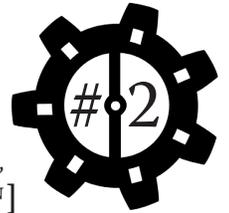


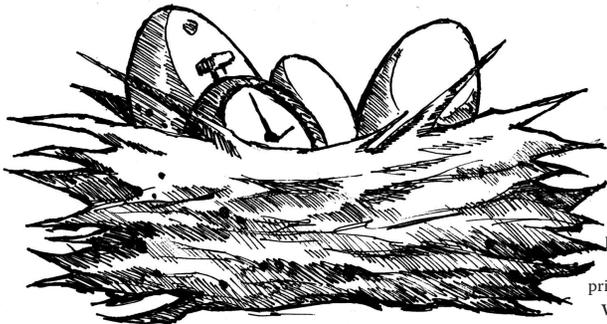
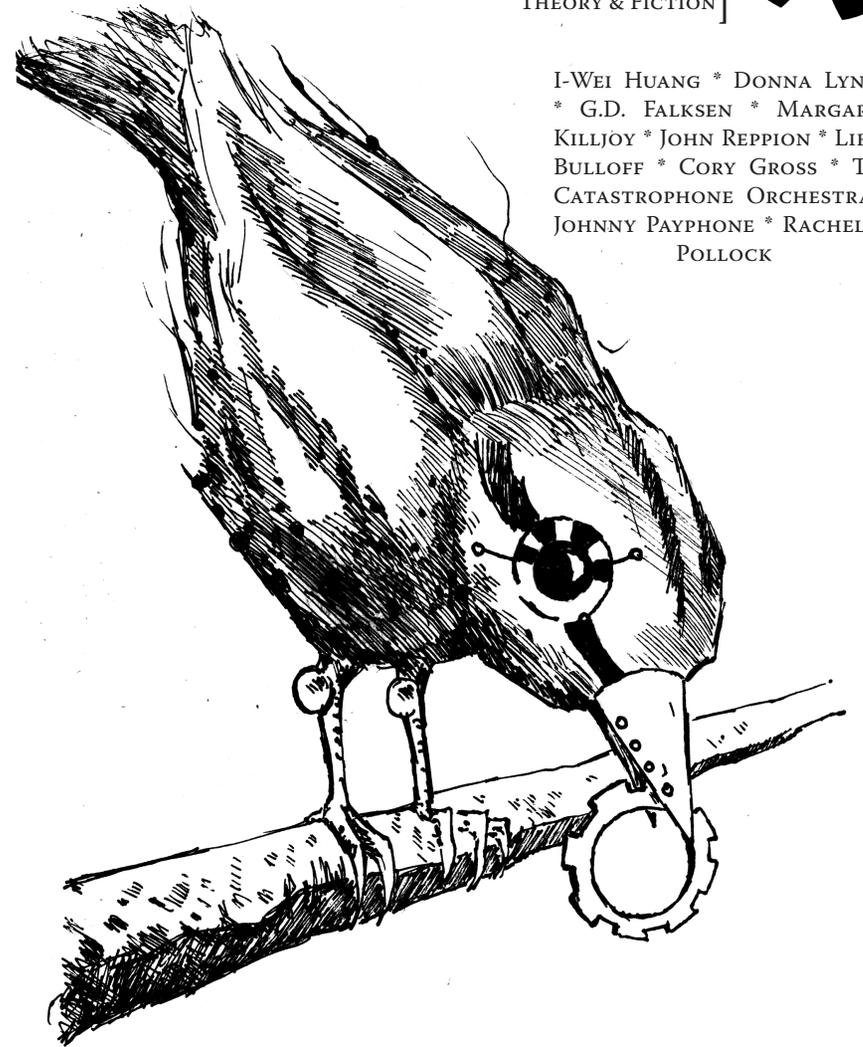
# STEAMPUNK MAGAZINE

A JOURNAL OF MISAPPLIED TECHNOLOGY

[LIFESTYLE, MAD SCIENCE,  
THEORY & FICTION]



I-WEI HUANG \* DONNA LYNCH  
\* G.D. FALKSEN \* MARGARET  
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CATASTROPHONE ORCHESTRA \*  
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POLLOCK



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# SUBMIT TO NO MASTER! BUT SUBMIT TO US!

We are always looking for content for our magazine. Two points to keep in mind before submitting: we publish under Creative Commons licensing (see below), and we compensate you no more than we compensate ourselves (which is to say, you will receive no money for your work). We apply our issue's theme lightly, and non-themed work is accepted as well. The theme for next issue is "The Sky Is Falling" and the deadline for submissions is August 15th, 2007.

**FICTION:** We appreciate well-written, grammatically consistent fiction. Certainly, we are suckers for 19th century prose styles, but we do not limit ourselves to this. We are more interested in representing the under-classes, the exploited, rather than the exploiters. We have no interest in misogynistic or racist work. We will work with fiction of nearly any length, although works longer than about 5-6 thousand words will probably be split up over multiple issues. We have volunteer fiction editors who, if you would like, can provide feedback on your work; other than this, we will only edit lightly and will always check with you before any changes are made. Submissions can be in .rtf or .doc format attached to email.

**ILLUSTRATION:** We maintain a list of illustrators who are interested in helping us. Rather than accepting submitted art, we show artists a list of upcoming articles and see what they are interested in illustrating. Due to our printing constraints, we are only interested in black & white artwork, and we are particularly interested in work that reproduces easily, without much greyscale.

**HOW-TOS:** We are always looking for people who have mad scientist skills to share. We are interested in nearly every form of DIY, although engineering, crafts, and fashion are particularly dear to us. We can help adapt things to print format, if you need.

**COMICS:** We would love to run more. Contact us!

**REVIEWS:** We accept books, movies, comics, RPGs, music, etc. for review (as well as free tickets to shows!). In addition, if there is something that you would like to review, we accept reviews written by others. Just don't go around reviewing your own stuff. That ain't fair.

**FASHION:** We are more interested in DIY skill-sharing than the exhibition of existing work. If you want to share patterns or tips for clothing, hair or accessories, then please let us know!

**ADS:** We are not interested in running advertisements at this time.

**OTHER:** Surprise us! We're nicer people than we sound like.

collective@steampunkmagazine.com  
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## deadline for issue 3:

August 15, 2007

"The Sky Is Falling"

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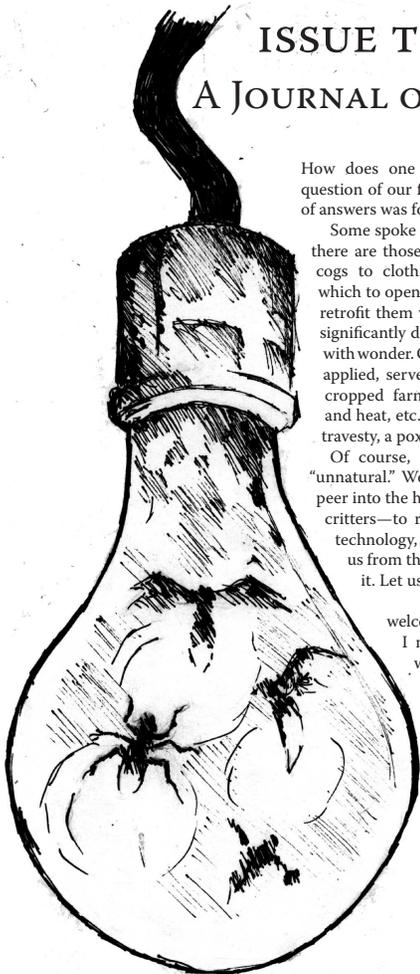
### Published By:

Strangers In A Tangled Wilderness  
www.tangledwilderness.org

It is too constricting to say that you must always think outside the box; whether you are thinking inside or outside the box, you are still letting the box dictate your thoughts, are you not? What you are not acknowledging is the honest fact that "the box" itself is figmentary, illusory. And as long as one continues to act in reaction to this perceived set of dictates, one cannot be truly original in thought.

— Erica Amelia Smith, *An Address as to the Nature of the "Proper" Uses of Technology*

## ISSUE TWO: A JOURNAL OF MISAPPLIED TECHNOLOGY



How does one misapply technology? When we asked this question of our friends, readers and contributor-base, a myriad of answers was forthcoming.

Some spoke of the creative misappropriation of technology; there are those who power record-players with bicycles, sew cogs to clothing, contrapt overly-complex machines with which to open their cat door, or tear apart their computers to retrofit them with brass keys. These people are not afraid to significantly demean their efficiency in order to fill their lives with wonder. Others referred to how technology, as is currently applied, serves as a buffer between us and wonder: monocropped farms, car culture, omnipresent air-conditioning and heat, etc. The homogenization of technology is indeed a travesty, a pox of our own infliction.

Of course, it is a false claim that technology itself is "unnatural." We must think only of the lens that allows us to peer into the heavens—or at the chaotic dance of single celled critters—to realize that invention need not be evil. But if technology, as it is applied, has separated the vast majority of us from the natural world, then it is time that we misapply it. Let us be diverse and inefficient!

Now let me climb down from the soapbox and welcome you to issue #2 of SteamPunk Magazine.

I never could have hoped that so many people would connect with the first issue, and all of us who worked so hard to bring it to you are beaming proud.

As we are still an emerging magazine, we adore feedback of all kinds. Tell us what we've done right, what we've done wrong. Write us letters. Send us clock gears. Submit articles, essays, stories, rants, comics, and fashion tips to us!

— Margaret P. Killjoy

babe. A strange contrast was presented by the two children; the idiot seemed transported with joy, while his dumb brother was filled with consternation. In vain did the terrified parent attempt to gather from either what had become of the infant. But, as the idiot danced about in great glee, laughed immoderately, and imitated the action of one who had caught up something of which he was fond, and hugged it to his breast, the poor woman was slightly comforted, supposing that some acquaintance had fallen in with the children, and taken away the babe.

### A Happy Rescue

But the day and the succeeding night passed without any tidings of the lost one. On the morrow the parents were earnestly pursuing their search, when, as an eagle flew over their heads, the idiot renewed his gesticulations, and the dumb boy clung to his father with frantic shrieks. Now the dreadful thought broke upon their minds that the infant had been carried off by a bird of prey, and that his half-witted brother was delighted at his riddance of an object which had excited his jealousy.

Meanwhile, an Alpine hunter had been watching near an eyrie, hoping to shoot the mother-bird, on returning to her nest. At length, waiting with the anxious perseverance of such determined sportsmen, he saw her slowly winging her way towards the rock, behind which he had taken refuge, when, on her nearer approach, he heard, to his horror, the cries of an infant, and then beheld it in her frightful grasp. Instantly his resolve was made, to fire at the eagle the moment she should alight on the nest, and rather to kill the child than leave it to be devoured. With a silent prayer, arising from his heart of hearts, he poised, directed, and discharged his rifle; the ball went through the head or breast of the eagle; with indescribable delight he bore the babe away; and, within four-and-twenty hours after it was missed, he had the satisfaction of restoring it—with wounds which were not serious, on one of its arms and sides—to its transported mother's bosom.

The flight of the bald eagle, when taken into consideration with the ardor and energy of his character, is noble and interesting. Sometimes the human eye can just discern him, like a minute speck, moving in slow curvatures along the face of the heavens, as if reconnoitering the earth at that immense distance. Sometimes he glides along in a direct horizontal line, at a vast height, with expanded and unmoving wings, till he gradually disappears in the distant blue ether. Seen gliding in easy circles over the high shores and mountainous cliffs that tower above the Hudson and Susquehanna, he attracts the eye of the intelligent voyager, and adds great interest to the scenery. At the great Cataract of Niagara, the world's wonder, there rises from the gulf into which the Fall of the Horse-Shoe descends, a stupendous column of smoke, or spray, reaching to the heavens, and moving off in large black clouds, according to the direction of the wind, forming a very striking and majestic appearance. The eagles are here seen sailing about, sometimes losing themselves in this thick column, and again reappearing in another place, with such ease and elegance of motion, as renders the whole truly sublime.

High o'er the watery uproar, silent seen,  
Sailing sedate in majesty serene,  
Now midst the pillared spray sublimely lost,  
And now, emerging, down the rapids tossed,  
Glides the bald eagle, gazing, calm and slow,

O'er all the horrors of the scene below;  
Intent alone to sate himself with blood,  
From the torn victims of the raging flood.

Audubon describes a bald eagle pursuing a swan, as follows: The next moment, however, the wild trumpet-like sound of a yet distant but approaching swan is heard: a shriek from the female eagle comes across the stream; for she is fully as alert as her mate. The snow-white bird is now in sight; for her long neck is stretched forward; her eye is on the watch, vigilant as that of her enemy; her large wings seem with difficulty to support the weight of her body, although they flap incessantly. So irksome do her exertions seem, that her very legs are spread beneath her tail, to aid her in her flight. She approaches; the eagle has marked her for his prey. As the swan is passing the dreaded pair, the male bird starts from his perch, and in full preparation for the chase, with an awful scream.

### Flight Like a Flash of Lightning

Now is the time to witness a display of the eagle's powers. He glides through the air like a falling star, and, like a flash of lightning, comes upon the timorous quarry, which now, in agony and despair, seeks, by various maneuvers, to elude the grasp of his cruel talons. It mounts, doubles, and willingly would plunge into the stream, were it not prevented by the eagle, which, long possessed of the knowledge that, by such a stratagem, the swan might escape him, forces it to remain in the air, by attempting to strike it with his talons from beneath. The hope of escape is soon given up by the swan. It has already become much weakened, and its strength fails at the sight of the courage and swiftness of its antagonist. Its last gasp is about to escape, when the ferocious eagle strikes with his talons the under side of its wing, and, with unresisted power, forces the bird to fall in a slanting direction upon the nearest shore.

And, again, when two of these eagles are hunting, in concert, some bird which has alighted on the water, this writer says: At other times, when these eagles, sailing in search of prey, discover a goose, a duck, or a swan, that has alighted on the water, they accomplish its destruction in a manner that is worthy of our attention. Well aware that the water-fowl have it in their power to dive at their approach, and thereby elude their attempts upon them, they ascend in the air, in opposite directions, over the lake or river on which the object they are desirous of possessing has been observed. Both reach a certain height, immediately after which, one of them glides with great swiftness toward the prey; the latter, meantime, aware of the eagles' intention, dives the moment before he reaches the spot. The pursuer then rises in the air, and is met by its mate, which glides toward the water bird that has just emerged to breathe, and forces it to plunge again beneath the surface, to escape the talons of this second assailant. The first eagle is now poising itself in the place where its mate formerly was, and rushes anew, to force the quarry to make another plunge. By thus alternately gliding, in rapid and often-repeated rushes, over the ill-fated bird, they soon fatigue it, when it stretches out its neck, swims deeply, and makes for the shore in the hope of concealing itself among the rank weeds. But this is of no avail; for the eagles follow it in all its motions; and the moment it approaches the margin, one of them darts upon it. ❁

### Eagle and Child in the Air

An instance of this kind, which occurred in the autumn of 1868, is thus narrated by a teacher in county Tippah, Mississippi: A sad casualty occurred at my school a few days ago. The eagles have been very troublesome in the neighborhood for some time past, carrying off pigs and lambs. No one thought they would attempt to prey upon children; but on Thursday, at recess, the little boys were out some distance from the house, playing marbles, when their sport was interrupted by a large eagle sweeping down and picking up little Jemmie Kenney, a boy of eight years, and flying away with him. The children cried out, and when I got out of the house, the eagle was so high that I could just hear the child screaming. The alarm was given, and from screaming and shouting in the air, the eagle was induced to drop his victim; but his talons had been buried in him so deeply, and the fall was so great, that he was killed.

The Abbé Spallanzani had a common, or black eagle, which was so powerful, that it could easily kill dogs much larger than itself. When a dog was cruelly forced into the room where the eagle was kept, it immediately ruffled the feathers on its head and neck, taking a short flight, alighted on the back of its victim, held the neck firmly with one foot, so that there could be no turning of the head to bite, while one of the flanks was grasped with the other, and in this attitude the eagle continued, till the dog, with fruitless cries and struggles, expired. The beak, hitherto unemployed, was now used to make a small hole in the skin; this was gradually enlarged, and from it the eagle tore away and devoured the flesh.

Ebel relates that a young hunter in Switzerland, having discovered an eagle's nest, killed the male, and was descending the rocks to capture the young ones, when, at the moment he was putting his hand into the cleft to take the nest away, the mother, indignantly pouncing upon him, fixed her talons in his arm, and her beak in his side. With great presence of mind, the hunter stood still; had he moved, he would have fallen to the bottom of the precipice; but now, holding his gun in one hand, and supporting it against the rock, he took his aim, pulled the trigger with his foot, and shot the eagle dead. The wounds he had received confined him to his bed, however, for six weeks. A somewhat similar story is related of the children of a Scottish peasant, who were surprised, in their endeavor to take away some young eaglets from the nest, by the return of the mother, from whose indignation they had great difficulty in escaping.

A peasant, with his wife and three children, took up his summer quarters in a cottage, and pastured his flock on one of the rich Alps that overlook the Dranse. The eldest boy was an idiot, about eight years of age; the second, five years old, but dumb; and the third, an infant. One morning the idiot was left in charge of his brothers, and the three had wandered to some distance from the cottage before they were missed; and, when the mother found the two elder, she could discover no trace of the



MARIE DELEX SEIZED AND CARRIED AWAY BY AN IMMENSE EAGLE.

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# LETTERS

write us at [collective@steampunkmagazine.com](mailto:collective@steampunkmagazine.com)

Dear SPM,

A warning might be appropriate for the sticklers for authenticity who read your glass armonica article. While many of the time believed that the sound of the instrument caused madness, the suspicion today is that the lead was leached out of the glass bowls by the moistened fingers of the musician, and over time built up to dangerous levels. This is still only a suspicion, but readers already teetering on the edge of madness may want to take it under advisement, and satisfy themselves with quartz-glass bowls instead.

-Victorian Radical

Dear Steampunk,

I was wondering about the fate of Noisecore "music" in the age of steam. Given that residents of this age had to constantly deal with the similar sounds of gear mashing throughout their daily lives, does their appreciation of this music decline, or is it still able to captivate the teeming masses in the same way that it does in the present world? Thx.

-Lord Teh

*We've got no idea whatsoever. Anyone care to respond?*

## WHAT IS STEAMPUNK? WHAT IS STEAMPUNK MAGAZINE?

THE TERM "STEAMPUNK" WAS COINED to refer to a branch of "cyberpunk" fiction that concerned itself with Victorian era technology. However, SteamPunk is more than that. SteamPunk is a burgeoning subculture that pays respect to the visceral nature of antiquated technology.

It's about "steam", as in steam-engines, and it's about "punk", as in counter-culture. For an excellent manifesto, refer to the first article in our first issue, "what then, is steampunk?"

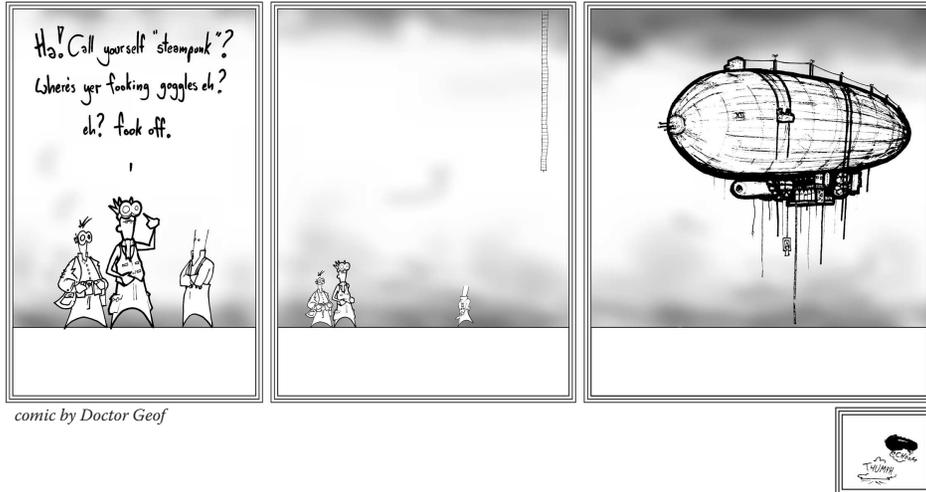
SteamPunk Magazine is a print publication that aims to come out seasonally. Full quality print PDFs of it are available for free download from our website [<http://www.steampunkmagazine.com>], and we keep the cost of the print magazine as low as possible. All work on the magazine, including articles, editing, illustration, layout, and dissemination, is done by volunteers and contributors. To see how you can get involved, see the last page.

strongly displayed even when they lead a life of restraint and confinement. The weaker bird is never willingly suffered to eat a morsel, and though he may cower and quail under the blow with the abject submission, the same savage deportment continues toward him as long as he exists. Those observed in steady confinement frequently uttered hoarse cries, sometimes almost barkings, accompanied by vaporous breathings, strongly expressive of their ardent, unconquerable, and savage appetites. Their fire-darting eyes, lowering brows, flat foreheads, restless disposition, and terrific plaints, together with their powerful natural weapons, seem to assimilate them to the tiger rather than the timorous bird. Yet it would appear that they may be rendered docile, as the Tartars, according to Marco Polo, were said to tame this species to the chases of hares, foxes, wolves, antelopes, and other kinds of large game, in which they displayed all the docility of the falcon.

The longevity of the eagle is as remarkable as its strength; it is believed to subsist for a century and is about three years in gaining its complete growth and fixed plumage. This bird was held in high estimation by the ancients on account of its extraordinary magnitude, courage, and sanguinary habits. The Romans chose it as an emblem for their imperial standard, and from its aspiring flight and majestic soaring it was fabled to hold communion with heaven, and to be the favorite messenger of Jove. The Tartars have a particular esteem for the feathers of the tail, with which they superstitiously think to plume invincible arrows. It is no less the venerated war-eagle of our northern and western aborigines, and the caudal feathers are extremely valued for head-dresses, and as sacred decorations for the pipe of peace.

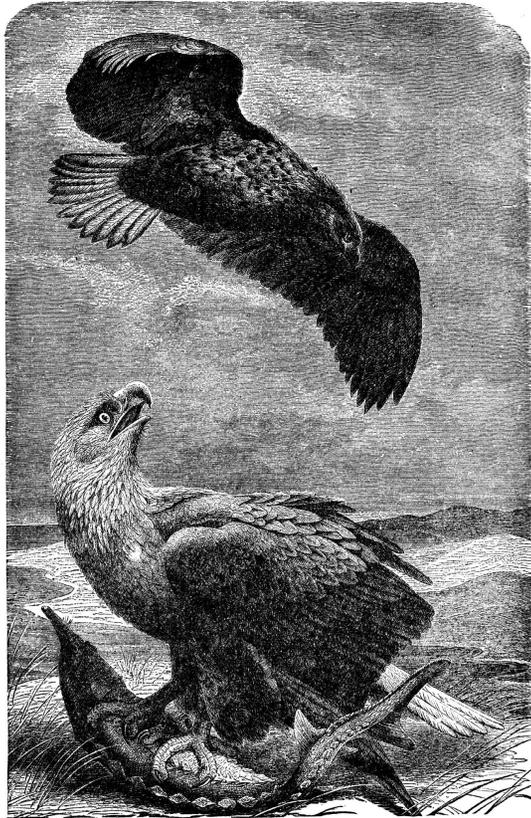
Stern and unsocial in their character, yet confident in their strength and efficient means of defense, the eagles delight to dwell in the solitude of inaccessible rocks, on whose summits they build their rude nest and sit in lone majesty, while with their keen and piercing eye they sweep the plains below, even to the horizon. The combined extent and minuteness of their vision, often including not merely towns, villages, and districts, but countries and even kingdoms in its vast circuit, at the same time carefully piercing the depths of forests, the mazes of swamps, and the intricacies of lawns and meadows, so as to discover every moving object—even the sly and stealthy animals that constitute their prey—form a power of sight to which human experience makes no approach. If we connect with this amazing gift of vision the power of flight which enables these birds to shoot through the heavens so as to pass from one zone to another in a single day and at a single flight, we shall readily comprehend how it is that they have in all ages so impressed the popular imagination as to render them the standing types and emblems of power. In ancient times the lion was the representative of kings, but the eagle, soaring in the sky, was made the companion of the gods, and the constant associate of Jupiter himself.

Although in our days the carrying off of Ganymede is not re-enacted, yet the inhabitants of mountainous countries have some ground for accusing the eagles of bearing off their children. A well known fact of this kind took place in the Valais in 1838. A little girl, five years old, called Marie Delex, was playing with one of her companions on a mossy slope of the mountain, when all at once an eagle swooped down upon her and carried her away in spite of the cries and presence of her young friend. Some peasants, hearing the screams, hastened to the spot, but sought in vain for the child, for they found nothing but one of her shoes on the edge of the precipice. The child, however, was not carried to the eagle's nest, where only two eaglets were seen, surrounded by heaps of goat and sheep bones. It was not till two months after this that a shepherd discovered the corpse of Marie Delex, frightfully mutilated, upon a rock half a league from where she had been borne off.



comic by Doctor Geof

# EARTH SEA AND SKY



SEA EAGLE AND ITS CAPTIVE.

Here at SteamPunk Magazine we delight in artifacts, and thus do we present you herein with an excerpt from the excellent tome "Earth Sea and Sky" published in 1887. In the first issue we shed light on the practice of hunting ostriches. In this, the second issue, we instead look at a non-human hunter: the eagle. We make no claim of this dated material's veracity.

The eagle, the monarch of the mountain forests, over which he has reigned since the creation, is still found exercising his dominion in the ancient and remote woods of Europe, Asia, and America, but more particularly in the northern parts. Nuttall thus describes it: Near their rocky nests they are seen usually in pairs, at times majestically soaring to a vast height, and gazing on the sun, toward which they ascend until they disappear from view. From this sublime elevation they often select their devoted prey—sometimes a kid or a lamb from the sporting flock, or the timid rabbit or hare crouched in the furrow, or sheltered in some bush. The largest birds are also frequently their victims, and in extreme want they will not refuse to join with the alarmed vulture in his cadaverous repast. After this gorging meal the eagle can, if necessary, fast for several days.

The precarious nature of his subsistence, and the violence by which it is constantly obtained, seem to produce a moral effect on the disposition of this rapacious bird; though in pairs, they are never seen associated with their young; their offspring are driven forth to lead the same unsocial, wandering life as their unfeeling progenitors. This harsh and tyrannical disposition is

## REVIEWS

contact [collective@steampunkmagazine.com](mailto:collective@steampunkmagazine.com) to get a shipping address for any physical things you would like reviewed.

### SHORT STORIES

**Jimmy T. Hand**  
"The Seduction of the Wind"  
Strangers In A Tangled  
Wilderness, 2007  
[www.tangledwilderness.org](http://www.tangledwilderness.org)

### GRAPHIC NOVEL

**Jane Irwin with Jeff Berndt**  
"Vögelein: Clockwork Fairy"  
Fiery Studios, 2003  
[www.vogelein.com](http://www.vogelein.com)

### ALBUM

**Abney Park**  
"The Death of Tragedy"  
Self-Published, 2005  
[www.abneypark.com](http://www.abneypark.com)

Jimmy T. Hand's collection of bedtime stories for "nights you wish the whole world in flames" is a poignant amalgamation of short parables and speculative fiction. Brilliantly printed as a 28-page zine, Hand's work runs the gamut from simple to complex, and the layout of his leaflet, laced with beautifully stark black ink doodles, reflects this very notion. The characters in his tales are believable and representative of not only their own stories, but ours, the reader's, as well. Approximately half of the stories within the collection can be classified as steampunk. "Anna the Clockmaker" specifically deals with a woman who sets out to reset the time of the dominant clock of her post-apocalyptic city. Her story contains a pro-feminist critique of man's obsession with measure as control. The clock itself stands as a testament to revolution and Anna becomes a heroic and yet very human figure as she attempts to mend its damaged gears. Another of Hand's more steampunk stories is "The Baron", a short story dealing with such diverse subjects as airships, street musicians, and class wars of the organic versus the mechanic. Ending abruptly as many of Hand's pieces do, it is a solid political statement as well as an entertaining fiction.

Perhaps Hand's best written pieces are his shortest—"Of Empire and Village", clocking in at 193 words, and "Of Moth and Flame" (at 278 words) hit hard and fast and leave the reader to salivate and savor the consequences of action, reaction, and inaction. Overall, *The Seduction of the Wind* is an excellent collection of short stories and comes highly recommended.

I was bicycling back from mailing off a few copies of the magazine, when, taking a random route home, I passed a used bookstore that I had never seen before. Inside, I discovered a graphic novel with a title I couldn't refuse: *Vögelein: Clockwork Fairy*. I bought it, took it home and devoured it. Metaphorically, that is.

From a SteamPunk point of view, you simply can't go wrong. The protagonist is a clockwork fairy who was constructed by a clockmaker in the 17<sup>th</sup> century. She lives in the modern world. The social/environmental situation of our world is addressed without falling into the trap of demagoguery. Did I mention that the protagonist is a fairy, made of clockwork? Cause she is. And she's an excellent character, too.

The artwork is beautiful—each panel its own painting—but, I must admit, not reproduced all that well in black & white: it seems like it was made to be viewed in color. But self-publishing is like that: sometimes you do the best you can afford.

The history of the book is quite meticulously researched, and there are amazing footnotes in the back, including one that describes in detail the 17<sup>th</sup> century method of making clockwork. The world as portrayed is dark, but not dire, and it really does a lot to inject a slight bit of magic into every day life—as much with its portrayals of humanity as its portrayal of true magic.

