

Music, art, and bioterror: an interview with Richard Powers



Jesse Hicks

Sep 11, 2014 · 14 min read

Over his long and illustrious career, Richard Powers has tackled classic sci-fi concepts such as artificial intelligence (*Galatea 2.2*) and virtual reality (*Plowing the Dark*), while grounding his stories in worlds immediately recognizable as our own. His work combines a voracious intelligence with a deeply felt sympathy: as with the best science fiction, he asks what effect our works have on the human beings who've built them.

With his new book, *Orfeo*, Powers draws on the real-life story of Steve Kurtz, a professor and artist whose work with genetically modified material was seized by the FBI as evidence of "bioterrorism." Kurtz's life was turned upside-down; it took years of fighting to clear his name. In *Orfeo*, avant-garde composer Peter Els finds himself on the run after authorities discover his newest work: musical experiments hacked into bacterial DNA. The men in hazmat suits arrive and label Els a terrorist, sending him into hiding. Powers draws on the Kurtz story and Orpheus

myth, setting his tale among our security-crazed America, where the technologies that connect us are also those that keep us under surveillance.

What was the genesis for this novel?

Well, as with several of my other novels, the genesis was actually a two-stage thing, a long gestation. I had heard about the Steve Kurtz affair not long after it happened in 2004. That story captured my imagination in that moment, the moment of his arrest. I was very interested in bio-art before that, in the work of people like Eduardo Kac, Joe Davis and so forth. But when Kurtz was arrested, I just thought, “This is terrific drama.” The legitimate use of bio-materials for art colliding with the security state.

I didn’t do anything with it at the time; I was pretty busy writing *The Echo Maker*. The story surfaced again in 2008, when Kurtz was finally – 4 years later – cleared of all charges. It was kind of astonishing to me at the time to discover that he had taken that long to get his life back, when he probably should have been able to make his case in a day or two at the most, given his vitae and the places he’d exhibited, the upcoming exhibition that justified all the materials at his house.

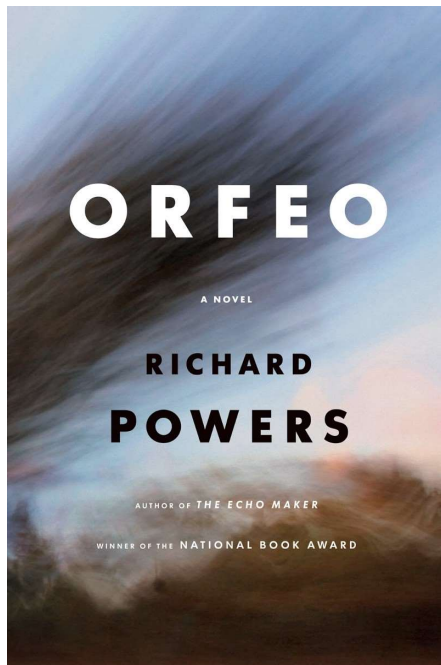
Do we have a terrorist here? Or do we have a real artist here? Or is there a difference between art and terrorism?

I’d thought about the story, I guess, at that time, and there was something intrinsically difficult from the novelistic standpoint. The initial arrest and confusion, the confrontation – do we have a terrorist here? or do we have a real artist here? or is there a difference between art and terrorism? – it rapidly disintegrated into something, you know, very stupid. And anti-dramatic: four years of the government trying to save face; not having a case and not surrendering. By the end they were still trying to get him on mail fraud, just to have anything to charge him that stuck. I didn’t know what to do with that story, artistically.

When I finished and published *Generosity* in 2009, I had a visiting stint at Stanford. Two things happened to finally consolidate and congeal the ideals I was having about the Kurtz affair. One was reading Alex Ross’s wonderful history of twentieth-century music, *The Rest is Noise*. Having him situate so many of these iconic twentieth-century pieces inside biographical and sociographical frameworks just made them dramatic

again for me. I began to think about music as a possible subject, having written my last music book close to a decade earlier.

