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The Bible Code: One more weird thing to believe in

Michael Shermer

The Bible (or, more precisely, the Torah) is a heavenly word-find puzzle, according to Israeli mathematicians.

THE BIBLE CODE, a new book touting the miraculous prophetic nature of the Hebrew Torah in which Yitzhak Rabin's assassination was allegedly predicted thousands of years ago, has swept the national media. *Time*, *Newsweek*, *Slate*, and Charlie Rose explored the remarkable claims of this book, which also predicts a nuclear war that will end the world in 2000 or 2006. Warner Brothers is said to have bought the film rights. The *Los Angeles Times* ran a front page, above-the-fold feature article by their religion editor. And the Skeptics Society's phone is ringing off the hook as observers ask "is this scientific proof that the Bible was divinely inspired?"

This is nothing more than New Age numerology

hyped by the fact that the end of the millennium is coming soon. It is a perfect example of what I talk about in *Why People Believe Weird Things*: humans are pattern-seekers looking for meaningful relations in the world whether they really exist or not. I've had people tell me

they see the face of Jesus in a tortilla, the Virgin Mary in the shadows of a tree, or Mother Theresa in a sweet roll. It is a ridiculous attempt to use modern methods of science and statistics to prove an ancient text that can only be accepted on faith.

To summarise the process of the Bible Code, and the problems with it:

The Bible Code is based on the work of Eliyahu Rips, an Israeli mathematician and computer expert who, along with two other authors (Doron Witztum and Yoav Rosenberg), in 1994 published an article in the prestigious academic jour-

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The Truth is Out There

IT'S BEEN a quiet old time in the Waikato, these past few months. My cat hasn't channelled any past lives, nor has she been abducted by aliens.

I suspect, though, the little green guys made off with a few of the brain cells of a journalistic friend of mine. I should not be too unkind about it, but it's a little disappointing when someone you know is responsible for a gullible item appearing in the local press.

Today's science fiction is tomorrow's reality, she begins, and goes on to tell the story of Alec Newald, who, on a late summer day in 1989 set off on the drive from Rotorua to Auckland. Except he got abducted en route and 10 days of his life were mysteriously swallowed. The aliens chatted to him about evolution, he remembers, and following his experience, he has been "hounded by what he sees as Government agents working to a secret international agenda."

And Alec was such a normal lad, before all this started. Now he's written a book about his experiences, which will be on the shelves as we speak. The paper was even giving away two copies of the book.

What saddens me is that the writer, Sue, knows I'm a skeptic. In fact, she wrote a small piece on "What Skeptics Are" prior to last year's conference. I wish she'd thought to pick up the phone and try to get in a small, even token, comment from the other side of the fence.

I decided I'd make a friendly phone call to her and make the above point — and found she was out of the office. Did I want to leave a message? her colleague asked.

And then the Devil he did grip me. Rather than leaving a nondescript message, I informed the unknown journalist that yes, I would leave a message, and as editor of the *NZ Skeptic* I wished to nominate Sue for the Bent Spoon Award, for gullibility in journalism. The reception was cool. Distinctly. But later, speaking with Sue, I felt I'd made my point. Interestingly, a few days later, we got a call from another reporter on the same paper who wanted comments regarding clairvoyants. I doubt there was any connection, however.

As a journalist, I am aware you cannot cover every aspect of a story, it's simply not possible given time constraints. However, I believe journalists should try to give as balanced an account of a situation as possible, rather than merely regurgitating, especially when the issue is contentious. Which is not what happened here. Sue told me that after the story was published she got a few calls, one from a Hamilton medium who said now that the paper was obviously writing New Age pieces, did she want to do something on them.

The other day I was visiting my dear old mum, and one of those ghastly American chat shows was on the TV. I never listen to these things and I had no idea if the anchorwoman was Sally Raphael or Elle McPherson, but the topic was aliens. And they had a captive, token skeptic. The poor man, every time he leaned forward in his chair and tried to say something, the rest of the onstagers jeered and the audience hissed. It was not an environment conducive to rational, informed discussion. He probably wished he could be whisked away on a flying saucer. They even had an alien present, a busty, blond-haired woman, no doubt from California. Of course, the body she was in (apart from its plastic surgery) was human, she was just visiting, as it were.

Have to laugh really. It's the only possible solution. Cheers,



Contributions

Contributions, whether written articles or newspaper clippings, should be directed to:

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Preference will be given to copy supplied by email or sent on an IBM-compatible disc in ASCII text, Word or WordPerfect formats. Discs will be returned if clearly labelled.

Please indicate the source publication and date of any clippings.

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from p1 nal *Statistical Science*. It is a peer-reviewed journal, but the editors made it clear they were publishing it because it was an interesting statistical phenomenon, not because they endorse it. They left it to the readers to make what they will of it.

Rips' analysis was on the Torah, the Five Books of Moses consisting of Genesis, Exodus, Leviticus, Numbers, and Deuteronomy. Rips eliminated the spaces between all the words in the Torah, converting it into one continuous strand of 304,805 letters. With this strand he applied a process called Equi-distant Letter Sequencing (ELS), where you start with the first letter of Genesis and then enter a "skip code" program by taking every n th letter, where n equals whatever number you wish—every 7th letter, 17th letter, 3,007th letter, or whatever it takes to find meaningful patterns. If there are none there you start with the second letter, or the third, and so on.

Take Your Pick

The vowels are added to the letters after the skip search. If it were English, RBN could be Rabin, or it could be Ruben, or Robin, or Rubin, or Rabon, or, or, or... And you do this search not only from right to left (as Hebrew is read), but from left to right, up to down, down to up, and diagonally in any direction. You can either have a name or word in mind ahead of time then search to find it, or you can look at the sequence of letters to find a meaningful name or word. Rips also

found "Hitler", "Nazi", "Kennedy", "Dallas", Pearl Harbor" and references to atomic war, the Holocaust, and Israel for the year 2000 and 2006.

Here is a simple example of this process, using just the alphabet with no vowels, then an ELS search, which I did in five minutes without a computer:

BCDFGHJKLMNPQRST
VWXYZ ELS of $n = 4$ FKPTZ
FAKE PUT OZ

Perhaps we should do an ELS search of Frank Baum's Oz books for their hidden messages! Imagine what we could find using sophisticated computers. In just such a process, an Australian math professor, using an ELS skip program, found "Hear the law of the sea" in the UN's Convention on the Law of the Sea. He also found 59 words related to Hanukkah in the Hebrew translation of *War and Peace*, including "miracle of lights" and "Maccabees." The odds against all 59 are more than a quadrillion to one. Are we to believe that Tolstoy's hand was directed by God? This is a fun game if you don't take it seriously.

Some biblical scholars believe that the Torah was authored by more than one individual, thus accounting for the different styles, the two different creation stories in Genesis, and other inconsistencies. There may have even been an "editor" who coalesced multiple writings into one set of books. This contradicts the belief that the Torah was authored by Moses inspired by God. Without this foundation, the Bible as an ELS code of

prophecies about the assassination of Kennedy and Rabin falls apart.

Is it really possible that a mere 304,805 letters contains all the information about everyone in the world over the course of several thousand years? Obviously not. So why Rabin's and Kennedy's assassinations, and not Lincoln's and King's assassinations?

In the Beginning

The belief that the Torah contains encrypted codes goes back to the medieval practice of the Kabbalah, a form of Jewish mysticism. Kabbalists believed that there were 84 different coding schemes, one of which was an ELS of $n = 50$ to find "Torah" in both Genesis and Exodus (but it doesn't work in the other three books). *The Bible Code* is just the latest in a long line of mystical traditions.

In *Why People Believe Weird Things* I show that *The Bible Code* is just the latest in a long line of attempts to mix science and religion. Some cosmologists, for example Frank Tipler, believe that it is deeply significant that the age of the universe divided by the time for light to cross an atom approximately equals the electrical force between a proton and an electron divided by the gravitational force between a proton and an electron. Believing that things don't just happen by chance, people go in search of patterns that seem to be more than coincidental. To use a biblical metaphor, it is a matter of "seek and ye shall find". Last century a mathematician discovered that if you

divide the height of the Great Pyramid into twice the side of its base you get a number close to π . Or that the base of the Great Pyramid divided by the width of a casing stone equals the number of days in the year. You can find almost anything if you look hard enough.

There are other, much more serious problems with this phenomenon. The author of *The Bible Code* claims he tried to warn Rabin a year before his assassination. Let's say Rabin took the warning seriously and changed his schedule and was not assassinated. Would this mean that humans are more powerful than God, or that some statistician can rerun the universe to produce a different outcome? Does this mean that biblical prophecies are self-fulfilling prophecies, or that they are not prophecies at all, but warnings? Einstein said "God does not play dice." Does God play computer games?

Michael Shermer publishes *Skeptical* magazine in the USA, and wrote *Why People Believe Weird Things* (W. H. Freeman, May, 1997).