Abney Park, for those who are unfamiliar with it, is an impeccably dressed band that sings dark, electronic dance music with gothic sensibilities. But of course, like any decent band of any genre, they have a bit more to add: in this case, it is a sort of exotic/world sensibility that appeals to our hopes of finding ourselves lost in the opium dens of our steampunk future. Musically, I find myself remarkably drawn to the voice of Robert, the lead singer, as he sings airily, epically. The harmonies with other vocalists are done quite well, and the myriad of singers helps the album tremendously.

Although I admit that I am not remarkably well versed in this genre of music—my tastes running in less dance-oriented directions—the closest comparison I can summon up is Bel Canto.

If there is a weakness to this album, it is its refined nature. It feels a bit like a dulled blade—the musicians are all quite competent, the songs are well composed, but the music allows itself to fall too easily into the background. It's possible, even likely, that the band doesn't suffer from this problem when they play live.

My favorite tracks are "Dear Ophelia" and "All The Myths Are True." I can't say that I could recommend this to the general SteamPunk crowd, but only because there is no general SteamPunk crowd. If your tastes run towards dance music, then it is very likely that you will find things herein that please you greatly.

## STEAMPUNKS ON THE AETHERWEB

THERE ARE SEVERAL DESTINATIONS OF CHOICE FOR THE CYBER-INCLINED STEAMPUNK:

brass goggles **blog**: <http://www.brassgoggles.co.uk/brassgoggles/>

brass goggles **forum**: <http://www.brassgoggles.co.uk/bg-forum/>

aether emporium **wiki**: <http://etheremporium.pbwiki.com>

steampunk: victorian adventures in a past that wasn't: <http://welcome.to/steampunk>

# To Electrocute an Elephant

## HOW EDISON KILLED A CENTURY ON CONEY ISLAND

from the Catastrophe Orchestra Archival Vault  
illustration by Suzanne Walsh

CONEY ISLAND, THE FABLED *WUNDERCABINET* OF NEW YORK CITY. A PLACE WHERE Astors and nickel-a-day chimney sweeps rubbed shoulders along a mile of mediocre beach and warped boardwalks. It represented progress more than any world's fair, realizing the potential of radical egalitarianism with the newest and most original steam apparatus anywhere in the world. It is fitting that xenophobic status-crawler Thomas Edison would use Coney Island's "crown jewel" Luna Park as a stage to highlight the new—and ghastly—power of electricity. It all began with a 28-year-old elephant.

AS THE 19TH CENTURY MADE WAY FOR THE 20TH, ONE OF the biggest attractions at Coney Island's Luna Park was its free-roaming private herd of elephants. A favorite among them was Topsy, a three-ton tuskier whose great strength had been put to use building many of the attractions that made Coney Island so much fun. Topsy had helped move the world's largest steam boiler, a machine that powered no less than three rides—including a steampunk favorite "A Trip To The Moon."

Topsy could work hard, but he could be pushed only so far. One day, a drunken Eli McCathy—an abusive lout of a trainer who had beaten one of his own children to death two years prior—tried to feed a lit cigarette to Topsy. The giant pacidimer knocked McCathy to the ground and stomped him to death.

Thompson and "Skip" Dundy—two shady businessmen who were never shy of publicity—publicly declared they would hang Topsy for his "crimes." They claimed the elephant had killed two others, but further research suggests that this was just one of the flamboyant duo's many exaggerated claims. The ASPCA [American Society for the Prevention of Cruelty to Animals] became involved, criticizing the plan to hang the elephant and the newspapers had a field day with the story. Thompson called up the famed inventor Edison to see if he would be willing to do the honors.

For over two years Edison had been publicly electrocuting dogs, cats, lambs, and even a calf to prove that alternating current—a competitor for his direct current systems—was dangerous. It is unclear if any of the more than two-dozen animals executed by Edison had ever committed a "crime."

It was an easy sell for ultimate wheel-dealers Dundy and Thompson. Topsy offered an opportunity that Edison couldn't resist; what better way to demonstrate the horrible consequences of alternating current than to roast a full-grown elephant? Three years earlier, Edison had been "robbed" (as Edison had phrased it in a letter to his teen-age niece) by being denied the right to film the death of President McKinley's anarchist assassin, Leon Czolgosz. He had been limited to filming the convict going

from a dingy cell to the death chamber to be electrocuted and the dead body being wheeled out. Edison was not going to be denied again; he arranged for everything and even paid for the execution out of his own pocket.

Edison sent over a crack team of technicians—and his film crew. On January 4<sup>th</sup>, 1903, Topsy was led to a special platform and the cameras were set rolling. Over 1,500 hundred spectators surrounded the terrified animal. Edison himself spoke to the assembly, which included prominent businessmen and the assistant mayor. He praised the achievements of the "unseen fire", a term he stole from his arch-enemy Nikola Tesla, and proclaimed that "we are entering a new age..." He grabbed the switch with his mink-lined gloves and smiled. It took only 6,600 volts and a little less than thirty seconds to start the elephant's feet on fire and kill the mighty Topsy. Edison later showed the film to audiences across the country to prove his fallacious point.

In the end, it made no difference. AC beat out DC, but the Wizard of Menlo Park still made tons of money.

That wasn't much consolation to Topsy, who was dead, nor to Luna Park, which was eventually destroyed in a horrible fire that was caused by Edison's DC electric light system. Today, nothing remains of either, except for Edison's film. If you ask the folks at the Coney Island Museum, they'll show it to you. ⚙️

*As of this writing, the last season of old Coney Island has begun. There is a large development plan to "sanitize and modernize" Coney Island. Thor Equities was buying up midway turf and will be building a shopping mall/waterpark complex. The new year-round entertainment complex would include a beachfront hotel and spa, apartments, open-air cafes along the boardwalk, arcades, bowling alleys, a pool (yes, a pool right next to the ocean), movie theaters and other non-freak-related attractions. Edison would be proud.*

At the signal, the squatters emerged bare-fisted from nearby buildings and the two gangs brawled in the streets for a few long bloody minutes.

Yena knew that it was important she stayed by her post, but she couldn't help sighing as she missed the fight outside.

MANY HOURS LATER, YENA STOOD IN FRONT OF THE CALLY BIRD. The Townies had left, and most of the squatters had gone home. After the brief conflict, the parley had resumed and the squatters had agreed to one day's increased extraction to compensate for the mysteriously broken windows.

Now the moon was high and gibbous, and Yena looked out over the dust and cobblestone, so often stained by blood. It was a strange game, to be sure.

A silhouette approached in the moonlight. Icar, Yena guessed by the stride.

"Evening, stranger."

"Evening," Icar said as he came into proper view.

"You missed all the fun."

"Oh? I just woke up."

Yena spoke of the evening's events. "So things are back to normal, mostly. Nothing's been done about Keyou."

"Keyou is dead." Icar looked up to the few stars that were visible through the smog that enveloped the city.

"Yeah?"

"I poisoned him."

Yena was stunned.

"A priest who takes too much power over the people, where I'm from, is poisoned. If Keyou persecutes under our religion, then he can be persecuted under our religion."

Yena looked at Icar and realized that he truly was a stranger to her; she never would have guessed him capable of such action. "Have you ever... killed anyone before?"

"No."

Yena opened the door to the Cally Bird and the two walked inside.

"Then there's one thing I still haven't figured. What about the windows? The Townies came, all pissed to hell over some broken windows."

"You'd best ask your sister and Fera about that."

Yena laughed slightly, and reached her hand out to rest on Icar's shoulder. "I'm glad you came to The Vire."

Icar grinned. "I'm glad too." ⚙️

Set stood behind Yena now, leaning forward and resting her weight on Yena's shoulders. They were near the back of the room, Yena unconsciously guarding the boiler and the steam engine.

When the room could hold no more, a powerfully-built man stood and faced the crowd. He raised his hands and, after a few moments, the room grew quiet. Teyhlo, *Of the Sea*, spoke with a voice that had at one time crossed the waves, from ship to ship.

"Can everyone hear me alright? Do I need to use the vocal horn?" he asked, and someone from the back shouted that his voice was clear.

"Two nights ago, the Townies attacked us. Once again, without provocation. We got away, and no one was hurt. You all know they do this from time to time. I suppose they think this keeps us on our toes, keeps the gas production high." Teyhlo paused dramatically. "But this wasn't an ordinary strike. This morning, as most of you have heard, they bombed one of our buildings, the workshop of Annwyn. One of us. They thought she was inside."

Those who hadn't heard the news gasped, and murmurs spread across the room until Teyhlo raised his voice once more.

"She wasn't there, of course, and nobody was hurt. But what are we going to do? We have to decide. How do we deal with this?"

Teyhlo moved to his seat nearby and left the floor open. The meeting went as it often did; when there was no immediate threat, the squatters worked by consensus council, and people took turns addressing the crowd. Since everyone in the room would be affected by the decision, everyone in the room had equal say. From time to time, Teyhlo would help to guide the discussion when it strayed too far from the topic at hand, or when disagreements threatened to disrupt the council, as others had served as guide for meetings past. They would speak like this as long as was necessary, to reach a decision and address every individual concern.

It was a process that was dependent upon the respect for one another they all shared, a process that many of the crowd had grown up with. One took care not to repeat points already raised, and to give due purchase to the views of even those they opposed. Major decisions could mean giving up

the better part of a night to come to a consensus, but the squatters were used to it. Anything else seemed like tyranny.

Once Yena had spoken her piece, and people realized that the attacks were unlikely to resume, the aggression quickly drained out of the crowd. The combatants among the Townies were in numbers that neared those of the squatters, but the Townies had the passive support of most of The Vare. If tactics remained escalated past the ritualized conflicts they were used to, it was very likely that the squatters would be wiped out, and their anarchic tradition would be no more.

Just as the crowd seemed to reach a consensus on inaction, the clangor of bells echoed throughout the room and everyone grew quiet.

"About two hundred of them. One steam-ram." Fera's voice echoed through his voice-tube from the roof. "And they don't seem armed. They've got a white flag."

Hushed whispers went through the crowd, and Suyenne spoke up. "Unless anyone objects, I will parley?"

Yena turned and began to power the steam engine. Soon she was shoveling radioactive earth into the gaping boiler and the machine's thrum comforted her. If things got nasty, the squatters would have mechanical support. She would make sure of that.

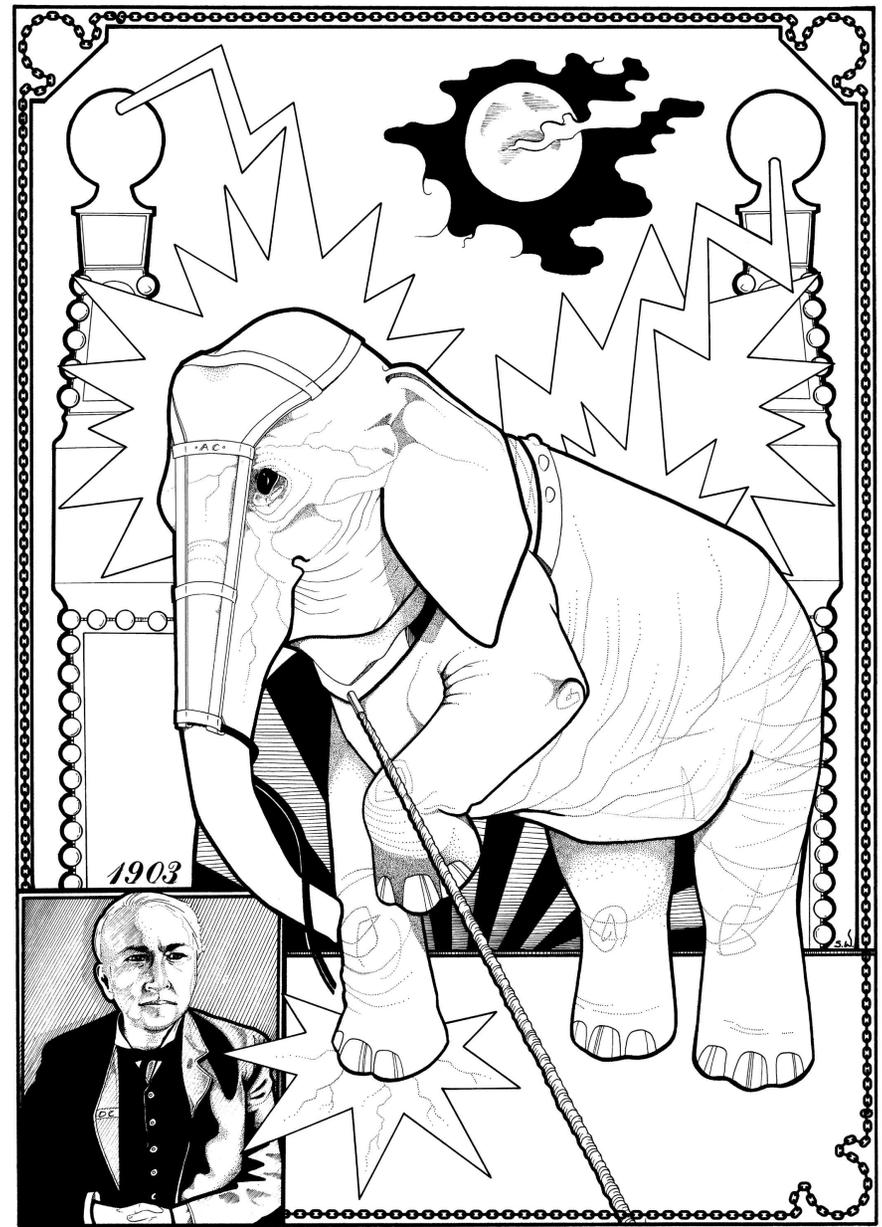
Without being ordered, the room emptied down into the escape tunnels. Small groups of friends would emerge in nearby buildings in a moment, waiting for the signal to fight, and the Townies would be surrounded. Expressions were grim, but determined.

Yena waited inside with her sister and a handful of others. Weapons were at hand, but if Fera was right, and the Townies were unarmed...

"He says that they've come about our attack on them, about some broken windows." Fera's voice carried down into the main room as he read lips from the roof. "He says that they demand we increase gas production for two weeks to compensate for the damages."

Yena grinned. It was all a game once more. "He says they won't leave until we agree."

Set started to smirk as well, and she walked over to the steam-drum. She pounded it twice, and the melee began.



*DISCLAIMER:* The following is a discussion of what I personally believe is rising as the visual aesthetic and fashionable interpretation of steampunk. My assumptions are not indicative of the entire staff of this fine Magazine nor are they representative of each and every individual who dubs him or herself a steampunk. Steampunk is not a commodity as far as I am concerned—it cannot be outright purchased at the local mall (yet, ahem)—and thus there is no disciplined uniform allotted when you purchase this publication, et cetera. Though that might be somewhat charming... I digress.

# Steam Gear

## A FASHIONABLE APPROACH TO THE LIFESTYLE

by Libby Bulloff  
illustration by Colin Foran



THE FOLLOWING BEGAN AS A RESPONSE TO A THREAD I POSTED to on the Brass Goggles Internet Forum. I have seen several styles of dress emerging from the steampunk zeitgeist as I have followed its escalation online over the last three years. I have observed that said modes can be cataloged according to social class and function/occupation. Really, the purpose of fashion always stems from these two hierarchies. However, we rotate in circles online that challenge traditional Victorian societal restrictions, so I have endeavored to classify these subsequent modes of dress in a manner that does not restrict any steampunk to one specific assemblage. We, as modern individuals, are allowed the autonomy to pick and choose our garb as we please, and not based upon stringent rules. Yes, I do indeed encourage defiance of these very ideas presented here. Hence, as the pirates say, do consider the following more as “guidelines” to assist in cobbling together the perfect gear.

“Where does he live?”

“Downtown, Comseye Tower.”

“Thanks,” Yena finished her mead and set down the glass, “it helps. Say, what did *you* do during the war?”

Gregor scratched his neck and rubbed the bar for a moment, then took Yena’s glass and scrubbed it clean with sand and wool. “I, uh, I killed squatters.”

Gregor poured himself more mead as Yena unbolted the door to leave.

OUTSIDE, THE DESERT AIR WAS WARMING QUICKLY now that the day had begun in earnest. Across the street, crouched in the shade, Yena saw Icar’s lanky figure, his shaggy red hair draped in front of his face and his whole tanned body seeming to disappear into his featureless wool clothes. When she caught his eye, he stood and walked out into the sun to greet her.

“You’ve been following me?” Yena asked, as much amazed by his discretion as she was annoyed.

Icar nodded. “What did you find out?”

“It was a man named Keyou, from Comseye Tower. He figured Annywn was building one of your *androids*. He’s some kind of priest.”

Icar nodded again, his hair bobbing in his face, looking very much the part of a confused boy. “She won’t be safe to come back until he’s dealt with... And we will tell people this at the meeting tonight?”

Yena sighed and thought. “We will. But I’m not sure they’ll listen. The danger is over for the moment, honestly. Keyou thinks he got her. It’s hard to keep people riled up about a threat that has passed.”

Icar looked puzzled for a moment, and then resumed his wide-eyed gaze. “Do you suppose that I can sleep at the Cally Bird?”

“I’m sure.”

Yena left Icar and walked back to her own squat, hoping to find Set and to get some sleep before the meeting.

THE MAIN ROOM OF THE CALLY BIRD WAS PACKED, and the air smelled strongly of nervous sweat. Over two hundred people were in attendance, and though most of them were young, fifteen to thirty years old, about a dozen elders were mixed into

the crowd. A few of these were survivors of the civil war; but most were more recent migrants.

The majority of the people in attendance were Of the Mountain—The Vare’s original inhabitants—but there were people from all across The Continent, stragglers who had found their way to The Vare.

There were Those Of the Gear, who, like Yena, had fled Angeline to seek a less repressive world. They were mostly pale or sunburned and peeling, and their bodies were soft and curved. Their life span was frighteningly short; few lived to see forty, thanks to the ravages of cancer that the air itself seemed to bear on the winds.

There were Those Of the Waste, who, like Icar, had fled their tribes in hopes of greater personal freedom. Tall, thin and angular, most Of the Waste were sterile, and many resented their subservience to the fertile minority of their people.

More rare were Those Of the Sea, like Suyenne, a hairless, dark-skinned folk who traditionally plied the seas of the West.

Some sat on benches that had been winched up from the floor, a few perched from platforms that were lowered from the four-story ceiling. Some crouched on the floor, some rested against the wall. Their fashion was diverse, and if there was a unifying theme it was “we are not like you.” Some wore antiquated garb: wool vests, trousers and jackets. Others wore leather, in browns and blacks, cut tight to their bodies in bizarre styles. Many were still in the cover-alls and caps that marked them for their work in the gas factories, and still others wore loose, comfortable skirts and little else save for a greatcoat with which to face the desert sun and sand.

There was not a scrap of canvas, not a trace of bleach-white.

Standing guard in the hallway, Suyenne kept track of all these people as they came and went. Fera was on the roof, spyglass in hand, poised near the alarm bells.

Set and Fera had been fine, Yena had been relieved to learn. After seeing the explosion, the two had walked calmly away, disguised as a middle-class couple drunkenly finding their way home from a bar that had closed at first light.

But Icar was conspicuously absent. Arriving after her nap, Yena had combed the building looking for him, but Suyenne hadn’t seen him all day.

resent the civil war. I can't see how it matters now, though. They got what they want, or so they think, eh? Thanks to you and Annwyn, you clever gals you. So, let's drink to that! What can I get you?" Gregor spoke so quickly Yena had to pause a moment to keep up.

"I want to know who. Was. After. Annwyn."

"I'm sure you do, I'm sure you do. Why would anyone hate someone so sweet? That's what I ask." Gregor went back and poured two glass mugs of mead. Mead was pricey stuff, since honey had to be shipped in from the coast.

"Now look Gregor. I'm going to drink this mead, but not because you've successfully changed the subject on me. I'm going to drink this mead because I don't get mead so often, never for free, and because it reminds me of home."

Gregor and Yena silently toasted and drank, sitting on either side of a bar of shining brass. They took long, slow sips, pausing to let the fermented honey tickle their mouths each time before swallowing.

Halfway through the glass, Yena put hers down. "I won't leave until I know, Gregor."

Gregor sighed and chugged the second half of his drink, a nearly heretical action. "I'll tell you. But when I tell you this, I'm trusting you with my life. If that man figures me out a rat, Gregor's Pub here will be next to go. And rest assured, I'm not so clever as you squatters; I won't be getting away."

"We won't let anyone hurt you."

Gregor smiled grimly, rubbing the bar with one hand while he scratched the back of his neck with the other. He was the sort of man to have two nervous habits; it came with being a spy and a charlatan. "So the squatters protect me. Then what? No one will come to Gregor's Pub. After all, he'll be a squatter. And the other squatters? You can't afford mead. What do you think? I'll cast off this bowler, my canvas shirt, perhaps cut my hair into a mohawk? That would be clever. Come see your band play?"

Yena looked down now.

"No, I mean no offense." Gregor stood to refill his glass. "But I'm a bit old for you folk. There aren't so many squatters my age left for me to be friends with, are there?"

"No," Yena said bitterly. They had all died in the war. Yena had barely been born when it happened, and she wasn't even from The Vare, but she lived among grown orphans and felt their elder's absence sharply.

"So there's a man named Keyou. He's old, like me. But he's dangerous, a preacher. He picked up a little bit of the Waste-religion, a little bit of the Coast-religion, and a little bit of the his-brain-is-made-of-bonkey-juice-religion. He thinks Annwyn is up to no good. Thinks she was building an *android* over there in her workshop. An *android*, you see, is—"

"I know what an *android* is," Yena cut him off, "I'm not an idiot."

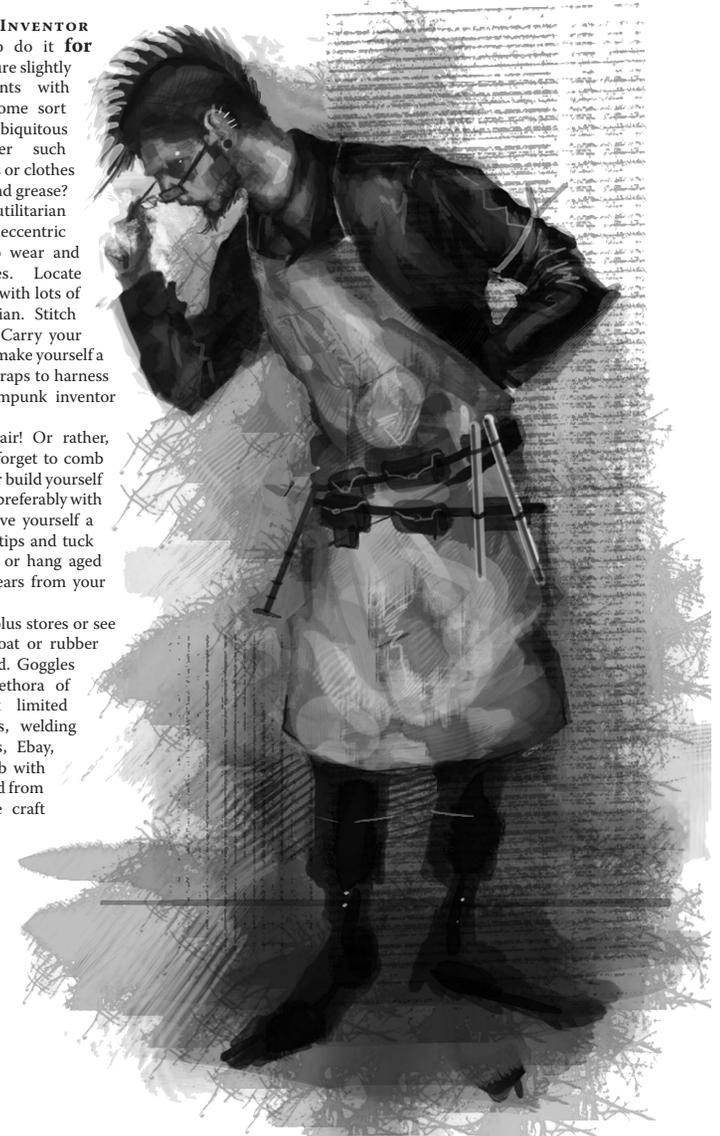
"Anyhow, Keyou has a lot of sway; he did a lot during the war. He was in here the other night, rambling on about Annwyn, talking her up to be some kind of leader."

## THE TINKERER / THE INVENTOR

THESE ARE THE types who do it for science! \*raises glass\* I picture slightly more well-designed garments with straps, pockets, et cetera, some sort of protective eyewear (the ubiquitous goggle goodness or other such spectacles)... perhaps lab coats or clothes that are impervious to spills and grease? I picture the tinkerer in more utilitarian garb, and the inventor in an eccentric amalgamation of cast-off lab wear and well-worn Victorian pieces. Locate yourself a good vest or jacket with lots of pockets—think cargo Victorian. Stitch cogs on or to your clothing. Carry your tools of trade as accessories—make yourself a leather belt with pockets or straps to harness useful implements. The steampunk inventor believes in *form and function*.

Don't forget the wild hair! Or rather, ladies and gents, feel free to forget to comb your hair before you go out. Or build yourself some sort of hairpiece gadget, preferably with amusing mechanized bits. Give yourself a proper fauxhawk with tinted tips and tuck a wax pencil behind one ear or hang aged lightweight clock hands or gears from your pierced lobes.

Look for treasures at surplus stores or see if you can snag an old lab coat or rubber apron online or from a friend. Goggles can be acquired from a plethora of locales, including but not limited to army/navy surplus stores, welding supply stores, antique shops, Ebay, et cetera. Embellish your garb with clock parts and hinges salvaged from dumpstered old tech or the craft store.





#### THE STREET URCHIN / THE CHIMNEY SWEEP

THESE FOLKS DRESS in the most 'punk' styles of steampunk. We're talking tatters, filth, safety pins, old leather, bashed-in derbies, and the like. This style of dress is functional, can be mucked about in, costs little to hack together, and nods smugly to the lowest classes of Victorian and steam society. It looks *good* dirty. Torn stockings puddled around one's knees or tacked up with garters and pins are most delicious. Wear your spoiled petticoats over a pair of knee breeches, ladies. Gentlemen—there is nothing sexier than suspenders over a tea-stained sleeveless undershirt, especially if you have tattoos. Street urchins and sweeps are the truest modifiers of their garments and they are fearless when it comes to waste, stains, rips, and sweat. Cross-dress, by gods! Jam a jaunty feather and a vacuum tube in your hatband! There are no rules besides do-it-yourself.

Regarding hair, which is most crucial to finishing one's appearance: be adventurous and go for a wicked mohawk under your hat or leather and wire-bound bundles of dreads (natural or synthetic). Tease your hair or shave it all off. Do not fear to splash your locks with vivid dyes (may I recommend Special Effects USA as permanent color). A brilliant surprise tucked under a dingy topper is delightfully subversive!

Search for possible garments at thrift and antique stores. Tear up old lingerie or suits scavenged from Goodwill bins and add your own trims, pockets, gathers, and whatnot. Tea- or coffee-stain striped tights and white shirts or creatively bleach sections of dark clothing. If you are unable to sew, pin or tie fabric into the proper shape or solicit assistance from a tailor friend. Barter for pieces that fit your style, as well.

and then stared out into the sky, his eyes trailing a distant flock of birds.

A strange young man, Yena thought.

SHE FOUND GREGOR, THE SPY, TO BE *LITERALLY* sitting where she figured he might be *metaphorically*—at the bottom of an iron barrel of rum.

When she had reached Gregor's pub—a modest brick-faced tavern that served the city's elite who liked to slum—she had found the reinforced iron door open wide and inviting, despite the early hour. She had pushed through the strips of wire-screen netting and walked into the empty room.

The lights had been out, and the shutters down, casting the polished brass interior into a rather gloomy light. And quickly, she found Gregor.

"Go away!" Gregor's scratchy voice echoed unflatteringly from the bottom of the barrel where he crouched in fear.

"It's Yena, Gregor. We've got to talk."

"Sounds like you. I'll tell you what. You close the door, give that lock-wheel a twist, and light the lamps. You do that, and I'll come out. But until that door is closed—"

"Yeah, yeah. I get it. You don't want to be seen with me." Yena pulled the poorly oiled door shut with a creak and a slam. Set into its center was a copper-plated wheel, which Yena turned, forcing deadbolts into the floor and ceiling. She pulled flint and steel from one of her many pockets and lit a few of the oil lamps that sat on the tables, casting a harsh yellow glow that reflected garishly on the glistening furniture.

"Out," she said when the room was lit.

Gregor stood, and Yena, so often unfeeling, was filled with pity and sorrow. Most recently a handsome old man, Gregor's face was bruised and cut. He was Of the Mountain, like most of The Vare, and thus he was broad-shouldered and tan, but he looked sickly, his face nearly as pale as Yena's. He wore a brown canvas shirt—quite the luxurious article—but it was stained with blood, presumably his own. His leather bowler was bashed in and it was clear he had been crying, though he was not presently.

"I tried to warn her. But you know Annwyn, she's stubborn." Gregor looked Yena in the eyes for but a moment before looking down at his thick hands that he held clasped in front of him.

"Annwyn wasn't home when it happened."

"No? Then who was inside?"

"No one was inside. We rigged the place. All that's gone is a lot of Annwyn's sculpture." And a lot of innocence, Yena thought.

Gregor unclasped his hands, took his bowler from his head and pushed out the dent before putting it back on and looking up. "Really then? Annwyn's fine? No squatters killed?"

"Nope. Though we had a bit of a sprint to get away after the explosion."

"Well then, well then." Gregor's voice perked right up.

"Now, who mused you up?"

"This? No one, it's nothing." Gregor clumsily made his way out of the rum-barrel, balancing himself on the nearby bar as he lifted his short, hefty body and stood up on the floor.

"No, tell me. Who did this?" Yena had never been friends with Gregor, had never appreciated Gregor's scheming ways, but the old man had always done right by the squatters, and Annwyn trusted him. Yena wanted to find out who had hurt Gregor, the same as she wanted to find out who blew up Annwyn's house. Violent thoughts of revenge flickered through her head unbidden.