The other is that I had the good luck to get a job as the lab assistant in the laboratory of Aaron Straight, the Stanford biochemist, working with chromosomes and chromosome regulation. He was doing a large gene screening, and an intermediary friend of ours asked if I'd be interested in getting my hands dirty – and I was! After spending about ten weeks in Aaron's lab and seeing how this stuff is done, all the pieces of the puzzles kind of came together. I thought, I can retell this Faust story and combine it with this Orpheus story and produce something that *remains* dramatic because it is a bit more ambiguous than this Kurtz story. That's how it all came together.



This also seems like a return to many of the themes you've explored surrounding creation, music, and art: the tension between creating an art that is about embodiment, or dwelling in time, and an art that tries to transcend that – to be timeless. In *Orfeo*, Els repeatedly says that he's writing for "forever" and "no one." Part of the drama, I think, is in his questioning that belief, and how he's lived by that belief. What

makes you return to both music and that broader question of the purpose of art?

I have now written three novels, out of the 11, that deal very directly with music, and take music as their central subject. If you look at the rest of the novels, I'd say almost every one does indeed bump into this broader question of creative expression, artistic potential, language in the broadest sense – communicative, but also aesthetic and even spiritual gestures.

The way these come together in the new book is along the axis of the question of attention and concentration. Focus. Music's ability to stop time, or to somehow take us momentarily above this constant gauntlet of consciousness that we're in, and, for a moment, give us a glimpse of

time on different scales, or a kind of timeless potential inside consciousness. So you're right in saying that's one of the attractions in returning to the topic.

*At one point Els tweets the line by Duke Ellington,
"When art ceases to be dangerous, you don't
want it."*

But I also have become very interested in this question of danger. Whether artistic expression isn't intrinsically a challenge to security—or safety or comfort—a change in the status quo that's going to seem alien or intrusive. In the broadest sense the book is about that nexus of attention, the ability of an individual to arrest and filter the superabundance of stimuli and choose to concentrate on a solitary and deep experience—and the degrees to which that is always going to involve a certain amount of defamiliarization or destabilization or danger.

At one point Els tweets the line by Duke Ellington, "When art ceases to be dangerous, you don't want it." But of course the tragedy of his story is that he moves, gradually but unwittingly, over that threshold where this idea of danger changes qualitatively – from this question of creating a fear, distress, or discomfort as an aesthetic phenomenon, it becomes a *real* danger. It's a collision with the culture of fear, in a country whose obsession with an unachievable safety, I think, very few of us, would have suspected until the full extent of the mobilized efforts to surveil and patrol and control anything that looks like a potential violation of safety in a broadest sense was revealed.

The book references the notion of the iPhone as a convenient tracking device, and the idea that all of your web searches may be showing up in a database somewhere. Obviously that's something people suspected, or knew private companies were engaging in, but the Edward Snowden revelations changed that environment. I wonder how that connects to what you're saying about our ability to pay attention, to connect dots in a way that's useful, and not generally harmful. In the book, Els being labeled a terrorist is a misreading of his actions, but we could say that in real life the NSA is trying to pay attention to *anything* that could be a threat. I wonder how that larger institutional attention relates to misapplied attention, or inattention, on the part of individuals.

For me, the connective tissue, the thing that underpins both these questions, is big data. Let me back up and say that, when I was working on this book, it was set in 2011. Exactly ten years after that attacks. And I had some anxieties about the fugitive paranoia that Els articulates, and whether this was credible or exaggerated, to readers. In a sense, that face that Kurtz was apprehended in 2004 and held for so long—you can chalk that up to proximity to the attacks. It was just three years after. But, a decade on, is anyone going to believe that when this guy is afraid to use his cell phone or check out a library book or to run his credit card at the gasoline pump—is anybody going to take that seriously, this idea that he's leaving a data trail that's going to be traceable?

