

## Time Machines: Steampunk in Contemporary Art

*Caroline Cason Barratt*

(University of Georgia, Georgia, USA)

### **Abstract:**

Although discussions of steampunk frequently include literature and film, contemporary art is generally excluded from critical conversations about steampunk's aesthetics and themes. This essay identifies several artists whose work resonates with and can be illuminated by steampunk paradigms. Specifically, Tim Hawkinson's and Arthur Ganson's kinetic sculptures reveal pre-millennial (and ongoing) anxieties concerning the loss of the human – and even the apocalyptic loss of humankind in general – which aligns with similar concerns articulated in steampunk. By linking Hawkinson, Ganson, and steampunk in terms of philosophy and aesthetics, this essay argues that all three warn of an inhuman future, where humankind is subsumed by the machine.

**Keywords:** artificial intelligence, contemporary art, Arthur Ganson, Tim Hawkinson, inhuman, kinetic sculpture, Jean-Francois Lyotard, millennium, post-human, steampunk

\*\*\*\*\*

Literary and cinematic connections to the steampunk genre continue to be well documented in both scholarly and popular literature. Similarly, objects made by self-identified steampunk practitioners are widely represented on the Web and in print.<sup>1</sup> Contemporary art outside of these instances, on the other hand, appears to constitute a blind spot within critical reviews from both the camps of steampunk literature and art criticism. In my view, there are several artists who – though not specifically aligned with steampunk practice – create artwork that participates in the aesthetics and ideas surrounding steampunk, especially in terms of the mechanised body and our relationship with time. Tim Hawkinson and Arthur Ganson are two artists whose artwork can be viewed through the brass-goggled lens of steampunk theory. In this essay, I make a new connection between these contemporary artists and steampunk via their investigations of shared pre-millennial anxieties, connecting Hawkinson, Ganson, and the steampunk genre philosophically as well as aesthetically. I argue that these artists' sculptures may be interpreted as expressing a warning by offering examples of what may become of humankind if we lose our humanity to the encroachment of machines.

*Neo-Victorian Studies*

3:1 (2010)

pp. 167-188

---

Tim Hawkinson (b. 1960) and Arthur Ganson (b. 1955) both make machines that perform human functions. The two artists share a preference for similar materials (i.e. metal, wood, bone, leather, etc.) and mirror each other in the way they combine art and engineering in their practice. Hawkinson is a California-based artist with an MFA from the University of California, Los Angeles (1989), who became a self-taught engineer through the evolution of his kinetic sculpture (Public Broadcasting Company 2007). Ganson, who has a BFA from the University of New Hampshire (1978), is currently artist-in-residence at the engineering and technology-focused university MIT (the Massachusetts Institute of Technology) in Cambridge, Massachusetts (MIT 2009). The mechanised contraptions both artist-engineers made near the turn of the twenty-first century – and continue to make today – do not look like the shiny, steely cyborgs we have come to expect from watching films like *Robocop* (1987, 1990) and *The Terminator* series (1984, 1993, 2001, 2009). Nor do they mimic the quietly humming cubes with intricate and unseen techno-cognitive interiors like the ubiquitous PC. Hawkinson’s and Ganson’s machines have more in common with the engines of the *nineteenth* century, when cogs and pistons visibly (and audibly) brought locomotives roaring to life or appeared as delicate clockworks that endlessly repeated a snippet of song within a music box. Hawkinson’s automated works whistle, write, and rant and, in doing so, seem to profess (or protest) something about the world they inhabit. Likewise, Ganson’s sculptures also walk, chatter, and scribble, performing human functions through mechanical means. Hawkinson’s and Ganson’s steampunk aesthetic reveals pre-millennial (and ongoing) anxieties concerning the loss of the human – and even the apocalyptic loss of humankind in general – fulfilling warnings embedded in a key philosophical text of the early 1990s: Jean-Francois Lyotard’s notions on post-somatic thought in his collection of essays *The Inhuman: Reflections on Time* (1991).

Often viewed as bridging modernist and post-modernist philosophy, Lyotard presented his idea of the “inhuman” in his later work. This was the process of humankind’s dehumanisation by way of the Humanist (and Enlightenment) impulse towards “progress”, specifically the advancement of capitalism and technological and medical discovery, what he combined to term “techno-science”. This process would bring about a new state of being, the “inhuman”, where the human and the technological merge to replace

---

humanity as we know it. The impetus for Lyotard's work was the inevitable and complete destruction of humankind through the death of our sun (Lyotard 1991: 64). Though this event will not take place for billions of years, it is an unavoidable occurrence in our collective future that creeps ever closer with each passing moment. His essay 'Can Thought Go on without a Body?' (1991) explored the possibility of humanity living on, in some way, even after our physical shells are burned away.

The idea of celestial or geographical catastrophe has been in the mind of the public for some time, however. Gillian Beer notes that Charles Darwin and other Victorian-era scientists made this grim forecast more than a century earlier, noting that the sun will eventually cool to the point that human life on Earth will become impossible to sustain (Beer 1996: 219-220). The Victorian mathematician and creator of the first computer, Charles Babbage, used his 'Difference Engine' (1821) to rebut catastrophism, a quasi-scientific argument about the role geological catastrophes played in shaping our planet (Bullock 2008: 19-40).<sup>2</sup> Catastrophists pointed to divine intervention as the explanation for major differences in geologic epochs. To illustrate the flaws within this paradigm, Babbage proposed a simple computational program that could be written to produce first one kind of output and then, secondly, a different output. In such a program, the input (the program) would remain uniform even as the output shifted. This connection between computers, catastrophes, and the 'hand of God' within the Victorian scientific and philosophical mind resurfaced in the mid-1980s and early 1990s within the burgeoning steampunk genre of literature and film. These fin de siècle writers and filmmakers imagined a return to Babbage's Victorian London in order to explore the relationship between humans, machines, and the end of (or manipulation of) time – perhaps in order to envision a way out of the apocalypse looming on the horizon.

