

# LEAD Action NEWS

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The newsletter of The LEAD (Lead Education and Abatement Design) Group Inc.

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Editor-in-chief: Elizabeth O'Brien and Web Developer: Malveek Kaur Dhaliwal

## Lead Safe Solutions to Brass Taps and Ceiling Dust Vote for your favourite Volcano Art Prize 2017 entries & order your Lead Safe World Poster today!

An excellent action you can take for the fifth International Lead Poisoning Prevention Week of Action (22<sup>nd</sup>-28<sup>th</sup> October 2017) is to order a Lead Safe World Poster at [www.leadsafeworld.com/shop](http://www.leadsafeworld.com/shop) and have it displayed at your GP or vet clinic, childcare centre, school, university, workplace, gun club or at home 'cos you like the picture! Any VAP Entry can be made into a poster! Choose from the entries from VAP 2017 at <http://volcanoartprize.com/peoples-choice/> and following pages or from VAP 2012 to 2016 at <http://volcanoartprize.com/vap-archive/> and the following webpages.

<p>Test for lead and other heavy metals using a LEAD Group Kit on water and soil to save nature's beautiful creatures. <a href="http://www.leadsafeworld.com/shop">www.leadsafeworld.com/shop</a></p>  <p>THE LEAD GROUP INCORPORATED ABN 25 819 463 114</p> <p>1800 626 086 <a href="http://www.lead.org.au">www.lead.org.au</a></p>	<p>Test for lead and other heavy metals using a LEAD Group Kit to preserve the oceans and aquatic animals. <a href="http://www.leadsafeworld.com/shop">www.leadsafeworld.com/shop</a></p>  <p>THE LEAD GROUP INCORPORATED ABN 25 819 463 114</p> <p>1800 626 086 <a href="http://www.lead.org.au">www.lead.org.au</a></p>	<p>Cattle have been lead poisoned when they lick old lead paint. Buy a LEAD Group Kit today to keep them safe. <a href="http://www.leadsafeworld.com/shop">www.leadsafeworld.com/shop</a></p>  <p>THE LEAD GROUP INCORPORATED ABN 25 819 463 114</p> <p>1800 626 086 <a href="http://www.lead.org.au">www.lead.org.au</a></p>	<p>Use a test kit from The LEAD Group when renovating pre 1997 houses as the paint still has lead! <a href="http://www.leadsafeworld.com/shop">www.leadsafeworld.com/shop</a></p>  <p>THE LEAD GROUP INCORPORATED ABN 25 819 463 114</p> <p>1800 626 086 <a href="http://www.lead.org.au">www.lead.org.au</a></p>
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These Lead-Safety Poster URLs:

- Keep Oceans free from Lead. <http://volcanoartprize.com/portfolio-item/penguin-in-wild/>
- To preserve nature's pristine beaches and the colourful fishes, don't discard leaded items into the ocean. Being lead free adds years to one's life.  
<http://volcanoartprize.com/portfolio-item/champagne-beach-vanuatu/>
- Van Gogh painted when there was high lead levels in paint. When renovating pre 1997 houses be aware that lead is still in the paint! <http://volcanoartprize.com/portfolio-item/van-gogh-painted-when-there-was-high-lead-levels-in-paint/>
- Cattle have been lead poisoned when they lick old lead paint. It has a sweet metallic taste. Make sure to restrict access. <http://volcanoartprize.com/portfolio-item/cattle/>

If you'd like to order any entry from VAP 2017 (or earlier VAPs) to be made into a colour A3 laminated Lead Safe World Poster, please order and pay \$15 at



[www.lead safeworld.com/shop](http://www.lead safeworld.com/shop) and then copy the URL for the entry so you can paste it into the Order Notes section at Checkout. The Poster will make an excellent gift for family, friends to take to their GP or vet clinic, school, childcare centre, etc.

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## Editorial

*By Elizabeth O'Brien, The LEAD Group Inc, Australia*

We're very proud to present here some of the 68 entries in Volcano Art Prize (VAP) 2017.

This year, 2017, marks the 6<sup>th</sup> year of Volcano Art Prize and this issue contains all the entries which have not been awarded prizes by the art judge Wayne Askew. So they need your help by voting for them at <http://volcanoartprize.com/peoples-choice/> and following pages, so that one of them can win the people's choice cash prize.

The LEAD Group was involved in writing two submissions (submitted 1st September 2017 and then illustrated and published in this issue) to the Australian government, promoting only lead-free flashing (zero lead) on new roofs and lead-free (zero lead) solder in all water plumbing systems, and that an online searchable National Register of Tap Water Lead Results be set up, and populated with data by testing first flush and flushed samples for every newly installed tap (faucet) or plumbing system. Data in The LEAD Group's proposed Register would be analysed and reported on quarterly to look for trends such as higher lead levels in soft water areas or where particular types of plumbing products such as brass taps, and particular brands of plumbing products are adding lead to the water. Action would follow to ensure the trend of Tap Water Lead Results was towards zero (non-detectable) lead being added to water by plumbing.

Because the American Academy of Pediatrics (AAP) 2016 policy statement on lead calls for 1 part per billion as the lead limit in school drinking water fountains, in this issue we have reprinted *With No Amount of Lead Exposure Safe for Children, American Academy of Pediatrics Calls For Stricter Regulations* (AAP media release of 20 June 2016).

And we are pleased to be web publishing some important articles on ceiling dust which can no longer be found easily online.

Finally in this issue, to mark Evan Whitton's entry into the Australian Press Club Hall of Fame, we continue the series of articles by Evan Whitton which began with "Changes to our corrupt legal system could result in more funding for crime prevention" (<http://www.lead.org.au/lanv16n4/lanv16n4-10.html>) in *LEAD Action News* Vol 16 No 4 and "Lead affects the brain; the legal trade affects the pocket" (<http://www.lead.org.au/lanv17n4/lanv17n4-11.html>) in *LEAD Action News* Vol 17 No 4.

This issue contains Extracts (in English and French) from Evan Whitton's 2009 book: "Our Corrupt Legal System - Why Everyone is a Victim" – the whole book (in English) is available at <http://netk.net.au/Whitton/OCLS.pdf> for free download.





## 2017 Volcano Art Prize (VAP) Entries

Please vote at <http://volcanoartprize.com/peoples-choice/> and following pages for all your favourite VAP 2017 entries. The entry with the most votes wins the people's choice cash prize.



Artist: Sophie Kilburn

Title: Van Gogh painted when there was high lead levels in paint

Lead-Safety Message: When renovating pre 1997 houses be aware that lead is still in the paint!

Description of Work: Painting

Age: 9

<http://volcanoartprize.com/portfolio-item/van-gogh-painted-when-there-was-high-lead-levels-in-paint/>



Artist: Ian Kilburn

Title: Cattle

Lead-Safety Message: Cattle have been lead poisoned when they lick old lead paint. It has a sweet metallic taste. Make sure to restrict access.

Description of Work: iPhone Photograph

<http://volcanoartprize.com/portfolio-item/cattle/>



Artists: Elizabeth O'Brien (photo & sound recording) and Malveek Kaur Dhaliwal (editor)

Title: Roosters crowing among the dawn chorus.

Lead-safety Message: If you eat home-grown chook/duck eggs, test an egg for lead from each of the hens that are currently laying. In Oz/NZ, this lab test can be done via a LEAD Group Kit.





Description: Pano filmed & soundtrack recorded on iPhone 4S  
<http://volcanoartprize.com/portfolio-item/roosters-crowing-among-the-dawn-chorus/>

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Artist: Celeste Chen  
School Name: Creative Einstein Education (tutoring school)  
Title: Unicorn  
Lead-Safety Message: Unicorn using its magic to get rid of lead.  
Age: 9  
Description of Work: Drawing  
<http://volcanoartprize.com/portfolio-item/unicorn/>

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Artist: Harrison Desmond (2 of 2)  
Title: Harry just enjoying some 1am sunshine near Akureyri Iceland.  
Lead-safety Message: The downward slope on this hillside is exactly what you want your blood lead graph to do!  
Entry: Description: iPhone photo  
<http://volcanoartprize.com/portfolio-item/harry-just-enjoying-some-1am-sunshine-near-akureyri-iceland/>

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Artist: Mark Ju (1of 8)  
School Name: Creative Einstein Education  
Title: Worms  
Lead-Safety Message: Keep the soil lead free. So the worms won't ingest lead contaminated food.  
Description of Work: Colour pencil  
Age: 11  
<http://volcanoartprize.com/portfolio-item/Worms/>

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Artist: Mark Ju (2 of 8)  
School Name: Creative Einstein Education  
Title: Christmas  
Lead-Safety Message: The best gift one can have is a lead safe world to live in  
Description of Work: Colour pencil  
Age: 11  
<http://volcanoartprize.com/portfolio-item/Christmas/>

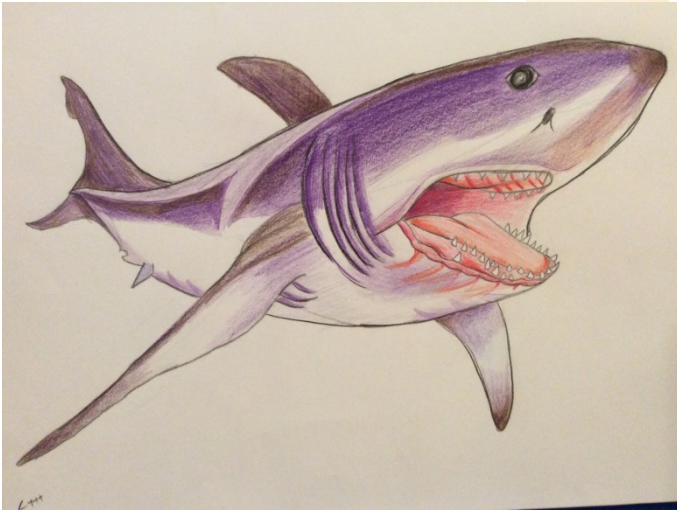


Artist: Mark Ju (4 of 8)  
School Name: Creative Einstein Education  
Title: Butterfly  
Lead-Safety Message: Let the butterflies fly freely in the lead free environment.  
Description of Work: Colour pencil  
Age: 11  
<http://volcanoartprize.com/portfolio-item/Butterfly/>



Artist: Mark Ju (5 of 8)  
School Name: Creative Einstein Education  
Title: Blue Bird  
Lead-Safety Message: Preserve the water species by keeping the water lead free.  
Description of Work: Colour pencil  
Age: 11  
<http://volcanoartprize.com/portfolio-item/Blue Bird/>





Artist: Mark Ju (6 of 8)  
School Name: Creative Einstein  
Education  
Title: Shark  
Lead-Safety Message: Even the wild creatures deserve lead free ocean.  
Description of Work: Colour pencil  
Age: 11  
<http://volcanoartprize.com/portfolio-item/shark/>



Artist: Gabrielle Lee  
School Name: Creative Einstein  
Education  
Title: Red Fish  
Lead-Safety Message: Protect fishes from lead poisoning  
Description of Work: Colour pencil  
Age: 13  
<http://volcanoartprize.com/portfolio-item/red-fish/>



Artist: Li-Ke Shi (2 of 3)  
School Name: Creative Einstein  
Education  
Title: Fish  
Lead-Safety Message: Avoid lead to save the pretty fishes in the ocean  
Description of Work: Artwork  
Age: 10  
<http://volcanoartprize.com/portfolio-item/fish-3/>





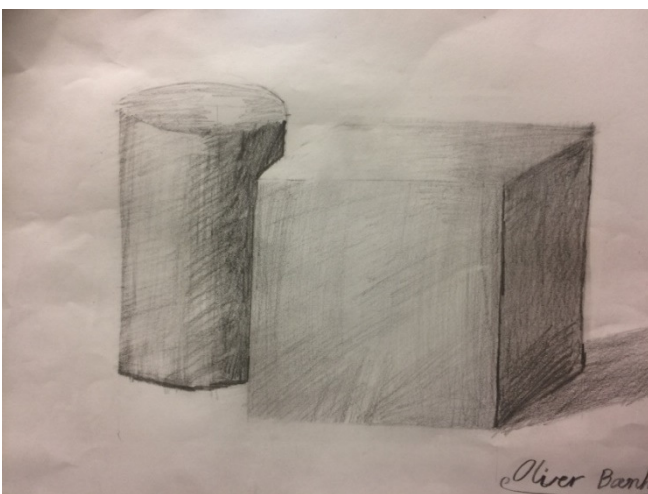
Artist: Celeste Chen (2of 3)  
School Name: Creative Einstein Education  
Title: Bird  
Lead-Safety Message: Birds can get lead poisoned with what they eat.  
Description of Work: Crayons  
Age: 9  
<http://volcanoartprize.com/portfolio-item/bird/>

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Artist: Celeste Chen (3of 3)  
School Name: Creative Einstein Education  
Title: Peacock  
Lead-Safety Message: Get rid of lead shot from the ground to ensure the survival of majestic peacocks  
Description of Work: Sketch and crayons  
Age: 9  
<http://volcanoartprize.com/portfolio-item/peacock/>

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Artist: Oliver Banh  
School Name: Creative Einstein Education  
Title: Shapes  
Lead-Safety Message: Draw with lead free pencil  
Description of Work: Pencil  
Age: 8  
<http://volcanoartprize.com/portfolio-item/shapes/>

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Artist: Alice Ju (3 of 3)  
School Name: Creative Einstein Education  
Title: Zebra Eye  
Lead-Safety Message: Keep an eye on lead around you.  
<http://volcanoartprize.com/portfolio-item/zebra-eye/>



Artist: Mark Ju (7 of 8)  
School Name: Creative Einstein Education  
Title: Opera House  
Lead-Safety Message: Don't let lead ruin the beauty of Sydney.  
Description of Work: Lego elements  
Age: 10  
<http://volcanoartprize.com/portfolio-item/opera-house-2/>



Artist: Cormac Walsh  
School name: Yeo Park Infants School  
Title: A quick magic spell to teach the world about lead safety  
Lead Safety Message: A quick Spell to teach the world about lead.  
Description of Work: Mom's picture of us making spells.  
Age: 5  
<http://volcanoartprize.com/portfolio-item/a-quick-magic-spell-to-teach-the-world-about-lead-safety/>





Artist: Finnbar Walsh, School name: Yeo Park Infants School

Title: Like a lead balloon

Lead Safety Message: No lead in these balloons (and nowhere near me please).

Description of Work: Us telling bad jokes - they went down like a lead balloon. Lucky no lead in our balloons.

Age: 6

<http://volcanoartprize.com/portfolio-item/like-a-lead-balloon/>



Artist: Ritishaa (2 of 5)

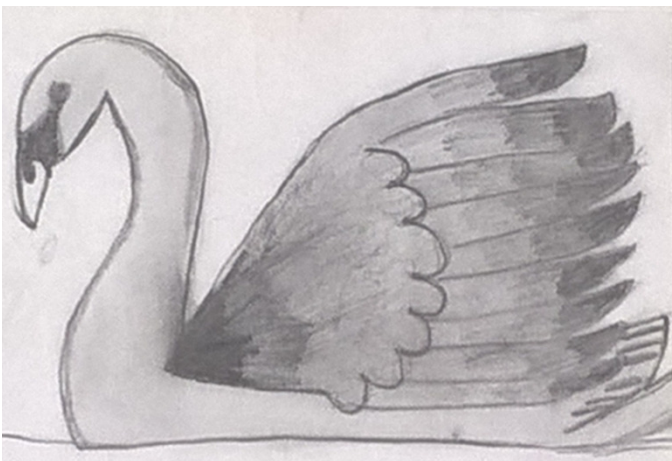
Title: Bushfire Sculpture

Lead Safety Message: Avoid bushfires to avoid release of lead in air, soil and water.

Description of Work: Acrylic Water Paint

Age: 11

<http://volcanoartprize.com/portfolio-item/bushfire-sculpture/>



Artist: Ritishaa (3 of 5)

Title: Swan

Lead Safety Message: Don't pollute water with lead. Let animals live safely.

