

GATEHOUSE GAZETTE



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The *Gatehouse Gazette* is an online magazine in publication since July 2008, dedicated to the speculative fiction genres of steampunk and dieselpunk.

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Cover illustration by **Myke Amend**. Contents photograph of a German soldier in North Africa, April 1941, *Bundesarchiv*

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EDITORIAL WAR!

By Nick Ottens

THE *GATEHOUSE GAZETTE* RALLIES UP THIS ISSUE and prepares for the inevitable catastrophe looming over nearly every steampunk and dieselpunk scenario. We answer the call to arms with a plethora of articles dedicated to war and its effects both upon society and our beloved genres.

Jacqueline Christi has an excellent series about "the benefits of war", describing what technologies and other advantages we still derive from past warfare. Marcus Rauchfuß discusses the not so fine art of propaganda and we are honored to have Carol McCleary, author of the recent book *The Illusion of*

Murder, which Hilde Heyvaert reviews in this issue, write about the adventures of nineteenth century ace reporter Nellie Bly in Mexico. Also, there's a "Local Steampunk" feature by Lorenzo Davia about the Italian port city of Trieste and an interview with Christian Matzke about his *War of the Worlds* project.

Those not particularly interested in war will find plenty of other entries to their liking, among them a history of one Professor Thaddeus Lowe's private mountain city in California. And, we have another chapter from Andrew Bennett's upcoming novel, *Fearless*. •

NEWS A STEAMCON II PREVIEW

By Diana Vick

THE INAUGURAL STEAMCON, A STEAMPUNK convention held in Seattle, Washington, was definitely a success. In fact for our fledgling convention we had to cap attendance, so this year we have acquired a second hotel to host even more steampunkery.

James Blaylock, one of the fathers of modern steampunk will be our honored guest, speaking about the genre and its beginnings. Jake Von Slatt, one of the most popular makers and a dapper fellow will be on hand to discuss modding and trends. Shane Hensley, creator of *Deadlands* will be running games and talking about upcoming projects. Popular airship pirates, Abney Park will be performing at the concert on Saturday night along with Ghoultown and Bakelite 78. Mr Bodewell's Cabaret will return, bigger and better, with more hours, more performers and even burlesque! Cherie Priest, Gail Carriger, Studio Foglio, Myke Amend and many more authors and artists will be participating in panels and demos throughout the weekend.

We are also doubling our vendor space, the Grand Mercantile and have a wonderful selection of excellent steampunk wares. Our new "Author's Row" will host numerous steampunk writers and their books. The

"Artists' Alley" will showcase many talented artisans and their wares. Our Art Exhibition will also be growing and we anticipate a fabulous show this year. Our much talked about tea party and fashion show will add a second Sunday showing to accommodate more eager fans. We are answering the demands for a ball with the Pearl de Verre Cotillion. Also new this year will be a River Boat Gambler Night, the Artful Bodger's Gizmos and Gadgets Show and the Airship Awards banquet, honoring the very best creativity in the steampunk community.

In keeping with this year's theme of the Weird, Weird West, we will delve into steampunk on the American frontier. Gatling guns, robotic sharpshooters, mystic shaman, and dirigibles as stagecoaches; all this and more.

If that isn't your cup of tea, fear not, for we will have lots of diverse steampunk in addition to our western themed fare. The Steamcon team is still hard at work hammering out all the details to bring you the best steampunk convention we possibly can. You can check out our website at www.steamcon.org. We do hope we'll see you in November! •

WANT TO CONTRIBUTE?

We always welcome new contributors to our magazine! Whether you would like to submit a single article or write for us regularly, we want to hear from you. Please, email the editor at n.ottens@gmail.com for more information.

The Not So Fine Art of Propaganda

BY MARCUS RAUCHFUß

PROPAGANDA HAS IN ALL probability been around for most of human history, if not even for its entirety. Some recorded battles between the ancient Egyptians and the Hittites are among the earliest examples. The Battle of Kadesh (1274 BCE) is a fine example. While from the Hittites the original peace treaty following a battle is known, the Egyptian account of the battle is nothing but an ode to the martial skills of the pharaoh. To one extend or another, propaganda in a war context has always been like this (in other contexts it is very much like advertising). It concentrates on two themes: Demonization, slander or belittling of the enemy and glorification of one's own forces, capabilities, virtues, etc.

To keep things relatively short, I want to limit my observations and comparisons to the steampunk, dieselpunk and modern, cyberpunk, time frames and the new technologies that came into, were and still are used for propaganda purposes. Thus, I shall begin with examining some propaganda taken from the late nineteenth century, continue through the world wars and the Cold War and finally conclude with observations regarding the still ongoing War on Terror.

During the nineteenth century, propaganda was still very much linked to the painted canvas and newspapers (I shall come to that later). There are several rather well known depictions of various battles and other significant scenes from all over the world. If you are relatively well versed in the history of your country, you should be able to name a few. The one that almost automatically comes into my mind is the proclamation of Emperor



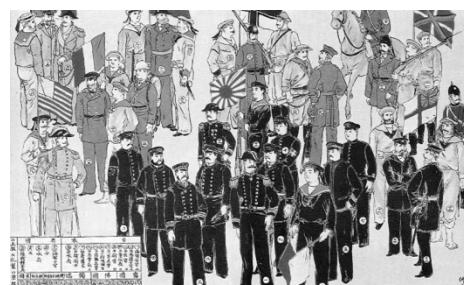
Alma-Tadema (1877)

Wilhelm II of the newly formed German Empire in Versailles.

In case you had not guessed: This scene never happened like this.

The colonial era also offers some very fine, and to modern eyes often offending, examples of propaganda. The main theme, from colonial wars in Africa to the Indian Mutiny of 1857, is of heroic Europeans fighting barbarian natives who, on top of contesting the military forces of civilization, pray upon the virtue and innocence of European womanhood.

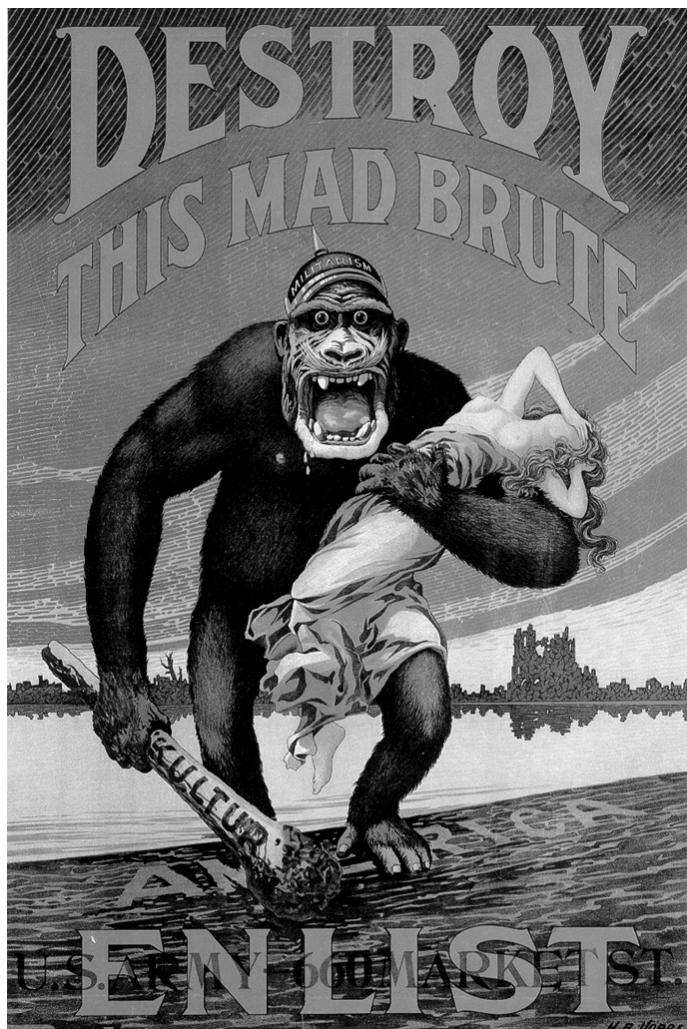
Of further historical note is this document from the Boxer Rebellion:



It shows all the allied nations fighting the Chinese during the uprising. Quite a nice example of the fickleness of politics, I think. The same nations displaying a unified front here, would be at war with one another only a few years later.

