

Joe Harawira: The emergence of a mātauranga Māori environmentalist

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Abstract: This paper case studies the story of Hohepa Joseph (Joe) Harawira, a non-academic mātauranga Māori researcher who challenged the misconceptions about the validity of community-based researchers. His extensive research into the debilitating effects of Pentachlorophenol (PCP) on the sawmill workers of Whakatane, their families and the environment has resulted in significant transformative outcomes for the people and the land of Ngāti Awa.

Keywords: ecological sustainability; environmental science; Māori health; mātauranga Māori

Introduction

In our society there is a perception that research belongs in the realm of professional academics. Māori in particular have struggled to have their voice heard and their research accepted by their non-Māori peers. As Smith notes:

One of the challenges of Māori researchers... has been to retrieve some space. First, to convince Māori people of the value of research; second, to convince the various fragmented but powerful Pākehā research communities of the need for greater Māori involvement in research; third, to develop approaches to and ways of carrying out research that take into account, without being limited by, the legacies of previous research and the parameters of both previous and current approaches to research (Smith, 1999, p. 225).

While Māori continue to contest this space in traditional academic research institutions the challenges for community-based researcher Joe Harawira and the incorporated society of which he is coordinator (Sawmill Workers Against Poisons, SWAP) to have their research recognized has been exceptionally more difficult than their Māori counterparts working within tertiary institutions. While working under the same prejudices that Māori academic researchers face, community based researchers like Joe who are not formally “qualified”, face further marginalization. Gwenda Paul, a researcher who assisted Joe stated, “There is an academic arrogance out there that we have to deal with, and that is why Joe met such a stumbling block” (cited in Purnell, Slater, Eng, & Pearce, 2005, p. 120).

Joe Harawira and other SWAP members, are not scientists, nor are they researchers. Instead they are ex-employees of the Carter Holt Harvey Sawmill at Whakatane. In 1998, they formed SWAP as a collective with other sawmill workers from throughout the country after many of the men became fatally ill due to exposure to pentachlorophenol (PCP), which is one of the deadliest chemicals known to man. At the sawmill, the men were exposed to PCP while handling timber treated with this toxic chemical. These people and the wider Whakatane community suffered further exposure as chemically treated sawdust, bark, scrap timber, even damaged drums and barrels of chemicals were dumped in over 36 sites in and around the Whakatane area. Some of these sites were adjacent to waterways and chemicals leached into the water causing contamination. Other waterways were contaminated as chemicals were dumped directly into them.

The sawmill workers and their families, the majority of whom are Māori, have suffered severe debilitation from cancer, liver disease, respiratory problems, heart disease, depression as well as high levels of miscarriages. Their children have also suffered with many being born with birth defects or some form of disability (Paul, Harawira, Iopata, & Kohe, 2002). When Joe Harawira and SWAP first started investigating the causes of their illnesses in 1988, the mortality rate averaged around two deaths per year. Today however the mortality rate for the sawmill workers of Whakatane and their families has accelerated to an alarming average of 12 to 18 deaths per year (J. Harawira, personal communication, January 17, 2009).

Joe Harawira and SWAP have campaigned for over 20 years to get their health and environmental issues recognized. As the group's primary campaigner and researcher, Joe is now increasingly recognized as a leader in community-based environmental science both nationally and internationally. His extensive research into the effects of PCP on the sawmill workers and the land (whenua) of Whakatane has been ground-breaking in bringing about a health services package for the workers and their families. His research has also been pivotal in attempting to create a remedial package project to clean the whenua and waterways that were also poisoned by PCP. This project is the first of its kind in Aotearoa.

Media publicity has attracted considerable political interest and a rapid increase of medical and science professionals wanting to assist Joe and SWAP with the health and environmental issues. It has also generated an interest in Joe Harawira himself with many wanting to know about the man who led the resistance of the sawmill workers of Whakatane. So who is Joe Harawira? And how was it that he, an "unqualified" sawmill worker with no initial training or knowledge of Western science, was able to conduct research which would have significant transformative outcomes for the people and whenua of Ngāti Awa? This is Joe's story as he tells it.

Positioning Joe Harawira

*Ko Putauaki, ko Mauao nga maunga
Ko Ohinemataroa, ko te Orini nga awa me Taurangamoana hoki
Ko Mataatua te waka
Ko Toroa te Ariki
Ko Te Patuwai, ko Te Rangihouhiri, ko Nga Potiki nga hapu
Ko Ngāti Awa, ko Ngai te Rangi nga iwi
Ko Hohepa Joseph Harawira ahau.*

My mountains are Putauaki, and Mauao
My rivers are Ohinemataroa and the Orini. My ocean is Tauranga
My waka is Mataatua
My chief is Toroa
My sub tribes are Te Patuwai, Te Rangihouhiri and Nga Potiki
My tribes are Ngāti Awa and Ngai te Rangi
I am Hohepa Joseph Harawira

To understand who Joe Harawira is, and how he was able to undertake his research, one must look at who he is in relation to his whakapapa (genealogy) and upbringing as introduced above. Joe's father Fred Turumakina Harawira was a son to Hohepa Harawira of Ngai te Rangi and Ihipera Armstrong of Ngāti Maniapoto. Joe's mother Koau Suzie Hona from the Ngāti Awa hapu Te Patuwai was daughter to Wiremu Hona and Te Ara-Paparahi Kerara Rewiri from Ngai te Rangihouhiri.