The Plimer Trial: After the Flood

Barry Williams

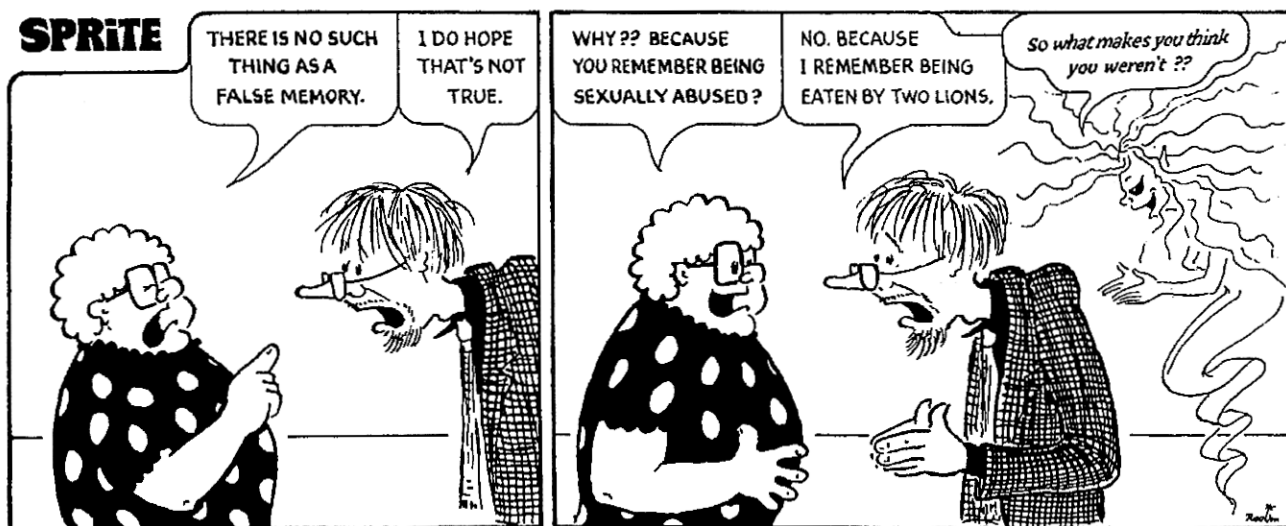
AS MOST readers will now be aware, the Ian Plimer/Allen Roberts court case has been adjudicated, and the results for Ian were not as he had hoped. The case was brought under federal Trade Practices legislation and state Fair Trading legislation and concerned two issues. The first was a breach of copyright action, where Ian's co-applicant, David Fasold, alleged that Roberts had used a diagram, Fasold's intellectual property, without permission. The second issue alleged that, in his lectures and sale of tapes, etc, Roberts had engaged in misleading and deceptive conduct in pursuit of trade.

In the first matter, the judge found that Roberts had breached Fasold's copyright and awarded the latter damages of \$2,500. In the other matter, the judge found that Roberts and his co-respondent, Ark Search Inc., had not been engaged in trade or commerce, within the meaning of the act. He did find that statements

made by Roberts in his lectures, and in preparation of brochures were false and misleading, but, as he had already found that the respondents were not engaged in trade or commerce, then no law had been infringed. At the time of going to press, it is expected that Ian Plimer will appeal the findings.

Interviewed on TV after the judgement, Roberts claimed that he had been completely vindicated and that it was a victory for freedom of speech. On the first point, it is surely a strange interpretation of the result, which found that he had used another person's property without permission and that he had made false and misleading statements, for him to claim complete vindication.

On the second, and more serious point, we wonder that the words did not choke him. There have always been elements of "freedom of speech" in this case and it is an issue that greatly concerns Australian Skeptics.



Donald Rooum, *Skeptic* (UK)

The case developed precisely because those who arranged Roberts' meeting denied that freedom to people who attended the meetings, and who wished to ask questions. In at least one of the meetings in question, armed guards were employed to ensure that people wishing to ask questions were bodily removed. This was further compounded by a writ taken out against Ian Plimer, accusing him of defamation, as a result of comments made after one of the meetings. So much for the commitment of Roberts and his organisation to free speech.

Freedom to Question

Freedom of speech is one of the fundamental rights that underpin any democracy, but that freedom always incorporates the freedom of others to question one's statements. It is not an infringement of anyone's freedom of speech to require them to justify what they say.

Since the conclusion of the case, we have received an unprecedented number of calls offering support to Ian Plimer and to the Skeptics for backing him. We were particularly heartened to find that this support came, not just from scientists and members of the sceptical public, but also from members of the Christian clergy and laity, who objected to their beliefs being tainted by association with fundamentalism. At the post-judgment press conference, every member of the Australian Museum's professional scientific staff crowded into the Skeleton Gallery to support Ian Plimer and we must

thank the Museum Director, Dr Des Griffin, for his words of encouragement and support. Among the witnesses who offered their support to Ian's case were an elder of the Presbyterian church and an Anglican archdeacon.

Whether or not it was wise of Ian Plimer to take the action he did is a question that only he can answer — it has certainly proved to be an extremely expensive course of action, and one from which he is unlikely ever to recover financially. However, his was an extremely courageous action, and he deserves our strongest support. It was brought about by his perception of his duty, as a publicly funded scientist and educator, to challenge pseudo-scientific and anti-intellectual dogma wherever it is being foisted upon the public. It is an attitude we can only commend, and it is one that other prominent public figures might well consider emulating, though arguably not through the courts.

A writer in this issue has asked, "Is it wise to debate fools in public?" to which we can only reply with the words attributed to Edmund Burke, "It is necessary only for good men to say nothing for evil to triumph".

Evil or Silly?

Are we over-stepping the mark in describing fundamentalist creationism as an evil? Is it, of itself, no more evil than any other basically silly belief? That is true, but it is not the belief that we regard as evil, it is the consequence of acting on that belief — the public dissemination of ignorance; in particu-

lar, the dissemination of ignorance to children. And that is precisely what organisations promoting creation "science" do; they promote ignorance because knowledge comes into conflict with their beliefs; beliefs which are neither scientifically nor theologically sustainable. Worse, they exhibit no sense of shame at their ignorance; rather, they flaunt it like a badge of honour.

In fact, there is no such thing as creation science — all of its efforts are aimed at discrediting the fact of evolution and, by extension, biological, and all other science. One will find little or no creation "science" in creationist texts; at best one will find sophistic arguments that seek to force the scientific facts to fit in with a narrow religious dogma. A few scientific terms are attached to make it seem respectable, at least to a scientifically unsophisticated audience. Creation science has as much to do with science as Donald Duck has to do with the care and maintenance of domestic poultry.

Ironically, while Ian Plimer is seen to have lost his case, its result may well have served to advance his cause of confronting and exposing pseudoscience wherever it crops up. Resulting media coverage, domestically and internationally, has thrown a great deal of critical light into some very dark places indeed. The public is now much more aware of the vacuous underpinnings of literalist creationism than it ever had been before. The evidence suggests that the promoters of this nonsense

have found the unwanted glare of publicity most unwelcome, and it is up to organisations like Australian Skeptics and professional scientific and educational bodies to maintain that scrutiny.

It is no longer enough for Skeptics, scientists or educators to sweep this pernicious dogma under the carpet; to rely on the fact that its incompatibility with observed facts makes it self-evidently ridiculous. On the ABC TV 7.30 Report, on June 3, it was revealed that up to 60,000 Australian children are now enrolled in 300 schools in the "Bible-based schools" system. In the programme, Mr Bob Frisken, a leader of this movement, said "We would encourage children not to trust what they read,

whether they are reading that in an encyclopaedia, or in a text book written by a Christian. We believe that God has revealed himself in the Bible and that therefore they can trust the Bible as a safe source of what God has said." In the same programme, a child at one of the schools said "Christians ... need to know that science supports creation ... because of the evidence for design"

Selective Scepticism

We would hardly argue with the idea that people should be sceptical of what they read, but Frisken is not saying that. What he is saying, is that they should be sceptical of everything *except the Bible*, because *he believes* that God has revealed himself in that book and that *he knows* what it is that God has

said. The child has been told that science supports creation, when quite clearly science does no such thing. Science has nothing at all to say about "creation" in this sense, but, because the child has had propaganda fed to him under the guise of creation "science", he has been misled as to what science is about.

New government regulations allow such schools to attract state funding and, the programme claimed, their numbers are expanding by 10% per year. We can therefore expect that increasing numbers of our children will be subjected to this form of intellectual child abuse. It is just not good enough.

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Avebury's elusive crop circles

Press, 15 Jul 97

by Murray Takle

It felt like just another tour to Stonehenge and the Avebury Stone Circles as we piled into the mini-bus, but it was not long until the bus was abuzz with excitement.

Our guide was quick to tell us that although he was not able to get an exact location, he had heard rumours that the first crop circle of the year had been spotted in the area.

While we all put forward our ideas as to who, what, or how the crop circles were created, everybody had their eyes fixed to the fields as we drove along Wiltshire's back roads.