It wasn't until the book went into production that Snowden's revelations broke. Instantly, my worries flipped over to the other side: instead of worrying that I'd overstated or over-dramatized the case, now I worried that I had understated it, and there was lots more room to play with that sense of the surveillance state and the extent of its intrusion into ordinary life.'

The point that you made is the germane one: that when we, individuals, are presented with a superabundance of incredibly detailed, entertaining, engaging, informative information—to put it in a musical domain, when we can hear every piece of music ever written or recorded, from any era, at any time, from anywhere, how are we supposed to produce the kind of sustained, filtered, exclusive attention needed to listen to anything at all? This same superabundance that makes it difficult for us to get through a three-minute song without being afraid that we're missing infinitely more entertaining diversions on all of the other bands that are accessible to us – this same superabundance of data actually makes it irresistibly attractive to those powers the be that would like to anticipate or predict possible threats to vested interests and our collective safety.

There's a way in which big data changes—*necessarily* changes—the way that we consume, process, think about what is controllable, what are the elements of our life to which we're looking for orientation and grounding. The tools are in place that make it possible to acquire massive amounts of noise. And find in that noise signals you didn't even know you were looking for.

A distracted populace is also in some ways a safe populace. So there are insidious ways in which this proliferation plays out, in changing the

nature of the social contract: what we're willing to accept, and the ways in which we consume our pleasures and our perils.

It seems that part of the assumption in scooping up all that data is that you must also have scooped up the knowledge you were looking for. So despite all of this noise, there's still a sense that big data offers omniscience. This is the NSA's ultimate goal: a kind of high-grade pattern recognition.

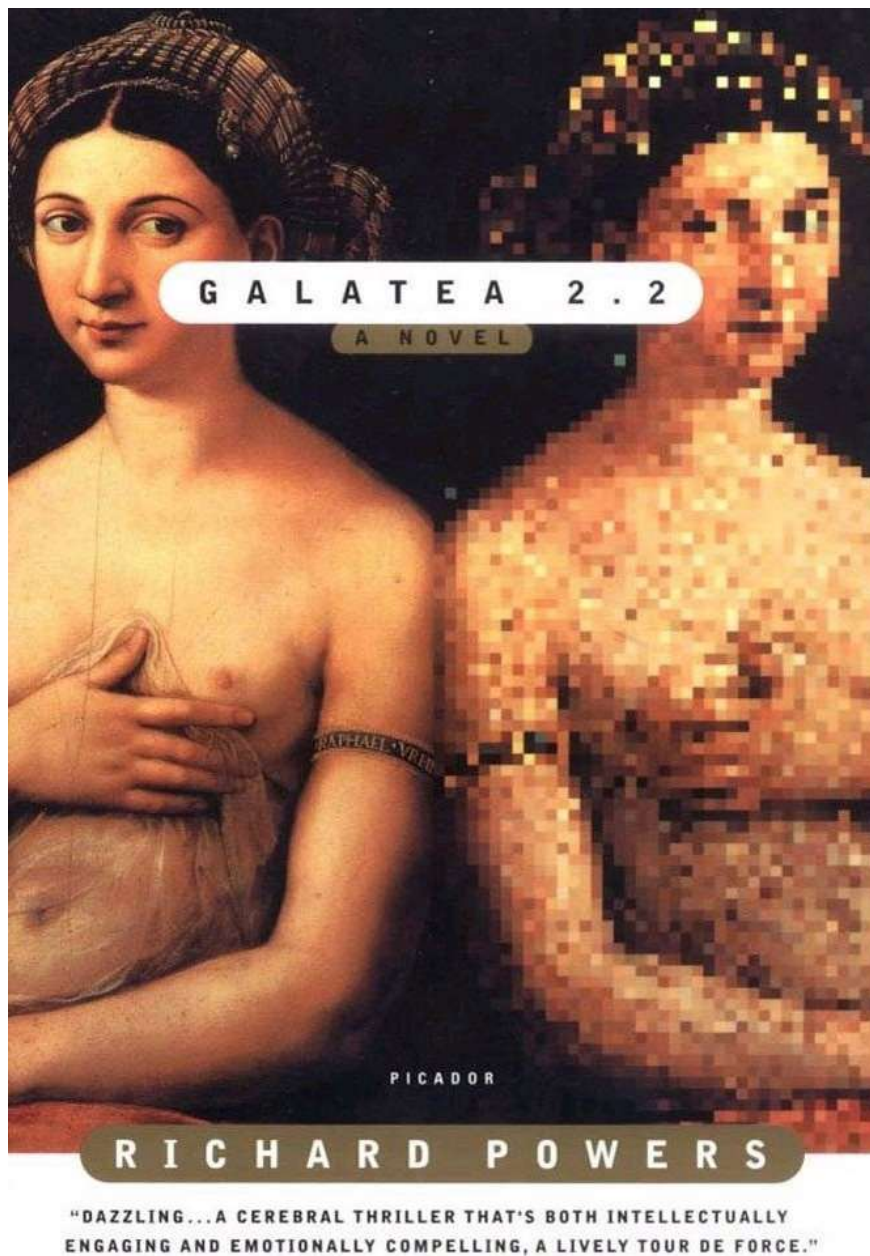
Right. If you simply get *enough* data, you don't actually have to get causation anymore. You don't have to actually know what you're looking for. You can start to use algorithms and pattern recognition. Correlation – if you can simply acquire enough data, you're going to get indicting correlations, and that's all you need.