Interestingly, the colonial theme survived for a long time and made it to the silver screen. The acclaimed and beloved British movie *Zulu* (1964) is an obvious continuation. The same is true to varying degrees for classic American "cowboys vs. Indians" films and Cold War classics such as *Top Gun* (1986) and *Rambo* (1982).

Despite what you might have expected, there are actually post-1945 examples of German movies along the theme of "Civilized white man vs. barbaric native." Obviously, the films in question are not about war or battles, still *Das Indische Grabmal* ("The Indian Tomb," 1959) remake, is such a blatant and obvious play with colonial



US Army enlistment poster, ca 1917

stereotypes, it hurts.

But I am getting ahead of myself here. The first blooming of multimedia propaganda occurred during the Great War.

Of course, there were propaganda posters and postcards but for the first time, on a grander scale, newspapers also played a role. Possibly the best known and most infamous example is the "Angel of Mons" legend that was created during the opening days of World War I.

Also for the first time, people far away from the frontlines could watch cinematic newsreels with "actual footage" from the battlefields. The delivery of shocking, heroic and moving film documents from the war, often "directly" from the front, but in

for most vile use of a certain thing, this time it is propaganda, once again goes to the Second World War however. Nazi Germany, of course, takes first price, but American anti-Japanese propaganda is also far from benign and played on racial stereotypes.

The Korean War is perhaps the last example of state sponsored art playing a major role in the war effort and propaganda is still rampant in North Korea. The aesthetic, if you want to call it that, of what is going on there today is a throwback to Maoism and Stalinism at their most terrible heights.

In the West, posters and billboards with comparable motives have all but vanished since the end of World War II and replaced with advertising. A different kind of

excellent quality, with no sudden camera movement despite close explosions, is another element of more modern propaganda. As Jeremy Isaac of the famed BBC documentary *The World at War* stated, one should always watch out for an be wary of a static camera in a seemingly volatile environment.

European history between the wars was far from peaceful. The Russian Civil War provides some examples of classic Soviet imagery that the world would see for a long time to come.

The awards

propaganda developed. It was, and still is, aimed at depicting warfare as something reasonably clean and not that dangerous at all.

Particularly the footage flowing from the First Gulf War, when Iraq invaded Kuwait and the United States intervened, gave the impression that modern war was fought almost like a video game.

The ongoing War on Terror has changed propaganda in several ways. For one thing, war is no longer depicted as something heroic, at least not in formal media outlets. Rather it is pretended to be relatively safe. In Germany, for instance, no official newscaster will say that the *Bundeswehr* is engaged in a war in Afghanistan. Instead, they will talk of "conflict." In the US, networks were asked not to air specific imagery of coffins arriving home from Afghanistan and Iraq.

Propaganda has come a long way in more than one way. In earlier days, it was the playing ground of governments and glorifications of war coupled with a demonization of the enemy. It still is, in some cases. In the Western World, however, propaganda is now aimed towards depicting war as a safe affair, often not being described as "war" at all. The "torch" of vitriolic messages is instead carried by private citizens all over the World Wide Web. •



American propaganda poster, ca 1942

Buy Bonds Fourth Liberty Loan



"Remember Belgium," World War I propaganda poster, ca 1918

SERIES LOCAL STEAMPUNK

Lorenzo Davia explores steampunk and dieselpunk in the Italian city of Trieste

TRIESTE HAS ANCIENT ORIGINS and when conquered by Rome in 177 BC was transformed into a fortress and *municipium*. Under August and his successors Trieste became a thriving center with imposing public buildings. After the fall of the Roman Empire, the city was sacked by Goths and Longobards. During the tenth century it subsequently became feud of a bishop-count and its territory was contested between the emperor and Aquileia's patriarchs.

By 1382 the city had fallen under Austrian influence but in the following centuries it was still object of contest between all nearby powers.

The eighteenth century saw the start of a period of prosperity under Habsburg rule. Trieste became a main port with vast new basins and improved infrastructure.

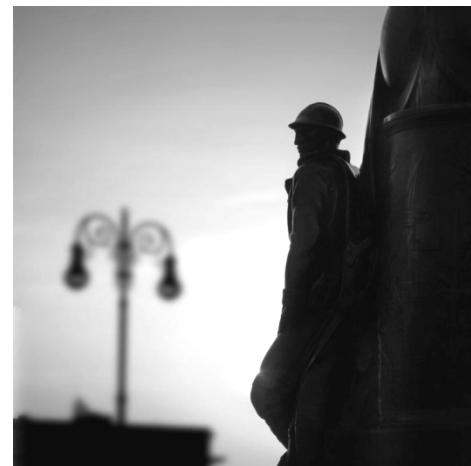
In 1918 Trieste reunited to Italy, but after World War II it was occupied by Yugoslavian troops. Between 1945 and 1954 Trieste was "Free Territory" under Allied administration. The city returned to

Italy in 1954, though mutilated of its territory.

Due to its long history, Trieste has many elements which should interest the generic tourist: we can remember the Roman Theatre, the Miramare Castle, the San Giusto Castle and homonym Cathedral, the Unità d'Italia Square, which is the biggest European square facing the sea, and, generally, many Neoclassic, Eclectic and Liberty buildings.

You may wonder which elements could interest you as steampunk or dieselpunk fan. There are many, as Trieste had its better period during the eighteenth and nineteenth centuries when it was the main harbor of the Austro-Hungarian Empire. As commercial center, the city was visited by merchants from all the world, and many decided to remain in Trieste. For this reason the city was at that time a true melting pot of cultures and religions.

The first steampunk building we meet as we arrive in Trieste is the Train Station, opened in 1857, which is a magnificent example of



Piazza dell'Unità d'Italia by Elido Turco

Eclectic style. Along with the station, a whole railway system was built to connect Trieste with the rest of the Empire. Some minor station, in the Trieste surroundings, can still be found preserving their original nineteenth century style.

As the original Train Station soon became too small to sustain railroad traffic, another was built in 1887. There we also find the Railway Museum, which is, obviously, a must for all people interested in the history of railways.

We can move then to the "Old Port," built in the years 1867-1883, when a fast increasing flow of maritime trade demanded the construction of a new and bigger sea port. Many new storehouses and offices were built, creating a true city within the city.