After investigating the Avebury Stone Circles, everybody was keen to get back on the road and find one of these mysterious patterns pressed into the fields in the summer.

No crop is immune to the phenomenon. Formations have been found in wheat, barley, oats, and rye. Circles have also been found in wild grass, rice paddy fields, snow, and sand.

The crops inside the circles are usually laid down and swirled in a neat spiral, or radiate from the centre. Some crops are simply bent over halfway up the stems.

The plants remain undamaged. Once the crop circle appears, they continue to ripen unharmed.

There are many theories as to why

the crop circles appear. Some say they are a style of communication by some form of intelligence, either extra-terrestrial or from another dimension.

Some believe the patterns are made by unusual weather conditions, while others believe they are a joke made by people out for a laugh.

While several man-made hoaxes have appeared, the circles' continuing presence and the number of cases for which no explanation has so far been offered means that their occurrence remains an unexplained phenomenon.

Although the formations have also appeared in America, Australia, Canada, Brazil, Germany, Romania, Japan, and other countries, the heart of activity remains in England.

Last season a lot of crop circles appeared in Wiltshire, Hampshire, Cambridgeshire, and Sussex, with an elaborate design appearing in a field only metres from Stonehenge and another beneath Sudbury Hill, near the Avebury Stone Circles.

The first circles usually arrive in May, with most occurring in June and July. Sometimes several appear in the same day. They continue until September or the crops are harvested.

We did not find the circles we were looking for, but London's Astral Travels includes them on the itinerary of its full-day small group tours to Stonehenge, Salisbury, and Avebury.

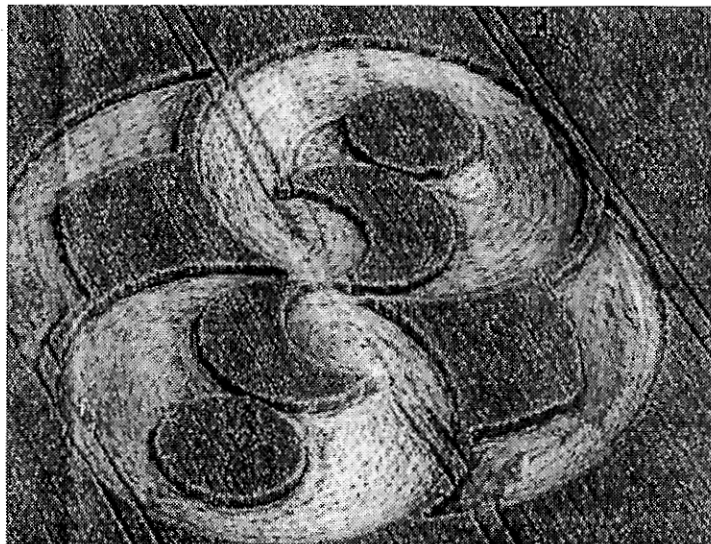


PHOTO: REUTERS

These large crop circles appeared in August last year on a hillside near Swindon, in Wiltshire, England. Their occurrence remains unexplained.

The guide, Nick Kendrick, who has been tracking crop circles in the area for more than 15 years, says: "If there's crop circles out there, we'll know it, and have plenty of time to investigate them".

Tours cost £42 (\$NZ95) and include

lunch in a historic pub and entrance fees. Discounts are available for students, YHA members, and groups.

Further information: Astral Travels' web site: www.astral-tours.demon.co.uk/

Creationists on the Move

David Riddell

IN THE United States, creationists have long waged a strong political campaign to have their ideas recognised by the courts and the educational authorities. But in this part of the world, it seems, their strategy is rather different. The Creation Science Foundation, the largest Australasian creationist organisation, regards the "top down" approach of their American counterparts as unproductive: it is more effective, says CSF's Carl Wieland, to work first on developing a broad base of popular support. In an article titled "Linking and Feeding," Wieland outlines their strategy of making contact with people ("linking") through subscription to their magazine *Creation*, and then providing them with ongoing creationist material ("feeding"). This material is then read by the recipients' friends and family

The article is available on CSF's New Zealand website (<http://www.christiananswers.net/aig/aignews/csfnewsn.html>), which has been up and running since February this year. Permission to reprint it in the *NZ Skeptic* was, perhaps not surprisingly, declined, but for those with Internet access, it makes for very interesting reading. Wieland sees the CSF material as instrumental in changing the hearts and minds of people within God's army, becoming part of an ongoing, spontaneous, pulsating outreach which is far more active than anything man could ever coordinate, and able to penetrate places (such as pub-

lic education) which would fiercely resist a frontal assault.

It is very clear from the article that Wieland sees New Zealand as fertile ground for the CSF's work. He begins with an anecdote about an address he made in a large Auckland church, in which he was frustrated by his inability on that occasion to promote the *Creation* magazine, which he regards as the cornerstone of CSF's strategy.

This approach has been followed in this country for some time now. I first became aware of the CSF in 1995, after seeing an advertisement in a home-schooling newsletter for a presentation by Peter Sparrow, who was touring the country at that time under the auspices of the CSF (see *NZ Skeptic* 38). Of the 100 or so in the audience, only myself and two others I'd notified were not already committed creationists — Sparrow's tour received very little promotion outside of church circles (many home-schoolers are creationists not wanting their children corrupted by evolutionary ideas, hence that newsletter advert), and it was clear he was preaching to the converted. There seemed to be no attempt made to reach out to the uncommitted — that, presumably, was a task for those in the audience to tackle in the future. I suspect there have been a number of other visits organised by the CSF since then. Wieland himself has been here at least once, and a visit by a Dr Andrew McIn-

tosh in February was noted on the CSF(NZ) website.

It should be noted that there is another Australian creationist organisation, the Creation Research Institute (not to be confused with America's Institute for Creation Research — remember the Judaeon People's Front in *Life of Brian*?). This is a splinter group from the CSF; its founder, John Mackay, visited New Zealand last year. Again, the audience on the occasion I saw him consisted almost entirely of the faithful, though the meeting had been advertised in the *Waikato Times*, in the church notices (Sparrow's meeting wasn't). In any case, the message was much the same, though if anything Mackay was even less concerned with any pretence of scientific objectivity.

So far, though, it is the CSF which has the stronger presence in this country. According to the website they have an office in Auckland with three new staff members. They also have the backing of an organisation which is now world-wide. They have a number of publications and other resources including, as well as the very professional-looking *Creation* magazine, a so-called Technical Journal. For a long time, creationism has seemed a predominantly American phenomenon. But quietly, ever so quietly, they are now on the move in New Zealand.

David Riddell is a Waikato freelance journalist.

Skepsis

In the first of a new series, Tauranga GP Neil McKenzie comments on recent examples of pseudoscience relating to medicine.

BEING a busy GP, running a jazz band, playing hockey and squash, and travelling all over the world fairly frequently cuts in to my reading time. I tend to relax with the *Foreign Express*, *GP Weekly*, *NZ Doctor*, the *Listener* and the local papers. One major difference, in the medical journals, is that they don't have horoscopes. Yet. So here are a few treasures I've gathered over the past few weeks.

Vaccine Hysteria

Hundreds of Tauranga citizens gathered to hear Irwin Aller extol them to prevent their kids from what he sees as a health department conspiracy to maim them with vaccine.

In a letter to the *BOP Times*, June 24, I called them "Flat Earthlings". I reminded them of an 11 year old who died of measles a few years ago. The entire school attended the funeral and immunisation rates stayed up for years.

I went on, "Measles kills, the vaccine is safe. You don't take risks with your children's serious illnesses, so don't with their protection." That shut them up, until recent UK research suggested a possible link between MMR and bowel disease hit the headlines.

Fortunately our local MOH, Phil Shoemac, calmed everyone down. He said on the front page of the *BOP Times* on July 30 that half a

billion doses had been administered over 15 years with strong evidence that benefits far outweighed the risk.

Deluge

People will believe anything. Even doctors. It is hard to understand how these confused, scientifically trained professionals let their colleagues down when they go off the rails.

One such hero, Dr Stuart Yuill Proctor, has been waxing profusely on the wonders of homeopathy (*NZ Doctor*, 2 April 1997).

Dr Robert Park of Maryland University, however, said last year that homeo's claims were often mind boggling. One remedy for nervousness claimed to contain passionflower in a dilution of one part in ten repeated thirty times. "You would need to drink 865,000 gallons of water to get a reasonable chance of getting one molecule," he said.

The article shows a charming picture of balding Dr Proctor, who says, "After 10 years, I still do not understand how it works..."

As God said to Moses, Dr Proctor, "Keep taking the tablets".

A Load of Bull

Magne Osnes, a medical professor in Norway, has developed fried chips that increase sexual desire and are guaranteed to make you a "wild beast in the bedroom". "Everyone that has

eaten them has been overjoyed," he said (*BOP Times*, July 11). The chips, currently on display at an Oslo trade show, contain "anti-oxidants, minerals, and B and E vitamins," but Osnes, who admits he's never tried them, said he did not dare to carry out blind tests because of "unthought-of effects".