Description of Work: Pencil

Age 11

<http://volcanoartprize.com/portfolio-item/swan/>

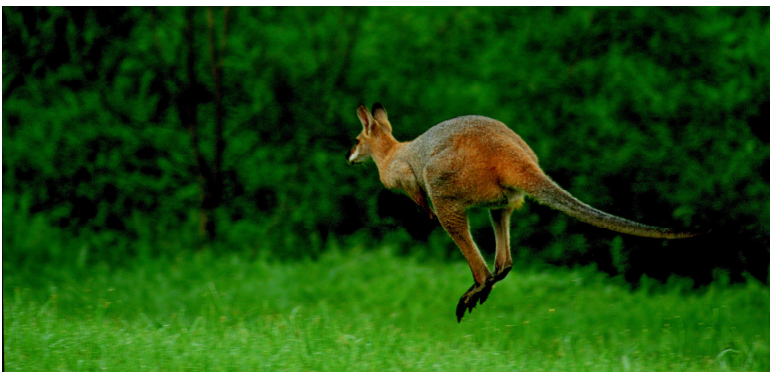




Artist: Ritishaa (4 of 5)  
Title: Penguin in Wild, Lead Safety  
Message: Keep Oceans free from Lead.  
Description of Work: Multicolour Art Paper  
Age: 11  
<http://volcanoartprize.com/portfolio-item/penguin-in-wild/>



Artist: Ritishaa (5 of 5)  
Title: Penguin in Group, Lead Safety  
Message: Keep oceans free from lead. Let marine animals survive.  
Description of Work: Oil Pastel and Washed,  
Age 11  
<http://volcanoartprize.com/portfolio-item/penguin-in-group/>



Artist: Nagesh Bala  
Title: Happy Kanga  
Lead Safety Message: Be lead free for a happy hop  
Description of Work: Digital Photograph

<http://volcanoartprize.com/portfolio-item/happy-kanga/>





Artist: Ankit Patel  
Title: Lead safe world, Lead Safety Message: keep land lead safe  
Description of Work: Photograph  
<http://volcanoartprize.com/portfolio-item/lead-safe-world/>

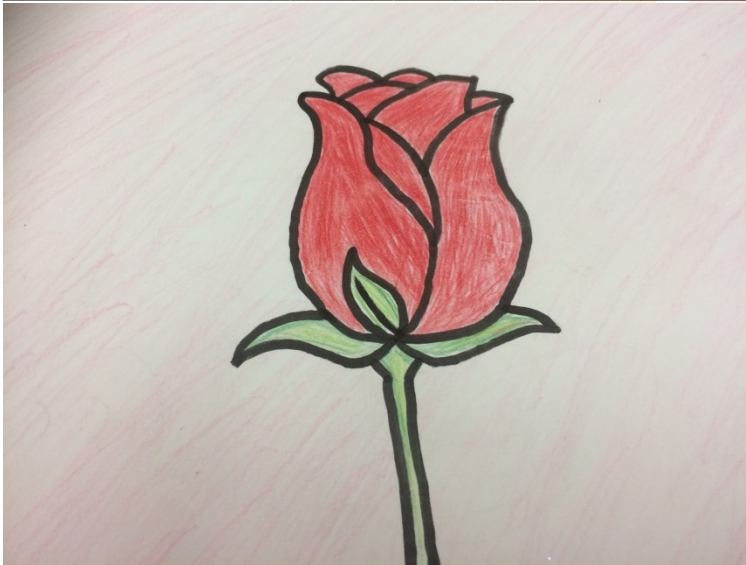


Artist: Ankit Patel  
Title: Lead safe water  
Lead Safety Message: keep water lead safe  
Description of Work: Photograph  
<http://volcanoartprize.com/portfolio-item/lead-safe-water/>



Artist: Ankit Patel  
Title: Keep your family lead safe, Lead Safety Message: You will be happy if you keep your family lead safe  
Description of Work: Photograph  
<http://volcanoartprize.com/portfolio-item/keep-your-family-lead-safe/>





Artist: Cecile Chen (2 of 2)  
School Name: Creative Einstein Education  
Title: Red Rose  
Lead Safety Message: Check the rose in your garden if it is lead free  
Description of Work: Non leaded pencil colour  
Age: 10  
<http://volcanoartprize.com/portfolio-item/red-rose/>

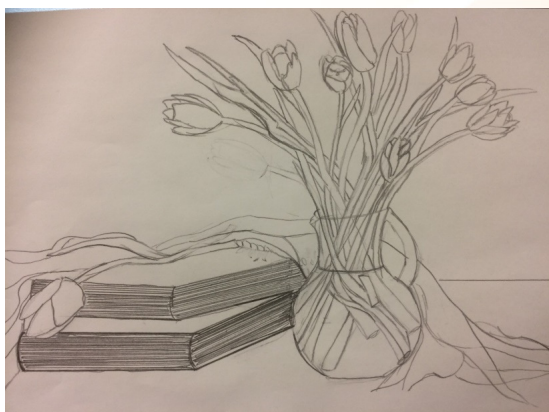


Artist: Sophea Wang (1 of 2)  
School Name: Creative Einstein Education  
Title: Heart  
Lead Safety Message: Protect your heart, Protect yourselves from Lead  
Description of Work: Quilled non toxic coloured paper  
Age: 6  
<http://volcanoartprize.com/portfolio-item/heart/>



Artist: Mark Ju (8 of 8)  
School Name: Creative Einstein Education  
Title: Rose  
Lead Safety Message: Luckily the lead pencil in my drawing has no lead in it.  
Description of Work: Charcoal on paper , Age: 11  
<http://volcanoartprize.com/portfolio-item/rose/>



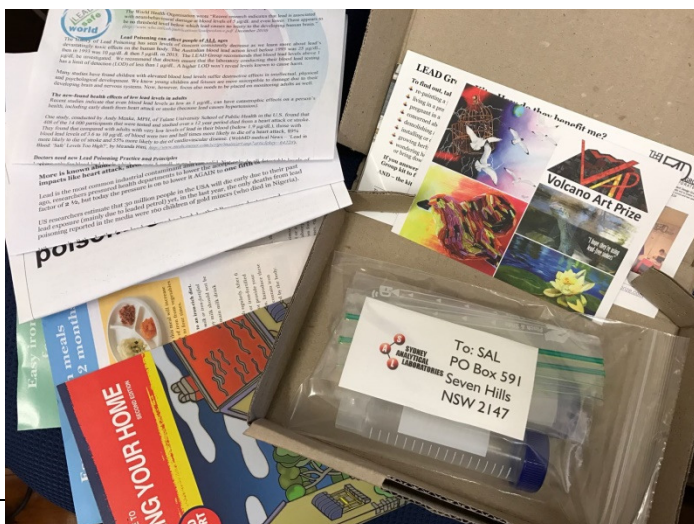


Artist: Li-Ke shi (3 of 3)  
 Title: Tulips School Name: Creative Einstein Education  
 Lead Safety Message: "Life isn't a tiptoe through the tulips." - Shannon Hoon  
 Description of Work: Charcoal and paper  
 Age: 11  
<http://volcanoartprize.com/portfolio-item/tulips/>

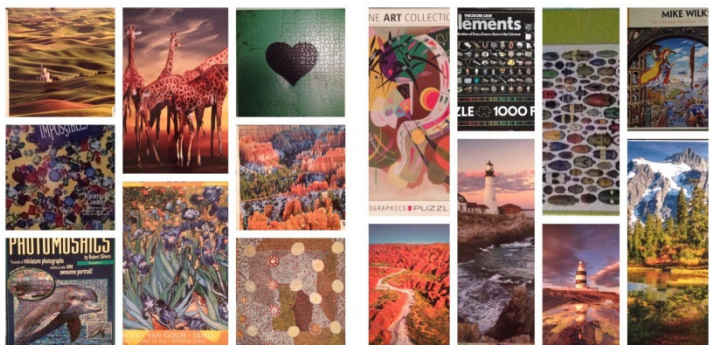


Artists: Kung Fu Master, Eric Evans;  
 Filmed by Elizabeth O'Brien; Music composed and recorded by Ian Smith;  
 Video and Film edited together by Malveek Kaur Dhaliwal.  
 Title: World's first Jow Gar Red Sash Grading in a single session at Head Academy Kung Fu.  
 Lead Safety Message: It is vital to practice mind and body activities over an entire lifetime, to beat the impacts of lead exposure.  
 Description of Work: filmed on iPhone 4S; original music edited in Ableton; video edited in Filmore by Wondershare.  
 Youtube link:

[https://www.youtube.com/watch?v=SJG1otWo\\_qM](https://www.youtube.com/watch?v=SJG1otWo_qM)  
<http://volcanoartprize.com/portfolio-item/worlds-first-jow-gar-red-sash-grading-in-a-single-session-at-head-academy-kung-fu/>



Artists: Arindam Bala; Filmed: Elizabeth O'Brien; Film Edited: Malveek Kaur Dhaliwal  
 Title: New Brass taps often add lead to water  
 Lead Safety Message: Test your water before drinking from a brass tap or rainwater system using a LEAD Group Water Kit or Comprehensive Kit.  
 Description of Work: iPhone 4s Video.  
<http://volcanoartprize.com/portfolio-item/new-brass-taps-often-add-lead-to-water/>



Artists: Elizabeth O'Brien, Malveek Dhaliwal

Title: Making the World Lead-Safe is like doing Jigsaw Puzzles

Message: Lead ages the brain so doing Impossible, Mindboggling, etc Puzzles or other brain activities helps overcome the negative impacts of lead stores coming out of your bones - piece by piece.

Description of Work: iPhone photos by

Elizabeth O'Brien, collaged by Malveek Dhaliwal

<http://volcanoartprize.com/portfolio-item/making-the-world-lead-safe-is-like-doing-jigsaw-puzzles/>



Artist: Noela Whitton

Title: It makes me happy to enter Volcano Art Prize.

Lead Safety Message: I know I'm helping The LEAD Group to create a Lead Safe World, and I win a beautiful Pictureproducts mug with my image on it.

Description of Work: iPhone

photo.

<http://volcanoartprize.com/portfolio-item/it-makes-me-happy-to-enter-volcano-art-prize/>



Photographer: Poornima Murthy

Title: Champagne Beach, Vanuatu

Lead-safety Message: To preserve nature's pristine beaches and the colourful fishes, don't discard leaded items into the ocean. Being lead free adds years to one's life.

Description of Work: Photograph shot using a HTC One X9 phone.

<http://volcanoartprize.com/portfolio-item/champagne-beach-vanuatu/>





## Obsolescence of Lead as a Flashing Material

[Proposes changes to the following clause from the National Construction Code:]

Building Code of Australia (BCA) Volume Two: 3.5.1.2

Proposer's name: Grant Brown

Proposer's Organisation: Deks Industries

Postal address: Po Box 569, Bayswater, Vic, 3153, Australia

Business telephone: 0409039145

### ***The Proposal***

#### **1. What is the proposal?**

A total ban on the use of lead as a roofing material.



Volcano Art Prize (VAP) Entry 2012. Title: Pb. Lead-Safety Message: Replace lead on your roof with non-lead flashing / gutters / paint etc before installing a rainwater tank. Photo by Peter Webb

<http://volcanoartprize.com/portfolio-item/pb-2/>

If the Building Code of Australia could ban lead as a roofing material, hopefully in the process of letting roof plumbers and builders know of the ban, the Australian Building Code Board could also promote existing lead materials on rainwater collection roofs be replaced with non-lead flashing, thus over time minimising lead contamination caused by roof flashings to both the general population and the environment.

In the past we have seen the use of toxic materials phased out due to growing health concerns and the advancement of technology allowing for safer alternatives. We no longer allow the use of asbestos, or lead in paints, piping and petrol, so why do we still use it to flash our roofs?

It is the aim of this proposal to provide a safer healthier environment for all Australians.





## The Current Problem

### 2. What problem is the proposal designed to solve?

The negative health effects associated with lead exposure have been documented for many years, with its use being banned in many applications including piping, petrol and paint. It is proposed that by implementing a complete ban of lead use in roofing it will further lessen the exposure to this toxic material to both the general population and the environment.

### 3. What evidence exists to show there is a problem?

Lead is a nerve poison and over the years it has been proven to have negative effects on people's cognitive function. Cases of high level exposure in children have been linked to brain damage and other severe disorders. Even low level exposure in adults has been linked to brain ageing, heart attack, stroke and other severe disorders. Although exposure has been lessened over the last fifteen years with the banning of the addition of lead to petrol (2002) and to all paints (2010) in Australia, for some reason the roofing and plumbing products industry is lagging dangerously behind with the information below highlighting the need for immediate action.





VAP Entry 2013: Lead-Safety Message: To achieve lead-free rainwater for drinking, employ the right plumber to remove lead from the roof, and install a first flush diverter and lead-free potable-water-safe flashing, piping, tank, pump etc. Photo by Jongmin Choi <http://volcanoartprize.com/portfolio-item/504/>

- 5 out of 11 Sydney homes with water harvesting facilities have dangerous levels of lead in their harvested water. (Kus et al, 2010 <http://epress.lib.uts.edu.au/research/handle/10453/13626?show=full> )
- Excessive amounts of lead were found in 33% of Melbourne rain water tanks (Magyar et al, 2008 <https://web.archive.org/web/20080907162221/http://www.csiro.au/files/files/pk7r.pdf> )
- Over 10% of Brisbane homes have higher than acceptable lead levels in their drinking water, with the study suggesting that unless the homes are in a town with heavy industry the likely source of contamination is from lead used as a roofing material (Huston et al, 2012 <http://www.sciencedirect.com/science/article/pii/S0043135411007809> )
- According to Russell Kirkwood, Director and Forensic Plumber, Metropolis Solutions: “If the technology exists to rid the world of lead in drinking water systems, then that should be where we are going. If you say there is lead-free product, then there should be incentives for everyone to use it.” (Plumbing Connection Magazine, Winter 2017, <http://search.informit.com.au/documentSummary;dn=753049977160088;res=IELENG> )
- Harmful effects to the environment including seepage into soil if roof lead is not properly disposed of.
- Lead roofing product is heavy, leading to additional OH&S issues.
- Lead roofing materials contaminate stormwater, or downpipe water which runs into the ground on the property, or the rainwater goes into a garden water tank. The lead can poison sediment and aquatic microbes, fish and other aquatic organisms, plants (including vegetables and herbs), soil microbes, animals including pets, chooks and farm animals, and children who drink from the garden tank tap or hose.
- The Australian Department of Health’s NHMRC recommend using alternative materials. According to Harvey et al (2016, [www.sciencedirect.com/science/article/pii/S0013935116303280](http://www.sciencedirect.com/science/article/pii/S0013935116303280) ) the National Health and Medical Research Council (NHMRC), the peak medical research body in Australia, recommended the following: “The use of products containing lead could be prohibited from use in drinking water or plumbing systems. Even if high lead levels in drinking water are found [in the proposed national pilot study of first flush water lead levels] to be relatively uncommon in Australia, elimination of unnecessary sources of lead would be of benefit in reducing the exposure of children to lead” [Greene et al.,1993 “Reducing lead exposure in Australians “ p.116].

## ***The Objective***

### **4. How will the proposal solve the problem?**

According to the Australian Bureau of Statistics, 16 per cent of households use rainwater tanks, and more than three-quarters of them use the tanks as their main source of drinking





water. (Phillips, April 2010 <http://www.smh.com.au/environment/rainwater-users-warned-of-lead-risk-20100409-ryuo.html> )

By banning the use of lead roofing materials and promoting the replacement of installed lead roofing materials, not only will all new homes be lead safe (as long as they don't have brass plumbing fittings or sources of lead dust such as leadlighting or old painted wooden building components or furniture), additionally we will see a total reduction in toxic lead flashings as they are replaced with non-toxic alternatives. There are many high quality 100% non-toxic lead free alternatives on the market today.

In the past we have seen the use of toxic building materials phased out due to growing health concerns and the advancement of technology allowing for safer alternatives. We no longer allow the use of asbestos, or lead in paints, piping and petrol, so why do we still use it to flash our roofs? It is the aim of this proposal to provide a safer healthier environment for all Australians.

#### **5. What alternatives to the proposal (regulatory and non-regulatory) have been considered and why are they not recommended?**

There is no better combination than a ban on lead roofing materials and an education campaign to promote existing lead roofing materials to be swapped for non-toxic materials.

### ***The Impacts***

#### **6. Who will be affected by the proposal?**

- The general community (especially children) but anyone who drinks rainwater or uses rainwater to water their vegetable/herb gardens, and for poultry, farm animals and pets.
- Tradesmen (<http://www.lead safeworld.com/solutions/lead-safety-for-roofers-and-rainwater-users/> )
- The environment including soil and sediment microbes and aquatic plants and animals (Greene et al, 1993 "Effects of Lead on The Environment "- From: Reducing lead exposure in Australians. Final report pp 21-23. <http://www.lead safeworld.com/wp-content/uploads/2016/06/LANv16n4-WANTED-Lead-safety-graphics-for-shooters-and-food-growers.pdf> )

#### **7. In what way and to what extent will they be affected by the proposal?**

- The general population will have better health outcomes – smarter, longer lives - through better quality harvested water.
- Tradesmen will not be exposed to handling this toxic and heavy material.
- The environment will be less affected by lead-contaminated storm water run-off, and lead contaminated soil.

### ***Consultation***



## **8. Who has been consulted and what are their views?**

The Lead Education and Abatement Design (LEAD) Group Inc (environmental, occupational and public health charity) has been consulted and fully supports any proposal for lead-free plumbing and roofing products. Both Elizabeth O'Brien, Lead Advisor for The LEAD Group, and Emeritus Professor Brian Gulson, Head, Technical Advisory Board for The LEAD Group have been consulted and support this proposal.

