

The New Zealand Skeptics form a network of New Zealanders including scientists, health professionals, teachers, magicians and many others from all walks of life. Members have a variety of religious faiths, economic beliefs and political leanings, but are all interested in examining what objective scientific support there is for claims of such things as psychic abilities, alternative health practices, creationism and other areas where science, pseu-

CONTRIBUTIONS

Contributions are welcome and should be sent to: Email: editor@skeptics.nz

Deadline for next issue:

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Letters for the Forum may be edited as space requires—up to 250 words is preferred.

Please indicate the publication and date of all articles for Newsfront.

Material supplied by email or web document is appreciated.

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All references and citations for this issue can be found at skeptics.nz/journal/120

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The Fake News Issue

By Jessica Macfarlane

"electric car enthusiast, coffee addict, daily dihydrogen monoxide user" Parts Analyst, Software tester, Bachelor of Japanese NZ Skeptics Editor and Committee Member



enjoy a good coffee, a bit of light astrophysics chat with Neil de Grasse Tyson, and spring with its blossoms and daffodils.

It occurred to me, some things really do go together, like breakfast and coffee, Neil de Grasse Tyson and ties with planets on them, (thank you sir for coming to Christchurch and sharing the cosmic perspective), and Spring and daffodils. However, other things really do not.

Take "fake" and "news". Fake news is such a thing right now it has made the news, with new articles and discussions popping up all the time. It is so easy for anyone to make a professional looking website to push their crazy ideas, and the human mind seems to be attracted to the certain type of story these people make up.

To a skeptic armed with the list of logical fallacies, or a scientist armed with the scientific method, we can begin to pick out the truth, but for the general public it is so easy to be duped. What of the huge list of psychological tricks that marketing folk are trained in, and how about those Machiavellian PR strategies? Snap out of it. We do not live in an episode of House of Cards, and conspiracy theories training and above average intelligence are not needed to create fake news. Just ask Donald Trump.

First we have to ask, why do people tell lies? One answer may be - just for the attention. Thanks to Michael Wright, who wrote an excellent opinion piece in Stuff.co.nz 25th September 2017, on a campaign technique about telling lies to distract from hard questions. Basically, if you are going to tell a lie, make it big, and boom, you are "throwing a dead cat on the table". Try unthinking about that for a minute.

Dead cats aside, my point is, there may be more rubbish in the news than ever, but keep your mind sharp and read thoughtfully. Talk to your friends about the issues and remember that convincing your aunt about the dangers of alternative medicine is important. Real harm can come to you and your loved ones if medical advice is ignored. Huge decisions about our society, health and the environment that affect us long into the future can be influenced by lies.

Getting the skeptic message through may be getting harder every day, especially when the media do not always like to close down conversations with quacks, but instead give them airtime to "balance" the conversation because they know if stirs up their audience, but we need to keep pushing.

Separate the fake from the news.

Remain skeptical.□

News Front

'It pains us to say no': Church refuses to marry Kāpiti Couple

Where: www.stuff.co.nz

Who: Joel Maxwell When: 25/09/2017

Skeptic summary:

Congregation sides with God who apparently prefers gay couples to live in sin rather

than be married in his church.

The truth about 'registered clinical nutritionists'

Where: www.noted.co.nz

Who: Jenny Nicholls When: 19/09/2017

Skeptic summary:

By any other name a "nutritionist" may not

actually be qualified.

New centre offers "what's missing" from healthcare System

Where: www.stuff.co.nz/nelson-mail **Who**: Katy Jones **When**: 3/10/2017

Skeptic summary:

What is missing includes Naturopathy - see article in this issue uncovering the dark side of this.

Alternative medicine can be a death sentence

Where: www.nzherald.co.nz

Who: Jake Bailey **When:** 28/09/2017

Skeptic summary:

A cancer survivor does not totally rule out Naturopaths to provide care, but appeals to cancer sufferers to follow their doctor's advice and to not replace real medicine for alternative medicine,

Belle Gibson fined \$410,000 after lying about curing Cancer

Where: www.smh.com.au

Who: Tom Cowie **When:** 28/09/2017

Skeptic summary:

In Australia, Consumer Affairs Victoria took legal action and won against the writer of "The Whole Pantry", a book and app promising to cure cancer through nutrition.

Coffee sold in California could carry cancer warning labels

Where: www.stuff.co.nz

Who: Brian Melly **When:** 26/09/2017

Skeptic summary:

A non-profit called the Council for Education and Research on Toxics is involved in a long running law suit with a large number of coffee companies. For some reason they are not also suing bread and hot chip purveyors. The carcinogen acrylamide is also found in starchy foods when they are heated to high temperatures. Should they win it's likely coffee prices will increase globally.

News flash – The World Health Organisation says coffee does not cause cancer.