I'm bursting to try them out, but it might be prudent to wait until Mrs Jaz gets back from her mother's.

Wonderbread

Battle scarred Sandra Coney finally earned a few Brownie points, in my book anyway, by slamming Allied Foods for their extravagant claims for their newly launched bread (*Sunday Star*, July 6).

They said if you are menopausal, the bread will decrease hot flushes. In some cases you can use it instead of hormone replacement therapy (HRT), because it increases bone density and protects against cardiovascular disease and breast cancer. Men are promised prostate [sic!] cancer protection.

Ms Coney sensibly pointed out that because the amount eaten varies, there were dangerous safety factors (dose variability). Unfortunately, she ignored lack of scientific proof.

I suspect she has always believed HRT has been about the male-dominated medical profession needlessly pushing hormones on

to perfectly healthy women, and now resents the food industry getting in on the act.

Mythtake

Sick Building Syndrome (SBS), the idea that poor air conditioning, harsh lighting etc, can cause colds and other ailments, is a myth, a British architect says (Reuter July 5).

Alexi Marmot told the annual conference of the Royal College of Psychiatrists that sick organisation, poor management, passive smoking, lengthy commuting and people who have difficult lives is what is being seen.

Marmot and her husband Sir Michael are leading a major study of the health of 6800 London civil servants, surveying 44 office buildings. When the large body of evidence that sealed buildings causes SBS was put into wider context, the evidence did not hold up.

I firmly believe that the current New Zealand epidemic of the ACC generated complaint OOS (occupational overuse syndrome), has precisely the same basic causes, but that, as they say, is another story.

Yuk!

Do you remember being forced to swallow a spoonful of revolting cod liver oil as a kid? You must be about my age.

Some children are still getting the punishment, and it could be harmful, according to *GP Weekly* (July 2). Government researchers in Britain have showed that significant levels of toxins, dioxin and PCBs — which the World Health Organisation warns can cause cancer —

have been found in cod liver oil supplements.

"Children, and the foetuses of pregnant women, could be particularly at risk," said Dr Michael Warhurst of Friends Of The Earth, calling upon Ministry of Agriculture, Fisheries and Food, to disclose results of the research.

I'm so glad I used to spit the filthy stuff out at the cat the moment my tormentors left the room.

Not Now Cleo

The NZPA released a bizarre item on July 4 about a Nelson woman who has built a house modelled on the Egyptian pyramids for its healing power.

She follows "new age and alternative practices" and has read of the psychic power of pyramids. She is placing her bed in what is known as the King's Chamber, on the second story under the apex.

Mummy mia!

Good Listener

I strongly recommend Noel O'Hare's article "Hocus-pocus" in the July 19 *Listener*. He skilfully analyses, dissects and dismisses the wealth of quack products presently being foisted upon the eager public.

"Do I need a dose of cranberry that helps prevent harmful bacteria attaching to the bladder lining, or would co-enzyme Q10, nature's energy spark-plug, be the better buy?" he asks.

He points out that just because a substance is natural, it doesn't mean it's good for you. It's pointless taking uncatalogued chemicals when safe, effective treatment is

available. Multi-national drug companies may make huge profits, but they do conduct extensive and prolonged clinical trials of their products, he says.

"Medical science progresses as new methods replace less effective ones. Quack methods persist as long as they remain marketable. Even after they are gone they may still be glorified," he finishes.

Chemists Beware

Thank heavens, the Commerce Commission has at last warned all pharmacists, in a letter, that they risk prosecution for stocking shonky weight-loss products. They target pills, belts, briefs, seaweed soaps and many other useless fat cures.

Commission chairperson Dr Alan Bollard said, "Pharmacists promote themselves as the health professional you see most often ... some have freely admitted they think some products they sell do not work."

The maximum fine for breach of the Fair Trading Act is \$30,000 for an individual and \$100,000 for a company.

Let's hope they start on all the other rubbish you see in your chemist's. Most of the herbs and homeopathic bottles should be swept off their shelves for starters.

Well, time for me to hang up my pen. I hope you've enjoyed my first Skepsis. Please write to me on anything you feel needs an airing, and I'll catch you in the next issue.

Dr McKenzie can be contacted via the editor.

Waikato Times July 28

Aoraki to phase out naturopathy course

Press 29 Jul 97

TIMARU — Aoraki Polytechnic will phase out its naturopathy course.

The three-year course was introduced in 1995, and has been plagued by controversy after the polytechnic failed to convince the New Zealand Qualifications Authority to confer degree status on it.

The final rejection came in March after the NZQA told the polytechnic that the course failed to meet 17 of the 19 degree criteria.

The polytechnic had planned to appeal against the decision, but chief executive David Bolitho said the cost would not be warranted.

Mr Bolitho said the course's \$1.2 million loss, on top of an expected \$400,000 annual loss while accreditation was sought, was too much of a financial burden for the polytechnic.

It was adversely affecting the operation of other departments.

The polytechnic laid much of the blame for the demise of the course with the NZQA.

Mr Bolitho said the authority had initially encouraged the polytechnic to seek degree status for the course despite the accreditation panel having expressed doubts about the suitability of naturopathy becoming a degree.

The polytechnic had approached the NZQA to seek a naturopathy diploma to offer graduating students. He was hopeful that would be approved within three months.

While the end is in sight for the degree course, the legal wrangle surrounding it is far from settled.

Fourteen students are pressing ahead with plans to sue the polytechnic over the failure of the course to gain degree status.

Showing fluoride wins man dental

By SCOTT MACLEOD

First he won \$3000 from a Morrinsville man for showing proof that fluoride was safe — and now he's been recognised for serving dental health.

The Kuiti man John Mackie will be awarded a certificate by the New Zealand Dental Association on August 29 for showing enough proof to a Disputes Tribunal to convince it that fluoride was harmless.

It all started last year when Mr Mackie read anti-fluoride activist Truby Tarrant's advertised \$10,000 challenge for anyone to prove fluoride in water was safe. One quick Internet surf later Mr Mackie reckoned he had enough proof. He sent a US Environmental Protection Agency report and a bill for \$10,000 to Mr Tarrant, a Morrinsville builder with seven chil-

dren. But to win the \$3000 — claim.

Mr Mackie won the \$3000 through the Tarrant Fund.

He said the fluoride in the water in Tarrant was harmless.

Mr Mackie's rival said his rival's "Jesus" is a proponent of the Association.

He said the fluoride in the water was safe, and that the fluoride in the water was safe.

Regulating remedies

Press

Closer to home, the governments of Australia and New Zealand entered an agreement two years ago to develop joint food standards. As a result, the Australia New Zealand Food Authority was established last year. It aims to protect public health and safety, provide adequate information about food to allow consumers to make informed choices, and prevent fraud and deception. It is working towards a food standards code under which the composition and labelling of food in both countries will be common. New Zealand manufacturers are now allowed, too, to make fortified foods. These are enriched with vitamins and minerals that people may previously have taken as pills.

Given some people's waning confidence in aspects of orthodox medicine, and the undoubted success of certain alternative treatments, it would be wrong if herbal and vitamin remedies were to be available in this country only through prescription. Desperately sick people willing to try any remedy are automatic prey for quacks; naturopaths rightly point out that few international drug companies are regarded as completely scrupulous either. Most remedies taken to excess, whatever their provenance, have the potential to damage.

Ultimately, the best defence against quackery — or inefficient orthodox medicine — is caution. In no area is "caveat emptor" more necessary. The trouble is that sick people are sometimes in no state to evaluate the remedies their advisers recommend. Protection may sometimes seem unnecessarily paternalistic. It is nevertheless why governments everywhere will continue, rightly or wrongly, to regulate what remedies are available and from whom.

Inevitably, therefore, consumers capable of making an intelligent choice for themselves may find it hard to come by what they want. But despite the trend to regulation, information about alternative remedies has never been more widespread. For example, many sites on the Internet provide it. That explosion of lore may eventually work against the regulators

When we are ill, what remedies should we be able to buy over the counter, and which should be prescribed by a health professional? That is the fundamental question behind a division developing between those who regulate what drugs can be sold in pharmacies and shops and people who offer alternative therapies, especially herbal, vitamin, and related remedies. The latter are concerned that, in a bid to impose common standards of quality control, some everyday herbs and vitamins may eventually be redesignated as drugs.

That has happened in Canada where, from this year, many traditional herbal medicines have been reclassified as drugs because they have pharmacological effects. They include comfrey, hawthorn, lily of the valley, and tea-tree oil. As a result, many naturopaths, health-food store proprietors, importers and growers of herbs say they risk conviction for drug trafficking. Canadian authorities claim that increased interest in herbal remedies has meant that more unlabelled or wrongly labelled ones have gone on sale. Hence, they say, the need for tighter regulation.