All the port infrastructures were fed by an industrial hydrodynamic system: a series of steam engines supplied the energy needed to change the pressure of the system; it was able to feed one hundred cranes and fifty lifts in various storehouses. Although in 1930 some power lines were substituted with electric engines, the remainder of the system was in service up to 1988.





Piazza Grande by Marina Raccar

The buildings, built in nineteenth century industrial style, are abandoned today but represent Trieste's glorious commercial past.

I heartedly recommend you to visit the Sea Museum, which covers all the history of maritime navigation. In Trieste bay, in 1827, the first propeller, pioneered by Joseph Ressel, was used. The museum has a special room dedicated to his invention.

The tram is another technical particularity that might delight steampunk people. It has a unique rack system which allows it to get over the difference in level between the urban center (where the tram starts) to surrounding tableland. Today the tram is still active and it uses the same cars as it did in the early 1900s.

For those who are interested in literature, know that in Trieste lived people like James Joyce and Richard F. Burton. It is still possible to visit Joyce's favorite spots or the place where Burton translated *One Thousand and One Nights*.

To conclude the steampunk

tour, there are many museums regarding lifestyle and culture in the nineteenth century, like the Museum Revoltella, the Theatre Museum, Museum Morpurgo and many others. But what about dieselpunk?

Trieste had large shipyards in the nineteenth and twentieth centuries, where some of the most beautiful and most famous cruise ships were built. Among them, the first of its kind moved by diesel, the *Saturnia*. Before her, ship were usually propelled by steam turbines.

Trieste has a long tradition in the manufacturing of diesel engines. The first factory was the St Andrea Machine Factory, then the STT (*Stabilimento Tecnico Triestino*, Trieste Technical Plant), the GMT (*Grandi Motori Trieste*, Trieste Large Engines), and actually there is still a factory building diesel engines nearby Trieste today.

But none of the above mentioned things are currently "observable". The ships are no more in service and the old factories have been dismissed.

What we can still see today is the *Ursus*, currently docked in Trieste port. This pontoon (that is, a shipping crane) entered service in 1931, was fed by two diesel Graz

54/3 engines built in the STT. The crane arm, which can reach a height of 75 meters, can raise a weight of 150 tons. It was used in the construction of cruise ships and in the loading and unloading of goods from transport vessels. For its characteristics the *Ursus* was the most powerful crane of the Mediterranean. In 1975 the Graz engines were substituted by Deutz engines and the structure was operative up to 1994.

From the typical dieselpunk age (nominally the Interbellum), in Trieste can be found many buildings built in *Novecento* style, which was the Italian version of the Art Déco. This style reinvented the spectacular and monumental effect of the Roman architecture and was used a lot in constructions during the Fascism period.

Concluding, Trieste has many elements making it relevant for the history and culture of nineteenth century. I personally believe that Trieste should make for an interesting setting for steampunk adventures. The city still conserves strong and evident traces of its past, and can be perfectly joined by people in love with nineteenth century culture.



Photo by Andrea Proverbio



Trieste by Paolo Longo

COLUMN THE STEAMPUNK WARDROBE

Hilde Heyvaert takes the reader on a tour of steampunk and dieselpunk fashion every issue

WHETHER WE LIKE IT OR NOT, WAR HAS BEEN A huge part of history, including the times from which both steampunk and dieselpunk enthusiasts draw their inspiration. It should come as no surprise that several have chosen a military man or woman as their persona, or the focus of their outfit.

Military outfits range from the historically accurate, or the heavily historically inspired. Victorian army men in their beautiful red dress coats and pith helmets to World War II soldiers with their spats, aviator helmets and jodhpur trousers.

Others choose to blend history with the contemporary, taking parts of historical uniforms and mixing it with modern pieces resulting in a clearly military ensemble.

Yet others still choose to compile their wardrobe from what this season's high street shops have to offer. And they have quite a lot on offer, which is no doubt good news for the steampunk on a budget. Gentlemen as well as ladies will easily find an abundance of military (inspired) jackets, vests and shirts to put a fabulous outfit together. Which is great news for those into more casual, or contemporary or simply on a budget.

As with all steampunk, accessories are key

to finishing off the outfit. Goggles work, as always, quite well. As do pith helmets, aviator hats, the helmets they used to wear in the trenches and military caps of all kinds. Weapons can vary from pistols, rifles to ray guns, depending on what kind of outfit or persona you are putting together. Cartridge belts and ammo pouches make for good details too. After all, you need to put the ammunition somewhere!

If you are looking for more ideas, try googling for military uniforms from the time you draw most inspiration from or like best. Or watch war movies set in past times. The historical accuracy may be doubtful, but the inspirational value won't be any less for it.

Good places to look for bits and pieces of military wear are army supply shops (obviously), *Etsy* (for vintage military wear) and *eBay*. Or the high street store if you're going to blend in more contemporary accessories. If you're crafty, you could even make everything yourself!

Just one last thing not to forget, in any case: use sunblock! Because the summer is no fun when you're sore and lobster red! •



Photo by Katie Reihman
www.katiereihman.com



The Illusion of Murder

A REVIEW BY HILDE HEYVAERT & NICK OTTENS

CAROL McCLEARY IS BACK WITH her second book starring investigative reporter Nellie Bly, and once again she's taking us on a thrilling ride over several continents in a whirlwind of adventure, murder, mystery, intrigue and—magic.

In the first book of the series, *The Alchemy of Murder*, we have been acquainted with Nellie Bly, a staunch defender of women's rights, proving that in the nineteenth century a woman can do any man's job. So naturally when at the end of the book Jules Verne dares her to travel the world in eighty days, Nellie not only jumps to the challenge but sets out to do it in seventy-five.

Once again, this novel is based on a true story. Nellie Bly really existed and she really did travel the world beating the record of Mr Fog as described in Mr Verne's *Around The World in Eighty Days*. McCleary once again masterfully makes use of real historical characters, facts and events to write this brilliant novel full of suspense and intrigue. This time with new characters including Frederick Sealous, Sarah Bernhardt and many others.

As always Ms Bly has found herself in a spot of trouble, having witnessed a murder in an Egyptian market place that seems to be more than just an issue of violence against the foreign usurpers or an out of hand scuffle between two locals.

This foul crime surpasses Egypt's borders, consisting of a bigger mystery concerning the whole of the British Empire and espionage, following Nellie wherever she goes while continuing her race around the world.

Determined to not only finish

her race against time itself and succeed in her challenge, Nellie sets out to discover what exactly is going on. An endeavor complicated by assassins determined to silence her, pompous aristocrats thinking she's nothing but an overly hysterical female attention seeker, boat officials being less than cooperative and several other events which I shan't go into detail about because I don't want to spoil the tale. For it is one well worth to read for yourself! And you really should, even if you don't like history.

