which is beyond the realm of opinion.

We need to listen to voices from the Pacific, voices becoming increasingly more insistant, so that we can act together to allow Pacific peoples to shape their own lives and the lives of their children.

The peoples of the Pacific have long suffered from foreign colonialism. But since 1945 this has taken on a particularly brutal and nuclear character.

Nuclear weapons testing in Micronesia and Tahiti...the gift of radioactive contamination of Pacific Islands and their good supply, courtesy, of the U.S., France, Great Britain, and China...the legacy of islands taken for military use, where people are made outcasts...missiles hurled thousands of miles over the Pacific by the Russian, American and Chinese, to land in the ocean or at the vital testing range at Kwaialai...dozens of nuclear reactors targeted to be sold to Asian and Pacific countries like South Korea and the Philippines...the mining of Aboriginal lands in Australia for the sake of uranium export, inflicting genocide on the Aboriginal peoples...the employment of Native Americans and the use of their lands without any regard for the natural environment...the projected deployment of the huge and deadly Trident submarine in the Pacific...US aims to take lands in the Mariana Islands and Marshall Islands for military base expansion...plotting by major powers to dump and store nuclear waste in the Pacific.

This has become a legacy of colonialism and militarism in our Pacific Basin - whole island communities taken over to benefit outsiders' interests and transformation of islands into military bases and targets or sources of wealth and raw materials. Hawaii is a showcase - 24 per cent of Oahu's population in the military, and where over 3000 nuclear weapons are stored.

These past and present outrages have given birth to resistance across the Pacific. NZ is part of the Pacific part of the resistance. The problems of nuclear and military exploitation are bound to those of political, economic and cultural domination of the Pacific peoples. Self-determination for the Pacific peoples is the key to creating a demilitarised and nuclear free Pacific.

The first world 'rim' peoples (the countries which are a rim around the Pacific, Australia, NZ. etc.) need to listen very carefully to the third world's perceptions. A sense of solidarity must be built around the conviction that the roots of both development problems and nuclear colonialism must be addressed together. We need to listen carefully to what the indigenous peoples are saying to us, through the cultural struggles of the Pacific peoples, the Aboriginals, Maoris, Native Americans, Hawaiians, and the independence movements in France Polynesia. New Caledonia and Micronesia, the newly independent nations of Vanuatu (New Hebrides), Kiribati (Gilbert Islands), Papua New Guinea and the fight against nuclear testing.

There is a growing sense as well that the increasing militarism and proliferating nuclear technology is in the deepest sense a threat to first and third world peoples alike. Thus the interaction between those fighting for independence and anti-nuclear activists will flourish in the recognition that, at least in the Pacific region, these problems are inseparable.

Published by Home Base Pacific Pilgrimage, P.O. Box 6736 Wellesley Street, Auckland N.Z. Cabins: FREEQUAD

On the local scene...

More and more New Zealanders declare themselves nuclear weapon free.

The Home Base project was introduced in the first edition of Freezeonews along with details of how individuals or groups could declare themselves, their home, their workplace, where they socialise, or even where they worship, nuclear-weapon free.

Over the past months more and more New Zealanders have declared themselves or their property nuclear-weapon free so that the free zone sticker is often seen now in suburbs and in inner-city areas.

If you have "declared" or, as you declare, please ensure that your declaration is "registered" either locally or with the Home Base Auckland setting service, Box 6736, Wellesley St., Auckland. We want to cover New Zealand with declared nuclear-weapons free people, properties, and possessions.

More and More Churches

The National Council of Churches offices, the Catholic Cathedral in Christchurch, Auckland Methodist Central Mission, Cenotaph Bay Parish, Auckland, and many others have the "nuclear weapon free zone" sticker posted. Waimata Anglicans will be debating whether to join the scheme officially early in July, also the Auckland Anglican diocese. St John's Theological College Board of Governors, Auckland, has requested that the college properties should be nuclear-weapon free.

More stickers

The Home Base project, which services the nuclear war movement, has had an out of stock situation and is urgently printing another couple of batches. This second design provides a two-panel sticker with both the nuclear war movement free zone symbol and a political slogan which explains the meaning of the symbol. Both items retail at $1. Order from P.O. Box 6736, Wellesley St., Auckland.

PACIFIC PILGRIMAGE

Australians Bill Eithell and family and Ian Gaiell and family have been exploring the on-going war in the Pacific and Auckland later this year on their way through the Pacific to Bangor, Trident submarine base. One of the group raised a $40,000 mortgage on his house to finance part of the purchase. Their group is called "Pacific Peacemaker."