In addition to this apocalyptic celestial event, the 1990s saw two additional countdowns to the end of the world that hinged on the approach of the millennium.<sup>3</sup> Some thought that the year 2000 would herald the Biblical end times by bringing about the Christian apocalypse, while others believed that civilisation as we know it would grind to a halt at exactly midnight on New Year's Eve 1999, when all digitised systems would reset their internal binary clocks to zero and erase everything that depends on these systems. The Y2K bug, as it was called, was a serious concern, and

---

companies and governments around the world spent millions of dollars to ensure that their computerised systems would keep on running past this expiration date. These anxieties about the end times as the end of time itself were tied to concerns about computers and our dependence on them. Lyotard's, Hawkinson's and Ganson's work during this period may all be interpreted to contain warnings of the dangers that lay ahead due to the encroachment of the 'inhuman' world of artificial intelligence.

Like the ubiquitous clockwork mechanisms in steampunk literature and film, for Hawkinson, clocks are everywhere. They are on ordinary manila envelopes in the form of a time-keeping metal clasp, in our hairbrushes as barely-visible clock hands made of hair, and tied to our trash in the clockwork twist-tie at the top of a sack of packing peanuts.<sup>4</sup> These clocks may appear whimsical, but carry with them something foreboding – are they simply keeping time or are they counting down to some event, some inevitable end? Their ubiquity seems to indicate a state of paranoia where one finds evidence of the 'end times' everywhere. For Victorians, too, clocks had a regulatory function that yoked human time to machine time. Personal timepieces became a necessity, once travel by steam engine replaced the horse and carriage as the modern means of conveyance. Individuals had to synchronise their lives to match the machine's timetable, a process Nicholas Daly calls "temporal training" (Daly 2004: 46). This training meant that people were no longer living their lives according to a human timetable – one subject to fluctuations given an individual's health, need to eat and sleep, and observance of social and religious customs. After all, these concerns are irrelevant to a machine, which can work "round the clock" and did – often forcing human workers to try to keep pace in the incessantly operating factories that sprang into action during the Industrial Age.<sup>5</sup>

Hawkinson's clocks reveal that, as we regulate time, we in turn become regulated by each revolution of the clock hands. Similarly, cogs and clockworks are associated with steampunk design, pointing to a confluence of ideas as well as aesthetics. The physicality and transparency of these materials appeal to the steampunk aesthetic – we can see how these machines work and can manipulate them, an attractive option that reasserts our ability to control our own destiny, even in the face of the inevitable passage of time. We go about our days always with an eye to the time, bringing to mind the irony that our timepieces are called 'watches', for in

Hawkinson's world these camouflaged clocks could be watching and regulating us. *Spin Sink (1 Rev. / 100 Years)* (1995) provides one such example where Hawkinson has slowed the clock's revolution to let us see, in painfully slow motion, how it ticks away.<sup>6</sup> The twenty-four discs in total, ranging in size from large to minute, explode the clockwork interior of a watch and revolve unhurriedly, asking the viewer to likewise slow down and contemplate the term of a century. Human life does not usually extend to one hundred years (perhaps only with the help of machines), so it is not possible that any viewer would ever be able to see the full revolution of these discs. The time scale represented by this sculpture is not that of a human individual, but of a people's or culture's age.

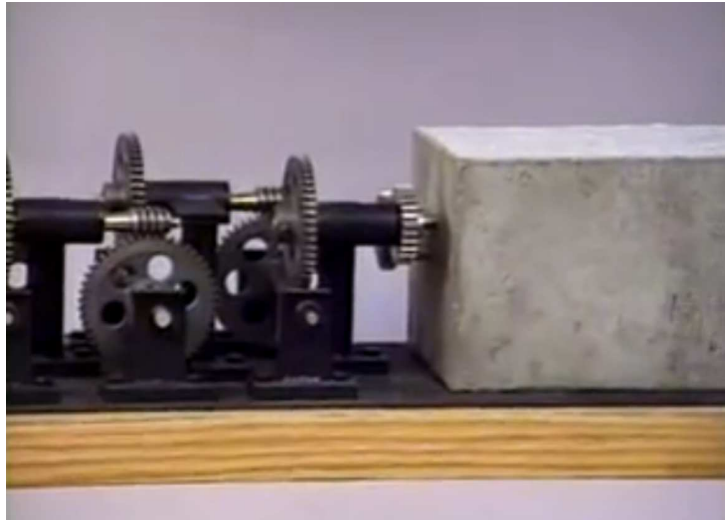
Nathaniel Hawthorne's cautionary tale of the Victorian fascination with the steam engine, 'The Celestial Railroad' (1843), seems to echo this uncomfortable relationship with a mechanised existence. In this story, passengers on a steam engine travel between the Celestial City and the City of Destruction, many unaware that their final destination is hell rather than heaven. One character, Mr. Stick-to-the-Truth, warns the narrator of the story:

I do assure you, and beseech you to receive the truth of my words that that whole concern is a bubble. You may travel on [the Celestial Railroad] all your lifetime were you to live thousands of years, and yet never get beyond the limits of Vanity Fair. Yea, though you should deem yourself entering the gates of a blessed city, it will be nothing but miserable delusion. (Hawthorne 1987: 331)

Like Hawkinson, Hawthorne imagines human time stretched to fit an inhuman scale, describing a purgatorial state aboard the steam engine if humans were to put too much faith in the 'progress' of machine time.

Ganson, too, creates a clock that keeps time at a rate that points to our limitations in experiencing the infinite. *Machine with Concrete* (1992) consists of a series of identical metal gears attached to a piece of wood in a single-file row (see Figure 1). Each gear turns the next, but at increasingly slower rates of revolution, so that the ending gear stops in a block of concrete. The gears move audibly as the viewers' eyes move from left to

right, stopping abruptly at the concrete block and stymied at the cessation of continuous movement:



**Figure 1:** Arthur Ganson, *Machine with Concrete*, 1992.  
© 1992 Arthur Ganson, reproduced with kind permission of the artist.