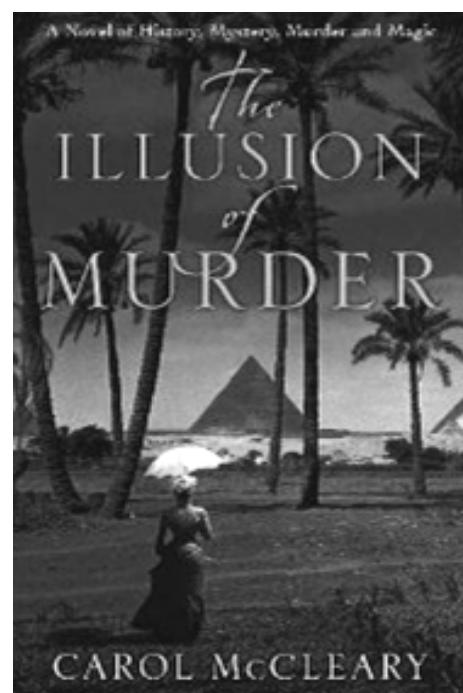
This isn't some kind of stuffy historical novel. It's a fast paced thrilling mystery and adventure set in the Victorian era that is bound to charm everyone who loves a good read. It's the kind of book that will make you miss your stop while reading on public transport or miss sleep because you just forgot track of time while you're reading it before bedtime, it is just *that* great.

What I really love about this book is that you can read it without having read *The Alchemy of Murder* or having any preliminary historical knowledge at all. You don't need to know about Nellie Bly, you don't need to know about the nineteenth century. On the contrary, you'll pick up all the info you need while reading it. It's like learning history in the most pleasant way possible, how great is that! All that you need to be able to follow the story and understand the historical background is provided within in handy editor footnotes written in such a way that they are always adding and never disturbing.

It also doesn't bother with lengthy repetitive back stories authors often use to bring new readers up to speed like you usually find in series. It gives all the

information from *Alchemy* you need, but short and concise so it's not disruptive to the returning Nellie-reader and perfectly informative to those who haven't read the first volume.

It's also clear that the author has done her research on the countries Nellie visits, including local sights and customs. Everything is described in detail but very to



the point, which keeps the pace of the book without boring the reader with page long descriptions of a single thing. While reading it you can clearly imagine everything that you're reading like you're inside the tale witnessing everything for yourself.

All of this makes *The Illusion of Murder* a fantastic book, imaginative, exiting and just plain brilliant. •

An article about Nellie Bly's adventures in Mexico by the author of *The Illusion of Murder* is printed in this issue.



The Mutant Chronicles

A REVIEW BY HILDE HEYVAERT

IT'S THE TWENTY-THIRD CENTURY and the Earth's resources have been nearly depleted. Four major corporations are in charge over the world, constantly warring among themselves for the last riches of the planet. It is an ongoing war between men in a gritty dystopian dieselpunk setting.

Unbeknownst to most; only to one old religious order, there is an ancient evil lurking beneath the surface, in between the two warring factions: the Machine, an alien evil that turns men into mutants, out for

begins his quest to put together a team of brave men and women to destroy the machine and save the Earth and mankind, fulfilling the Mutant Prophesies in the process.

Initially the corporations refuse, choosing to evacuate key personnel, picking those they deem deserving of survival to flee to colonies on Mars and the Moon.

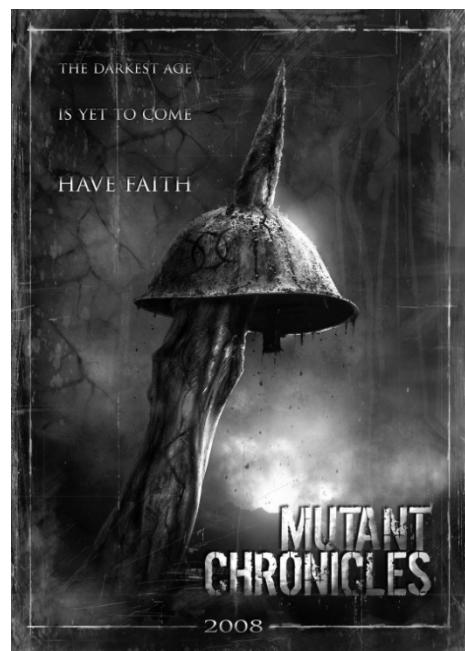
But one dying leader can be expected to see the light right before his final breath and sends Samuel off with his ship and a few evacuation tickets to help him recruit warriors.

Of course he manages to accumulate a set of able men and women, and the movie continues being a string of clichés. It's visually quite gruesome at times, and very raw focussing on the violent and deadly side of war and attempts to survive. There's no romanticising the subject, and it is the will to survive instead of hope that keeps the characters going.

And you just know that they're going to succeed of course, heck, you even know which member of the team is going to live and save

the day, or in this case, the human race and the planet.

If you like this sort of movie, you'll probably enjoy *The Mutant Chronicles*. If not, you might get a bit of a laugh out of it for it being so predictable. All in all, it's an all right watch, just not a great one, though it could have been a lot worse. At least large pieces of it are visually very interesting for those that love the dieselpunk genre so in any case it's never a total loss. •



the destruction of the human race.

One fateful day, in the heat of battle between two corporations, Bauhaus and Capitol, the seal imprisoning the machine is broken and the mutants start their terror all over again. Just as prophesised by the ancient order.

It is then that brother Samuel



The Lost City of Prof. Thaddeus Lowe

BY WILSON ROHAN

YOU MAY BE FAMILIAR WITH Professor Thaddeus Lowe, who was appointed by Abraham Lincoln to serve as the chief aeronaut for the Union Army Balloon Corps during the American Civil War.

Although he resigned from the military in 1862 he continued to assist the Union Army. He developed a reforming heater process where steam and natural gas were combined endothermically to form free hydrogen and carbon dioxide. This system is still used today in petroleum refineries to supply hydrogen for hydrocracking (to turn heavy gas-oil into kerosene/jet) and desulphurization hydro-treating (used to clean H₂S from refined products). This hydrogen allowed the Union Army to loft observation balloons for hours, to observe enemy movements. I read that the gondolas were favorite targets for Confederate sharpshooters.

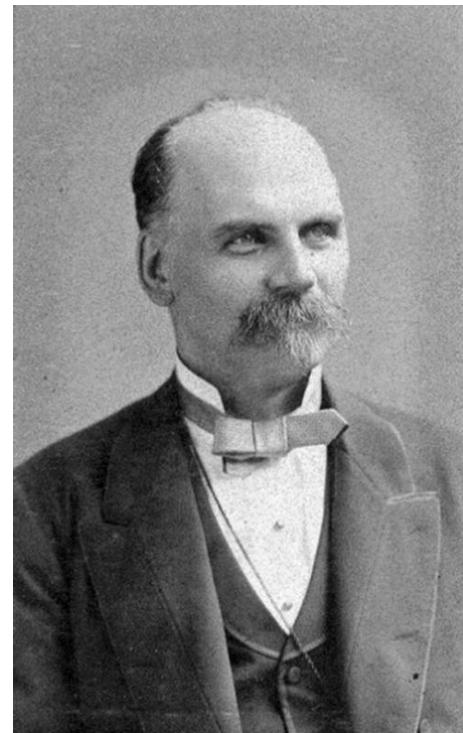
Lowe also experimented with ammonia/water refrigeration, inventing an ice making process that made him rich.

Lowe dreamed of building airships capable of transatlantic

flight but did not have the technology. It's too bad we had to wait sixty years for the *Hindenburg*.

After the war he moved to Los Angeles, California, where he was approached by engineer David MacPherson, who had an idea to build an incline up the side of Echo Mountain. Lowe agreed to the massive project. They constructed a 3000 foot long funicular from a station and new hotel at the base in Rubio Canyon, Altadena. Huntington extended his electric street car system from Altadena to the new Rubio Canyon station. Although the track no longer exists, you can visit the monument to David MacPherson on the Boulevard near the entrance to Rubio Canyon.