In New Zealand our plan is preferably to lease or pay expenses or manage a "delivery run" of available suitable boats. John Bousen and Chris Burton (76 Brockworth Place, Riccarton, phone 41353) are planning fundraising for this.

Pilgrimage and Tahiti

Auckland people are exploring three possible suitable boats. One is currently in Tahiti and could begin its pilgrimage voyage from there; a very appropriate starting point.

After consultation with Tahitian people about their problems and hopes and with some Tahitians aboard as shareholders, travellers this year have travelled to French Polynesia and Samoa to Vanuatu, thence to New Caledonia and Auckland.

Pacific Island people could - relay style - share in the crowding and consulting, the story-telling and "educating" as the voyage proceeded. The sailing could be arranged with $3000 to $4000 per month.

The voyage would play a crucial part in educating New Zealanders with up-to-the-minute despachetes of progress, viewpoints, further plans and commitments.

Pilgrimage destinations are Vladivostock (URSS) and Bangor, Seattle (USA).
I approach nuclear weapons from a medical point of view. I am a medical doctor and a fellow in medicine in 1956, so had a very good genetics lecturer, who taught us what radiation does to genes and how it can both damage future generations and produce cancer.

As I studied for exams at the end of the year, I used to go to the library and read the newspapers. As I sat on the front page there would be a big mushroom cloud, with a sort of "Hurricane the Americans have tested another bomb on the Bikini Atoll" or "The Russians have tested another bomb" — you know, it was that era when each country was testing bombs all the time.

I remember being frightened, because I realised what the fallout meant to children and babies and people. I used to speak of it at the university, and no one took any notice. They thought I was a fanatic nut.

So I stopped talking about it. I just watched, with horror, the gradual escalation and buildup of nuclear weapon forces in the United States, and in England, and in Russia. And, like everybody else, I felt too important, as one individual, to do anything about it. Yet I felt: "It's my world as much as that of any politician in the world."

And when I decided to do something, I was probably woken to bring children into this world, yet for selfish reasons, I did. I felt that they probably couldn't have the illusion of being, or that if they did, their children would not.

Then in 1972 I came back from this country, having been here for three years and learned a little bit how to be political. I used to write to Nixon and Ted Kennedy and people like that. I found out that it's O.K. to do that in a democracy. It brings results, if you write what they wrote back to me.

The French were testing bombs in the Pacific, and we got a high fallout in Adelaide, where I lived. They tend to collect rainwater in tanks in Adelaide because there isn't much rain in Australia — it's a very dry country. It was after a drought and the tanks were empty, so the tanks filled up with radioactive rainwater.

I happened to be invited by a television producer to speak about acupuncture or something, so I did. And afterwards we got into an argument. He said, "Look, I think the Americans are doing a fine job in Vietnam." I said, "I don't think so," and I also said "What are the French doing in the Pacific? What they're doing is very bad." He said, "Why don't you come and talk about that?" So I went for four months to get a doctor to comment about fallout." I said, "Sure."

So I went and I talked about radioactive iodine, and strontium 90, and cancer and leukemia in children. "You'll kill them," they said. "No, when the fallout was occurring in the Northern Hemisphere and your milk was contaminated with radioactive iodine and strontium 90 in the early sixties, that helped to bring about the international test ban treaty."

Every time the French tested another bomb, I was invited into the studio, the television studio, to talk about it. People gradually learned that it wasn't really safe for their children and their babies. As a result of doing that, they gradually — I should say they finally — decided that those French come down to the Southern Hemisphere and blow their bombs. Why don't they do it in the Northern Hemisphere?"

Then I went on an Australian delegation to see the French government, and I talked to them. They said, "Oh, men, there are too many people living near the Mediterranean!" So we knew they were woken, and they knew they were woken, and for the first time in my life I knew I was sitting opposite woken politicians who knew they would probably be killing people, and they didn't give a damn. As a result of that, the French did stop testing in the atmosphere. We took France to the world court, and now it tests underground.

I went to the House of Commons in London, and I talked to people in the members' bar. They were all old men, all over seventy or above. I got a sense of the type of people who control government. And I thought: "These are the sort of guys who are running our world, our world, and our kids' world."

Then in '75, during the oil shortage, our prime minister visiting Washington, went to Europe and said: "Hey, everybody, we've got lots of uranium. We've got 30 per cent of the free world's richest uranium. Who'd like to buy it? We'll sell it to the highest bidder." I didn't know much about uranium.