According to Joe, his whānau on both sides were ringa raupa, (hard working individuals) who possessed knowledge and skills of how to work the whenua, and who recognised its importance as a means of sustenance, and the connectedness and sacredness of the whenua to the people. As well as being hard working individuals, Joe's parents and grandparents were also heavily involved in various churches such as the Ringatu faith. His father's Harawira whānau in Tauranga Moana in particular were heavily involved in the Ratana church. When his father moved to Whakatane from Tauranga to marry his mother at Puawairua Marae, it was one of the very few Ratana weddings conducted in the Whakatane area at that time. The hard working characteristics, values and religious beliefs were passed on to Joe's parents and became the major underpinnings and influences on the way Joe and his siblings were brought up.

Hohepa Joseph Harawira was born on the 13th of March 1946, and was the 11th child of 13 to Fred Harawira and Suzie Hona. Joe was brought up at the family homestead in Paroa "the capital of Whakatane" as he refers to it. The life of a child growing up in this area was a far cry from today. Joe fondly remembers his childhood days where children roamed freely between houses and made themselves at home as part and parcel of that household. Families lived off the land, growing and gathering their food that was in abundance in the various canals, drains and in the Whakatane river. The then pristine Whakatane river was also a playground to Joe and other children growing up in that time, as it was also the place where they all learnt how to swim and gather food.

However the children's lives were not always just about play; growing up in a family of 13 meant that each individual had responsibilities for helping to maintain the running of the household. Joe's father Fred was a placid man whom he described as friendly in nature and able to get along with anybody and everybody. Fred owned a small trucking business and spent most of his time travelling the country earning an income for the family. In his absence Joe's mother and grandmother took responsibility for maintaining the household, and taking care of the 13 children. During this time Joe's mother would also take in and raise three of her nieces and nephews.

Suzie, unlike Fred, had to adopt a harder tougher persona so as to fulfil the physically demanding role of caring for the 16 children and maintaining the household gardens. These gardens were unlike the small home gardens we see today. Instead, acres and acres of paddocks full of kumara, potatoes, sweet corn, maize, sugar cane and an abundance of fruit such as figs, quinces, strawberries, citrus trees and nut trees surrounded the family homestead. Chickens, ducks and cows were also kept for food and horses were kept for ploughing and working the land.

Suzie ensured that the children completed their chores in and around the home and in the gardens before leaving to attend the Paroa Totara Māori Native School. As young children, Joe and his siblings were not always overly excited to be doing chores; however there was no avoiding them. Reflecting on the tedious chores demanded by his mother Joe said "Man we used to call her all the things under the sun under our breath but when you look at all of us the whole 13 of us, as we are today she must have done something good." Despite such mutterings, Suzie was held in high regard amongst Joe and his siblings with all children remembering their mother fondly and with the utmost respect.

As Joe and his brothers and sisters worked the land, arguments would often erupt if one was thought not to be pulling their weight; however after years of experience they became experts at creating effective systems so as to make their jobs easier. Suzie and her mother who were both exceptionally hard working women would also work in the gardens everyday using the horse to plough and scarify the earth, until Joe and his brothers were old enough to relieve them of their duties. Joe remembers how even in their old age the women refused to stop working, and Joe would often see his grandmother hunched over and brittle with age still

working in the gardens. These two women both played significant roles in Joe's life. Their tireless work ethic engrained itself into Joe and his siblings, teaching them valuable lessons concerning the importance of the whenua, and of working collectively in order to achieve your goals.

It was these expectations or chores that Joe was exposed to from a young age that helped connect Joe with the whenua. Using the whenua and waterways as a playground and food source Joe gained a firm understanding of the sacredness of the whenua and waterways and became intimately connected with both. The religious rites associated with the planting and harvesting of the food also enhanced Joe's philosophical understandings and respect for the whenua and waterways. These values, knowledge and skills may have seemed insignificant at the time, but would later become the basis on which he built his research.

Joe's spirituality was also nurtured and maintained by his parents and grandparent's faith. In particular his father who earlier on in his marital life converted from the Ratana faith to the Mihinare hahi (Anglican church), where he later became a reverend, ensured that all his children were brought up in the faith. But despite his greatest efforts Joe was not to be converted into a model Christian child and quite openly admits to "not being God's greatest fulla." However Joe later recalled how important his faith was and how important his upbringing in the Mihinare hahi would be as a place of solace and strength in the later turbulent years that were to come in his journey with SWAP.

After finishing primary school, Joe attended Whakatane High School. However studying was not suited to Joe and he left school on his 16th birthday on the 13th of March 1962.

To put it simply we were just a waste of space at school anyway; academically we were hopeless. The only thing we were good at was rugby. And I have to say there that's all I lived for in those days everything else came second to rugby.

With jobs being plentiful at the time Joe got a job as a telegram boy at the Whakatane Post Office. Initially he had set his hopes on building a career working on the telephone power lines; however he failed the English exam so abandoned these ambitions to start a career working in the timber industry.

Joe's first job in the timber industry was with the Tasman pulp and paper mill in Kawerau. Being two weeks shy of his 18th birthday Joe lied about his age in order to get the job. He started working there on the 'greenchain' sorting and stacking the timber. However luck would not follow Joe to this job either. After only a year at the mill, he was fired along with 11 workmates after unexplainably disappearing from work to go to a place where he wasn't supposed to. All 12 workers reapplied for jobs at the sawmill, but Joe was the only one not to be given one, so he left the small town he had called home to work at the Kinleith mill in Tokoroa.