Calls for NZ to get serious about wildlife crime trafficking

Where: www.radionz.co.nz/programmes/ ninetonoon

Who: Kathryn Ryan **When:** 5/10/2017

Skeptic summary:

Kathryn Ryan talked to Fiona Gordon who was lead researcher and co-author of "Under the Hammer" about the ivory and rhino horn trade in Australia and New Zealand. Apart from carvings, those products are used in Chinese "medicine" which have no beneficial affect at all on humans. Rhino horn is made mostly of keratin which is the same protein found in human hair and fingernails.□



An open letter to the people of Whakatane (and the rest of Aotearoa)

By Dr. Siouxsie Wiles "Microbiologist and bioluminescence enthusiast" Head of the Bioluminescent Superbugs Lab at the University of Auckland

s a parent, I know what it's like to worry about whether you are doing the right thing for your child. When my daughter was born, I couldn't quite believe that after just a few days in hospital we'd be going home in sole charge of a small infant. Didn't they realise we were unqualified?!

Aside from giving her a name she wouldn't hate us for, one of the first decisions we had to make was whether we would get our precious two-day old baby vaccinated against TB, a nasty bacterial lung disease that was prevalent in the part of London where we lived. As it turns out, I'm a scientist, and TB is one of the diseases I study. But even

even one I knew wouldn't harm her. How would she react? Would she get a fever? While I worried about that, the scientist in me also knew that a mild fever was a sign her body was doing what it was supposed to be doing - reacting to a relatively harmless foreign invader to protect her from the real deal.

As a parent, I understand that it can feel like not vaccinating is the safest thing to do. You've probably heard that some people say

By vaccinating, you are helping to cast an incredible force field over your friends and neighbours.

though I knew what the TB bacterium does to the human body, and just how safe the vaccine is, it was still hard to stand by and watch my precious baby being pricked with a needle and injected with an actual bacterium,

that vaccines contain mercury, and may cause autism. Isn't it best to be on the safe side, and not put our children at risk? How bad can the diseases be anyway? The answer is pretty bad. Maybe your child will be all

right, but the truth is that vaccinepreventable diseases can be devastating to the vulnerable people in your community. By vaccinating, you are helping to cast an incredible force field over your friends and neighbours. A forcefield that can stop many

What is true is that the man behind the film, Andrew Wakefield, started the MMR-autism scare. He carried out unethical research on sick children and lied about their medical

"People of Whakatane, there is a gaping hole in your region's force field. Vaccination rates in your area have been steadily declining.."

awful bacteria and viruses from infecting those most at risk, including babies too young to be vaccinated.

> People of Whakatane, there is a gaping hole in your region's force field.

> > Vaccination rates in your area have been steadily declining and you rank 35 out of 36 in the country for the number of children who are fully vaccinated.

I've just heard that the film 'Vaxxed' is due to be shown at a Whakatane cinema*. I use the word film loosely, as 'Vaxxed' is an emotive piece of anti-vaccination propaganda that will attempt to manipulate you into believing that there is a link between the MMR (measles/mumps/rubella) vaccine and autism. This simply isn't true. Many many studies, involving millions of children all over the world, have shown no link. Instead, researchers have found that there are differences in the brains of children with autism well before the age they would receive the MMR vaccine.

records to make money and get his work published in a prestigious medical journal. That paper has now been retracted, and Mr Wakefield struck off by the General Medical Council in the UK. If you have time, it's well worth reading how investigative journalist Brian Deer uncovered the fraud, and the masses of money Mr Wakefield made from it.

Maybe you've heard or read that 'Vaxxed' isn't an anti-vaccination film, but a documentary about a whistle-blower and corruption inside the United States' Centre for Disease Control and Prevention (CDC). In that case, if you choose to watch the film know that the sound recordings you will hear have been manipulated and the 'whistle-blower' doesn't stand by the film.

I understand that it can be hard to know who to trust.** Should you trust the people who endorse the film like the athlete and celebrity Allison Roe, an elected member of the Waitemata District Health Board, or Dr Mike Godfrey, a retired Mount Maunganui GP? Or should you trust Dr Lance O'Sullivan who took to the stage at the Kaitaia screening of

the film, imploring people to vaccinate their children? The government-funded Immunisation Advisory Centre is also against the film.

If you are worried about vaccination, please don't be swayed by 'Vaxxed'. It isn't telling you the truth. The overwhelming evidence is that vaccines, including the MMR vaccine, are safe and not linked to autism. The majority of paediatricians and doctors, as well as advocacy group Altogether Autism, support this position.

It's time we stopped stigmatising people with autism and worked together to make sure no one in Aotearoa New Zealand is needlessly harmed by vaccine-preventable infectious diseases. Will you help?□

*Vaxxed screenings are also scheduled for Wellington, Queenstown, Whitianga, Hamilton and Te Kuiti.

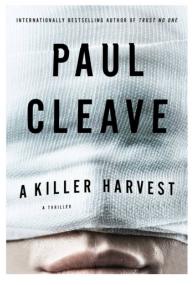
**In reality, who we trust and what we believe very much depends on our worldview and experiences. It's worth checking out this excellent comic https:// theoatmeal.com/comics/believe on how hard it is to believe things that challenge our worldview, as well as this short talk https://www.ted.com/talks/ eli_pariser_beware_online_filter_bubbles on how Facebook and the algorithms that personalise the internet for us influence how we see the world.



