SOME BACKGROUND, SOME CONTEXT

London veterinary school

Fifty-five years ago, in September 1967 to be precise, I commenced my studies at the Royal Veterinary College (RVC), University of London. Wide-eyed, perhaps not innocent, I was an English country kid heading out on a fabulous adventure in the big city. It was the Summer of Love. The Beatles, Jimi Hendrix and the Rolling Stones topped the charts. A restlessness and sense of excitement filled the air. The price of inclusion, for me, entailed passing exams. So long as I passed the annual exams, I could spend another year soaking up the delights life had in store.

At the end of the first academic year, during the summer holidays, I took a cheap student flight to New York, then a standby flight to San Francisco and a Greyhound bus to San Jose. Through July and August, I worked 10-hour shifts, six nights a week in the Del Monte pickle works. At weekends I mingled with university students from Stanford and Berkeley and the hippie crowd in San Francisco. In September I travelled on a Greyhound bus pass throughout North America before catching the flight back to London for the new university year. The English country kid had grown up fast.

Foundation work in veterinary science involves studies in anatomy, physiology and biochemistry. Memorising vast amounts of information by rote was the accepted way of learning. Most lectur-

ers presented information as incontrovertible fact that in some unspoken way was supposed to provide us with a foundation for later studies in animal husbandry, pathology, medicine and surgery. Frankly, I was amazed at the seeming ease with which our teachers poured forth reams of information. But how did all that information come into being in the first place? To me it seemed that diligent super brains, greatly exceeding my intellectual capacity, had assembled a formidable body of information in the service of humans and the animals under our care.

So, my life roughly divided into two halves. At the university I was intent on learning the nuts and bolts of how to be a vet. Proficiency involved knowing lots of facts, good hand—eye coordination skills, and an ability to find practical solutions to practical problems. Outside university there was no ready-made formula for the other half of my life. Economic necessity always constrained my choices. No lavish lunches, holidays or expensive clothes. However, I did travel widely. I simply hitchhiked wherever I wanted to go—Europe, Turkey, Morocco, the USA and Canada. Along the way political, philosophical and spiritual questions phased in and out of focus. What was the meaning of life? I had no idea, but the 1960s and 70s were a great time to be alive.

Quest for meaning

Looking to the future, I was not entirely content with the prospect of being a vet. Sure, I liked animals, and practical endeavour is always satisfying. But for me the question increasingly arose: How does the veterinary profession fit into and serve the wider community? I gained the feeling that veterinary science was conducted in a vacuum and that that it did not have a sound connection with the society it was supposed to serve. Consequently, that being a vet felt more like being an animal technician.

In the quest for answers, I made long-term plans. I enlisted as a volunteer with Voluntary Service Overseas so that soon after graduating as a vet I took off for Nairobi as lecturer at the Animal Health and Industry Training Institute. Then I hitchhiked through Kenya, Tanzania and Zambia before returning to London. I had a place lined up at the London School of Economics (LSE) where, I thought, I would gain critical insight into politics, philosophy and economics and thus understand how veterinary endeavours fitted into the needs of society.

You likely can spot this as the naive delusions of youth. The LSE was uninterested in answering questions about the place of veterinary science in the world, just as the RVC was not the least interested in going beyond the immediate bounds of mechanistic 'science' within a veterinary culture. Chastened by the experience, I dropped out and set off for Africa again, this time as traveller with a casual commission as a photographer for two children's books on Egypt and Kenya.

First full-time vet job

Lesley my girlfriend and the gravitational pull of London drew me back to the UK. And by lucky chance I secured a job with Tony Todd as a vet working at a frantically busy small animal clinic close to the Angel, Islington. Fortunately, Tony my boss and work colleague Malcolm Corner gave me support during the first few weeks and soon I was reasonably proficient at the technical aspects of diagnosis and medical and surgical management of cases. We worked for a fee. Clients asked our opinion; we provided advice. We dealt with the superficial and obvious presenting signs.

Looking back almost 50 years I can honestly say the matter of diet seldom arose and, if it did, only in passing. If clients fed their animals out of a can or dry kibble out of a bag, that was OK by me.