Tokoroa in the late 1960s early 1970s was not an easy town to live in, especially for a young man of 19 years. At that time, Tokoroa was home to the notorious "Huhu gang" one of New Zealand's biggest gangs. It was made up of bush and forestry workers who resided in and around the small Waikato township. Joe who still viewed himself as a boy had to learn to grow up fast in order to adapt.

In those days there if you even blink an eye at them you got the bloody bash eh, but we learnt to live with that and yeah had a few bashes, gave a few people the bash as well; that was part and parcel of my growing up period.

While in Tokoroa, Joe continued to play rugby and his obsession with the game encouraged him to keep his body in the best possible physical condition. Although he lived the life of a

young bachelor in Tokoroa Joe seldom indulged in drinking and smoking to the extent that most of his work mates were at the time. Instead with a handful of other friends they poured their time and effort into keeping fit for rugby.

I spent most of my working life in the gyms. Not so much a body building thing like that it was just a keep fit thing for my rugby because like I said before rugby was my be all that is all; everything else came second.

Although Joe never aimed at making a serious career out of rugby, he would throughout his lifetime captain sides, coach teams and manage teams. Joe's time in Tokoroa meant that when he finally returned to Whakatane his body was in the best physical condition it could be. Joe's physically demanding job and the harsh environment of Tokoroa also meant that he developed a somewhat hard persona. This hardened trait was characteristic of all the men working at the mill at that time. Like Joe they were all physically strong from their work and rugby, and they had hard attitudes. That's not to say that these men were violent and nasty people, but they did possess strength of character which enabled them to stand their ground, and Joe was no different. Although he was known as a good person to those who knew him well, at times the hardened attitude meant that his people skills and ability to relate others, especially Pākehā, was not good. Despite the sometimes rugged situations Joe was faced with while in Tokoroa on reflection of his time there he is adamant that the seven years he lived there would have been the seven best years of his life.

After being denied a job seven years earlier, Joe returned to Whakatane to start work at the sawmill working on the 'greenchain' sorting timber. He would later be sent away for training and become promoted to a grader. Being the only unmarried sibling, he moved in with his parents to help with their care while he worked at the sawmill.

However these living arrangements changed when Joe met Pare Pikiāo Rapana, daughter of Te Awhiahua Merito and Rama Rapana. She came from a family of devout Catholics, and was also very athletic. The couple would later marry in 1972 in the Catholic Church, and move into the village set aside for the sawmill workers less than 50 metres away from the sawmill. Here they started their family with the birth of two children Marama Rose and Joseph Rongopai.

Life for the young family was going well with a home and two children they had an optimistic future. For Joe his new position at the mill seemed to be ideal. The nature of the job was physically demanding, and suited the physical attributes of Joe and his fellow work mates who were also strong fit men obsessed with the game of rugby. Unbeknown to Joe and the sawmill workers of Whakatane their work would have devastating effects on their bodies and dramatically change their lives and that of their families forever.

Exposure

While working at the mill throughout the course of their normal duties, Joe and the sawmill workers of Whakatane were exposed to a cocktail of hazardous chemicals, the nastiest of these chemicals being pentachlorophenol (PCP), a carcinogenic chemical used as an anti-sap stain solution to prevent the timber from fungal diseases. Although all of the men were exposed throughout the various divisions in the mill Joe, whose job as a grader meant that as well as grading the timber he also had to mix the solution for the timber to be treated with before it could be sent down to the greenchain to be sorted and stacked. Joe along with his workmates would often be mixing the solution by hand up to five to six times per day, depending on the load. Joe was then exposed to spraying when the tank over-flowed, fumes from the heating, and splashes from the sap stain bath. Joe would regularly clean his work area, and the build-up of toxic sludge from the holding tank and sap stain bath would also be

emptied by hand. (Harawira & Moeke, 2005). On their tea breaks the men would often sit out in the yard where all the pallets of wood still soaked with the sap stain solution were left to dry. The yard would be saturated with chemicals from the saturated treated timber. The men would ingest the chemicals as it was common for them to place their food on the pallets and eat off them, while using splinters of the wood as toothpicks. (Paul, Harawira, Iopata, & Kohe, 2002). Joe would also work overtime at the mill unloading container wagons of chemicals by hand in the chemical store. These chemicals were used by the mill throughout its divisions and stages of processing the timber. By the end of the day Joe and his work mates would be covered in chemical powder. All of these duties were undertaken with little or inadequate protective clothing. The men were totally unaware of the dangers of working with these chemicals, and were given no instruction or education about the harm these chemicals could do. "We didn't even know how to spell the damn thing the word (chemicals) or let alone what they meant or what they eventually would do to us."

The men's families were also exposed to chemicals when they would take wood which was saturated with PCP home to burn in their open fires. Some of the chemical solution was used around the home to tidy lawn edges, and contaminated sawdust and bark was also used in the family gardens as mulch. The wives were further exposed when they would wash the men's work clothes which were drenched with the chemicals. Sometimes they were washed with the rest of the families clothing, thereby exposing the whole family.

Further, more waste from the mill such as contaminated sawdust, bark, scrap timber, even damaged drums and barrels of chemicals were dumped in over 36 sites in and around the Whakatane area. This practice contaminated the land and waterways. Māori communities were heavily impacted upon because contaminated sawdust and bark was used to fill in and level out land, in and around different marae in Ngāti Awa. One marae in particular (Taiwhakaea) suffered greatly when the fill was used to level out the land surrounding the marae. The chemicals from the waste leached into their bore water supply contaminating the whole community's water. Joe's marae like Taiwhakaea, was also contaminated when the same waste was used to level out land in front of the wharekai (house for dining), and where they used to cook the food in ground ovens (hangi).