With that presumed omniscience comes the belief that anything that can't then be reduced to a data point becomes threatening. It's a challenge to the whole framework of understanding. When, at the beginning of the novel, Els can't explain why he was working with this genetic material, it's partly that he can't quite articulate his motivation to himself. But that "secret" becomes a real challenge to the authorities, to his friends, to everyone.

That's exactly right. We fear what we don't understand – we fear the anomalous or the exceptional or the aberrant, the unusual.

The ability to collect massive amounts of data is a seductive invocation to believe that your knowledge is going to increase proportionally to your information. And if it doesn't, that's a great source of fear.

That sort of loops back onto the cultural concern of the book, too. Els, as the composer, is looking for the new, looking for the kind of music that you can't quite hear yet. Looking for expressive possibilities and innovations that aren't stultified by legacy. But any attempt to create the new, to change the basic grammar of an artistic expression, is going to create that same kind of fear. The fear of the not-yet understood.



There's a line in *Galatea 2.2*: "The loneliness of writing is that you baffle your friends and change the lives of strangers." There's an ambivalence there: two effects of an artistic expression. But with a slight tweak that line could also apply to the solitary sleeper cell member or the lone gunman – the person who is a cipher to his friends but steps out onto the world stage and becomes a historical event. It seems connected to the subversive power of not living in public, of simply being solitary.

The profile of the rogue figure – the terrorist; the person everyone describes as a hermit who didn't want anything to do with his neighbors, and turns up as the next mass-murderer – that solitary figure that's so familiar to us as a figure of fear, resembles in some very palpable way the artistic profile. The solitude of the writer, which is a

real thing, actually looks like a party compared to a lot what composers of concert music in this century have had to deal with. The writer still feels as if there's still a potential active audience out there, and I'm not sure many composers of contemporary classical music can feel the same way. At one point the book mentions Els's music is the kind that has more people up on stage in the concert than down in the audience.

It's an interesting paradox, as well, that in order to leverage artistic possibility, you need the kind of filtering and seclusion necessary to create. There is an irony and a reversal in Els's life as well, in that he does not have an audience to speak of until the great listeners enter into his life. The interest paid to him by the FBI rapidly becomes a public interest; it's not until he goes on the run that he has the ear and the imagination of a substantial public.