A Killer Harvest

By Paul Cleave Published by Upstart Press Reviewed by Jessica Macfarlane, Editor

've just finished reading the new Paul LCleave book A Killer Harvest. It was a really good read, and had me hyperventilating by the end, unable to suppress the 'No! No! No'! as the tension ratchetted up.



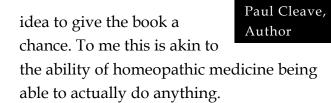
The major conceit is the topic of "cellular memory" which is the idea that memories can be retained in transplanted organs.

Joshua is a 16 year old blind

kid with a tragic past. We "see" the first part of the story through his view point of hearing, touch and smell.

In a not too distant future reality where eye transplants are possible he gets the gift of sight, but at a cost. Due to a mix up at the hospital he ends up with an eye from his dad who was a cop, and an eye from a killer. As he dreams cellular memory kicks in and images from the last moments of both men appear to haunt him.

As a skeptically minded person I actually had to push myself past the irksomeness of that



However, the book is much more than that, and suspending disbelief, one is plunged into a gripping read that is enjoyable in its detail of a familiar Christchurch setting, and disturbing as a window into the world of an unhinged killer.

It is a book that is very much in the same vein as his other outings in the crime/thriller genre, with a switching point of view from criminal, to victim to police and back, ripping you away from one view point just when what you are about to see is getting knuckle bitingly tense. It shocks you with blood and pain.

The book also brings up important moral dilemmas around availability of organ transplants by showing us how far some characters would go to procure the organs.

This book is a gripping read, its heroes are three dimensional, likable, hateable.

I would definitely recommend it.□

Q & A with Paul Cleave

Note: The following are excerpts from emails between the Editor and Author.



From Jess Macfarlane:

"So first of all - I realise you don't want to alienate your audience who may or may not believe in cellular memory, but, can you confirm if you do believe in that stuff?

What kind of research did you do on cellular memory when you were writing the book?

Did you come across a movie about it called Transplanting Memories made by Dunedin based company Natural History New Zealand (NHNZ), and if so what did you make of it?

Also, It would be interesting to know if you are an organ donor yourself, and if you support the idea of making organ donation an 'opt out' choice as they have done in other countries, rather than an 'opt in' one as it is here in NZ.

I realise your book is fiction and could have dragons or fairies or flying spaghetti monsters or anything as a part of its world, but I was also wondering if you had considered going in a different direction, and have cellular memory as a device but not being a real phenomenon. What I mean is the alternative where Josh or other characters think it's the cellular memory making them do things or think things, it but

it's actually just their own flexible unreliable memories, suggestibility, or them using it as an excuse consciously or unconsciously to do things that are 'out of character'. That would mean exploring what happens when people do things based on a lie...and then what happens when their eyes are opened to that lie.

Cheers, Jess.

Editor, NZ Skeptics



Nice to hear from you. Sure - I don't mind answering some questions. But - spoiler alert - I don't actually believe in cellular memory. I understand the theory behind it - but until the day doctors or scientists can come along and say 'this person here inherited this other person's tastes in wine' then I'm not going to believe it.

... don't tend to give closed answers as I'm about to here - but I'm going to because I suspect it might not head in the direction you were thinking it might go.

But - basically... as far as research goes, I did very little - just enough to see the theory behind it, and ..Continued on page 13.

Naturopaths can kill, but regulating them is not the answer

By Mark Hanna Science blogger and consumer advocate

n 27th August the Sunday Star Times published an article by Simon Maude on an unnamed naturopath whose inept attempts at cancer treatment led to the death of an Auckland woman last year: Naturopathy under microscope after cancer sufferers speak from under shadow of death

Sharon Erdrich laments what she sees as the root of the problem:

"New Zealand Society of Naturopaths vice-president Sharon Erdrich says the society wants tighter regulations.

At the same time, an article syndicated to Stuff from the Sydney Morning Herald detailed a court case in which a naturopath in Australia nearly killed a baby through their dietary advice for the infant's eczema: Australian naturopath admits 'raw food' diet advice endangered baby's life

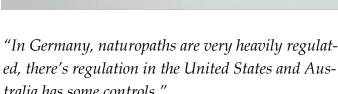
As a result, the question has been raised of

"a naturopath in Australia nearly killed a baby through their dietary advice for the infant's eczema"

whether or not naturopaths should be regulated

in the same way as medical doctors, pharmacists, and chiropractors.

In the Sunday Star Times article, vice president of the New Zealand Society of Naturopaths



tralia has some controls."



should require naturopaths to be registered

Here is the root of the argument, as expressed in that editorial:

"Naturopathy is also enabled by tertiary institutes offering courses which are recognised by the official *New Zealand Qualifications Authority framework.*

This means that, even though anyone can claim to be a naturopath in New Zealand (there is no law stopping them), practitioners can arm themselves with diplomas and degrees and present themselves as equal to other health professionals."

That being the case, safeguards should be put in place for the public.

The most useful of these would be to require naturopaths to be registered, and made subject to similar disciplinary processes demanded of other health professionals when they can't make good on their promises."

Even though there is "potential for harm, basically anyone in New Zealand can call themselves a naturopath," Erdich says.