Atop Echo Mountain, Lowe built another hotel, a zoo, an observatory, and a few other buildings. This became known as the "White City." He mounted a "World's Fair" searchlight on the top funicular station to shine out over Los Angeles. Then they constructed a narrow gauge electric trolley, called "railroad in the clouds," to take White City visitors to a tavern



and station near the top of adjacent Mt Lowe. He tried to get the rights to build the trolley to Mt Wilson, but too many people owned property and he could not buy them out. At one point he envisioned an aerial tramway, hung from huge towers that would connect Mount Lowe to Mt Wilson and other mountains in the San Gabriel chain. He never built it. The lower railway opened in 1893. The entire site was finished in 1899. Unfortunately, the project forced Lowe into receivership, so he sold the railroad to Jared S. Torrance.

A ride on the incline cost \$5 in those days, so not many could afford it easily. It must have been terrifying to ride. The funicular consisted of two cars, connected together by a cable. They each rode on their own dedicated outer rail, sharing a single center one. Only when they passed, in the middle, did the track separate into two independent tracks so the cars could pass. You can see a small version of this three rail system if you look up "Angel's Flight" in Los Angeles.

The system operated from the turn of the century through the





Great Depression of the 1930s. Once, a California brush fire burned part of the incline and broke the cable. This was repaired and a new cable installed.

This city and associated railway remained until 1938 when a

record flood washed out the funicular and most of the trolley car track. They never rebuilt it. Once abandoned, hikers would visit periodically. Local university student fraternity members vandalized the

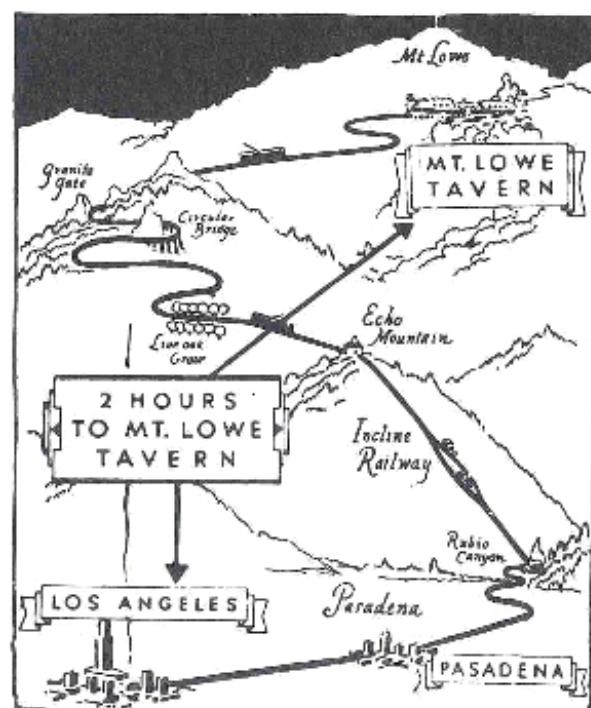


upper station, overturning the cars and breaking the spotlight. The Forest Service eventually dynamited the buildings, and tore out the remaining track and supports.

It is possible to visit the site today by hiking up the Echo Mountain trail. I did back in 1992. Conservationists cleaned up and restored some of the remaining equipment, including the cable gripper, various gears and sheaves, and the mount that once held the observatory telescope. There are also signs that tell the history of the city and its railroad. One can continue hiking to the summit of Mt Lowe, but the trail does not follow the original electric trolley route.

Professor Lowe died in 1913 at his daughter's house in Pasadena, California. He was 81 years old. He and his wife Leontine, who died in 1914, are buried in Mountain View Cemetery in Altadena, California.

There is an interesting postscript. In the movie and book *The Right Stuff*, Chuck Yeager and his test pilot friends used to frequent a bar in Palmdale owned by "Pancho" Barnes. She achieved fame for her world record flights aboard a "Mystery Ship" during the 1930s. She was Professor Lowe's granddaughter. •



First Meetings

AN EXCERPT FROM ANDREW BENNETT'S FEARLESS

Military Intelligence Service Headquarters, Whitehall, London, September 2, 1887

'Ah, Agent wood, come in, come in. Please sit down' Eva found herself being ushered into a lavishly decorated office. The sole occupant of which was a small, bookish looking man sat behind a large mahogany desk which seemingly served only to increase the impression of his smallness and to distance himself from his visitors. As she lowered herself into one of the two high backed chairs placed before the desk the strange man lifted his head and stared at her through a pince-nez which greatly magnified his eyes, he placed a manila coloured folder on the top of his cavernous desk as he began to speak.

'I'm not sure how much you've been told already but permit me to introduce myself: I am N. Just N. I shall be your immediate superior, you shall report to me and only to me after each and every mission. Do you understand' N asked her.

'I do, I was told about every aspect of my role as an intelligence agent during my training' Eva quickly retorted.

'Very well' he continued 'in this file' tapping the folder on his desk 'you will find details on every aspect of the mission you are about to undertake, but I'm going to have to give you some background. As you know, six months ago General Leonairde seized power in a Coup D'état, declaring himself emperor.' Leonairde. The name sounded familiar but Eva struggled to recall who exactly he was.

'But, in order to keep himself in power Leonairde has been draining the Imperial coffers by paying large sums to the French Air Fleet, the only branch of French society with the means and motive to depose him.' The Leonairde whom N had mentioned was clearly General Charles Leonairde. As N. continued speaking she remembered reading the accounts of his rapid rise to power and the huge amount of fear that he had generated in Britain when he seized power. Formerly of the French Army high command, Leonairde fancied himself as a new Napoleon and angered by the proposed military reductions of the then French Government, he and his followers had toppled the President and Leonairde was swiftly crowned Emperor. The response of most European governments was cut off all trade and contact with France. However, as the year grew old, his promise of invading the newly unified

Germany, in order to avenge the French defeat following the aerial bombardment of Paris in 1870, lessened and more and more governments re-established links with the so-called 'Mad General of Lyons'. However, Eva seemed to recall that although he had the support of most of the people and the Army, the Navy and *Aeronautique Nationale*, the French Military Air Fleet, were apparently growing more and more uneasy due to Leonairde's growing paranoia about Britain's unwillingness to reopen diplomatic relations, as well as his passionate rants against the Royal Air Fleet.

'We have reason to believe' N continued, 'that Leonairde may be looking toward the gold reserves discovered around Lake Chad to refill his treasury. We suspect this because miners on the Nigerian shore have seen a large amount of men and equipment being delivered to the French side of the lake and they've already begun digging. However, despite the fact they can easily at the gold, they face the same problem we did, at least before we built those Sheffield class airships last year'.

'Ah, the Sheffields' Eva thought. The Sheffield Class were a new breed of heavier-than-air airships lifted by both a large gasbag and aerofoils. They had been launched the previous year helping to build the Empire's new wealth. They allowed the shipping of Gold from the abundant reserves around Lake Chad to the coast quickly and cheaply without having to ship it through either French territory or over land for hundreds of miles. However, the gold had remained a bone of contention between Britain and France since the lake sat on the Border between British Nigeria and French West Africa. The only routes to the coast and out of Africa were either along the French controlled Niger River, or overland through either dense jungle or the vast desert. The result was a stalemate; the French would not allow British shipping to traverse the Niger without having them pay heavy navigation fees and the French could not pass through the entrance to the lake in British Nigeria without having to pay extortionate customs duties on both the inward and outward journeys.