I knew almost nothing about nuclear power. But I knew uranium had two uses: (1) to make atomic bombs and (2) to run nuclear power plants. I thought, "What great hypocrisy!" — after making such an international fuss about the French, to start selling uranium on the open market in the world where we're still worried about nuclear power. And the more I read, the more my hair literally stood on end. It is

miners breathe it into their lungs, they can get lung cancer. Because it irradiates the cells in the lungs, in years past, 20 to 50 per cent of uranium miners died of lung cancer.

Then, when the uranium is milled and enriched, a lot of the light is discarded and lies around in big heaps on the ground called tailings. They give off radon gas too, for tens of thousands of years. Now, they don't give off radon if they are buried under the ground, but it's too costly to do that.

In Grand Junction, Colorado, people didn't know these radon were dangerous, so they used them to build schools and hospitals and houses and roads. There's an increased incidence of congenital deformities among babies born in those houses. And they still live there, because it's economically not feasible to pull them down and build new ones.

OK. After the uranium is enriched, it's taken and placed in fuel rods and put in a nuclear reactor. You probably all know what a nuclear reactor looks like. It has a big round dome. Inside the reactor is the reactor core, and inside the core, they pack hundreds and hundreds of long thin fuel rods, all packed with uranium, and it's covered up with water.

At a certain point, the uranium reaches critical mass. Now it doesn't explode, but it becomes extremely hot and what it does is, it boils the water. This is a very sophisticated way to boil water! The water produces steam. The steam turns the turbine, which produces electricity. That's all there is to it. Simple. But it's like cutting butter with an electrical saw.

What happens to the uranium when it starts fission? That's the important point. Well, it turns into hundreds of poisonous radioactive elements. I will just take four as an example.

FISSION

First of all, though, I should make two basic points: all radiation, all radiation, no radiation is safe.

The nuclear power industries say, "Radiation is OK, it's not going to hurt us." Now if anyone lives in Australia, and you subbate and you surf... we have one of the highest incidences of skin cancer in the world, because we're exposed to the sun. It's true; we get radiation from the sun all the time, and there's no doubt that the sun produces skin cancer. If you get little amounts of radiation over your lifetime, it's approximately the same as getting one large dose at once.

In other words; it's cumulative; the effect is additive. And all animals on earth, human beings are the most sensitive to the effects of radiation; we get cancer most easily. I don't know why, but we do.

Of all human beings, it's fetuses, infants, and young children who are the most sensitive to these effects, because their cells are rapidly dividing and growing.
Now, there are various forms of radiation. There are x-rays, gamma rays, alpha rays, and beta rays. They’re all the same. They all do the same thing to the cells. They can all give you cancer. Some of them are more effective than others at giving cancer.

If you have x-rays, each x-ray increases slightly the risk that you might get leukemia or cancer. That’s been proven. So if you ever have to have an x-ray, say to your doctor, “Don’t do it.” It’s absolutely necessary.” And find out exactly why you’re getting it. If you find that it’s not entirely necessary, don’t have it.

OK, now let’s take four examples of the elements that come out of the nuclear reactor: iodine 131, strontium 90, cesium 137, and plutonium.

Now, the first three elements are what are called beta emitters, and plutonium is an alpha emitter. That means that if you have an atom with a nucleus in the middle and the electrons whirring around it in orbit on the outside, the beta emitter gives off an electron. Now, if that little particle of radioactive iodine is sitting in your thyroid gland, this particle will irradiate just a few cells surrounding it. It will probably injure some of these cells; it may produce cancer. The alpha emitter plutonium, on the other hand, emits a helium nucleus, which is a very large particle — and it is of dense matter and doesn’t travel very far, less than a billionth of a meter. But if it, indeed, hits a cell, it will probably kill it, and if it doesn’t kill it, it will definitely damage it. That’s why alpha emitters — and plutonium, in particular — are the most carcinogenic or cancer-producing substances we have ever known. And plutonium is man-made. It didn’t exist before we fissioned uranium. It is appropriately named after Pluto, the god of Hell, because it is incredibly carcinogenic. Plutonium is an interesting metal. If it is exposed to air, it ignites spontaneously, forming tiny aerosolized particles which can be breathed into the lung, and can give you lung cancer.