Canadian law now requires every product taken by mouth to be regulated as either a food or a drug. The latter is defined as a substance sold or represented for sale as a treatment, prevention or cure of a disease, disorder or abnormal physical state. That is an extremely comprehensive definition. By contrast, a food is something consumed mostly for its nutrient value.

Crucial to control of remedies taken internally is also the Codex Alimentarius Commission, on which New Zealand is represented. The commission has been designated by the World Trade Organisation as the officially recognised rule-making body for international trade issues related to food. Presently before the commission is a German proposal to prohibit over-the-counter sale of supplements and herbs of high potency. Although the proposal is opposed by the United States and Britain, it has

Stargazers and their scalpels

Press

If you are nursing a gammy knee or suffering a bout of summer flu, you are in trouble with Saturn and Mars respectively. If you cannot sleep there could be a lack of watery signs in your horoscope; and if, while you are checking that out, you notice a dodgy Moon-Jupiter aspect in your birth chart, look after your gall-bladder.

The ways of astrology being infinite, it should come as little surprise to find stargazers poking their irrationalist noses into medical matters. Astrology was, after all, once an integral part of the doctor's art. Hippocrates was allegedly an astrologer, while the 17th-century astro-herbalist Nicholas Culpeper asserted "a physic without astrology is like a lamp without oil".

For most doctors and patients, the 17th century is where medical astrology belongs, among the spells of village healers. Yet far from withering into history, medical astrology is enjoying a renaissance as part of the holistic health movement.

Like homoeopathy, acupuncture, and the rest, astro-medicine claims to consider the whole person rather than isolated symptoms.

The birth chart is central to astro-medical diagnosis, offering clues to physical and mental temperament and predisposition to particular illnesses. For example, an excessively "airy" horoscope (the air signs being Gemini, Libra, and Aquarius) might produce what the Scottish practitioner Jane Ridder-Patrick describes as "a skinny, nervy trend-chaser... he or she lives on coffee, lettuce leaves, and first nights". Underlying everything is the theory of "correspondence",

which assigns parts and functions of the body to signs and planets. In the "heavenly body", the first sign of Aries rules the head, Taurus the neck, and Pisces the feet. Saturn, the planet of structure, is assigned the skeleton and skin, and Mercury the nervous system. It follows that a clash of, say, Saturn (skin) with Mars (inflammatory complaints) will indicate a tendency to skin eruptions.

In the past, herbal remedies were the major recourse for astro-healers. Since all plants had planetary "correspondence", you might administer a herb of the Moon (watery and cold) to cure a hot, dry fever (a condition of Mars).

Modern medical astrologers have added to tradition, drafting in bodily functions for the latterly discovered outer planets (Neptune has the visionary pineal gland, for example), administering a dose of astro-psychology, and suggesting correspondences for homoeopathic and Bach Flower remedies. For sceptics, this merely opens a whole new

school of quackery for the gullible.

Maybe. Yet today's medical astrologers are not necessarily ignorant of conventional practice. Jane Ridder-Patrick, author of the informative "Handbook of Medical Astrology", is also a no-nonsense pharmacist with a practice "in the disease badlands of Britain".

That said, casting a "decumbiture" chart for the onset of an illness to inquire after its origins — a Culpeper practice — will strike many as at best eccentric. Just hope that it doesn't show the Moon conjuncting a retrograde planet: an indicator of a long illness.

—Observer

**Astrology was,
after all, once an
integral part of
the doctor's art.**

le safe al award

took a court battle to win
the maximum for a tribunal

he said he was "flattered"
NZDA award. He was using
to sponsor a Ugandan girl
the Christian Children's

he had little interest in the
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d won an award.

Are things that bad? This
ganda move by the Dental
. No way has fluoride been

British local authorities
singly worried about can-
bones and poisoning from
his debate is causing truth

into their own hands.

Vanishing snails baffle Aust farmer

GUENING POST 21 JUN 97

SYDNEY. — The mysterious disappearance of 6000 snails from her Queensland farm is baffling former Auckland woman Val Verrier.

Ms Verrier was farming the snails to supply upmarket restaurants in fashionable Noosa Heads. The uninsured stock was valued at \$411,000 (\$NZ12,000). The disappearance of every one of the snails, without so much as a cracked shell left behind, has confounded experts.

Human thieves, snakes and goannas have all been ruled out as possible culprits and an unusual marking on the grass around the snail hutch has prompted talk of alien abduction.

Ms Verrier noticed a dead ring of grass around the hutch.

"It's just as if aliens came and took them, or came along with a giant vacuum cleaner and sucked everything up," Ms Verrier said.

"I suppose saying aliens abducted them is a bit of a joke, but what happened was so strange and mysterious that I can't really rule anything out."

Ms Verrier believes thieves would find it impossible to remove every single snail without leaving a trace.

"It would be hard for anything to take all the snails — including the tiny babies — because they were all over the walls, the ceilings and the floor of their enclosure.

"A human or an animal couldn't just pick up every single one and not leave a trace of anything behind. Some of the babies were so small that it would have been impossible for humans to collect them all.

"It's an absolute mystery — it's so bizarre and weird that it's scary."

NZPA

Coroner calls for study on herbal remedy

June 18 1997, Press

HAMILTON — Hamilton Coroner Gordon Matenga has called for an extended ban on the K4 herbal remedy linked to a Waikato man's death, and has asked for more studies into its liver toxicity.

Charles Weinberg, 81, of Cambridge, died at Waikato Hospital on May 12 last year from non-viral hepatitis.

Mr Weinberg had been taking the herbal remedy for prostate problems for three months before he was admitted to hospital.

At an inquest in November last year, doctors and the Health Ministry linked Mr

Weinberg's death with K4, a popular Indian remedy containing 36 herbs.

Mr Matenga adjourned that hearing until April 18 this year to give manufacturers of the tablets, Zandhu Pharmaceuticals, time to complete toxicity studies.

Mr Matenga said there was "reasonably compelling evidence" that K4 was associated with liver damage in Mr Weinberg and 13 other cases reported to the Centre for Adverse Reactions Monitoring in Wellington.

However, he was unable to say with

certainty that K4 was the cause of Mr Weinberg's non-viral hepatitis. He found Mr Weinberg died due to non-viral hepatitis of unknown origin.

The Health Ministry ordered the herbal pills off the market last August after Mr Weinberg's death and two other reports of serious liver damage. K4's distributor, Direct Health and Beauty of Wellington, was told to recall the product.

Mr Matenga said the ban should be extended until a joint study involving the manufacturers, the ministry and a gastroenterologist, had been done.

Statue on 50-year world pilgrimage

EVENING POST 5 JUN 97

By ANGELA OTS

A statue of the Virgin Mary, which is in Wellington this week, has for 50 years been carried on a pilgrimage around the world, drawing crowds and claims of miracles.

Wellington Catholic churches are this week celebrating the statue's visit to New Zealand.

It has come to New Zealand from Australia and before that the Philippines. The organisers of the New Zealand visit say 2.5 million Filipinos watched the statue being paraded through Manila.

The statue commemorates the shrine of Fatima in Portugal.

It has travelled the world since it was blessed by Pope Pius XII in 1947.

At the time, Pope Pius said: "As she sets forth to

claim her dominion the miracles she performs along the way are such that we can scarcely believe our eyes."

Claims of extraordinary events surrounding the travels of the icon have been the subject of a book, *The Wonders She Performs*.

However, Catholic Communications director David Ross says any claims of faith made about the statue are a matter of private belief.

He said New Zealand's bishops had consented to the statue's tour of this country.

The tour is a private initiative.

The Virgin Mary is said to have appeared first to children at Fatima in 1917, and then to a large crowd.

Since then the Portuguese village named after a Moorish princess has become one of the most important Catholic shrines.

Numerous cures have been

reported as thousands of pilgrims yearly visit Fatima's hospitals, retreat houses, basilica and chapel.

The Church officially accepted the Fatima visions in 1930.

At Fatima, Mary is said to have predicted the imminent end of the First World War and to have told of a second global conflict.

Mr Ross said Catholics had always venerated images of Mary.

The Church in New Zealand hoped the tour would boost faith.

The statue can be seen at St Anne's, Newtown, St Mary of the Angels, Wellington and Holy Family Church in Porirua today, Friday and Saturday respectively.

There will be talks about it in each church.

It will leave Wellington on Sunday.

Paying his debts - 1350 years later

A 50-year-old teacher, who allegedly had an affair with a 14-year-old student, told a judge he was repaying the girl for saving his life when he was a seventh-century Buddhist monk. Roger Katz, a former Santa Fe junior high school teacher, told the judge that he knew the student in 640AD when he was a teenage monk in Tibet and she was a mature woman. Katz said the woman saved his life by taking an arrow in the chest fired at him by a horseman from a rival religion. Katz said he had to repay the "debt of love and devotion". - *Reuter Evening Post 13 MAY 97*

Waiting-for-aliens group here

EVENING POST 5 JUN 97

By TOM CARDY

An American-based group which believes a large fleet of flying saucers will visit Earth in 2001 has set up its New Zealand branch in Wellington.