'The only way the French can get the ore out of Africa' he continued 'Without passing through our territory, is either East through the jungle or North, through the Desert, the cost of both of these options would amount to more than the value of the gold.' N. Suddenly paused for breath, 'Now, three weeks ago we

sent an agent into France to investigate the construction of some new airships, which are supposedly ore carriers for these new mines, the equivalent of our Sheffield class but, he disappeared a week later. The last message we received said that the ships weren't Ore carriers but instead were being built for another purpose; we fear it may be to challenge the Royal Air Fleet. Because of this you're being sent into France to establish the location of this missing agent and if possible aid him in completing his mission, to discover the true purpose of those ships and if possible, sabotage their production or destroy them, should the purpose of their construction be for nefarious ends.' The mysterious N. pushed the dossier across his desk before rising out of his chair and walking over to the window behind him where he gazed out across the sprawling metropolis of London across the river.

'As this is your first mission, you'll be aided by a Mercenary airship captain and his crew, who' he paused for thought 'we have had, occasion to use. His details and those of our missing agent, along with daguerreotypes of them both are in the file.' He explained as Eva picked it up from the desk and began leafing through the various papers it contained.

'Any questions Agent wood?' he asked. Agent. The very word still sent a chill down her spine and made her chest swell with pride.

'Just one.' she replied. 'Why have I been selected for this mission? I've only just completed my field training. Surely there would be more experienced agents available.'

'There are, Agent Wood.' N responded icily, turning his small, wiry frame away from the window.

'However, we believe that agent 45 was betrayed, by a French agent somewhere in our midst. We also believe that Agent 45 knows this French Agent's identity. Your entry into the service puts you above suspicion of being the mole as you entered the service only 2 days before agent 45 left for France, and you were still in Sussex, undergoing your training when he was captured. That is why you were selected.'

'Very well then, is that all?' She asked him

'I should think so' he replied moving behind his desk 'Although, be aware this Captain is a very secretive fellow and has reason to be wary of many people. If you find him, he'll most likely send an intermediary in order to prove your credentials. We've been able to arrange a verbal signal in order for you to identify each other. Someone will say to you "The Falcon rises" your response should be "and its' shadow falls", that will be all Miss Wood. You are booked on this afternoon's train to Hull, once you arrive and have checked into your hotel, begin making inquires, The Captain should be able to find you.' After this exchange he returned to his

desk and fell back to reading the document he had before him when Eva had entered. Sensing the interview was at an end she quickly and silently rose and left the office filled with pride at being able to serve her country.

She was stopped in the anteroom by an urgent call of;

'Err, Agent Wood. I have something for you.' She stopped and turned her head in the direction of the sudden utterance it had been issued by a youngish man in a cheap, ill-fitting suit who was sat behind a small replica of N's cavernous desk, he was frantically searching through a drawer in his desk. She strode up to him and upon seeing her approach he looked up into her round face and smiled;

'I'm Saville. Sorry I didn't introduce myself earlier when you came in, but I was told by N to send you as soon as you arrived'. Eva Grunted in reply and he fell back to rummaging in the drawer;

'Ah, here we are.' He withdrew a small rectangular mahogany box, around 6 inches tall and 4 and half inches wide, there was bright red seal on its widest side and Saville proffered it to her,

'I was instructed me to give you these, they're the orders for that Airship Captain you're being sent to find.' Eva took the box and held it firmly in her hands, finding it to be surprisingly light. A puzzled look flashed across her face as she noticed the seal. It was marked with the insignia of the Military Intelligence Service and the letters CIO, denoting the origin of the box's contents. The Joint Head of the Imperial Intelligence Services. The Chief Intelligence Officer himself. Eva's eyes grew wide in shock, and she asked Saville;

'What sort of man is this Captain if he takes his orders straight from one of the most powerful men in the Empire?'

'I don't know. But from what I've heard, and if he is who I think he is, he's possibly one of the greatest dangers the Empire has ever seen.'

'Why, who is he? And how would you know who he is?'

'A lot of files come across my desk, Agent Wood.' His chest swelled and he raised his chin defiantly,

'I sometimes see more than I'm supposed to, and I often see more than other people think I do. I daresay I probably know more than some of the Service's top analysts do. And if what I've been able to piece together is correct, then this Captain is none other than James Harrier.'

Market Square, Kingston upon Hull, three days later

Eva remembered she had scoffed at the idea. And she

still scoffed at it now. The idea that one of the most wanted men in the Empire was being employed by Her Majesty's government was completely absurd....

'The falcon rises.' The sudden utterance brought quickly Eva out of her reprieve and she spun around to find it source. She found herself looking at a large, portly man, well into his forties, his iron grey hair was beginning to thin and he was dressed like a dock worker. A knitted woollen pullover stained through years of use covered his upper body, and a pair of corduroy trousers in a similar state to his pullover hung below his waist, above a pair of sturdy leather boots. As she glanced up and down him he repeated his one utterance in the same monotone 'The falcon rises'. Eva realised this was the man sent to meet her and she gave the answer the monosyllabic N had given her before she left London

'And it's shadow falls'. The man gave a grunt of approval and inclined his head,

'Follow me' he said simply and turned to leave the square. Eva quickly gathered her wits, before casting a cursory glance around the square and then rushing to equal the man's quick pace as he purposefully walked through the dim streets. After failing to engage the strange man in conversation Eva's thoughts began to wander as they continued to walk through the darkening streets.

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'We are here.' The short statement brought Eva suddenly back to the present and she found herself and her silent companion standing before a tavern close to the river docks. The sign above the door proclaimed it to be "Ye Old Black Boy", she entered the barroom after the man and found it to be filled with the expected mix of dock workers and sailors, along with a few women plying their trade, offering 'comfort' to the lonely men present. Upon her entry, the smoke-filled room fell silent. Eva could feel the stares of everyone present upon her as the strange man led her past the bar and began climbing a staircase to the tavern's upper floors. Upon reaching a door at the top of the staircase the man knocked three times and it opened. He stood aside and gestured her into the room saying;

'The Captain will see you now'. Eva cautiously entered the dimly lit and sparsely decorated room. She could see it contained a small, square wooden table with an empty chair before it and a solitary figure sat beyond it. From the figure's outline she could tell it was a man and he was sat bolt upright. Suddenly, as soon as she was beyond the threshold, the door slammed shut behind her and as she spun she saw a figure hunched

over the lock manipulating something in front of it, as if it was having trouble relocking the door. To one side stood a large man, almost the exact duplicate of the man who had brought her here, although the iron grey hair of her silent escort was here replaced by a shock of bright red, almost like fire in the gloom, he stood with a disapproving scowl upon his stony face. Out of the silence the seated figure spoke;

'Please sit down Miss Wood'. Eva turned and slowly made her way over to the free chair and sat herself upon it with her bag on her knee. As her eyes grew accustomed to the gloom she began to notice the details of the man sat opposite her.

He was fairly young, she guessed he was around his mid-twenties, tall and rake thin he leaned forward across the table and introduced himself, speaking in a thick accent, she guessed to have originated in Kent.