All animals—100 per cent—must be fed. But at the vet school little or no time was devoted to the subject. The common assumption was that so long as animals ate *enough* food—of almost any diet or combination—that was all that mattered.

Then as now, dental disease was running at pandemic proportions. It probably affected all pets to some degree, but was clinically obvious as stinky breath and sore and bleeding gums in around 85 per cent of the pet population. Seldom did we initiate discussion about the dental disease. When owners showed an interest or concern, we would respond by offering to scrape the accumulated calculus off the teeth and maybe remove obviously loose, diseased teeth. As dirty work, by which I mean not sterile surgery, this work was usually performed last in the day's schedule and done in a hurry.

Second full-time vet job

My last proper vet job in the UK took me to Bedford and the practice of Alex Scott and Brian Cox. Farm animals, horses, dogs and cats were our regular patients. However, it was the exotic patients that held special fascination for me. From A for aardvark to Z for zebra and a host of species in between, we had responsibility for the animals at a wild animal quarantine station and the Woburn Safari Park. Luckily for me, I got to make regular visits to Woburn and struck up a wonderful friendship with head ranger Peter Litchfield and his team.

Cats and dogs never speak about their pain and discomfort. Indeed, for their ancestors in the wild, obscuring health issues was a vital survival mechanism. Prey, predators and competitors would all be sure to take advantage of an obviously weakened individual. Of course, wild animals in the zoo hide their problems. They also flee the vet and resent being handled. The challenge then is to look more carefully and think more deeply about the animals' presenting signs, their biology, ethology, nutrition and environment. All our discus-

sions about our zoo patients referred to their place in nature. Put simply, nature knows and knows best.

Australian adventure

My next stop was Manjimup, Western Australia, where I caught up with old school friend John Lumley. John had graduated from Glasgow vet school and migrated to Australia soon afterwards. Beside the welcome hospitality, I gained a gentle introduction to Australian vet life in John's mixed veterinary practice. Then, in January 1981, I took a job as a locum pet vet flying into and out of mining towns in the arid Pilbara region—all good experience for starting my own practice.

The next phase in the adventure was about to begin. Lesley flew in from London. We bought an old caravan, hitched it to the Holden van and set off across the Nullarbor Plain in the direction of Adelaide, Melbourne and ultimately Sydney. Filled with immigrant vigour, curious and entranced by the delights, the size and scope of Australia—Godzone, the Lucky Country—we pushed forward.

Adam Smith, the famed Scottish economist, in his book the *Wealth of Nations*,¹ identified three necessary components of human economic endeavours—land, capital and labour. When time came to start a practice, I found an empty shop in Riverstone, an outer western suburb of Sydney. That was the 'land' component. Regarding capital I had meagre savings and needed extra funds in order to equip and stock the new vet practice. Bank number one rejected my application outright. Bank number two offered me a \$500 loan. I declined the derisory offering but did open an account at that branch. With insufficient capital, the solution was to contribute more 'labour'. And so it was, working from dawn until late at night seven days a week—initially painting and decorating and renovating old desks, sinks and office furniture—that I opened my new practice.

Half a world away from family and friends it was no problem to immerse myself in work. In those days an epidemic of heartworm disease afflicted the canine population. With the appearance of angel hair spaghetti, the adult worms clog the right side of the heart and pulmonary arteries. Apparently, so the story goes, Captain Scott stopped off in Sydney on his way to the Antarctic. His dogs, acquired in Siberia, were said to harbour heartworm and so infected the Sydney dogs. Due to the lack of veterinary care over many years the heartworm disease pandemic took hold. Fortunately, after a couple of misdiagnoses, I wised up and started testing dogs and treating the positive cases.

Heartworm testing and treatment became the mainstay of the practice. At the end of the first full year the two vet nurses, Merry and Marilyn, baked a heart-shaped cake sprouting jelly worms. We were proud of our successes and as you can tell, as yet oblivious to the more sinister, ubiquitous afflictions affecting our patients: junk diet, dental disease and obesity.