Now, how does radiation produce cancer? Your body is composed of millions and billions of cells — there are hair cells, eye cells, liver cells, heart cells. Inside each cell is a nucleus, and inside the nucleus are long string things, and arranged on the strings are the genes — the DNA. Well, these DNA molecules are the very essence of life; they control every single thing about us. Everything is passed down from generation to generation.

Now, in every cell in the body, there’s a regulatory gene which controls the rate at which that cell divides. And if you have an atom of plutonium sitting next to a cell nucleus, the plutonium hits the regulatory gene, it will damage it, but the cell will survive.

The cell will sit dormant for about fifteen years. (We don’t know why this happens at all.) And then one day, instead of just producing two daughter cells when it divides, as a cell normally does, it goes berserk and produces millions and billions of cells. That is cancer. So if you inhale one atom of plutonium into your lungs, and the particle hits the regulatory gene, it will damage it, but the cell will survive.

Now, plutonium is so toxic that people who’ve worked with it say they can’t find a new enough dose which would give every dying thing put into lung cancer. Now, that’s not normal in medicine. Usually there’s a threshold in a drug below which it does no harm and above which it does an action. And generally accepted that a millionth of a gram of plutonium will give you cancer.

Now, plutonium is a minute amount, a millionth of a gram is something you can’t even see. Now, by extrapolation — and it’s not theoretical — if you could take in a pound of plutonium and put a little piece into every single person’s lung on earth, you’d kill every man, woman, and child on earth with lung cancer. You couldn’t do that, but that’s how dangerous it is.


Nuclear bomb testing in Australia (1952-7) took place at a time when the island continent was still, de facto, a British colony. Her Majesty’s man in Canberra, Sir Robert Menzies, enthusiastically went along with everything Britain’s defence establishment demanded.

In all 12 nuclear bombs were exploded on Australian soil, the first in the Monte Bello islands off the northwest coast in October 1952, the last in October 1957 at Maralinga in northwestern South Australia.

In 1950’s, represented by a government more paranoid than Senator Joseph McCarthy, took the tests in their stride. Occasional questionnaires were assured that there was no risk to anyone. Even Sir Robert himself was probably unaware of the cavalier fashion in which Britain, the United States and Soviet Union, were conducting their nuclear experiments.

Britain’s nuclear legacy really only started to unfold in the late 1970s. Here is a sampling of the evidence of negligence and suffering which has come to light:

- Extremely toxic plutonium under necessity at all had been buried a few feet below the ground alongside the airstrip at Maralinga in the South Australian desert since the early 1960s. (Seven bombs were exploded at Maralinga.)

Other small quantities of plutonium, hundreds of drums of liquid waste, large amounts of laboratory equipment and contaminated vehicles lay buried for years at Maralinga, again without security. Worse, unspecified amounts of ‘loose’ plutonium were spread on the ground surface over an area of 200 hectares at concentrations up to 34 micrometers per kilogram of soil. (One micronsec per kg is regarded as a ‘safe’ level.)

Evidence from various sources indicates that up to 1000 people involved in Australian nuclear testing have had their health affected. By early 1980 it had been established that at least 50 ex-test workers were dead and many more had cancer.

The Adelaide Advertiser reported last year a ‘black smoke’ in October 1953 which came rolling through the mail on enveloping 45 people of the Yankunytjara tribe group of Aborigines. It was a day or so after a test 100 miles to the south. Jim Lester, then a child with that group, recalls having earlier heard a thing like a shotgun in the backyard. He said that within 48 hours of the smoke, ‘everyone in the entire camp was debilitated by uncontrollable vomiting and diarrhoeas.’ Soon after a skin rash ‘like measles’ covered their bodies. Within 48 hours healthy children were blind. Jim Lester ought to know. He is blind today.

On April 18, 1990, a previously unpublished government report revealed that on October 11, 1956 (after a test at Maralinga), a radioactive plume passed over Adelaide, the Australian capital, with a reading of 95,000 counts per 10 seconds — 1000 times more than normal. Tests on sheep revealed they had 4000 times more radioactive iodine 131 in their thyroids than before the blast. 7 human readings.

Despite assurances that the Maralinga testing area is safe, fresh evidence indicates tribal Aborigines are being lied to.

There are other stories of a farmer’s lemon trees dying, of former test workers being warned to keep away from Maralinga, of Aborigines found wandering in the desert.

The full extent of suffering as a result of nuclear tests is unknown. The Australian Government, a coalition ruled during the test years, is stubbornly trying to keep organisations, like the Australian Nuclear Veterans Association, a variety of anti-nuclear and peace groups do not intend to let the matter rest.