'Good evening. Miss Wood, I am "The Captain", a man, whom many like you have sought, but few have found. I believe Her Majesty's Government wishes to employ me and my crew once more.'

'You are correct in your assumptions sir, I have been sent from London to obtain your assistance in a mission of the utmost importance' Eva calmly replied, 'I have the details here' she continued, before reaching into her handbag, and withdrawing a large revolver. Pointing it squarely at The Captain's Head she calmly said to him,

'This gun is loaded, and, as I'm sure your aware, given it's calibre it could easily remove your head from you shoulders. So, I suggest you answer my questions, truthfully' she said, cocking the pistol's hammer. She then asked him;

'First and foremost, who are you?'

The Captain failed to even blink and gazed squarely at muzzle being held a few inches from the end of his nose. And unflappably remarked,

'Miss Wood, what do you mean?'

'What I mean is you are not the man I have been sent to find. You are not "The Captain."'

The man continued to smile sweetly although his words took on an icy menace as he replied;

'You are correct Miss Wood, I am not the man you were sent to find. It seems you are very astute. However, if you are the best agent that Her Majesty's Intelligence Services can offer, I fear for our nation's safety.' A wave of puzzlement swept through Eva but before she could reply she felt something being pressed against the back of her head and she heard a deep voice close behind her say:

'I suggest you drop your weapon Miss Wood, unless, of course, you want me to repaint the wall with your brains'

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INTERVIEW CHRISTIAN MATZKE

By Nick Ottens

Matzke is creating an illustrated book of a veteran's scrapbook from the 1905 invasion of Mars as a sequel to H.G. Wells' *War of the Worlds*

Could you briefly tell us what the project is about?

I am creating a sequel to H.G. Wells' *War of the Worlds* in which humanity brings the war to Mars in a series of precision strikes.

The book will be presented as a scrapbook compiled by a veteran of this campaign full of photos, documents, recruitment posters, schematics and the like. I have created the weaponry, uniforms, and even some of the vehicles life-sized, using primarily wood, metal, glass and leather as these would have been the materials available in 1905.

Where do you find the time—and the resources!—to make such a project possible?

The resources are easier to find than the time actually. 95 percent of the materials in my project are recycled. Part of the reasoning for this is financial, and part of it is aesthetic. If I bought everything brand new I would just end up aging it anyway!

I have cultivated an informal network of folks who keep an eye out for choice bits that I might be able to use. That has saved me countless hours of dumpster diving or thrift store scouring.

The basis for the landing pod for instance came from a friend who works at a local hospital. It was originally a medical device that needed to be airtight. When it wasn't anymore they were set to throw it in a dumpster! I spent nearly a year transforming it into the Mobile Artillery and Reconnaissance Vehicle (M.A.R.V.)

I've been paying for this project mostly through my *Etsy* shop www.retrogarde.etsy.com where I've been selling copies of the recruitment posters. I hope to start selling more items that way as well, including blood chits and even rayguns.

Are you working on this alone or are there more people involved?

I'm doing the bulk of the work myself, but my wife is a special effects makeup artist and she is contributing some of the alien designs. Beyond that I have a few friends who are volunteering as models for the photography.

How much of the original War of the Worlds will there be in your project?

My book is a direct sequel

chronologically, and it treats Wells' account as a survivor's testament. There will be some rehashing as the back stories of the main characters are revealed, but I'm not looking to create an illustrated version of Wells' novel. However, there is a lot of interesting material in *War of the Worlds* (and it's little-known prequel *The Crystal Egg*) that hasn't been touched upon by other authors who have written sequels. For instance, Wells created not one but three distinct Martian species in his stories, and went into great detail about the vegetation and architecture of Mars. I will be following his descriptions as closely as possible, so don't expect a barren dustbowl of a planet.

There's a tendency in steampunk and



neo-pulp literature to depict outer worlds as vastly different from what they're really like. Do you suppose we may have been disappointed at bit to find that most nearby planets are little more than barren dustbowls?

I think if a person can accept rocket ships and rayguns in a story, why not have Cytherean jungles? It is all so fantastic and absurd anyway. As for being disappointed, I know I am! I think those first images of Mars that Mariner IV sent back in the '60s really crushed a lot of dreams. Then there seems to have been a scramble to catch up. Jeff Wayne's *War of the Worlds* musical has an updated Mars at the end, as does the direct-to-DVD disaster *War of the Worlds 2*. Even *Scarlet Traces: The Great Game* features a (mostly) realistic Mars. I loved that series, but I feel that the depiction of Mars was one of a couple unfortunate diversions the creators made from Wells' novel. Where is the Red Weed for example? Wells says that is what gives Mars its reddish hue, and the weed figured prominently in the first *Scarlet Traces*, but it is completely absent from the surface of Mars. But that is the author's prerogative of course. I'm sure I will be making some choices that will not set well with other fans of the novel. Only H.G. himself could have made the definitive sequel, and even that might not have pleased everyone.

Would you describe H.G. Wells as one of the "founding fathers" of steampunk? Or: how great would you rate his influence on the steampunk genre?

I would certainly consider Wells to be one of the founding fathers, but like Jules Verne his influence can be felt on two levels, the literary and the cinematic.

For every steampunk who has actually read Wells, I would argue there are ten more who saw the movie version of *First Men in the Moon* instead. The same is true with

Verne's *20,000 Leagues Under the Sea*. Stylistically these films really laid the groundwork for what would become the steampunk aesthetic, just as Wells and Verne defined many of the genre's literary parameters.

Gibson and Sterling would team up again for a sequel to *The Difference Engine*. On the other end of the spectrum though I am a huge fan of Greg Broadmore's *Grordbort* books.

Do you think steampunk has changed in recent years? If so, for the better or for worse?

I've been a fan of steampunk since I read *The Difference Engine* back in the mid nineties, but as a kid I can remember getting excited whenever *Doctor Who* reruns would feature Victorian era science fiction; so this stuff has been in my blood for most of my life. It is bound to grow and evolve as different people add their ideas to the mix, and I don't see that as a bad thing at all. I may not like every

trend or permutation, but steampunk has no hierarchy; it is a level playing field for everyone and no one has the authority to tell someone else that they are doing it wrong.

I do wish folks would read more of the literature of course, but that's just the bibliophile in me. My favorite recent trend has been the expansion of steampunk beyond the borders of the British Empire. Seeing people of all different ethnicities embrace the concept and run with it really enriches the genre for me and helps move it past the stigma of being perceived as glamorizing imperialism. •

More at www.flickr.com/photos/retrogarde



Are there any other steampunk authors or films that have significantly shaped your steampunk style?

The City of Lost Children is my idea of steampunk perfection. It is gritty, dirty, yet highly stylized. I'm also a huge fan of *The Prestige*; I think sometimes people forget that steampunk can be subtle too.

As for books, I grew up reading all of L. Frank Baum's *Oz* books which feature a fantastic proto-steampunk Victorian world. These days my favorite steampunk stories are a bit more grounded in real world details. For instance, I wish Michael Chabon would write a novel length sequel to his short story "The Martian Agent", or that

The Benefits of War

BY JACQUELINE CHRISTI

SINCE THE DAWN OF CIVILIZATION there has been conflict and battle. Violence has been a tool keenly used to resolve disputes between opposing parties for millennia. Disagreement occurs for a multitude of reasons such as religion, politics, or the state of the economy, but the common resolution is usually an exchange of blows. The collective and unified orchestration of these skirmishes have become known to us all as war. It is fascinating to observe that throughout our history, war has managed to stimulate the most insidiously cunning in our society.