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## Lead Testing and Lead Free Plumbing

[Proposes changes to the following clauses from the National Construction Code:]

Building Code of Australia (BCA) Volume One: H102.2(d)

BCA Volume Two: 3-5.1.2; 3-5.1.3; 3-5.2.2

PCA Volume Three: Tas B104.4; Tas B101.7; BP1.2

Proposer's name: Elizabeth O'Brien

Proposer's Organisation: The Lead Education and Abatement Design (LEAD) Group Inc (environmental, occupational and public health promotion charity)

Postal address: PO Box 161 Summer Hill NSW 2130

Business telephone: Freecall 1800 626 086

### ***The Proposal***

#### **1. What is the proposal?**

The LEAD Group proposes that clauses in the NCC allowing lead products in contact with water, be changed to permit only lead-free products in contact with water, and that prior to use, water is analysed for lead, and the results added to a National Register of Tap Water Lead Results. The Register will be set up prior to the publication of NCC 2019, and have at least 20,000 lead results (the "Pilot Study") in it before NCC 2019 compliance is required by States and Territories. Results in the Register will be online and searchable by Water Authority of mains water supply, suburb/postcode where samples were collected, water softness, pH, plumbing product brand names and model numbers, the flushing period/s, and first flush and flushed water sample lead results. If follow-up testing is required, the follow-up test results are linked to the first round of test results.

Data in the Register will be analysed quarterly by ABCB, and a summary of trends web-published with recommendations as to how to lower the lead results. All results exceeding the Australian Drinking Water Guideline (ADWG) lead limit will require follow-up to ensure that the source of the excess lead in the water is identified and lead abatement action is taken, until re-testing demonstrates compliance with the ADWG lead limit.

In order to determine the period of flushing required before a representative sample of the water supply is running through the tap after the first flush (of water that has been stagnant in the tap for at least 9 hours), a Flushing Period Calculator would need to be developed by ABCB. The Calculator would estimate the period based on measurement/estimate of the pipe distance between the tap and the water supply (tank or mains, etc). If the first flush sample and the flushed sample lead results are both less than one-tenth of the ADWG lead limit, then the building's plumbing is "Certified lead not-detected". If they are both between the limit of detection and the ADWG lead limit, the plumbing is "Certified compliant with ADWG lead limit". If the first flush result exceeds ADWG lead limit but the flushed sample result complies, this pinpoints the end-of-line tap



fitting as the lead source. (Current advice given by The LEAD Group is to then replace any brass tap with a stainless steel tap and repeat the testing.)



Some brass taps are brass-coloured inside and out. Source: <http://www.flickr.com/photos/15501382@No0/449554916>. Photo by [Anita Martinz](#) from Klagenfurt, Austria [https://commons.wikimedia.org/wiki/File:Brass\\_water\\_tap.jpg](https://commons.wikimedia.org/wiki/File:Brass_water_tap.jpg)

This mixer tap may also be a “brass tap” on the inside (See Lead-brass taps image below). To know whether a tap is adding lead to the water a first flush and flushed sample of water must be analysed at a lab. Photo (at right) by pixabay [https://pixabay.com/p-413745/?no\\_redirect](https://pixabay.com/p-413745/?no_redirect)



But if the flushed sample lead result exceeds the ADWG lead limit, the Calculator is again used to determine the second round flushing period distance from the tap to the next most likely source of lead eg brass valves, brass joints, brass water pump. The sample/s on this second round of testing is/are collected (after non-use of the system for at least 9 hours) after the water is flushed for the period/s

calculated to measure the lead leached during the stagnancy period **in** that/each in-line fitting/pump.



**Ball valve** (at left) showing brass component in contact with water. Photo from pixabay. <https://pixabay.com/en/ball-brass-copper-fittings->

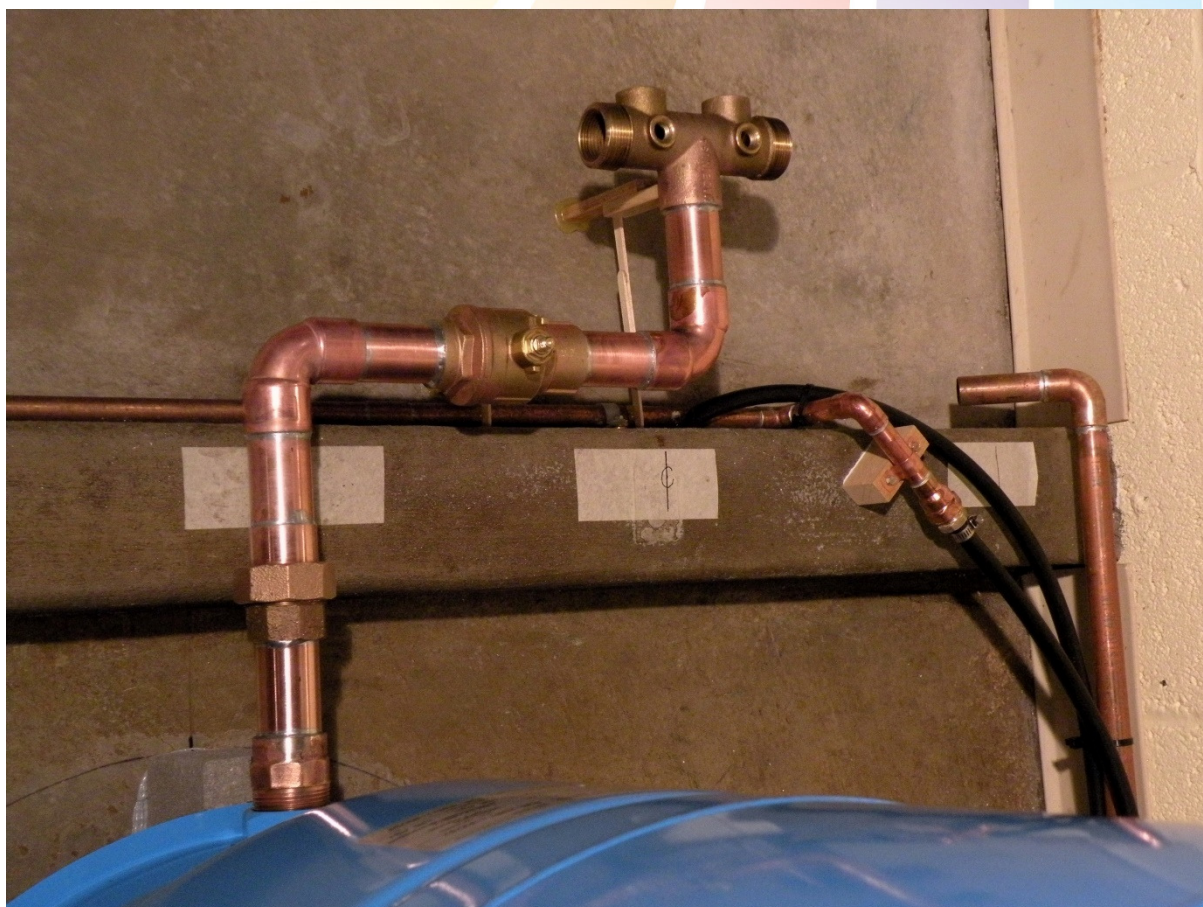




[handle-87727/](#)

**All brass (and bronze) contains lead.** Taps labelled “lead free brass” for the US market are not lead free and will not necessarily provide water that has a non-detectable lead level. According to Tompkins County Health Department (in New York State, USA): “Lead seldom occurs naturally in water supplies like rivers and lakes. Lead enters drinking water primarily as a result of the corrosion, or wearing away, of materials containing lead in the water distribution system and household or building plumbing. These materials include lead-based solder used to join copper pipe, brass and chrome-plated brass faucets... In 1986, Congress banned the use of lead solder containing greater than 0.2% lead, and restricted the lead content of faucets, pipes and other plumbing materials to 8.0%. ... Prior to 2014 the law allowed end-use brass fixtures, such as faucets, with up to 8% lead to be labeled as “lead free.” After 2014 this limit was lowered to 0.25%.” Quote and **mixer tap / brass faucet** photo from

<http://www.tompkinscountyny.gov/health/lead/drinkingwater>



**Photo and caption** by William Herron. Water Pressure Tank + Ball Valve + Tee: The Water Pressure Tank (Amtrol Model WX255PA) was connected to the water system with 1-1/4 inch copper pipe and fittings. (See Amtrol: [www.amtrol.com](http://www.amtrol.com)). A metal-to-metal union was used to provide for easy replacement of the Water Pressure Tank. A shut-off ball valve was provided to provide for easier maintenance. Without this valve, the Water Pressure Tank would need to be drained every time the water system was worked on. The special cast bronze tee, known as a Water Pressure Tank Manifold, provides places to mount a hose bibb, a pressure relief valve, a pressure actuated switch, and a pressure meter. This installation was as far as I got before returning eleven months later to complete connecting the Water Pressure Tank and other components to the water supply and the house water pipes. <https://www.flickr.com/photos/wdherron/8208932629>

Once water is compliant with the ADWG lead limit, the successful lead abatement method (including brand names of replacement products) is linked to the previous rounds of data for this plumbing system in the Register. Successes are reported quarterly among Case Histories and the summary of data trends.

**Proposed changes to clauses in NCC 2016 and additional clauses required:**

NCC BCA Part One Clause H102.2(d) would change FROM:

- (d) The provision of a reticulated water supply from—
- (i) a regulated entity; or





(ii) a private water supply with on-site treatment, which meets the Australian Drinking Water Guidelines, satisfies **Tas H102 P2(b)**.

TO:

(d) The provision of a reticulated water supply from—

(i) a regulated entity; where water from the tap meets the Australian Drinking Water Guidelines, or

(ii) a private water supply with on-site treatment, which meets the Australian Drinking Water Guidelines, satisfies **Tas H102 P2(b)**.

(e) Laboratory lead analysis results for first flush water after non-use of the tap for 9 hours, and for flushed water (flushed for a period determined by the Flushing Period Calculator) must comply with the Australian Drinking Water Guideline lead limit, and be registered in the National Register of Tap Water Lead Results along with the suburb/postcode where samples were collected, brand names of all newly installed plumbing components and the source of the reticulated water supply:

(i) the name of the regulated entity and the softness and pH of the water supplied, or

(ii) the source, softness and pH of the private water supply and details of any on-site treatment prior to use of the water.



Toxic lead flashing showing signs of deteriorating. Photo from *DEKS easy to work with - lead free flashing* [in LEAD Action News vol 17 no 3 *Leading the way on lead free drinking water*, May 2017]

<http://lead.org.au/lanv17n3/lanv17n3-3.html>

NCC BCA PART TWO Clause 3.5.1.2(e) would change FROM:



(e) Lead *flashings* must not be used on any roof that is part of a potable water catchment area.

TO:

(e) Lead *flashings* must not be used on any roof.

### In Table 3.5.1.2 ACCEPTABILITY OF CONTACT BETWEEN DIFFERENT ROOFING MATERIALS

**CHANGE** each **Yes** in the **Lead columns** and **row TO: No.**

NCC BCA PART TWO Clause 3.5.1.3(g)(vi) CHANGE from:

(vi) Lead *flashings* must not be used with prepainted steel or zinc/aluminium steel or on any roof if the roof is part of a potable (drinking) water catchment area.

TO:

(vi) Lead *flashings* must not be used with prepainted steel or zinc/aluminium steel or on any roof if the roof is part of a water catchment area or on a newly constructed roof. If existing lead flashings are on a roof that is part of a water catchment area, or prior to adding a water tank to a building, existing lead flashings must be replaced with non-lead flashings in accordance with Table 3.5.1.2.

NCC BCA PART TWO Clause 3.5.1.3(h)(iv) CHANGE from:

(iv) Lead *flashings* must not be used with prepainted steel or zinc/aluminium steel or on any roof if the roof is part of a potable water catchment area.

TO:

(iv) Lead *flashings* must not be used with prepainted steel or zinc/aluminium steel or on any roof if the roof is part of a water catchment area. If existing lead flashings are on a roof that is part of a water catchment area, or prior to adding a water tank to a building, existing lead flashings must be replaced with non-lead flashings in accordance with Table 3.5.1.2.

NCC BCA PART TWO Clause **3.5.2.2, CHANGE from:**

Gutters, downpipes and *flashings* must—

(d) not contain any lead if used on a roof forming part of a potable water catchment area.

TO:





(d) not contain any lead. On existing buildings, lead gutters, downpipes and flashing must be replaced with non-lead gutters, downpipes and flashing if used on a roof forming part of a water catchment area.



**Photo:** Dormer window with lead flashing. Concrete tile re-roof with UPVC dormer. Concrete tiles roof and dormer undertaken by Crown Building Services Halifax By [Crownbuild](https://commons.wikimedia.org/wiki/File:Concrete_tile_re-roof_with_UPVC_dormer.jpg)  
[https://commons.wikimedia.org/wiki/File:Concrete\\_tile\\_re-roof\\_with\\_UPVC\\_dormer.jpg](https://commons.wikimedia.org/wiki/File:Concrete_tile_re-roof_with_UPVC_dormer.jpg)

NCC BCA PART TWO Clause **3.5.2.2**, ADD the following additional clause:

(e) After a water tank has been installed, laboratory lead analysis results for first flush water after non-use of the tap for 9 hours, and for flushed water (flushed for a period determined by the Flushing Period Calculator) must comply with the Australian Drinking Water Guideline lead limit, and be registered in the National Register of Tap Water Lead Results along with the suburb/postcode where samples were collected, brand names of all newly installed plumbing components (including model number of any pump) and the source of the reticulated water supply:

(i) the name of the regulated entity and the softness and pH of the water supplied, or



(ii) the source (eg rain, dam), softness and pH of the private water supply and details of any on-site treatment prior to use of the water.

NCC PCA PART THREE Clause **Tas B101.4, CHANGE** from:

(a) Materials and *products* in contact with water to be used in a *drinking water* supply must comply with AS/NZS 4020.

TO [note the term “drinking water supply” has been cut to “water supply”]:

(a) Materials and *products* in contact with water to be used in a *water* supply must comply with AS/NZS 4020.

NCC PCA PART THREE Clause **Tas B101.4, CHANGE** from:

**(d) Solders**

Solders used in the manufacture of tanks must be certified under the *WaterMark Certification Scheme* to AS/NZS 4020. Soft solder must comply with AS 1834.1 and for roof *drainage* components used for the conveyance of *drinking water*, be lead free.

TO [note the term “drinking water supply” has been cut to “water supply”]:



**(d) Solders**

Solders used in the manufacture of tanks must be certified under the *WaterMark Certification Scheme* to AS/NZS 4020. Soft solder must comply with AS 1834.1 and for roof *drainage* components used for the conveyance of *water*, be lead free.

At left: Soldering copper pipes using a propane torch and lead-free solder.

[https://en.wikipedia.org/wiki/Solder#/media/File:Propane\\_torch\\_soldering\\_copper\\_pipe.jpg](https://en.wikipedia.org/wiki/Solder#/media/File:Propane_torch_soldering_copper_pipe.jpg)

NCC PCA PART THREE Clause **Tas B101.7, CHANGE** from:

**Explanatory information:**

Rainwater for drinking purposes should not be collected from recently painted roofs (until after the first few rainfalls), timber roofs preserved with chemicals, roofs coated with lead flashings, lead-







based paints or tar-based coatings, or parts of roofs near flues from solid fuel heaters.

How to Ensure your Rainwater is Lead-Safe Drinking Water - The Lead Problem in Drinking Water from Rainwater Tanks in Australia: Primary Prevention - Prior to Purchase; Secondary Prevention - Determine Presence of Contamination; Tertiary Prevention

<http://www.lead.org.au/lanv14n4/lanv14n4-6.html>



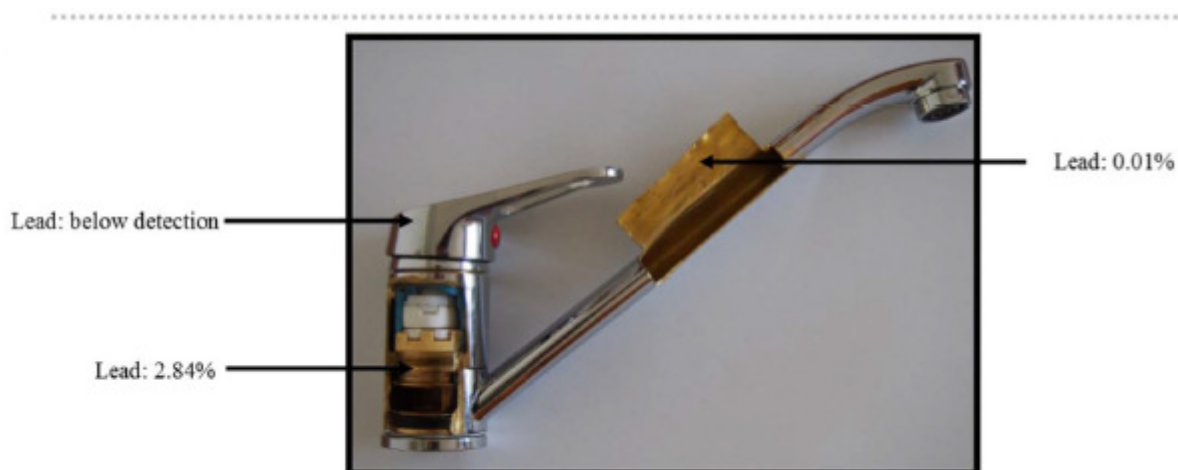
TO [Note the term “drinking purposes” has been changed to “any purpose”]:

**Explanatory information:**

Rainwater for any purpose should not be collected from recently painted roofs (until after the first few rainfalls), timber roofs preserved with chemicals, roofs coated with lead flashings, lead-based paints or tar-based coatings, or parts of roofs near flues from solid fuel heaters.