Ganson explains that “[t]here are twelve pairs of fifty-to-one reductions, so that means that the final speed of the final gear on the end is so slow that it would take two trillion years to turn once”, adding that he “invented it in concrete because it doesn’t really matter” (Ganson 2004). Ganson’s humorous nihilism allows us to experience the sculpture in two ways. In allowing us to see time as ever revolving and never-ending, we may imagine that everything will continue to go on forever as it is. However, read another way, all the endless turning of gears in the service of marking time echoes our fruitless toil, as the passage of time proves meaningless and static in the end. In this, the concrete stoppage in the sculpture is analogous to a blank tombstone. Ambiguity is a hallmark of both artists’ work; they are in many ways simultaneously utopian and dystopian, much like the hybridised world of steampunk catches us in the gears of a Victorian age reviewed through postmodern perceptions of our shared history and uncertain future.

A sense of wonderment and dark humour exists within much of Hawkinson’s and Ganson’s work. Viewers may find themselves fascinated

---

by the ingenious way the artists have created these machines, but will likely also hear something of a warning. These clockworks show that we are surrounded by time, and it is ticking away. This anxiety about (the loss of) time is coupled with a fear of humankind's demise through a gradual erasure of the human with the rise of the inhuman. Anxiety about the encroachment of technology is not a just a symptom of our modern age, as we find this fear articulated by Victorian artists as well. Inventions like the steam engine and automated machines were seen by some as markers of progress; yet others held serious misgivings about the nineteenth-century rise of the machine (Marx 2000: 27). Blurring distinctions between human and machine appear in Victorian literature, as in the aforementioned *The Celestial Railroad*, where the men's stoking of the steam engine's fires causes them to take on attributes of the engine itself, becoming fire-breathing and steam-spouting demons due to their proximity to the locomotive (Marx 2000: 27). Finding a similar attitude expressed by another Victorian writer, Leo Marx quoted Thomas Carlyle's lament that "Men are grown mechanical in the head and in heart, as well as in hand" (qtd. in Marx 2000: 174). This statement brings to mind Hawthorne's story as well as the dehumanising effects of mechanised factory work, especially with the advent of the assembly line. This nineteenth-century invention required humans to behave in a way that mimicked the repetitive and identical motions of a machine, fulfilling Hawthorne's and Carlyle's nightmarish vision of the fate of the human with the advent of a machine-driven society. Though not explicitly stated, Hawkinson's and Ganson's connection to these Victorian anxieties becomes more pointed through their use of a steampunk aesthetic.

A century later Lyotard, too, imagines a time when humans can no longer go on living and must be replaced by machines. The inhuman may appear in the form of human/machine hybrids like cyborgs or as Artificial Intelligence (AI), where computers replace human functions by performing tasks themselves. In Lyotard's essay 'Can Thought Go on without a Body', the narrative interlocutors debate whether human thought could exist outside of the human body. In their conversation they ask whether a brain kept in a jar would still be 'human'? Lyotard presents this sci-fi scenario in order to ask a very pertinent question – what exactly is it that makes us human, and how much can be removed or replaced by electronics before we become *inhuman*? With the increasing sophistication of medical

---

technologies (i.e. bionic limbs, life support systems, and artificial hearts), as well as the developments of anthropomorphic robots that perform tasks as if they were human (i.e., Honda's ASIMO, 2000, or Mitsubishi's Wakamaru, 2005), Lyotard's query explores ethical dilemmas that were anticipated in science fiction literature, but which have become real-life dilemmas. Novels by Phillip K. Dick and Isaac Asimov were developed into popular films like *Blade Runner* (Ridley Scott, 1982), *AI* (Stephen Spielberg, 2001), and *I: Robot* (Alex Proyas, 2004), providing evidence of the persistent anxiety we have regarding human versus artificial life. Hawkinson and Ganson, too, imagine a world of automatons where commonplace marks of humanity, such as singing, talking, or writing, are performed by machines. Their automatons, however, do not take the idealised forms of the *Blade Runner* 'replicants' nor are they contained within smooth, impenetrable bodies like those in most cyborg films of the last two decades. If industrialisation may be seen as dehumanising and homogenising, by making identical cogs out of the individuals who work the machines, Ganson and Hawkinson, by imbuing their machines with melancholy, emotion, and evidence of the hand of the artist in the idiosyncratic method of their construction, conversely appeal to the *human*. Hawkinson and Ganson fashion their figures from everyday objects, often trash and spare parts, to present robotic entities that perform human functions within quite inhuman bodies. Echoing Lyotard's writing, the artists seem to ask: "what if human beings, in humanism's sense, were in the process of, constrained into, becoming inhuman?" (Lyotard 2)

These surrogates for a living human present something of the inhuman that Lyotard describes, but do so in a way that harkens back to the inventions of the Victorian age, when gentlemen scientists experimented with all sorts of creations, hoping to employ technology in the service of efficiency and modernisation. Some scientists of this period saw technology as a tool for achieving a utopian idea of 'progress', but others saw machines as a threat to humanity. We have seen this fear play out during the twentieth century in a darker side of the humanistic impulse towards perpetual pursuit of an imagined evolutionary apex. Postmodernist philosophers like Lyotard find that the Holocaust, atomic bomb, and the societal ills attributed to rampant industrialism and capitalism may all be blamed, in part, on the philosophical underpinnings of humanism, which privileged 'efficiency' and 'techno-science' over more compassionate endeavours. In a post-



---

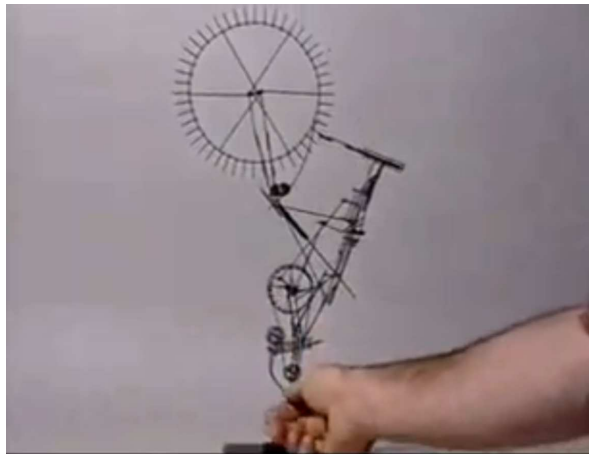
humanist age, one can see where technology has landed us and (pessimistically) imagine the doom towards which we are headed. As post-humanists themselves, Lyotard, Hawkinson, and Ganson may have found much that is good in the technological discoveries that have been made, but also locate some danger lurking within those machines. Hawkinson's and Ganson's choice of materials, which lend an antiquated aesthetic to their machines, shares something in common with the return to an imagined Victorian era found in steampunk.