I cannot be sure when the blinkers started to fall off and when I finally twigged that all, yes all, of my small animal patients were suffering the consequences of a processed 'food' diet. I do, however, remember being conscience stricken when I realised how my contributory negligence had ensured the end-stage ill health and disease of Duchess the Maltese terrier.

Waking up in a blur

You know how it is waking up blinking in the first light of day. Slowly your eyes focus through the blur. Ears start to tune out a vivid dream and tune in to real sounds in the real world. That's what if felt like as I came to terms with the reality facing Duchess, a long-time patient of the practice. I'd known her since she was a little ball of white fluff barely eight weeks old. I'd administered the obligatory

vaccines and supplied intestinal worm pills, heartworm pills and flea treatments. Duchess was cute and charming and her elderly owners genial and trusting. A bond was struck, and a ritual established that carried us through the next decade.

On each anniversary of a patient's first visit, we sent out a vaccination 'booster' reminder notice in the mail. And dutifully without fail the owners would appear at the practice with Duchess sporting a neat ribbon in her topknot. Following a cursory clinical examination, the 'booster shot'—against mostly non-existent diseases—was administered and worm pills were supplied against the either non-existent or relatively insignificant intestinal worms. After the usual amiable banter, the owners would make their way to reception to pay the bill. Duchess had no say in the matter, but the humans were happy enough.

To the best of my recollection we never spoke about Duchess's lineage direct from her wolf forebears. Neither did we speak about her junk food diet, whether out of the can or packet, or human left-overs. The tartar on her teeth, receding gums and stinky breath were standard, normal and not worth discussion. Errors of omission are some of the hardest errors to first identify and then secondly to remedy. We don't know that which we don't know.

We, Duchess's owners and I, settled into a pattern where fundamental errors of omission were our standard *modus operandi*—the effect of which was catastrophic. Eventually after some years I took account of the murmur of the failing heart, noticed the accumulation of ascitic fluid in the abdomen and the sparse dull coat. The dental ill health started to elicit my attention and the owners told me Duchess was getting slower in her advancing years.

For many years I had followed the conventional veterinary path, thinking I was providing the best of veterinary care. A subtle arrogance and hubris supported my ego—and little Duchess was the

innocent victim of my wretched incompetence. When I recovered from the jumble of misplaced, confusing thoughts I was, to say the least, conscience stricken. I realised that it was not so much that Duchess was getting older, but rather that her junk food diet led to signs of premature aging. As I recall from over 30 years ago, the owners were understanding and forgiving when I told them this.

Veterinary frame of reference

Vets, through the ages, have put about the notion that they are the best placed, best informed and most conscientious people who can be relied upon to do the right thing for pets, people and the planet. It is the myth that sustains the belief that the veterinary profession must be provided with 'self-regulatory' status. Vets, the argument goes, need to spend many years learning the essentials of their profession. Only *they* know when things are out of kilter and needing diagnosis and treatment. Only *they* can be relied upon to employ scientific thinking on behalf of the wider community.

Unfortunately, I must tell you, this 'self-regulatory' status confers immense privileges and little by way of responsibility on the self-serving 'profession'. There is a widespread and erroneous belief that scientific thinking imbues the profession; that 'evidence-based medicine' is something tangible and that which all vets strive for. Unfortunately, passing fashion, more than high-minded cerebral function, is the determinant of what passes for acceptable veterinary practice.

The 'influencers' of veterinary fashion are the trade advertisers with their packaged, gift-wrapped concepts about veterinary drugs, diets and equipment designed to catch the attention and speak to the self-interest of the vets. The advertisements—in vet newsletters, drug catalogues and electronic media—pay lip-service to the needs of pets and their owners. But it's the opportunity to make a buck

that motivates the merchants and their target audience of general practitioner vets.

Here in Australia, in the late 1980s and early 1990s the dominant new fashion was the promotion and sale of expensive mobile dental workstations. These workstations on wheels, similar to your dentist's chair-side compressed air-driven hand tools, were hailed as the new profit centre for vets. A rich seam of untapped wealth was accessible, the ads suggested, when justifying the many thousands of dollars needed to buy the machines. The ready population of dogs and cats with stinky breath and tartar-encrusted teeth could be treated on a six-monthly basis. 'Dental prophy' (a shortened form of 'prophylaxis') was the euphemism emanating from the USA and used to describe the scale and polish of a dog's 42 teeth and a cat's 32 teeth.