**NCC PCA PART THREE Clause BP1.2, ADD:**

(g) Laboratory lead analysis results for first flush water after non-use of the tap for 9 hours, and for flushed water (flushed for a period determined by the Flushing Period Calculator) must comply with the Australian Drinking Water Guideline lead limit, and be registered in the National Register of Tap Water Lead Results along with the suburb/postcode where samples were collected, brand names of all newly installed plumbing components (including model number of any mixer tap) and the source of the reticulated water supply:



Lead-brass taps, purchased over the counter from a national Australian retail hardware store, are clearly contributing very high concentrations of lead to drinking water. Analysis of the brass components in contact with water within the taps showed a very high concentration of lead (2.84%). Fig 7 Panel c from *Widespread copper and lead contamination of household drinking water, New South Wales, Australia* by P.J.Harvey, H.K.Handley, M.P.Taylor in *Environmental Research* 151 (2016) pp 275-285, <http://www.sciencedirect.com/science/article/pii/S0013935116303280>

- (i) the name of the regulated entity and the softness and pH of the water supplied, or
- (ii) the source, softness and pH of the private water supply (including model number of any pump) and details of any on-site treatment prior to use of the water.

**The Current Problem**



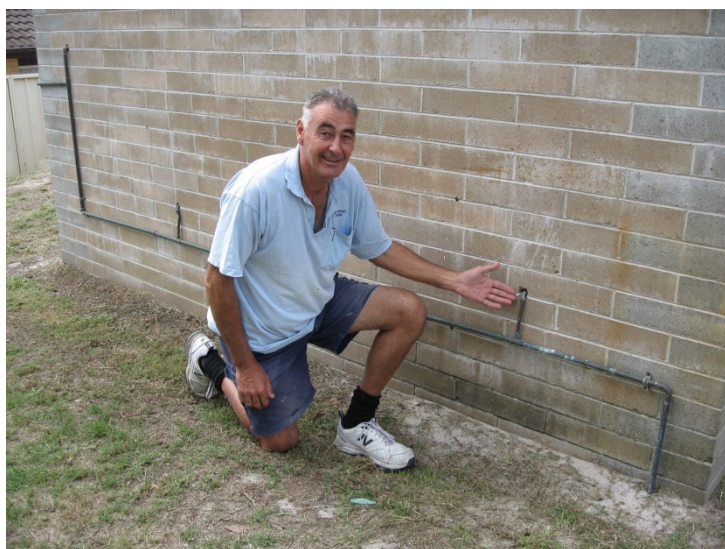


## 2. What problem is the proposal designed to solve?

Australians have such faith in the National Construction Codes that there is a widespread belief that drinking water is lead-safe for drinking and garden and irrigation water is lead-safe for vegetables, crops and food animals and that building run-off is lead-safe for our waterways, sediments and water-grown produce. Yet the few studies of water lead levels and blood lead levels that have been published, would indicate otherwise. This proposal is designed to eliminate the use of lead flashing and lead solder in new construction/renovation projects, and to create a DataBank – the National Register of Tap Water Lead Results – to help manage the reduction of lead levels in tap water.

## 3. What evidence exists to show there is a problem?

Please see evidence regarding the problem of lead flashing and roofing products in the Proposal for Change (PFC) form *Change proposal to permit & promote only lead-free flashing* submitted on 31<sup>st</sup> August 2017 by Grant Brown, DEKS (<http://lead.org.au/BCA-Change-proposal-to-permit-&-promote-only-lead-free-flashing.pdf>).



2017 Volcano Art Prize Entry. Title: Beware the Lead in Lead Soldered Yorkshire Fittings. Lead-safety Message: Lemon Tree Passage Plumber Geoff Davey inspecting lead soldered 'Yorkshire' fittings at the local library March 2017. Photo by Geoff Walker: Photo from *Does your Plumbing include Lead Soldered Yorkshire Fittings? Test your water for lead if you have lead soldered fittings, non-stainless steel taps or valves, or rainwater* [in LEAD Action News vol 17 no 3 *Leading the way on lead free drinking water*, May 2017]

<http://lead.org.au/lanv17n3/lanv17n3-3.html> and <http://volcanoartprize.com/portfolio-item/lead-soldered-yorkshire-fittings/>

Regarding the general problem of lead in plumbed water, according to John Power, in *Lead in drinking water: up to 720,000 homes affected - despite the acknowledged health hazards of lead in drinking water, Australian homes and workplaces continue to be blighted by this scourge, mostly via lead leached from brass tapware and related fittings* (Plumbing Connection Magazine, Winter 2017 (online March 2017), <http://search.informit.com.au/documentSummary;dn=753049977160088;res=IELENG>):

“While there is clear evidence dating back many decades of a massive problem, the precise extent of the hazard is unknown, as (incredibly) there are no systematised water testing processes at the customer side of street mains to produce comprehensive data on the subject.



“...Last year [2016] two significant events shone a spotlight on unsafe lead levels in potable water: the first was a Macquarie University study<sup>1</sup> which, for the first time, tested lead levels in water consumed in a broad cross-section of homes in New South Wales. Tests involved the sampling of first-draw water in the morning, when water had been in contact with fittings overnight. The study involved the sampling of potable water drawn from the kitchen taps of 212 homes across the entire State, and detected lead in 56% of samples; some 8% of the total test samples exceeded recommended lead thresholds of 0.01mg/L of water, as stipulated in the Federal Government-approved advisory document [Australian Drinking Water Guidelines](#)<sup>2</sup>. A straightforward extrapolation of the findings at a national scale, based on Australia’s nine million dwellings, equates to approximately 720,000 households with unsafe levels of lead in their drinking water.

“...The case studies (Phase 2) show that the likely source of drinking water lead contamination is the components within the internal property plumbing,’ the study report states. NB: there is no suggestion that elevated lead levels in water can be blamed on civic water supply lines, which are monitored routinely for purity and safety. The problem, it is worth repeating, lies with plumbing systems within homes, with the worst culprits in the Macquarie study being taps less than one year old. [Harvey et al, 2016, <http://www.sciencedirect.com/science/article/pii/S0013935116303280> and Harvey 2016 *Drinking water lead contamination flows on*, <http://lead.org.au/lanv17n1/lanv17n1-10.html>]

“The second event was the announcement that the newly constructed Perth Children’s Hospital could not open due to the detection of unsafe lead levels in the building’s drinking water. At the time of going to print the hospital remains closed, and the source of the contamination has not been identified.” [end of Power, 2017 quotes.]

According to the *Report on Perth Children’s Hospital Potable Water - Chief Health Officer Review*, (July 2017, <http://ww2.health.wa.gov.au/Reports-and-publications/CHO-review-into-lead-at-PCH> ):

“The results of the data analysis and scientific experiments pointed to the same conclusions:

1. the source of the lead in the water is from brass fittings that have undergone a process of dezincification;
2. many of these brass fittings are located within approximately 1200 Thermostatic Mixing Valve (TMV) Assembly Boxes, located within a metre or two of drinking water outlets; and
3. phosphate treatment has been partially but not sufficiently effective in reducing lead levels.”

...[elevated water lead levels] can arise from two mechanisms:





- soluble lead leaching into water as a result of a concentration gradient between a dezincified brass fitting and water; and
- particulate or solid lead which can be elemental or complexed with other products, and released spontaneously from a damaged surface or after physical scouring by fast flowing water.

“The main potential causes of dezincification include the nature of the brass itself, water stagnation and inconsistent flushing, and hyperchlorination.”

### ***The Objective***

#### **4. How will the proposal solve the problem?**

If this proposal had been incorporated into NCC 2013, the costly Perth Children’s Hospital debacle would have been prevented (and the Hospital would be operational) and people in the estimated 720,000 homes with water lead levels exceeding the ADWG, and the possible 56% of Australian homes with detectable lead in their water (based on Harvey et al 2016) would not have been exposed to lead in their drinking water. The sooner there is a system in place to identify and make known the problem plumbing products, soft-water or low pH water areas and water treatments, the sooner blood lead levels will fall and the sooner less lead will contaminate the food chain and the environment.

#### **5. What alternatives to the proposal (regulatory and non-regulatory) have been considered and why are they not recommended?**

The status quo (business as usual) has been considered and is not recommended because:

Lead flashing / roofing products and lead solder clearly add lead to water so by not permitting them in any new buildings/plumbing systems, the future stormwater and wastewater will contain less lead. If lead flashing on roofs with a water tank were replaced with non-lead flashing, the rate of addition of lead to water will be further decreased.

Appendix H in Watermark Certification involves flushing the product being tested for half an hour before water is left in contact with the product, but in the real world, half an hour of flushing is wasteful of water and time so unlikely to occur. Products in contact with water should be required to comply with the ADWG lead limit when a first flush sample of water is taken, without any prior flushing. The test water used in Appendix H is of average softness and pH and is not chlorinated or treated in any other way so the lead leaching results cannot reflect real world lead results in the water from these products. Also, if each product in a plumbing system complies individually (during Watermark Certification), with the ADWG lead limit, it does not mean that when placed in a plumbing system, the



ADWG limit will be achieved. Only first flush and flush sample lead results after installation can assess whether the system complies.

### ***The Impacts***

#### **6. Who will be affected by the proposal?**

Everyone who is unwittingly drinking leaded water or using it for their home-grown produce, pets, farm animals, crops, etc will be better off under this proposal. The US EPA, in *Reducing lead in drinking water: a Benefit Analysis* (1986) listed the following benefits of reducing lead in drinking water:

- Children's health benefits: reduced medical costs, reduced cost of cognitive damage
- Adult health benefits: reduced hypertension savings, savings from fewer heart attacks, savings from fewer strokes, savings from fewer deaths
- Materials benefits: benefits of reduced corrosion damage.

If laboratory lead testing of the water as soon as a plumbing system is installed were a requirement, and plumbing product details were searchable in the Register, plumbing products which add lead to water would soon stop selling so well and companies making or importing products which don't add lead to the water will be more successful.

#### **7. In what way and to what extent will they be affected by the proposal?**

Reduced lead exposure from plumbed water will lower blood lead levels and in people, lower blood lead levels are associated with higher IQ, less violent and criminal behaviour, and longer, healthier lives.

The US EPA (1986) estimated the ratio of Total annual monetized benefits to the Estimated annual costs of reducing lead in drinking water to be **4:1**.

### ***Consultation***

#### **8. Who has been consulted and what are their views?**

Grant Brown, DEKS (mentioned above) was consulted and hopes the ABCB will take his submission on lead free flashing, and this one seriously.





DEKS Lead-Replacement Flashing – 100% Non-Toxic. Photo from *DEKS easy to work with - lead free flashing* [in LEAD Action News vol 17 no 3 *Leading the way on lead free drinking water*, May 2017] <http://lead.org.au/lanv17n3/lanv17n3-3.html>

Emeritus Professor Brian Gulson, Head, The LEAD Group’s Technical Advisory Board has been consulted and views this proposal as a practical solution to a problem he first identified in the 1990s. He also recommends that those concerned about safe water have a look at the [Drinking Water and Children's Health Report](#), in which the US EWG reviewed drinking water reports from nearly 50,000 water companies or utilities nationwide, collected between 2010 and 2015, and compared test results to science-based health guidelines ([WWW.EWG.ORG/TAPWATER](http://WWW.EWG.ORG/TAPWATER) database is searchable by US zipcode, city, and water utility).

Professor Gulson notes that while the ADWG lead limit is 10ppb (parts per billion), the US EWG Report states:

“...there is no amount of lead exposure scientists consider safe.

“Recent Environmental Protection Agency modeling suggests that lead concentrations in excess of 3.8 ppb could boost some children’s lead exposure above acceptable levels. Meanwhile, the Food and Drug Administration limits lead in bottled water to 5 ppb, and California has set a public health goal of 0.2 ppb lead in tap water to protect children’s brains and prevent the loss of IQ points.”

A Sydney-based Plumber who was consulted, added:

“I agree with the views and changes the LEAD Group has put forward here. I however wouldn't call myself a specialist in this area, but do hold the view after 25 plus years in the industry, that improvements that can be made, should be made. Especially in the area of Health and Safety. Lead has been used in plumbing for many years from a usability standpoint, but is far from a healthy choice. If other products like stainless steel can



become a substitute, they should be offered. Better lightweight flashings are now available also as lead replacements. Better testing in this area will give greater insight into how we can continue these improvements. I see the changes being discussed as positive and necessary to Australia to continue our high standards in this area.”



This stainless steel mixer tap is stainless steel inside and out, and contains no brass inside. When the first flush water from this tap was tested by The LEAD Group, lead was non-detectable. Photo from *Vinco Architectural Hardware in partnership with The LEAD Group Incorporated - Proud to announce Vinco Full Stainless Steel Tapware*, <http://www.lead safeworld.com/wp-content/uploads/2016/11/Vinco-stainless-steel-tapware-LEAD-Group-flyer-final-20161129.pdf>;

Peter Byrne MD Evo Building Products was consulted and wrote: “Evo has been involved in the promotion of lead free products in Australia since 2002 and been educating builders and lead resellers of issues concerning lead safety and lead toxicity. The proposed change would make an enormous impact on the levels of awareness for both consumers and builders in this field promoting a safer living environment for all stakeholders. Evo Building products fully endorses the changes proposed.”



Wakaflex ‘Lead Free’ Flexible Flashing is available in most Australian states and territories via Evo Build partners (see <http://www.evobuild.com.au/evo-build-partners/>). Graphic from <http://www.evobuild.com.au/evo-products/building-solutions/wakaflex2/>

### **Endorsement**

From: John Power, freelance journalist and former editor of ‘Plumbing Connection’ magazine, Australia’s peak professional publication servicing the plumbing sector in Australasia.

I wholeheartedly endorse the activities of The LEAD Group, and in particular the efforts of President Elizabeth O’Brien, whose work over several decades has highlighted the





immense problems of lead contamination in Australia. The LEAD Group's advocacy was instrumental in the removal of lead from petrol-based products, and one might argue that lead contamination in drinking water is an even larger health hazard.

Over the past year I have written articles on the subject of lead contamination in drinking water, as referenced above, and noted with amazement how little material progress has been made in tackling this problem despite clear and incontestable health warnings. The time has come to acknowledge that genuine practical reform is needed urgently, and that peak national bodies, operating under NCC terms of reference, must be responsible for nationwide safety checks and balances. At the crux of the matter are two main observations: there are no 'safe levels' of lead contamination in plumbing products; and the supply of safe products falls under the umbrella of Non-Conforming Building Products (NCBPs).

**Not only should conformance standards be upgraded and toughened to reflect a 'zero tolerance' towards lead contamination in tapware and related fittings, but such a policy should also be supported by a national product register and centralised enforcement policy.**

It is worth noting that State-based legislations (notably Queensland) are already addressing NCBPs within their own jurisdictions (<http://statements.qld.gov.au/Statement/2017/8/24/palaszczuk-government-leads-the-way-with-new-building-product-safety-laws>), so a tough NCC stance on lead contamination should be a high priority NOW in advance of an avalanche of State-based actions.

The idea of a national register of safe and conforming products should be applauded. Such a register is currently under examination by the Building Ministers Forum, which has appointed an SOG 'to explore the practicality and benefits of third-party certification for building product conformity'. We can only hope that the Forum embraces the idea of a national register, which is the only means of ensuring the quality and safety of products used throughout Australia's building industry. Such a register must be underpinned by the most rigorous, up-to-date NCC standards, including the abovementioned modifications proposed by The LEAD Group, in accordance with the latest medical and scientific views on the matter. A healthier Australia depends on it.

John Power



1 September 2017

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## **With No Amount of Lead Exposure Safe for Children, American Academy of Pediatrics Calls For Stricter Regulations**

American Academy  
of Pediatrics



DEDICATED TO THE HEALTH OF ALL CHILDREN™

American Academy of Pediatrics (AAP) *Amid growing evidence that even low levels of lead can cause permanent cognitive, academic and behavioral difficulties in children, the AAP urges national commitment to eliminating its sources before exposure occurs.*

ELK GROVE VILLAGE, IL – Even at half the levels previously considered safe, growing evidence shows a child's exposure to lead can cause irreversible cognitive and behavioral problems. In updated recommendations published online Monday, June 20, the American Academy of Pediatrics (AAP) urges policy makers and the medical community to take new action to protect children from this critical health threat.

The AAP calls for stricter regulations, expanded federal resources and joint action by government officials and pediatricians in the policy statement, "[Prevention of Childhood Lead Toxicity](#)," published in July 2016 Pediatrics. Identifying and eliminating sources before exposure occurs is the only reliable way to protect kids from lead poisoning.

"We now know that there is no safe level of blood lead concentration for children, and the best 'treatment' for lead poisoning is to prevent any exposure before it happens," said Dr. Jennifer Lowry, MD, FAACT, FAAP, chair of the AAP Council on Environmental Health and an author of the policy statement. "Most existing lead standards fail to protect children. They provide only an illusion of safety. Instead we need to expand the funding and technical guidance for local and state governments to remove lead hazards from children's homes, and we need federal standards that will truly protect children."

The AAP calls for new federal standards defining and testing for lead hazards in house dust, water and soil. It also urges legal requirements that lead be removed from contaminated housing and child care facilities and to ensure water fountains in schools do not exceed water lead concentrations of more than 1 part per billion.