The steampunk genre of literature and visual culture, which came about as an offshoot of (and is sometimes described as an opposition to) cyberpunk in the late 1980s and 1990s, takes inspiration in part from Jules Verne's Victorian tales of underwater and airborne adventure, like those in *20,000 Leagues Under the Sea* (1872) and *Around the World in Eighty Days* (1873). Common elements in the steampunk aesthetic include: zeppelins and hot air balloons, exposed gears and clockwork gadgetry, steam engines, brass fittings, goggles and other apparatus used to enhance human ability, much like a slightly rusty version of the chrome cyborg. Verne, along with H.G. Wells – who coined the term “time machine” in his novella of the same name in 1895 – is often named as the “Father of Science Fiction”, and this pedigree for steampunk ties it to other sci-fi literary movements and themes where we may find it functions as a flip side of cyberpunk (Roberts 2000: 48). The steampunk world is sepia-toned and somehow timeless, filtering a new view of the future through anachronistic elements of the past. Hawkinson and Ganson return us to this pivotal period for the relationships between human and machine, when exploration and adventure were made possible with the aid of machines, yet also threatened aspects of humanity we hold dear. As with Victorian writers like Hawthorne, Verne, and Wells, modern anxieties about the conquest of humankind by machines have emerged in literature and art in an attempt to reconcile our fear of a technocracy with the computer-centred present we now inhabit. Instead of succumbing to these fears, the steampunk aesthetic compresses time to meld both old and new in a pastiche, an endeavour that seeks to redeem the past in the face of the ‘end times’ at the turn of the millennium by reinventing the past in terms of a utopian future. Emerging simultaneously with this new aesthetic, Hawkinson's and Ganson's machines function as surrogates for a lost human body or as a rethinking of cybernetics with a view to ‘humanise’ the cold, unsympathetic robots we have come to fear and which we fear

becoming. Their steampunk aesthetic redeems these automatons from appearing too menacing, but also points to the compromise we face in making machines to supplement and replace humanity, a compromise that began in earnest in the late nineteenth century.

Hawkinson's *Penitent* (1994), a human skeleton made of dog chew rawhides and plastic bottles provides a striking example of this tendency. The artist pieced the sculpture together like an anatomical skeleton and hung the figure on an armature in the kneeling position of a religious supplicant, staring heavenwards with mouth agape, as if pleading for forgiveness.<sup>7</sup> Inside its ribcage are plastic medical bottles and a motor that emits a wheezing, piston-like whistle, which sounds something like laboured breathing. The figure, cobbled together from scraps and imbued with a spark of life (however small), is a bit pitiful – even as it amazes the viewer by appearing to possess some semblance of humanity. Hawkinson describes the whistle “as if it is calling for a dog” (Rinder 2005: 187). Perhaps we need to reverse those letters to form G-o-d. After all, it is a *penitent* figure, but for what does it need forgiveness? Or is it Hawkinson, the ‘mad scientist’, who should repent?

Ganson also presents mechanical figures that contain some form of spiritual life, or allow us to experience spirituality through our encounter with them. *Meditation 1, 2 and 3* (1992) are all crank-operated wire structures that repeat a series of movements (see Figure 2).



**Figure 2:** Arthur Ganson, *Meditation 1*, 1992.

© Arthur Ganson, reproduced with kind permission of the artist.

---

The repetition allows one to focus on a thought or prayer, as saying the rosary in repetition combines both physical and spiritual action. *Thinking Chair* (2002) is another example of meditation, here as a “self-portrait” of the artist lost in thought (see Figure 3). Ganson describes the impetus for the sculpture as follows:

There is a small rock outcropping on a favourite trail in the woods near my studio. I often find myself deep in thought, walking in slow circles around the edge of this stone mound. For me it is a walking meditation, where each cycle finds me back in the same physical place but in a slightly different emotional place. One day I found a loose rock with a flat face and the idea for ‘Thinking Chair’, a self-portrait of this experience, came into being. (Ganson 2009)

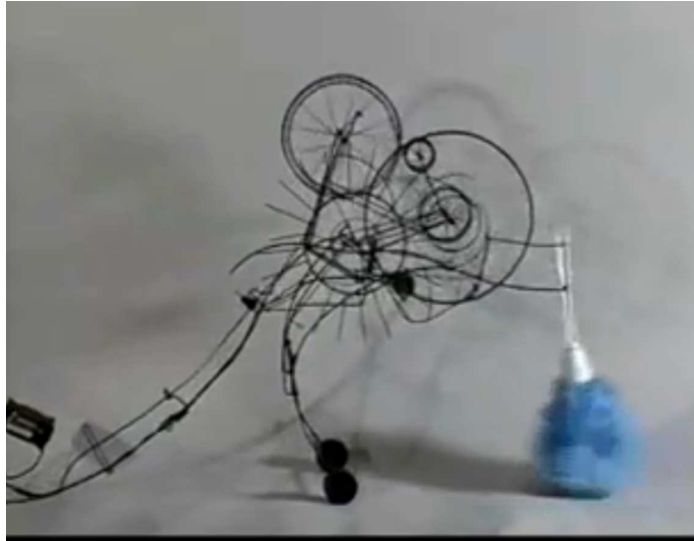
The sculpture is made of wire, gears, and wood with the tiny wooden chair “walking” around on top of a gray stone.