Joe, his workmates and to a lesser extent the community, were aware that a dumping process occurred while the mill was operational. However, they were all completely unaware that the waste was contaminated and that it could damage the environment; and by extension, the people who lived in and around these areas. Authorities had provided no information or education to local hapū and iwi who used this waste as landfill at their marae, and there was no consultation with the wider community about the dangers of dumping these chemicals. The systematic dumping of this waste by the mill during its operations occurred for a period of over 39 years.

The effects of exposure to these chemicals would not become immediately evident to Joe and his co-workers. But eventually they would all gradually start to suffer from similar symptoms such as weakness and fatigue, irritation of the eyes and nose, depression, mood swings, headaches and shortness of breath. Long-term effects which were to be later discovered, included high levels of cancer, liver disease, respiratory problems and heart disease. The spouses would suffer from similar diseases as well as high levels of miscarriages, with one woman reporting to have had seven failed pregnancies. Children suffered from asthma, eczema, learning difficulties and multiple birth defects (Paul, Harawira, Iopata & Kohe 2002).

It was in between 1982 to 1983 when Joe started to notice physical changes in his health. His symptoms persisted even though he was now working on the paper-making side of the mill, and was no longer being directly exposed to the dangerous chemicals. The causes of the sawmill workers illnesses were still unknown to them all. So in 1988 the workers formed a collective called Sawmill Workers Against Poisons (SWAP). The intention of the group was

to ask the questions about why they were getting sick and why so many of their friends were dying at a young age. In the following year, the Whakatane sawmill was closed down.

After attending a conference in Christchurch about PCP, Robert Gillies, the sawmill workers union delegate, had tried to inform them about the dangers of PCP, but his warnings did not appear to register with the men.

When he came back to tell us about it well it was just like talking to those walls because none of us knew what he was talking about and we left it like that. The number of meetings that we went to, oh I was just a bum on a seat, filling a gap, filling a space.

Joe's initial lack of understanding and commitment to SWAP's philosophy would eventually grow, but the dramatic decline in his health meant that his participation in the group would have to wait. After working in the timber industry for over 29 years, Joe took his redundancy from the mill due to his poor health. In a matter of two and a half weeks, Joe's body weight dropped sharply from 17 stone to 12 stone. His mobility also started to break down, to the state where he could no longer hold a knife and fork, and eventually he became bed-ridden. He was in a constant state of pain; even the creases in his sheets would become painful for him. But the worst of his suffering would come when he would have to endure intense pain spasms. These pain spasms were symptomatic of all the sawmill workers, with the men having to endure severe pain all over the body for days and weeks on end. For Joe his pain spasms would last an agonising 10 to 13 days.

The pain spasms that I experienced over that time there it was just something unbelievable the degree of pain. You know people can only take so much and I can understand now why some of them didn't make it, and a lot of them didn't make it and some of us did.

No medical treatment or explanations of the pain spasms could be provided to the men. As a consequence many resorted to alcohol and marijuana as a means of relief. Joe however chose not to resort to these measures and simply hung on as best as he could. Joe's health would continue to decline to the state where his cousin, who was a well known kaumatua (elder) of Ngāti Awa came to visit him twice to read him his last rites. With Western medicine unable to provide any sort of remedy, Joe and his whānau would gladly accept the help from a whānau of Māori healers and tohunga (spiritual expert) who would one day arrive on their doorstep to help. The whānau gave no explanation of why they came, or how they knew to come. Instead they would visit Joe regularly while he was still bed-ridden over the course of two years, trying to undo the damage that 29 years of working with chemicals had done to his body. In massaging him from head to foot, these painful sessions would often last up to seven hours. Joe's whānau would have little choice but to sit and wait anxiously throughout these sessions for results.

After two years of working solidly on Joe, the whānau of Māori healers managed to help improve his health. Although he would never be the man he once was Joe considers himself extremely lucky to have recovered somewhat. "I think the fortunate thing for me I didn't die like my other mates did, like a whole host of my other mates did." Although they are not as frequent, Joe still suffers from the pain spasms today. He has also developed diabetes which has to be maintained with a strict diet and exercise regime, and he has a dead arm. Many of his joints have permanent damage to them due to the pain spasms, with his fingers becoming disfigured. Joe has had both hips replaced, a rare operation at that time. Today Joe's family also suffer various health issues due to PCP exposure. His wife has recently had her thyroid removed. Her symptoms are similar to thyroid cancer, but doctors are still unable to conclusively explain her ailments. Thyroid cancer is symptomatic amongst the sawmill

workers and their spouses. Joe's children and grandchildren also suffer from symptoms common amongst second and third generation exposure victims.

Throughout Joe's cruel ordeal over the two years where he was bed-ridden, two significant events would evolve out of his suffering. It was during this time that the timber workers union and the occupational health and safety agency were conducting health surveys on timber workers through out the country. Joe was selected to be a participant and it was at this point where he began to see that the causes of his illnesses were probably related to the chemicals he worked with at the sawmill. This significant time period would also mark the start of Joe's spiritual journey which would go hand in hand with his future work with SWAP. After spending two years with the whānau of Māori healers and tohunga, Joe's mother in-law (Te Awihiahua Merito) would one day unexpectedly arrive to take Joe once more to visit the spiritually-gifted whānau. This was very uncharacteristic of Joe's mother in law who as a devout Catholic did not engage in these sorts of spiritual encounters. During this particular visit with the family Joe and Te Awihiahua who was terminally ill with cancer would receive healing. Her outcomes would not be as favourable as Joe's and on reflection of their time together he suspects that the reasons for her taking him out there was not so that they could both become better, but that she would instead take Joe's illness from him for her to carry. This selfless act over time would teach Joe the importance of faith, and be instrumental in changing Joe's hard, harsh attitude about the way in which he interacted with people. During this visit Joe would also receive confirmation from the tohunga about his work with SWAP.