Until recently, children were identified as having a blood lead "level of concern" if test results showed a concentration of 10 or more micrograms per deciliter. But extensive evidence now indicates problems begin at levels less than half that amount, including



lower IQ scores and academic performance, inattention, impulsivity, aggression and hyperactivity.

Preventing young children from ever coming into contact with the metal would have substantial population-wide benefits -- saving more than 20 million total IQ points among U.S. children and billions of dollars in annual costs associated with lead exposure. For every \$1 invested to reduce lead hazards in housing units, for example, society would benefit by an estimated \$17 to \$221--a cost-benefit ratio comparable with that for childhood vaccines.

"Eliminating lead from anywhere children can be exposed to it should be a national priority," said AAP President Benard Dreyer, MD, FAAP. "The drinking water crisis in Flint was just one indication of how our country's aging infrastructure is jeopardizing children's health, especially in areas already dealing with toxic effects of poverty," he said. An estimated 37 million homes in the United States still contain lead-based paint, for example.

Despite dramatic drops in children's blood lead concentrations after the U.S. eliminated lead from gasoline, paints and other consumer products, children are still exposed to lead in their homes and communities. Children's risk of lead exposure increases as soon as they begin crawling and teething. Children who live in older homes that are poorly maintained, or being renovated, are at particular risk. So are those who live near airports and factories, where lead-contaminated exhaust has settled into the soil, or where pollution from rivers and lakes have leached lead from aging pipes into the tap water. Some toys, dishware, vinyl miniblinds, imported aluminum cans, hobby materials and other consumer products also contain lead. Adults who work in certain settings such as firearms ranges, where lead dust is prevalent from the use of lead bullets, also can expose children to lead on clothing.

The AAP recommends pediatricians and other primary care providers conduct targeted screening of children for elevated blood lead concentrations if they are between 12 and 24 months of age and live in areas where 25 percent or more of housing was built before 1960. They should monitor children who have blood lead concentrations of more than 5 micrograms per deciliter and routinely recommend individual assessments of older housing, particularly if it is not well-maintained or has undergone renovation or repair within the past six months that may have generated lead-contaminated dust.

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The American Academy of Pediatrics is an organization of 64,000 primary care pediatricians, pediatric medical subspecialists and pediatric surgical specialists dedicated to the health, safety and well-being of infants, children, adolescents and young adults. For more information, visit [www.aap.org](http://www.aap.org)



# Ceiling dust: a potential urban environmental problem

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## *ABSTRACT*

An investigation into the sources and pathways of the metals As, Cd, Cr, Cu, Hg, Ni, Pb, Se, V and Zn in ceiling dusts from 38 houses in the city of Sydney, Australia was conducted. These metals were investigated because of health concerns associated with heavy metals (As, Cd, Hg and Pb) and are considered good indicators of environmental urban pollution. Ceiling dust poses a health threat if the dust is disturbed and allowed to plume within the living areas of a dwelling and expose the occupants, especially children, to elevated levels of metals and fine particulates. In this paper, we report on the potential environmental problem of ceiling dust in the context of metals analysed, particle size distribution and exposure pathways of particles below 250µm.

## INTRODUCTION

Knowledge of ceiling dust exposure as well as house dust pathways is an important component of the dust cycle in the urban environment. Not only do they concentrate and contain dust particles emitted from local sources, ceiling dusts in particular show a historical record of particulate species that have been deposited over time in a well preserved sheltered environment. In our investigations, ceiling dust is identified as consisting of natural and anthropogenic particle species which can be sourced from emission types including those derived from: botanical, biological, industrial, smelter and mining, combustion, automotive exhaust, paints, building and construction materials, crustal soil and rock, bushfire debris and ocean spray.

In Sydney, roof coverings constructed from terracotta or cement tiles are the most common material with a design that allows for air to flow through the roof cavities (cooling mechanism) and deposit dust particles on the ceiling below. The deposition of dust accumulates over many years since construction of the dwelling and can occur up to depths of over 100mm (Gulson et al. 1994) and weigh in excess of over 800kg (Bawden-Smith, personal communication, 1999). Accumulation rates of dust in roof types with sarking (covering under tiles), asbestos, corrugated iron and slate, tend to have lesser volumes of accumulated dusts because these roofs are better sealed.





Studies of ceiling dust in Australia are limited with some of the earliest being carried out at the Broken Hill Pb-Zn mining community in the late 1980's (van Alphen, personal communication, 1991). Our early studies were focussed on lead near heavy industry and in particular from houses adjacent to a lead smelter and mining operations (Body 1986, Gulson et al. 1994) as a means of understanding children's blood lead levels and local environmental contamination levels (Fett et al. 1992). Whicker et al. (1997) analysed ceiling dust for Cu, Pb and Zn within the south-western areas of Sydney and Chiaradia et al (1997) used lead isotopic signatures to assign anthropogenic and natural sources to particles in roof dusts surrounding a copper smelter. In this study we report on the metal concentration and particle size distribution and identify pathways of dust exposure from the ceiling into the living areas of houses, in Sydney.

## METHODOLOGY

Ceiling dusts were sampled from 38 residential urban houses located within industrial and non-industrial areas from the city of Sydney (Figure 1). Sampling was performed by carefully brushing a measured area of dust (1000cm<sup>2</sup>) into clean polyethylene containers or taken as increments in the roof space. In addition soil and rock samples were obtained from areas in the region considered uncontaminated to be used for background determinations. All dust samples were sieved to <250µm using nylon screens, because particles below this size fraction are considered hazardous (Duggin and Inskip, 1989). Samples were analysed by ICP-AES for Cd, Cu, Ni, Pb, V and Zn using a total acid digestion procedure with hydrofluoric, nitric and perchloric acids. Separate sub-samples were analysed for As, Cr, Hg, and Se, because of sensitivity using Neutron Activation Analysis. The major oxides (SiO<sub>2</sub>, Al<sub>2</sub>O<sub>3</sub>, Fe<sub>2</sub>O<sub>3</sub>, MnO, MgO, CaO, Na<sub>2</sub>O, K<sub>2</sub>O, P<sub>2</sub>O<sub>5</sub> and TiO<sub>2</sub>) were performed on selected samples using X-ray Fluorescence Spectroscopy. For quality control, two certified reference materials and in-house mine site rehabilitation standards and duplicate dust samples were analysed at the same time as the ceiling dust samples. Full details on the analytical procedure will be published elsewhere.

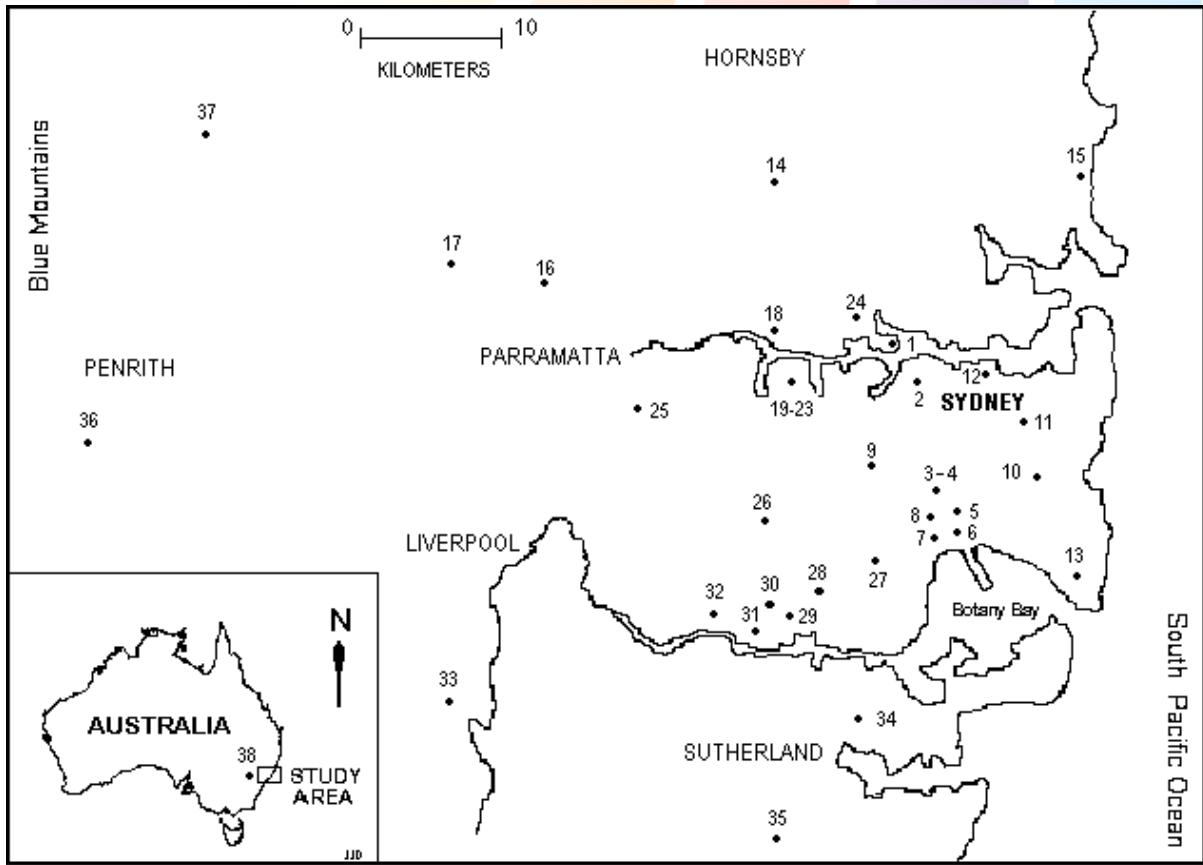


Figure 1. Map of Urban Sydney showing the location of the 38 sampling sites



## RESULTS AND DISCUSSION

### Characterization of Ceiling Dust

In general, ceiling dust is a heterogeneous mixture of particles derived from a variety of anthropogenic and natural sources including: botanical, biological, industrial, smelter and mining, combustion, automotive exhaust, paints, building and construction materials, crustal soil and rock, bushfire debris and ocean spray. Microscopic examination of the dusts has identified some local sources. For example: site 2 is principally composed of combustion material emitted from an adjacent disused coal burner; dust from site 30 contains various lead halides probably derived from automotive exhaust because of its location on a major road; dust from sites 14, 31, 34 and 35 showed elevated levels of pollen, seeds and plant material because they are situated within leafy urban bushland settings. Generally the dusts are comprised of: 40-50% SiO<sub>2</sub> (mostly quartz), <20% miscellaneous oxides and up to 8% trace metals, while the remaining 20-30% appear to be mixed carbon based (botanical/combustion) material.

A separate portion of 8 representative samples of the <250µm fraction was subjected to particle size analysis using Malvern laser sizing. Most samples have a bimodal size distribution with the following average volume results: 93% <250µm, 77% <125µm, 50% <63µm, 30% <38µm, 15% <20µm, 7% <10µm, and 1.4% at <2.5µm. Particles smaller than PM<sub>10</sub> but larger than PM<sub>2.5</sub> mass equivalent diameters are of the greatest health concern because they are respirable and tend to accumulate within the lungs and nasopharyngeal regions of the body. Between 3 to 7% by volume of ceiling dust particles occur within this range. Particles finer than the PM<sub>2.5</sub> ranged between 2.5 to 0.45% by volume.

Table 1 shows the descriptive statistics for As, Cd, Cr, Cu, Hg, Ni, Pb, Se, V, and Zn from the 38 house sites in Sydney. The distributions for As, Cd, Cr, Pb and Zn are skewed, whereas Cu Ni and V show a normal distribution. Metal concentrations are significantly elevated in industrial/commercial and older (>75 years) parts of the city (sites 1-12, Figure 1). Older dwellings tend to have a greater volume of dust. Houses in non-industrial urban areas, aged 25-75 years (sites 13-35), show lower metal values with rural dwellings (sites 36-38) and younger (<25 years) houses containing metal values closer to background levels. These trends were expected given the age of the dwelling, renovations performed, proximity to anthropogenic sources, the type of roof construction, climatic and wind influences and urban infrastructure. The metal concentrations analysed are comparable to other studies of ceiling dusts in Sydney (Fett et al. 1992, Whicker et al. 1997).

Table 1 also displays estimated background and enrichment values (enrichment value = mean ceiling dust/ background) to identify the variability of anthropogenic urban influences. Enriched metal values for Zn, Pb, Cu, Cd, Cr Ni, V and As, suggest that they are





probably elevated because of increased anthropogenic activities in that particular environment. The metals Hg and Se are present at background values. Strong correlations between some metals are observed e.g. Zn/Cd  $r^2=0.98$  in zinc-plated corrugated iron roofs.



**Table 1**

Metal concentrations ( $\mu\text{g/g}$ ) for 38 ceiling dusts from Sydney

	As	Cd	Cr	Cu	Hg	Ni	Pb	Se	V	Zn
Mean	33	7	458	211	<1	44	1300	<5	127	7660
Median	17	2	133	210	<1	43	992	<5	127	1115
Range	6-512	<1-46	55-5440	36-490	<1-6	10-83	105-7000	<5	32-307	232-57400
Background	10	0.2	52	20	<1	9	35	<5	86	60
Enrichment	3.3	35	9	10.5	<1	4.5	37	-	4.8	127

Exposure Pathways of Ceiling Dust

The extent of dust exposure and pathways of ceiling dust entry are not fully understood, partly because dust distribution and accumulations within the roof cavity are site specific due to the design and construction of the house. The pathway of ceiling dust is considered separately to house dust, where the dust enters the house through windows, doors and by other avenues (Ferrgussan and Schroeder. 1987, Gulson et al. 1994). Figure 2 illustrates a house cross section showing examples of identified pathways of ceiling dust entering the home and living areas. The major entry point for dust transport is by winds carrying particles through the spaces and gaps in the roof structure. Once air enters the confines of the roof environment a change in velocity is experienced allowing for the dust to settle on the ceiling and roof members in a sheltered environment. At this stage the undisturbed dust does not appear to pose a serious health risk.

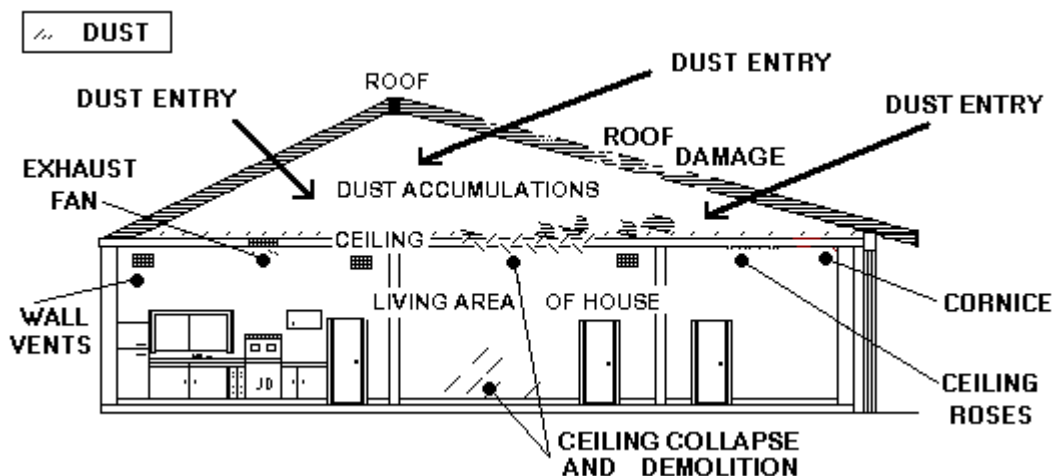
Ceiling dust maybe hazardous when volumes of dust are disturbed and distributed to the living areas of the house exposing the occupants, especially children, to high levels of metals and fine particles. Two exposure event types are identified, primary (catastrophic) and secondary (passive) pathways. **Primary dust exposure pathways that disturb large volumes of dust particles into the living areas of the house include:**

1. Damaged roof and/or collapsed ceiling because of water or storm damage.
2. Renovating and modifying the ceiling or roof (eg. installation of attic ladders, electrical cables, skylights or working within the confines of the roof space).
3. Addition of an extra room or upward extension.



4. Piercing the roof and/or ceiling by a projectile.





**Figure 2** House cross section showing examples of the dust pathways from the roof, through the ceiling to living areas below.

***Secondary pathways of dust exposure are dependent on micro air currents to promote saltation and movement of particles into the living areas. Their pathways into the living areas are not obvious, but can be identified by black trails around the point of entry and include:***

5. Ceiling roses (plastered decorative artwork on the internal section of the ceiling) and because of their design may contain gaps and small holes for air to flow through.
6. The absence of a cornice allows for cracks to develop along the angle between the wall and ceiling and at the same time for dust to enter.
7. Exhaust fans that are connected directly through to the roof and when not in use allow for air to enter into the living areas. These fans are generally installed in the kitchen and bathroom to remove steam and moist air directly to the roof area.
8. Wall vents, although not generally connected directly to the ceiling, could allow for air to flow from externally into the living areas.