The phrase “weaponized art” appears in the book, and that’s an adjective that arrived in the public consciousness most recently with the anthrax attacks of, again, a decade ago. But that idea that anything can become “weaponized” in the wrong hands seems another symptom of post-9/11 America. To see that adjective applied to art in a more than metaphorical way might be historically unique.

The book raises interesting questions about the historical danger of art. One of Els's tweets is something to the effect of, “Music has killed more people than my bacterium ever will.” That seems like a hyperbolic statement at first, until you really slow down and reflect on that. The use of music as this technology to directly manipulate the emotions of people, to make them more militant and warlike, was very well known to Plato. It's in *The Republic* that they start deciding which musical scales might be allowed in the new state, and which might be too dangerous. And you have Hitler very often saying it was a performance of Wagner's nationalistic opera *Rienzi* that first got him dreaming about changing the world.

In *Orfeo*, Els describes a certain kind of sadness the comes with this superabundance that we were talking about earlier – the sense of music made entirely accessible. You can carry it around on an iPod and so don't have the same kind of attention.

You don't even have to carry it around. You can stream it out of the cloud. Everything ever recorded. And whatever's been recorded since the last time you streamed it out of the cloud. I describe this accumulating archival overflow in *Galatea 2.2* as a bathtub with the

plug in the drain and the faucets running. It's very very difficult not to have that feeling of—I mean, it's thrilling, it's exciting, and it's hugely potent. For me at any moment to stop and check and listen to any music from any time period of any country is godlike. But it also threatens the bandwidth of my soul.

David Foster Wallace repeatedly confronted this question, arguing how you choose the things you pay attention to is on some level a moral action, because you're choosing how to devote limited resources in a world that, despite appearances, is still made up of limited resources. It's a question that seems increasingly relevant with rising noise and so many things vying for attention.

He was the great master of representing a society drowning in superabundance. I think he also knew that *meaning* depending on winnowing down. Depended on excluding. The choice not only to attend to some thing, but to exclude or hold at bay other things – there's no algorithm for making that choice in an optimal way. We're just plunged into this sea of infinite possibilities and looking for ways to stay afloat in it.

Infinite possibilities and finite time.

You mentioned scarcity. In some ways digital has mitigated economies of scarcity, although they've also in some ways simply externalized the questions of scarcity. It seems to us that when we do our Google search that we're somehow getting something for nothing, that our retrieval of that information doesn't diminish the store of information available to other people. But actually, looked at energetically, enormous server farms, far from being free, are incredibly energy intensive. So we're going to have to start thinking about the cost of information in a less naive way.

Although a certain kind of scarcity goes away, we as human beings both collectively and individually have only a finite amount of time and bandwidth to choose the kinds of lives we want to lead, and to promulgate the values that we want our society to be based on. So converting information into knowledge is never free, and meaning is an active process. You have to be attentive, and cease being the passive recipient of flows to which you simply subscribe and receive without active or critical engagement.

One response to individual finitude is to try to overcome it; in the novel, *Els* contemplates using genetics to place his music in the organic realm, where it might reproduce and conceivably live

forever. In some way that's the impulse that often drives art—to live beyond one's self.

Right. To link our very limited time here on earth, and our knowledge of our own mortality, to something bigger and more permanent. Now we're back to music's unique ability to change the conditions of time, or at least our perception of it.

And the book offers several examples of death dealing explicitly with death, and with that finitude.

That's why it's named after the Orpheus legend. Orpheus could take this magical informational pattern stream of music and not only charm beasts, but he could create emotions in inanimate objects. The myths talk about his ability to charm stones. He's also the only one in classical mythology who ever goes down into the underworld and convinces Hades to release a soul. So the myth knows somehow, in a fundamental way, that music has the power to raise the dead. That's why the Orpheus story is so pervasive in all of the arts of the west, from the beginning.

Somehow there's this dangled temptation, this promise that somehow if you could find the right pattern, that you can stop even death. And make something that will last forever.

Orfeo arrived in paperback September 2, 2014. Hear Powers read from the book in the audio file below.