## 2 Three Ghosts and a Little, Brown Dog

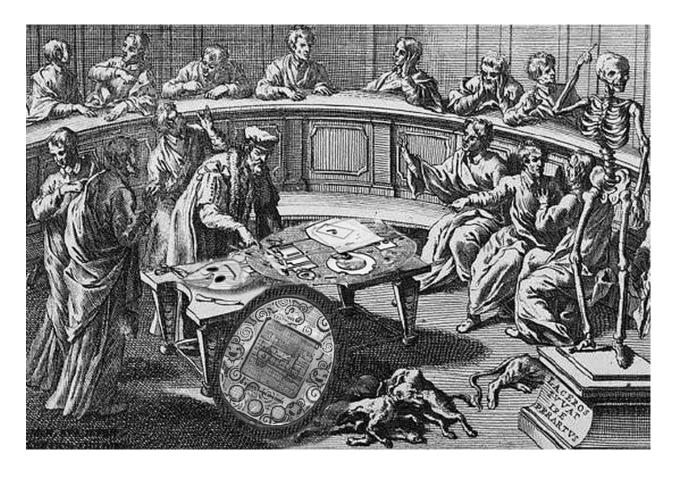
a sermon by Pastor Manul Laphroaig

Rise, neighbors, and in the tradition of the season, let's have a conversation with spirits of the past, the present, and the future. We will head to a disreputable place, a place of controversy where, according to the best moral authorities, irresponsible people do foul things for fun—a place of scandalous, wholesale wickedness which must be stopped!

Yes, neighbors, we are heading to an anatomical theater, to observe its grim denizens at their grisly pastime. While some dissect carcasses, the rest watch from rows of seats. They call it learning and finding things out—even though most of what meets the eye looks like merely breaking things apart. They say they are making things better—even curing diseases!—though there are highly titled authorities with certified diplomas and ethically approved methodologies who make it their business to improve things "holistically," without all this discon-

certing breakage and cutting things off. Truly, if this doesn't beg the question of "How is this allowed?" then what does?

There was a time, neighbors, when anatomy didn't mean trying to guess how a thing functioned by dissecting a specimen. When Andreas Vesalius published his classic human anatomy atlas with its absolute priority of dissection for learning what was and what was not true about the human body, his fixation on biological disassembly was a scandal. A proper anatomy book was understood to include Aristotle's four humors and a fair bit of astrology; imagine how regressive Vesalius' fixation on cutting things apart to find their function must have looked! Even when he became a royal court physician, other learned physicians called him a barber—for everyone knew that only barbers and sawbones used blades. Until Victorian times, a doctor was a gentleman,



and a surgeon wasn't. Testing the patient's urine was fine, but taking knives to one was simply below a proper doctor's station.

Vesalius' dissection-bound atlas became an instant hit, though. It turned out that going into specific techniques of dissection—place a rope here and a pulley there—so that others would replicate it was exactly what was needed; the venerable signs and elements, on the other hand, not so much. Which did not save Vesalius from having to undertake an emergency trip to far-away lands for an obscure reason, dying in abject poverty on the way. He died before the first dedicated anatomical theater was built in 1594, by which time anatomy finally meant what he had made it mean.

Ah, but that was then and now is now! The year is 1902, and physiology is the latest scandal. Again, moral delinquents and their supporters are doing something loathsome: vivisection. Again, they come up with excuses: it's all about finding out how things work, they say; some kind of knowledge that makes them different from the uninitiated, we hear. And even if there was knowledge to be gained, could it really be trusted to such an immature and irresponsible crowd? Stuck to their-not so innocent—toys and narrowly focused views, they can't even see the bigger ethical picture! They cater to and are occasionally catered by truly objectionable characters—and then have the gall to shrug it off. They talk about education, but who in their right mind would let them near children? Too bad there isn't a general law against them yet, and the establishment is dragging its feet (or even has its own uses for them, no doubt disgusting)—but the stride of social progress is catching up with them, and, with luck, there soon will be!

That was the year of high court drama, a pitched battle between people who each believed to embody "social progress" against "superstition" on both sides. It saw rallies by socialists and riots by medical students, scientists and suffragettes, British lords and Swedish feminists—and a lot more, including its own commemorative handkerchief merchandise. It is immortalized in history as The Brown Dog affair, one so dramatic that even the Wikipedia article about it makes for good reading. Incidentally, the experiment involved led to the discovery of hormones.

So says the Ghost of Science Past, but we bid him to haunt us no longer. There is another, more cheerful Spirit to occupy our attention—the Spirit of the Present. This is a more cheerful Spirit, involving pets only as cute pictures thereof—and lots of them!—much to the relief of those who think neither Schrödinger nor Pavlov would make good friends.

But this Spirit isn't left without attention from our moral betters. What about the children? What about the lowlives and the criminals whom we empower by our so-called knowledge? What about the bullies, the haters, the thieves, the spies, the despots, and even—the terrorists? Would a good thing be called *exploitation* or *pwnage*? This new reality is so scary to some people that their response goes straight to nuclear; they call for a *Manhattan project*, but what they really mean is "nuke it from orbit." To some, it's even about evil "techno-priests" hijacking "true social progress"—or at least it sells their books.

Nor is this Spirit's domain devoid of court drama, even in our enlightened times—although looking where we tend to fall on the scale between Vesalius and Lord Alverstone's Old Bailey, one begins to wonder just where the light is going. No wonder the Spirit of the Hacking Present looks somewhat frayed around the edges.

Why wait for the Specter of the Future to make an appearance? I say, neighbors, let's make like 1594 at the University of Padua—back when a university used to have quite a different place in this game of ghosts—and have our own Anatomical Theater, a Theater of Literate Disassembly!

Just as Knuth described Adventure with Literate Programming,<sup>1</sup> we'll weave together the disassembled code of a live subject with expert explanations of its deeper meaning. (Of course the best part might well be a one liner, but we'll save the reader hours of effort!) We'll weave a log and a transcript into an executable script that reproduces the cuts of a Master Surgeon, stroke by stroke.

It is high time. We have been doing our dissections alone—with none or few to watch and learn—long enough. Let other neighbors watch your disassembly, show them your technique, and let them get a good view and share the fun.

As the good old U. of Padua preserved its theater, so shall we! And then perhaps the Specter of the Future will smile upon us.

 $<sup>^{1}</sup>$ unzip pocorgtfo10.pdf adventure.pdf