Visiting salesmen and speakers at vet dental seminars encouraged practitioner vets to send out six-monthly client reminders after pet 'prophies'—earn a fee this month and again six months later. It was the guaranteed way to polish the smile on the practice accounts manager's face. These days, over 30 years later, the same cynical marketing continues apace, only more so. There are doggy toothbrushes, dental chews, mouth washes, dental diets and a panoply of products and plans designed to exploit to the maximum the pandemic of dental disease affecting our furry friends. In the USA, UK and Australia the organised vet 'profession' promotes 'dental health month' where owners are encouraged to present their pets for a dental assessment.

It's a systematic con designed to part owners from their hardearned cash—relentlessly and regularly throughout the life of the pet.

Back in the 1980s and 90s some vets began to question the need for such active intervention disguised as prophylaxis or prevention. What did dogs and cats do prior to the advent of dental workstations? More to the point, what did and what do wild carnivores do to prevent dental disease?

After my experience working in zoos, and on safari in Kenya in the 1970s, it did not take much effort to figure out that wild animals have zero access to a dentist and nonetheless do just fine. In fact, their fangs are kept immaculate by scything through meat, tendon and bone of their prey—not once every six months but at every meal.² Observe the feeding frenzy, the ripping and tearing at the carcass, and you'll understand what I mean. It's that vigorous activity that serves to scrape and polish the teeth while massaging the gums.

Contrasting nature's way with that of the dental workstation merchants, we needed to know how to harness the power of nature in the domestic setting. In nature every meal is tough and chewy. Was there a compromise whereby a raw bone could be provided once a week but otherwise the diet could consist of industrial 'food' in the can or packet?

Unfortunately, this was not a question that could be simply put and simply answered. Clients present their animals for treatment or for conventional vaccinations. They don't want or expect the vet to launch off on some experimental journey—especially when that journey is replete with potential hazards. Raw bones are known to break teeth, get stuck in the digestive tract, carry a multitude of bacteria and give rise to dog fights or aggressive behaviour directed at children. There's a belief raw bones carry parasites affecting pets and people. Raw bones attract flies and maggots, become stinky and messy, especially after your dog retrieves the bone from the hidey-hole in the garden bed.

Other considerations weighing with us were the ever-present threat of Veterinary Board attention. Vet regulators don't like vets to stray too far from conventionally approved thinking that dogs and cats are supposed to be fed cooked concoctions in the can and packet. Vets, competing with each other, could be relied upon to capitalise on any mishaps and to pour scorn wherever scorn could be poured. That was then and it's still the same today. Yes, it just shows you the durability of the veterinary mind locked shut against anything that challenges its preferred position of power and control.

We were right to be wary of the ruthless vets, then and now. As mentioned in the introduction not one of my new clients in the decade 2011 to 2021 came to me equipped with the understanding that raw meaty bones are an essential, indeed the main, component of a carnivore's diet. This notwithstanding that locally in this part of Australia we have been popularising the feeding of raw meaty bones since the late 1980s. Even though the local press, radio and television have carried plenty of stories on the fundamental requirements of carnivores, local vets have not and do not promote the health benefits of a natural diet.

Back in the 1980s and 90s we knew things were bad, but nevertheless we pressed on in hope of better days to come.

Environmental protection

A third motivating factor—additional to the awareness of the widespread dental disease and the cynical exploitation of said disease by the vets—was the increasing awareness of environmental degradation and the concomitant need for change.

Rachel Carson is credited with kickstarting the environmental revolution with her seminal 1962 work *Silent Spring*.

Despite condemnation in the press and heavy-handed attempts by the chemical industry to ban the book, Rachel Carson succeeded in creating a new public awareness of the environment which led to changes in government and inspired the ecological movement.³

Gradually over the succeeding decades awareness and alarm intensified such that Margaret Thatcher, the Iron Lady, said at the 1990 Second World Climate Conference:

The danger of global warming is as yet unseen, but real enough for us to make changes and sacrifices, so that we do not live at the expense of future generations.