"I'm not joking." Gregor went behind the bar and grabbed a scrap of wool. He rubbed his face lightly and his original reddish tan showed through the pale. "It's paint. I figured that maybe the Townies would get to Annwyn's place, find it empty, and I figured they might suspect me. Wouldn't be the first time. I wanted them to think that you squatters had forced it outta me. Sorry about that. But, you know, it's best to keep up appearances, right?"

"Anyways, when the Townies didn't arrive, and I heard the explosion—I think it woke up half The Vare, that little blast—I figured Annwyn had stayed to fight. I thought she was dead." Gregor sounded upset as he spoke, but caught himself and reverted to his jovial, polished charisma. "But, well, she's not, and the Townies think she is, I'm sure."

Gregor laughed, throwing back his head and snorting into the air. "You showed them pretty well, you sure tricked 'em. So, wanna drink?"

"I want to know what bastard was after Annwyn."

"Yes, well, I'm sure it was the usual batch of folks, you know, retired generals and such who

looked over her shoulder for just a second to make sure there was no sign of pursuit.

"*Android!*" Icar yelled, but his strange warning came too late. Yena slammed full-speed into 2000 kilograms of steam-driven metal, a four-legged steam-carriage—the sort driven about by dandies with more time than sense or social grace. Her upper body hit the thing's torso, and her legs went out from under her. She was lying under the machine, and only a timely shout from Icar to the driver saved her from being ground into the cobblestone by the thing's hydraulic legs.

"Oh dear, oh dear," the driver—a bespectacled, aging aristocrat—said from his perch on the thing's camel-humped back, forward of the boiler. "I didn't see you there. But indeed, why are you making such haste about my neighborhood, and charging past my alley?" Yena ignored the overdressed rich man. She had met his kind: distrustful of the poor, distrustful of any who weren't Of the Mountain, and too lazy to walk any great distance. Useless. Instead, she studied his beautiful riding machine while sitting in a daze from the knock on her head.

Icar helped Yena back onto her feet, and none too soon: a few of the Townies seemed to have kept in sight of them and were only five blocks behind. Yena pulled Icar under the machine's belly and the two crawled between its back legs, so that they stood in the alley from which the mechanical beast had emerged. One well-aimed thwack with the crescent wrench that had hung off her belt, and Yena saw the machine's back legs crumple to the ground, useless. The alley effectively blocked, the pair resumed running.

"I say!" they heard the gentleman exclaim from the back of his riding machine, but he must have seen the pry-bar/axe combination-tool that Yena had strapped to her back, for he lowered his voice and began mumbling instead, musing as steam burst out from the exhaust pipe set into his steam-carriage's tail.

Yena and Icar jumped over piled metal scrap and splashed through unsavory puddles as they pounded away down the alley.

"WHAT DID YOU CALL THAT BUFFALO-MACHINE?" Yena asked Icar when they were seated atop a ten-meter junk-hill in the industrial district.

"An *android*."

"What's that?"

Icar picked a piece of a broken clock from the mounded trash beneath him. "This stuff, technology. Where I'm from, it's taboo. A clock, it's okay, just a little bit of evil. But a thing that moves its limbs—'demon-beast' is perhaps the best translation I can come up with. If a man rode into a Southlakeside encampment on one of those things, he'd be lucky to leave with his life."

"Why?" Yena asked, defensively. Machines were her passion, her calling. Machines gave her power, a power over her own life, which was something rare and valuable indeed.

"I don't know." Icar looked up at the cloudless sky, looked over the city that lay in front of them. "It's superstition, I suppose. It's in our creation story. And I don't think I believe it. Superstition is why I *left* Southlakeside. But when I saw it out on the street, that crazy man perched on its back, I didn't have time to think. I saw it as an *android*."

"It's just a machine, same as another. It's got no life of its own; don't fret. No machine can go for very long without a human to direct it. That's a fundamental law of mechanics."

Icar changed the subject. "Your sister, and Fera, will they know to meet us here?"

"No, but I'm sure they'll be alright. We've got a town meeting tonight at The Cally Bird, and we'll see them there."

Yena's mind turned back to the destruction she had witnessed earlier that morning. Annwyn would have been killed, if not for the warning. The Townies were trying to kill Yena's favorite person. There had to be a reason.

"You're alright by yourself? You know how to find the club?" Yena asked Icar.

"Yeah."

"Good. I'll see you there." Yena stood and faced Icar. "If I *don't* see you there, tell everyone what happened. And tell Set that I'm alright. That I've gone to see a man about some things."

Yena reached a hand out to place on Icar's shoulder, but hesitated. Just yesterday he had seemed like something of a nuisance, a lost little lizard. But by the early morning light, as they perched hidden in the industrial district after a frightful chase, he was someone new. All the same, she pulled her hand back and merely nodded to the young man before walking down the junk-hill to the street below. Icar nodded back, briefly,

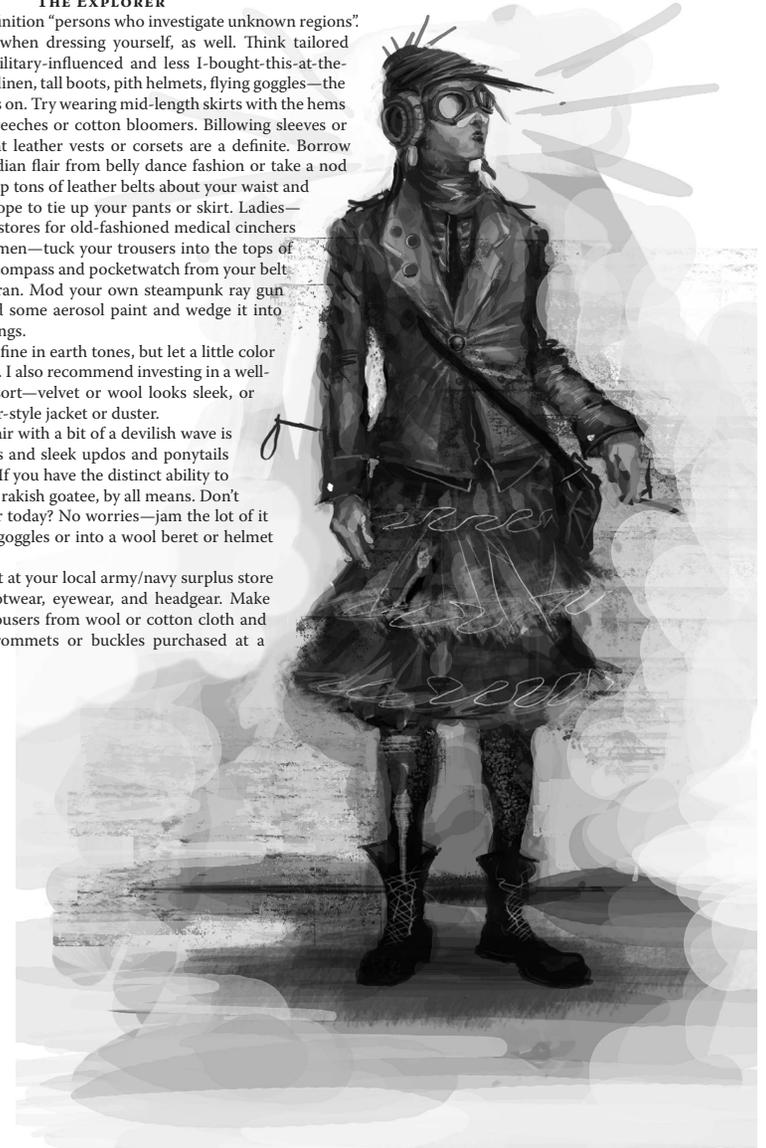
## THE EXPLORER

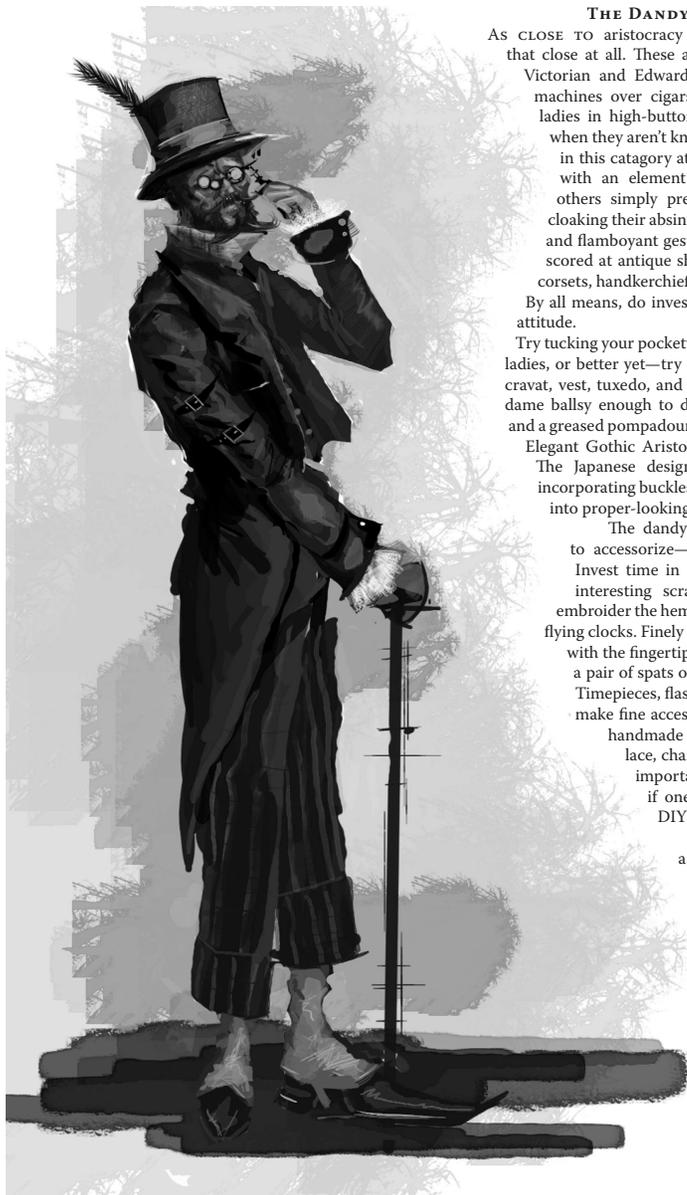
EXPLORERS ARE, BY definition "persons who investigate unknown regions." Take a nod from this when dressing yourself, as well. Think tailored garments, but more military-influenced and less I-bought-this-at-the-suit-shop. Leather, silk, linen, tall boots, pith helmets, flying goggles—the list of explorer gear goes on. Try wearing mid-length skirts with the hems buckled up to reveal breeches or cotton bloomers. Billowing sleeves or bustled skirts with tight leather vests or corsets are a definite. Borrow Middle-Eastern and Indian flair from belly dance fashion or take a nod from pioneer garb. Wrap tons of leather belts about your waist and hips or use a piece of rope to tie up your pants or skirt. Ladies—search Ebay or vintage stores for old-fashioned medical cinchers with fan lacing. Gentlemen—tuck your trousers into the tops of your boots and hang a compass and pocketwatch from your belt, or rock a kilt and sporran. Mod your own steampunk ray gun from a water pistol and some aerosol paint and wedge it into your belt or your stockings.

Explorers look fine in earth tones, but let a little color peek out here and there. I also recommend investing in a well-fitting blazer of some sort—velvet or wool looks sleek, or choose to don a bomber-style jacket or duster.

Well-slicked hair with a bit of a devilish wave is marvelous for the gents and sleek updos and ponytails look lovely on the gals. If you have the distinct ability to grow muttonchops or a rakish goatee, by all means. Don't feel like doing your hair today? No worries—jam the lot of it under a flying cap and goggles or into a wool beret or helmet from the surplus store.

Scavenge about at your local army/navy surplus store for dress uniforms, footwear, eyewear, and headgear. Make your own skirts and trousers from wool or cotton cloth and decorate them with grommets or buckles purchased at a fabric store.





### THE DANDY/THE AESTHETE

AS CLOSE TO aristocracy as steampunk gets, which isn't that close at all. These are the fellows in nicely rendered Victorian and Edwardian suits, brainstorming infernal machines over cigars and brandy, and these are the ladies in high-button boots who dabble as terrorists when they aren't knitting mittens. I picture some folks in this category attempting Neo-Victorian nostalgia with an element of anachrotechnofetishism, and others simply pretending to be high-class, whilst cloaking their absinthe addictions with heavy perfume and flamboyant gestures. Dainty goggles or pince-nez scored at antique shops are a must, as well as simple corsets, handkerchiefs, cigarette cases, gloves, et cetera. By all means, do invest in a top hat or derby with some attitude.

Try tucking your pocketwatch into the front of your corset, ladies, or better yet—try dressing like a male dandy. Wear a cravat, vest, tuxedo, and carry a cane. I happen to know a dame ballsy enough to don a crepe handlebar moustache and a greased pompadour. Gentlemen, take note of Japanese Elegant Gothic Aristocrat garments for tailoring ideas. The Japanese designers do a commendable job of incorporating buckles and other such metallic hardware into proper-looking clothing.

The dandy knows better than anyone how to accessorize—little details make the big look. Invest time in creating your own neckties from interesting scraps of brocade and crepe, and embroider the hems of your skirts with flourishes and flying clocks. Finely waxed moustaches and lace gloves with the fingertips removed are encouraged. Throw a pair of spats over pointy boots for a dressy look. Timepieces, flasks, and heavy rings of ancient keys make fine accessories. Search Etsy.com online for handmade jewelry consisting of glass, wire, lace, chains, and discarded ephemera (very important to salute independent artists if one is not able or interested in the DIY).

Hide your hair under a proper topper (oversized or miniature) or pile it up into a Gibson Girl bouffant anchored with roofing nails or an excess of chromed chopsticks. Try fingerwaves if you're especially adept with your locks.

### YENA OF THE ANGELINE AND THE TALE OF THE TERRIBLE TOWNIES

by Margaret P. Killjoy

illustration by Laura Pelick

Part Two: Of marvelous Religions, fierce Battles and mythical Androids

*In the first part of our tale, recounted in SteamPunk Magazine, Issue #1, we were introduced to our protagonist Yena (a mechanic and musician), her twin-sister Set (who plays a mean cylindraphone), their drummer-boy Fera, an enticing sculptress named Annwyn (who is the object of Yena's unrequited love and is being persecuted by the Terrible Townies for reasons unknown and sinister), a new-in-town young man named Icar (straight from the tribal wastelands), and a bald-headed woman named Suyenne (who has yet to bear any distinguishing characteristics). They belong to a political faction within the city of The Vore, one that is unruly—or, rather, one that refuses to be ruled: the squatters.*

*While Yena's steam-powered punk band Bellows Again was performing at the squatters' social and cultural center, The Cally Bird, the Townies attempted a raid. The squatters escaped through tunnels, but evaded physical persecution only by means of a rather massive set of doors of stone and steel. Annwyn woke Yena the next day and they sailed a bus out to see the old woman of the mountains, who provided the mechanical support required to lay a trap at Annwyn's squat, which the Townies were expected to raid. Annwyn revealed that the Townies were after her personally, information she received from the spy Gregor, and chose to stay out of the city and lay low.*

*Expecting a rather run-of-the-mill confrontation with the Townies, Yena and company created a mechanical illusion of occupancy in Annwyn's residence, complete with automated light-triggering and rock-throwing. But the next morning, when the angry mob arrived, the Townies chose not to brawl or parley, but rather utilized explosives to lay the building low. Here we left our protagonist and her allies, with Icar and herself hiding on a nearby rooftop, suddenly rocked by the explosion at Annwyn's squat.*

THEIR BOOTED FEET SLAPPED AGAINST THE PACKED EARTH and cobblestone roads of The Vore as they ran.

"I know, I know," Yena panted between her heaving breaths, "it's all just a game" I said, 'no one is going to get hurt,' I said."

Icar, a born runner, was bounding alongside with enviable ease, and it was clear that he could be sprinting significantly faster than he was. "It's alright. No one was inside."

"But they thought we were." It was all Yena could manage to say as she fought for air, and she turned her attention back to the screaming pain in her abdomen, to her tortured lungs. Born and raised in a coastal city, she was one of Those of The Gear—a people that had evolved, thousands of years ago, accustomed to luxurious underground life—and she was out of her element at such a high elevation.

Fortunately, sheer willpower was enough to keep her going, even as the jeers and yells of the Townies were fading behind her. She

IN SUMMARY, I beg you to use the  
aforementioned as inspiration, not simply  
as a set of restrictions. Steampunk revels  
in the beauty of structure as well as blatant  
imperfection. Have neither fear nor inhibitions  
when dressing the part, which I encourage  
you to do whenever it strikes your fancy. ❁



# UHRWERK

IT WAS DURING THE LATTER YEARS OF THE 1840'S (THE exact date is still a matter of some debate) that a young Irish railway worker by the name of Culann Thornton stepped into the Lion Tavern opposite Exchange Station in Liverpool with a mind to quench his thirst. This in itself was not remarkable as Thornton often stopped in for a drink before making his way home after a long day's work. He would later recall that the pub was uncharacteristically filled with "gutter pookas!" that evening and it was with some considerable difficulty that he made his way to the bar. After ordering his ale, Thornton asked the barmaid about the presence of the youths. "Although many of them were no younger than myself, I considered them childish because of their odd attire and manners." He was informed that they had come to see a violinist—a German gentleman by the name of Gottlieb. "I was taught to fiddle by my grandfather but I had no instrument at that period, nor any time to play one," Thornton explained, "so, although I should have supped up and headed on home, I resolved to hang around and hear this Gottlieb fellow do his turn." It was a decision that was to change the lives of both men. "When Fritz stepped onto that little stage I thought he looked like a priest, all smart and dressed in black as he was. The pookas seemed to treat him like one too, parting like the red sea to let him through and falling silent in reverence. When he lifted the vilolinophone<sup>2</sup> from its case I almost laughed. I'd never seen anything like it, hardly anyone had of course. But when he started playing I understood. Right there and then I knew that I wanted to be a musician more than anything in the world." Greatly impressed, Thornton approached Gottlieb after the performance and was surprised to find the German not only fluent in the English tongue but also his own Gaelic (or Gaelige). The pair drank together and spoke long into the night, chiefly on matters of music and engineering—the twin passions which were to seal their partnership for many years to come.

## the incredible steam band

by John Reppion  
illustration by Juan Navarro



workshop... the idea!" He tapped one gloved fist into his palm. "But what were they after...?" Suddenly, and quite without warning or explanation, his eyes flashed as wide as saucers. "No... They couldn't have!"

Leaping to his feet, the eccentric Continental rushed to one side of the wrecked barn, and began to shove charred boxes and rubble away from one patch of ground. Finally, he had revealed a small pit, lined with bricks to maintain its size and shape. Rising to my feet and peering across, I could just make out the shape of a small iron safe lying upon its back in the ground. From this, Bruno produced a heavy leather portfolio with worn edges and corners, and tore it open frantically. Looking inside, he froze and stared, dejection slowly drooping his shoulders and posture in defeat.

"Gottverdammt..." he hissed between clenched teeth. "They're gone. They're gone!"

Francis made a sharp noise. "Of course they're gone, Bruno! They ran off that way while shooting at us!"

"Not the Bavarians, you daft fool! My plans!" Bruno thrust the open mouth of the portfolio toward Francis, holding it wide open to show its utter lack of contents. "My plans are gone."

"What plans?" I asked, putting a gentle hand upon Bruno's shoulder to steady him.

"The plans!" he exclaimed in return. "The airship plans. Everything! My notes, my drafts, all of it!"

"But surely you have copies... somewhere?" I ventured, half assuring and half questioning.

Bruno sighed and flung down the empty leather folder. "Of course, I have copies of the important bits, and what's more, it's all still up here." He tapped his temple vigorously. "But don't you see, Alex? Those plans were decades ahead of anything Ferdie's fooling about with. That means that someone out there is running off with directions for building the most advanced piece of aerial technology in existence..."

"And we have no way of knowing who they are, where they are, or what they mean to do with it..." I finished, as the terrible gravity of the situation descended upon the three of us like a heavy summer storm. ⚙️

*Oh, dear reader, if you are not shocked by these proceedings, and by the dreadful hints of things to come, then you are made of sterner stuff than I, for I am not too proud to say that my blood ran cold at the very thought. Whether Germans, Frenchmen, Italians or even rebellious Scots, the unknown phantoms responsible had threatened life and limb of dear honorable Bruno, sought to end the life of Francis with rifle shot, and moreover had been so audacious as to destroy a perfectly decent English barn. Britannia could not stand for such offenses, and neither could we. So, if this talk of bombs and gunfire has not shaken your nerve, dear reader, return again when next I continue my narrative, and pray God that you have the courage to see this tale through.*

Sincerely yours, A. Westminster, London 19—

as if the entire interior of the box were a massive piece of clockwork, with gears so carefully interlaced that they seemed almost as tangled as wild shrubbery. The vast network of mechanisms spiraled out from the central frame, where a key-wound spring waited to issue commands of action to the waiting cogs. The mass of gears, identifiable as four distinct and identical copies of one another, traveled outward to the corners of the box, where each ended with a spring-driven wheel dotted with pieces of flint. The purpose of the device was made all too clear when I identified four sizable packets of oilcloth, one at each side, wrapped around what looked suspiciously like dynamite. I had discovered an unexploded bomb.

For a moment, my heart beat someplace just inside my throat, and a dizziness of fear supplanted my brain's place within my skull. Tense beyond describing, I stared into the gearworks in dreadful anticipation, fearing the device's imminent detonation. Then, as that moment passed—thankfully!—without incident, I bid myself to relax and use reason to observe the terrible device before me. The clockworks were all still, and not even the smallest gear was in motion. The visible springs were loose, and I could see chipping and scarring upon both the flint wheel and the metal sparking plates. No doubt, the bomb had been armed and activated, but the machine had somehow misfired, failing to ignite the explosive packages. It was a good thing too, for surely I—at least, and likely my dear friends also—should have met my end.

Coming to my senses, I noticed that the gunfire had finally ended. Looking over my shoulder, I saw Bruno bound from the hayloft, landing lightly upon the mucky ground without so much as the slightest stumble. I motioned for him and Francis to join me, and they did so. Francis was again taken with one of his contemplative episodes, and Bruno was obliged to transport him bodily to the meeting point. Once there, both of my companions regarded the curious clockwork device with inhaled breaths and gasps of shock. Francis in particular gazed with unblinking fascination, while Bruno, balanced evenly upon the soles of his boots, rested his chin upon the back of one hand while he studied the maze of gears.

"Well, thankfully it hasn't exploded," Francis observed, entirely for my and Bruno's benefit. It was kind of him to think of us, in the event that we had missed that significant point.

"Obviously!" was Bruno's rather uncharitable response. "The damned thing's misfired, and fortunately so, I must say. Not that the rest of the lot didn't do more than enough damage." He looked with glaring eyes upon the wreckage of his beloved skycraft, the product of countless hours and exhausted genius.

No doubt furious at the damage done to his family's property, and the risk brought upon his household, Francis abandoned his genteel heart and adopted a veneer of indignation. "Yes, well, it is rather your fault, old boy. It's your damned 'air ship' whoever it was wanted to blow up! They only started shooting at us when you showed your face!"

I felt it appropriate to venture my own contribution to the exchange: "Please calm down, Francis dear, there's a good man. Now let's be reasonable here. Why would someone do this? Bruno, do you think this was that Ferdinand trying to sabotage your work?"

Bruno laughed darkly at the thought. "Old Ferdie? No, no. Not his style. He's already gotten one of his *luftschiffs* into the air; he just can't keep them there. He's got a leg up on me on that account, and he doesn't realize that I'm actually some real competition. He doesn't have the foresight for this sort of thing."

Francis snorted somewhat unpleasantly. "Flying ships... the idea... Decent-sized balloons are quite enough, Bruno, without you damned Germans mucking about and lashing them together."

"I believe that we're all missing the point," I hastened to remind. "Bruno, who could have possibly wanted to blow up your workshop? Or even have known where it was, for that matter?"

"Well, Bavarians, obviously," Bruno insisted, "but you've got a point there: why? The bombs went off before I arrived, and the swine only gave fire after I did first..."

"You started the gunfight?" Francis demanded, his face becoming a rather distinguished shade of burgundy.

"Of course!" Bruno replied. "And rightly so, I might add. Imagine: blowing up a man's private



By 1850 Thornton had abandoned his job on the railway and the pair's time was divided between performing their own unique and harmonious compositions and devising and constructing new musical instruments for that purpose. Appearing simply as "*Gottlieb and Thornton*," the duo began to make use of a somewhat basic but highly compacted orchestrion. The machine provided automated percussion and baroque influenced "*basso continuo*" accompaniment to their duelling viololinophone and chorded harp<sup>3</sup> concertos. Conceived by Gottlieb, the technicalities of the orchestrion and its manufacture fell to the more mechanically minded Thornton. The device (nicknamed "*der kasten*," meaning "the box") was no larger than a good sized travelling trunk and was powered by means of a self contained steam engine. It is perhaps not entirely unfair to suppose that some portion of the pair's success came not from the public's love of their music but from the curiosity aroused by the use of such a unique apparatus. After graduating from public houses to small theatres, Gottlieb decided that the duo's funds were now sufficient to embark upon the next phase of their most melodious and innovative journey. Several months were set aside for the design and fabrication of the "*most fabulous and ingenious musical instruments ever conceived*"—the actual process took almost two and a half years and saw the duo living in poverty for much of that time.

Unable to pay the rent on their grand Smithdown Lane house, Gottlieb and Thornton surreptitiously relocated into the property's sizeable cellar. Unbeknownst to their landlord, the subterranean portion of the building extended for some considerable distance beneath, presumably having been constructed by Mister Joseph Williamson's men.<sup>4</sup> Finding that the cellar was connected to nearby Mason Street by means of a narrow tunnel, the pair established that they could come and go from the property relatively easily even with new tenants now occupying the house above. Nevertheless, both men remained fearful of detection, not least because of the value of the materials and apparatus which they kept within their lair. Thornton became ever more obsessive and meticulous—with hardly any concept of night and day (owing to his subterranean lifestyle) he would often cease working only when a state of bodily collapse came upon him. During this period it fell to Gottlieb to raise funds to keep himself and Thornton from starvation which he did by busking around Liverpool. The German's jet black hair and beard had grown long since the days of the duo's notoriety—thus altering his appearance considerably—but Gottlieb, anxious that he might be recognised by persons to whom

he and Thornton owed money, remained guarded. He declined to leave the cellar by day and adopted the persona of Grigori, a Russian musician, when venturing out at night. It was on one such evening that Gottlieb first encountered a young Slovenian woman named Pepca Predin singing and begging down by the city's docks. Pepca had a voice that was "*remarkable to the point of otherworldliness*" but intoned her songs so quietly that she could hardly be heard. She was also very beautiful, and it is fair to say, knowing what we do now, that Gottlieb fell in love with her almost instantly. Combining acoustical awareness with an intimate knowledge of the backstreets and alleyways of Liverpool, Gottlieb was able to position the meekly voiced Slovenian in such a way so that the arches and passageways themselves augmented and directed her vocalisations. He himself would accompany Pepca from some considerable distance (sometimes a street or two away), once again making use of the alleyways as a means of carrying the sound. This method of performing soon earned the duo the nickname of "*the Russian ghosts*," owing to the fact that the optimum position for hearing their combined efforts would often deny the listener the opportunity to visually observe either. Homeless and alone as she was, Pepca gratefully accepted Gottlieb's invitation to join himself and Thornton and reside in the crypt beneath Smithdown Lane. And so it was that the duo became a trio.

It was 1853, the year Brunel began construction on his Great Eastern passenger steamer down in London, when "*Uhrwerk—the astounding two man orchestra*" finally took to the stage. "*Gottlieb and Thornton*" were still remembered favourably by many of Liverpool's more musically disposed citizens—if not by the city's money lenders—and, after a handful of furtive private performances for some of the port's more discerning and influential individuals, the pair managed to arrange a series of six concerts at the highly regarded Philharmonic Hall. The duo where so convinced of the success of these events they let it be known that all persons to whom they where indebted would receive payment in full at the termination of the very first performance. A contemporary columnist in *The Liverpool Mercury* newspaper described the build up to the concerts thusly "[...] *during their several year's absence from performing publicly Messers Gottlieb and Thornton have apparently been engaged in the creation of some most unique musical apparatus which by virtue of its ingenuity will grant but two men the ability to perform with all the melodiousness of a full orchestra. This is a wild claim indeed but anyone who recalls their performances of old will little doubt either fellow's ability in such matters. Indeed, I for one would not be at all taken aback if those attending next*

Yes. Of course. Well, you see, I wasn't expecting to shoot you, but there are... complications..."

"What sort of complications?" Francis whispered to me, his voice hoarse with worry for dear Bruno's safety.

"Francis, do be quiet." Nevertheless, I relayed the question: "Bruno! What sort of complications?"

"Why, Bavarians, of course!" Our friend was shocked that we had not reached that same conclusion ourselves. "Obviously!"

I removed myself from the safety of the tree and carefully approached the barn. "Bruno... what Bavarians?"

It was at that moment that the gravity of the situation found cause to announce itself. Before Bruno could speak, another gunshot sounded, this time far louder and more resonant than the crackling thunders of the Mauser. From the tense and alert expression upon Bruno's face, I determined that he was not responsible. A ping and a dull thunk reached my ears from somewhere behind me, and I turned to observe dear Francis, his face slack-jawed with fear for my safety, staring at a hole in the tree trunk where a bullet had recently found its mark. Before Francis could speak, I had grabbed him by the hand and together we fled in short order into the confines of the barn, while Bruno resumed his wild shooting and even wilder cursing.