He did say to me that you have a job to do, um and he left it at that like as they do they tell you these things and they cut off half short and you have to figure everything out for yourself.

Although religion and spirituality were familiar to Joe, his proficiency and confidence dealing in this area was limited. Joe's initial understanding about what this tohunga had told him about his work was unclear to him at the time, and he did not quickly understand the spiritual significance of his work with SWAP, or his role in it.

Despite this unawareness and lack of proficiency it can be certain that the impending work to be carried out by Joe and SWAP would not be one-dimensional. It would be a living breathing entity of its own, encompassing and embodying both the physical and metaphysical. When describing a Māori worldview James Irwin (1984) gives reference to three realms which make up Māori cosmology. First the realm of ultimate reality, where Io, Rangi, Papa, and other Gods exist; second the realm of the human, or reality; and third the realm of the dead. According to Irwin each realm is not separate from the other as they intersect at all times. This would very much be the case for Joe and that throughout his journey with SWAP he would have to work and grow as an individual within all three realms to achieve his necessary ends.

Resistance

In 1995 with his health somewhat stable, a new consciousness of the causes of his illnesses, and persistent encouragement from Nick Curtis (Chairperson of SWAP), and Tai Moeke (ex sawmill worker and kaumatua) Joe finally became an active member of SWAP. In this same year the men would formalize their group by making it an incorporated society with Nick Curtis as its inaugural Chairperson, Matiaha Kohe the Inaugural secretary and Joseph Harawira as inaugural coordinator.

With its members still suffering from a range of debilitating health issues the men were determined to find answers not only for themselves but more importantly for their families.

I had two children and the things that were forming in my mind at the time there I bloody didn't want my kids to go through what I went through and I still don't want them to go through that today, or anybody for that matter.

Desperate to find answers Joe and SWAP started to look into the causes of their health issues. This would be a massive undertaking for the men as they had all left school prematurely and had little if any knowledge in science. Unaccustomed to the practice of research, and reading the scientific jargon the task of gathering relevant data would be trying. However they would continue to persist and the more they researched the more it became clearer to them that their health issues were related to their exposure to PCP and the highly toxic bi-products which this chemical produced called dioxins. Further analysis of the multiple other chemicals they were in contact with only heightened the men's belief that their illnesses were related to chemical exposure. Their research would also provide another significant revelation about the devastating effects that these chemicals had on the environment during the course of the dumping process.

With a greater consciousness and awareness about the damaging effects the dumping process had on the land Joe and SWAP knew that their health issues were connected to the environmental issues. Based on his mātauranga Māori this concept was simple for Joe. Growing up in Paroa working in the family gardens and gathering food from the waterways he developed a strong intimate connection with his tribal territories. Joe knew what it meant to live off the land and that if land was sick, so too were the people who resided on it. "Quite simply if you look at it from a Māori point of view it was easy because if there was something wrong with the environment from our issues then there's something definitely wrong with us."

Joe's pepeha solidified his ancestral link to the tribal boundaries of Ngāti Awa and Ngai te Rangi. This inextricable link not only gives Joe a place of belonging to these tribes but also a duty as tangata whenua to act as a guardian (kaitiaki) for the area. When describing his link to his tribal territories Joe states "I am the land the land is me, I am the river the river is me." It was at this stage where Joe's mātauranga Māori about the whenua would become increasingly more significant.

Once Joe and SWAP made these connections between PCP and their health and environmental issues, the men started to engage with the local health and governance authorities in order to progress their issues. This task would prove extremely challenging as the years unfolded. Criticism, ignorance and what Joe and SWAP perceived as racial intolerance and academic arrogance were all behaviours of encounter in those times.

Presenting what evidence they managed to collate Joe, Nick Curtis and Mat Kohe would plead their case to the various authorities. They would talk about the suffering of their peers, and the desecration of the many wāhi tapu (sacred areas) and whenua. Results from the meetings were fruitless. Representatives of these organizations showed little interest in what Joe and SWAP had to say. No follow up, or any further concern was given to the sawmill workers' health or the environmental issues.

The message that was coming through to us from the bureaucrats of those organizations is that oh what the hell do these bloody Māori's know. Bunch of Māori's don't know what they're bloody talking about. That was the general feeling that we were getting from these people.

By the late 1990s frustrated and fed up the men grew tired of the lack of support from these agencies. They were continually ignored, pushed to the side and their issues were falling on deaf ears. Before long Joe finally had enough after being rudely spoken to in a meeting with a local MP.

The last time that we met with him we just about had a guts full of the way we were being treated by these bureaucrats. What he said to us at the time, and I'll never forget it, was that he said to us 'you know what the community of Whakatane are getting sick of people like you.' You know that's what he was saying. 'You're just making a damned nuisance of yourself' something to that effect I just can't remember the exact words he said. Anyway it was like that and I got a bit angry. We weren't going to get anywhere there so we stood up and as we stood up to walk out I turned around and I said to him, all we're trying to seek here is to see whose responsible, if we're right in what we're doing and if there's any justice at the end of it. Then we walked out.

