

Sebastian Albu

“Killing a Calf in the Name of Science”

An apple flew over the fence as if tossed in disgust by some unseen hand. It caromed off the side of my car with a dull thud and rolled unevenly across the coarse asphalt, disappearing into a thick bush of basil going to seed. I bent down to pet the neighbor's dog, Pepper and it happened again. Another mortar shot up from behind the cedar shadowbox. This time it rolled to a stop at my feet. The dog, a little Pomeranian or something, scurried back to its owner who was smoking silently behind me. I remained bowed on one knee and observed the apple.

I had been parking under the tree for several months and witnessed the crop grow larger with each passing week of summer. I wasn't sure exactly what variety it was, but a few days earlier I had bitten into one and the fruit was still immature. The crown had grown large despite the worsening drought and its sagging limbs were dropping fruit like a wounded arthritic. The parking lot was festooned with rotting apples. I was accustomed to crushing them underneath my tires as I came and went. A few times, I nearly flew right off my feet as a renegade pome snuck beneath my shoe.

It was a green apple, though not of Granny Smith grocery size. A portion of its skin had been torn off and a chunk was missing from its pale white flesh. Copper colored rust was already forming on its exposed surface. My first instinct was to believe that it came from the neighbor's yard. There had been a crew of day laborers toiling in the neighbor's yard for the last few weeks. One of them, perhaps revolted by the dendroid's acerbic progeny, had chucked it over the fence and against my vehicle. It made sense. I considered slinging the bitten fruit back over the fence. However, as I examined the apple, I noticed that the bite marks could not have possibly come from a human mouth. There were narrow striations within the pulp carved by an elongated flat tooth. It resembled a chisel or a blade; perhaps it was wielded by some kind of rodent.

I stood up and threw the apple into a nearby dumpster and got into my car. As I backed out of the lot, a smack on the windshield elicited a reflexive stomp on the brake. I jerked my head back around to front. The fruit rolled up the par brise then clumsily bumped back down the hood and fell next to my door. This was the final straw. I savagely scanned the bough of the tree. Nothing. Then I saw something disturb the inner branches. I leaned forward to get a better look, but the thick foliage provided ample camouflage for the sniper. I waited, motionless. A bushy tail appeared out of the leaves and hopped onto the fence. It crept along cautiously, surely aware of my silent vigil. The squirrel glanced in my direction, abruptly pivoted and, offering me a fleeting posterior view, leapt back into the tree. My curiosity was satiated. I let the car roll back down the alley and guided her out into the proliferating flow of early morning traffic. It was eight in the morning. I had to kill a cow today.

It occurred to me as I rode the elevator that I had become rather callous to this whole killing business. My first foray into the world of scientific research was as the benign role of voyeur, but that quickly turned into a minor part as mouse wrangler. I kept the moral qualms to myself as I simply conceded it a matter of employment. I justified it to others and myself as an issue of:

"We all have to make a living, somehow."

I hated to admit it, but it was the caustic truth. I fed myself, in part, by ending the lives of small rodents. Somewhat unfortunately, (from an ethical standpoint) I had steady hands and good eyes so I was given a seat behind the scope and recruited to perform more detailed microsurgeries. These subaltern sacrificial acts consisted of inserting a miniscule pressure catheter, via the jugular vein, into the right ventricle of the mouse heart. The mice ultimately morphed into rats and soon I was jabbing my ketamine laced death-stick into larger shrieking rodents. Though I promised myself I wouldn't be a lifelong butcher, I found myself roped into increasingly more animal work. It was never a lucrative existence, but it provided me with an unprecedented incentive-stability. There was an infinite supply of caged rodents just an email away. As long as there was grant money, I had a job. That was something writing unsolicited essays and performing experimental music never gave me.