The unseen attacker continued his exchange with Bruno, and it soon became evident that at least three or four such persons must have been involved to account for the very quantity of gunfire. Within short order, I had identified the attacking weapons as rifles, but could not place from sound alone the nature of their construction. Doubtless Francis had already beaten me to that realization in any event, for he was crouched in a corner, arms wrapped about himself for concentration, with one ear pressed up against the brick wall. He was murmuring something very rapidly, but I could not make it out. To this day, I can only assume that he was calculating the possible models of weapons being fired upon us, although once or twice I am certain I heard the Lord's name be uttered for no foreseeable reason.

Excuse as ever, I fear I did nothing more than examine our surroundings. The explosions had

decimated the interior of the barn. Where once had stood wooden supports, ribbing for the roof, and even stalls for storing hay and perhaps animals as well, there remained nothing but pillars and planks of charred wood scattered across the open space, covered by shattered and scorched tiles. I could see where the bombs had previously gone off, for they had left three deep depressions in the soil beneath, as well as a distinct outline of shattered stone on the nearby walls. The great dirigible balloon which had formerly occupied the place of honor was no more. The great sheets of canvas which once formed its hull were now less than a memory of curled ash. The frame, a skeleton of thin beams and metal cables, had collapsed into a heap of charred rubbish. It was a tragic thing to behold, and I felt myself shed a tear for so the loss of so beautiful a piece of scientific achievement.

As the exchange of gunfire continued nearby, my search took me in a circuit of the detonated structure. At one point I crossed by the remains of a ground-floor window and, taking a moment's pause, I peered out into the nearby trees. I could see three distinct individuals, dressed in the rugged garments of country folk, taking aim at us with a thoroughly un-British set of weapons. These were some of the curious lever-loading rifles of the Americas, the very sight of which made my stomach turn with distain. I had heard Bruno speak well of them in the past, but then again, he is Continental, as I have said, and his eccentricities must be allowed for.

At the far end of the barn, comfortably distant from the sounds of bullets ricocheting from the sides of crumbling bricks, I discovered what one might now identify as a "significant clue." It was a box, wooden and elegant, as if assembled by master craftsman rather than being cobbled together by amateur saboteurs. A sturdy handle was placed at one end, and a gilded faceplate covered much of the container's top. Placed into this was a cluster of small keyholes surrounding a larger version of the same, like a great ring of children circling their mother. There was no latch or mechanism for opening the curious parcel, but with some careful prising I managed to remove a section of the wooden panel. The sight within was both spectacular and magnificent. It seemed

think of such people in a time of trial, although why working-class solidarity should leap to mind at such a time was beyond my very limited powers of reason.

"Come along!" I answered, pulling all the stronger as Francis, distracted by the concerns of social reform, pulled away. "Think of Bruno!" I implored, and this seemed to do the trick. At long last, Francis accepted the urgency of our dear friend's plight, and followed me in a brisk run through the trees.

The sight of the barn sent shudders through me, and I gasped for breath to think of what must have befallen our Continental comrade. The roof had gone entirely, fragments of rotting wood and tile scattered around the surrounding forest and overgrown fields. The windows, such as had remained after years of neglect, were all smashed to pieces, and even sections of the brick and mortar walls were cracked or broken from the blast. Clouds of dust and dirt were thick in the air, which set Francis and myself coughing horribly. More shots sounded from somewhere above us, and upon looking up I saw a tall figure in a colonial riding duster peering out from behind the broken edge where the roof had formerly met the hayloft wall. Presently, I realized that it was Bruno, somewhat singed and dirtied but nonetheless recognizable. He was shouting loudly in German, uttering phrases which I shall not repeat for fear that you, dear reader, are also acquainted with that tongue. It shall suffice to say that the principal objects of his verbal fury were both Bavarians and illegitimate swine, sometimes singularly but more often both at once.

As he leaned out from behind the wall, carefully, as if fearing to be seen, Bruno finally made known the source of the gunshots. In one gloved hand he held what I believe to be his most favorite of arms: a Mauser automatic pistol. You may have heard of such things, or seen them even, although their popularity over a trusty revolver will never seem sensible to me. Holding the weapon by its "broom handle" grip, the man fiddled about with the large, boxy magazine which rested just ahead of the trigger, no doubt loading additional rounds to the unnecessarily large supply. Just what Bruno's attachment to the firearm might have been I could

not say, but he would never be seen without it any more than another self-respecting gentleman might be seen without a walking cane to ward off ruffians.

In the next instant, Bruno's gaze fell upon us, and I naturally raised my hand in greeting, hoping that he was well in spite of the ordeal. The man's reaction was rather unexpected, for he twisted about in place and leveled his weapon directly at Francis, shouting again in his native tongue. What fit of madness had taken him, I did not have time to assess, for with great but—thankfully!—imperfect precision, Bruno commenced firing upon us. Ever the diplomat, Francis took a moment to chastise the obviously misguided Continental, while I, more practically, pulled the both of us to the relative safety of an especially sizable tree.

"Bruno!" I cried, somewhat frantic in my exclamations. "Bruno, it's us!"

The sound of my voice paused the man, and he peered down from the hayloft at me as my face protruded 'round the edge of the tree trunk. There was a long moment in which he studied me carefully, as if suspicious that I might have somehow falsified my identity, and was actually some insidious spy cunningly disguised as a well-bred English native. How he could possibly think such a thing was beyond my understanding, but he was, after all, a Rhenish gentleman, and thus given to certain eccentricities.

Finally, he decided that I was not some disguised phantom, and leaned out fully into view. "Alex? Alex, my dear, is that you?"

"Yes, of course it is, Bruno!" I shouted back. "Who else would it be?"

At my side, Francis offered his contribution to the dialogue: "He's not going to shoot at us again, is he?"

"Be quiet, Francis," I answered. "I say, Bruno!"

"Yes?" came the reply.

"May we come in? Or is it frightfully important that we not?"

Bruno seemed surprised at this question. "Why do you even need to ask such a thing?"

"Well, you were just shooting at us," I reminded him.

At this, Bruno's face fell slightly, and he took a moment to regard the pistol in his hand. "Oh,

*month's performance were to witness the creation of an entirely new approach and method of music".* Articles such as this combined with an exhaustive hand bill campaign (orchestrated by Gottlieb utilising gutter pooka youths as distributors with the promise of free entrance for themselves and their friends as payment) assured that the shows would indeed be well attended. When the evening of Friday, October the twenty-first finally came, talk of Uhrwerk's debut performance had spread far beyond even the North West of England. Numerous persons who had travelled from afar were disappointed and refused entrance on account of the auditorium already being filled to its maximum capacity. And so it was that a hefty throng assembled itself around the hall on Hope Street and strained its collective ear in the hope of catching some stifled melody from the incredible steam band.

The evening's performance began with what one correspondent described as "*the thunderous blasting of a great many horns whose tone was so low one would expect their size to be monumental*". The curtain lifted to reveal a stage with three large, concealed objects set out upon it—a tall cloth-covered item stood in the front and centre, a smaller rectangular object (also covered with a cloth) stood to the left of the first and a large, wooden framed canvas screen stood to the right, set back considerably from the other objects. The originator of the "*thunderous blasting*" stood at the rear centre of the stage and was an object some seven feet tall by four feet wide by three feet in depth. This was the heart of Uhrwerk's music—a greatly expanded and improved version of their original steam powered orchestration *der kasten*. Again the contraption was powered by an integrated steam engine, but was now large enough for Thornton to have built a sixty one key keyboard and an assortment of pedals and stops into its front so that the device could be played manually. Fritz Gottlieb sat alone on stage with his back to the audience, hammering out ungody chords and causing steam to belch out of some of the broadest and deepest of the instrument's three hundred and five pipes. As the German's playing reached a crescendo he manipulated a switch causing a mechanism within the orchestration to engage with a musical roll. This lengthy roll spooled into the apparatus from the rear and controlled the automated percussion and instrumentation—this single reel contained the machine's directions for that night's entire concert. The uninitiated amongst the audience gasped as booming timpanis and crashing cymbals came into play whilst those who had experience of Gottlieb and Thornton's performances with *der kasten* smiled and nodded agreeably—this was what had been expected from the duo's return. Presently the music grew softer in tone, the percussion dying down, and a smartly dressed Culann Thornton stepped out onto the stage. With a flourish, the Irishman removed the covering fabric from the foremost left object and unveiled his "*clockwork armonica*"<sup>5</sup> much to the audience's amazement. Armonicas had already been around for nearly one hundred years and yet were (and remain) a much underused instrument despite their beautiful sound. Thornton's device had thirty-two purpose built glass bowls—blown by the man himself—mounted horizontally on an iron spindle. This spindle was turned by means of a large pre-wound clockwork motor which was set in motion by releasing a fixed ratchet, thus allowing the mechanism's mighty spring to commence unwinding. Rather than placing a wetted finger upon to bowls to produce a sound, Thornton had created a keyboard by means of which soft leather padded keys could be applied to the glasses, thus opening up a more outstanding range of chords and harmonies. The glasses were enclosed within a metal hood which was formed into a wide horn shape at the instrument's front. This horn acted as a means

of directing and amplifying the armonica's somewhat soft tones. The contrast between the delicate, eerie notes of the clockwork armonica and the pulsing grumble of the orchestrion's pipes was emphasised via an elaborate call and response (or *"antiphony"*) arrangement in which the instruments mimicked and duelled with each other. This arrangement eventually built to a climax in which the automated percussive accompaniment once again thundered into play. Soon the orchestrion's musical roll reached a point at which the operation of the device's pipes too became automated and Gottlieb was able to amaze his audience by lifting his white gloved hands from the keyboard in much the same manner as a conjuror might make some elaborate gesture to embellish an illusion. The German was dressed in a slender, well tailored black suit, as was his predilection, and sported freshly barbered locks and whiskers. Gottlieb strode confidently to the front of the stage, every inch the showman, beaming and encouraging the audience's applause and cheers as Thornton continued his vigorous duet with the machine. Then, with swish and a swirl, Gottlieb removed the fabric from the tall, central object. A huge horn stood at the forefront of the stage. The device was of similar design to that which adorned the front of Thornton's armonica though several times larger. This horn was set upon an iron tripod and angled upwards in order to better broadcast sound out into the hall. Stepping out from behind the funnel came the diminutive Pepca Gottlieb (a Predin no longer) wearing a dark flowing dress of velvet and lace. The lower portion of Mrs. Gottlieb's face was obscured by a curious looking veil of leather, covering her mouth and nose and fastening around the back of the head in much the same manner as a modern surgical mask. The mask was connected via means of a lengthy and flexible canvas tube to the vast metal horn as a means of augmenting the Slovenian's faint voice into something more readily perceptible. With several grand staccato stabs, the music came to a halt and Pepca's angelic voice poured out of the great funnel to fill the auditorium. Many in the audience were seen to weep, not at the beauty of her words, for she sang partially in her native tongue and partially in sounds alone, but at the sheer emotion and wonder of her most unique tones. After a time she was accompanied by Fritz upon the vilolinophone, summoning up memories of their time performing together on the streets as *"the Russian ghosts"*. Soon Thornton's instrument could be heard also and the three spectral voices glided in and out of harmony in complex patterns and canons so remarkable as to be proclaimed *"positively mesmeric"* in the next day's *Mercury*. Presently the bass tones of the orchestrion began to build once more, the beaters within the machine struck heavily upon the snare and the cymbal and the symphony thundered onward. Pepca was handed the vilolinophone by her husband and stalked around the stage fiddling and singing like a woman possessed. The flexible canvas tube which connected her mask to the large central horn ensured that her voice was broadcast effectively even when her back was turned to the audience. This portion of the performance was perhaps the most unanticipated of the evening for many people, taking its influences chiefly from Bavarian *"oom-pah"* and fiddle driven Irish folk tunes. This was not the sort of music that one would expect to hear in a respectable arena such as the Philharmonic Hall—this was the music of the lower classes intended as an accompaniment for dancing and drinking and fighting. And yet somehow, via Uhrwerk's remarkable instrumentation and sublime arrangements the music was given new dynamism and rendered exceptionally palatable to even the loftiest listener. Gottlieb stamped his feet and clapped his hands, urging the audience to do likewise and many obliged. Half a dozen of so gutter

G. D. FALKSEN'S AN UNFORTUNATE ENGAGEMENT: A  
LITERARY SERIAL IN SEVERAL PARTS

illustration by Evelyn Kriete

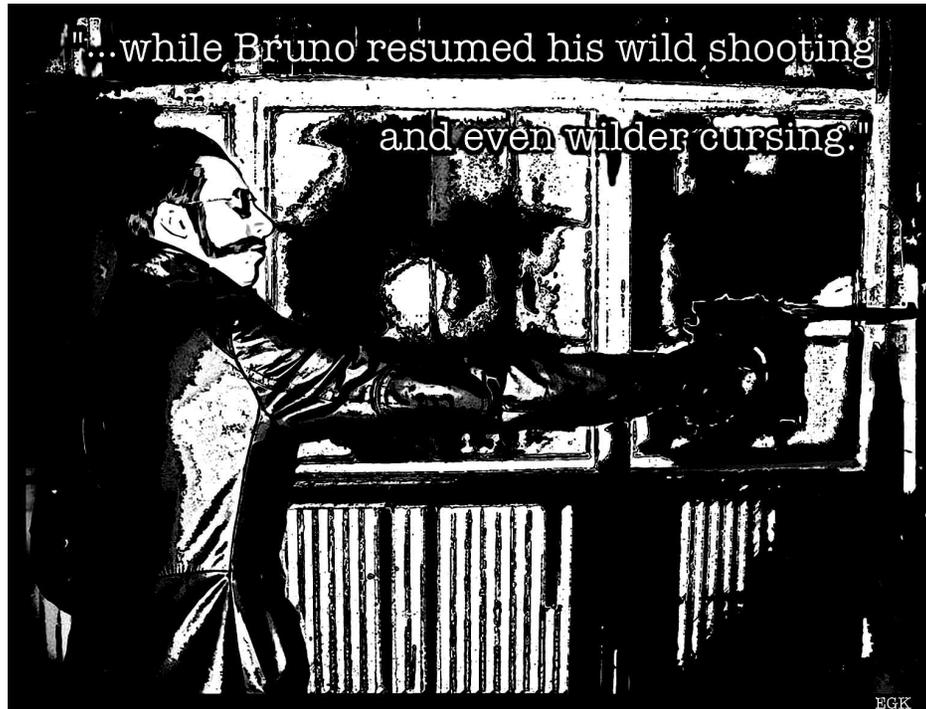
Part Two: In which Gunshots are Fired, Bombs are Found, and a  
Crime is Uncovered

*Dear reader, when last I left you, I fear I halted my narrative in a most uncharitable manner, leaving you to wonder and worry at the fate of the second-greatest scientific mind of our modern world. As you will recall, it was in the balmy summer of 19— that these events occurred, while I was enjoying a few pleasant months with my dear companion, Francis Edgar B—, son of the Earl and Countess C—, and a singular individual whose brilliance and genius set him head and shoulders above any other scientist in the world. To my immeasurable delight, we had been joined in company by Francis' sole intellectual equal, the German gentleman-scientist Bruno von H—. Throughout the course of his stay, Bruno was well engaged in a race to the air with the now famous Ferdinand von Z—, and had commandeered an abandoned farmstead at the edge of the property for the construction of his great "air ship." It was here that disaster struck, revealing the depths to which the Continentals were willing to stoop in the pursuit of empire-building, and without the timely intervention of dear Francis, the good Lord only knows what might have become of dear Britannia.*

AS WAS HIS CUSTOM, BRUNO HAD SECLUDED HIMSELF IN the great rotting barn which served as his workshop. After a pleasant ride through the grounds, Francis and I had been intending to meet our dear friend for a pleasant lunch, no doubt accented with a lively debate regarding the right of mankind to venture into God's great sky. This had been our custom for some time, ever since Bruno's arrival at the estate, and it was the sort of thing one generally expected to enjoy without interruption. When the first shattering explosion bellowed across the sculpted trees and manicured lawns, my heart leapt from my chest in shock. By the time the second and third eruptions had carried showers of wood fragments and soil into the air, I was already on my way, dashing madly through the trees in the direction of the sound. I could only think that some terrible accident had befallen poor Bruno, and I dreaded what state we might find him in. It may seem odd to you that I should react so singularly to a mysterious explosion, but I must confess that minor disasters were a hallmark of Bruno's work, and my entire concern was for the health of our friend rather than the cause of the disturbance. In my ignorance, I failed utterly to consider that something more sinister might be afoot.

Distracted by the light of his own genius, Francis stared somewhat blankly in the direction of the noise. Given the urgency of the moment, I was forced to take my companion firmly by the hand and drag him, bodily, along the footpath toward the farmstead. As we approached the farmstead, a torrent of gunshots sounded in the air, evoking an abrupt response from Francis.

"Dear God!" he exclaimed in the heat of the moment. "Dear God, socialists! Help! Help!" It was utterly characteristic of dear Francis to



pookas actually clambered onto the stage and began to dance a jig in which the German gleefully accompanied them. There were, of course, those who were outraged at such behaviour but even so, very few of those thus offended voiced protest or made efforts to leave the hall—there was after all, still one spectacular instrument yet to be revealed.

After a time the joyous, if off-kilter, jig was brought to a close with the same staccato stabs that proceeded Mrs. Gottlieb's first intonation. The orchestrion continued a slow but steady beat upon its bass drum while all else fell silent. Thornton stepped out from behind the clockwork armonica and assisted Pepca in the removal of her veil. The pair took several bows—to much applause—and exited the stage. Alone now, Gottlieb strode around to the rear of the canvas screen which obscured the final device, his steps keeping time with the solid thump of a drum. The screen was flung to one side with a suitably overgenerous flourish and the final instrument was revealed to the audience. The "steam flute" was a curious looking object having twenty four upright sounding tubes arranged in a semi circular manner at its front and a keyboard situated behind. At the instrument's side was a steam engine whose task was to drive water through the device under immense pressure. Warmth from the engine was also used to heat an element which ran through the sounding pipes. Through operation of the keyboard, the flow of water could be redirected so that the liquid made contact with the element, turning instantly to steam. This steam would then travel out through the designated pipe, thus creating a note. Thornton had designed the instrument's keyboard so that each key had several different settings according to how hard it was pressed. These settings varied the amount of water which was directed onto the element thereby giving the device a more organic and supple sound similar to that of a true wind instrument rather than an organ. The steam flute's engine had been running quietly throughout the performance thus far, ensuring that it was now fully prepared for operation. During this break in the music Gottlieb had been counting in his head, keeping pace with the orchestrion so that he knew exactly when the machine would again strike a chord—his timing was always impeccable. As the bass drum pounded like a heartbeat the audience held its breath and waited for the first sound from the German's most remarkable looking instrument, but it was the orchestrion that gave voice first. The vast mechanical organ struck up a beautiful arpeggio bass arrangement, its percussion maintaining the slow and steady pace but embellishing the pattern with dramatic crashes of the cymbals. By and by the percussive

elements grew in complexity until the orchestrion's incredible abilities were made most clear—the machine was capable of things that even the most accomplished percussivist (or percussivists) would deem almost impossible. At the apex of the machine's rhythmic interlude the silvery melody of the steam flute finally came into play and, much to the audience's delight, a new movement began. Gottlieb's hands danced merrily across his keyboard, modulating the device's tones with all the control and finesse of a traditional flautist. He and the orchestrion sparred with each other with what seemed like all the spontaneity of two musical equals engaged in some good-natured, if fierce, competition. The truth of the matter of course was that Gottlieb was in fact accompanying himself—the orchestrion's operation being controlled by the roll which he and Thornton had laboured over for months. Presently Gottlieb shifted from playing the steam flute in the manner of a wind instrument to striking chords on its keys. The accompaniment also altered, becoming grander and yet somehow more solemn and melancholic. Fritz's playing grew deliberately mechanical and angular—he stabbed at the steam flute's keys with calculated ferocity ensuring that the maximum amount of water passed through each of the chosen valves. At no point during the evening had the name of Uhrwerk (German for "clockwork") seemed more fitting for the assembled musical group, the composition now bearing a striking similitude to that of some epic and diabolic musical box. This was to be the penultimate movement of the concert, with Culann and Pepca rejoining the German onstage for a final section in which the clockwork armonica and the Slovenian's remarkable voice would once again come into play. Alas, this closing movement was never heard.

Inside the steam flute the pipes which carried the water around the device had grown hotter than ever intended, owing partly to the machine's running for some time prior to its playing and partly to the extreme heat of the packed auditorium. As the German stabbed brutally at the keys of the instrument, the unique rubber seals (or "lips" as Thornton called them) which directed and controlled the flow of water onto the heated element began to stick. At first the effect was merely some sustained notes and chords which Gottlieb remedied by banging and rocking the device—his passion was quickly turning to anger; he clearly had no intention of allowing the contraption to let him down in this, his eleventh hour. Despite Fritz's efforts it was not long before instrument was producing nothing more than a sustained and discordant groan. The German swore and kicked at the apparatus while the orchestrion played on, oblivious. Great goats

of vapour were now spewing from the steam flute's pipes. And then came the explosion.

The build up of pressure within the steam flute's engine was simply too much for the delicate device to take. The machine's boiler ruptured and a considerable burst of steam and energy erupted from within. The instrument was propelled backward with great velocity, taking the enraged Gottlieb with it. The force of the impact combined with flying debris from the steam flute then caused the orchestrion's engine to also split and burst. The twin explosions were deafening, causing even the crowds gathered outside the building to duck and panic. Steam filled the hall, scalding even many of those seated high in the balconies. When at last the haze cleared there were almost ninety found dead and Fritz Gottlieb, or what little now remained of him, was counted amongst their number.

In the weeks following the concert Culann Thornton found himself in court for his part in the creation of the instruments which had caused the death of so many and such damage to what was then considered Europe's finest such venue. The judge in the case proved to be an admirer of Thornton's and was consequently as lenient as he could be—spared the hangman's noose, the Irishman was instead sentenced to life imprisonment in Liverpool's Kirkdale jail. Culann's tale does not end there however; he in fact spent only three weeks in the prison before making his escape—his understanding of all things mechanical having also rendered him an excellent lock-pick. The authorities had little luck in locating Thornton and his whereabouts remained unknown for almost two years. In August 1855 a letter professing to be from Culann Thornton was delivered to the editor of the *Liverpool Post* newspaper. In it, Thornton professed to be extremely sorry for the pain that had been caused by the malfunction of his instruments but blamed Gottlieb for the disaster: "*His temper had grown ever fouler during our years together and it seemed strangely fitting that it should be such an outburst that finally caused his demise.*" The letter had come from America, where the Irishman claimed to have fled to begin a new life. "*Here I have ceased to be known as Culann Thornton and my beautiful wife is Pepca Gottlieb no longer. I continue inventing and making music and perhaps shall one day know fame by some other name. In the meantime, if there is anything which the people of Liverpool or England or even my own Ireland wish to know about my time as Fritz Gottlieb's apprentice and engineer you have only to print their enquiries in your most highly regarded publication. My replies may not be swift but I give my word that they will always be thorough and honest.*"

No recordings of "Gottlieb and Thornton", "the Russian Ghosts" or "Uhrwerk—the incredible two man orchestra" were ever made—the phonograph not being even conceived by Thomas Edison until July 1877. All of Uhrwerk's unique equipment was destroyed or damaged beyond repair in the explosions which killed Fritz Gottlieb and Culann Thornton's notes on their construction have never been found. All that remains of their musical legacy is contained here within this brief article. 🌀

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than did *Treasure Planet*, which was critically admired but which became Disney's biggest financial loss since *Fantasia*. *Tarzan* at least inspired several direct-to-video sequels and a one-season TV series, *The Legend of Tarzan*, which incorporated many aspects from Burroughs work, including Opar and Pellucidar. Where at least those movies fell on the radar, the 2002 remake of *The Time Machine*, Universal Studios' monster-revamping *Van Helsing* and the 2003 adaptation of *League of Extraordinary Gentlemen* (or "LXG") were effectively ignored. Unfortunately for LXG, a shoddy script that departed significantly from the original comic served to alienate both an uninterested public and fans of Moore's work.

In the late 1990's, John "Q" deLancie and Leonard "Spock" Nimoy drafted other Star Trek alumni to record a series of audio-dramatizations of Victorian classics under the marquee of Alien Voices. Together, the company produced dramatizations of *The Time Machine*, *Journey to the Center of the Earth*, *The Lost World*, *The Invisible Man*, and *The First Men in the Moon* for Simon and Schuster Audio and the Sci-Fi Network, before effectively admitting defeat with *Spock Vs. Q* and *Spock Vs. Q: The Sequel*. The comic series *Steampunk*, published simultaneously with *League of Extraordinary Gentlemen* by Chris Bachalo and Joe Kelly, received some notoriety but was cut off halfway through by low readership.

Most telling, perhaps, is that newer movies that could be legitimately described as Steampunk are avoiding that designation. Christopher Priest's 1995 novel *The Prestige* was adapted into one of two period films about Victorian stage magicians released in 2006 (the other being the vastly inferior *The Illusionist*). Advertisements which presented it as a story about rival magicians (played by Hugh Jackman and Christian Bale) vying for the affections of an assistant (Scarlett Johansson) did it a gross disservice. Instead, *The Prestige* is an exceptional exploration into obsession and revenge which leads one of the magicians to the doorstep of David Bowie's Nikola Tesla. With two Oscar nominations for art direction and cinematography, it was perhaps the best genre film out of Hollywood since Disney's *20,000 Leagues Under the Sea*.

Much like the predecessors to literary Steampunk, a great deal of the public presence of Steampunk is found in influences that are played off against other genres. Newly developing Steampunk fashion is like this, with Steampunk and Victorian influences on (or variations of) what is otherwise standard Gothic, Cyber and Rivet style. Video games are another major area: Steampunk in one form or another is exploited in numerous games including the *Final Fantasy*, *Thief*, *Tomb Raider*, *City of Heroes*, *Breath of Fire*, *Magic: The Gathering*, *The Elder Scrolls*, *Warcraft*, *Ultima*, *Myst*, *Castlevania*, *Ragnarok Online*, and *Second Life* franchises. One properly Steampunk game that received some press was *Arcanum: of Steamworks and Magick Obscura*, which the comic strip *PVP* humorously summarized as "dwarves with guns!"

However, in the underground, Steampunk fulfilled at least some of Jeter's prognostications. That musicians like Vernian Process and Abney Park are even attempting something like "Steampunk music" testifies to it. The highly artistic 1995 French film *The City of Lost Children* followed in the European Steampunk tradition and set the stage for other art-film experiments like the

award-winning (and Academy Award nominated) Australian *Mysterious Geographical Explorations of Jasper Morello* series of animated shorts. Blur Studios also created a computer generated short about a British and a French aristocrat battling with steam-powered robots over the affections of a buxom young lady in *A Gentlemen's Duel*. Mike Mignola, whose *Hellboy* and *Batman: Gotham by Gaslight* comics have Steampunk influences, wrote and drew the very odd *Adventures of Screw-On Head*, which was later picked up by the Sci-Fi Network as a pilot. Steampunk has proven to be a perennial favorite of DC Comics' Elseworlds line, which puts various superheroes in alternate realities. Comic publisher IDW chose Steampunk as the setting for their first *Transformers: Evolutions* series, *Hearts of Steel*, which turned the popular 80's toy and cartoon characters into steam trains and zeppelins. Studio Foglio's *Girl Genius* comic has remained popular, even after transitioning from print to online.

In role-playing games, Heliograph Inc. obtained the rights to republish the *Space: 1889* RPG, as well as its newsletter *Transactions of the Royal Martian Geographical Society*, the *Journal of Victorian Era Role Playing* and Marcus Roland's shareware *Forgotten Futures*. Heliograph, in connection with *Forgotten Futures*, has also republished several public domain Victorian Scientific Romances and is set to publish novels and sourcebooks for the Pulp-based *Zeppelin Age*. Steve Jackson Games obtained the license to republish *Castle Falkenstein* as a supplement to their *GURPS* RPG system, and joined that with their sourcebook *Steampunk*. *GURPS Steampunk* won the Origins Award for Best RPG Supplement in 2000, sold out and was followed up by their *Steam-Tech* book of weird inventions and weapons and a horror-Steampunk supplement called *Screampunk*. Online games have also gotten into the act, with one of the most well known being *Steam Trek*, which suggests what *Star Trek* would be like in the Victorian Era. In an increasing number of fantasy games, dwarves' proclivities for mining and smithing have been translated into Fantasy Steampunk technology.

With Steampunk where it is today, a history of the genre must remain open-ended. Two of the major questions that have yet to be answered are if Steampunk will ever be able to break through into a mainstream phenomenon, and if or when this post-Internet unified Steampunk fanbase will somehow develop into a legitimate Steampunk subculture or lifestyle. 🌀

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Ironically, this second wave of Retro-Victorian cinema peaked at the turn of the millennium, beginning with a film that was generally panned by critics and fans alike, but which became the most well-known public face of the genre for some time. By 1999, Will Smith—former rapper and star of *Fresh Prince of Bel Air*—had become a hot commodity for summer action movies, importing his street-savvy “Fresh Prince” character to police action movies (*Bad Boys*), alien action movies (*Independence Day*, *Men in Black*) and political action movies (*Enemy of the State*). Warner Bros. were looking for another big money summer vehicle for Smith, and it came in the form of an adaptation of the 60’s TV series *Wild, Wild West*. Film adaptations of Boomer-era TV shows were also big at the time.

Unfortunately, while Smith was big, adaptations of 60’s TV shows were bigger and the budget was Warner’s biggest of all time, *Wild Wild West* itself was a critical flop. Critic Roger Ebert stated that it was “a comedy dead zone. You stare in disbelief as scenes flop and die. The movie is all concept and no content; the elaborate special effects are like watching money burn on the screen.” Despite the best efforts of Smith, the cheesecake factor of female interest Salma Hayek, and the capable acting of Kevin Kline and Kenneth Branagh, this brainless summer blockbuster was carried entirely by the concept.