**Figure 3:** Arthur Ganson, *Thinking Chair*, 2002. Photo credit, Chehalis Hegner.  
© 2002 Arthur Ganson, reproduced with kind permission of the artist.

---

This chair looks like the same chair from *Cory's Yellow Chair* (1997), another sculpture by Ganson that breaks apart and returns whole repeatedly at great speed, bringing to mind the cataclysmic Big Bang – the celestial ‘catastrophe’ that brought our world into existence (Blume 1998). The yellow chair in both sculptures serves as a stand-in for the human being that might occupy it; the chairs’ mechanised movements represent human spiritual action that they themselves cannot feel, but that they have been created to embody. Thinking of Hawkinson’s penitent figure and the fractured and wandering yellow chair of Ganson’s oeuvre, we may return to Lyotard’s essay to find a shared sense of disapproval concerning the computerisation of humankind and our increasing dependency on machines. The humanised inhuman theme resurfaces in *Ranting Mop Head (Synthesized Voice)* (1995), another of Hawkinson’s anthropomorphic automatons, here made of an old mop, circuitry, metal, and a player piano-like contraption that feeds the mop head speaker.<sup>8</sup> Programmed to emit a few recognisable sentences and other noises, the contraption repeats a mechanised litany as the scroll moves through the reader. The sculpture ‘speaks’ a few nonsensical phrases and asks the viewer questions. One question – “Are you my mommy?” – indicates that the details of its ‘birth’ are in question and that parenthood of a creature such as this may stray from the human order of kinship. In the case of a cyborg or robot, who indeed, we might ask, is ‘mommy’? These entities, however obliquely human they may appear, are not gestated and born in the human sense, but constructed and replicated synthetically, often by other machines. Pre-millennial anxieties about genetic modification and cloning (human and otherwise) add to the sense that this machine embodies fears of inhuman reproduction. Ganson, too, creates a domesticated machine. His *Machine with Feather Duster* (1989) consists of a set of delicate curlicue wire and spring wheels that move of their own accord and hold a feather duster ahead of its path to clear the way (see Figure 4).



**Figure 4:** Arthur Ganson, *Machine with Feather Duster*, 1989.  
© Arthur Ganson, reproduced with kind permission of the artist.

This Victorian-looking Roomba is, in some ways, an attractive option: wouldn't it be nice to have a machine to do all the boring housework like dusting and mopping?<sup>9</sup> We have become used to machines performing all sorts of mundane tasks for us, but perhaps the removal of these physical experiences has made us long for a return to more hands-on work. Gardening, cooking, and craftwork have all made a comeback in the last decade. Television programmes, magazines, and websites devoted to these domestic pleasures return us to a time when it was common to grow one's own vegetables and sew curtains for the living room. In part, this desire stems from anxieties concerning our ability to survive in the case of an apocalyptic disaster. Would we be able to feed and clothe ourselves, if it were not for the existence of supermarket chains and pre-fabricated housing, clothing, and transportation? The fragility of Ganson's duster, as well as the uneasiness experienced in viewing Hawkinson's mop, points to an ambiguous relationship we have with the machines that do our will. Even in relegating the simplest tasks to machines, we maintain some fear of what giving up these nurturing and homemaking activities to machines will mean for us in the future.

With *Signature* (1993), Hawkinson further mechanises reproduction of a human identifying and individuating gesture as a means of warning

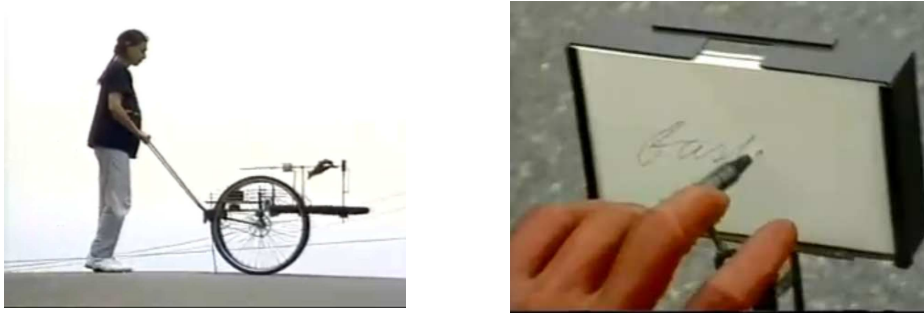
---

against the impersonality of automation. The sculpture is made of an old wooden school chair with an attached desk, and a machine that replicates Hawkinson's signature using a simple Bic pen. The machine writes the name on a bit of paper and then cuts and adds it to an ever-growing pile of slips on the floor, endlessly replicating the artist's individual mark.<sup>10</sup> The machine's rote movements go against the notion that one's signature represents oneself. We find this assumption in our laws and social conventions, implicitly believing that, if a signature is presented, this mark indicates that the *person* was once present in order to make it. This counterfeiting machine undermines the value of Hawkinson's own signature and asks us to question the importance we place on equating the signature with the person whose name it represents. After all, this machine will sign Hawkinson's name long after he is unable to do so himself. However, even in an artwork such as this, which substitutes the action of a human hand with the rote movements of a machine, there is evidence of human touch. Hawkinson notes that, within all his artwork, there is something organic amongst the circuitry:

There's an organic aspect in much of my work that maybe has to do with keeping the rules really open. There's this hand held, hand made aspect in a lot of the work that just by nature creates its own signature, creates these kinds of organic references. (Public Broadcasting System 2008)

With *Signature*, the artist set the clockworks in motion, but abandoned his creation to act as proxy in his absence. The sculptures Hawkinson creates allow him to imagine a future in which he no longer exists, substituting instead these proxies that inhabit and experience the imagined future. Paul Harris described this kind of "thought experiment" in terms of Lyotard's ideas about the disembodied mind: "The embodied thinker who imagines a world with certain rules or definitive conditions must then assign a proxy, a disembodied double, to observe or experience what happens in the world" (P. Harris 2001: 129).

Ganson, too, creates a writing machine, but his is powered by actual human energy. *Faster!* (1982) is a modified wheelbarrow-like machine (see Figure 5).