The Unarius Academy of Sciences was registered as a charitable trust six months ago.

New Zealander David Cole, the group's New Zealand co-ordinator, aims to open an "educational foundation" in central Wellington by the end of this year for people to learn more about Unarius.

The group, founded in 1954, believes a giant spaceship will land in 2001 near the Bermuda Triangle - an area in the Caribbean Sea where some people claim ships and aircraft have disappeared.

After tapping into a hidden energy tower in the mythical sunken

city of Atlantis, the group believes aliens from the ship will invite Earth to become the 33rd member of an interplanetary confederation.

Mr Cole said a further 32 ships - one from each confederation planet - would converge on southern California and stack themselves up into a gigantic tower.

The group also believes many people have had past lives on other planets and other levels of existence.

"That's the key factor missing in today's society - the science of reincarnation," Mr Cole said.

He said there were no similarities between Unarius and the US-based Heaven's Gate cult. In March, 39 Heaven's Gate cult members killed themselves, believing they'd join a spaceship following comet Hale-Bopp.

"They jumped ship and missed the party," Mr Cole said. "Unarius

is neither a religion nor a cult. Nor is it similar to any other science, or philosophy. Unarius is an educational foundation introducing Earth people to the science of astral and celestial worlds."

Unarius claims about 500,000 people worldwide are studying its "science", including about 200 in New Zealand. Mr Cole said he was used to some people being sceptical, but the popularity of UFOs and aliens in the news, films and television during the past few years had fuelled interest in Unarius.

"People are calling up in droves, with *The X-Files* [TV drama] and all that. They are all wanting to know."

For the rest of us, we have to wait only another four years. "People will then realise that material objects are a lot less important," Mr Cole said. "People will also realise we can visit other planets."

Sex with aliens erotic, says star

DOMINION 16 MAY 97

X-FILES television star Gillian Anderson, recently voted sexiest woman on the planet, reckons there is something erotic about having sex with aliens.

"There is something very provocative about the concept of having intimate relations with something that is not human," Anderson said.

"There are stories about gods coming, beings coming and seducing us. There's something very erotic about that," she told the newspaper *Melody Maker*.

She said *Dracula* was also appealing.

She is in Britain to promote her first single, *Extremis*, with Liverpool band Hal. - PA

Holy Torture

Jim Ring

Jim Ring continues his investigations into the Fijian paranormal scene.

I HAVE previously examined supernatural claims from Fiji [see *NZ Skeptic* 26 & 35]. Twenty odd years ago a friend described the fire-walking he had seen there (he was very impressed), but he had also heard that with sufficient faith, religious devotees could immerse their hands and arms in boiling oil. This seemed both incredible and inexplicable.

Last year in Fiji I acquired a book which sheds considerable light on the mystery. This is *Holy Torture in Fiji* published by The South Pacific Social Sciences Federation (1974). It is a joint effort involving five authors and a photographer. The section of most interest was written in 1970 by Muneshwar Sahadeo (who went through the ceremonies) and Sister Mary Stella, a nun, (who observed them).

An annual festival to worship the goddess Durga was celebrated in Suva. In 1969 a new priest, Ram Nath from Northern India took over and included examples of what the book calls "Holy Torture". This involved flogging or whipping, walking or dancing on blades, tongue piercing (and piercing of other parts of the body), and taking a sort of dumpling out of boiling ghee using a bare hand. Ram Nath deliberately wanted to exclude fire-walking as it is a religious rite from Southern India and it is also associated with tourism.

This is a curious book. Its publication was undertaken by an academic who must have read the description of Ram Nath's ceremony and then arranged for two more observers to describe a fire-walking ritual from another temple. In 1971 he observed Ram Nath's ceremony himself and later, in 1972, he arranged for a professional photographer to attend the ceremonies. Thus the book is illustrated with some excellent photographs, many in colour, so it is possible to compare the description in the text with a picture of what may really have occurred. Finally he (Professor Ron Crocombe) attempts an explanation without resorting to the supernatural. He largely succeeds, except for the "bare hands in boiling ghee" which (if the text is to be believed) completely defies rational explanation.

Most of the ceremony took place in daylight. But the important part (from the skeptic's viewpoint) took place after dark in the light of a pressure lamp. According to the text, ghee (butter oil) was heated to boiling point (measured at 130°C with a thermometer) and gulagulas were cooked in it. These are described as "like doughnuts", but "dumplings" might be a better description. When the gulagulas were cooked the priest plunged his hand into the boiling ghee and lifted several out. Then he took the hand of each participant in

turn, plunging it into the boiling oil. Later each participant lifted a cooked gulagula out by himself.

One of the authors (Muneshwar Sahadeo) was a participant and he (and all the others in the ceremony) reported feeling only a pleasant warmth when his hand was in the boiling ghee. The cooked gulagulas were then handed to the audience who "found them hot and extremely difficult to hold".

If all this were true it would seem we have a genuine miracle. But we do not have to rely on the text. Would it not be great if there was always a professional photographer to record miracles? The really amazing thing about this book is that the authors do not seem to have looked at the photographs. Indeed, they were taken after the accounts were written. But Crocombe must surely have seen them and, if so, we have clear evidence that he is capable of ignoring the evidence of his own eyes.

Crocombe's summary does cast doubt on several points in the primary account. When he attended the ceremony in 1971 he received a gulagula from the priest and reported that it was "very hot but not unbearably so". Furthermore, all the gulagulas examined were undercooked.

So, what can we make of this? Firstly, the ghee was not boiling; 130°C, though hot enough to injure human flesh, is too low a tempera-



The give-away photo.
Ram Nath's hand is clearly *not* in the boiling ghee.

ture. The gulagulas were floating and bubbling but the bubbles were water vapour, not oil. This is always the case when food (potatoes for example) is cooked in hot oil. As they were floating, they could be removed from the oil without immersing any part of the hand or fingers, while Crocombe tells us that they were not hot enough to damage human tissue. One of the photos shows a participant removing a gulagula by sliding it up the gentle slope of a wok. This is rather like the old Christmas game of snapdragon where raisins are

plucked from burning brandy.

The clincher comes from two photos of Ram Nath and their caption. This states: "Ram Nath puts his right hand in the boiling ghee. ...Ram Nath kept his hands totally immersed and stirring the bottom of the pan for five to seven seconds at a time."

But the pictures show nothing of the sort. In one he is taking hold of a gulagula while carefully avoiding the ghee. While in the other he is apparently waving his hand above the surface of the oil.

So how could the audience (who are shown watching closely) be so easily fooled? Well, the only lighting is from an oil pressure lamp, which throws a good light but casts sharp shadows. In the first picture the priest holds the lamp high so all can see (when nothing miraculous is going on). But for the second, when the "miracle" is taking place, he has placed it down on the ground so that the oil surface is in shadow. However, the photographer has used a flash so we can see much more than the audience could. The priest's hand and the oil surface are not in shadow to the flash but well illuminated, and he is performing an illusion. I presume, like all good illusionists, he told the audience what they were seeing (or rather what they were supposed to see).

I cannot explain how the priest convinced Muneshwar Sahadeo that his hand was immersed in boiling ghee, but then Muneshwar Sahadeo does not tell us what convinced him. However the photographs, taken two years later, clearly show an illusionist at work. One could argue of course that when Muneshwar Sahadeo and Sister Mary Stella watched the ceremony in 1970 the priest was working genuine miracles, whilst by 1972 with the photographer present his powers had waned and he had to resort to trickery. Such unfalsifiable hypotheses have no place in science, and skeptics demand far better evidence before they can accept such phenomena as miraculous.

Jim Ring is a former chemistry teacher who now concentrates on his fishing.

BOOK REVIEW

The Demon-Haunted World: Science as a candle in the dark, by Carl Sagan.
Headline, \$29.95.
Reviewed by David Riddell

In 1656 Thomas Ady, in his book *A Candle in the Dark*, was one of the first to speak out against the witch mania which had engulfed Europe. This was at a time when any illness or storm, or anything out of the ordinary, was put down to the influence of witches. If there were no witches, the witch-hunters reasoned, how else could these things happen?

When the world seemed mysterious and terrifying, belief in witchcraft seemed to make some sense of events. Few had Ady's courage to question the conventional wisdom — those challenging the witch-hunters ran the risk of being accused themselves. (An earlier whistle-blower, Friedrich von Spee, was perhaps lucky to die of plague before he could be punished for writing his *Precautions for Prosecutors* in 1631). But, as Sagan argues, questioning of conventional wisdom is precisely what is needed if society is to remain free and not return to the days of the Inquisition. We need to be open to new ideas, he says, and absolutely scrupulous about standards of evidence.

Sagan argues persuasively that this approach, essentially that of science, is necessary for the maintenance of a free and democratic society. But for many, impatience with science's insistence on evidence is growing. And when pet theories

lack scientific support, pseudosciences develop. Sagan devotes almost half the book to an account of the pseudoscience he knows best, the field of alien visitations, explaining why scientists remain unconvinced that UFOs are alien spacecraft, and why those claiming to have been abducted by aliens probably haven't been.