As a concept however—a special effects laden adventure in Wild West-themed mad science gone awry—it perfectly encapsulated the aesthetic of the genre. Many a Steampunk fan swallowed their pride and, with a wince, forced themselves to tell people who asked what Steampunk was that “it’s a bad example, but like *Wild Wild West*.” At the same time, Disney jumped back into the arena with a 1999 take on *Tarzan*, the 2001 Edwardian adventure *Atlantis: The Lost Empire*, and an inventive 2002 fusion of Robert Louis Stevenson’s 18th century seafaring with high end Sci-Fi in *Treasure Planet*.

On the TV screen, cheap, hour-long Sci-Fi and Fantasy shows were springing up from the seed planted by *Hercules: The Legendary Journeys* and its spin-off *Xena: Warrior Princess*. Sir Arthur Conan Doyle’s *The Lost World* was given the treatment in a WWI-era show while B-movie maestro Bruce Campbell lent himself to both the Napoleonic *Jack of All Trades* and the *Wild West Adventures of Brisco County Jr.* Usually these shows weren’t very good, and the best of them was the Canadian production *The Secret Adventures of Jules Verne. Dr. Who* was given a 1996 trial-run on American television in a made-for-TV movie that fulfilled Tat Wood’s objection by making the good Doctor and his time travelling TARDIS a thoroughly Victorian creation.

*Wild Wild West* was the public face of what was coming to be known as Steampunk. Within the fandom, however, the most significant work of Steampunk fiction became the comic *League of Extraordinary Gentlemen*. Nothing before or since has created as much buzz or interest in the genre as this creation of writer Alan Moore and artist Kevin O’Neil. *League* featured a pastiche of various Victorian characters drawn together by the British government to defeat all threats against her. Mina Murray (of *Dracula* fame), Allan Quatermain, Captain Nemo, the Invisible Man, Dr. Jekyll and Mr. Hyde, under the tutelage of Campion Bond and the mysterious “M” (in a typically richly veiled James Bond reference) first rescued the anti-gravity metal “Cavorite” (familiar from H.G.Wells’ *First Men in the Moon*) from Fu-Manchu. The

second series, which ended this initial Victorian cycle (Moore promises further adventures with the Leagues of different eras) pitted the Extraordinary Gentlemen against the Martian invaders of *War of the Worlds* with a little help from Dr. Moreau.

Moore’s name—already legendary amongst comic book fans—ensured that *League* would be a success. But few guessed that it would be one of the biggest successes of his career and catapult the genre that reviewers attached to the work—Steampunk—from a sideshow to the feature presentation. The series itself was a remarkable feat: between the comic stories themselves and the prose supplementary features (a pulp starring Alan Quatermain, H.P. Lovecraft’s Randolph Carter, Edgar Rice Burroughs’ Carter of Mars, and Wells’ Time Traveler for the first and a global gazetteer for the second), the exhaustive encyclopedic references to British fiction made it a veritable Steampunk bible. While there was a certain sarcasm to the comics, it still wove a high-tempo story that brought together the strains of British and American Retro-Victorian Scientific Fantasy.

*League* also came at the exact right time; this critical mass of Retro-Victorianism coincided with the growth of the greatest instrument for cultural exchange ever developed by humanity: the Internet. The Internet, with its plethora of message boards, websites and e-mail groups, enabled Steampunk to coalesce from its varied strands by allowing individuals from all walks of life and fandom to find common ground in what was ultimately a shared love of Retro-Victorian Scientific Fantasies, whatever their form. Cyberpunks were already considering Steampunk to be a dead genre so far as their literary interests were concerned, but the name itself served as an elegantly simple (and pleasingly edgy and alternative-sounding) name for what Clute described as “any sf ... set in any version of the previous century from which entropy has been banned as a metaphorical governor of the alternate industrial revolution of choice.” Lingering admirers of true Cyberpunkian Steampunk met with the die-hard gamers of *Space: 1889*, who shared ideas with Boomer fans of the old Atomic Age films and the young arrivals drawn in by *Wild Wild West* and *League of Extraordinary Gentlemen*.

The increasing popularity and availability of anime brought in the “Otaku” who were enthralled with Japan’s many and varied Steampunk franchises like *Castle in the Sky*, *Howl’s Moving Castle*, *Robot Carnival*, *Steamboy*, *Sakura Wars*, *Last Exile*, *Nadia: The Secret of Blue Water* and *Escaflowne*, as well as Japan’s Elegant Gothic Lolita and Elegant Gothic Aristocrat fashion. Steampunk’s increasingly public profile and Internet presence brought in more people from the Gothic, Cyberpunk and Rivethead lifestyles, who in turn brought their interest in music and fashion. These interweaving strands of Steampunk were suddenly being given a look and a sound thanks to D.I.Y. fashionistas and musicians like Abney Park and Vernian Process (who were following in the footsteps of 80’s artists like Thomas Dolby, Paul Roland and pioneer electronica like Kraftwerk and Front 242). Tinkerers and artists, like Crabfu Steamworks and the creators of the Neverwas Haul, have also been discovering Steampunk.

As yet, this burgeoning Steampunk genre has not been able to break through to the mainstream the way that the Victorian Sci-Fi of the Atomic Age did. *Wild Wild West* was critically panned, and audiences by-in-large yawned in reaction to Disney’s *Tarzan* and *Atlantis*. Those films did more appreciably

#### FOOTNOTES

1—Thornton’s own nickname for the incongruously garbed urchins who proved to be some of his and Gottlieb’s most devoted followers. Pooka (or Puca) being an Irish term for a mischievous goblin-like creature.

2—Subsequently nicknamed the “Gottlieb fiddle” for many a year until a countryman of Fritz’s named Johannes Matthias Augustus Stroh actually patented its design in 1899.

3—A stringed instrument bearing a striking resemblance to the autoharp commonly used today in much of the folk music of North America.

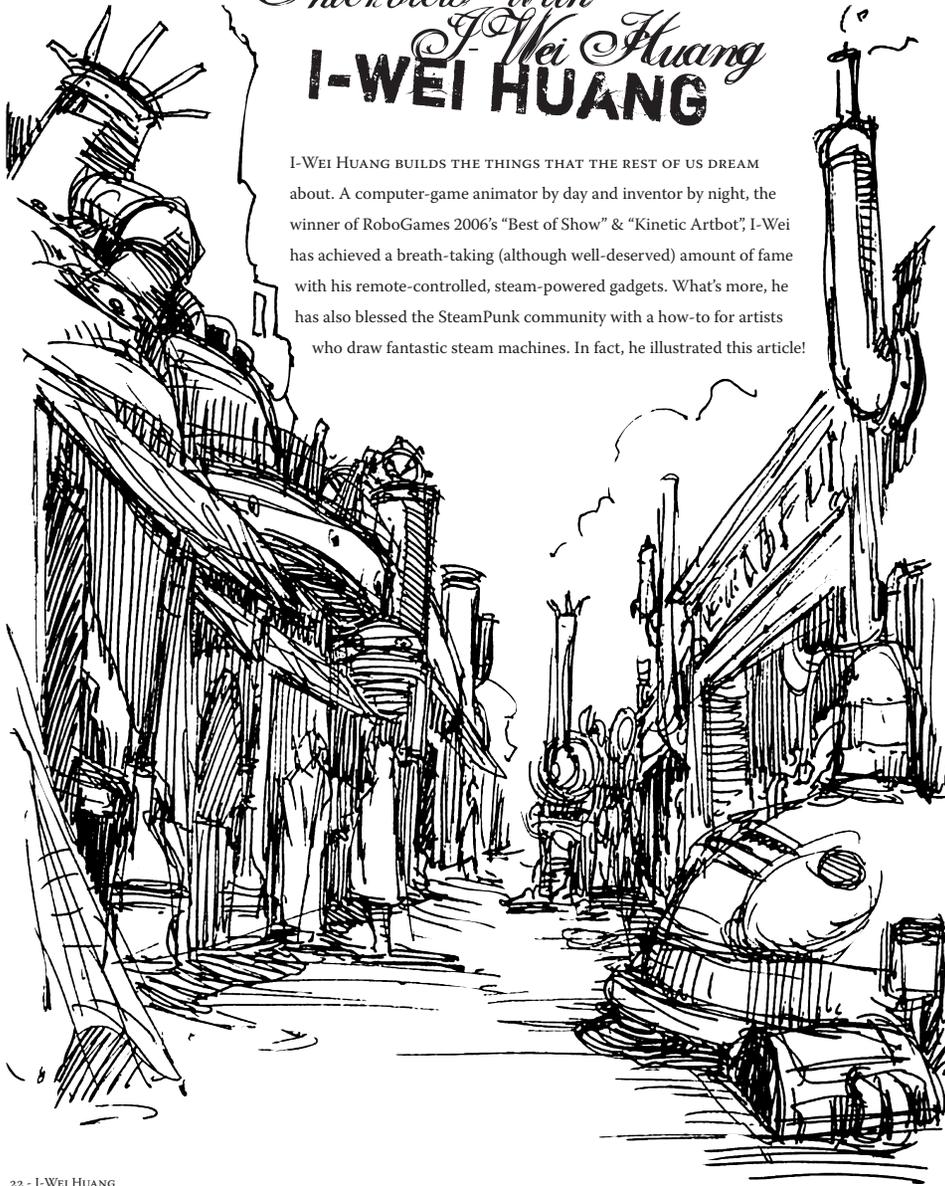
4—Williamson was a philanthropic gentleman who funded the construction of a huge network of apparently meaningless tunnels beneath Liverpool in order to provide employment during the economic recession following the Napoleonic Wars. Many of these tunnels remain intact—although uncharted—to this day.

5—Thornton’s design used Benjamin Franklin and Charles James’s device built in 1762 as its basis but it contained many modifications.

6—The steam flute shared some characteristics with Joshua C. Stoddard’s “*calliope*” patented in 1855, although the operation of the former was quite different and the subtlety of its sound infinitely superior.

# Interview With I-WEI HUANG

I-WEI HUANG BUILDS THE THINGS THAT THE REST OF US DREAM about. A computer-game animator by day and inventor by night, the winner of RoboGames 2006's "Best of Show" & "Kinetic Artbot", I-Wei has achieved a breath-taking (although well-deserved) amount of fame with his remote-controlled, steam-powered gadgets. What's more, he has also blessed the SteamPunk community with a how-to for artists who draw fantastic steam machines. In fact, he illustrated this article!



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Babylon-upon-Thames-punk knew full well, and as a result much of what they wrote gave off an air of bad-faith complacency, uneasy nostalgia, weird inanimation. It is from their doomed enterprise (and from other sources as well) that contemporary steampunk authors like K. W. Jeter and Powers and James Blaylock and others have borrowed not only a vision of a talismanic city, but also (it must be said) some of the complacency and diseased nostalgia of the epigones who thought to tame Dickens."

Though Clute teasingly lauded Gibson and Sterling for the "tough job" of "making London in 1855 worse than it was in fact", he and his Encyclopedia of Science Fiction co-author Peter Nicholls picked up very early on the fact that there has always been a strain of nostalgia to Steampunk. The gilded fairyland of our ancestors which Walt Disney banked on was still present beneath the layers of Dickensian soot and grime. Clute continued:

"...Powers has invented a tale of paradise, where entropy lies down with the lamb and the steam yachts always run on time. In *The Anubis Gates* he has written a book of almost preternatural geniality, a book which it is possible (rare praise) to love. Let us all, it suggests, co-inhabit the Christmas London of Brendan Doyle, and gape like children at the pageant of the world-stage of his triumphs. We do. He is having the time of his life. We join him."

Nicholls articulated what this fantastic London signified for Steampunk authors:

"...in essence Steampunk is a US phenomenon, often set in London, England, which is envisaged as at once deeply alien and intimately familiar, a kind of foreign body encysted in the US subconscious ... It is as if, for a handful of sf writers, Victorian London has come to stand for one of those turning points in history where things can go one way or the other, a turning point peculiarly relevant to sf itself. It was a city of industry, science and technology where the modern world was being born, and a claustrophobic city of nightmare where the cost of this growth was registered in filth and squalor."

Tat Wood, writer for the sometimes Steampunk prefiguring TV series *Dr. Who*, suggested that "Americans, especially in the era of Reagan, believed time and space to be interchangeable and West = Future, hence the genuine belief of American tourists that Britain is still physically in the 19th century." London, and by extension the British Empire and the Victorian Era, was a temporal, historical and physical ground zero at which the Industrial and pre-Industrial ages met, be it in the hordes of former English rural farmers migrating to London or wealthy Londoners vacationing along the mountainous rail lines of India and Canada.

One contributor to the CyberpunkReview.com message boards opined that:

"I think Steampunk denigrates cyberpunk merely by it's[sic] association with it. Cyberpunk is at the hard end of science fiction, realistic depictions and intense focus on future technology. Steampunk is so much at the soft end it's falling out of the science fiction genre altogether leaking into fantasy."

Much recent literature of the genre—like the acclaimed *Perdido Street Station*, *The Scar*, and *Iron Council* by China Miéville or the anti-C.S. Lewis *His Dark Materials* trilogy by Phillip Pullman—is exploring the frontiers of Fantasy Steampunk. Joining them has been painter James Gurney and his *Dinotopia* saga, including *Dinotopia: A Land Apart from Time* and *Dinotopia: The World Beneath* (as well as a prequel, a series of children's books, two adult novels by Alan Dean Foster, an animated movie and a live action TV movie/series).

Softer yet was another strand of Retro-Victorian Science Fantasy found in the role-playing game (or RPG) circuit. In 1988, Paul Chadwick created *Space: 1889*, an RPG scenario in which Thomas Edison ventured to Mars on an ether-flyer and opened the inner solar system to colonial exploration. The main pretense of the game—which expanded into several supplements, board games and a computer game—was that Victorian theories about the cosmos in general and the solar system in particular were correct, so that explorers could fly on ether currents between the primitive world of Venus or the dying world of Mars, sandwiched between the newly-formed Mercury and the disintegrated planet of the Asteroid Belt. *Space: 1889* ceased publication in 1991, but the mantle was picked up by the Fantasy Steampunk game *Castle Falkenstein* (named for King Ludwig II of Bavaria's unbuilt castle). Taking place in the Steam Age of the alternate world of New Europa, *Falkenstein* mixed fairies, magic and mythical creatures in with its steam-powered insanity.

This nostalgia and "soft end" of Science Fiction found an even greater flowering in the far more public trickling of Retro-Victorian Scientific Fantasies back into movie theatres. These films were completely unconnected to the parallel development of Steampunk in Sci-Fi literature, and unapologetically looked back to Jules Verne rather than Charles Dickens. A 1972 film entitled *The Asphyx* had the death-spirit of each person trapped in a strange Victorian contraption. Despite questionable dinosaur effects, 1975's adaptation of Edgar Rice Burroughs' *The Land that Time Forgot* was a surprise hit that inspired the same company to produce his *At the Earth's Core* in 1976 and *The People that Time Forgot* in 1977. In the same year that *Morlock Night* was published, H.G. Wells and Jack the Ripper visits swinging 70's San Francisco in *Time After Time* and Disney tried its hand again with *Island at the Top of the World*. Wil Vinton's Claymation technique was applied to the brilliant, beautiful, melancholy and sensitive children's film *The Adventures of Mark Twain* in 1982. Stephen Spielberg played with it in 1985's *Young Sherlock Holmes* and Terry Gilliam followed in the footsteps of Karel Zeman with 1988's *The Adventures of Baron Munchausen*. Michael J. Fox's Marty McFly and Christopher Lloyd's Doc Brown returned to the Old West in *Back to the Future Part III* (1990), with a time traveling steam train and plenty of overt homages to Jules Verne in tow.

"Jeter, along with fellow novelists Tim Powers and James Blaylock, seems to be carving out a new sub-genre of science fiction with his new book. Whereas such authors as William Gibson, Michael Swanwick and Walter Jon Williams have explored the futuristic commingling of human being and computer in their 'cyberpunk' novels and stories, Jeter and his compatriots, whom he half-jokingly has dubbed 'steampunks,' are having a grand time creating wacko historical fantasies."

This antiquated re-imagining of Cyberpunk set 100 years in the past rather than 100 years in the future had its antecedents in the works of Ronald Clark, Christopher Priest, Philip Jose Farmer and Michael Moorcock. Moorcock's 1971 *The Warlord of the Air* began charting the territory, followed by his sequels in the collectively titled *A Nomad of the Timestreams*. Harry Harrison's 1972 novel *A Transatlantic Tunnel Hurrh* followed suit, as did comic writer and artist Bryan Talbot with *The Adventures of Luther Arkwright* in 1972 (to which he returned in 1999's *Heart of Empire*) and a stint on *Nemesis the Warlock* in the mid-1980's. Philip Jose Farmer introduced his "Wold Newton Family"—a pastiche that linked a good number of Victorian and Pulp characters to a fictional meteor impact at Wold Newton—with the pseudo-biographies *Tarzan Alive* in 1972, *Doc Savage: His Apocalyptic Life* and *The Other Log of Phileas Fogg* both in 1973. As early as 1967, during the Atomic Age of Retro-Victorian film, historical biographer Ronald W. Clark drew many of the figures he wrote about into an alternate reality tale of a 19th century atomic bomb in *Queen Victoria's Bomb*.

The work for which Jeter coined the term Steampunk, and which Moorcock et al prefigured, was that of himself and his friends and fellow authors James Blaylock and Tim Powers. Jeter, as indicated in his letter to Locus, started it off with a Wellsian pastiche titled *Morlock Night* in 1979 and followed it up with *Infernal Devices* in 1987. Powers contributed *The Anubis Gates* in 1983, *On Stranger Tides* in 1987 and *The Stress of Her Regard* in 1989. Blaylock published *Homunculus* in 1986 and *Lord Kelvin's Machine* in 1992. This initial triumvirate was soon followed by Paul Di Filippo's *The Steampunk Trilogy*, Stephen Baxter's *Antilice*, and Diane Duane's *To Visit the Queen* (also about nuclear arms in the hands of the Victorian British Empire) amongst others.

Perhaps the most popular and well known of these novels also inadvertently legitimized the label Steampunk. In 1990, celebrated Cyberpunk stalwarts William Gibson and Bruce Sterling co-wrote *The Difference Engine*. Working more feverishly with the Cyberpunk tropes they themselves helped establish, Gibson and Sterling created a gritty mid-Victorian world in which Charles Babbage, the real-life British mathematician-engineer, was able to realize his plans of a programmable, mechanical, analog computer. The Information Age met the Steam Age as the computer revolution happened a century earlier than it did in our world, with the consequent deleterious effects on society, politics and individuals. Though Gibson exclaimed "I'll be happy just as long as they don't label this one. There's been some dire talk of 'steampunk' but I don't think it's going to stick," the name did indeed stick. Steampunk was as official as if it had been stamped by the Queen herself.

In reviewing *The Anubis Gates*, Sci-Fi critic John Clute deftly noted that the inspiration for this literary Steampunk came not from Jules Verne so much as from Charles Dickens (and his later imitators), who wrote of industrialized urban London. His commentary is worth quoting at length:

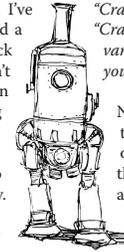
"There is no getting away from the man who invented steampunk. Charles Dickens (1812-1870) may not be mentioned by name anywhere in *The Anubis Gates* (1983), but his shaping presence can be felt everywhere in the populous chortling shadows of the London of 1810 to which the twentieth-century hero of Tim Powers's time-travel fantasy travels, never to return. It does not much matter that Powers sets his tale in a time Dickens could never have directly experienced, and of which he never wrote, because novels like *Oliver Twist* (1837-1839), which depicts a London not dissimilar to that explored by Brendan Doyle, are a kind of apotheosis of the supernatural melodrama popular at the beginning of the century, so that Dickens's Fagin and Powers's Horrabin share a common source in grain guignol. Similarly, the Gothic fever-dreams of such writers as Monk Lewis or Charles Maturin can be seen to underpin the oneiric inscapes of the greatest achievements of Dickens—*Bleak House* (1852-53) or *Little Dorrit* (1855-1857) or *Our Mutual Friend* (1864-65)—those novels in which the nightmare of London attains lasting and horrific form, though it is almost certainly the case that Eugene Sue's *The Mysteries of Paris* (1844) developed the "Mysteries" plot—in which the City becomes an almost animate and deeply theatrical edifice—in a more directly useful and definite manner. For Dickens, that nightmare of London may be a prophetic vision of humanity knotted into the subterranean entrails of the city machine, while for Powers the London of 1810 may be a form of nostalgia, a dream theatre for the elect to star in, buskined and immune; but at the heart of both writers' work glow the lineaments of the last world city.

"Between Dickens and Powers, of course, much water has flowed down the filthy Thames. Between steampunk—a term which can be used to describe any sf novel set in any version of the previous century from which entropy has been banned as a metaphorical governor of the alternate industrial revolution of choice—and the desolate expressionism of its true founder lies what one might call Babylon-upon-Thames-punk. *Fin de siecle* writers like Robert Louis Stevenson, Arthur Conan Doyle, and G. K. Chesterton attempted to domesticate Dickens's London by transforming it into a kind of Arabian Nights themepark capable of encompassing (and taming) all the strangenesses that an Empire in pululant decline could possibly import. Even H. G. Wells was sometimes capable of quasi-Dickensian sentiment (as in novels like *Love and Mr. Lewisham* [1900]) about the London he more normally wished utterly to destroy. That this enterprise of domestication was deeply suspect, most writers of



*I've read that your dremel tool is the only power tool in your rather limited workshop, and yet you've consistently produced quite amazing machines. What challenges does this limitation present you with? Are there any tools that you often find yourself wishing were available to you?*

Since that was written, I've upgraded some tools. Nothing beats having the right tools for the job. Power tool-wise, besides my trusty dremel, I've gotten a scroll saw, a sander, and a drill with drill press adapter. I lack machining skills; therefore I don't have a lathe or mill. I still plan on learning all this machining mumbo jumbo, especially with a CNC [Computer Numerical Control] setup since I'm used to working on the computer already.



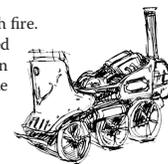
*What are some of the advantages and disadvantages of steam-power? You've pointed out in the past that steam engines produce a high RPM but a low torque. How does that affect your designs?*

Disadvantages:

- The high heat melts plastic chassis and gears pretty quickly.
- Not even including the water it's heavy.
- It's messy & oily.
- It's low power and very finicky.
- It can be dangerous if not treated with respect and caution.

Advantages:

- It's an excuse to play with fire.
- It gets you on tv, covered in magazines, and you win shiny awards to hang on the wall.



*You've said that you often plan a machine one way during the design stage, only to have the physical limitations require different designs when you are actually building. Are there any consistent mistakes you make when you are planning things out?*

Yes, I always go too fancy and start thinking about the bells and whistles (sometimes literally) before the main mechanics are figured out. I also *always* think that an engine has more power than it does. Testing an engine before mounting it to a machine always makes it seem like it's got more power than it needs, but I always need to gear down in order to make it run... slowly... very slowly.

*You have a rather impressive resume posted on your website, with work experience as varied as "Double Agent," "Crab Trainer," "Worm Counter" and "Crack Dealer". Do you think that this varied past has led you to the work that you do today?*

No. After my double bypass brain transplant, I don't remember much of my past. FYL... there is only one thing true in my resume: I did work a summer counting worms.

*You've given the world quite a handy primer on how to draw steam-powered machinery, how to give SteamPunk more authenticity. Do you have any further advice for those who illustrate fantastical machines?*

Yes, practice until you drop. Collect as much reference from all of your favorite artists as possible. Look around; the best designs always come from the magic of nature. Lastly, combine all of your influences together to make it your own, and hope that no one notices where you stole your ideas.

*Are there any games that (you've done)/(are doing) animation for that are of a particular interest to the SteamPunk crowd?*

No, I wish. In the game industry, you don't get to pick to make any game that you like... publishers

sink millions into game development, and usually won't fund anything unless they believe it will sell. That is why you see the same games over and over. If any of you readers are gazillionaires, and want to fund a SteamPunk project, let me know.

*How do you think that a hacker/contractor outlook has served you in your day-to-day life? Do you find yourself applying your skills to situations outside the workshop?*

Well I look at everything differently now; walking down the aisles of a store, I'm always looking at items from the perspective of whether or not I can use it in some steam contraption.



*And finally, how long will it be before I will be able to ride a bicycle-powered crab-device?*

Bicycle-powered, I don't know. Steam powered... 4.425% chance it will happen in my lifetime. I'm too scared of large-scale steam boilers, plus I am still looking for that gazillionaire to fund such a project, along with my steampunk game. 🍀

*Any prospective financiers are encouraged to contact I-Wei through his website [www.crabfu.com], and any aspiring SteamPunk artists are encouraged to read his tutorial online [www.crabfu.com/steamtoys/diy\_steampunk/].*





The humor and length of the Victorian comedies (both *Great Race* and *Magnificent Men* average three hours, with intermission) were one of the inspirations for the 1968 film *Chitty Chitty Bang Bang*. The success of Disney's Victorian musical *Mary Poppins* was another. United Artists was methodical in their attempts to replicate Disney's success, to the tune of hiring on Dick Van Dyke (who, as the apocryphal story goes, was blackballed from working for Disney for some time after saying that *Chitty Chitty Bang Bang* would "out-Disney Disney"), attempting to hire Julie Andrews, and employing songsmith's Richard and Robert Sherman. Written by James Bond's Ian Fleming, the film had many "Flemingism" names—like the lead Caracatus Potts and Truly Scrumptious—and the music had typical "Shermanisms"—including the newly coined nonsense word "fantasmagorical".

Far away from the Hollywood, and even the London, filmmaking scenes—on the other side of the Iron Curtain even—was Czech auteur Karel Zeman. His distance from the engines of Walt Disney and George Pal gave him a uniquely European perspective on the writings of Jules Verne, creating what have come down as perhaps the most inspired films based on his work. Most advantageous were the visuals: while Harper Goff kept a Victorian look for his *Nautilus*, Zeman kept a Victorian steel engraving look for the whole of *The Fabulous World of Jules Verne* (1958). Reviewers for the Science Fiction magazine *Locus* described it thusly:

"Zeman lets out all the stops. This is a live-action black and white movie—but it uses every camera trick and every form of animation known in 1958... Methods include stop-motion, paper cutout, drawing and painting animation, drawn foregrounds and backdrops, dissolves, miniatures and models, double exposure (probably in-camera and superimposition), still images, traveling and stationary mattes—they're all here. There were at least eight people watching; someone yelled out at one point "There are at least seven different things going on in this scene!" (I counted eight.) And all this before the invention of blue screens! ... There are lines drawn on sets, and even on people, to keep the original steel-engraving feel. The scenes of ships of the water have been treated with some sort of light, striped screen (probably cloth, probably double-exposed) that makes the moving waves of real water take on the appearance of the engraved lines in a 19th century drawing of the sea. There's a scene of a train coming down a track—the train is drawn; the wheels and the tracks are animated; the (real) engineer stands on an open platform in the engine's cab and (real) people lean out of the (drawn) passenger car. (It's so simple and powerful it takes your breath away.) Actors walk through back-projected sets; at the same time they're walking behind animated full-sized paper cutouts of spinning flywheels and meshing gears, all this in front of a painted set in the middle-background. For maybe five seconds of screen time. There's a scene of an animated shark attacking a real diver in a model set with painted water."

This masterful mix of animation techniques resulted in films that not only brought Verne to modern day audiences, but also looked like an original illustration from his novels come to life. Zeman has often, and rightly, been referred to as the heir of Georges Méliès. Like Méliès, Zeman did not create Science Fiction; he recreated genuine Scientific Romances.

*The Fabulous World of Jules Verne*—the magnum opus of these films—was not based on any one of Verne's novels, but to an extent was as though it were based on all of them. The combination of adventure on land, in the sea and through the sky was exactly the sort of thing that could have happened in a cosmos populated by Verne's creations. *Fabulous World* was followed by two proper Vernian adaptations in *The Stolen Airship* (1967) and *On the Comet* (1970). Retro-Victorian Scientific Fantasy elements also appeared in other films of his, like *Baron Munchhausen* (1961).

As the 1960's drew to a close, so did the anxieties and culture that gave rise to the Atomic Age of Sci-Fi. Sputnik and the Cuban Missile Crisis came and went. The battlefield was no longer space and it wasn't being fought with lasers and atomic weapons. It was the forests of Vietnam, being fought by guerillas, and the resulting My Lai massacres challenged America's status as the world's moral beacon. 1967 was the Summer of Love and 1969 was Woodstock (and the Stonewall Riots). 1969 was also the year when the Space Race culminated in the awe-inspiring and unparalleled moon landing, and then sputtered into irrelevance. For a society embroiled in the greatest social and military revolutions since the end of World War II, both the scientific optimism and the dire atomic warnings of *20,000 Leagues Under the Sea* were as dated as Verne's writings seemed at the beginning of the Great Depression. Yet the romance of the Victorian Era could not be escaped in its entirety, and several threads were fermenting that would, by the late 70's, mark the rebirth and eventual solidification of what would come to be known as Steampunk.

The term "Steampunk" itself came from one of these threads, as an outgrowth of the burgeoning genre of Cyberpunk. Blame or laud for the term goes to pioneer Cyberpunk author K.W. Jeter, who wrote the following letter to *Locus* in 1987:

"Dear Locus,  
Enclosed is a copy of my 1979 novel *Morlock Night*; I'd appreciate your being so good as to route it Faren Miller, as it's a prime piece of evidence in the great debate as to who in 'the Powers/Blaylock/Jeter fantasy triumvirate' was writing in the 'gonzo-historical manner' first. Though of course, I did find her review in the March *Locus* to be quite flattering.