Murines aside, taking down a cow is a different game. As a general rule, the smaller the animal, the less guilt we feel for killing it. Few people (my own father gratuitously excluded) ever think twice about stepping on an ant or turning an eight-legged webiste into a grease spot on the wall. Smashing a housefly into window paste is not repented. There is, to date, no organization by the name *PETI* and the "A" in *PETA* does not stand for arachnid. However, as the animal gets bigger, we begin to take issue with "murder." When does it become "animicide?" Just how cute must the animal be? Does it have to be a mammal? Surely not. No one likes to see dead birds in the street. We are repulsed by sight of a feathered pancake devoured underneath our tires. We might care only slightly less if it's a pigeon or a little more for a fugitive parrot. Pigeons are filthy creatures, right? Feathered rats-gutter birds. Should I be worried that I ran over something last night? If it was a cat or, God forbid, someone's dog, yes, I'd be very nervous. In fact, if I didn't stop and make sure it was neither, I'd probably be a wanted man right now. Fortunately, it was just a squirrel. I got off lucky. I hit a fox once and felt bad for a few days. It was as big as a terrier, but I don't know of too many people curling up at night with their pet fox laying next to them. A vulpine assassin broke into our coop and mangled all the chicks a few years ago, so I didn't feel *that* bad. So then it could be an issue of domestication. Rabbits and baby chicks are relatively docile, mostly domesticated and cute as a button. It doesn't surprise me that animal rights groups take their side. Therefore, the cow, also calm, adorable and, most importantly, innately bestowed with a preponderance of living tissue and sad murky eyes, is not hacked to pieces by a greenhorn without at least some apprehension.

The killing crew I accompanied was comprised of four other people of specialized skill. They would show me the proverbial ropes. Betty and Crimm were there to isolate smooth muscle cells from the pulmonary artery. George was a hoary mechanical genius from the adjacent lab. If there were any technical issues or equipment malfunctions he was the man. His long leathery fingers could take anything apart and put it back together. He was also in charge of the post-op dissection, which I heard he performed with violent efficiency. Finally, there was Van, another tech from my lab who performed the catheterization and measured hemodynamics. I was relieved when he told me I wouldn't actually be killing the beast. I was just there to observe and lend a hand if necessary. He said I wouldn't have any blood on my hands the first time.

We arrived in Fort Collins at 10:30 at a university annex I didn't recognize. The

mood was, at the very least, chipper. Laughter is one way to deal with a traumatic event. I stripped down and donned the standard issue baby blue scrubs, but I wasn't cracking any jokes. Conversely, I felt a pervasive solemnity come over me. In retrospect, I am ashamed to say it was mostly a contrived reaction. In the course of anticipating the actual moment, I created some sort of emotional protocol that I rigidly adhered to without conviction.

Despite the mildly effusive façade I erected, I felt an honest lump in my throat when I walked into the hyperbaric chamber and saw the callow subject of the impending study. Someone had fashioned a small makeshift corral at the end of the room. They had duct taped metal poles together, giving the young Holstein just enough space to poke its head through. I could tell that the stirk was nervous. There was no doubt the poor animal knew something big was happening. I always wondered what went through the animals' heads just before the big chop. I liked to think that they were blissfully unaware of their sad, gruesome fate poised directly above them. After wiping away much blood from my hands, I believed this was true for rats and mice. Regretfully, I saw unequivocal fear in the eyes of the young ruminant. It wasn't quite desperation yet. Nor was it the kind of experienced panic that takes hold of an animal and drives them to bite, claw or kick. Rather, it was an artless display of naïveté. The calf was around two weeks old and, although of considerable physical stature, I imagine it felt the worst kind of fear. I am talking about the dread that accompanies uncertainty and utter confusion. Nothing is scarier than being taken away from familiar surroundings and plunged into a foreign world. This is not an easy task to deal with as an adult, but at least there is some life experience to draw from.

I stuck my thumb in the calf's mouth and, instinctively, it began suckling. My finger sank into the coarse depression of its tongue. I petted its sturdy skull and avoided eye contact. Instead, I focused my gaze around the room. The chamber looked like a ship's gallery with porthole windows and thick studs lining the curved walls. The galleon of death, I thought. There were three fans furiously pumping cold air into the circulation at the back of the room, just above the corral. The operating table was padded with brown plastic foam to facilitate a quick wipe down. We brought the hemodynamic core computer system, various pressure transducers, an ECHO machine and different lengths of catheter tubing. These, along with syringes and other probing instruments were set up on another station.