In fact, the alien abduction phenomenon seems to have close parallels with the mediaeval witch mania. The "demons" of those times, who consorted with the witches and led them into all manners of wickedness supposedly lived in the sky, were sexually obsessed, telepathic, and walked through walls, much as aliens are supposed to do. If it seems inconceivable that so many otherwise normal people could believe in alien visitors when none exist, it is worth remembering earlier beliefs concerning demons.

Of course, some maintain the aliens have always been here, but were not recognised as such and taken for demons. But why, asks Sa-

gan, were there virtually no reports of flying saucers before 1947? Why were warnings about the dangers of high technology (so often a feature of abduction stories today) not given earlier when there might have been some chance of stemming the technological tide? Why have the genetic experiments apparently continued for centuries? Surely the aliens must have achieved their objectives, whatever they are, by now? No, more likely the stories of demons and aliens (and, for that matter, fairies and apparitions of the Virgin) seem to be expressions of an underlying psychological phenomenon rather than reflecting any external reality.

The Demon Haunted World is a book every skeptic should read. Besides providing perhaps the best critique of the alien visitation phenomenon so far, it sets out very clearly the philosophical underpinnings of skepticism and its relevance for society. Sagan's final book is a fitting memorial to one of science's greatest communicators.

Scientology offers web site \$12 million to close!

Scientology recently offered \$12 million to FACTNet, an Internet library providing information on the dangers of mind control and cults, including information critical of Scientology. FACTNet's directors turned down Scientology's proposal, because it contained terms they considered unacceptable.

Among the long list of terms were closing FACTNet, turning over its databases to Scientology, terminating the current Scientology vs. FACTNet litigation (initiated by Scientology), and lifetime personal restrictions on the directors, such as never again criticising Scientology. FACTNet took the offer as a sign of continued success in providing much-needed information to the world about free thought, free speech, and the realm of mind control, cults, and Scientology.

More details at <http://www.factnet.org/Scientology/settlement.htm>

FORUM

WE WERE skeptical. We demanded you respond to our clarion call for pithy pieces — but only a few of you pithed on us. For this we are grateful and we have sent suitable telepathic gifts to all of you, for which you should be grateful.

But seriously, a couple of readers have queried our policy on the format of submissions which they've interpreted as meaning we don't accept handwritten copy. Wrong. Our eyesight is sometimes challenged by the individualistic handwriting styles we sometimes see, so we prefer typed or disc-supplied copy because we can then guarantee accuracy. But above all, we encourage you enthusiastically to send interesting forum pieces in whatever format you have available. The only criteria we use in selecting pieces for the forum is their value and interest to readers. The writer of the best piece published in the next issue will receive the definitive volume on proven homeopathic remedies.

The perils of over-eating

I write in response to your written insistence, in the Winter 1997 issue, that readers prove you to be right about certain matters.

I have been carrying out some research into the causes of heart failure. Statistical analysis reveals that in over 95% of cases of people suffering heart attacks, the persons involved had had some food intake during the previous 24 hours.

I wouldn't eat if I were you.

Norman Lewis

Timaru — What's happening?

I would like to broach the matter of the proposed School of Education in Timaru in the odd non-scientific subject of naturopathy. From the media, I have noted that they intend to employ persons to "teach" subjects such as iridology, osteopathy, and homeopathy.

I feel very strongly about this matter, and I believe that we have not been vocal enough about how a skeptic should feel about the proposed issuing of degrees in such a non-scientific or pseudo-scientific subject as iridology. As a matter of interest I heard an advertisement over the local easy-listening music station 95.4 FM pushing "trained Ukrainian specialists in iridology at a naturopath school and pharmacy." I wrote them off my own bat and under my own name and received a very sympathetic reply from the manager of the radio station whom I've known for many many years as I know most people in the media of any significance, or at least they know me.

The bottom line is, what is our committee going to do about putting the members down on that proposed school, as the very thought of people wandering about with degrees in iridology turns my stomach. Could you please move our joint forces and bring pressure to bear on the NZQA and also release to the media our

thoughts on such an idiotic project.

Jack Urlwin

When we awarded NZQA the Bent Spoon in 1996 we said that:

"By dithering [for two years in deciding whether to grant the degree status] not only has NZQA shown itself incapable of distinguishing between science and pseudo-science, but it has also severely disadvantaged those students who took up what they thought was going to be a degree course."

We pointed out to Paul Holmes, when he took up the plight of the students, that the Skeptics were the first group to note the shabby treatment of the students, and added that the Polytechnic was negligent in not recognising the potential problem with the application and seeking a more suitable status for the course.

The degree status was declined earlier this year; the sorry affair has done nothing for the educational reputation of polytechnics.

Doman Defended

Although I have never referred patients to the Institutes or been otherwise involved, I was interested enough to read Doman's books, attend a lecture course, and sit in on clinical sessions. I consider myself to have been an informed observer and I give Doman credit for insight, dedication, and pioneering work in the rehabilitation of brain-injured children.

It doesn't make sense to say that the method was "subjected to controlled trials and found to be of no value," and on the next page, "most of the studies

had significant flaws and (although) some were fairly well designed none were perfect."

Who "found it to be of no value"? Which "medical community" arrived at consensus? Does this community, whose members, Novella says, "are, at their heart, practical individuals", and which employs "many mainstream interventions that lack a fully understood theoretical basis", have a whip hand over "scientific consensus"? It can equally be argued that Doman shook the medical world out of a state of clinical apathy, and for that reason had to be put down.

Patterning is at once passive, the child is moved — and active, a frame of interaction between physicians, parents and patient. Growth, healing and rehabilitation come only from within, but if it gives the child an opportunity to experience, and seize upon any occasion or avenue for advancement, that is enough. Novella himself says, "Some of the studies did show improvement in motor skills or visuo-spatial skills over controls", though he captions the statement "Blind Alley" and qualifies the improvement as modest. In other words, there is fire there but he pours cold water on it.

The article gives a good bibliography and presents a case to answer, but I wish it wouldn't try to coast home on pontifical statements and reference to "scientific consensus" which has no more convinced stability than the weather.

Stephen W Taylor MbChB

Strange Worlds

Bernard Howard

I have just visited another universe; it seems a much more interesting place than the dull old world we are forced to inhabit.

"What is it like?" you ask eagerly, "and how did you get there?" "Simple," I reply, "I just walked into Whitcoulls, paid \$5.95, and there it was, between the covers of the magazine called *Nexus*."

"And what is so special about the *Nexus* world?"

Well, for a start, the laws of thermodynamics are very different. That tiresome thing about conservation of energy, and the impossibility of perpetual motion machines, does not hold here. Carl Cella, of California, gives detailed drawings for a water-fuelled car. Throw away the petrol tank and replace it with a plastic water container, connect a 12-volt battery across the pipe carrying the water, and hey presto, electrolysis splits it into hydrogen and oxygen, the former offering a clean-burning fuel to drive the vehicle. By fitting a condenser in the exhaust, you can collect the water formed by combustion of the hydrogen in the engine, and so need hardly ever top up the fuel tank, even though the fuel is free anyway! So much handier than here on dreary old Earth, where the energy obtained by burning the hydrogen must always be less than that expended in producing it from water in the first place.

All this for less than \$6! But there's more. Medical doctors in Nexusland are very different from our doctors. Here, pathologists and other experts are fairly unanimous in deriding as a clumsy fake the supposed "autopsy" on the creature said to be from the crash site in Roswell, New Mexico. *Nexus* medics find it genuine, and discuss learnedly whether the operator was a pathologist or a surgeon.

In this world, evaluation of the results of remote viewing experiments has been equivocal; in Nexusland remote viewing (RV) is well established, and, more spookily, they also have remote mind-control technology. Just think how useful RV was to our hunter-gatherer ancestors, and what a pity that the "psi-gene" which endowed them with this faculty was bred out of the human race when all those poor women were burnt at the stake.

Did you think alchemy, the search for the elixir of life and the philosopher's stone was dead these many centuries, buried by chemical science? Not in *Nexus* world; here, they have discovered a wonderful substance, at the same time an electrical superconductor and a cure for cancer and Aids. What more could twentieth century humanity wish for? Watch for the name of the discoverer, David Hudson, in the next list of Nobel Laureates (but don't hold your breath).

Enough, enough of these marvels, though *Nexus* has more (pyramidology, cerealogy, etc). Back to our humdrum life on Earth, and the continuing struggle of the skeptic against nonsense.

Reference: *Nexus*, vol.3, no. 6; Oct/Nov 1996

Beer And Skittles

John Riddell spends a lot of time in the pub. Ask his wife. Often, over a pint or two, some bloke or blokes spouts forth some new age dogma which naturally requires correction.. Now a seasoned debater, he this month begins a regular series sharing his collection of responses honed to the mental capabilities of your average bar-room intellectual.