Personally, I think Victorian fantasies are going to be the next big thing, as long as we can come up with a fitting collective term for Powers, Blaylock and myself. Something based on the appropriate technology of the era; like 'steampunks,' perhaps..."

Michael Berry, writing for the *San Francisco Chronicle* in 1987, confirmed it:

*Under the Sea* banked on this, and art director Harper Goff created a riveted Nautilus on which could unfold the drama of humanity's uncertainty over scientifically unveiled, unstoppable power.

The wager paid off handsomely, and Retro-Victorian Scientific Fantasies were ushered into the Atomic Age en masse. Disney, of course, milked *20,000 Leagues* for everything that it was worth, advertising it over and over again on the *Disneyland* TV series, using its conclusion to introduce the *Our Friend, The Atom* documentary (including contrasting scale models of Goff's Nautilus against the US Navy's first atomic submarine), and creating a *20,000 Leagues* exhibit of film props at his Disneyland Park. James Mason charted course on another Vernian epic in 1959's *Journey to the Center of the Earth*. Ray Harryhausen animated *The Mysterious Island* in 1961 and *The First Men in the Moon* in 1964, topping those off with the mighty bronze Talos in *Jason and the Argonauts* (1963) and the cowboys and dinosaurs film *The Valley of Gwangi* (1969). Vincent Price strayed from horror as an aeronautic version of Nemo in 1961's *Master of the World* and returned for a combined Gothic Steampunk venture in 1965's very loosely Poe-inspired *War-Gods of the Deep*. George Pal visited the distant future in the original version of *The Time Machine*, this time keeping the initial setting of this Wells tale. Disney delved back into the genre with the again excellently received *Swiss Family Robinson*, and then the less well received *In Search of the Castaways*. *Castaways*, unlike *20,000 Leagues*, came even more out of the Voyages Extraordinaires mold than the Scientific Romance one. There isn't a crazy industrial invention in sight (save for the steamboat *Persevero*), but there is plenty of fantastic, globe-trotting adventure. This 1962 outing was joined by *Five Weeks in a Balloon*, but the course was charted by 1958's *Around the World in 80 Days*.

The comedic tone of the globetrotting *Around the World* also set the stage for a series of satirical films towards the end of Victorian fantasy's Atomic Age. Blake Edwards, of *Pink Panther* fame, started it out in 1965 with *The Great Race*, which was joined later that same year by *Those Magnificent Men in their Flying Machines, or How I Flew from London to Paris in 25 hours 11 minutes*. There's plenty to pick fun at in Victorian excesses, but *Great Race* and *Magnificent Men* largely derived their humor from different sources. In *The Great Race's* case, Tony Curtis and Jack Lemmon starred as competing escape artists set against the real life 1908 New York to Paris automobile race. The historicity was merely an artifact, and this race was augmented with a series of strange Vernian inventions against droll 1960's gender politics comedy and a second-half plot lifted from *The Prisoner of Zenda*. *Magnificent Men* featured a false race from London to Paris against an alternate history where flight was first mastered by the British. While there were a few nods to weird inventions, most of the planes were legitimate, and the humor was charged by racial stereotypes of the libidinous French, authoritarian Germans, the drunken Scots, the Mafioso Italians with humungous families, the cowboy Americans and several different types of Brit. 1967 saw a similar film in *Jules Verne's Rocket to the Moon* and in 1969, *Magnificent Men* had a direct conceptual sequel in *Those Daring Young Men in Their Jaunty Jalopies* (also known as *Monte Carlo or Bust*).

## MINING MEDUSA

by Donna Lynch

illustration by Steve Archer

“DON'T YOU TURN ME AWAY. YOU WOULDN'T DARE TURN ME away.”

She wasn't screaming at me, but she wasn't exactly asking cordially either. The woman at the gate was stating a fact. After considering what a nuisance she was likely to become, I let her in.

“I suppose you know why I'm here,” she said, trying to sound more professional now.

She was there to speak to Lehmann.

The elevator that took us to the top floor of Chroma Company still worked, but like everything else it was near its end. It rattled and shuddered and moved at inconsistent speeds, but the woman showed no expression of fear.

She did not say another word, in fact, until we reached Mr. Lehmann's study on the twentieth floor.

Then she looked around and whispered nervously, “Oh my stars.”

I REMEMBERED HAVING A SIMILAR REACTION TO LEHMANN'S penthouse when I first arrived. It was massive, luxurious, decadent, and utterly torn to shreds. Some poor soul had clearly lost their mind and nearly turned the place on its side. There were expensive broken things: irreplaceable pages ripped from rare books, alcohol-stained hand woven rugs and tapestries from Europe, and most of all, shattered mirrors. In time, every mirror in every room would be shattered into thousands of pieces.

He had eventually fired the servants and staff, shut down the company, and closed his doors to any and all visitors, save for myself.

And since then, it's just been he and I. Patient and doctor. I haven't left his side, and I won't until the end. No matter what sort of man he may have been.

But back to the interloper.

It's unfair—I shouldn't say such things. One can hardly blame her for wanting answers. I know I did, and I had far less of an emotional attachment, in the beginning.

“What happened here?” she asked.

But, truly, I didn't know where to begin.

She sat down and produced a photograph from her hand-embroidered bag. It was a picture of an ordinary man, handsome enough, I suppose, if you fancy the blue-collar type. The woman was handsome in a similar way. Not beautiful or elegant, but of sturdy and practical genes.

"This is my husband. His name is Cole."

"And what might your name be?"

She told me her name was Etta Parker. "But I didn't come here for myself," she said, "I came here for Cole. My husband worked for Chroma Company until Mr. Lehmann shut it down. Cole went to work one day and was told to go home. Everyone was just told to go home. No explanation, no nothing. Are you aware, Sir—"

"Doctor," I interrupted, "Dr. Simon Young."

"Are you aware, Dr. Young, that this town only exists for and because of Chroma Company?"

I nodded, though to be honest, I'd never really thought about it before.

"So you can imagine our shock and concern when our husbands came home from the mines that day with the news."

"Of course," I said. But, of course, I couldn't. I am a doctor, my father was a doctor and his father was a doctor. My life has never been uncertain. At least it had never been until I met Lehmann. Now I am uncertain of many, many things, and positively giddy about the possibilities.

Etta continued. "It's been a terribly stressful time, Dr. Young. We have families, you know. We relied on our husband's jobs. We relied on Chroma Company. This tower—it's been our symbol of hope and prosperity since we settled here. And I don't know how well you know our fair town, Dr. Young, but there's not much else around. This land is different. You can't grow normal crops on a serpentine barren. There are no real forests. You can't build sturdy structures—how this tower has even lasted is beyond me! All this place is good for is mining metals. And now that resource has been taken from us."

"And you came here to find out why?"

"Well, that certainly was the question—until our husbands got sick."

I asked her to explain, not because I really cared, but to be civil. I knew she would tell me either way.

"It started not more than a day or two after the company closed. I thought it was just the stress of being unemployed taking its toll on him, but things just kept getting worse. He coughs. He coughs all the time now, and when he does, a cloud of grey dust comes from his mouth."

Her eyes grew teary and softened a bit. At once she seemed prettier, younger perhaps. I could see the frightened child in her now.

"I made him cough into a handkerchief. Since you are a doctor, perhaps you can tell me what this is."

She took a folded square of cloth from her bag and held it out for me.

I took it, and although I knew exactly what I would see, I went through the motions anyway.

Sure enough, there was a large smudge of grey dust, like charcoal, with glittering green and blue flecks throughout.

"Can you tell me, Dr. Young, why my husband is coughing this up? Can you tell me what to do about it? Is this chromium poisoning?"

I could have lied to her then and there and said 'yes, it's chromium poisoning' and sent her on her way with my condolences. But something compelled me to respond the way I did.

Perhaps I wanted to keep her there. Was I lonely? Was it as simple as that? Perhaps I just wanted some interaction with someone normal. Or maybe I wanted to tell her what I knew. Maybe she would be the only person in the world that could ever believe what I knew to be true. Honestly, I didn't know what to do, only that I didn't want her to go. Not yet.

I sat in silence, staring at the handkerchief.

"It's not the chromium, is it?" she said.

I shook my head. "Chromium is slow. It might have killed them one day, but not now. Not like this."

"Then what? You know, don't you? I can tell by your face."

I did not answer, still unsure of what to say or how to say it.

"Dr. Young, he is dying. And so is our neighbor. And so is his neighbor. And so is every single man in town who worked in the pit. And I need to know why and if there is anything to be done about it!"

Again, I said nothing.

"We've brought in doctors and they are at a loss. Never seen anything like it, they said. And we

"Verne's novels had been speculative when they first appeared, and many of them remained so for nearly a century. They were adventure stories, yes—but built almost entirely around elaborate prophecies of future technology. When those prophecies were fulfilled (as they were in the case of books like *20,000 Leagues Under the Sea* and *Around the World in 80 Days*) Verne's novels didn't seem futuristic anymore, or even quaint as they do to us today, but simply dated ... hopelessly dated, and about as dated as any book could ever hope to be. Some of them languished in this condition for over 40 years—just old-fashioned Victorian curios, brick-a-brack on the shelves of literature's antique store. But by the mid-1920s these books were passing into a new phase, a state of being wherein the very datedness itself had acquired a fascination. And this was the genius of the stroke: I think we can say with confidence that the producers of *The Mysterious Island* were the first filmmakers in history who'd ever dared, with a breathtaking flash of invention, NOT to update a hopelessly out-of-date book. They took Jules Verne's daring predictions about the day-after-tomorrow and turned them into something else entirely—into a huge, elaborate alternate universe story. They created a 19th century of the imagination, where British Imperialists reached the Moon 75 years before Neil Armstrong, and electric submarines prowled the deep while Buffalo Bill was still prowling the West."

Unfortunately, despite a pair of novel sound sequences, the film was a failure at the box office. It would be many years before another one of these deliberately Retro-Victorian Scientific Fantasies graced the silver screen. In the mean time, only a handful of films made any attempt in that direction, such as the period-set *Murders in the Rue Morgue* (1932) with Bela Lugosi, *Bride of Frankenstein* (1935) with Boris Karloff, and *King Solomon's Mines* (1937) with Paul Robeson.

The two decades following the end of the Second World War—with the advent of atomic power, the Space Race and the Cold War—was a golden age for Science Fiction. The climate of limitless possibility mixed with xenophobia and apocalyptic anxiety in a future that had arrived proved incredibly fertile for films like *Rocketship X-M*, *The Day the Earth Stood Still*, *The Thing from Another World*, *Invaders from Mars*, the legendary Z-grade *Robot Monster* and *Plan Nine From Outer Space*, *Them!*, *This Island Earth*, *The Forbidden Planet*, *Invasion of the Body Snatchers*, *Earth vs. the Flying Saucers*, *20 million Miles to Earth*, *The Incredible Shrinking Man*, *Attack of the 50-Ft. Woman*, and *The Fly* as well as *Creature from the Black Lagoon*, *The Beast from 20,000 Fathoms*, and the biggest of them all, Japan's *Gojira* (better known as *Godzilla*).

Amidst this atomic explosion of cosmic operas and prehistoric mutants, filmmakers of the Space Age turned their attention back to the Steam Age. In 1953, George Pal recruited the Martian hordes of H.G. Wells into the *War of the Worlds*. However, this, like the 1960 adaptation of Conan Doyle's *The Lost World*, was also set in the modern day, where UFOs replaced

stilted tripods. The real gamble was taken by Walt Disney with the 1954 release of *20,000 Leagues Under the Sea*.

With *20,000 Leagues*, Disney was out to prove the mettle of his studio. Despite numerous awards for his work in short and feature animation, Disney and his company was still regarded as a maker of mere cartoons—Kiddie matinees. And in a sense, the public wouldn't have it any different. Though an artistic masterpiece, *Fantasia* played only to chirping crickets and wouldn't receive its due praise until latter day critics were accustomed to the fact that Disney was a cultural force that was there to stay, and therefore, it was time to start taking a serious look at its productions. By the time production started on *20,000 Leagues*, construction was beginning on Disneyland U.S.A. in Anaheim, California. *Davy Crockett, King of the Wild Frontier*, was obligating millions of American parents to buy their kids coonskin caps. This television success, along with the studio's first completely live-action feature, *Treasure Island*, whetted their appetite for a full live-action division.

*20,000 Leagues* was, first and foremost, Disney's attempt to prove that he could do more than cartoons. To seal the success of this venture, Disney recognized that a grand subject would be required. After all, much bigger than the Atomic Age aliens and monsters making the rounds at drive-ins were the massive-scale historical epics like *Spartacus* and deMille's *The Ten Commandments*. It may be impossible to find out what exactly prompted Walt Disney to choose to adapt a favorite boyhood author of outdated Scientific Romances, beyond the entrepreneurial genius of America's storyteller laureate. He evidently recognized that Science Fiction could be a serious genre, dealing with serious subject matter, and was worth investing millions of dollars in to move beyond cheap prosthetics to winning the 1955 Academy Awards for special effects, art direction and color. *Spartacus* himself, Kirk Douglas, was cast as the lead against British character actor James Mason's enigmatic mariner. Disney was, perhaps inadvertently, proving Science Fiction's mettle as well as that of his studio.

Then came the critical choice not to follow in George Pal's footsteps by updating *20,000 Leagues* to the modern times. Like the preceding *Mysterious Island* (from which *20,000 Leagues* also borrows many story elements), this Vernian book was made into a period piece. Another of Walt Disney's widely recognized character traits was a boundless confidence that the entertainment consuming public shared his interests and sentiments, even if they didn't know it. His success was based almost entirely on that confidence: "I just make what I like—warm and human stories, ones about historic characters and events, and about animals." And "There is nothing wrong with good schmaltz, nothing wrong with good heart ... The critics think I'm kind of corny. Well, I am corny. As long as people respond to it, I'm okay."

Disneyland itself would be infused with Disney's nostalgia for the turn of the 20th century: upon entering the park, the visitor must travel up a recreated Victorian American main street, or load on to one of the narrow-gauge steam trains. Perhaps, in addition to recognizing the capacity of Science Fiction to be serious entertainment, he also recognized that the Victorian Era was changing from the backwards past of our fathers to the gilded fairland of our ancestors. *20,000 Leagues*

# A HISTORY OF MISAPPLIED TECHNOLOGY

*the history and development of the steampunk genre*  
by Cory Gross



THE ORIGINS OF WHAT WE KNOW TODAY AS “STEAMPUNK” began, along with Science Fiction as a whole, in the early years of the Scientific Romances, Victorian penny dreadfuls, and Jules Verne’s *Voyages Extraordinaires*. An increasingly literate public took advantage of the opportunities for adventure and high romance offered them by Verne, H.G. Wells, H. Rider Haggard, Sir Arthur Conan Doyle and Edgar Rice Burroughs, as well as the more macabre tales of Edgar Allan Poe, Nathaniel Hawthorne and others. Steampunk as we know it today is in part a nostalgic reclamation of Victorian and Edwardian Scientific Romances, Imperialist adventures, Gothic horrors, Edisonades and *Voyages Extraordinaires*, reminiscing about a more elegant age of adventure that never really existed.

However, for Wells and Verne, there was nothing “Retro-Victorian” about their “Retro-Victorian Scientific Fantasies”. The Victorian Era was then and now. Scientific Romances came to an end with the great Imperial Experiment and incinerated in the conflagration of World War I, giving way to the Pulp adventurers and the superheroes of the war era: Doc Savage, Blackhawk, Superman, Batman, King Kong, Orson Welles’ *War of the Worlds* and even later Tarzan books (an era given true homage in the film *Sky Captain and the World of Tomorrow*).

While silent and early sound films did appeal to the Scientific Romances for story ideas, these were often placed well within the then and now of the 1920’s and 30’s. Georges Méliès’ inspired *Trip to the Moon* was itself a Scientific Romance masterpiece, released only a year after Queen Victoria’s death. Likewise, the first film adaptation of *20,000 Leagues Under the Sea* was released in 1916, just sneaking in under the wire. The silent adaptation of Sir Arthur Conan Doyle’s *The Lost World*, though written in 1912, looks to take place in the year of release, 1925. While Burroughs’ novel shares *The Lost World’s* publication date, the iconic *Tarzan the Ape Man* film starring Johnny Weismuller and Maureen O’Sullivan takes place conspicuously in 1932.

For the first film to purposely choose a period setting in which to unravel its Science Fiction, journalist and editor of the defunct *Wonder Magazine*, Rod Bennett, cites 1929’s *Mysterious Island*. Of this Vernian adaptation, Bennett says:

can only afford so much. But we don’t know if this is contagious, if our children are at risk. And there is no one left to help us.”

I looked away.

“My husband’s tongue is turning green and blue. He cannot eat and is almost unable to get out of bed. His muscles are tight and he is in constant pain. One of his friends committed suicide three days ago because he couldn’t take it! And now there is talk that some of the other men are thinking of doing the same. Please, Dr. Young, we need your help.”

Tears were streaming down her face now and she clutched her photograph tightly, creasing it across the middle.

I took it from her weathered hands and smoothed it out, staring at the man in the picture. This was a man who was not too good to get his hands dirty. He looked unafraid.

“There is something you should see,” I said.

I led her down the hall to a set of giant mahogany doors, behind which was a room made of a blue-green marble-like stone. Of course, she did not immediately take in the beautiful details of the walls and floor or the unusual décor, nor did she take a moment to appreciate the overwhelming view of the pit and the barrens from the colossal arched window.

All she could see as we entered the room was the figure in the bed.

He was little more than a torso and head caught up in a snare of tubes and wires. The contraption that cradled him did not match the room in the least—with its shiny chrome framework and moving gears and parts—but it was practical and could provide what little comfort there was to be had for the poor creature. Had he arms or legs, he might have looked a bit like a marionette, but as he was I likened him to a mangled insect that was cocooned and trapped in a spider’s web. I waited for Etta to catch her breath and then made the introduction.

“Etta Parker,” I said properly, “meet Klaus Lehmann.”

I cannot lie. It was exhilarating, watching her struggle to maintain composure as I revealed part of the secret I’d been guarding since Lehmann’s first call. The other part of the secret, of course, was what sort of sickness could lead to such an unbelievable state. I felt a bit like a mad scientist, perhaps because I’d managed to keep Lehmann alive for so long.

“I will tell you what happened here, and when I am finished you will have a choice to make. You can call me a liar and storm out of this place, never to return again. Or you can know that I am telling you exactly what was told to me, and then take that knowledge back to your home. Your men are dying either way. You came here for answers and I shall provide, but I can promise you, they won’t be the answers you hoped for.”

She didn’t speak. I offered her a chair and she sat down, never taking her eyes from Lehmann. It struck me to see her there, for a moment. She looked like a paper doll cut from faded newsprint, with her tousled brown hair and dusty cotton shirtwaist against the jewelled, watery backdrop of the room.

"Mr. Lehmann has always been a betting man. He told me that when I first arrived. He loved a good risk, and never wasted time on regrets. I admire that greatly, having come from a family that leaves nothing to chance."

Still she did not look at me, although she was not really looking at Lehmann any longer. She was staring past him, into nothingness, perhaps a little hypnotized by the rhythmic hissing and sucking sounds of his breathing apparatus. I watched her bony hands tighten and release around the fabric of her bag, which she held firmly against her stomach. I thought it was funny and perhaps a bit heartbreaking that she had embroidered pretty flowers on it, considering there were no flowers anywhere to be found in the barren.

"He called on me when the sickness began. He said he knew my father's name from years ago. So I came, and I must confess, I hadn't a clue what was wrong with him until he told me about the pit:

"LEHMANN'S STORY BEGAN SIMPLY ENOUGH; CHROMA COMPANY was in its infancy when Klaus Lehmann had come to the serpentine barren with one small rig and only a handful of men. It had been a risky venture, leaving the booming coal industry, but Lehmann had believed there was even more fortune to be had with the Serpentine soil, rich as it was with heavy metals. There was a new age coming, everyone had been fond of saying then, and metals were certain to be back in fashion before long. They set up camp and blasted the first pit.

"It was sufficient at first, but the deeper the better, Lehmann always said. So deeper they went, and all was well until one day when half of the crew went down and didn't come back. He checked the seismograph; there was no evidence of a cave-in or explosion. It must have been the black damp, he reasoned, and all the men poisoned or suffocated. He sent the remaining crew, with masks, to investigate.

"This time, only one man returned, and when he did, he was nearly useless with hysteria.

"This man—Collins—claimed to have witnessed a most unfathomable occurrence. It was horrific enough, he'd later say once he'd gathered his wits, to find the petrified bodies of the men from the first group, but then—to see it happen right before his eyes, well, needless to say poor Collins was never quite right again.

"But Lehmann pressed on for more information. What could bring about such a thing? Collins was reluctant at first, but after much coercion he told Lehmann what he'd witnessed. He hadn't seen it in the flesh, but only a reflection in the facemask of one of the other men. It was a woman, he said, but not entirely. She moved like a serpent, and seemed to be made of the same. She was terrifying, yet he could not stop staring at her reflection. He might have peered around the wall of the shaft, too, had it not been for the body of the man next to him, who had frozen where he stood, his flesh like stone: dead and unmovable. There was nowhere for Collins to go but back out the way he came.

this planet is currently facing. In that year we kept our light on, it produced five pounds of sulfur dioxide, the main cause of acid rain. It pumped 5.1 pounds of nitrogen oxides into the sky. Nitrogen oxides cause smog and contribute to acid rain. But the dirtiest secret our light bulb is holding is what it's doing to the ice-caps; our one light bulb has, in its year, caused 1,852 pounds of carbon dioxide to be spewed into the air.<sup>13</sup> Carbon dioxide is the chemical agent causing global warming.

That's not even the start of it. Burning coal actually produces almost every known element—including the radioactive ones. In fact, a properly functioning coal plant produces more nuclear waste than a properly functioning nuclear power plant.<sup>14</sup>

Now, emissions from coal plants, at least in the United States, are subject to the requirements of the Clean Air Act (CAA), are they not? That's right, they're not. Only *new* power-plants are required to meet the standards of the CAA, and those that are grandfathered in produce up to ten times as much pollution, while remaining remarkably inefficient.<sup>15</sup>

Coal does not burn completely, either. Ash is mixed with the liquids used to clean the steam boilers and then dumped. Some of it is sold for use in cement and wallboard, despite its toxicity. And as the standards for cleaner smokestacks go up and the air gets cleaner, more and more of the toxin will be left in the remnant wastes.<sup>16</sup>

As we approach the peak of our ability to produce oil, the global economies intend to rely more and more heavily on the power of coal. And while they can (and ought) significantly improve the efficiency in economic terms, the environmental terms will stay dire.

*ALRIGHT, YOU DOOM-PREACHING JOURNALIST, I CAN HEAR YOU say to me now, you have convinced me that the way our culture uses coal is indeed an atrocity. But I am a simple steampunk, making simple steam toys. And as I hear you say this to me, know that I am indeed sympathetic. I do not make the claim that steampunks are to blame for global warming, acid rain and the death of thousands. It is the coal industry which bears that responsibility.*

Instead I wish only to sober myself and my community. Coal makes for beautiful fiction—and for unique contraptions—but we simply cannot allow it to be the bedrock of our culture, lest we make the grave mistakes of the mainstream economic world.

And our alternatives are innumerable. We steampunks have always been proud to be a people plagued by ingenuity. Even using the existing energy technology we have plenty of options; home-distilled alcohol made of fruit (or indeed, any sugar) burns quite readily. Vegetable based oils can be found in the back of every fast food joint, just waiting to be rescued from the landfill. Wood—*used sustainably!*—is a less efficient but renewable source of steam power. In fact, it was the primary source for boilers until about 1850 (although I pity the forest the same as I pity the mountain!). Some Stirling engines have been crafted that can run off of body heat, and bicycle-powered do-dads and hot-breath powered whatsits will abound in our future as we put our gloriously nerdy brains to it.

In fact, coal is kind of a cop-out. Steampunk is about ingenuity, not just stealing the bad ideas of long-dead scientists. We can do better than that!

What's more, we *have* to. ⚙️

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Leave it to the United States to develop the mind- and mountain-shatteringly insane idea of Mountain Top Removal(MTR), however, which first took hold in the 1980s and has been growing at an accelerating pace ever since. Estimates range from 700-1200 miles of streams that have been buried forever, and ghost towns are springing up rapidly as entire populations flee the coal-dusty air. Up to a million acres have been mined in Appalachia using this method already, and the Environmental Protection Agency reports indicate that the use of MTR will double in the next decade.<sup>4</sup>

The coal industry paints coal extraction as a temporary use of land. And while a small minority of strip-mined areas has been partially replanted—enough for the photo op—the vast majority are left as death scars upon the wild. The leveled mountains, of course, cannot be rebuilt by humanity.

Mining accidents are less common in the US now than they were a century ago—thanks in part to the tireless work of union organizers and OSHA [Occupational Safety and Health Administration]—but injuries are still par for the course and death is commonplace. Mining directly injures over 11,000 every year<sup>5</sup>, and in 2006 47 were killed.<sup>6</sup> This is, of course, ignoring the increased risk of cancer to surrounding communities, the non-potable river water, the asthma rates, and the other human impacts of coal mining.

But to confine our insight to what happens in the United States would be to ignore the figurative elephant that seems to have taken up residence in our sitting room: while China produces only 35% of the world's coal, an astonishing 80% of coal-mining deaths occur within its borders. 6,027 Chinese coal-miners were killed on the job in 2004 alone.<sup>7</sup>

And the mining is dangerous to more than just people. Many coal seams are found near large quantities of pyrite. When pyrite is exposed to water and air, it forms sulfuric acid and iron. As runoff, the acid and metal interfere with the aquatic food chains that many communities depend upon. Areas near existing or long-forgotten mines have an increased risk of flooding as the permeability of the overlying soil changes.<sup>8</sup>

The physical waste from coalmines takes three forms: solid waste called “gob,” refuse from coal preparation and washing, and the toxic sludge left over from treating acid mine drainage. These wastes, generated in the tens of millions of tons per year, are stored in vast landfills that can never be used for any other purpose, are highly flammable, and are prone to toxic erosion.<sup>9</sup> Another permanent blight.

Some particularly un-clever engineers have used coalmining byproduct as a structural material in the dams that hold back these seas of sludge. One broke in 1971, West Virginia, and the flood of toxins killed 125. In 2000, another broke. In Kentucky this time, more than 75 miles of the Big Sandy River were choked of all animal life, and 1,500 human residences were affected.<sup>10</sup>

All of this, and we haven't even *burned* the coal yet.

## COMBUSTION

IT TAKES A LIGHT BULB 714 LBS. OF COAL TO STAY ON 24-hours for a year.<sup>11</sup> (And a quarter of the world's energy comes from coal.<sup>12</sup>)

Our hypothetical coal-powered light bulb is doing more than humming away in its benign little corner of the globe, however. Our light bulb is contributing to almost every ecological crisis

“Now, knowing Lehmann the way I do, I'd expected that he might have thrown poor Collins back down into the mine, just to be rid of him in case any questions were asked. But he did no such thing. Instead, he unleashed psychological warfare against the wretched beast—Collins, not the demon creature in the mine—going round and round with him until the poor man no longer trusted his own thoughts. Soon after, Collins left the barrens and swore never to return.

“And he never would. In fact, once he got home, he never went much of anywhere. His family had him committed within a month of his return, and there he sits, raving about pits and demons to this very day.

“But back to our dear Lehmann. He wouldn't have been much of a risk taker if he hadn't gone into the pit to see what all the fuss was about, now would he? And what poor Collins would never know was that his employer believed him after all. Why else would he have taken two mirrors into the pit with him?

“Lehmann said the smell of a pit is indescribable; one can smell the traces of bygone eras and taste the world the way it was a million years ago. I find that to be very poetic and profound for such a superficial man. One would almost think he was in love with his mine, lusting after the soil and darkness.

“When he met the demon, she was just as Collins had said. She gave him a warning in the form of a low guttural sigh. When he called out to her, announcing his presence and business, she responded first with a rattling hiss, then actual human words.

“She said, ‘Forge ahead if you care to end up like the others, or stop where you are and use those mirrors like the clever man you are.’

“So he set up his mirrors, catching her reflection, all the while hiding himself behind the stony corpses of his crew. He told me she was hideous, or possibly beautiful; he really couldn't say with any certainty, but he knew from that first moment that he loved her and always would.

“They talked for a full day and night, and when he finally left her he was delirious and near suffocation!”

“WASN'T HE FRIGHTENED?” ETTA ASKED. I noticed she was gazing at him with something between longing and bewilderment.

“Perhaps. Were you frightened in coming here, to this strange place?” I thought of how it must have been for her to see such a monolithic tower up close for the first time.

“I was,” she confessed quietly, “it was so quiet all the way here. I didn't pass another soul. I heard no birds; not even the wind. I felt alone.”

“Then you can imagine how it was for our friend here. He felt alone, too. And although he was frightened, he went to the pit because he knew he had to.”

She did not respond, but looked upon Lehmann with great sadness in her heart.

And in a way, his story was indeed one of sadness, and not just abject horror, as it would ostensibly appear.

“SO HE WENT TO THE DEMON NIGHT AFTER night, crawling down into that narrow black void and risking collapse or worse just to hear her exotic voice tell him of great mysteries.

“When she spoke of foreign lands, he dreamed of her words. When she spoke of eras gone by, he imagined himself travelling back through time.

“In turn, he confided in her his greatest desires. More than anything, he wanted to be wealthy enough to see the places she spoke of. He wanted to collect the pieces of history she recalled so vividly. And above all else, with his wealth, he wanted to change the world.

“The demon agreed to help him. She saw that his mine yielded an abundance of useable material, and she agreed to spare his workers, staying hidden while they mined. In return, she asked two things of Lehmann: firstly, that he would continue to visit her whenever he was not travelling, and secondly, that he would give her a mirror of her own as a keepsake. He agreed, and within the year, Chroma Company was on its way to being one of the most successful metal suppliers in the country.