**Figure 5.** Arthur Ganson, *Faster!*, 1982.

© 1982 Arthur Ganson, reproduced with kind permission of the artist.

Included in the gears and wheels is a mechanism that engages a mannequin hand, which writes holding a pen. As the individual holds the handles on the sculpture and runs, gears move the hand to write the word “Faster!” on a piece of paper located at the front of the machine. The faster the individual runs, the faster the hand writes, encouraging the expenditure of greater human energy in order to power the hand. It seems as though the machine has the human in its control, as the individual must run, pushing the machine along, in order to see the message revealed. The message demands ever more energy from the human, creating a cycle that ends with the exhaustion of the individual.

In my view, the junkyard cyborgs Hawkinson and Ganson imagine as our mechanical replacements are like us in the actions they perform, but appear as fragments of a residual humanity. These machines are not human counterfeits, like the life-like automatons of the eighteenth and nineteenth centuries, but merely perform tasks that are identified as human and do so with an appeal to pity on the part of their human viewers.<sup>11</sup> They are created from our discarded trash, material that is evidence of human experience, but no longer of value. It is telling that, if humanity ceased to exist, our legacy of rubbish would live on. The sculptures’ ambiguous status as trash or treasure also relates to our own uncertain place in the world.

What is possibly Hawkinson’s grandest machine – *Überorgan* – (2000) resembles a Victorian-age zeppelin combined with an unravelled church organ and expanded within a gallery space, running over eighty meters (300 feet) in length.<sup>12</sup> When building the piece, Hawkinson inflated thirteen polyethylene bags, hemmed them in with red nylon nets, and attached twelve long cardboard ducts to the bags to create a gigantic

---

respiratory system that sings hymns from his childhood (Heon 2000: 67). *Überorgan* makes music using a system similar to a player piano with keys that can modulate the sound. The songs it plays are distorted, but some viewers are able to piece together the familiar tunes made by this otherworldly creation. Hawkinson likened his sculpture to the whales and church organ described in Herman Melville's *Moby Dick* (1851), again returning us to the Victorian era with a reference to this novel (Hawkinson 2001: 152-153). One could say that his machines are all time machines, in the way they conflate or confuse the present, the Victorian-era past, and something of the imagined future. By distilling culture within a machine, Hawkinson makes human culture part of the inhuman. Though his inventive manner of doing so proves captivating, there is something lacking in the clinical-looking plastic and metal apparatus, as if Hawkinson means to show us this inhuman alternative as an admonition rather than a triumph. After all, the zeppelin, once hailed as a modern miracle of technology, is also famously aligned with disaster. These two emotions – wonderment and dread – combine uneasily even here in the relative safety of the fine arts gallery.

Hawkinson and Ganson transport us to a time when a machine's animating force was visible and could be constructed and dismantled by human hands. Their tools and technology are all fairly low-tech, displaying engineering skills at the hobbyist's level. Hawkinson, for example, purchased parts of his clocks at Radio Shack, a DIY electronics shop found in many North American strip malls. Though futuristic in the sense that they are examples of artificial life, bridging the gap between representing the human and being a machine, these artists' sculptures work against what one might recognise as 'futuristic'. If, as Daniel Harris says, "the futuristic abhors the seam ... which offers incriminating evidence of welding, nailing, and gluing, the tell-tale signs of the grease-spotted mechanic whose handiwork belies its pretences of autonomy and omnipotence" (D. Harris 2000:144-145), then Hawkinson's and Ganson's presentation of the futuristic reasserts the privilege of the human over the inhuman in a way a steampunk practitioner can appreciate. One can easily imagine both artists as that "grease-spotted mechanic", working with bits of metal and wood to create their scraphheap robots. Digital technology, on the other hand, maintains a mystery about its functions. One cannot see how a digital clock works the way one can see the moving parts of a wind-up watch.



---

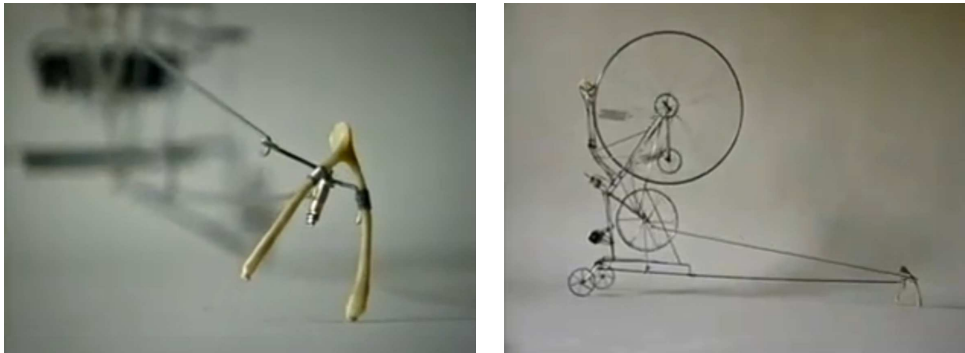
For Lyotard, an increase in a machine's level of sophistication only serves to encourage us to become more dependent upon it: "It is not true that uncertainty (lack of control) decreases as accuracy goes up: it goes up as well" (qtd. in Sim 2001: 19). The comparison between analogue and digital technology described above bears this out. AI provides a striking example of how complex machines appear to have a life of their own, and how our computers sometimes seem to operate according to their own agendas and desires. Though the "ghost in the machine" effect of digital technology returns a divine mystery to these automatons, Kristina Newhouse also sees a spiritual dimension in Hawkinson's sculptures – his interest in the "divine fate of his soul among the gears" (Newhouse 2000: 10-11). Noting Hawkinson's use of the word "Jinn" in several titles, coupled with the clockworks sculpture titled "Gin" (1999), she says, "Jinn/Gin, as spirit and body, are conceptually conjoined. If the body is an engine, then the spirit is 'en-jinned,' ensnared in its mortal coils" (Newhouse 2000: 11). This idea is also enacted in Ganson's *Faster!*, where the viewer/actor is literally the engine that drives the machine. The relationship between human and machine, puppet and puppeteer, is ambiguous. In Ganson's own words:

This kind of work is also very much like puppetry where the found object is, in a sense, the puppet, and I'm the puppeteer, at first because I'm playing with an object, but then I make the machine, which is sort of the stand-in for me. And it is able to achieve the action that I want. (Ganson 2004)

Ganson, first in control, becomes the puppet in creating the machine and in this, as in Hawkinson's work, the artists' machines reveal anxieties about our inhuman future where machines usurp the human. Made of trash and leftover gears and wire, wheezing or grandly flatulent, penitent or punished in eternal servitude at an old school desk, these sculptures do not appear to proclaim a particularly cheerful view towards artificial life. Instead, their artwork inspires both wonder and pathos, but it is our inhumanised selves at which we wonder, and our possible future which we imagine with regret.

