

*I thought I wouldn't be able to use this essay by Kit Sleeman because it is too long to fit the usual 1500-word limit for these essays and too good to edit down. It is also too good to keep from you. So here it is in all its length.*

*In 'Drains', Kit talks about his mother and father, but also his brother, Jon, who became a mine engineer and was the author of The State Coal Mine at Wonthaggi, 1909-1968 published posthumously about eight years ago. You can see here Jon's engineering mind was already at work when he was still a kid. Kit was the witness and it is obvious he learned a great deal from his brother.*

*Kit has indicted that he has become the keeper of the family archive. Many of these stories may have come from the memories evoked by the papers and photographs he has been sorting through. The family was prolific. In these wonderfully detailed essays, Kit is giving us the tools with which we can enter the past. It is an invaluable legacy. -crl*

The township of Wonthaggi is built mainly on a hill. To be precise, a hill of Jurassic rock intruded through the surrounding younger, coal bearing Cretaceous sedimentary rock formations. Whether planned or serendipitous, it meant that there was no coal under the town and hence no undermining, which is a good outcome. Although the coast is only a few kilometers to the south, most of the town's storm-water drainage is to the north and west, that is, toward the Powlett River basin. Our house was on the north-west corner of the township proper and much of the storm-water collected all over town passed by our house. Sometimes there were some interesting results. Storm-water drains became a playground.

On the north, front side of the house in the nature strip was a standard nature strip concrete drain that serviced the eight houses of our block. As is usually the case with such drains, it was dry except after rain. Running through the nature strip on the west side was a secondary concrete main from the south of the town. This drain always had water and we used it for leaf boat races. It disappeared under Murray Street through a culvert to the concrete main drain across the road after

also connecting with the front drain before the culvert.

The main drain, which passed by about twenty-five meters from our front gate, was a meter or more wide and deep and U shaped in cross section. It always had water in it. There was also an unlined drain or drainage trench, which ran through the paddock to the west of the house and connected to the main drain as well. It was always water filled, slow moving and because it was unlined had lots of vegetation and beasts living in it. Just beside this trench was a 'cave-in'. This was where the roof above shallow coal mine workings had collapsed. Eventually this collapse eroded into a crater about fifty meters in diameter and about twenty meters deep. The old tunnel workings were exposed and retired miners would sometimes illegally enter to help themselves to a free supply of coal.

After passing our place, the main drain continued on for about a kilometer before emptying into a wetland swamp near the South Dudley rail yards. There were great beds of bull-rushes and reeds bordering the wetland and it was a permanent home and breeding ground for many swans, ducks, water-hens, grebes and all sorts of smaller birds as well as hawks and other hunters.



Beside the main drain was a row of tall gum trees with an undergrowth of broome and other noxious weeds: a perfect place for playing cowboys and Indians or similar games. During these games, the drain served as a concealed pathway for sneaking up on enemies. At one place here, Horse Mushrooms grew. Horse mushrooms grow extremely large – as big as half a meter across the top when fully open. Generally they were not popular (though prized by gypsies), however, Webby's friend Mister Trelawney liked them and would pay me the princely sum of two shillings for a single large one.

At one time or other every member of the household fell into the drain, an event that all except the victim found to be most amusing. I was first cab off the rank.

One wet winter's day in my preschool years I went for a ride on my tricycle. I rode from the back gate to Graham Street and then for one block East toward the shopping center. At that point there was a large secondary drain about half the size of the main drain. It flowed along the west boundary of the primary school grounds and met the main drain after passing under Murray Street. There was a barrier along the footpath above the drain to stop pedestrians falling in. I parked my trike and went to watch the raging storm water rush by under the path. I was hanging onto the barrier rails and kicking clods from the gravel path into the torrent when suddenly I slipped, lost my grip and disappeared under the barrier and into the water below.

This was not good: in fact it was a dangerous predicament. I was only a little bloke at the time and the drain was in flood. I don't know how I managed to scramble out, but obviously I did. I jumped on my trusty trike and made for home.

According to Mum, she heard me long before I got home because I was howling loudly as I rode along. She came out and found me to be a strange spectacle: anguished and traumatized, soaking wet and dripping with green algal slime.

There were certain limits imposed on solo tricycle rides after that.

One of Dad's 'hobbies' was collecting firewood. Storms would often cause a gum tree branch to drop from the trees across the road, and when that happened, Dad would be onto it with his trusty bow saw. If he found a fallen branch when we were out walking, he would drag it home and if he had nothing better to do on a weekend he'd wander into the scrub looking for fallen branches.

He was also clumsy. On a couple of occasions when trying to cross the main drain with his booty, he somehow managed to get entangled with his branch and finish up face first in the drain.

When going walking, if we headed north, leaping the main drain was the first obstacle on the trip. This brought Mum undone a couple of times when she misjudged her take off or landing: the drain was just a little too wide for confidence in safe clearance.

Visitor's cars were parked at the rear of our back yard and the ground became cut up and muddy. My brother, the budding engineer, came up with an engineering solution to the problem: we should put down gravel. He also solved the supply problem: we would use free gravel.