“And Lehmann was on his way to becoming one of the most well travelled people he'd ever heard of. He travelled to the Orient and to the Middle East. He saw Africa's deserts, jungles and plains. He visited Europe and Australia and the South Pacific, and in each nation he purchased

keepsakes of his own, amassing quite the collection of rarities and antiques; and in each nation he purchased a mirror of some fashion, to remind him of his true love in the mine.

"But as he travelled and the company expanded, Lehmann had less and less time for the gorgon. His visits grew sparse as he grew less fond of the pit. And while it seemed he was beginning to forget their bargain, it can be safely asserted that she had not.

"When he finally came calling for what would be the last time, she was quiet and distant but she did not question him, and he did not offer any excuse for his absence.

"I have left the mirror for you," she said from her dark lair.

"Lehmann saw it lying atop a large stone that had once been a man. But it was my gift to you," he said to her.

"And it has served me well. But a new day has come for us, my love, and it is time for you to take it back."

"And so he did. He bid her farewell with an empty promise to return, then left the pit and did not look back.

"YOU'D THINK HE WOULD HAVE BEEN SMARTER than that," Etta said quietly, as though he might hear her. "To scorn a woman is hell enough, but a demon?"

"Yes, well, she was scorned all right. You see, mirrors were always safe; they were the only way he could look at her without turning to stone. But that was only the case if she did not look directly back into the mirror, something that Lehmann did not know until he peered into the cursed mirror she'd sent home with him. He saw her reflection there in the glass staring back at him with a vast coldness and he knew then that his days were marked."

"Why didn't he turn to stone right then and there?"

"That was the nature of the curse. But it didn't end there. Her reflection spread to the other mirrors like a disease. He smashed them at first, but she did not go away. Instead, there were just that many more images of her glittering all around him. So he gathered up the rest of them and threw them into the mine."

"And never bothered to warn our men—"

"I imagine not."

"And now they are slowly turning to stone." She wasn't asking. She was saying it aloud to see if it felt any more real. It didn't. Then she asked me, in a most emotionless voice, what had happened to Lehmann's arms and legs.

"I had to amputate them. Well, I suppose I didn't *have* to, looking back—but before I understood the precise nature of the sickness, I thought I could perhaps stop it from spreading if I removed the affected areas. It's a pity I had to put him through all that unnecessary pain."

"Is it?" she asked as she stood up, approaching the bed. "Why is it different for our husbands? Why is it happening from the inside out instead of the other way around?"

"Because this is Lehmann's curse. Your husband and the others were merely at the wrong place at the wrong time. And believe me when I tell you, the way that Lehmann's suffering is far worse. Your men will go quickly," he looked to his charge, "but he will not."

She left me then, and I did not hear from her again until several weeks later, when she arrived with a cavalcade of wives and children. I met her at the tower gate once more and she told me that the men were all dead, turned to stone. They'd gathered their belongings and set fire to their homes. She pointed toward the east and there, beyond the hill, I saw several great plumes of black smoke rising to the heavens.

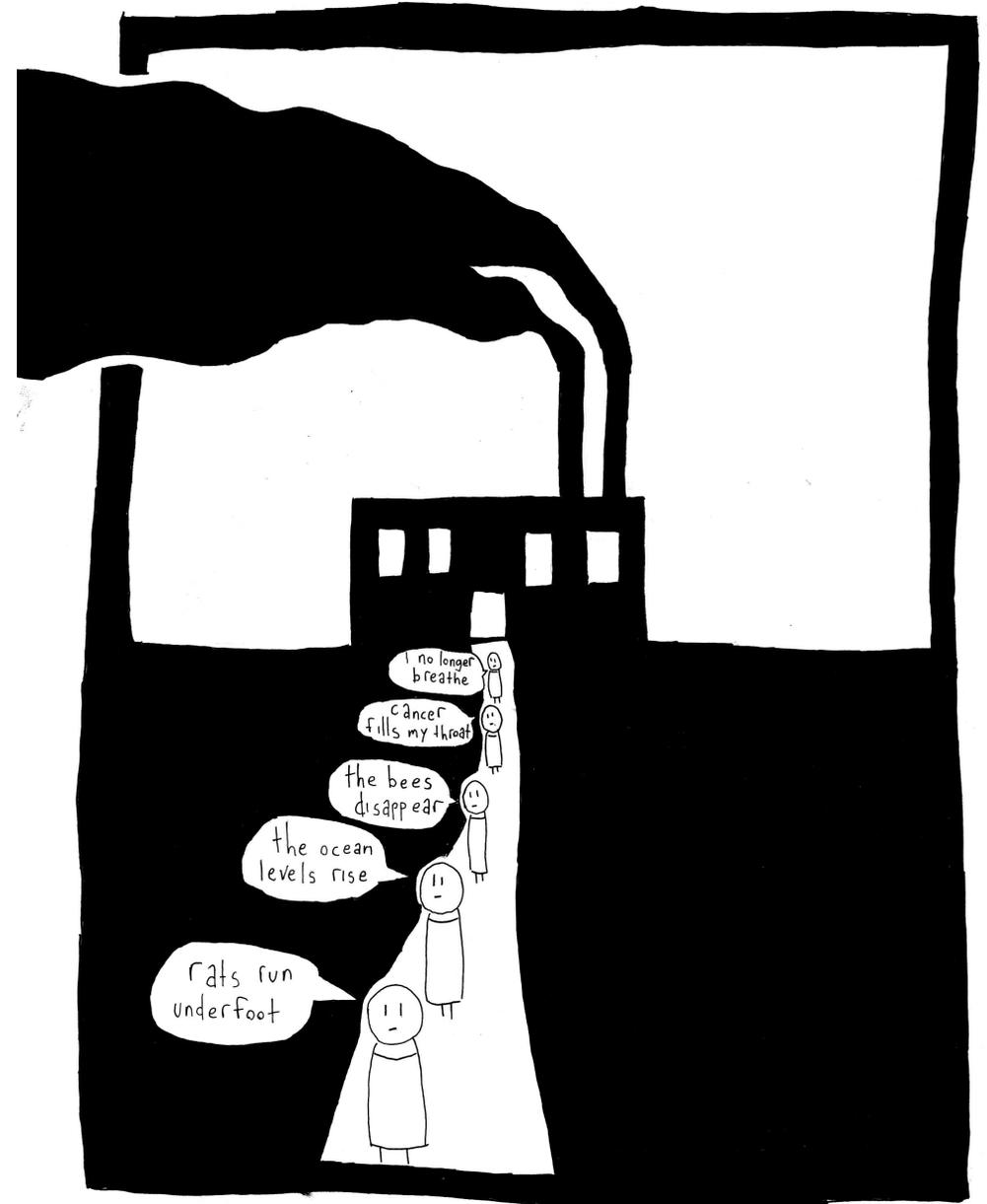
"I don't know if the bodies will burn to ashes in the state they are in," I offered, trying to sound sympathetic.

"We considered that. If they do, they do. If they don't, then let that land be their gravesite. They will act as their own monuments. We have no more use of this place."

"So you've come to say goodbye?"

"No, we've come to end what Lehmann started. Our beloved husbands became prisoners of their own bodies because of his greed. And he's had you imprisoned here in this tower, whether you know it or not, since the day you arrived. But there is a whole world out there that is alive and breathing and made of flesh and blood, Dr. Young. We've come to free you."

"But I cannot go. Not while Lehmann is still alive."



# O Coal, You Devil

ON AUGUST 20<sup>th</sup>, 2004, A HALF-TON ROCK CRASHED THROUGH the wall of the house, crushing three-year-old Jeremy Davidson to death as he slept. His parents had made the mistake of living in Virginia, where strip-mining for coal continues unabated; the boulder had come from a nearby work site where miners were widening a road with a bulldozer.<sup>1</sup>

In 1993, criminally negligent workers from Sugar Ridge Coal Company sent a rock flying 225 feet to kill sixteen-year-old Brian Aguilar, a tourist.<sup>2</sup>

The coal industry affectionately calls it “fly-rock”, and it is often the death of workers. When the coal industry levels mountains with dynamite, shards of flying rock endanger everyone and everything nearby.

Dynamite is cheaper than people, and the accountants of coal have learned that it is more cost effective to level hundreds of feet in mountain to expose coal seams than it is to dig tunnels. The Appalachian Mountains may soon be gone.<sup>3</sup> Excess rock is dumped into nearby valleys, where it is the literal death of communities, the environment, and people. Toxic slurry is held up behind massive dams, and if another one were to break—killing hundreds—it would not be the first time.

The coal-fired cities of the industrial era were an apocalyptic vision, the most foul and toxic manifestation of industrial power. During their time. But today, to see the toll that Industry takes on Earth and Humanity, one would have to go to West Virginia.

TECHNOLOGY LAYS BARE THE MANY FACES OF HUMANITY; ONE moment we create wonder and simplify grueling labor, the next we wreak mindless havoc on our air, rivers and lungs. Nowhere is this duality more apparent than in steampunk culture. The traditional fuel for the beautiful gadgets we adore is coal, but we need to know that our fascination is not without cost.

## EXTRACTION

THE AZTECS BURNED IT. THE ANCIENT CHINESE MINED AND burned it. But Britain was the first to grow gluttonous; they developed deep shaft mining in the late 18<sup>th</sup> century.

**A REMARKABLY  
BRIEF &  
INADEQUATE  
HISTORY OF A  
SEDIMENTARY  
ROCK THAT WE  
TORE TO PIECES  
AND TOSSED TO  
THE WIND**

“We have a solution for you, Dr. Young.”

And with that the crowd swarmed around me, pushing me away from the entrance with such force that my feet did not touch the ground as I was dragged to the fence and restrained there with ropes. I watched helplessly as several of the woman entered the tower and I was powerless to stop them as they returned some time later carrying Lehmann, still entwined in a piece of the chrome cradle as though he were a prince travelling in his litter. Tubes and cords trailed behind the horde as they carried him in silence, their faces like stone, down the path to the mine.

I struggled with the ropes and eventually broke free, but not before the wives of the Chroma Company released the dying remains of Klaus Lehmann into the shaft.

They waited a moment, until Etta Parker said it was time to go.

I asked her why she wasn't going to seal the mine.

“Because no one will be coming out. And I know you won't go in. No matter how badly you might want to.”

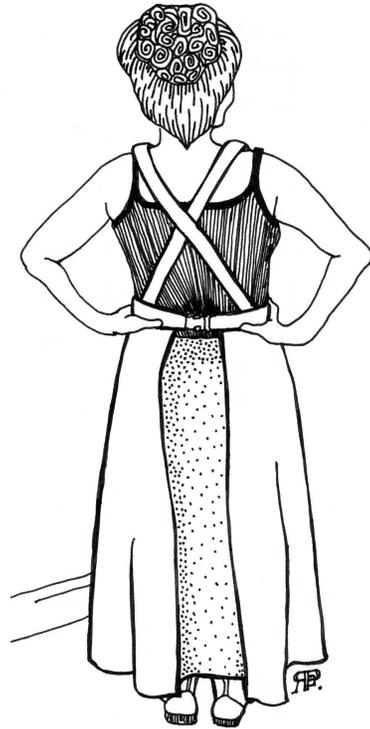
“And how do you know that?” I asked, vaguely insulted.

“Because Klaus Lehmann was a man who took risks. You, Dr. Young, are not.”

And she was right. As she walked away with the twenty-nine other women and their children, I knew she was right. There was an entire world of things I never thought possible at the bottom of that shaft, but I would never know them.

And as the man I admired waits for his last days to come in a tomb and in the company of his demon, I have returned to the safety of the tower, a prisoner of my own making, where I wait for my last days to come, alone and with a heart like stone, living vicariously through the journals of a man who was not afraid of the world. ☼

*Donna Lynch is the singer and co-creator of the band Ego Likeness as well as a dark fiction writer. Her first novel, Isabel Burning, will be released in 2008 by Raw Dog Screaming Press. She currently resides in Baltimore with her husband, artist and musician Steven Archer.*



# SEW YOURSELF A *Lady Artisan's Apron*

*written and illustrated by Rachel E. Pollock*

ANY FEMALE WHO'S WORKED IN A LAB, WORKSHOP, OR KITCHEN can probably go on at length about how much standard-issue bib aprons for any purpose simply don't function for the female form. They are never designed to actually accommodate a bust curve, so they either don't adequately protect your chest area from splashback, or you look like the broad side of a barn. Or both. While I'm not the sort of woman who feels like a fugly waste of space if I don't have a full face of makeup on and cute shoes, wearing utility aprons has always been—for reasons of their design/construction—a necessary evil. But I asked myself: why? Why not instead create a flattering apron, where form follows function follows form? Why not make myself an apron I

would be happy to wear all day long, day in and day out? So, I decided to create my ideal work-apron: a bib style with a full 5-gore skirt modeled on the Edwardian walking skirt, of which the bib is actually both princess-seamed\* and bust-darted so it curves *around* the boobal area. The diagram to your right shows you the basic shapes for your pattern and how to draft them. You need five of the trapezoid shape on the left for the skirt of the apron, and two each of the other two shapes for the bodice. For the smaller-busted lady, you may eliminate the dart and just distribute any necessary fullness with the princess seam. I've got some vague guidelines on there for how to figure out your measurements on



MUTTON CHOPS



FRIENDLY MUTTON CHOPS



THE DALI



THE ENGLISH



THE FU-MANCHU



THE HANDLEBAR



THE HORSESHOE



THE IMPERIAL



THE PENCIL



THE TOOTHBRUSH



THE CHIN CURTAIN



THE CIRCLE BEARD



THE FULL BEARD



THE OLD DUTCH



THE VAN DYCK

# The Steampunk's Guide to BODY HAIR

illustration by Nick Kole

YOU CAN TRIM, SHAVE OR GROW YOUR BODY HAIR. YOU CAN trim, shave or grow your facial hair. Only the brainless clods who buy (quite literally) into conservative mainstream culture need to concern themselves with such antiquated concepts as rules for gender presentation.

Whether it is a dashing, effeminate man in high-heeled boots, sporting a slight mustache and wielding a rapier as he boards the enemy's ship; or a full-bearded scholar who pores over tomes in the skirt of a monk by day and dances in ball-gowns by night— Whether it is a woman in her sleeveless apron who pounds iron against anvil or bakes in a stone oven with her hairy armpits exposed to the world; or a dashing, effeminate woman in high-heeled boots who also wields rapier to foe while sporting a slight mustache— Our concern is liberty. Liberty to shave, to not shave. To glue hair to our faces or grow quite full what nature has endowed us with.

## BODY HAIR:

THERE IS UNFORTUNATELY LITTLE TO SAY IN THE REGARDS OF the growing or shaving of body hair, except to note that people of all genders ought to feel free to do either. Consider getting yourself a non-disposable razor, however, if you are inclined to shave. They are significantly cooler than disposables.

## FACIAL HAIR:

GROWING FACIAL HAIR, FOR NEAR HALF OF US, IS THE EASY part. Sparse or thick, dark or light, facial hair just seems to sprout out of our faces. Only a couple of things need be noted about the growing of facial hair:

Contrary to popular supposition, the act of shaving does *not* increase thickness of new growth. What happens is this—hair is thicker at the base and wisper near the end. When you shave, you cut off the hair near its thick base, which then grows out, leaving thick stubble. New hairs grow in over time, replacing the ones that had been cut, and the end-result is a beard of unchanged thickness. This said, someone who shaves often would grow a scratchier beard for a little while until they allow the beard to return to its natural state. And a scratchy beard is often a poor thing to inflict upon a lover.

The most difficult time for those who intend to grow a mustache fit to curl is the awkward period when the hair is long enough to bite by accident but too short to effectively keep brushed to the side. The only advice I can offer is: soldier through. Brush your whiskers to the side before each bite of sandwich, if necessary. It will only be weeks until this problem is behind you, and your mustache will be all the stronger for having persevered untrimmed. ❁

the skirt, but for the bodice, ladies are such drastically differently shaped on top, I am showing you here the basic shapes that the pieces are, and you'll have to fiddle around with some crap-scrap and fit them to your own torso. An alternate means of doing this is to take a bodice pattern that fits you well, trace it off and draw your neckline wherever you want.

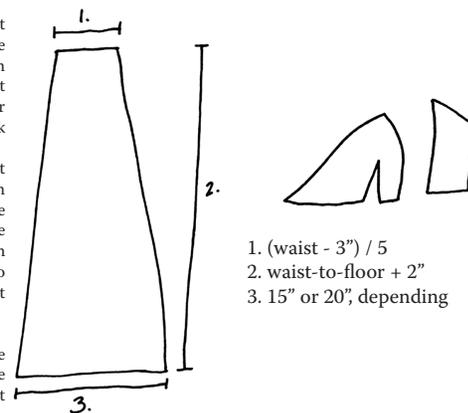
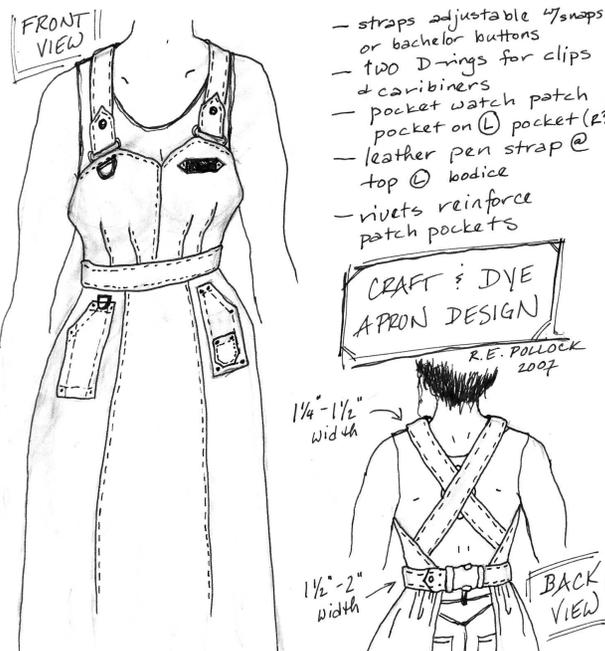
The measurements/formulae above make a floor-length apron (the extra 2" give you seam allowance at the top and a generous turn-up for your hem), but you can adjust it shorter as you wish. I made mine ankle length. As for the bottom of the trapezoid, that's somewhat contingent upon your waist-to-hip ratio and how full you want the apron to hang. You may need to fiddle with the dimension to get it how you want it. I used a measurement of 15" on mine.

You can either use wide belting by the yard for your waistband and shoulder straps, or cut widths of your fabric however long you desire. You can also add patch pockets wherever you wish on the apron's skirt. I added two. Other features include a D-ring at the waist for clipping work keys to it, a D-ring on one of the straps (also for clipping tools and other items to), and a pen-loop (since a pen-pocket is pointless on a bust curve).

The 5-gore skirt portion creates a lovely, flattering line, but is also extremely functional, as it protects almost your entire lower body, front and back. The only opening is the small gap at the very back where the apron waistband connects. It doesn't tie like a traditional apron; it buckles together with a tension-clip buckle—like on messenger bag flaps except bigger—so you can put it on swiftly in one quick motion.

This design can be altered to serve a number of different purposes. If you want more upper-body coverage, you can eliminate the sweetheart cut of the top and create a more traditional straight-cut bib neckline. If you intend to use the apron for dyeing or painting, you may wish to make it up in vinyl or neoprene to prevent soak-through. More pockets, cargo pockets, a hammer loop, anything can be added that you might foresee you would need. ❁

\*A princess seam is a seam that runs down the length of a bodice or dress, starting either in the shoulder seam or the armscye (seam where the sleeve is set in) and ending either at the waist for a bodice—like in this apron—or at the skirt hem if it is a princess-seamed dress. The princess seam replaces darts and results in a more flattering line for a curvy female figure.





[ the author and subject of the article pose together here in a drawing by one "Rachel" ]

or more Chinese men submerged in gore, half in and half out of the steel shell. Most were dead, but a few struggled in the tangle of iron and smashed limbs. One man groaned as he slowly slid down a steel shaft protruding through his chest. John realized that the other machines, the ones that were quickly making their way away from the sun to the black bottom of the Hudson, held even greater unseen horrors

No one approached. All of them had seen private deaths—one couldn't help but be familiar with death in this city—but this was something different. A difference in degree and obscenity. The knowledge that a hundred or more men lay trapped in airless machines hidden from view, unaware of their fates. Men like John who had only wanted to find work. Men with families, wives, and children. Men who harbored secret dreams and now even their screams were silenced beneath the quiet flow of the Hudson—silenced except in John's imagination.

He watched the crowd begin to dissipate, like fog on a summer morning. They had arrived unified, but now the masses slunk away alone. Each left to understand, rationalize and deny their role in the disaster.

John numbly climbed down from the railroad tracks. By the time he and the others had descended, the streets had been emptied of the living. He looked for Sullivan but he had disappeared with the rest. John was alone, again.

A RED-HAIRED POLICEMAN HAD GADGET IN A chokehold with his hickory club. She continued to struggle, refusing to let go of the sack. Neal looked around to see if there were other police; it wouldn't have scared him off, he just wanted to know what to expect. Seeing none, he attacked the cop with brutal efficiency. The officer melted into a bloody mess under the rain of blows from Neal's ax handle. Another notch to add later that night.

Neal grabbed the sack from the still gasping Gadget and turned to walk away.

"What gives?" Gadget cried out after Neal, stepping around the beaten police officer.

He felt no need to answer.

AT THE BAND SHELL, NEAL LOOKED INSIDE THE bag; it was from the South Pacific and filled with oranges. He felt the sunshine as he allowed the

juices to drip down his chin. He had returned to Tompkins, wondering if the Catastrophe Orchestra had ever shown up. Unsurprisingly, they were not there. Almost no one was there. Sitting on the band shell stage, eating his oranges, he saw John, coatless, trudging across the park. Neal barely recognized him.

John was still gripping his bright banner, but all the color had drained from his face. He looked broken, like a piece inside him no longer fit.

Neal had come across the smashed machine and the human carnage on his way back to the park. He realized that even though it was early afternoon, the day was over.

John recognized Neal from earlier, and approached him. He couldn't bear to bring home what he had just seen. He needed to shed a little of the load.

"Did you see it?" John asked.

"Yeah, I saw most of it," Neal said, tossing a spent orange in the general direction of a trashcan.

"It was— We were doing something—" John stuttered, staring at his ripped trousers.

"Yeah, you guys sure did something alright," Neal said, rubbing his sticky hands on his leather pants.

"No. I mean— it wasn't meant to be like that. We were—" John said, trying to capture his thoughts.

"How the hell did you think it was going to be?"

John wanted to answer the smiling giant but couldn't. He just stared at Neal and then turned away.

"Hey buddy!" Neal bellowed.

John turned just in time to catch an orange.

"For your kid," Neal said as he got up and walked away.

Behind him, crumpled leaflets were swept up by the warm spring breeze that blew through the empty park. ⚙️

*We learn by way of this seasonal a bit of the nature of honeyed words and hasty actions. When John joined the jubilant, angered crowd, he gave little heed to his own reckoning and autonomy.*

“I call my bike Winifred, because once a hipster said to me, ‘That’s it, you win. You win the game of bike.’”

He was climbing above the streets, becoming eye-level with the buildings he could never fully see during his daily walks to the picket line. He could imagine those men in their platinum and amber cuff links looking out over their cognacs through the office windows at him. He could now, just this once, look them in the face, eye-to-eye, and show them what it meant to be a man—a man who knew work, who knew suffering, who knew hunger. The type of man who could look those rich bastards in the eye and spit. With one last look out at the blind eyes of the Moloch, he turned to the enemy’s structure in front of him: the great and menacing machines tethered to flatbeds.

The coke men had left the train, joining their fellow workers. Rail men, seamstresses, strikers, immigrants, socialists and the rest of the heart of the city had come together, their fury unleashed. John could not deny that the machines were intimidating in their bulk and ingenuity. They had towers of scaffolding with attached pulleys that stretched out like arms from a bloated center. They seemed to be giant steel spiders, just waiting to come alive on the docks and spin their efficient webs to trap, strangle and suffocate his strike. These machines were a pure, cold menace. They were creatures of money, power and condescension. He was not enough of an engineer to understand how these few, though enormous, steam contraptions could replace the thousands of men at the dock, but he could nevertheless detect their obvious threat. All he knew was that if the bosses were bringing them in, he had to try to stop them. These machines without children, without wives, and without dreams threatened him. It was animal; he felt his spine tingle as the steel reflected the late spring’s sunlight into his face.

From nowhere and everywhere, wooden levers were unbundled and passed up to the men on the tracks. The crowd was cheering, louder than they would for all the words Sullivan could ever utter. The time for rhetoric, politics and dreams was over; it was time for the backbreaking work of victory. He was proud to be up to the task. He threw his coat—the one his wife had spent two nights patching and sewing—to the crowd and put all of himself into the timber before him. The younger men slid the levers under the machines, knowing the exact point to get the most energy from the unbound muscle of man. He was not the

largest, youngest or strongest of the comrades on the pole but he made up for it with what he hoped was heart. *The heart is a muscle the size of a fist*, he repeated to himself as he strained against the coarse wood.

There was a gunshot followed by a roar. Not the cry of fear or warning but a mighty, barbaric, almost bestial call to attack. Human thunder rumbled through the streets. The men on the track turned to see the crowd smashing back a jagged line of dark blue. In the blink of an eye, a teenaged lathe operator covered in blood was being attended by a group of cooks while a group of enraged trackmen chased the fleeing cops with flagpoles and pipes. John and his comrades cheered the victorious defense and then returned to their work.

The first machine broke free from its moorings and slid silently into the slow-moving Hudson, sinking like an anchor. John only knew this because he heard the crowd two stories below him erupt in ecstatic cheers. That spurred him on. He heard someone shout in German right before the guide-wires snapped free. They split the air and hissed next to John’s ear as the next monstrous contraption lurched forward. There was another cheer, and then another splash. John pushed harder when he heard a crack over the din of another jubilant cry from the crowd. The long pole to his left bent and then split. Half a dozen men working the wooden bar crashed, sprawling on the tracks. The monstrous machine seemed to have come alive, striking back at the struggling workers. Some of the less committed dropped their poles and fled from the descending shadow as the machine momentarily blocked the sun. It rocked towards John. A bearded Russian grabbed him and pulled him away from the bar. John felt the machine slide past him as it rolled away from the waiting water to the street below. The crowd, warned by those above, had made a berth wide enough for the dying steel creature to smash down onto the cobblestones. The laborers felt the street vibrate under their worn soles. The last machine had escaped the river, but perished on the street.

The metallic carcass lay shattered on the cobblestone avenue. As the dust settled, the crowd moved back in revulsion; John had a perfect view of the mangled corpses that had been hidden in the belly of this steel Trojan horse. He saw a dozen

# THE PENNYFAKETHING

*the steampunk’s bicycle of choice*  
by Johnny Payphone

WHAT MODERN APPRECIATOR OF 1800S TECHNOLOGY hasn’t admired the pennyfarthing and thought that they’d like to own one? This style of bicycle—called an Ordinary—dominated bicycle design in the late 1800s. The large wheel allowed the rider to go fast, and the height was quite natural in a time of horseback and carriages. Eventually, though, the “dwarf safety” (modern bike) was invented and the Ordinary fell out of favor, owing to its many flaws: a tendency to pitch forward, the inability to touch one’s feet to the ground (and thus come to a stop), fixed pedals, and a somewhat bumpy ride.

Vintage Ordinaries can run into the tens of thousands of dollars. Modern reproductions are available but are relatively costly for a bike that is basically a novelty. Given the inherent craftiness of the steampunk, it is only natural that we should make our own.

Sometime around 2002 a Minneapolis bicycle club called the Scallywags decided to build pennyfarthings and become a pennyfarthing gang in order to one-up the local tallbike club. They told me that after one ride on the thing, they decided to go with tallbikes. Ordinaries are quirky, to say the least. They can be ridden as your daily ride (my friend tows his kid in a trailer) but you have to be dedicated to the idea of mastering an entirely different vehicle. Still, with a little bit of period clothing, you will bring a smile to the face of every person you pass.

After a few rides (and a few falls) I wanted one. The problem was—where to find a large wheel? Then somebody showed me a picture from Marin County of a bike that was essentially reversed, so the rider sat on the fork and rode backwards. This gave me an idea—why not just set a bicycle frame upright and use it to replace the large wheel? Given the time and breadth of the bicycle’s existence, I am sure that I’m not the first person to do this. But some of my other bike club friends started making them, and the design came to be known as a ‘pennyfakething’. It is my unique position as a member of both steampunk and mutant bicycle circles that allows me to introduce this design to you. I would be delighted if it became the steampunk’s bicycle of choice and I encourage you all to try to make one. It is a DIY punk twist on a Victorian classic. All of the danger of the original with none of the authenticity!

## MATERIALS:

THE BEAUTY OF this design is that it only takes one bike. Beach cruisers work best because they have big fat wheels and cushy seats and coaster brakes; I recommend a teardrop or cantilevered frame (for looks). You can use a ten-speed and have gears and brakes but I feel the simplicity of a single-speed bike fits more into our aesthetic. Find your bike in a basement or at the dump, in a pinch you can buy one from a second-hand store.