As we now know, humanity has again survived the turn of the millennium. The threat of inhumanism at the hands of techno-science still looms, however, and a kinetic sculpture like Hawkinson's *Daisy Clock* (2001) is a post-millennial example of how the whole world might become

re-formed into clockwork mechanisations.<sup>13</sup> *Daisy Clock* is a modified, dried flower placed in a glass jar that seems to count down to its own dissolution with its two remaining petals. Clinging to its stem, this floral *memento mori* retains a tattered beauty that reminds us of what was and what will be, as we continue to move towards an inhuman future. Ganson, too, combines the organic and mechanical in *Machine with Wishbone* (1988) and *Machine with Artichoke Petal* (1999). Both artworks are made of a set of metal gears, wire, and motors moving to propel a fragile organic object (see Figures 6 and 7).



**Figure 6:** Arthur Ganson, *Machine with Wishbone*, 1988.  
© Arthur Ganson, reproduced with kind permission of the artist.



**Figure 7:** Arthur Ganson, *Machine with Artichoke Petal*, 1999.  
© Arthur Ganson, reproduced with kind permission of the artist.

---

The wishbone walks in a cartoonish version of a “cowboy who has been on his horse for too long” (Ganson 2004). The delicate artichoke petal is similarly animated and compelled to waddle, with both objects fixed at the end of a machine that forces movement to create a semblance of artificial life.

For Hawkinson and Ganson, the clock still ticks towards that final doomsday when we lose our humanity to the encroachment of machines. With their clockwork sculptures and automated assemblages, these artists continue to explore what an inhuman future would look like if we were to embrace an ever-more automated and technologically mediated existence. Like the hybridised view of our future/past envisioned by steampunk literature and film, one may find that Hawkinson’s and Ganson’s ‘time machines’ offer the chance of redemption by presenting a picture of ourselves caught between the human and inhuman – if only we heed the message they communicate in their machines’ scribbling, singing, and ranting warnings.

### Notes

1. Rebecca Onion, for example, explores modern-day steampunk objects (i.e. modified computers, steampunk costume and interior décor, etc.) created by artists who self-identify with the steampunk genre in “Reclaiming the Machine: An Introductory Look at Steampunk in Everyday Practice” (Onion 2008: 138-163). More recently, Art Donovan curated the self-described “First Museum Exhibition of Steampunk Art” at the Museum of the History of Science at Oxford University, UK. The exhibition ran from October 19, 2009 through February 21, 2010, and showed “the work of eighteen Steampunk artists from around the globe” (Oxford 2009). Again, the artists included were self-identified or otherwise billed as explicitly engaging in the steampunk aesthetic.
2. The changes in our understanding of the relationship between human and machine, as induced by Babbage’s prototype computer, is discussed in William Gibson and Bruce Sterling’s steampunk novel *The Difference Engine* (1990).
3. Cultural critic and theorist Jean Baudrillard also wrote of this “countdown” in *The Vital Illusion* (2000).

- 
4. Images available in Rinder 2005: 120-125; for *Envelope Clock* (1996), see also *Ace Gallery*, (n.d.), accessed 15 Nov. 2010, [http://www.acegallery.net/artwork.php?pageNum\\_ACE=37&Artist=1](http://www.acegallery.net/artwork.php?pageNum_ACE=37&Artist=1); for *Packing Peanuts Clock* (1996), see also *Ace Gallery*, (n.d.), accessed 15 Nov. 2010, [http://www.acegallery.net/artwork.php?pageNum\\_ACE=36&Artist=1](http://www.acegallery.net/artwork.php?pageNum_ACE=36&Artist=1).
  5. Wolfgang Schivelbusch also notes the Victorian experience of space and time compression as prompted by the steam engine in *The Railway Journey* (1986). The speed of the train “annihilated space and time” by traversing two distant points with alarming alacrity (Schivelbusch 1986: 36-37). The steam engine itself became a sort of “time machine,” as it transported travellers at a speed and across distances that were previously taken on foot or by carriage. This new way of experiencing space, time, and the environment itself (seen as it blurred past through the window of a locomotive) opened a new perception of the world.
  6. Images of *Spin Sink (1 Rev./100 Years)* available in Rinder 2005: 104-105 and online, ‘Lmp76’, (13 Dec. 2008), *Metapedia*, accessed 15 Nov. 2010, <http://www.metapedia.com/wiki/index.php?title=Lmp76>.
  7. Images of *Penitent* available in Rinder 2005: 92-93.
  8. Images of *Ranting Mop Head (Synthesized Voice)* available in Rinder 2005: 92-93 and online, Carolina A. Miranda, ‘Datebook: July 15, 2010’ (15 July 2010), *WNYC-Culture*, accessed 15 Nov. 2010 <http://culture.wnyc.org/blogs/gallerina/2010/jul/15/datebook-july-15-2010/> (image 3 of 8).
  9. The Roomba is a robotic vacuum cleaner that automatically vacuums the floor without human interaction (beyond turning it on). The machine was first introduced by its parent company, iRobot, in 2002 and has sold over two million units since. iRobot makes robots for both domestic and military purposes (iRobot 2008).
  10. Images of *Signature* available in Rinder 2005: 90-91 and online, *Ace Gallery*, (n.d.), accessed 15 Nov. 2010, [http://www.acegallery.net/artwork.php?pageNum\\_ACE=4&Artist=1](http://www.acegallery.net/artwork.php?pageNum_ACE=4&Artist=1).
  11. George L. Hersey provides a timeline for these human-like automata and describes these eighteenth-century machines as “the most elaborate of mechanisms and [possessing] an exquisitely human-like facture” (Hersey 2009: 126). One example is Jacques de Vaucanson’s *Flute Player* (ca. 1738), an automaton that actually played a flute with a mechanised “breath” and whose “lips and tongue were said to be exquisitely soft, flexible and naturalistic” (Hersey 2009: 126). Pierre and André-Louis Jacquet-Droz also