Joe's last statement to this particular person about what he and SWAP were trying to achieve unfortunately was a major contributing reason why so many of these agencies were trying to avoid their issues. If Joe and SWAP did manage to without a doubt prove that the illnesses of the sawmill workers and their families were due to PCP exposure, it would mean companies like Carter Holt Harvey and the local environmental and government agencies could be held liable. Although not one of these agencies came out and openly said these were the reasons why, they did their best to avoid Joe at all costs. But litigation and mass compensation were not on Joe or SWAP's agenda. Although it may have been suggested in the initial stages the men's concerns had grown further than compensation.

At the end of the day for me and the majority of the group it wasn't about money, it's not about compensation, but it's about finding something to fix us. It's too late for people like us, for me and my mates. We're gonna die anyway because of this but we don't want our kids or our grandchildren to come through with this.

For many years Joe and SWAP continued to battle with local health authorities, councils and environmental agencies, but each time they would hit brick walls and be lead down dead ends. With no one listening or willing to help, progress was slow and at times minimal. Understandably the men's attitudes would become quite hostile and the relations SWAP had with the health authorities, councils and environmental agencies was poor. In meetings, Joe's determined strength and hard attitude that he had developed all those years ago in Tokoroa would often return. When tensions would arise the men were known to be somewhat forceful and use an array of colourful language. When faced with a brick wall, or any sort of intolerance from these organizations Joe's initial reaction would be to approach it very directly. These characteristics were helpful to an extent, however, to make progress it was vital that they formed a working relationship with these agencies.

Yeah wanted to smash people over left right and centre especially councillors and bloody anybody that sat on that side of the table. Yeah, well, see to me, it was about treating people the way they treated you but after 10 or so years doing that it wasn't getting us anywhere so somebody had to change and it probably had to be me.

In time Joe's commitment to SWAP and its aims began to create additional tension with his friends and family. Those closest to him began to be critical and unsupportive of his work. "My family used to say to me who do you think you are going up and talking to those councillors and ministers in the manner in which you do." Old workmates started to turn on Joe. One friend accused Joe of jeopardizing his son getting a job at the mill because the issues that he and SWAP were raising could have been detrimental to the company. His work even began to take a toll on his own household. So to avoid any conflict and not to disturb anyone Joe would conduct his research at night while his family slept. With no training in research methodology he relied on that with which he was familiar, that being mātauranga Māori. Joe would use the concept of whakapapa as a method for conducting his research, to show the relationship between the sawmill workers' health and the chemicals they were exposed to. In

the same way that whakapapa works, he would start with the life of the trees, meticulously noting all the chemicals which were used during the planting, felling and burn-offs in the forests, and include the men's duties which exposed them to these chemicals. Joe would do this for every stage of timber processing through to the final dumping of the contaminated sawdust, bark, scrap wood and chemicals in the 36 sites which he and SWAP had identified. Upon completion of the life cycle of the bush and sawmill operations, he then identified over 48 chemicals, described how they were used, and graded them according to how hazardous they were to people (Harawira & Moeke, 2005, pp. 38-39).

During the day Joe ensured that his responsibilities around the home were maintained, but he would also make frequent visits to the hospital to visit patients who were members of his group. He provided much care, comfort and support. On occasion, he would be present when they died. Details from every visit to the hospital were meticulously noted - who he saw, their ailments and other relevant information. The diaries of hospital visits were later used to substantiate SWAP's health claims.

Transformation, overcoming obstacles

These isolating, emotional and often turbulent times that Joe endured within his own home, with councils, environmental and health agencies started to take a toll on him. On several occasions, he was tempted to give up, but his strong belief, care and commitment kept him persevering.

In time, it became evident that to make further progress, a change in direction was needed. But in order to do so, he first had to start making significant changes within himself and develop coping mechanisms to help him get through. To find some sort of peace and a way to manage the immense stress and pressure he was under, Joe would strengthen himself spiritually through his church.

I needed some space to help me through this thing here and that's what I went to church for was my moment to be in a place where I felt safe and good and comfortable. Yeah and it was my time out thing.

Joe's faith that was nurtured as child by his parents and grandparents especially his father and in his later years his mother in-law would flourish. Joe would also spend a lot of time in the local cemetery cleaning up his family plots and visiting the graves of his former workmates.

Spiritually Joe was growing and developing as a person. In the same way changes in his attitudes and mannerisms would also occur. This would be Joe's greatest and most difficult transformation as an individual and would take Joe the greater part of 20 years to develop. Over this time, his tough persona would gradually start to soften, his colorful language and forcefulness in meetings would be subdued, and his reservations towards Pākehā would become non-existent. Despite these major changes, he maintained the strength and courage to persevere. The new Joe Harawira that was evolving became easier to engage with, and with better people skills he was able to recruit for SWAP additional people with the expertise to help at local and national government level.

These people who Joe refers to as his 'technical advisors' specialized in a range of fields; such as environmental science, research, politics and law. A Vietnam veteran involved in the Agent Orange campaign was recruited to assist. Interestingly, apart from one person, these advisers were Pākehā, and all donated their time without charge. Through their involvement with SWAP, Joe's technical advisors would be fundamental in growing his capacity as a researcher and his understandings of science. The tohunga who had helped Joe overcome his pain spasms as well as elders throughout Ngāti Awa would also contribute by providing

support and cultural guidance. Their presence and knowledge kept the kaupapa (basic philosophy) grounded spiritually and physically. Tai Moeke, in particular, worked very closely with Joe to ensure that the tikanga and protocols with which the research was conducted was befitting to traditional cultural practices.