Vannatu

The governments of France and Vannatu, both negotiating, finally signed an aid and co-operation agreement. The agreement contains a clause in which each country’s foreign minister has to ensure that other’s affairs, a clause inserted in the initiative to show the Government support for independence movements, especially New Caledonia. On the other hand, the GCT agreed to the protection of the well-being and proper country. Behind-the-scenes moves, believed to be carried out by the Government, to have Australia pick up the tab for French aid, eventually came to nothing. The aid placement among the top half-dozen recipients of French aid.

French Polynesia

The French Government is willing to expose defence dangers it would never dare to inflict on its own citizens.

In 1963 France detonated 41 devices into the atolls begun in 1974. These took place at Moruroa and Fangataufa. Group of French Polynesians, although France offers the evidence suggests that surface tests in concrete in Moruroa and Maralinga.

Two neutron bombs have been detonated and for 4-6 FREEZENews
the blast. No evidence was in the report on what caused the evacuation of the area that had been cleared during the testing. Aborigines were not cleared from the area, but it is not known if this is the condition of the conservative parties which refuse to keep quiet about what they had seen and heard in the detonation area.

Nuclear testing in Australia is never likely to be seen as just another test of the will of the Australian public, but rather as a test of Australian leaders' ability to respond to the demands of the international community. The U.S. and U.K. have already made clear their intention to continue nuclear testing in the Pacific, despite the protests of the Australian public. The decision to continue testing in the Pacific is a reflection of the U.S. and U.K. governments' commitment to maintaining their nuclear weapons capabilities, even if it means disregarding the wishes of the Australian public.

Micro bombs: Between 1964 and 1958, the U.S. detonated 66 nuclear bombs on the atolls of Bikini and Eniwetok in the Marshall Islands of Micronesia. In 1925 a nuclear device code-named "Mike" was tested in the Eniwetok Atoll, resulting in the disappearance of an island called Elegug. The island was reburied into calcium carbonate and sucked up with the wind. A hole one mile in diameter and 175 feet deep was gouged in the reef. Among those tests was the first hydrogen bomb, detonated on March 1, 1954, a day to be remembered by the people of Rongatap Island, just to the east of Bikini. A few hours after that first H-bomb, radioactive ash began falling on Rongatap. Water tanks were contaminated; skin burns and loss of hair due to radiation poisoning were immediate. Later there were an outrageously high incidence of miscarriages, thyroid tumours in children (90 per cent of those under 12 in 1954 now have them) and cancer. Contaminated food and water have been blamed.

In 1978, a U.S. government survey declared Rongatap still heavily radioactive. The dispersed Bikini people are now suffering the privations of having to live on a much smaller island. An attempt by the U.S. to clean up Bikini between 1970 and 1978 led to some Bikinians returning to their homeland. In 1978 it was found that the atoll was still highly dangerous. Those who returned can now anticipate further health problems because of exposure to radiation.

Marinians

In Japan, the Science and Technology Agency said the bid of its funds for the dumping programme for the coming fiscal year would be for further surveys of ocean activity and tests of proof design.

Writing in the New York Times, U.S. journalist, Henry Kamm quoted lawyer Jeffery A. Cook, chairman of the Marinians Alliance Against Nuclear Dumping, as saying: "Clearly, the Japanese have a very strong intention of sitting tight this plant year. They will invite Government leaders to Japan and offer economic aid in return for stopping opposition to dumping."

anymore; all they need to do is drop a conventional weapon. But if Europe is populated with nuclear reactors in the Second World War, it would be still uninhabitable right now. That's the 30-second scenario.

Now, these rods are taken, and they're melted down in a nuclear reactor. And what gap can you fill to do, if you get ahead with breeder reactors (Carrot says no at this stage), is to remove the plutonium in pure form from the waste, and all the other toxic materials, or even the isotopes in the reactor. They've got quite a lot of big containment vessels with this material scattered round the country from the weapons program, when they remove the plutonium. That's how they got the plutonium to make the nuclear bombs, and that's left all this other stuff behind, and it's leaking.

In Hanford, Washington, two years ago, they lost 110,000 gallons of highly radioactive water, containing all these elements. It's a couple of hundred feet above the Columbia River, which supplies the water to a lot of the cities there.

What happens when it gets into the water? Well, all of these things are concentrated in the food chain. They're concentrated in thousands of times in fish, and fish swim thousands of miles.