## REFERENCES

- Body P, (1986), Sth Aust Dept Environ Planning. Report 84, Aug.
- Chiaradia M, Chenhall BE, Depers AM, Gulson BL, Jones BG. (1997) Sci. Total Environ, 205:107-128.
- Duggin MJ, and Inskip MJ. (1989), Public Health Rev, 13:1-54.
- Ferrgussan JE and Schroeder RJ, (1987), Sci. Total Environ, 14: 61-72.



Fett MJ, Mira M, Smith J, Alperstein G, Causer J, Brokenshire B, Gulson B, Cannata, (1992), Med. J.Aust. 157:441-445.

Gulson BL, Mizon KJ, Law AJ, Korsch MJ, Davis JJ and Howarth D (1994), Econ Geol. 89:889-908.

Whicker CL, Hayes WJ, Khoo CS, Athol BH. (1997). J. Proc. Royal Soc NSW, 130: 65-78

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# Contaminated Sites Case Study 3: Ardeer Lead Smelter, Victoria – Lead Contamination of Residential Properties

An extract of **Contaminated Sites**, by Environment Australia, 1999, from **Best Practice Environmental Management in Mining**, ISBN 0 642 546460, reprinted in full at <http://www.lead.org.au/EA-Contaminated-Sites-Case-Studies-including-Ardeer-1999.pdf>



## Introduction

A property at Forrest Street, Ardeer was used for lead smelting and battery recycling, from the 1950s to 1983. Activities at the smelter included breaking old car batteries and re-smelting their lead plates. After decommissioning, the site was redeveloped for low density housing. In 1989, after houses were built on part of the site, contaminants were detected. The primary contaminant was lead but arsenic, cadmium and zinc were also identified.

Various companies who had been involved with the site formed a Joint Management Committee (JMC) to deal with the contamination. The JMC worked with the Environment Protection Authority of Victoria (EPA Vic) and Brimbank City Council to develop a strategy for managing the site.

## Investigations

During 1989 EPA Vic investigated the degree of contamination by taking 100 targeted samples across the 1.6 ha site. This investigation showed high lead concentrations. Because of this contamination, families living on the site were relocated, new houses on the site demolished, and adjacent houses affected by the contamination cleaned.

By installing groundwater wells it was shown that contamination was restricted to the surface soils, and groundwater was not contaminated.

Samples were initially taken using hand augers and a drilling rig. Subsequently, more detailed investigations for the JMC used test pits. The contamination was found to be associated with fill, and this enabled suspect material to be identified visually. More contamination was identified during remediation, when structures such as concrete footings and pipes were discovered. After remediation, residual soil was sampled and analysed to prove that the clean-up had been complete.





PHOTO: CARTER HOLT HARVEY

*Remediation underway (March 1997) at the Ardeer site which was used for lead smelting and battery recycling during the 1950s to 1983.*

## Remediation Options

A review of site history and additional fieldwork for the JMC confirmed the preliminary findings by the EPA Vic and helped develop a suitable remediation strategy. Remediation options included excavation and disposal at an off-site landfill, excavation and transportation of the soils to a smelter to recover the lead, and containment onsite. Options for future landuse included residential and parkland.

In developing the remedial strategy, the JMC engaged a remediation consultant. The consultant worked with an environmental auditor appointed by the JMC to determine the most appropriate clean-up criteria for the landuse options.

The removal of contaminated soils—with pretreatment as necessary—to landfill was selected as the best remediation option for developing the site as parkland. A conceptual statistical model was used to estimate the volume of soil to be excavated and treated. Lead and the other metals identified in the preliminary assessment were considered in the model. The output from the model indicated an average excavation depth of 0.5 m would be required to meet the nominated remediation criteria.

The remediation criteria for the site was derived from a semi-quantitative risk assessment, based on the site being used as parkland by the local council. A 95% upper confidence limit (UCL) of 2100 mg/kg for lead was proposed to avoid possible effects on the health of people using the site. To minimise risk from remaining contaminants, and effects on plants, a clay cap of 0.5 m was also proposed.

Remediation included sampling soil using a grid program. This determined the depth of excavation, and which soils would need to be treated before being removed. Soils that required pretreatment were stabilised using various additives, and then tested to confirm those requirements for leachability were met.



The contamination was found to be generally restricted to a shallow surface layer of fill (about 0.5m), and removing the fill resulted in the bulk of the contamination being eliminated. After remediation, validation testing showed that most of the site complied with residential use criteria, with the 95% UCL for the mean lead concentration being less than 300 mg/kg. After validation, a plastic warning barrier was placed at the base of the

excavation and covered with clean fill and top soil. A site management plan was prepared to assist the city council with its future management of the site.

The auditor compiled an audit report confirming the land was suitable for its proposed use as a community park, and issued a Statement of Environmental Audit to this effect.



PHOTO: CARTER HOLT HARVEY

*Ardeer site March 1989. The EPA Vic investigation showed high lead concentrations at the site. Note the need for fencing and signage to restrict public access and warn of danger.*

## Stakeholders

There were various stakeholders associated with the remediation of the site, including: the former owners/operators of the site, the Victorian government, regulatory agencies, the local council, residents (onsite and offsite) and the local community. Liaison with these groups began before remediation work started, and continued throughout the process.

## Conclusion

Past activities at the Ardeer site had resulted in significant lead contamination, which was only identified after the site had been developed for residential use. The contamination was found to be largely restricted to the surface soils, and remediation required excavating, pretreating where necessary, and disposing of contaminated material to a landfill. The site was then capped to minimise residual risk to future users of the site. A high level of cleanup was achieved. The cleanup was subject to review by an auditor, who confirmed that the land was suitable to be used as parkland.

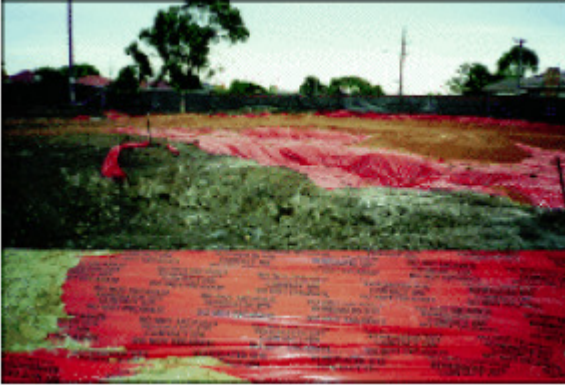


PHOTO: CARTER HOLT HARVEY

*Contamination at the site was generally restricted to a shallow surface layer and removal of this layer eliminated the bulk of the contamination.*

*Last Updated: Friday, 28-Sep-2001 14:09:27 EST*

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## **Extracts of Our Corrupt Legal System: Why Everyone Is a Victim (Except Rich Criminals) Book**

Evan Whitton was Editor of *The National Times*, Chief Reporter at *The Sydney Morning Herald*, and Reader in Journalism at Queensland University. He received the Walkley Award for National Journalism five times, and was Journalist of the Year 1983 for 'courage and innovation' in reporting an inquiry into judicial corruption. He began researching the West's two legal systems in 1991 after observing how each system dealt with the same criminal, police chief Sir Terence Lewis. He is now a columnist on a legal journal, *Justinian*. This is his eighth non-fiction book.

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*Can of Worms* (1986)

*Amazing Scenes* (1987)

\**Can of Worms II* (1987)



\**The Hillbilly Dictator* (1989, \*updated edition 1993)

\**Trial by Voodoo: Why the Law Defeats Truth and Democracy* (1994)

\**The Cartel: Lawyers and Their Nine Magic Tricks* (1998)

\**Serial Liars* (2005)

The books marked \* are available online at [www.netk.net.au/WhittonHome.asp](http://www.netk.net.au/WhittonHome.asp)

**For dearest Noela, without whom not a word of any of my books would have been written.**

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1. True Crime. 2 Justice. 3. Accusatorial system. 4. Anglo-American adversary system. 5. Evidence. 6. Anti-truth devices. 7 Perversion of justice. 8 Judges. 9 Legal history. 10 Lawyers' ethics. 11. European investigative system.

#### Abbreviations

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Butterworths. Butterworths Concise Australian Legal Dictionary (Butterworths 1997).

DPP. Director of Public Prosecutions.

CDNB. The three-volume Concise Dictionary of National Biography (OUP 1992).

Columbia. The Columbia Encyclopaedia (Columbia University Press, fifth edition 1993).

Macquarie. The Macquarie Dictionary (Macquarie Library, 1985)

NSW. New South Wales, a state of Australia. The capital, Sydney, has a population of 4.5 million.



OxfordSC. The Oxford Companion to the Supreme Court of the United States ed. Kermit L Hall (OUP 1992).

OxfordLQ. The Oxford Dictionary of American Legal Quotations ed. Fred Shapiro (OUP 1993).

## Preface

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First, some definitions:

**Justice.** Maat, goddess of justice in Egypt c. 2700 BC, had a feather in her cap. It symbolised justice, truth, morality. A US judge, Harold Rothwax, said: ‘Without truth, there can be no justice.’ An Australian judge, Russell Fox, said justice means fairness; fairness to all and morality require a search for the truth; truth means reality. He also said: ‘The public estimation must be correct, that justice marches with the truth.’ The public thus know you can only be fair if you first find out what happened.

**Common law.** Judge-made law used in Britain and its former colonies, including the United States, India, Canada, Australia, and New Zealand.

**The Gadarene Swine Fallacy (GSF).** A group with the same beliefs is not necessarily heading in the right direction, e.g. Vietnam. England has not had a truth-seeking system for 1500 years, first by stupidity and then by cupidity, but common lawyers believe their system is the best. Justice, as Ludovic Kennedy noted, and Napoleon demonstrated, is too important to be left to judges. Or legal bureaucrats, academics, or law reform commissioners.

**Sophistry.** The art of lying is to make others believe things the liar knows are false. The motive is gain. Sophists, described by Socrates as morally bankrupt and by Plato as charlatans, taught Athenian lawyers how ‘to make the weaker argument appear the stronger’ 2500 years ago. Nothing changes. A US lawyer, Charles Curtis, said a lawyer’s function ‘is to lie for his client ... He is required to make statements as well as arguments which he does not believe in.’

US film critic Joel Siegel said. ‘It’s only the 99% of lawyers who give the rest a bad name’. In fact, the bad name comes mainly from trial lawyers, some 40% of the total. The other 60% may be really nice persons who would never tell a lie. Common law judges are former trial lawyers untrained as judges.

**Corrupt.** The Latin *corruptus* means broken in pieces. This book explains why and how justice is broken in our adversary system. It is instructive to compare it with the world’s most widespread, accurate and cost-effective system: Napoleon’s investigative (inquisitorial) system, now used in European countries, their former colonies, and Japan, South Korea and other countries.





	Investigative system	Adversary system
Seeks truth	Yes	No
Conceals evidence	No	Yes
In charge of evidence	Judges	Lawyers
Length of civil hearings	About a day	Months, years
Conviction rates	95%	Under 50%
Innocent in prison	Rare	1% - 5%

Why are they so different? It is bootless to ask common lawyers. Law schools, in business for only 200 years, teach little legal history and slide round problems of truth and lawyer-control. George Orwell said: ‘The most powerful lie is the omission.’ The following may repair some omissions.

Roman law sought the truth, but in the Dark Ages after the Empire fell in 476, England and West Europe regressed to an anti-truth accusatorial system (A accused B; B said: Prove it!), barbaric ordeals and verdict by deity. Suspect witches were trussed and thrown in the river. If they sank, they were innocent. If they floated, they were guilty, and were fished out and hanged or burned to death. (Malignant cross-examination to defeat truth is the modern ordeal; rape victims have vomited on the witness box.)

Dickens said: ‘The one great principle of the English law is to make business for itself’, i.e. trial lawyers. In an irony that would have amused Bonaparte, it was a French organised criminal who was the remote cause of the bidness dagger being thrust into the heart of British justice. William II, son of Guillaume le Batard, institutionalised trickle-down extortion in the trade of authority (and was shot dead on 2 August 1100).

When the common law began in 1166, every public office, from Chancellor down, was thus for sale; buyers in turn extorted from people who had to deal with the office. Extorting judges and their lawyer-bagmen formed an alliance to protect and advance their business interests, including the graft. Richard Posner, a US economist and appellate judge, said lawyers and judges have always been ‘a cartel’ aiming ‘to secure a lustrous place in the financial and social status sun’. The relationship has given trial lawyers power unique in legal systems. The common law might be termed cartel-made law.

After November 1215, European courts adopted an investigative system, but judges infected by the GSF – they believed that torture produces truth – perverted the system for



five centuries. Lawyers' role in a truth-seeking system is necessarily limited; in 1219, the cartel decided to reject the investigative system and to retain the accusatorial system.

As the truth door shuts, the sophistry door opens, to judges as well as lawyers. London's population in 1219 was about 25,000. The public are entitled to ask judges and lawyers: why should we be robbed of justice because 800 years ago a few crooks in a small town in England decided that truth does not matter?

Lawyers have been the 'dominant influence' in English-speaking legislatures since about 1350. That is not fair to untrained liars.

Adversarial justice is an oxymoron, like military intelligence and legal ethics: it is a variation of the anti-truth accusatorial system. The adversary system dates from 1460, when trial lawyers began to take over civil evidence. Controlling evidence enables them to omit the damaging bits; spin out the pre-trial and trial process; and procure enough pelf to comfortably retire, if they choose, to the social status of untrained, uninformed and passive judge.

Judges of course do the decent thing: they try to stay awake – Lord Thankerton knitted – but do they suddenly give up sophistry? Alan Dershowitz, a US lawyer, said 'lying, distortion, and other forms of intellectual dishonesty are endemic among judges'. Two examples. A lie is the basis for the rule which saves criminals from giving evidence and so gets 25% off. A lie – absolutely does not mean absolutely – has cost Australian pay-as-you-earn taxpayers billions, but has made a lot of money for tax lawyers.

Extortion was not a 12<sup>th</sup> century aberration. In the 18<sup>th</sup> century, Lord Chancellor Macclesfield extorted bribes worth £500,000 today from barristers who wanted to be Masters in Chancery in order to extort from litigants. Francis Elde delivered the gold and notes to Macclesfield and his bagman, Master Peter Cottingham, in a clothes-basket. In the late 20<sup>th</sup> century, 20 extorting Chicago judges and 50 of their bagmen went to prison.

Members of a cartel, e.g. the oil cartel and the Australian cardboard box cartel, collude to increase prices, typically by 15%-25%. From about 1650, Chancery judges refused to finalise will cases for decades. Why? Lawyers were paid from the deceased estates. *Jennens v Jennens*, the model for Dickens' *Jarndyce v Jarndyce*, began in 1798. It ended in 1915, when lawyers and judges had 'devoured' the remnants of an estate worth some £500 million today.

Trial lawyers did not defend accused until the rise of blue collar organised crime in the 18<sup>th</sup> century made it worthwhile. The low conviction rate is due to the invention since 1790 of 20 anti-truth devices, including six rules which conceal evidence from jurors. Lawyers say it makes trials fair, but fairness means truth. No other system hides evidence.



Dershowitz said: 'The American criminal justice system is corrupt to its core ... The corruption lies ... in its processes ...' He said all defence lawyers, prosecutors and judges know 'almost all' (say 95%) of accused are guilty. They are thus almost always, in effect, accomplices after the fact. In 1994, NSW judges sitting alone (and hiding evidence from themselves) convicted only 25% of accused. Honest cops doggedly investigating crime are plainly of more use to society than judges and trial lawyers.

Napoleon had time to begin to reform and codify the investigative system only because, by a fluke, his generals, Desaix, Marmont and Kellermann, crushed Austria at the Battle of Chicken Marengo in 1800. His system is generally accurate because trained judges search for the truth, and is cost-effective because they have no incentive to spin the process out. On average, the cost of a libel action in England is 140 times that of a libel action in Europe.

The adversary system is biased **against** people in business, industry, medicine, and the media, and **in favour of** criminals. The bias makes business for trial lawyers and the rule of law a joke in the worst possible taste. Citizens on sophistry watch must have the hopeless feeling that any judgment or verdict may be right, or it may not.

The remedy is simple. Common law countries already use an investigative system when they need to find the truth. Six times as many judges (and fewer lawyers) will be needed, but the law will be cheaper as well as more just. Academics will have to be retrained, but searching for the truth is easier than mugging up 24 ways to conceal or otherwise defeat it. The cartel can then be dismantled by training judges separately from lawyers, as they do in Europe.

All we are saying, is give truth a chance. But trial lawyers, academics and, behind the scenes, legal bureaucrats will offer noisy resistance, as in India (conviction rate 16%) when an inquiry recommended changing to a truth-seeking criminal system.

Lawyers are only 0.2% of the population, and their utterance may be mere sophistry informed by the Gadarene Swine Fallacy, but their access to the media is as disproportionate as their numbers in legislatures. The parrot-house, however, can be safely ignored. The public know that justice means truth; the vast majority of voters will support change to a What happened? system.

**Note.** *Our Corrupt Legal System* is an updated and restructured version of *Serial Liars* (2005)

- Evan Whitton, Sydney, January 2010

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## 17. Bonaparte reforms investigative system





Johann Graefe's *Tribunal Reformation* (1624) spurred opposition to judicial torture in Europe, and the Enlightenment ended it. Frederick the Great abolished torture in Prussia in 1754. In 1764 an Italian lawyer, Cesare Beccaria, argued in *An Essay on Crimes and Punishments* that torture punished the innocent and should not be necessary to prove guilt. His book was translated into 22 languages. Judicial torture was abolished in Italy in 1786, in France in 1789, and in Russia in 1801.