The first part of the job was to move the calf from the confine to the operating table. They picked up the animal by its legs and placed it on its side. Despite barely being the tender age of two weeks, the bullock was already 55 kilograms, which made this a two-man operation. After Van and George hoisted the animal out and placed it on the table, it became agitated. Its legs were quickly tied together in rodeo fashion, except in this case it was done with a roll of sports tape. I was stationed next to the calf and I covered its head with a towel. I held the blindfold down firmly, ensuring the animal's eyes were completely covered. Immediately, its body ceased fighting and went limp. Crimm held its hind legs while a doctor was on the front two. George secured the animal from the rear and I grasped the head. Once the animal was restrained, George shaved several small patches of hair off its body and wiped them down with Betadine. He clipped a square on its neck and exposed the pulsing rhythm of the jugular vein. Van came over with a syringe filled with Lidocaine and plunged the needle into the steer's

neck. The animal reflexively bucked as the spike released its numbing discharge into the surrounding muscle. The first heave caught me off guard, but I was able to keep it on the table. Van stuck the poor creature several more times and with each successive stab the bullock's strength seemed progressively sapped. Finally, the anesthetic's powers took over and it lay still.

Van produced a small disposable scalpel blade and leaned over the calf's head feeling for the steady pulse of the vessel. He made a small incision and the animal jerked up, but it was no match for three pairs of subduing hands. He vigorously cut into it again and crimson beads dripped onto the table. With impressive dexterity, he grabbed a rubber piece of tubing and inserted it into the wound. It went in smoothly and I looked on as, after a series of tubing substitutions and insertion of adaptors, he slid the catheter into the vein.

The temperature steadily increased despite the incessant propulsion of the ventilators and I felt a strange and uncomfortable palpitation in my chest. Everything was happening behind me and I had to turn my head in order to follow the action on the computer screen. I took a few cursory glances at the readings, but just turning my head induced waves of nausea. We were still at sea level altitude and the pall door was gaping ten feet behind me. I thought about excusing myself and rushing out of the sepulcher. Yet, despite the onset of puissant loathing enveloping me I could not bring myself to commit the anemic act of desertion. I decided that languor was merely a by-product of my state of mind. I could control it with a little resolve. I determined to focus on something until this malaise wore off. I gingerly stroked the bullock's skull with the grain. Beneath my sweaty palm, I curled my fingers around the nape of his neck, gently kneading the sinewy muscle between my thumb and forefinger. I tried to pry my sight away from the engorged laceration throbbing just inches away. Inexplicably, I couldn't extricate from the gore. I thought about trying to make conversation with Crimm or George, but I assumed that any words tumbling out of my mouth would be poorly ordered and construed as pure gibberish. I kept my mouth shut and my gape returned to the bleeding slit. I arched my back and cracked my neck, producing a several sharp reports that resonated through my head like gunfire. My eyelids rolled down like the final curtain on some feeble high-school musical. I loosened my grip on the noddle. I saw, against the black backdrop a slow faucet leak. Ruddy globules formed on the mouth of the spigot. They grew until they were fat pinguent membranes quivering against their own weight. When they reached an ungodly size they detached and plunged into the abyss. I watched a single corpulent bolus form and pullulate until it broke into a freefall. It sank deep into the black chasm, picking up speed and contorting until it exploded violently, showering my vision in a sanguinary stain.

I was jerked out of my slaughterous nightmare by a heavy hand on my shoulder. I opened my eyes and saw the calf halfway off the table. It was writhing against the desperate arms trying to restrain it. It threw the blindfold off and its head was twitching sideways. In an instant, I saw real fear in its deep glossy eyes. They were no longer the dopy and vestal peepers of a child. Within them was now the unmitigated image of pure agony. It was a look of sheer horror; there was unadulterated pain and suffering. The calf knew it was going to die.