Our ability to come together to stop or limit damage to the world's environment will be perhaps the greatest test of how far we can act as a world community. No-one should under-estimate the imagination that will be required, nor the scientific effort, nor the unprecedented co-operation we shall have to show. We shall need statesmanship of a rare order. It's because we know that, that we are here today.

[Man and nature: out of balance]

For two centuries, since the Age of the Enlightenment, we assumed that whatever the advance of science, whatever the economic development, whatever the increase in human numbers, the world would go on much the same. That was progress. And that was what we wanted.

Now we know that this is no longer true.

We have become more and more aware of the growing imbalance between our species and other species, between population and resources, between humankind and the natural order of which we are part.

In recent years, we have been playing with the conditions of the life we know on the surface of our planet. We have cared too little for our seas, our forests and our land. We have treated the air and the oceans like a dustbin. We have come to realise that man's activities and numbers

threaten to upset the biological balance which we have taken for granted and on which human life depends.

We must remember our duty to Nature before it is too late. That duty is constant. It is never completed. It lives on as we breathe. It endures as we eat and sleep, work and rest, as we are born and as we pass away. The duty to Nature will remain long after our own endeavours have brought peace to the Middle East. It will weigh on our shoulders for as long as we wish to dwell on a living and thriving planet, and hand it on to our children and theirs.⁴

Well said, Lady Thatcher. Her well-chosen words ring in the ears to this day and henceforth. We must, absolutely must, be cognisant



of the wonderful world and the all-supplying environment that we inhabit.

In 1990 I asked the President of the Sydney branch of the Australian Veterinary Association (AVA) if he would allow me to present a short paper echoing the Thatcher sentiments at an upcoming scientific and social meeting. On the appointed evening I was gratified to see Bob Kibble, the AVA National President, sitting in the front row. Things moved rapidly from there. And very soon it was announced that the 1991 joint Australia–New Zealand veterinary conference would be entitled Veterinarians and the Environment.

Back then I was 41 years old and brimful of zeal and enthusiasm. I leapt at the chance to join the organising committee and then to present a paper at the conference describing veterinary environmental impacts and what could be done to ameliorate those impacts. Brainstorming those subjects, ideas soon started to billow like large cumulous clouds overlapping and augmenting each other. Drawing on my education and life experience, thinking about vets and their place in the world, I realised the importance of the veterinary environmental footprint. Vets in the 1990s mostly treated pets—pets afflicted with periodontal disease. And by 1990 I had finally worked out that pets suffered from periodontal disease as a result of the junk pet food diet.

'Follow the money trail' is recurring good advice for anyone seeking to understand the motivators within any given system. The impacts of vets on the environment could easily be seen as intrinsic to the whole pet/vet and then the pet food economy. Veterinary pharmaceuticals depend on toxic chemicals and antibiotics that enter the environment. Processing, packaging and transportation place huge burdens on the environment, not least the processing, packaging and transportation of industrial pet foods.

Bingo, that was it, all roads, all money trails led to the industrial pet food industry. The vet profession was integral to the entire pet ownership promotion, pet resultant ill health and pet food industry protective cordon. I saw the junk pet food bubble economy in stark relief. However, for vets, as long as they kept their heads down, concentrated on fixing diseases and not questioning where those diseases came from then the gravy train would keep on delivering—regardless of the environmental consequences.

At the conference I seem to recall the handful of delegates who attended my talk provided polite acceptance but without enthusiasm. There was no exchange of telephone numbers (it was before the advent of email), no commitment to discussing things further. In the interests of piety, a gesture had been made. 'That surely was enough' seemed to be their message.

Myself, I was more moved by Margaret Thatcher's entreaties; to do our duty by Mother Nature. Besides I had spent the better part of the previous 40 years wondering about the meaning of life. I had been a rebel without a cause. Now suddenly numerous disparate threads coalesced making sense of a disorderly jumble. I had stumbled upon a purpose; I had discovered a cause.