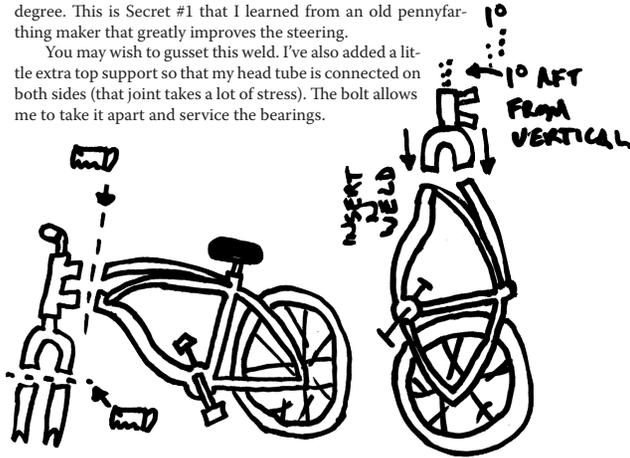
Other materials: One small front wheel. Get the strongest little kid’s bike wheel you can—avoid those 8-spoke ones or the ones with latex bearings. This wheel is going to take a lot of weight. You’ll also need the matching front fork.

One piece of pipe for the armature. I bent mine with a hand bender (get a muffler shop to do it for you). You could also use any other number of materials (another bike frame, two pipes in an L, etc). Just make sure it’s going to be big enough to take your weight. I used a fence post.

### STEP 1

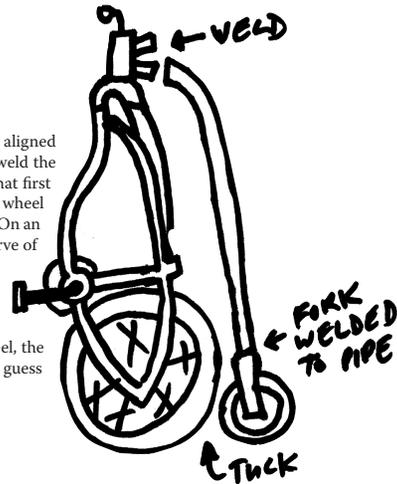
CHOP OFF THE head tube (with a little bit of stub) and insert the front fork into the frame. You may have to trim your fork blades or bend your frame a little. Alignment is going to be important here. You want the frame itself to be vertical—pay attention to where your feet will go; you don't want them too high up compared to the seat (or else you'll need a back rest to pedal), yet if they're tipped too far forward your weight will not be behind the front wheel. You're going to have about an 18 inch wheel-base here, so the options for your center of gravity are pretty limited—let the bike tell you where to be. Align the head tube perfectly straight left-and-right, but raked backwards about one degree. This is Secret #1 that I learned from an old pennyfarthing maker that greatly improves the steering.

You may wish to gusset this weld. I've also added a little extra top support so that my head tube is connected on both sides (that joint takes a lot of stress). The bolt allows me to take it apart and service the bearings.



### STEP 2

BEND YOUR ARMATURE and attach it to the head tube, aligned perfectly with the bike left-and-right. You will need to weld the fork into the end of it, so maybe you would like to do that first to get an idea of the length. The placement of the rear wheel will greatly affect the bike's handling! Secret #2 is "tuck". On an Ordinary the rear wheel is actually tucked under the curve of the larger wheel, giving a tighter turning radius. Sometimes you will need to turn very sharply to stay on this bike! If the bike is long, it will turn like a barge and you won't be able to do the rapid right turn that is the savior of all pennyfarthings in traffic. The smaller the rear wheel, the better, but it's hard to find quality wheels below 12" (I guess you could use a wheel off of anything).



they sensed their struggle going up in a whiff of steam.

"Are we going to let those villainous bastards erase our struggle? Are we?" Sullivan knew the answer. "We can stop them. Stop them for good. A train is coming down the Highline now, bringing along these infernal contraptions. Racing right along the Hudson. But we can stop it. We can throw those damn toys right into the river and tell those fat cats that we will *not* be denied what is *ours*. Are we going to fight? We fought the scabs, we fought the police, and we will fight these machines! To the Highline!"

The Highline was an attempt to relieve the suffering of the poor living on the far west side, which also had the added side effect of increasing the flow of commerce to the center of the city. Trains had flowed through the crowded streets on this side of the Hudson, bringing in all sorts of materials. Even the famed cast-iron pieces of the Woolworth building had wound their way from the manufacturers in Pittsburgh, screaming down from the Bronx to the docks of lower Manhattan. But the trains not only brought resources and steel; they also brought also death, injury and choking, coal-infused fog. There were so many accidents that 11<sup>th</sup> Avenue had been dubbed "Avenue of Death". In fact, there had been so many nightmarish incidents with horse-carts and elderly returning from the local "bruised" produce markets that the railroads were forced to hire West Side Cowboys to ride in front of their trains with red flags emblazoned with skulls and crossbones to hurry folks out of the way. Reformers had decided that it would be more prudent to raise the rails than to raise the living standard of the poor and so they had moved the trains high above the streets so that now only the bloodless screeches of the steam whistles filled the Avenue of Death. It was through this newest social reform that the company men had hoped to bring in their new machines to break the back of the strike.

JOHN HAD THE DREAM-LIKE FEELING OF EXITING a long dark tunnel; he had never been so clearly intoxicated in his entire life. The swill at McGurk's Suicide Bar was not as powerful or blinding as the energy of the procession heading to deliver the final victorious blow against their exploiters. John fought back the overpowering urge to run

to the front and link his arms with Sullivan and the other Knights of Labor. Instead he hung back and balanced on a long neglected trashcan, causing the rats to scatter from their nests, to survey the surging stream of humanity. The heart of the great city. *The heart is a muscle the size of a fist*, he thought to himself. A fist capable of smashing through the whole rotten system. The same system that kept his son hungry and his marriage in turmoil. He was baptized by the sight of so much raw, righteous power. *Where did they all come from?* he wondered. Not daring to blink for fear that it was a mirage formed from the suffocating smoke of the city, deep in this desert of paving stones, John surmised that they must have been coming from the neighborhoods, fleeing the tenements like those ancient slaves from Egypt.

John jumped down when he saw Flynn on the other side of the street. He pushed against the human current, fearful, yet exhilarated by its power, knowing he could drown in their collective anger and purpose. As he made his way through the singing crowd to Flynn, John's earlier hostility towards the other man drained away. He was filled with the nobility of solidarity. Without missing a step, John clasped Flynn's uniformed shoulder and gave him a one-armed hug as they flowed forward. Flynn just smiled back and the two marched towards the Highline and history.

BY THE TIME JOHN GOT TO THE ELEVATED tracks, they were obscured, like mountains, by clouds of steam. He knew enough about trains to know they must be idling; the grey columns rose then fell, a revolt against the stopped locomotive. It almost pained him to see an engine made for movement contained, trapped like a captured tiger.

Though John could not hear Sullivan, he knew that the orator was inciting the men to climb the tracks to destroy the machines. John had perfectly attuned his senses with the mob. He understood without hearing, without seeing, but only by drawing from some universal feeling. He felt the will, the shackled dreams and frustrations of the people. He himself, who had so many dreams, who had listened to so many promises—he was fulfilling something close to fate as he waited his turn to climb the tracks. He shared all of this with the swelling crowd.

"The whole place is wide open," Gadget said, trying to get Neal to understand. "All the badgers are here watchin' these potatoes. We can get whatever we want. Besides, it's all goin' to rot anyway."

Her crew nodded their heads in agreement. They were talking about going to the closed docks to raid the warehouses and loot whatever they could. Other desperate citizens and a few organized gangs had tried the same thing during the nine weeks of the strike, but they had all been thwarted either by the striking longshoremen or the cops who were protecting the rotting cargo. Mallard Kingston—the main representative of the shipping magnates—had told the *Herald* that "We will let the city starve before we negotiate with these working-class thugs," and the cops seemed more than willing to let Mr. Kingston's apocalyptic vision for the city become a reality.

"Come on, Neal, let's git. Nothing is going to happen. Just some boring *men*," she emphasized this word, "giving boring speeches about some future while our future is ripe for the pickin' right there in those warehouses! Come on, let's go!"

John could barely contain his anger. The working people and the poor of this city starved in solidarity with the beleaguered dockworkers, while this girl—who had never done an hour's worth of work in her life—saw only an opportunity to get something that wasn't hers. He understood that the system itself was predicated on purging all sense of morality, of right and wrong: rich people argued that it was, in fact, right and natural for them to feast while children starved in unheated tenements. No wonder these children had lost all sense of honest work and righteous struggle. He could not just stand there silently; he never could when outraged.

"Listen, listen. You did the right thing at the Woolworth store. You and your pals stood with us. We must stay together on this. I know it's hard," John said, appealing mostly to Neal, who stepped back to let him into the circle of steampunks.

"This is old. We should git before this breaks up," one of the steampunks said, pulling out a crumpled, half-smoked cigarette butt.

"It's not old, it's eternal, it's a thing called solidarity. They won't let the city starve. They can't if we all stick together. The Mayor knows this."

"Damn the mayor," Gadget spat, "we don't trust him or you. Neal, lets go."

"Solidarity!" John screamed, incensed by the steampunks' attitude.

"Don't yell at me," Gadget said, stepping up to John. "What you call solidarity is anything but. What have the strikers done for us? What have they done for anyone? I should starve so you can get an extra nickel a week? So we starve and you win. But what do you win? The game is rigged, pal. We are all losers, and if we got to cheat to get a decent hand, so what?"

John took a step back and put his hand on Neal's shoulder.

"You'll stay. I can tell *you* understand the need for us workers to stick together."

Neal took a cigarette offered by one of the steampunks and blew a smoke ring above the crowd. "I'm not a worker anymore. Haven't been for years. I waved the red once with your ilk, but I know the real colors of the future are going to be black and blue. That's why I'm here." Neal watched the steampunk kids moving through the crowd towards the docks.

SULLIVAN RETURNED TO THE FRONT OF THE stage. "Gentleman! Your attention please. I just heard from Mikey that those damn parasites at the shipping offices have found a way to break the strike. As we gather on this day—of all days—they are breaking the back of the strike!"

The crowd erupted with shouts of disbelief while the Tammany Hall hack discreetly left the stage.

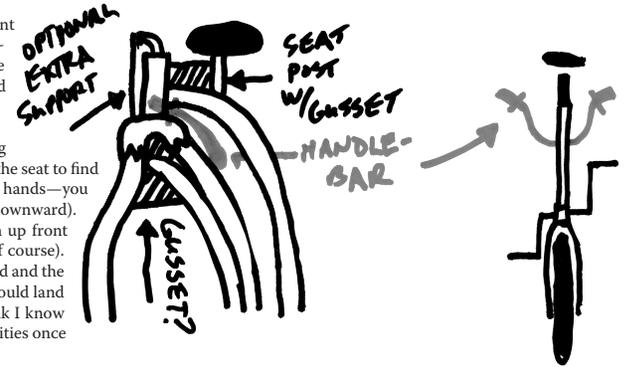
Sullivan fought back a smile and raised his hands for calm.

"I know we have all been promised by the Mayor and his flunkies that no scabs would be brought in. The police would even stop them if the bosses tried, that old song and dance. The mayor knows we could destroy this city like we almost did two weeks ago. He knows the power of our resolution. That is why he and the councilmen agreed to the Packard Plan. No scabs at the docks. But these bosses, these blood-sucking parasites, will not be kept from their money. I tell you they have found away to break the strike without inconveniencing their friends at Tammany Hall or the Mayor during his election. They don't need scabs; they are bringing in machines to off-load those ships."

The crowd became silent and sullen. Worried suffocated the recently enthusiastic assembly as

### STEP 3:

ATTACH THE SEAT post right at the point on the armature where your weight is between the two wheels. I just welded mine on but if you wanted to get fancy you could use a seat tube from a bike and make the post adjustable. Then, take the handlebars and flip them backwards, mounting them on the frame below the seat (sit in the seat to find the most comfortable location for your hands—you should dangle your arms, not reach downward). On my first pennyfakething I had them up front (upside-down for that mustache look of course). But every time I hit a bump I'd fly forward and the handlebars would catch my legs and I would land on my teeth and scrape my shins. I think I know why these things were banned in some cities once the Safety was invented.



So I mounted my handlebars underneath, and discovered a curious phenomenon—I didn't need my hands at all! You kind of steer with your feet and butt. The handlebars are there for difficult riding but in general they are optional. I can take off my coat, drink tea with a saucer, polish my monocle, do anything I need to while riding. If I were to fall, I'd fly off the front and land deftly on my feet.

The handlebars also serve another function—as a limiter. Secret #3 is that pennyfarthings have a head tube limiter that keeps the front wheel from turning too far. I found out why—once the wheel turns more than about 40 degrees, the entire dynamic of the bike changes, shooting the front wheel backwards and to one side. The handlebars hit the armature and prevent this from happening. If your handlebars don't work this way, you can cut a slit in the head tube and weld a bolt to the fork's steer tube.

Originally I used a handlebar stem and bolted my bars into it, but eventually I just welded the bars to the frame for strength.

### THE MOUNT:

FIRST, CLIMB ON something and get the feel of this bike. Become comfortable riding it before attempting a rolling mount. Get used to leaning forwards and backwards to adjust your center of gravity when traversing bumps or grades. The mount is a bit like escaping from handcuffs; step on the peg, give yourself a good push, and throw your opposite leg over the handlebars as you let go with that arm and reach under your leg. Then get yourself situated in the seat. After you've found your balance, bring the remaining leg around and reach under it as well. Stomp on the pedal to keep your inertia and away you go! I've ridden mine thousands of miles and in NYC traffic. You can even give someone a ride on the peg. For a video example of the mount, please see [http://www.youtube.com/watch?v=lQH\\_2kz1H3o](http://www.youtube.com/watch?v=lQH_2kz1H3o)

### STEP 4:

A FEW FINISHING TOUCHES. Cut a small pipe for the mounting peg, and another to match it. The peg goes on the rear armature anywhere you feel comfortable with. The other one goes on the bottom bracket and will function as a bash guard to protect your chainring the first time you try and ride it and it falls forward.



### POST-SCRIPT:

YOU COULD, if you think about it, leave the bike in its original position but chop off everything fore of the pedals, and make a short version of this bike. It would be much more accessible but wouldn't have that Ordinary look.

If you decide to go for the big wheel after all, look for a high-end tricycle with cottered cranks. This will give you the fixed hub you can build up to a wheel (try a round clothing rack), and the crank arms can be replaced to fit you. 🌀

“ By the time John got to the elevated tracks, they were obscured, like mountains, by clouds of steam. He knew enough about trains to know they must be idling; the grey columns rose then fell, a revolt against the stopped locomotive. It almost pained him to see an engine made for movement contained, trapped like a captured tiger.

actually show up. Neal was trying to figure out which way the future crowd could run if Mathilda's instrument exploded on stage when a group of Metropolitan police swaggered up to him. He was away from the crowd and the cops had noticed him with his ax handle.

"Hey, buddy, you can't have that here," the top officer barked from his drooping mustache, pointing at the wood handle, as one of his partners spun a hickory club.

"I'm sorry, I can't hear very well. A copper like you busted my ear drum awhile back. Come a little closer so I can hear what you are flapping about," Neal said, slapping the oak handle in his leather covered palm.

The cops slowly started to encircle Neal.

"Which of you has a cigarette, so I know who to put down first? I need a smoke," Neal said smiling. *It might be an interesting May Day after all*, he thought.

Before the cops had decided who was going to try to disarm Neal, a pile of steampunks swarmed up to him. He knew one of them, a skinny girl with unfortunate green dreadlocks; at one time she sported a nice, deep-purple mane.

"Gadget, git!" Neal said, keeping his eyes on the nervous men in blue.

Gadget jumped on Neal, wrapped her skinny legs around him, and kissed him on his unshaven cheeks while the rest of the steampunks badgered the police for change. Gadget whispered into Neal's ear, "We got a real juicy line set up, why don'tcha come with us? 'Sides, there is a row of giddy-up cops behind the band shell."

Neal looked behind the stage to see a group of NYPD cops on horses moving towards the band shell. They might be after him, or they might be planning on running the Met Police out of the park. Neal couldn't be sure.

"Me and my girl are going to get a drink. I'll catch you around the neighborhood," Neal laughed as he carried the giggling teenager back into the park. The cops yelled something at him as he left, but he didn't bother to hear.

*SULLIVAN DID IT AGAIN*, JOHN THOUGHT AS HE waived his red flag in the air. The giant Irishman, a self-proclaimed "Knight of Labor," had whipped up the crowd and had carried them through the wretched conditions of the tenements to the

gleaming, golden shores of organized labor. He had moved the crowd like a lion-tamer at Coney Island—calm and assured with enough hint of menace to keep everyone riveted. He was made for labor's stage and he embraced the apocalypse of the class struggle in New York. He turned to catch his breath after whipping the crowd into a frenzy and eyed the police that lined the gathering. The cops' predatory smugness had been completely erased. He took a brief break from speaking, waiting to be "spontaneously" interrupted by his brother-in-law Mikey O'Connor. Mikey nervously crossed the stage, his shirt stained with sweat. Sullivan theatrically moved to talk to him, first feigning anger at being interrupted. The crowd stood in silence watching the great man whisper with his brother-in-law. Sullivan turned from the man and crossed to the very front of the stage.

"It's my brother-in law—you know how in-laws are. Give me just one minute," he called out through his flashy smile.

The men in the crowd laughed, hanging on Sullivan's every move and word.

JOHN HAD BEEN INTENTLY ABSORBING Sullivan's rhetorical dreams when he suddenly found himself being shoved by a giant sporting a ragged red Mohawk who was talking to and towering over a pack of feral teens. Over the past few years, John had seen more and more of these tattooed and pierced teens hanging on the fringes of the radical political scene just as they did on the margins of the city. He had seen them throwing bricks at customers coming out of a Woolworth's store during a recently failed strike, and John had heard stories about them drinking all of the alcohol at a benefit for arrested steel strikers in Philadelphia. John was aware that some of his comrades had hoped to harness their rage into a fighting force for labor, but he still felt strongly that any real change would have to come from the people. Real people. Honest people willing to both work and fight for a just cause. These kids were just interested in fighting, and the city was already filled with people fighting each other while the rich drank champagne behind their gilded walls.

When Sullivan stopped speaking to consult with Mikey and the other men on the stage, John overheard the conversation between Neal and the kids.

A red-faced man shouted into a megaphone, gesturing wildly as he spoke. The man was a representative of Tammany Hall, pitching some candidate and promising everything from jobs to the moon. John turned away from the stage and surveyed the park. He could remember May Days when both avenues girdling the park had been filled with workers, when a fierce and defiant sea of red flags had stretched all the way to Broadway. He wondered what had happened to everyone, but he only needed to look to his left, at the cops lined up on horseback, to find an answer to his question.

John had been at the great May Day riot three years earlier. The city had had only one police force back then and they had attacked the May Day procession with clubs and the butts of their rifles. They had had a legion of Black Mariahs lined up on First Avenue to take protestors to the Tombs.

He had fought alongside anarchists, socialists and free-thinkers as well as his communist comrades. Together they had smashed back the police; they could've stormed City Hall if they had wanted to. He wished that they had; maybe things would have changed then. In the years that followed the riots, the cops—and sometimes the State's militia—had pounced on the protestors before the first speaker had come to the stage.

John had spent more than one May Day locked in the Tombs, and other people had been less lucky. Certainly, he understood fear. *But a man must still be a man*, John thought, looking over the meager crowd of hardcore radicals. Now, like the flags drooping on all sides of him, it seemed that labor had lost much of its vitality. And yet John was not depressed, because he could see his comrades from the dock waiting for the Tammany windbag to finish up his speech. "Seven-Foot" Sean Sullivan was already looking through some notes as he towered at the back of the stage. Other May Days might have had riots and more people, but this one had a real strike, a strike poised on the verge of winning. The largest strike the city had ever seen. John respected Sullivan; he had heard him speak many times. John knew this once-scrappy Black Irishman could unify the crowd in support of the dockworkers. John forgot the throbbing in his knee and the emptiness in his stomach, for he knew that Sullivan could transform his pain into strength and nourish his soul.

EVEN THE PUGNACIOUS LABORERS FROM THE BROOKLYN BREWERY moved out of Neal's way as he pushed through the milling throngs in his war-leathers and fierce red Mohawk. Those idiots had just booed the famous insurrectionary anarchist Johann Most when he had started to preach about "propaganda by the deed," extolling the example of an illiterate Italian shepherd who had shot at the ridiculously obese Italian Queen Helene. Most was the kind of man Neal would have actually listened to, and if he hadn't been late leaving the clinic no one would have booed, Neal thought to himself.

Neal was quickly bored by the droning speeches and decided to check out the band shell on the northern end of the park where the Catastrophone Orchestra would be playing later—assuming that they

## UNBOUND MUSCLE

by The Catastrophone Orchestra

*This is the second steampunk "Seasonal" by the Catastrophone Orchestra. The Seasonal is a literary genre that was popular in magazines at the turn of the century. Seasonals were often instructive and morally uplifting short stories centered around a holiday—Charles Dickens's A Christmas Carol is the most famous example.*

May Day, 190?, New York City

NEAL PACED IN THE GLOOM OF THE CATASTROPHONE Orchestra's flophouse/free clinic, careful not to ash his cigarette on the wheezing patients who crowded the floor. He had already mopped up the vomit and the blood and tossed it into the gutter last night; today was May Day and he wanted to get an early start. Usually, no one stirred in the clinic before noon, but the Catastrophone Orchestra was playing this afternoon and a few members of the band were already awake.

Covered in soot, Pip looked like a reverse raccoon with his welding goggles hanging around his neck. He was swearing at the reflecting brass tubes of the Catastrophone, the main instrument of the orchestra, as it hissed out steam and drooled boiling water.

The Catastrophone was an implausible instrument, born from the depths of Pip's brilliant mind back when he was still liberating steam engine parts from various under-protected railroad depots. Unfortunately for the orchestra, Pip's skills seemed better adapted to quick disassembly and creative fabrications than the delicate balance of realignments and mechanical assembly; he tended to rely on Neal's brawn when his technical knowledge failed him, which was more often than not. The Orchestra's instruments were more imaginative than functional at times, often leading to explosive effects.

Professor Calamity lay on the faded burgundy chaise lounge, absently kneading his ex-patient—now lover's—frizzled hair, while dreamily watching Pip's fruitless attempts to get the machine working.

"It would seem our poor instrument is a bit under the weather. I do not believe she is supposed to be spitting like an Arabian camel?" the aging alienist sang over the deteriorating B-Flat that oozed from one of the dented tubes.

"It's the copper crowns. They're not holding their seal. When Mathilda plays her solo, we could lose the whole machine," Pip said, wiping the oily water onto his thick rubber apron.

"Good thing we are not artists. We are simply terrorists who use art." Calamity trailed off, staring at Mathilda's twisted strands.

Mathilda stood up, disentangling Prof. Calamity's hand from her chaotic tresses, and glided towards her instrument. In her dark mourning dress, she looked every bit the dark wraith, purring

affectionately as she caressed the heated brass tubes.

"She's fine, she'll play nice this afternoon," Mathilda whispered, pinning Pip with her unsettling, maniacal stare.

"She's not fine. She'll blow, I tell you! I need more time to make adjustments. You'd be crazy—" Pip stuttered.

"Crazy?" she spoke, the word dripping venomously from her tongue as she slid towards Pip.

"Oh, this could get interesting," Calamity murmured, looking for his syringe.

"I'm sorry, Mathilda, but this machine is unstable. I can put a binder on those tubes and that might be enough—"

"Corset my machine with your wires? I would prefer to destroy the entire audience than let you— You are afraid of her power and freedom. Never!"

Soon "Screaming Mathilda" lived up to her moniker. The consumptive and opium-sick patients on the floor were awake and making a clumsy but hurried retreat out of the fifth floor walk-up.

"Neal, could you please—" Calamity begged, waving in the direction of Pip and Mathilda, and then pulling one of the threadbare pillows over his head as he gave up the search for words.

Neal shook his head, his freshly-dyed mohawk bobbing; he had played this game at least four times in the past week already. It was always the same: just before a performance everyone got on each other's nerves. They were like a family; they loved each other but still fought every Thanksgiving as they sat around the table.

Any other day Neal would have enjoyed the show but that day he was already late. He moved to intercept Mathilda as she chased the retreating Pip through the clinic, their jabs and ripostes knocking over vials and tools along the way. Neal's powerful scarred arms encircled Mathilda.

"Mathilda, the Doc is sick. Look what you're doing to the poor bastard," Neal said as he released the banshee.

Mathilda rushed to the moaning professor and started snuggling against him, whispering in soft, Slavic tones.

"Neal, give me a hand with those binders," Pip asked, composing himself and grabbing a tangle of filched wire.

"It's May Day, do it yourself. I'm going to check

out Tompkin's Square," Neal answered, grabbing his ax handle.

"I guess we'll meet you there for the recital, if I can get this thing working. Be careful," Pip cautioned.

"That's not the point."

"I HEARD FROM MOLLY THAT FLYNN GOT WORK at the Astor Hotel," said Theresa as she flipped the bread in the cast-iron skillet.

John Henry rose from his chair at the table and moved to his wife as she pulled the last of the milk from the pigeon-covered windowsill of their of railroad tenement.

"Let's not discuss this now. It's May Day."

"To hell with May Day, John. What are we going to do? You need a job," she said, her voice breaking suddenly, overcome with desperation.

"I *have* a job. And when this is over we'll all be better off. We just need to see this through. They can't hold out for much longer. The produce in those hulls is already starting to rot, and the bosses are losing their shirts with this strike. Just a little longer. Even the mayor is even on our side."

"I don't care about the mayor. Is the mayor going to put bread on our table? We're your family, John. We deserve better," she pleaded, taking his thick hand in hers.

"I'm doing it for our family. What kind of man would I be? I'm not one of those damned scabs. Someone needs to walk the line or we'll all just be slaves forever. Someone has to fight. You *do* see that, don't you, darling?"

"I'll tell you what I see, John, every morning when you're on the line. I see your son unable to brush his teeth because his gums bled too much. I see your daughter without shoes that fit her feet. I see the corner market with less and less in the stands and even less on our own table. I see so much John— our family has seen too much."

John couldn't argue when his wife was like this; anything he said would just make her angrier. But he was angry too.

He burned at night with anger at those who smoked cigars at Gramercy. He wore his hate like a blanket on the cold mornings on the picket line, keeping the scabs from stealing food from his children's mouths. His misfortunes did not blind him; they lit the way to a new and just dawn. These thoughts circled around in his mind, and it killed

him that he could not express them to his wife. He had always prided himself on the fact that a real man showed his integrity through his *actions*, leaving fancy words to Tammany Hall. John grabbed his red flag and left his meager breakfast.

His mind was on all the things he wanted to tell his wife as he bounded down the six flights of soot-black stairs to the street. He wished she had accompanied him to the Henry Settlement when Lucy Parsons had set the crowd on fire by speaking of revolution. All those speeches in the smoke-filled halls had made him realize that it was a real war they were fighting—a war between the workers and the exploiters—and he was proud to be a soldier on the right side. John was remembering these speeches when he stumbled on a wino passed out at the bottom of the dark stairs.

John crashed hard on the broken tile of the landing, and the stinking bum on the stairs only registered the incident by turning over and pulling his ratty coat over his grizzled face. Pain flowed into John's leg as blood trickled from his skinned knee. Every day there were more and more drunks in his neighborhood—not just the discarded veterans but also good hard working people who could no longer face the daily humiliations of crushing poverty. He would never be one to hide at the bottom of a bottle or on the tip of a needle; he would fight for himself, his wife, and all the other honest people.

"Hey, Johnny Boy, you alright?" Flynn—John's neighbor—was coming home from his job as a bellhop and reached out his white-gloved hand for John. John stood up, refusing the hand, and brushed the dirt from his torn pant leg. Uncomfortable, Flynn reached down and retrieved the red banner.

"You know, it's not a bad job. I know some of the fellows at the hotel. I can get you an in. No problem, you helped me and Molly when we needed it. I wouldn't mind at all," Flynn rambled, staring at the banner.

Flynn was a good man, and he had been a decent friend on the docks. Strong back and quick with a joke. *Now he can't even look me in the eye*, John thought to himself.

"What are you doing, Flynn? You look like a goddamn organ grinder's monkey in that getup," John said, looping his hand under the man's new leather belt that creased his chest.

"The hotel pays for half the uniform."

"What? They make you pay for your own collar? Take that foolish thing off and I'll wait for you," John ordered, releasing Flynn and shaking his head in disgust.

"What?"

"It's May Day. The rally at Tompkins begins at noon," John answered, pointing to the banner that Flynn still clutched.

"I worked a double and the baby has been crying— maybe I'll catch you over at the Lion's Den afterwards. My treat, 'k?" Flynn said, moving to climb the stairs.

John snatched the banner back and left the tenement. John had once heard a speaker at one of the labor halls say, "Time flows backward here in the Lower East Side; we are now again living in caves. But this time we also have to pay rent." John could never shake that image from his mind.

The tenements were cold in winter, stifling ovens in summer, and were firetraps all year around. The buildings had been constructed hastily by New York and Boston land speculators to profit from the endless influx of desperate immigrants. It was the first time in the United States that housing constructed specifically for poor people had been designed and paid for by the rich. The apartments maximized square footage on the split lots in the Lower East Side; windows, walls, air shafts, and coal chutes were sacrificed in the quest to cram as many souls into them as possible. And, of course, to generate as much profit as possible for the owners. Even the crowded and smoke-choked alleys of the neighborhood seemed life-sustaining in comparison to the lightless mountains of hovels that made up tenement living.

John limped to the only park in this part of the city. The regular May Day crowd half-filled Tompkins Square. John pushed through a throng of long-coated Jewish anarchist tailors. They were pointing to an article in one of their newspapers and arguing loudly in Yiddish. A barefoot blond boy with an oozing sore on his temple was passing out a flyer about child labor in the mines of Pennsylvania. John Henry could tell from his accent that he was one of the Welsh hillbillies from the Appalachian coalmines. He took the boy's flyer and stuffed it into his coat pocket, then unfurled his red banner and moved towards the stage. Hundreds of red and black flags hung in the windless morning like wet towels on a clothesline.