(As an aside, Ms Erdrich's clinic offers such bogus health services as quantum reflex analysis and live blood analysis, and an article she published in 2016 says "The first, and most important thing you can do" if you have cancer is to book an appointment with a naturopath.)

This argument was continued in an editorial in The Press 28th August 2017: New Zealand

Missing the point

NZQA approving courses on quackery, such as their Certificate in Acute Prescribing with Homeopathy, is a real problem. But these calls for naturopaths to be registered are missing the point, I think.

The problem is not that "anyone can claim to be a naturopath in New Zealand"; the problem is that naturopathy is quackery. We already have regulation to address quackery, the real problem is that the existing regulation is not adequately enforced. Both the Fair Trading Act

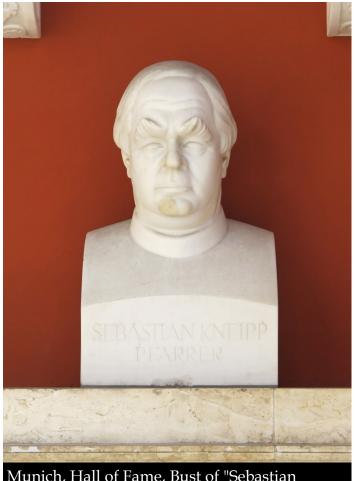
1986 and the Medicines Act 1981 prohibit the misleading claims which are the basis of the practice of naturopathy.

For example, the Fair Trading Act prohibits the use of any "unsubstantiated representations", as well as "conduct that is misleading or deceptive or is likely to mislead or deceive", in trade. The Medicines Act prohibits the use of health testimonials (which can be both very convincing and entirely misleading), and claims to treat serious illnesses such as cancer, in advertisements.

The Sunday Star Times article also notes that naturopaths, despite not being subject to specific regulation, are still subject to the Health and Disability Code of Rights:

Regulation is not being considered as the ministry has not received an application from naturopaths to become regulated under the Health Practitioners Competence Assurance Act 2003.

Health practitioners including naturopaths remain subject to the Health and Disability Code of



Munich, Hall of Fame, Bust of "Sebastian Kneipp" (priest and one of the founders of the naturopathic medicine movement)*

ance Act 2003, which regulates professions such as medical doctors and pharmacists, also prohibits anyone from claiming or implying that they are registered as or qualified to be registered as any type of regulated health professional. This is the provision that could

"the majority of New Zealand chiropractors who advertise online make misleading claims about what they can treat"

Rights, "whether they are regulated or not".

Consumers may complain to the Health and Disability Commissioner about care.

The Health Practitioners Competence Assur-

prevent anyone not registered from calling themselves a naturopath.

We have already seen, here in New Zealand, that regulating a health profession prone to

Image: https://commons.wikimedia.org/w/index.php?curid=22659659

making misleading claims does not stop that practice. In research conducted by myself and Mark Honeychurch in 2016, we found that the majority of New Zealand chiropractors who advertise online make misleading claims about what they can treat. Including them in the regulatory scheme has not stopped this behaviour at all, rather it has just allowed them to continue misleading patients from a position of authority, able to use the protected title of "Dr".

The Health Practitioners Competence Assurance Act sets up authorities to regulate each health profession that is composed of members of ONSULTATIONS AVAILABLE R that profession. The Medical Council, the Pharmacy Council, and the Chiropractic Board are all examples of this.

But a Naturopathy Board filled with naturopaths would not be able to effectively regulate naturopaths. Quacks can't regulate quacks effectively. All regulating them would do is give them the appearance of legitimacy and authority.

The real problem with all of this regulation is that it is not enforced. The solution, therefore, should be simple: **enforce it.**□

...Continued from page 9.

how the memory is 'stored in all cells' - but nothing to prove that was the case. Nope - I haven't seen that

film, or heard of it, but it does sound interesting. And yes, I am an organ donor... but, from memory, I think I declined to donate my eyes. Of course it's a long time ago I made that decision - I would have been 16 - but from memory I think that idea of that creeped me out.

And yes - I did think of searching for a way to have the book work where it isn't actually cellular memory, but it just wasn't going to line up that way - so rather than try and shirk around it a little, I just owned it. What you said there, it's an idea I've had for a while now - it wasn't going to work with AKH, but it might in another book - where you think one thing, only to find out it's another - like the vampire is actually just a guy dressing up as one and biting people...

Cheers! Paul.□

About the Author

Paul is an international best selling author, and multi-award winner. His books have been published in over a dozen languages.

He is from Christchurch, New Zealand which is where he also bases his books.

He likes to play with his Frisbee as a way to meet new people and has thrown it around in over 30 countries.

Supermarkets & nutritional advice



By Dr. Alison Campbell

Associate Dean (Teaching & Learning); Senior Lecturer (Biological Sciences)

rather like our local supermarket. Lovely staff, generally excellent products, and close to home as well.