Revolutionary France proposed a fair society and laws based on rational principles. Jean Jacques Cambacères spent the decade from 1789 grappling with a code but all his drafts were rejected. The issue was decided by another accident of history in Piedmont, North Italy, on Saturday, 14 June, 1800.

The first Battle of Marengo was between a French army under First Consul Napoleon Bonaparte and an Austrian army under General Michael von Melas. Bonaparte, wrongly believing that Melas would retreat to Genoa, sent General Louis Desaix to cut off his presumed retreat, but Melas attacked at 9 am. Bonaparte sent a message to Desaix: 'For God's sake, come back, if still you can.'

Archie Macdonell noted in *Napoleon and His Marshals* (Macmillan 1934, Prion 1996) that one of Bonaparte's generals, Nicolas Soult, had been wounded and captured in a skirmish outside Genoa and was taken to an Austrian hospital at Alessandria near Marengo. Macdonell wrote:

All day long on June 14, 1800 Soult ... listened to the sound of the guns at Marengo. He knew very well that the fortune of France was at stake, and that the First Consul, by coming over the St Bernard instead of making a frontal attack along the coast route, was staking everything on a single battle. For hours there was no news at Alessandria, but Soult's expert ear told him all that he needed to know. The bombardment was getting fainter and fainter, and that could only mean that the First Consul was being driven back. A French victory meant that Melas was fatally cut off from Vienna. But the coin had two sides, and an Austrian victory meant that Bonaparte was fatally cut off from France.

By 2 pm that afternoon, Melas had forced the French to retreat for two miles. Macdonell: 'In the afternoon of that thundery summer's day the first Austrian wounded began to come in to Soult's hospital with their stories of victory all along the line, and at 4 pm there was a terrible silence in the east.' Rumours shortly reached Paris that Bonaparte was probably dead and certainly finished.

But Desaix had arrived on the field at 3 pm and breezily advised the First Consul: 'This battle is completely lost, but it is only two o'clock [sic]; there is time to win another.' Macdonell: '[General Auguste Marmont, commanding the guns, had fought furiously all day until he had only five pieces left. Five more were brought up from reserve and Desaix had eight.'



The so-called (at least by the present writer) Battle of Chicken Marengo began at 5 pm with a 20-minute bombardment by Marmont's artillery. Bonaparte's greatest achievement, the reform of the investigative system, turned on what happened in a few minutes after 5.20 pm. Macdonell briskly reported:

The French counter-attack was, by chance, one of the most perfectly timed tactical operations by combined infantry, artillery, and cavalry in the whole history of warfare... Suddenly, through the dense smoke, [Marmont] saw, not 50 yards in front, a battalion of Austrian Grenadiers advancing in perfect formation to counter the counter-attack, and some of Desaix's men were tumbling back in confusion. Marmont, whatever his faults might be, was a quick thinker, and he unlimbered his four guns and fired four rounds of canister at point-blank range into the compact battalion, and at that precise moment, while the Austrians were staggering under the blow and an Austrian ammunition-wagon was exploding with a monstrous detonation, Desaix went forward with a shout [and was killed by a bullet to his head], and young [Francois] Kellermann, son of old Valmy [Francois Christophe] Kellermann, came thundering down on the flank, through the mulberry trees and the tall luxuriant vines, with a handful of heavy cavalry. A minute earlier, or three minutes later, and the thing could not have succeeded, but the timing was perfect, and North Italy was recovered in that moment for the French Republic ... at eight o'clock ... the Austrian surgeons came rushing to their distinguished guest [Soult] with the news of the utter rout of their men.

Bonaparte rightly gets the credit for reforming the investigative system but without Desaix, Marmont and Kellermann, the system might still be a shambles of local variations and interpretations.

Bonaparte, who did not eat before a battle, was famished. His cook, Dunand, invented a meal from the materials to hand, a chicken, some tomatoes, mushrooms, eggs, prawns, and a crayfish, all cooked in brandy flames. Today's Pollo Marengo is essentially chicken, mushrooms and tomatoes.

Austria sued for peace; Bonaparte hastily showed himself in Paris, falsely claimed credit for the victory, and in the breathing space acquired by the Austrian capitulation, applied his intellect and energy to drafting a code of civil law. He said he wanted everyone to be able to read and understand the code and so know his duty.

In August 1800, Bonaparte set up a committee of four lawyers, of whom the most significant were Jean-Étienne-Marie Portalis, nearly blind, 54, and François-Denis Tronchet, 73. They met in Tronchet's house, and had a draft printed by 1 January 1801. Judges added their comments and the draft was discussed clause-by-clause at more than 90 meetings of the Council of State (*Conseil d'Etat*) between July and December 1801.



Bonaparte read law books to prepare himself and chaired more than half the meetings. A council member, Antoine Thibaudeau, said Bonaparte 'took a very active part in the debates, beginning, sustaining, directing, and reanimating them by turns. General Marmont, 26, hero of Marengo, attended a number of sessions. He said Napoleon was:

... silent at first, until members had put forward their opinions, he would then begin to speak, and often presented the question from an entirely different point of view. He commanded no eloquence, but had a flowing delivery, a compelling logic, and a forcible manner of objection. He was extremely fertile in ideas, and his speech gave evidence of a wealth of expression which I have experienced in no one else. His extraordinary intellect shone out in these debates, where so many topics were entirely foreign to him.

Bonaparte himself said:

In these discussions I have sometimes said things which a quarter of an hour later I have found were all wrong. I have no wish to pass for being worth more than I really am ... Tronchet, I admire your intelligence and the strength of your memory. For a man of your age, it is exceptional and deserves to be pointed out. Portalis, you would be the greatest of speakers if you only knew when to stop ... Cambacères, I sometimes suspect you of behaving like a talented lawyer who can defend a case or reject an idea without the slightest reference to his own personal feelings.

Portalis presented the first eight articles of the Code to the Tribunal on 24 November 1801, but it was rejected 65-13. Napoleon withdrew the draft on 3 January 1802 and removed obstructive Tribunes. The 36 sections of the Civil Code, largely written by Portalis, were enacted, one after the other, from March 1803 through to March 1804. In all, the code had 2281 clauses.

Other codes produced at Bonaparte's instigation were the *Code de Procedure Civile* (1806), *Code de Commerce* (1807), *Code d'Instruction Criminelle* (Code of Criminal Investigation 1808), and *Code Penal* (1810). Along with the Civil Code, they are regarded as the Napoleonic Code. The Criminal Code invented the *juge d'instruction* (investigating magistrate) and reinforced the objective, 'the manifestation of the truth'.

Bonaparte said: 'My glory is not to have won forty battles, for Waterloo's defeat will blot out the memory of as many victories. But nothing can blot out my Civil Code. That will live eternally.' Yale law professor Morris L. Cohen wrote in *Law: The Art of Justice* (Levin, 1992):

The Napoleon codification successfully achieved a number of goals. The law was to be accessible to all, uniform throughout France and based on democratic principles and economic liberalism. The code is still considered a masterpiece of French prose, and has





been called the greatest book of French literature by the poet Paul Valery. The Civil Code was supposed to have been read regularly by the novelist Stendahl as a stylistic model for his own writing. It was quickly translated into many languages and its popularity spread throughout Europe. Similar codes were enacted in most of the countries of the world which were not under the common law system. What had started as a French achievement became a model for a worldwide legal revolution.

Professor George Dargo, of the New England School of Law, says in *OxfordSC* that the European system, 'is the most widespread and important legal tradition in the modern world'.

Bonaparte placed 36<sup>th</sup> in Professor Darien McWhirter's list of 100 people who most influenced the law.

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## **Extracts of Our Corrupt Legal System (Book)**

### **Extraits de Notre Corrompu Système Juridique (Livre)**

*Written in English by Evan Whitton. Translated into French by Orlando Aguirre-Lopez*

*Écrit en Anglais par Evans Whitton. Traduit en Français par Orlando Aguirre-López*

Evan Whitton était Rédacteur en Chef de 'The Sydney Morning Herald', et Lecteur en Journalism au 'Queensland University'. Il a reçu le prix Walkley pour Journalism National cinq fois, et a été la journaliste de l'année 1983 pour « le courage et l'innovation » dans les rapports d'une enquête sur la corruption judiciaire. Il a commencé des recherches sur les deux systèmes juridiques de l'Ouest en 1991 après avoir observé la façon dont chaque système traitait du même criminel, le chef de la police Sir Terence Lewis. Il est maintenant chroniqueur sur une revue juridique, Justinien. Voici son huitième livre non-fiction.

Remarque du travail de Whitton.

'Un écrivain éblouissant, incisive et addictif. – George Miller, directeur de 'Babe, Happy Feet'.

'Trial by Voodoo' (1994)

Le seul livre dans la langue qui examine de façon critique la loi dans son ensemble. Professeur Alex Ziegert, l'Université de Sydney.



Le Cartel (1998)

‘Evan Whitton a dit, avec je pense une sagesse consommée : « La vérité et la justice exigent...la suppression des règles de dissimulation des preuves » - Sir Laurence Street, ancien juge en chef, NSW.

«Whitton a une remarquable connaissance approfondie du système juridique et la façon dont il fonctionne...riche en anecdotes...une richesse de connaissances historiques ...Ses idées sont toujours précieux... « Le Juge Ian Callinan, Haut Court d’Australie.

Menteurs en Série (2005)

‘...il affronte tous les principaux arguments des avocats et dispose d’eaux. - Brett Dawson, ancien Procureur de la Couronne.

Autres livres par Evan Whitton:

Can of Worms (1986)

Amazing Scenes (1987)

\*Can of Worms II (1987)

\*The Hillbilly Dictator (1989, \*updated edition 1993)

\*Trial by Voodoo: Why the Law Defeats Truth and Democracy (1994)

\*The Cartel: Lawyers and Their Nine Magic Tricks (1998)

\*Serial Liars (2005)

‘Can de Worms’ (1986)

‘Scènes Étonnantes’ (1987)

‘Can de Worms II (1987)

‘Le Dictateur Hillbilly (1989, \*édition mise à jour 1993)

‘Trial by Voodoo : Pourquoi la loi Défaites vérité et démocratie (1994)

‘Le Cartel : Les Avocats et Leurs Neuf Tours de Magie (1998)

Menteurs en Série (2005)



Les livres marqués \* sont disponibles en [www.netk.net.au/WhittonHome.asp](http://www.netk.net.au/WhittonHome.asp)

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OUR CORRUPT LEGAL SYSTEM

NOTRE CORROMPU SYSTÈME JURIDIQUE

Pourquoi Tout Le Monde est une Victime (Sauf les Criminels Riches)

Evan Whitton

Pour la plus cher Noela, sans qui pas même un mot de mes livres aurait été écrit.

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### **Abréviations**

Butterworths. Dictionnaire Juridique Australien Concis (Butterworths 1997).

DPP. Directeur des Poursuites Pénales.

CDNB. Le Dictionnaire Concis de Biographie Nationale en trois volumes (OUP 1992).

Columbia. L'Encyclopédie Columbia ('Columbia University Press', cinquième édition, 1993).





Macquarie. Le Dictionnaire de Macquarie ('Macquarie Library', 1985).

NSW, Nouvelle-Galles du Sud, un état de l'Australie. La capitale, Sydney, a une population de 4.5 millions.

OxfordSC. Le Compagnon d'Oxford à la Cour Suprême des États-Unis ed. Kermit L Hall (OUP 1992).

OxfordLQ. Le Dictionnaire d'Oxford des Citations Juridiques Américaines ed. Fred Shapiro (OUP 1993).

## **Préface**

Tout d'abord, quelques définitions.

Justice. Maat, déesse de la justice en Egypte c. 2700 avant JC, avait une plume dans sa casquette. Elle symbolisait la justice, la vérité, la morale. Un juge américain, Harold Rothwax, a déclaré : « Sans vérité, il ne peut y avoir de justice. »

Loi commune. Droit prétorien utilisé en Grande-Bretagne et ses anciennes colonies, y compris les États-Unis, l'Inde, le Canada, l'Australie et la Nouvelle-Zélande.

Le Swine Sophisme Gadarene (GSF, en Anglais). Un groupe avec les mêmes croyances ne sont pas nécessairement dans la bonne direction, par exemple Vietnam. L'Angleterre n'a pas eu un système de recherche de la vérité pour 1500 ans, d'abord par la stupidité, puis par la cupidité, mais les avocats communs croient que leur système est le meilleur. La Justice, comme Ludovic Kennedy a noté, et Napoléon a démontré, est trop importante pour être laissée aux juges. Ou aux bureaucrates juridiques, ou aux des universitaires, ou aux les commissaires de droit.

Sophistique. L'art du mensonge est de faire que les autres croient que les choses que le menteur sait sont fausses. Le motif est un gain. Les sophistes, décrits par Socrate comme moralement en faillite et par Platon comme des charlatans, enseignaient aux avocats athéniens comment 'faire que l'argument plus faible semble le plus fort ' il y a 2500 ans.

Rien ne change. Un avocat américain, Charles Curtis a déclaré que la fonction d'un avocat est de mentir' pour son client...Il est nécessaire de faire des déclarations, ainsi que les arguments aux quels il ne croit pas.

Le critique de cinéma des États-Unis, Joel Siegel, a déclaré : « Il est seulement le 99% des avocats qui donnent au le reste un mauvais nom. En fait, le mauvais nom provient principalement des avocats d'essais, environ le 40% du total. L'autre 60% peut être



vraiment sympa des personnes qui ne seraient jamais capables de dire un mensonge. Les juges de loi commune sont d'anciens avocats du procès non formés en tant que juges.

Corrompu. Le Latin 'corruptus' signifie 'cassé en pièces'. Ce livre explique pourquoi et comment la justice est cassée dans notre système accusatoire. Il est instructif de comparer avec un système le plus précis et rentable, le plus répandu dans le monde : le système d'enquête (inquisitoire) de Napoléon, maintenant utilisé dans les pays européens, dans leurs anciennes colonies, et dans le Japon, la Corée du Sud et d'autres pays.

	Système d'Enquête	Système d'Adversaire
Il cherche la vérité	Oui	Non
Il cache la preuve	Non	Oui
En charge de la preuve	Les juges	Les avocats
Durée des audiences civiles	Environ une journée	Mois, années
Les taux de condamnation	95%	Moins de 50%
Innocent en prison	Peu fréquent	1% - 5%

Pourquoi sont-ils si différents? Il est inutile de demander aux avocats communs. Les facultés de droit, en affaires depuis seulement 200 ans, enseignent peu d'histoire juridique et glissent rond s les problèmes de vérité et de contrôle de l'avocat. George Orwell a dit : 'Le mensonge le plus puissant est l'omission.' Ce qui suit peut réparer certaines omissions.

La loi romaine chercha la vérité, mais dans l'Age des Ténèbres, après que l'Empire est tombé en 476, l'Angleterre et l'Europe de l'Ouest ont régressé à un système accusatoire anti-vérité (A accusait ; B dit : Prouvez-le !), épreuves barbares et verdict de divinité. Les sorcières soupçonnées étaient jetés dans la rivière. Si elles descendaient, elles étaient innocentes. Si elles flottaient, elles étaient coupables, et repêchées et pendues ou brûlés à mort.

(Un contre-interrogatoire malin pour vaincre la vérité est l'épreuve moderne ; les victimes de viol ont vomi sur la barre des témoins.)

Dickens a dit: 'Le seul grand principe de la loi Anglaise est de faire des affaires pour lui-même', à savoir les avocats du procès. Dans une ironie qui aurait amusé Bonaparte, il était un criminel organisé Français qui a été la cause éloignée de la dague...('bidness', [simulation de 'business'('entreprise en Français)]) étant poussée dans le cœur de la justice



Britannique. Guillaume II, fils de Guillaume le Batard, institutionnalisa l'extorsion ... dans le commerce de l'autorité (et a été abattu le 2 Août 1100).

Lorsque la loi commune a commencé en 1166, tous les bureaux publics, du Chancelier vers le bas, étaient donc à la vente ; les acheteurs, à leur tour, étaient extorqués par des gens qui avaient à traiter avec le bureau. Les juges en extorquant et leurs hommes de sac avocats formaient une alliance pour protéger et promouvoir leurs intérêts commerciaux, y compris la greffe. Richard Posner, un économiste et juge d'appel des États-Unis, a déclaré que les avocats et les juges ont toujours été 'un cartel'

Richard Posner, un économiste américain et un juge d'appel, a dit : «les avocats et les juges ont toujours été «en accord» visant à sécuriser une place brillante dans le soleil financière et de statut social.

La relation a donné aux avocats de première instance un pouvoir unique dans les systèmes juridiques.

Après novembre 1215, les tribunaux européens ont adopté un système d'enquête, mais les juges, infectés par le GSF - et croyant que la torture produit la vérité.- ont perverti le système pendant cinq siècles. Le rôle des avocats dans un système de recherche de la vérité est nécessairement limité; en 1219, le cartel a décidé de rejeter le système accusatoire.