In San Francisco Bay, at Fellon Islands, they have just discovered that there are 45,000 55-gallon drums containing plutonium and other stuff, which were dumped there by the military, and a third to half of them are ruptured and leaking. And that's where they catch their fish for San Francisco — from the Bay. I mean, that's a problem there.

In Lake Erie, there are enough water in the lake to dilute the waste to safe levels. A congressional committee has been given a million dollars to investigate the matter — just to investigate it: they don't know what to do about it. They don't know what to do at all.

I heard on the news the other night that the congressional committee said that the problem at West Valley is a new problem, and there isn't any evidence of it leaking. It wasn't written up in the press the next day — I think because they're so scared they don't want to alarm the public.

So that's the situation right now.

The radioactive material leaks out gets into the food chain. It gets in the grass and gets eaten by animals, and then into the milk, the meat, and the vegetables we eat. And it's concentrated in breast milk as well, human breast milk, and remember, babies are terribly sensitive to the effects.

Once radioactive material gets out into the environment, you can never get it back. Time and again there will be contamination — an explosion or a spill in the New York Times or something like that, and they'll say, "Don't worry, it's perfectly safe." They don't explain these effects: these effects are completely new. They don't explain that it takes fifteen years to develop cancer, or that these things are not terribly sensitive to the effects. They don't tell you any of that. They just say, "Don't worry, it's safe." If you eat this in which it's absorbed through the gut, goes up to the thyroid gland in the neck, where it concentrates, and it irradiates just 30% of the child may get a cancer. Strontium 90 works like calcium and is absorbed in the gut, goes to the bone, where it can produce an osteogenic sarcoma, like Teddy Kennedy's son had.

They're very lethal. It also produces leukemia, because the white blood cells are made in the bone marrow. A white blood cell, irradiated by strontium 90, may divide uncontrollably some years later, and produce cancer of the white blood cells — leukemia. Cesium concentrates in muscle, and muscle is all over the body.

Now, plutonium is not absorbed from the gut, except — ironically — it's absorbed from the lung, because then the gut is so immature, it can't prevent the plutonium getting through. However, by breathing it in, it's absorbed into the body, and it will cause a tumor in the liver, producing liver cancer. It will go to the bone and produce, again, an osteogenic sarcoma, and/or leukemia.

You see, the body handles plutonium like iron. The body is tricked into thinking it's iron. It takes it in, and it combines it with the iron-transporting proteins, so it crosses the placenta, the organ that supplies the blood to the developing baby. All of the fetus's organs are formed in the first three months after conception; after the first three months, the baby just has to grow. Plutonium lodges in that fetus and kills the cell that is going to make the right half of the brain, the baby will be born deformed. Or it will make the septum of the heart, the baby will have a hole in its heart.

We had a huge conference in Australia on that. They said: "Uranium is Thalidomide forever." Remember that drug that women took for morning sickness, and the side effects of genetic disease, because these things are sticking out of their shoulders, etc. et cetera. That's what plutonium can do. But, worst of all, it's concentrated in the testicles and the ovaries, where it can damage the eggs and the sperm, and hence the genes. If a gene is damaged by plutonium, in the next generation, the child may be born with dysplasia. If the gene is damaged in a weak way, the baby will look OK, because its normal gene is the strong one, but it will carry an abnormal gene.

We all carry abnormal genes. For example, cystic fibrosis, a disease of the lung or the gastrointestinal tract, is controlled by a weak or recessive gene. One in twenty people carries that gene. It's very common in the gene pool. Many of these genes, and we don't know we carry them until we marry someone with the same gene. So two genes get together to produce a child with that disease.

Now, because of the background radiation from the sun, we've been mutating genes for millions of years, which have allowed fish to develop lungs and birds to develop extra wings, and the bad mutations have died out. Now, our doctors are telling us we have more mutations than we have good mutations (like diabetes and other diseases) alive to reproduce — because we believe in life. However, this will cause mutations in the human gene pool.

But to have an industry that is going to increase the incidence of cancer in the future generation babies by producing plutonium seems to me wicked.

Geneticists say that we probably won't live to see these effects of genetic disease, because these things are all so carcinogenic or cancer-producing that we'll all probably die cancer before then. Scientists predict the epidemics of the future will not be from disease, but from the effects of these things. We may have to get used to living only twenty or thirty years instead of seventy or eighty years, because we've changed the genetic structure of our species. But to have a mutation that is going to increase the incidence of cancer in the future generation babies by producing plutonium seems to me wicked.