"Cover its eyes!"

The tumult jarred me back to reality. I felt wispy and weak, like a blade of grass

at the mercy of the wind.

"Get the towel over its eyes! It's getting up!"

The calf was nearly off the table. Its neck muscles were strained and thrust upward. The urgency of the situation gave me a fresh jolt of energy and I grabbed its head behind the ears and forcefully pinned it down. I snatched the blindfold off the ground and stretched it tightly across its eyes. As if I had just hit the "off" switch, the animal went limp. All of its energy was drained in the blink of an eye. Someone asked if I was alright. Did I need a drink? A break? I certainly could have used both. However, the shame I felt in losing control of the situation compelled me to vehemently decline.

"I'm OK. Let's keep going."

I saw several hesitant looks, but no one opposed and the experiment resumed. I reinforced my grip on the head. George was taking pressure readings behind me and I heard numbers periodically spouting from his mouth. Even as my determination waxed, I noticed disturbing feelings take hold of me again. The blood in my brain ebbed and leaked into my feet. It created the weird sensation of warm puddles in my shoes. My body temperature seemed to drop ten degrees and my teeth chattered inside my head. Attempting to steady myself, I locked my legs at the knees and clenched my jaw tightly. I stood in this position hoping I could last. Then my mind started to go blank. Objects in the room faded one after another. Finally, I felt the onset of the swoon and I knew I was done for. My exsanguinous hands were dry and chalky, still fastened to the animal's skull like a vice. They blurred and a mellow sensation, like easing into a hot spring, washed over me. I relinquished control of the head and turned to take a step. I remember saying something like:

"Betty, can you hold it for a minute, I have to..."

Then I sank. Quietly, I slipped into a deep and clement gulf. Gliding blindly, I felt tentacles slither through me and wrap around my torso. I let them tangle as I came to rest on one knee.

When I opened my eyes I knew what had happened, but not how long it had taken. All was deathly quiet in my head. Slowly, static started crepitating and voices became audible. I bore the weight on a single knee and braced myself against the metal bars of the corral. I stood up. The altimeter was climbing toward fifteen thousand feet and the door was sealed.

The second part of the procedure was a replica of the first, except that it was done in hypoxia. When I felt confident in the congruence between mind and mouth, I inquired about the altitude. It was ten thousand feet and climbing, roughly two thousand feet every ten minutes. The bullock was breathing heavily. I looked over at him and his chest heaved in between jagged breaths. I put my hand against his heart and felt it pounding laboriously. Surreptitiously, I cupped the left side of my own chest. I counted a few beats until I was convinced that my ticker was pumping normally. I assumed my new position at the rear of the animal. He barely moved, but I still held his taped hooves.

The lack of oxygen created an atmosphere of silence and claustrophobia. Everyone was tired. After an hour at fifteen thousand feet, there was little humor left in the room. Faces were drawn and no action was committed frivolously. Morale was still good, but it was obvious that everyone was ready to be done with this thing. George finished taking measurements and recorded the data. The animal's expression was completely vapid now. It was thoroughly worked and after seeing all it had endured, I

was glad that it was going to be put out of its misery. The room was a repugnant exhibit of excretions and eviscerated remains. I had become inured to the olfactory prison hours ago, but I was newly revolted each time I looked at the operating table. Viscous ooze had formed around the nostrils and the unctuous mass dangled like a pendulum propelled by thick expirations. The computers and other machinery were wheeled out. The last task was to bleed the bull and harvest its organs. 30 milliliters of pentobarbital were injected directly into the jugular. The blindfold was off and there was no escaping its vanquished dying eyes.

It was a slow death for the calf. The drug was injected 5 milliliters at a time. Gradually, I noticed the life leaving its eyes. They became hollow, glossed over by a waxy film that thickened with each dose. When it was no longer alive in the traditional sense, Van dug into its neck, exposing the carotid artery, a giant panting beast gorged on barbiturate-laced blood. After dealing with rats and mice, I was shocked to see the girth of this index finger-sized monster. He placed a bucket underneath to catch the bloody waterfall.