Apart from relatively few asphalt main roads, Wonthaggi's roads at the time were surfaced with

'red-stone' otherwise known as 'burnt-stone'. The waste dumps from the coal mines contained mainly mudstone, but also splint, which is mudstone with a high carboniferous content, and also coal. There was also wood waste and oily waste mixed in. Eventually, the combustible material self-combusts and the whole mountain of waste slowly smolders. To walk on a waste dump in this condition is like walking on a volcano: smoke oozes from the ground, there are hot-spots with embers and flame and there is a sulfurous stench. In fact crystals of pure sulfur can be seen growing at the edges of vents emitting smoke.

The heat from this combustion roasts the mudstone in much the same way as clay is roasted in kilns to make bricks. And the result is much the same: mudstone is grey and relatively soft, but after burning it is brick-hard and brick-red. So the waste dumps were allowed to burn for a few decades and were then quarried and crushed to suitable pebble size for use in road surfacing.

Over time road traffic breaks down the pebbles into smaller and smaller sized gravel which gets eroded by rain and finishes up in the drain. Opposite our place the drain was half full of this fine gravel deposit. So Jon's brilliant solution to the parking issue was to harvest this and spread it on the back yard.

Jon and I got a wheel barrow and shovels and set to work. He did most of the work: if you convinced him that a task was a mining activity, Jon became fanatically enthusiastic, and this was clearly gravel-mining.

All went well until the barrow was almost full, when it became unsteady and began to tip. Now, I was quite content to let it tip and start harvesting again from scratch. But Jon was not. He jumped up out of the drain to steady the barrow – he was now between the barrow and the drain. A barrow full of wet gravel is very heavy, so he had no hope, which is why I was happy to let it tip. With an anguished cry he disappeared into the drain with a load of wet gravel and a barrow on top of him.

He had to extricate himself because I was too busy laughing.

Jon sometimes had a very bad temper and this was one of those times.

It was only teething problems – we eventually got enough gravel to fix the yard. The plan was fine; it was just the initial execution that was faulty.

The storm-water drains supported their own ecosystems and in places there were indicators that

showed a very healthy environment, which is probably odd for a drain. The most diversely populated were the more primitive drains, like the unlined trench across the paddock. But even concrete lined drains supported some life.

Wherever mud was present or silt accumulated, colonies of *Tubifex* worms would appear. I did not know what these things were exactly. Locally, people referred to them as leeches, however they are not. They are thin, filamentous, pink worms about sixty millimeters long. They live buried in the silt and come out to feed and get oxygen by waving in the current while remaining anchored to their burrow so that they can instantaneously withdraw if threatened. A small colony about the area of a matchbox might contain a couple of thousand individuals. I found them creepy and periodically declared war on them. At that time little boys had access to very useful weapons for their anti-social behavior.

Calcium carbide was used by miners to power their lamps and so was readily available. It reacts with water to produce flammable acetylene which burns brightly. So, one technique for destroying the worm colonies was to drop a handful of carbide onto it and then dropping a lit match when the acetylene started bubbling away.

In November each year, another favored method for dealing with them was to blow them out of the mud. All of the boys in town invested much pocket money in fireworks to celebrate Guy Fawkes' Night at that time of year. A penny bungler stuck into the mud and exploded would create a crater about one or two hundred millimeters wide and deep.

In retrospect it seems that I missed an opportunity with *Tubifex*. Instead of blowing them up, I should have been cultivating them for sale. Today they are grown commercially and sold as fish food for aquarium owners who use them as live food, frozen food or even freeze-dried worm blocks. Some fish like them so much that their access to the worms has to be restricted because they gorge themselves until they are sick.

In the paddock trench, as well as worm colonies, there were usually lots of frogs and tadpoles, floating duckweed and other water plants with a healthy population of water snails. Herons and egrets showed much interest in this drain and were regular hunters there.

Though I never saw them, larger water creatures lived in the terminal ends of the storm-

water drains and the wetlands they emptied into. A Dutchman lived in town for some time and made his living by trapping eels that he subsequently smoked and then sold somewhere (other than in Wonthaggi). It was rumored that he exported them back to Holland.

Wonthaggi had a very wet climate. The precipitation was often drizzle, mist and light rain. But at times there was heavy rain, and there were occasional storm fronts that delivered huge amounts of rain. When this happened, the inflow of storm water exceeded drain capacity and we got floods.

When large volumes of water came rushing down the main drain, it was like the Mekong River at Siem Reap in Cambodia: its water pressure forced all of the feeder drains to back up and flow backwards like Lake Tonle Sap. All of the land around our house became that lake. The water never entered the house because it was raised above the foundations, but there were times when the house was marooned in water a foot or so deep. I used to find this very interesting and liked splashing around in my gum boots.

Even more interesting was when the paddock trench flooded. It would break its banks and the whole paddock would flood, and the water would then drain away by emptying into the old mine cave-in. When this happened, we had our own waterfall about twenty meters high from the paddock level to where the water disappeared underground into the old mine workings. The main drain would sometimes break its bank as well, and there would be a second waterfall from the other edge of the cave-in.

It was quite fascinating and I puzzled about where the water went to: huge volumes disappeared into the mine – where did it go after that?

At times like this when the drains were in flood, the ultimate drain for the Wonthaggi region, the Powlett River, would also flood large acreages of land between Wonthaggi and Dalyston. If the flood was heavy, the floodwaters would cut the main road northwards out of town and prevent any traffic getting through. This would cause much happiness amongst school kids from Phillip Island and mainland locations across the Powlett because it meant that the school bus could not get through to deliver them to school, so they would get a holiday.

And that is the story of drains.