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RADIATION CLOUD OVER NUCLEAR POWER

"You've come on a very interesting day," beamed Ernest Sternglass. "There is a news story just out this morning which says there has been a four-fold increase in thyroid damage in children south of the Three Mile Island (TMI) plant."

Dr. Sternglass, professor of radiation physics at the University of Pittsburgh School of Medicine, seemed to take a certain delight in sharing these grim findings. They were after all, another piece of evidence to support his claim that the radiation released from TMI will turn out to produce the largest death toll ever to result from an industrial accident.

Of course this prediction is in direct conflict with the conclusions of many official investigations of the reactor incident, but that should come as no surprise. Sternglass has been at odds with the nuclear establishment since 1963, when he published the first of a series of controversial papers on the effects of low-level radiation.

According to the President's Commission on TMI, the amount of radiation released during the accident was so low that the number of radiation-induced cancers will be virtually undetectable. In fact, the commission reported that the only significant health effect was mental stress and anxiety among residents nearest to the plant. Stress, say some observers, that was compounded on the second day of the accident by the widely printed statement by Sternglass that the radiation release "corresponded to a major fall-out pattern from a nuclear bomb test."

"That's totally false."

"But it turned out to be correct."

But the U.S. Secretary of Health, Joseph Califano, announced after the accident that residents within eight kilometers of the reactor received no more than 90 millirem, whereas the average Pennsylvanian receives about 100 millirem per year from natural background radiation.

"There are numerous examples of epidemiological studies, dating from John Snow's work with cholera, where the causal factor was not discovered until long after a relationship between the most diverse phenomenon had been shown."

Your critics say the central weakness in all this is that you do not have absolutely no clinical evidence to back up your correlations.

"We just found clinical proof of the mechanism right here at TMI. Just read the case history that identified from an independent study, carried out by the State of Pennsylvania against its wishes, that indeed infants in the area of TMI have a four-fold increase in hypothyroidism. This is then an additional piece of evidence that corroborates, or at least is consistent with, the idea that babies are dying, not because of a major radiation exposure to the whole body, but because a slight retardation of thyroid functions leads to a slowing down of growth, so that by the time nine months is up, they are not quite ready to be born... and this is what the infants in area hospitals are dying of today.

"I went to the Magee Women's Hospital (which handles one half of all Pittsburgh deliveries) and to the Harrisburg Hospital (one-third of the city's births) and went through all the paediatric records one by one and found the missing clinical data. They all died, not of infectious diseases or congenital defects, but died specifically of prematurity and respiratory distress at birth, which is exactly what I predicted."

In many respects Sternglass is once again the lone voice of the nuclear establishment. After receiving his doctorate in engineering from Cornell University, he worked for 20 years as a consultant to the Electric Power Research Institute. He then began work at the research laboratory of the world's largest manufacturer of nuclear reactors — the Westinghouse Electric Corporation in Pittsburgh, Pennsylvania. Over the next 15 years he developed a wide range of projects for Westinghouse such as nuclear magnetohydrodynamics for gas-cooled reactors to designing the video cameras used in NASA's Apollo missions to the moon.

LATTER DAY LYSISTRATA

It is late in the day of the world and the evening paper tells of developed ways of dying: five years ago we would not have believed it. Now we sit on the grass in fading afternoon light cursing pages and guessing at limits of shock, the point of reprieve; my wife clutches on to sustain, to support, to steady; at this vast interval. I can think only of the little plunge flooded in, that was once trusted into the garden; moving to mysterious stile and turning the seasons; I have no way to conceive the dark maestros who men may spin in savage currents of power — is it power? — and turn to stone, to steel, no longer able to hear such small threats; hopeful chirpings or see these tiny domestic pasturings, the pert shivering of feathers. They know only the fire in the mind that carries them on and down in a wild and wrathful wind.

I do not know how else the dream of any man on earth can be "developed" — leaving buildings whole..."

Let us weep for these men, for ourselves. Let us cry out as they bend over their illustrious labors, let us tell them the cruel truth of body, skin's violet bloom, the scarlet of bleeding. Let us show them the valuable earth, the transparent light that slips through slender bivets falling over small birds that sense in the ample truths of their veins the pulses of power; let these men breathe the green fragrance of the leaves, this in gentle darkness let them convince me. Here explain their preposterous imaginations.
MILKING THE NATIVES
— by Moses Ynal Udongo, Micronesian Poet

I never invited you
but you came to my island
and I welcomed you

You told me
I was a savage
and I believed you

You told me I was doomed to hell
and I was scared
you gave me your bible
and I prayed

You told me to till my island
I planted coconuts for your profits
you told me to dig holes and bunkers and
I defended you with my life and hand
but you bombed my house and my land
and I ran into the woods

You told me
you freed me from your war
and I should be grateful
so you as my liberator.