HAVE YOU ever been at a party and someone who knows you are a skeptic says "All right, what about such and such?" It's always after you've just finished a bottle of Chardonnay, and your reasoning powers leave a lot to be desired. If you tried to lucidly explain why their favourite superstition is a load of doggy doo, they would get bored after the first sentence. What you need is a good one-liner.

One of my pet hates at the moment is homeopathy. The next time someone offers you a homeopathic remedy to help dilate your cervix, say "No thanks, I like my drugs to have some active ingredient in them."

Or simply ask "What concentration is it?"

Why ask this? Well a lot of people don't realise that homeopathic remedies are made by diluting some horribly toxic substance like syphilitic pus until there is none of it left. If you are diluting with water, all you end up with is water. If you are diluting with lactose, you end up with a pill made from lactose.

Good homeopaths are too smart to put the concentration of the active ingredient in grams per litre. After all, "Active ingredient = 0.0000 g/l" might give the game away. Instead they use units that nobody understands. They don't say they are diluting the active ingredient, Homeopaths talk about po-

tentising. On the label you might see something like "Potency = 30X" or "Potency = 20C".

30X and 20C are common homeopathic dilutions. The X and the C are Roman numerals, as in X = 10 and C = 100. 30X means a 1 to 10 dilution repeated 30 times. 20C means a 1 to 100 dilution repeated 20 times.

In case you don't realise, this is very dilute. 30X is the equivalent of 1 part in 10^{30} (that is, 1 part in 1,000,000,000,000,000,000,000,000,000,000). Now if a 200ml glass of water has 6.69×10^{24} molecules of H_2O (that is, 6,690,000,000,000,000,000,000,000).

This means you will get one molecule of active ingredient in every 149,427 glasses of 30X homeopathic remedy. Of course, 20C is even worse. To get one molecule of active ingredient you would have to drink 1,494,271,958,000,000 glasses of remedy. If you have trouble comprehending this number, look at it this way. If you drank one glass every second you would get one molecule of active ingredient about every 47 million years.

Hopefully these numbers put homeopathic dilutions into perspective. Homeopaths claim that the water somehow remembers the active ingredient. and passes this memory on to your body, effecting a cure. I wonder what else it remem-

bers. Imagine two water molecules at a party. "Do you remember the time we were in that raindrop that landed on Cleopatra?"

Actually, there was a French trial in 1988 (funded by a homeopathic company) that claimed to have found evidence for water with a memory, but they only got the "right" results when a particular research technician was looking down the microscope.

Why do so many people think that homeopathy works? For the same reason that people thought the Earth was flat. Things that appear obviously true, often are not.

You don't need water with memory to explain people's belief in homeopathy. The three main reasons are the placebo effect, the experimenter effect, and "Post Hoc Ergo Propter Hoc".

The Placebo effect is reasonably well known but perhaps underestimated. A person who believes they are being treated will recover faster than someone who doesn't think they are being treated, even if the treatment is worthless.

"Ah", says the homeopath, "but what about when you treat small babies or animals?"

That's what we call the Experimenter effect. The experimenter's expectations affect his interpretation of the progress of the patient.

Scientists use a "Double Blind" to prevent either of these effects influencing their results. The patient is "blind" as they do not know if they are receiving the treatment or the control. The experimenter effect is eliminated by not allowing the person who interprets the progress of the patients to know who had the treatment and who had the placebo. The experimenter is therefore "blind."

"Post Hoc Ergo Propter Hoc" is Latin for "After this, therefore because of this."

Everyone who uses homeopathy has a tale of "I was really sick with (insert the disease of your choice), I went to the homeopath. He

gave me some stuff and I got better."

Just last week I went to the doctor with what I was sure was a broken leg. (A cow had tried to lie on me.) The doctor looked at the x-ray and told me to go home. It might be a bruised bone but it will get better by itself. 24 hours later I was feeling much better. No medicine, no physio, nothing.

Now I could have gone to a homeopath and got a super bone fixing remedy. It would have been natural to have concluded my recovery was because of the remedy. It would also have been wrong.

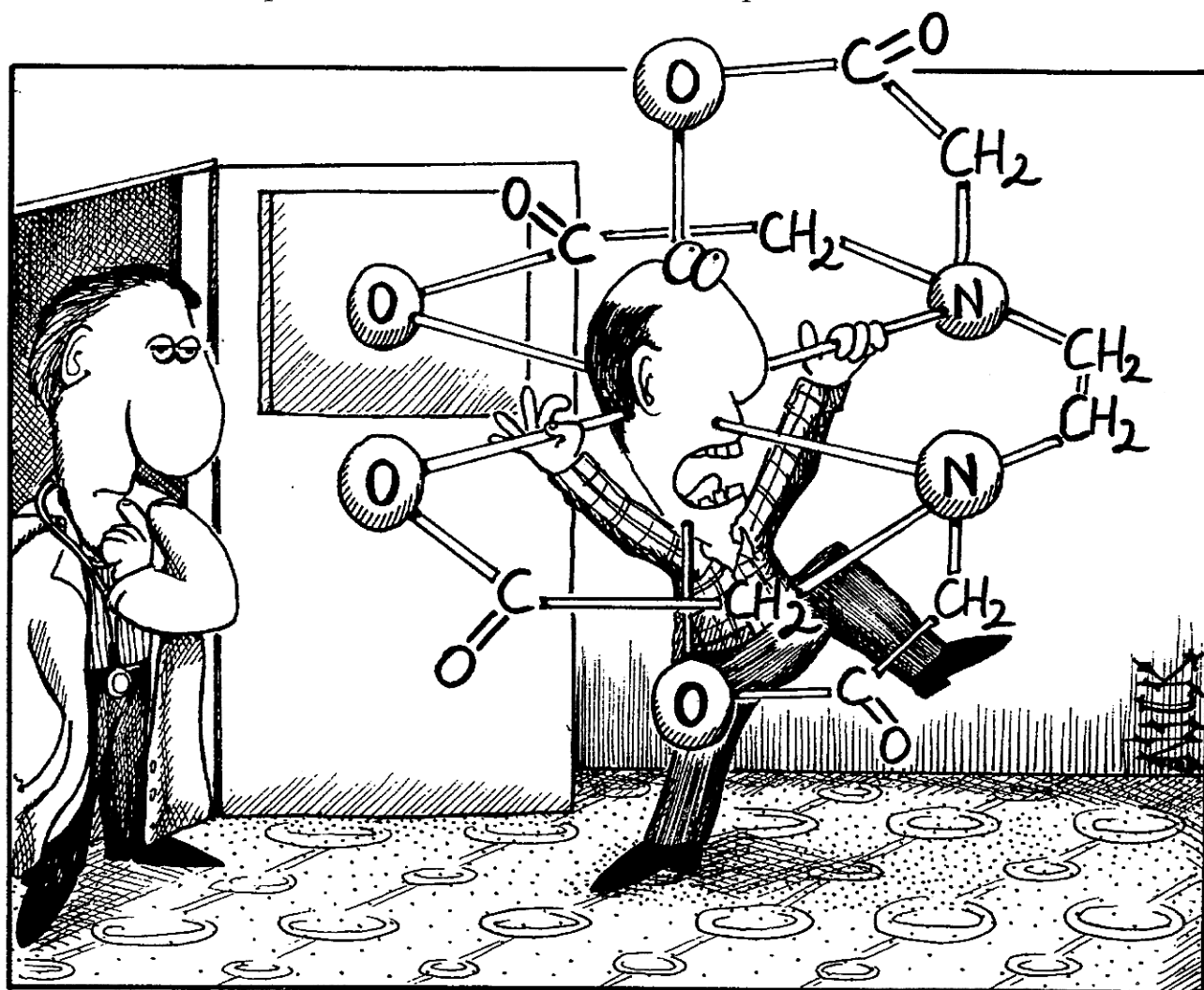
Why do the scientists at the big drug companies go to the trouble of these expen-

sive controlled trials, when they could just take the drug home and try it out on the kids?

Last time I looked there had been 25 carefully controlled double blind trials looking at homeopathy and none of them had detected any pharmacological effect. There are of course many trials that have detected benefit, but these same trials have all been criticised for poor methodology. Their experimental methods didn't eliminate the placebo or experimenter effects.

Homeopathic remedies work well if you're not sick to begin with or if you were getting better anyway. If I'm sick I go to the Doctor.

John Riddell



When chelation therapy goes wrong.

If undelivered, return to:

Prof Bernard Howard
150 Dyers Pass Rd
Christchurch 2

POSTAGE PAID
Christchurch, NZ.
Permit No. 3357

Get Your Auras Here!

A number of people attending the recent conference failed to recognise their auras and left the vital evidence of their highly aurific state behind. (ie there were some Kirlian photographs that weren't collected from the noticeboard).

If you recall your number (or have the numbered slip in your conference mementoes), let us know and we'll dispatch your very own aura photo forthwith.



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