Gathering this collective expertise was an effective strategy. By combining and growing his capacity over time within both Western science and mātauranga Māori, Joe ensured that the outcomes achieved through scientific research also derived from and adhered to the core values, principles and aspirations of the tangata whenua. Joe was no longer just an ordinary sawmill worker but a multi-dimensional scientific and mātauranga Māori researcher. His emerging expertise enabled him to critically engage in conversations about every aspect of SWAP's case at all levels. His leadership qualities and team skills also helped significantly in managing and coordinating the advisors and their tasks.

With a growing scientific knowledge about the health and environmental issues, and support from his technical advisors Joe and SWAP would finally start to break significant ground. After years of pleading with councils and environmental agencies about the desecration of Ngāti Awa whenua and wāhi tapu (sacred areas), Joe's technical advisors from Greenpeace would aid SWAP in identifying the 36 contaminated sites which were then marked with large billboards stating that the site was contaminated. Council officials threatened arrest however, the presence of television crews and cameras seemed to prevent that. This exercise was a key turning point for SWAP because it led to the negotiating table. As a result, SWAP, local government and environmental agencies completed identifying the contaminated sites and had them officially recognized and registered. An accomplishment of that scale was previously unheard of in New Zealand.

Demonstrating their resiliency further, Greenpeace arranged a three-day meeting at parliament. It included SWAP, Paritutu residents and Vietnam veterans who were suffering from debilitating illnesses related to chemical exposure. Over the three days, representatives from each group presented their issues to a number of MPs and ministers. The event was going well, but even at parliament Joe would still encounter the same attitudes towards SWAP's kaupapa as he had done at local and regional government level. During his presentation, an MP crossed a cultural boundary by eating while Joe was formally speaking to the audience. While this is a fundamental breach of Māori protocol, it was especially insensitive in this case because the matter at hand was about life and death, and that many of the people Joe was representing were dead. Eating seriously breached the laws of tapu. Joe who had been working hard all those years to try and curb his outbursts could no longer hold his composure.

I bloody lost it eh, I went bloody... a labour party caucus room. Then he actually said to me 'I am not going to sit here and be spoken to like that by someone like you.' Man that made me bloody worse. So I stood up and I had my finger under his nose across the table and I said to him, 'I didn't come all the way from Whakatane to the most powerful house in the country to watch you eat a bloody apple. You made a judgement on me the moment you saw me walk through that bloody door'.

Joe's mentor Tai Moeke was quick to restrain Joe to prevent any harm and the incident was quickly defused and in the end SWAP managed to score a moral victory. The rest of the three-day hui went without another fault, and it was a major turning point in SWAP's journey. With their voice only emphasized by that of the Paritutu residents and the Vietnam veterans, the government could no longer silently stand by and watch as these people suffered. From this meeting, it appeared that attitudes within parliament began to change. MPs and cabinet ministers would start becoming more heavily involved in the environmental-health issues. Today, Joe has built up a rapport with 15 MPs, four are cabinet ministers. He has an open door communication with each, and is in constant contact with them. Furthermore the

Government would provide funding for Joe to conduct additional research and build a database of all the sawmill workers and their family's illnesses.

Outcomes

Finally, the monumental day came. In October 2008, after 20 years of fighting, intolerance, criticism and isolation, SWAP would receive official recognition of their health issues. The Ministry of Health announced to Joe, local health and governance agencies their intentions of establishing a health services package for the sawmill workers and their families that was similar to a previous package produced for the Paritutu residents. Ironically, although the Paritutu residents received recognition about their health issues before SWAP, much of the research that helped them gain this recognition was based on Joe's work. The tests done on the sawmill workers revealed that they suffered three to four times higher dioxin levels than did the Paritutu residents. One can only speculate why SWAP had to wait longer than the Paritutu residents for recognition. Nevertheless, this decision is of historic importance, the sawmill workers and their families have received justice at last.

Over the course of 2009 Allen & Clarke (policy and regulatory specialists) will be consulting with health and government agencies for recommendations about health services that are available and effective in addressing the health needs of the sawmill workers and their families. More importantly however, the sawmill workers are also being asked to provide input about what services they would like offered to them. In their terms of reference, Allen & Clarke have stated that the support services are not limited to just health services. Which implies that if the sawmill workers chose to have rongoa Māori (Maori traditional forms of medicine) as part of the services they require, the package can accommodate such options that may work in conjunction with Western medicine. Also due to the often-unexplainable behaviours of these chemicals and with Western medicine only prolonging the inevitable for the sawmill workers and their families, Allen & Clarke are creating a framework that will support ongoing education and information for the health professionals treating these people.

In this year, Joe has also made a huge break-through with the environmental issues. For the past several months Joe has been investigating and working towards creating a bio-remediation project to clear the 36 contaminated sites of all chemical pollution. This project involves using biological methods that safely break down the chemical molecules in the land and riverbeds. These methods are cost effective and are 100% organic, with no detrimental lasting effects on the environment. Throughout the country environmental scientists, organizations and farmers have been experimenting with a range of biological methods to break down selected chemical molecules in the environment. These techniques include the use of white rot fungi, seaweed solutions, worm farms and bio-composting.

As a direct result of the work in identifying and registering the 36 contaminated sites, Joe is in a position where test plots can occur almost immediately. Nowhere else nationally and internationally are they able to start effectively trialling these methods at a scale as large as that of SWAP. Unsurprisingly, the prospect of being a part of a nationally and possibly internationally ground-breaking project like this is drawing attention from scientific, medical and political circles. Through his many contacts developed over the years, Joe is bringing together scientists, officials from the ministry for the environment and the ministry of health, as well as many other interested parties, to work together to begin test trials. It is expected that testing should start by the end of 2009.