You established your government
on my island
without my permission

You sent me to your school
and I learned your way
and I worked for you as an office boy
you gave me your dollars
and I bought your things

Now you tell me
I cannot live without
your money
your way
your things
and I believe you

But I can only get them
if I give you my island and freedom
Never!!

Tahitian women protest

By David Robie

Five women, all social and political leaders in French Polynesia, have made an impassioned public appeal to France to halt nuclear testing in the Pacific. The campaigns made their demand through the Papeete newspapers and state-run television only a few days before last week’s conference of French women in Nuku Hiva adopted hard-hitting resolutions on nuclear and independence issues.

"We believe that some of the health problems here, the new illnesses, are linked to radioactivity. There isn’t a Tahitian who thinks otherwise," declared Ida Bordes-Teariki, president of Pakea Aita, one of the two women’s political groups in the governing coalition in the French territory.

"Money from the bomb does not interest us," she told the Papeete daily, Les Nouvelles. "It’s better to be poor and in good health than rich and sick."

Bordes-Teariki and other women leading women’s groups are concerned at the apparent escalation of nuclear testing at Mururoa Atoll as France continues miniaturisation of nuclear warheads. A record seven tests were triggered last year, according to Sweden’s Hagor’s military observatory, and the programme is just as heavy this year.

Bordes-Teariki and her four colleagues were delegates from Tahiti — comprising the largest South Pacific delegation — to the United Nations Forum for Women in Copenhagen, last July. They have spearheaded a growing militancy among female opinion leaders in French Polynesia.

Her fellow campaigner include Marie-Therese Danielsson, wife of Swedish anthropologist Bengt and co-author of the book, "Maruoro, Mon Amour." A town councillor of Papea, near Papeete, she represents the Tahitian environmental organisation La Ora Te Natura.

The other delegates are a school teacher Georgeeta Taerea, who speaks for the fast-growing Socialist party La Maua Te Nuava; Roseline Cébaron of the Layworkers Federation; and schoolteacher Tepora Escande.

Through the press and television, they pushed for strong resolutions adopted by Pacific women at Copenhagen, which provided a springboard for last week’s Nuku Hiva conference. They are:

Immediate operation of a nuclear-free zone comprising the whole Pacific and conclusion of an international treaty forbidding nuclear tests, the use of nuclear submarines and the dumping of nuclear wastes. Regular health control of the population in exposed areas by international teams of radiobiologists.

Compensation for radiation victims.


Economic and if necessary, military aid for the legally elected government of Vanuatu.

A halt to the economic exploitation of land and sea resources, such as oil, mineral nodules and fish by foreign and multi-national companies. All economic development should be planned and carried out by the Pacific governments and Islanders themselves.

Protection of all Indigenous cultures against commercial exploitation and foreign domination of education.

No more large-scale labour migrations or settlements in the islands by outsiders. Stronger efforts to combat racial discrimination.

In a statement, the women of Polynesia protested against "a colonial power which has destroyed our culture and language and made us what we are today — individuals ruled by ruthless economic laws steered by the desire for profit.

"We protest in the name of all those who have no voice, who have been abandoned by this new society without mercy, a society where money decides our future, where the existence of a small minority living in luxury constitutes an insult to the majority living in poverty and degradation."

(Republiced from The Nation, November 1980, a short-lived national weekly)

STANLEY!

YOU SWINE ARE A THREAT TO THE FREE WORLD, BUT WE'RE READY FOR YA!

WE KNOW YOU GUYS ARE PREPARING TO STRIKE AT US, WITH ALL THE POWER YOU POSSESS! OKAY, TRY IT!!

WE'RE A STRONG, PROUD NATION. WE SHALL LAUNCH MISSILES, SUBMARINES! WE HAVE A NATION PAYING FOR YOUR BLOOD, YOU WANT A FIGHT RIGHT TO LET'S FIGHT!!

DON'T THINK I DON'T KNOW WHERE YOU'RE GOIN'! YOU'RE GOIN' TO PREPARE FOR WAR, AREN'T YOU?!!

TO ARMS! TO ARMS!! THE SWINE ARE PREPARING FOR WAR!!