created automatons (ca. 1760), two that sat at a desk and wrote with ink pens, appearing in period dress and exhibiting uncannily human-like gestures (Hersey 2009: 126). Friedrich A. Kittler describes these early automaton experiments in *Gramophone, Film, Typewriter* (1999), noting Thomas Edison's experiments with phonography and his designs, published in 1878, for "toy mouths voicing the parents' names as Christmas presents", an invention that would surely have delighted and amazed his nineteenth-century audience (Kittler 1999: 25-26).

12. Images of *Überorgan* available in Heon 2000 and online, 'Tim Hawkinson: *Überorgan* [sic]' (n.d.), *Massachusetts Museum of Contemporary Art*, accessed 15 Nov. 2010, [http://www.massmoca.org/event\\_details.php?id=63](http://www.massmoca.org/event_details.php?id=63).
13. Images of *Daisy Clock* available in Rinder 2005: 162-163.

### **Bibliography**

- Beer, Gillian. "The Death of the Sun": Victorian Solar Physics and Solar Myth', in *Open Fields: Science in Cultural Encounter*. Oxford: Clarendon Press, 1996, 219-241.
- Blume, Harvey. 'Subtle Mechanisms', *The Atlantic* (Aug. 1998), accessed 25 February 2010 <http://www.theatlantic.com/unbound/criticaleye/ce980813.htm>.
- Bullock, Seth. 'Charles Babbage and the Emergence of Automated Reason', in Philip Husbands, Owen Holland, and Michael Wheeler (eds.), *The Mechanical Mind in History*. Massachusetts: The MIT Press, 2008, 19-40.
- Daly, Nicholas. *Literature, Technology, and Modernity, 1860-2000*. Cambridge: Cambridge University Press, 2004.
- Fayter, Paul. 'Strange New Worlds of Space and Time: Late Victorian Science and Science Fiction', in Bernard Lightman (ed.), *Victorian Science in Context*. Chicago: The University of Chicago Press, 1997, 256-280.
- Ganson, Arthur. 'Arthur Ganson Makes Moving Sculpture', *TED Talks*, (rec. Mar. 2004, uploaded May 2008), accessed 29 May 2009, [http://www.ted.com/index.php/talks/arthur\\_ganson\\_makes\\_moving\\_sculpture.html](http://www.ted.com/index.php/talks/arthur_ganson_makes_moving_sculpture.html).
- Harris, Daniel. *Cute, Quaint, Hungry and Romantic: The Aesthetics of Consumerism*. New York: Basic Books, 2000.
- Harris, Paul. 'Thinking @ the Speed of Time; Globalization and its Dis-contents or, Can Lyotard's Thoughts Go on without a body?', *Yale French Studies*, 99 (2001), 129-148.

- 
- Hawkinson, Tim. 'Tim Hawkinson Talks about *Überorgan*', *Artforum*, 39:1 (2000), 152-153.
- Hawthorne, Nathaniel. 'The Celestial Railroad' [1843], in *Nathaniel Hawthorne: Selected Tales and Sketches*. Michael J. Colacurcio (ed.). New York: Penguin Classics, 1987.
- Heon, Laura Steward. 'Tim Hawkinson's *Überorgan*', in *Tim Hawkinson*. Toronto, Canada: The Power Plant, 2000.
- Hersey, George L. *Falling in Love with Statues: Artificial Humans from Pygmalion to the Present*. Chicago: Chicago University Press, 2009.
- iRobot. 'About Us', (last updated 2009), accessed 25 February 2010, <http://www.irobot.com/sp.cfm?pageid=74>.
- Kittler, Friedrich A. *Gramophone, Film, Typewriter* [1986], Geoffrey Winthrop-Young and Michael Wutz (trans.). Stanford, California: Stanford University Press, 1999.
- Liotard, Jean-Francois. *The Inhuman: Reflections on Time*, Geoffrey Bennington and Rachel Bowlby (trans.). Stanford, California: Stanford University Press, 1991.
- Newhouse, Kristina. 'Tim Hawkinson: Mechanical Follies', *Sculpture*, 19:10 (2000), 10-11.
- Onion, Rebecca. 'Reclaiming the Machine: An Introductory Look at Steampunk in Everyday Practice', *Neo-Victorian Studies*, 1:1 (2008), 138-163.
- Oxford University. Museum of the History of Science. 'Steampunk', accessed 25 February 2010, <http://www.mhs.ox.ac.uk/steampunk/>.
- Public Broadcasting System. 'Interview with Tim Hawkinson', *Art 21* (2007), accessed 25 February 2010, <http://www.pbs.org/art21/artists/hawkinson/clip2.html>.
- Rinder, Lawrence. *Tim Hawkinson*. New York: Whitney Museum of American Art; Los Angeles: Los Angeles County Museum of Art, 2005.
- Roberts, Adam Charles. *Science Fiction*. London: Routledge, 2000.
- Schivelbusch, Wolfgang. *The Railway Journey: The Industrialization of Time and Space in the 19th Century* [1977]. Berkeley, California: The University of California Press, 1986.
- Sim, Stuart. *Liotard and the Inhuman*. Duxford: Icon Books, 2001.
- Sussman, Herbert L. *Victorians and the Machine: The Literary Response to Technology*. Cambridge, Massachusetts: Harvard University Press, 1968.