But I really wish the organisation would stay out of giving nutritional advice - or at least, that they do the right sort of consultation about their claims. For example, under 'recipes' there's a post about 'hyperWhy? Well, for starters, in New Zealand someone can't describe themselves as a dietician unless they are registered under the Health Practitioners Competence Assurance (HPCA) Act of 2003. This is fairly stringent and means they must complete a post-grad qualification, abide by a code of professional ethics, and take part in ongoing professional development. Here in NZ this means they'll

"the term 'nutritionist' doesn't necessarily imply any professional background "

functional' beverages*. These, it's stated, will 'boost' energy levels, 'improve' skin quality, or 'help' with immunity. (In fact, the words 'boost immunity' come up quite often. Mark Crislip, an infectious diseases medical specialist who until recently blogged on Science-Based Medicine, has commented that "in my world, we call the boosted immune system an inflammatory response", which is fine as an immediate response but can be risky if it goes on too long.)

Apparently, "overseas beverage makers are doing this by consulting nutritionists and naturopaths, then incorporating the specialists' recommendations into their drinks". Frankly, I'd rather be hearing that they'd consulted dieticians and medical doctors.

have a BSc (Bachelor of Science) or a BCApSci (Bachelor of Consumer and Applied Science) and a Postgraduate Diploma in Dietetics.

For comparison, the term 'nutritionist' doesn't necessarily imply any professional background - a short non-accredited programme may do the trick (ie some nutritionists may not have any formal training), although



Turmeric is a rhizomatous herbaceous perennial plant of the ginger family, Zingiberaceae.

someone with a PhD in some aspect of nutrition could also use the title. Someone describing themselves as a 'registered nutritionist' must have an accredited qualification, or a lot of relevant professional experience, before the Nutrition Society will accord them registered status, and this must be reapplied for



Guild Chemist sign in Christchurch

every 3 years.

Anyway, I couldn't help noticing that one of the 'hyper-functional' ingredients mentioned on that page is turmeric.

It is also becoming more common in cafes to find drinks such as teas or smoothies that contain turmeric to reduce inflammation throughout the body and promote general wellness.

Unfortunately, you're unlikely to get anything like a bioactive dose in one of those drinks. This is because the actual active ingredient in turmeric, a substance called cucurmin, isn't actually particularly easy for your body to use: instead, it's rapidly metabolised by both your liver and the gut wall. For example, this study found that at a dose of 2g/ kg of curcurmin (not turmeric - you'd have to eat a lot more of that!**) given to human volunteers, there was no measurable amount of cucurmin in the main circulation. This could be changed by giving 20mg of piperine (found in pepper; presumably 20mg/kg, although this isn't clear from the abstract) at the same time. But remember, these are the purified active substances, not the raw spices. (And I'm not sure that I'd like to pop a few peppercorns alongside my turmeric smoothie, as advocated here.)

So, eating or drinking foods with turmeric in them is enjoyable - but let's not expect them to work miracles.□

- * To be fair to our national food emporium, the actual information on that page seems to be linked to a site called nzrealhealth. In which case, I wish they'd check their sources...
- ** Apparently pure turmeric powder is up to 3% cucurmin, so you'd definitely have to eat a lot.

A New Age Myth: the Kaimanawa Wall

By Neville Ritchie From Skeptics New Zealand Issue 41

he media love to manufacture a mystery, and the Kaimanawa Wall is a great example of this. Watch closely, as a perfectly natural rock formation becomes a megalithic structure...

In the 4 May 1996 issue of the NZ Listener, an article titled "Megalith Mystery: Are giant stones in the Kaimanawa Forest Park evidence of an ancient New Zealand culture?" (Chapple 1996:28-29) appeared. It cenTongariro based field staff and I received over 100 phone calls about the "wall", in addition to being asked to participate in several national and regional radio interviews (including three from Australia) and to appear on TV1 and TV3 news. During this time (mid May 1996) the "wall" was a major topic on talk-back radio. The issue drew a range of views right across the spectrum.

Until the late 1980s, Brailsford, then a Canter-

"The media...sparked considerable public interest, with attention focused on the age of the "wall", whether it was built or natural, and the possibility of a major re-write of the history of human settlement in New Zealand."

tred on Barry Brailsford's contention that the "Kaimanawa wall" was "the best (physical) evidence so far" of the pre-Maori "Waitaha nation" which he alleges flourished in New Zealand over 2,000 years ago. Shortly thereafter I was telephoned by Jim Mora of TV1 and asked to give a "traditional archaeological perspective" on the matter as part of an item on the Holmes Show arising from Brailsford's contentions about the "wall".

That phone call was the beginning of an amazing media frenzy which lasted for about a fortnight. The Department's Taupo and

bury-based archaeologist and historian, supported the generally accepted view that New Zealand was first colonised about 1,000 years ago via a series of Polynesian canoe landings. He published two popular books, The Tattooed Land (1980) and Greenstone Trails (1983), which helped him gain an MBE for services to Maori scholarship. These books did not challenge the conventional theories of New Zealand's first settlement based principally on historical and archaeological evidence, and to a lesser extent on Maori traditions. However, in the interim, Brailsford, at the invitation of some South Island Maori elders, has gone on to publish two further

books, Song of the Waitaha (1994) and Song of the Stone (1995), and further books of a similar ilk are in the offing. These latter books, according to Brailsford, are based on "ancient knowledge given direction by his words". They tell of "a Waitaha nation" — by

rather than the record of 40 generations or so claimed in most Maori accounts. He has continued to assert that certain hard evidence does exist, unrecognised, such as stone altars reworked from natural forms, "some of them over 100 feet tall". Others see them as natural

"Shortly thereafter I was telephoned by Jim Mora of TV1 and asked to give a "traditional archaeological perspective" .."