The pressures in the jugular and the carotid are very different. Severing either vessel causes an animal to die from hemorrhaging, but jugular blood doesn't even come close to matching the force of the carotid. I was well aware of this as I watched him isolate the artery and tie off the proximal end. A rat had squirted me a few weeks earlier, so I moved away to avoid a potential spurt. I stood against the wall three or four feet away as Van and Crimm held a piece of plastic tubing flush with the artery and made the incision. As soon as the blade cut through the wall, the vessel exploded. It unleashed a torrent that caught me square in the chest. It continued gushing and a second vigorous discharge struck my face. It was warm and runny. I felt a tepid trickle form below my Adams apple; it slithered down my chest. The initial blast was the worst. After it slackened, they were able to insert the tube and tie it off.

I was completely drenched in cow blood. I felt it inside my ears and tasted it in my mouth. The bulk of the spray seeped in and rapidly spread across the dry fabric until it looked like I had been dipped in tomato sauce. I wiped my face with the back of my hand, but it only smeared everything and augmented my grisly appearance. Both of them were laughing hysterically as I pondered my next move.

"Lame."

I felt the trickle (now cold) enter the scrub bottoms. Curiously, I was not angry. I walked to the locker room down the hall, leaving bloody footprints in my wake. I wondered why I was not upset. I had just been hosed down with another creature's serum. I passed someone on the way and they said something funny to which I smiled politely. I checked the mirror and saw that I looked like a butcher or a serial killer. I started to peel off my clothes and someone ran in with a camera. This had to be documented. I posed amicably. Then I was naked, inspecting the stains on my thighs and it occurred to me that I ought to be a *little* angry. Actually, I was upset about *not* being more upset than anything else. It seemed despicable to be part of such a casual bloodbath and not feel something powerfully disturbing. But I felt nothing. My calluses were tougher than I thought. I would shower later and watch the remaining vestiges of the bull's life seep out of my hair and disappear down the drain without a trace. Then, perhaps I would have a small snack and call it a night. Somehow it didn't seem right.

When I returned to the abattoir, I was in plain clothes. The carotid had dumped

three liters into the bucket and George was busy hacking into the ribcage with a scalpel. Everyone knew by now. He stopped and had a good laugh. Out of respect, I joined in flimsily. He went back to opening up the animal. He sliced through skin and muscle, hacking into the meat surrounding the ribcage. He exposed the bones and grabbed them with one bare hand, viciously prying them away from the carcass until they broke with a sickening crack, exposing the chest cavity. Inside, he continued the job like a seasoned veteran. With swift maneuvers, he dexterously removed the heart-lung block, kidneys and liver and hauled them away across the hall where another crew had arrived to isolate the important tissues.

Then I was alone in the room with the carrion. The tongue was hanging out of its mouth the way it can only in a corpse. I saw remnants of the gore shower splattered like rain against the white walls and windows. A doctor walked past and made a funny face behind the plasma-streaked glass.

I went into the dissection room to observe how to isolate the pulmonary artery. It was bustling with people dicing up different organs assembly line style. Some were engaged in conversation; others were engrossed in their work. There were chunks of lungs changing hands, giant kidneys being chopped in half and chambers of heart dipped in formaldehyde. I sat next to Van. He was working with a large lobe of lung that looked like it had just come out of a blender. It had the appearance of a puréed salmon fillet. He sliced around a bit, took several sections of the artery and froze them in liquid nitrogen. I looked at the clock on the wall. It said quarter past three. The entire operation had lasted less than six hours. I wiped down a few areas coated with residual dried bits of mystery organ and walked back into the chamber to make sure we had not forgotten anything. The cadaver was gone. Someone had hauled it away to the freezer upstairs. All the blood was wiped away from the operating table and the walls and windows were spotless. The fans purred calmly. Suddenly, it smelled like a stand of pine trees.