Comme les portes de la vérité se ferment, la porte de la sophistication s'ouvre, aux juges ainsi que aux avocats. La population de Londres en l'an 1219 était autour de 25000. Le public est en droit de demander aux juges et aux avocats: pourquoi nous devrions être volés de la justice, car il y a 800 ans quelques escrocs dans une petite ville en Angleterre ont décidé que la vérité n'a pas d'importance ?

Les avocats ont été l'influence dominante' dans les législatures des pays de langue Anglaise depuis environ 1350. Ce n'est pas juste pour menteurs non formés.

La justice accusatoire est un 'oxymoron', comme l'intelligence militaire et l'éthique juridique: il est une variation de l'accusatoire anti-vérité système.

Le système accusatoire date de 1460 lorsque les avocats du procès ont commencé à prendre le relais preuve civile. Le contrôle de la preuve leur permet d'omettre les bits nuisibles, délayer la procédure préalable au procès et le procès; et de se procurer assez de lucre pour se retirer confortablement, s'ils choisissent, au statut social du juge inexpérimenté, mal informé et passive.

Les juges, bien sûr, font la chose décente: ils essaient de rester éveillés – Le Lord Thankerton a tricoté – mais est-ce qu'ils soudainement abandonnent le sophisme? Alan Dershowitz, un avocat Américain, 'la mensonge, la distorsion, et d'autres formes de





malhonnêteté intellectuelle sont endémiques parmi les juges. Deux exemples. Un mensonge est la base de la règle qui permet leur sauver de donner de preuves et obtenir 25% de rabais. Un mensonge – absolument ne signifie absolument pas – et a coûté au rémunération Australienne que vous gagnez comme contribuables, des milliards, mais il a fait beaucoup d'argent pour les avocats fiscalistes.

Extortion was not a 12<sup>th</sup> century aberration. In the 18<sup>th</sup> century, Lord Chancellor Macclesfield extorted bribes worth £500,000 today from barristers who wanted to be Masters in Chancery in order to extort from litigants. Francis Elde delivered the gold and notes to Macclesfield and his bagman, Master Peter Cottingham, in a clothes-basket. In the late 20<sup>th</sup> century, 20 extorting Chicago judges and 50 of their bagmen went to prison.

L'extorsion de fonds n'a pas été une aberration du 12<sup>ème</sup> siècle. Au 18<sup>ème</sup> siècle, Lord Chancelier Macclesfield a extorqué 'bribes' d'une valeur de £500,000 aujourd'hui aux avocats qui voulaient être Maîtres en Chancellerie afin d'extorquer de plaideurs. Francis Elde a livré l'or et les billets à Macclesfield et son intermédiaire ('homme de sac'), Maître Peter Cottingham, dans un panier à linge. À la fin du 20<sup>e</sup> siècle, 20 extorquant juges de Chicago et 50 de leurs intermédiaires étés allés en prison.

Les membres d'une entente, par exemple le cartel pétrolier et le cartel Australien 'boite de papier carton', complotent pour augmenter les prix, généralement de 15%-25%. De 1650 les juges de Chancellerie ont refusé de finaliser les cas de 'volonté' pendant des décennies. Pourquoi ? Les avocats ont été payés par les successions décédés. *Jennens v Jennens*, le modèle de Dickens', *Jarndyce v Jarndyce*, a commencé en 1798. Il a pris fin en 1915, lorsque les avocats et les juges avaient 'dévorer' les vestiges d'une succession de valeur £500 aujourd'hui.

Les avocats de première instance n'ont pas défendu l'accusé jusqu'à la montée du crime organisé de 'cols bleus' dans le 18<sup>ème</sup> siècle en valait la peine. Le faible taux de condamnation est due à l'invention depuis 1790 des dispositifs anti-vérité, y compris six règles qui cachent des preuves de jurés. Les avocats disent que cela rend les procès équitables, mais l'équité signifie la vérité. Aucun autre système cache des preuves.

Deshowitz a déclaré: 'Le système de justice pénale Américain est corrompu à son noyau'...La corruption se trouve...dans ses processus...'. Il a dit que tous les avocats de la défense, les procureurs et les juges savent que 'presque tous' (disons 95%) des accusés sont coupables. Ils sont donc presque toujours, en effet, complices après le fait. En 1994, les juges les juges de NSW assises seules (et se cachant des preuves d'eux-mêmes ont condamné seulement 25% des accusés. Les flics honnêtes enquêtent obstinément les crimes sont clairement de plus à la société que les juges et les avocats du procès.



Napoléon a eu le temps de commencer à réformer et à codifier le système d'enquête seulement parce que, par un coup de chance, ses généraux, Desaix, Marmont et Kellermann, ont écrasé l'Autriche à la bataille de 'Poulet Marengo' en 1800. Son système est généralement précis parce que des juges formés recherchent la vérité, et il est rentable, car les juges ne sont pas incités à accélérer le processus. En moyenne, le coût d'une action en diffamation en Angleterre est de 140 fois supérieure à celle d'une action en diffamation en Europe.

Le système d'adversaire est biaisé contre les gens d'affaires, l'industrie, la médecine, et les médias, et en faveur des criminels. Le biais fait des affaires, pour les avocats du procès et la primauté du droit, une blague de pires goûts. Les citoyens sur montre sophisme doivent avoir le sentiment désespéré que tout jugement ou verdict peut avoir raison ou el ne peut.

Le remède est simple. Les pays de la loi commune utilisent déjà un système d'enquête quand ils ont besoin de trouver la vérité. Six fois plus de juges (et moins d'avocats) seront nécessaires, mais la loi sera moins cher ainsi que plus juste. Les universitaires devront être reformés, mais la recherche de la vérité est plus facile que l'agression jusqu'à 24 façons de dissimuler ou autrement pour lui vaincre. L'entente peut alors être démantelée par la formation de juges séparément des avocats, comme ils le font en Europe.

Tout ce que nous disons est de donner une chance à la vérité. Mais les avocats du procès, les universitaires et, dans les coulisses, les bureaucrates juridiques, offriront une résistance bruyante, comme en Inde (taux de condamnation de 16%) quand une enquête a recommandé le changement à un système pénal de recherche de la vérité.

Les avocats ne sont que 0.2% de la population, et leur énoncé peut être un sophisme informé par le Sophisme Swine Gadarene, but leur accès aux médias est aussi disproportionnée que leur nombre dans les législatures. La maison de perroquet, cependant, ne peut être ignorée. Le public sait que la justice signifie la vérité; la grande majorité des électeurs soutiendra le changement à une Qu'est-il arrivé? Système.

Note. Our Corrupt Legal System is an updated and restructured version of Serial Liars (2005)

- Evan Whitton, Sydney, January 2010

Remarque. Notre Corrompu Système Juridique

Est une version mise à jour est restructurée de 'Menteurs en Série (2005).

Evan, Whitton, Sydney, January, 2010.

## **17. Bonaparte réforme le système d'enquête**



Johann Graefe (1624) a incite l'opposition à la torture judiciaire en Europe, et l'Éclaircissement a mis un terme à cela. Frédéric le Grand a aboli la torture in Prusse en 1754. En 1764, un avocat Italien, Cesare Beccaria a fait valoir dans 'Un Essais sur les Crimes et des Peines que la torture a puni les innocents et ne devrait pas être nécessaire de prouver la culpabilité. Son livre a été traduit en 22 langues.

La torture judiciaire a été abolie en Italie en 1786, en France en 1789 et en Russie en 1801.

La France Révolutionnaire a proposé une société juste et des lois fondées sur des principes rationnels. Jean Jacques Cambacères a passé la décennie de 1789 aux prises avec un code, mais tous ses projets ont été rejetés. La question a été tranchée par un autre accident de l'histoire dans Piémont, Italie du Nord, le Samedi 14 Juin, 1800.

La première bataille de Marengo a été entre une armée française sous le Premier Consul Napoléon Bonaparte et une armée autrichienne sous le général Michael von Melas, croyant à tort que Melas se retirait à Gênes, a envoyé le général Louis Desaix pour couper sa présumée retraite, mais Melas a attaqué à 9 heures à Bonaparte a envoyé un message à Desaix Pour l'Amour de Dieu, revenez.

Archie Macdonell un note dans Napoléon et Ses Maréchaux (Macmillan 1934, Prion 1998) que l'un des généraux de Bonaparte, Nicolas Soult, avait été blessé et capturé dans une escarmouche en dehors de Gênes et a été emmené dans un hôpital autrichien à Alessandria, près de Marengo. Macdonell a écrit:

Toute la journée le 14 Juin, 1800, Soult...écouta le bruit des canons à Marengo. Il savait très bien que la fortune de la France était en jeu, et que le Premier Consul, en venant sur St Bernard, au lieu de faire un attaque frontale sur la route de la côte, était tout misant sur un seule bataille. Pendant des heures, il n'y avait pas de nouvelles à Alessandria, mais l'oreille experte de Soult lui a dit tout ce qu'il avait besoin de savoir. Le bombardement devenait plus en plus faible, et cela ne peut signifier que le Premier Consul était en train d'être repoussé. Une victoire Française signifiait que Melas a été mortellement coupé de Vienne. Mais la médaille a deux côtés, et une victoire Autrichienne signifiait que Bonaparte a été mortellement coupé de la France.

En 14 heures cet après-midi, Melas avait forcé les Françaises à se retirer pour deux miles. Macdonell: 'Dans l'après-midi du jour de cet été de tonnerres, les premières Autrichien blessés ont commencé à venir à l'hôpital de Soult avec leurs histoires de la victoire sur toute la ligne, et à 16 heures il y eut un silence terrible dans l'est. Les rumeurs tôt arrivèrent à Paris que Bonaparte était probablement mort et certainement fini.

Mais Desaix était arrivé sur le terrain à 15 heures et fraisement a conseillé le Premier Consul: 'Cette bataille est complètement perdue, mais il est seulement 14 heures [sic]; il





temps de gagner une autre'. Macdonell: 'Général Auguste Marmont, en commandant les armes à feu, avait combattu furieusement toute la journée jusqu'à ce qu'il ait seulement cinq morceaux qui restaient. Cinq d'autres ont été amenés de la réserve et Desaix avait huit.'

Le soi-disant (au moins par l'auteur du présent) Bataille de Poulet Marengo a commencé à 17 heures avec un bombardement de 20 minutes par l'artillerie de Marmont. La plus grande réussite de Bonaparte, la réforme du système d'enquête a allumé ce qui est arrivé en quelques minutes après 17h20. Macdonell vivement a rapporté:

La contre-attaque Française était, par hasard, l'une des opérations tactiques le plus chronométrées par l'infanterie combinée, l'artillerie et de cavalerie dans toute l'histoire de la guerre...Tout à coup, à travers la fumée dense, vue, pas 50 verges en avant, un bataillon de grenadiers Autrichiens en avançant en formation parfaite pour contrer la contre-attaque, et quelques-uns des hommes de Desaix ont été culbuté en arrière dans la confusion. Marmont, quelles que soient ses défauts pourraient être, était un penseur rapide, et il a dé assoupli ses quatre canons et a tiré quatre tours de cartouche à bout portant dans le bataillon compact, et à ce moment précis, tandis que les Autrichiens ont été stupéfiants sous le coup et une wagon-munition Autrichienne explosait avec une détonation monstrueuse. Desaix est allé de l'avant avec un cri [et a été tué par une balle à la tête], et le jeune [François] Kellermann, fils du vieux Valmy [François Christophe], est venu dévalant sur le flanc, à travers les mûriers et les vins grands et luxuriantes, avec une poignée de cavalerie lourde. Un minute plus tôt, ou trois minutes plus tard, et la chose ne pouvait pas avoir réussie, mais la mesure du temps était parfaite, et l'Italie du Nord a été récupéré en ce moment pour la République Française...à huit heures...les chirurgiens Autrichiens étaient venus se précipitant à leur invité [Sout] avec les nouvelles de la déroute de leurs hommes.

Bonaparte obtient à juste titre le crédit pour la réforme de système d'enquête, mais sans Desaix, Marmont et Kellerman, le système peut encore être un fouillis de variations et interprétations locales.

Bonaparte qui ne mangeait pas avant une bataille, était affamé. Son cuisinier, Dunand, l'a inventé un repas à partir des matériaux à portée de main, un poulet, des tomates, des champignons, des œufs, des crevettes, et écrevisses, tous cuits dans les flammes de brandy. Pollo Marengo aujourd'hui est essentiellement le poulet, les champignons et les tomates.

Autriche poursuivi pour la paix; Bonaparte se montra vite à Paris, en prétendant faussement le crédit pour la victoire, et dans l'espace de respiration acquise par la capitulation Autrichienne, a appliqué son intelligence et d'énergie à la rédaction d'un code de droit civil. Il a dit qu'il voulait que chaque personne a pu de lire et de comprendre le code, et savoir donc sa devoir.



En Août 1800, Bonaparte a mis en place un comité de quatre avocats, dont le plus importants étaient Jean-Étienne-Marie Portalis, presque aveugle, 54, et François-Denis Tronchet, 73. Ils sont rencontrés dans la maison de Tronchet, et ont un projet imprimé le 1<sup>er</sup> Janvier 1801. Des juges ont ajouté leurs commentaires et le projet a été examiné article par article en plus de 90 réunions du Conseil d'Etat entre Juillet et Décembre 1801.

Bonaparte a lu des livres de droit pour se préparer et il a présidé plus de la moitié des réunions. Un membre du conseil, Antoine Thibaudeau, a dit que Bonaparte avait pris une part très active dans les débats, en leur commençant, en leur soutenant, en leur direction, et en leur ranimant tour à tour. Le Général Marmont, 26, héros de Marengo, a assisté à un certain nombre de sessions. Il a dit que Napoléon était:

...d'abord silencieux, jusqu'à ce que les membres avaient présenté leurs opinions, il serait alors commencé à parler, et souvent il présentait la question d'un point de vue tout à fait différent. Il commandait pas l'éloquence, mais avait une livraison fluide, une logique convaincante, et d'une forte manière d'opposition. Il était extrêmement fertile en idées, et son discours avait témoigné d'une richesse d'expression que je l'ai connu en aucun autre. Son intelligence extraordinaire brillait dans ces débats, où tant de sujets étaient tout à fait étrangers à lui.

Bonaparte lui-même a dit:

Dans ces discussions, j'ai dit parfois des choses qui un quart d'heure plus tard,

Je les ai trouvés étaient tous mauvais. Je ne veux pas passer pour avoir une valeur de plus que je suis vraiment... Tronchet, j'admire votre intelligence et la force de votre mémoire. Pour un homme de votre âge, il est exceptionnel et mérite d'être souligné. Portalis, vous serait le plus grand des orateurs si vous saviez seulement quand arrêter... Cambacères, je vous soupçonne parfois de se comporter comme un avocat de talent qui peut défendre une cause ou rejeter une idée sans la moindre référence à ses propres sentiments personnels.

Portalis a présenté les huit premiers articles du Code au Tribunal le 24 Novembre 1801, mais il a été rejeté (65-13). Napoléon a retiré le projet le 3 Janvier 1802, et a retiré aussi des Tribuns obstructives. Les 36 articles du Code Civil, largement rédigés par Portalis, ont été adoptés, l'une après l'autre, à partir de Mars 1803 à Mars 1804. En tout, le code avait 2281 clauses.

D'autres codes produits à l'instigation de Bonaparte étaient le 'Code de Procédure Civile', (1806), 'Code de Commerce', (1807), 'Code d'Instruction Criminelle', (1808), et le 'Code Pénal', (1810). Avec le Code Civil, ils sont considérés comme 'Code de Napoléon'. Le Code Criminel a inventé le 'juge d'instruction' et a renforcé l'objectif, 'la manifestation de la vérité'.



Bonaparte disait: ‘Ma gloire est de ne pas avoir gagné quarante batailles, pour la défaite de Waterloo effacera le souvenir de tant de victoires. Mais, rien ne peut effacer mon Code Civil qui vivra éternellement’. Le professeur de droit, de Yale, Morris L. Cohen, a écrit dans ‘Law : The Art of Justice’ (La Loi : l’Art de la Justice) (Levin, 1992) :

“La codification de Napoléon a réalisé avec succès un certain nombre d’objectifs. La loi devait être accessible à tous, uniforme dans toute la France et fondée sur des principes démocratiques et le libéralisme économique. Le code est toujours considéré comme un chef-d’œuvre de la prose française, et a été appelé le plus grand livre de la littérature française par le poète Paul Valéry. Il est supposé que le ‘Code Civil’ était lu régulièrement par le romancier Stendahl comme un modèle stylistique pour sa propre écriture. Il a été rapidement traduit en plusieurs langues et sa popularité répartie dans toute l’Europe. Des codes similaires ont été adoptés dans la plupart de pays du monde qui n’étaient pas dans le cadre du système de la ‘loi commune’. Ce qui avait commencé comme une réalisation française est devenu un modèle pour une révolution juridique dans le monde entier »

Le professeur Georges Dargo, de la ‘New England School of Law’ (L’École de Loi de Nouvelle Angleterre), a dit dans ‘OxfordSC’ que le système Européen ‘est la tradition juridique la plus répandue et importante dans le monde moderne’

Bonaparte est placé 36<sup>e</sup> dans la liste du professeur Darien McWhirter des 100 personnes qui ont le plus influencé la loi.





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