Jim Mora (currently at RNZ) interviewed Neville at the time for an item that appeared on the Holmes show

Brailsford's reckoning some 200 tribes reputed to have settled in New Zealand 2,000 years ago, only to be obliterated some 700-800 years ago by the arrival of a warrior culture. Incidentally, Brailsford, in part, equates the Waitaha with the "moa hunters", a term widely used in the past to describe the earliest Polynesian settlers in New Zealand, but puts their arrival back at least another 1,000 years.

Criticism of Brailsford has revolved around his lack of evidence, beyond quotations from a few elders who claim Waitaha descent and recite a genealogy going back 70 generations, formations (Chapple ibid.).

But the Kaimanawa wall, according to Brailsford, is the real clincher, "the best evidence so far", of a pre-Maori civilisation in New Zealand, partly because "in terms of Maori culture, there is nothing like it [in New Zealand]" (Brailsford quoted in Chapple 1996:29). From his observations, he contended the wall was too old to be European, and the style was not Maori.

Not surprisingly, Brailsford's assertions, publicised for the first time in highly accessible national media (the Listener and the Holmes Show), sparked considerable public interest, with attention focused on the age of the "wall", whether it was built or natural, and the possibility of a major re-write of the history of human settlement in New Zealand.

The Site

The "wall" is located at the toe of a relatively steep spur on the south side of Clements Mill Road within the Kaimanawa Forest Park (NZMS 260 map sheet U19 Kaimanawa, GR 864457). It is almost at road level and about seven metres back from the road, being visible without leaving one's car.

Image: RNZ

The ignimbrite outcrop of which the "wall" forms part is covered with soil composed of a clay-coloured ash and fine pumice overlain by 30cm or more of humus. The composition and depth of the overburden was determined from the soil composition evident in a single small test pit excavated on the upper slopes of the spur. Without recourse to extensive testing, the average depth of the soil-ash-pumice appears to be about one metre. Near-by road cuttings have exposures, up to four metres thick, of layered pumice deposits from the AD 185 Taupo eruption. Therefore some form of preferential non deposition or erosion process, probably attributable to local topog-

past human activity in the area, in both pre-European and more recent times. As a first step in the process, the possibility that the "wall" was in any way connected with the nearby site of Clements's sawmill had to be eliminated. The mill was established in 1937 by Jack Clements, a timberyard owner in Hamilton, and closed in 1963.

I first examined the "wall" on 7 May 1996, accompanied by Owen Wilkes (now with DoC Historic Resources in Hamilton), several Tongariro Conservancy field staff, and the TV1 news crew. Anticipating meeting only with Barry Brailsford, David Childress and

"I conducted a bit of a straw poll among those present — about 50% believed the feature was a wall or were unsure because "they couldn't see how nature could create such perfect blocks" (symmetrical fractures)."

raphy and the steepness of the spur, has resulted in the relatively thin soil-pumice veneer over the outcrop. The test pit in front of the wall revealed a similar clayey pumice soil. A large red beech (Nothofagus fusca), estimated to be at least 70 years old, is growing on the outcrop immediately above the "wall". Its roots have caused some displacement of the blocks which make up the "wall".

the NZ Archaeological Association's Taupo filekeeper, Perry Fletcher, at the site, we were surprised to find about 30 people gathered there. It soon became apparent that many of those present, following the media publicity, had come to see the "wall" with their own eyes. At times it was difficult to see the rock for the people milling in front of it.

Research, Inspection and Assessment

Following the request from TV1, I checked out available geological literature on the area, particularly with regard to ignimbrite and the nature of jointing in the rock, and researched

I conducted a bit of a straw poll among those present — about 50% believed the feature was a wall or were unsure because "they couldn't see how nature could create such perfect blocks" (symmetrical fractures).

The size of the "wall" varies depending on how one measures it. Brailsford (quoted in the Listener article) states that the four visible stones in the front were a

Image: Editor's own

uniform 1.9 metres wide by 1.6m tall, and one metre wide [deep]. "In one place you can insert an arm into a root-ridden cavity and feel the back face and the front face of the next tier". Brailsford surmised, based on surface probing, that the wall was part of a stepped pyramidlike structure made of cuboid blocks stepping back up the hillside. He contends the "blocks" are evident (by probing) to a height of 6-7m above the base of the wall (i.e., the structure is at least 4-5 blocks high).

When I first saw the formation, I had no doubt that the "wall" was a small portion of a natural ignimbrite outcrop based on its general configuration and size, although I would be the first to agree that the remarkable symmetry of the blocks exposed at ground level at the front of the outcrop looked very wall-like at first glance, especially when the jointing pattern was obscured, as it was initially, by ferns, mosses and other vegetation.