These two life-altering outcomes which were only made possible due to the tireless campaign of Joe Harawira and SWAP, has significantly altered the future for Ngāti Awa. In 1988, Ngāti Awa was a tribe that was completely oblivious to the horrible effects that PCP was having on

it's people and the land. Today Ngāti Awa can look forward to a future where it's people and whenua are healthy once again.

Challenging the position of mātauranga Māori

Joe Harawira has been able to achieve something unimaginable for a man in his position. As a sawmill worker with no formal qualifications he has been able to transform himself into a legitimate community-based, mātauranga Māori, environmental science researcher. His journey has extended him almost cruelly; physically, mentally, spiritually and emotionally. Yet he has developed, grown stronger and overcame these hurdles where many would have failed or given up.

Although his success at becoming a “legitimate” researcher was largely due to the aid of his technical advisors, and in becoming versant with scientific knowledge, it was Joe's education as a young child in Paroa that provided him with a knowledge base to conduct his research. This knowledge base was the only form of education he had, but by using his mātauranga Māori, Joe was able to draw on traditional Māori theories, principles and philosophies to guide him in his research. Some of these philosophies and theories involved the physical and spiritual understandings of Māori people's intimate connection with Papatuanuku (earth mother). Principles such as kaitiakitanga (guardianship) for the people and the whenua, tāonga tuku iho (treasures of the past) and tino rangatiratanga (self determination) were all encompassing principles in Joe's research. His method of using whakapapa as a theoretical framework to structure his research was also done instinctively and based on his fundamental understanding of mātauranga Māori.

Ultimately without realizing it, the theories and methodologies Joe was using to conduct his research, aligns to what is now becoming known amongst Māori academic researchers as kaupapa Māori research. Kaupapa Māori research is a methodology which encompasses traditional Māori theories and principles to conduct research. Eketone (2008) describes kaupapa Māori as “being Māori, using Māori processes, looking at the world and understanding it, even judging it by Māori values” (p. 6). With no other knowledge to draw from, being Māori and using Māori process was the only way Joe was able to understand and evaluate the health and environmental issues SWAP campaigned.

Joe's research and the significant outcomes it has produced is also reflective of Graham Smith's ‘transformative praxis.’ Smith (1997) refers to Kaupapa Māori as a theory of change embracing the cycle of conscientization, resistance and transformative praxis. Joe exemplifies this theory. There was a process by which he became conscientized or aware about the harmful effects of PCP. He was a part of and lead the resistance for the sawmill workers of Whakatane, and it has been due to his actions and research that transformative action took place.

Joe's research epitomizes kaupapa Māori research theories. He has been able to demonstrate that Kaupapa Māori can be used both as “an organic theory of change” (Smith, 1997, p. 453) as well as a means “to develop and advance Māori using our knowledge, values, and processes” (Eketone, 2008, p. 9). Consequentially through the process of conducting his research, Joe has demonstrated the validity of mātauranga Māori as a means of resolving issues faced by Māori in a contemporary context today. In the past as a direct result of colonization, Māori like other indigenous people were forced to assimilate to Western culture which obscured our own knowledge, values and philosophies in the eyes of the colonizer. Durie (as cited in Forster, 2003) states that:

The greatest blow to the organization of Māori knowledge and understanding occurred in 1907 when the Tohunga Suppressions Act was passed. By outlawing

traditional healers, the Act also opposed Māori methodologies and the legitimacy of Māori knowledge in respect of healing, the environment, the arts, and the links between the spiritual and the secular (Forster, 2003, p.48).

Legislation such as the Tohunga Suppression Act disrupted the hierarchy of traditional Māori knowledge. So now not only was our knowledge inferior in the eyes of the colonizers but also so to was our people who possessed this advanced knowledge and skills. These ideologies about Māori knowledge would be imbedded into the social attitudes of our society. As such activities which have been categorized as existing or belonging within Western academia often excluded people with lesser qualifications like Joe. Smith (1999) points out that:

Research is also regarded as being the domain of experts who have advanced educational qualifications and have access to highly specialized language and skills. Communities carrying out what they may regard as a very humble little project are reluctant to name it as research in case it provokes the scorn and outrage of ‘real’ researchers” (p. 125).

Joe’s work certainly challenges this perception by exhibiting that people located within Māori communities are capable of leading significant and major research projects, despite their lack of formal qualifications.

Conclusion

Joe’s story is a testament to the on-going battles Māori and other indigenous nations have to restore who they are and regain their place as tangata whenua. Faced with obstacles such as unwarranted criticism, ignorance, and what he and SWAP perceived as racism and academic arrogance, Joe was able to overcome these obstacles by sheer determination, and by combining approaches from both mātauranga Māori and Western science.

By forming effective relationships, Joe has been able to work at the interface between mātauranga Māori and Western science. The results have meant that the health of Ngāti Awa and its people may return to its former state. Unfortunately for the many men and women who have died already these revelations are too late. We can never undo what has happened, or change the cruel way in which so many suffered, but we can hope and hold on to the lessons this tragedy has taught us. By repositioning from grievance mode to establishing a sense of urgency, Māori and Western epistemologies can inform each other and can exist harmoniously.

If anything, what I learnt on this journey was the necessity to build relationships with the appropriate persons in whatever field. It took me the best part of 20 years to recognize this and it was simply to be easy on relationships but hard on the issues. To be unsuccessful is not failure, failure is not fatal but it is having the courage to continue. (J. Harawira, personal communication, November 12, 2008).

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