However, it didn't stand scrutiny. Close inspection immediately revealed several natural features such as perfectly matching microirregularities along the joints. In most instances, it was obvious (without recourse to measuring) that most of the fracture planes between the blocks were neither straight nor truly horizontal or perpendicular. In other words, the "blocks" which make up the supposed wall were not regular in size, nor perfectly worked building blocks as Brailsford implied (measurements taken by Owen Wilkes confirm the discrepancies).

On the contrary, the formation overall not only looked natural, there was nothing to suggest it

had been modified, that the stone was stacked (with one exception the joints are not staggered) or that it had been used for any human purpose such as a platform, altar, retaining wall or loading ramp.

A Geologist's Opinion

Because the issue was unlikely to settle down or be resolved to most people's satisfaction without further research, Dr Peter Wood, a geologist with a specialist knowledge of local ignimbrites employed by the Institute of Geological and Nuclear Sciences at Wairakei, was commissioned by the Department of Conservation's Tongariro Conservancy to give an independent professional opinion on the "wall". By the time Dr Wood visited the site on Monday 13 May, a much larger area of the outcrop had been exposed through an illicit excavation in front of the formation by persons unknown during the weekend. I quote from his report (Wood 1996):

In my opinion the so-called "Kaimanawa Wall" in the Kaimanawa Forest Park is a natural rock formation. It is an outcrop of jointed Rangitaiki ignimbrite, a 330,000 year old volcanic rock that is common in the Taupo Volcanic Zone.

The regular block shapes are produced by natural fractures in the rock. These fractures (joints) were initially produced when the hot ignimbrite cooled and contracted after it had flowed into place during the eruption. Near vertical and horizontal joints are common in welded ignimbrites of this type. The forces of erosion, gravity, earthquakes and tree growth (roots) probably have all contributed to the movement and displacement of the blocks over time.

The apparent regularity and "artificial" aspect of the jointing is spurious. Most of the joints are not cuboidal. The eye is deceived mainly by one prominent horizontal joint which can be traced almost continuously along the outcrop into an area (recently excavated) where it is but one of an interlocking series of irregular joints. Even where the joints are most "block-like", detailed inspection of the joint surfaces showed they were natural, with small matching irregularities in opposing surfaces which would not be produced by artificial block laying.

Previous Reports and Events Involving the "Wall"

Despite the publicity Brailsford's recent claims about the "wall" have engendered, it has been the subject of at least one earlier nonconventional investigation. In 1990 Bruce Cathie, a former Air New Zealand pilot who uses mathematical calculations to explain UFO phenomena and the relationship of ancient sites (e.g. Stonehenge and the Great Pyramid) and world-wide cosmic energy grids, contacted Perry Fletcher after being shown photographs of the wall (Fletcher 1990). Cathie is the author of several books on harmonics and related topics. According to Fletcher (ibid.), Cathie checked the location of the "wall" (grid co-ordinates N103 650056) against his grid system and concluded "that the place had significance, and was of a much older time than that of any known civilisations". Further discussion of Cathie's contentions are beyond the scope of this paper.

Conclusions

The conclusions of the Department of Conservation investigation into the "Kaimanawa Wall" are straightforward and unambiguous. The "wall", despite its remarkable symmetry at first glance, is a small part of a large ignimbrite outcrop created some 330,000 years ago. It is not a megalith. Neither the "wall" nor its parent outcrop appear to have been modified by human activity, but the possibility that some loose blocks have been removed from the front of the "wall section" (most likely in European times) cannot be totally ruled out. The "wall" is not a unique natural feature. Similar block-like jointing patterns are known to exist in other ignimbrite outcrops in the Kaimanawa-Taupo region.

Despite contentions by some visitors that the "wall" is aligned directly north-south, and therefore its orientation is or must be significant, accurate measurements revealed that it is orientated in a general east-west direction (trending 93 to 98 degrees true), making the face about five degrees off true north. While some might invoke divine providence to account for its position and general alignment, the more prosaic scientific explanation is that the proximity of the "wall-face" to true north is a coincidence, the result of natural processes (outlined earlier) and the topography which existed when the ignimbrite outcrop was formed.

The "stepped pyramid' form of the structure which Brailsford deduced from probing merely reflects the natural steep ridge-like profile of the outcrop (as far as could be ascertained with-

out extensive excavation). It is broad at the base pressed publicly. Many (including a few Maori) and narrows towards the top of the spur.

Brailsford's original contention that the formation is part of a pyramidal structure is wishful thinking based on surmise and spurious in-



"Of course, it's still a complete mystery as to how the ancients even managed to MOVE these massive stones..."

Nick Kim - Ancient Stones

terpretation of the physical evidence. His contentions that it was built by the Waitaha (pre-Maori settlers) by some sophisticated and lost means of conveyance and construction are just right off the wall. There is no evidence at this location, nor any substantive archaeological evidence elsewhere in New Zealand, that the country was settled by anyone other than the Polynesian antecedents of the Maori about 1000 years ago.

In media statements, representatives of Tuwharetoa, the tangata whenua, stated they had "strong oral traditions" associated with the place. Such places are called kohatu. They refused to reveal more.

The public debate engendered by the "wall" resulted in the widest range of views being exwere adamant or hopeful that the "wall" was evidence that an earlier people (i.e. non-Maori) settled these islands first. At the other end of the spectrum, the rock formation is regarded by some (of New Age persuasion) as a "power node" or special place in a greater universe.

As in other instances where maverick researchers have suddenly burst into print with extreme or poorly researched claims, the Kaimanawa wall incident highlighted a number of difficulties which arise for scientists when they are expected to draw quick and under-researched conclusions on the spot for the media. Likewise, the presence of the public before a scientific assessment has been satisfactorily concluded (or started in this case) is also an added pressure most scientists can do without. Laypeople can get the wrong idea about removing overlying vegetation, sampling, test pitting or similar activities which are often perceived as destructive. The tangata whenua's expressed disapproval of any further excavation would have been a major constraint in this case if it had not been possible to confirm or refute Brailsford's contentions without more extensive subsurface testing. However, one remains optimistic that had more subsurface investigations been deemed necessary to resolve the matter, the tangata whenua following further explanation and discussion about the situation, would have approved such actions as were required to set the record straight.

The Kaimanawa Wall incident is a classic example of a modern media "beat up". The story had the right ingredients: a maverick researcher challenging conventional theories (in this case,

Food Safety

the time and source of the first human settlement of New Zealand) with a claim that he had at last found something (the "wall") which was proof positive of the settlement of New Zealand (and by implication the Pacific) by a pre-Maori people. With this inbuilt element of controversy, it didn't matter to the media whether it was a wall or not, it was just great "public interest" material for selling newspapers or attracting viewers.

Within the space of a couple of days it was a major news story. The Department of Conservation was inundated with calls. However, once we obtained independent corroboration, media interest waned rapidly. In general most media didn't even bother to report the

outcome.

Wall Update

For Facts (which have not changed) search for the wall here:

https://teara.govt.nz/en

For Conjecture:

The lastest Youtube video uploaded in Feb 2017 with 17,135 views at time of publishing suggests it was man-made. Footage includes part of interview with Neville Ritchie.

https://www.youtube.com/watch? v=vP3hZrbVdd8

Turmeric and Food Safety

By Jessica Macfarlane Editor

decided to dip my spoon further into the ▲ benefits (or not) of turmeric after reading this of the levels of curcumin needed for efficacy issue's bio-blog by Alison Campbell and ended up learning about how food safety methods are being dropped due to consumer pressure based on unscientific thinking.

My journey started with my usual weekly shop. At my local supermarket I was looking at two of the brands available and noticed one was marked as 'eco' and was in a cardboard box, the something that gave me pause. other in plastic jar with a plastic lid. There was also a difference in the descriptions - one said "It has antiseptic and antibacterial qualities", while the other mentioned nothing of such

qualities. I wondered given my new knowledge what other nonsense I could find exploring that brand further, so I bought the one with the 'special qualities' and took it home.

I ended up making a very good pumpkin and carrot soup (using cooking oil and black pepper), and while eating it I thought I'd give the manufacturer's website a google, and I found

The website states that they avoid irradiation wherever possible. More and more I was thinking I should have chosen the other brand.

Back in 2005 Raymond Richards wrote a great article for NZ Skeptics about Green Party members' irrational beliefs around the harm of irradiated food, specifically that it causes cancer. He went on to explain about



I also tried a Turmeric latte which was \$5 for a small cup (for science). It was ok, like a sweet chai, but I think I'll stick to my traditional coffee bean based beverage next time, which gives me a real boost and is slightly cheaper.

the real dangers of food poisoning brought on by certain dangerous forms of toxin producing E-coli that is mostly an inconvenience, but can be fatal in children and vulnerable people.

I thought, based on that and the fact that I tend to be swayed by the results of scientifically conducted studies rather than scare mongering, I would give the eco brand a miss next time and go for the other presumably irradiated, safer brand instead.

To my disappointment, a quick google found that the big brand had been swayed by consumer pressure to drop the use of irradiation in its food safe practices.

NaturefirstUSA.org is one of many organisations pushing for food companies to stop using irradiation, and they posted a list of companies who had given way to common sense to appease customers:

"Cerebos have recently joined the green category of the Irradiation Free Food Guide. Cerebos brands include: Riva, Mocopan, Gravox, Fountain, Saxa, Foster Clark's desserts, Tandaco and also Cerebos Gregg's Ltd, which operates in New Zealand.

Masterfoods, Nerada Tea, Kookaburra Raw Peanuts & Camp Oven Mixes Cake Mixes, Grove Fruit Juice and Bakers Delight have all sent through irradiation-free policies and will now be listed in the green section of the Irradiation-free Food Guide."

So in the end is the choice between food served with a dash of nonsense, and a chance of food poisoning, or otherwise?

As irradiation must be only one of many methods of controlling food borne containments, I find that doubtful, especially given the strong food safety guidelines that are in place in this country. The real chance of food

poisoning from turmeric would be very low to none, but what a shame that the choices for skeptical consumers who would like the option of irradiated food are dwindling.



Symbol for irradiated food

Next time you're out shopping you can identify irradiated foods by Left Image: Editor's own the symbol here.□ Right Image: foodsafey.govt.nz





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