Built on propaganda, war seems to result in little more than genocide, cruelty and torture, and still humanity as a whole continues to persevere. It is our strength as a race of intelligent beings that allows us to generate hope and improve

depraved creations to benefit society. War is a constant reminder of mankind's ingenuity and resourcefulness.

Whether conceiving of elaborate battle strategies, finding the greatness of creativity, or exploring the depths of courage and resolution, war has provided humanity with grand insight into what makes us distinctly unique upon this Earth.

It has always been the prerogative of mankind to create and refashion the nature of reality to better suit its desires. Through war many of these world altering innovations have taken place. Debates have persisted over many years, quibbling upon whether war is the mother of invention, or whether it is invention that spurs the continuance of war, but there can be no question of their symbiotic relationship.

Improvements in communication through the telegraph, transportation advancement through the railway system, refinement of electric power transmission through huge generator plants, all largely bettered because of the imperative needs of war. When caught in the chaotic throng of war people do not concern themselves with thoughts of meliorism, but are instead preoccupied with victory and survival. Countless developments, that seemed as a strict matter of necessity at the time have found their way to influence the future in ways that could have never been foreseen at the time of their advent. I would like to point out (in no particular order of importance) a mere handful of the common place devices provided to us, or advanced through, the nature of war. •



Tank repair facility, Charleroi, France, 1917

Hot Air Balloons

THE MAJESTIC, GOSSAMER HOT AIR BALLONS WE CAN use for casual enjoyment once had a more utilitarian purpose.

Today we are able to experience ballooning more safely by using propane and nylon, but much of our current understanding of lighter than air technology was developed by the military. The concept of the hot air balloon has been a part of our history for ages, however manned flight is relatively new by comparison.

While many still thought flight was a fairy tale the original intent was as simple as reaching the skies for the first time. The dream was realized in Paris by two brothers, Joseph and Etienne Montgolfier, in 1783. The flight lasted only twenty minutes but spurred creative minds to adapt this newfound mode of transportation. Seventy-six years later, during the Franco-Austrian War (Second Italian War of Independence), the opposing countries of Austria and France both attempted to use hot air balloons. They were forced to abandon their efforts because they were not able to keep the balloons aloft long enough for them to be useful, but the idea remained.

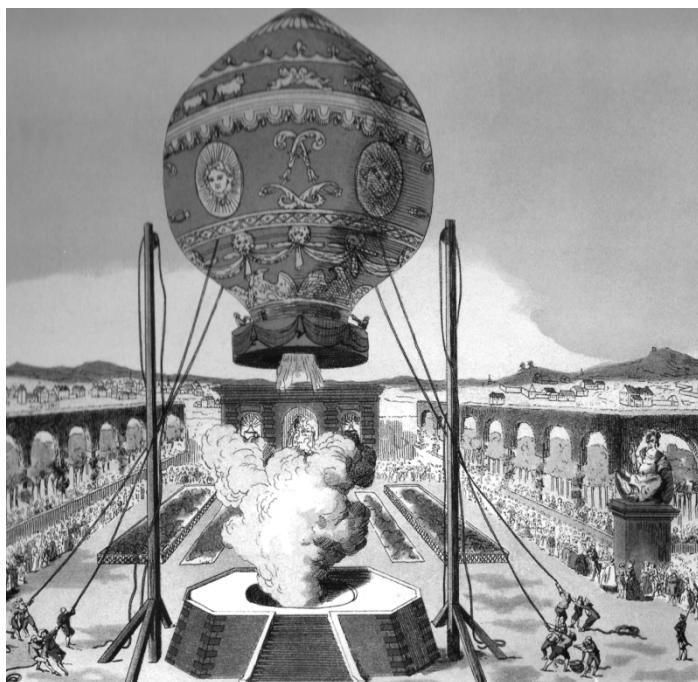
Throughout the turning of the century hot air balloon technology flourished due to their many martial applications. Militaries used balloons for aerial assault by bombing, mapping and scouting enemy territory, and



Barrage balloons over Central London during World War II

a more reliable, efficient way to send priority messages between troops. Their use became so prominent that informal aeronautical contingents formed to better adapt to needs of their militaries. It was soon decided that proper training and organization was necessary and Balloon Corps began to develop. As a result of this unification more people interested in balloon flight were able to concentrate their efforts on improving the design. Notably Captain J.L.B. Templer, of the British Armed Forces, along with his associates came to understand that a new method of storing the hydrogen was needed, because filling the balloon on the battlefield was far too time consuming. Compressed gas cylinders were promptly put into use by Britain and other countries rapidly followed suit. Templer also recognized the urgency for a fabric that was lighter and more durable than the commonly used sackcloth. An answer revealed itself to him when coming upon a family in London. He discovered they had used the outer epithelial layer of the intestine belonging to an ox, known as goldbeaters' skin, to create toy balloons. Shortly thereafter he convinced his government to commission a great deal of this fabric and the plan immediately *took off*.

Use of military balloons continued throughout World War II and up to the Cold War where lightweight plastics, particularly polyethylene, replaced balloon material once again in order to achieve higher altitudes.



The first manned hot air balloon designed by the Montgolfier brothers takes off from the Bois de Boulogne, Paris, November 2, 1783

Polyethylene

POLYETHYLENE HAS MADE A STRONG IMPACT ON our daily lives. It is the plastic we use to make innumerable household items today. Milk jugs, disposable dinnerware, grocery bags, food containers, polar fleece, soda bottles, umbrellas, hula hoops, the list is endless!

Polyethylene was discovered as a sort of lucky accident in the early 1930s. A group of organic chemists, working for research laboratory in England, were experimenting on what the effects of high pressure would produce on a variety of chemicals. During one of the tests there was a problem with one of the containers. It had sprung a leak and caused a rapid loss of pressure and the test had to be aborted. When they went to clean out the tube a milky transparent substance was found, with a waxy texture similar to plastics that were already in use. Immediately they worked towards replicating the "mistake" and eventually discovered that it was the combination of pressure along with the addition of oxygen that created polyethylene.

That could have been the end of things, it was quietly accepted as a discovery but there was little use for it. However, someone noticed that the same properties as a natural product used to insulate telegraph cables called *gutta percha*. That is when the military got involved. They ordered mass quantities of this new material and used it to insulate cables that were laid between Britain and France towards the closing of World War II. This provided improved communication that was essential to everyone involved.

With polyethylene being so useful in this situation the military soon began to search for ways to apply it in even more ways. They used for insulating radar equipment; because it was a light and thin they were able to install the newly insulated equipment into airplanes. This lead to the Allies aerial troops to perform in ways that were unexpected, such as flying through stormy conditions and night. It also helped them to detect German bombers with a greater amount of

ease. It appeared that there was no limit to the usefulness of polyethylene. Hastily the military found several other ideas to put the plastic into practical services. They used it for packaging to keep supplies dry, tarps, building material, personal flotation devices, along with myriads of others.

After the war had ended the public was made aware of the material and the public responded emphatically. Now everybody had access to polyethylene and it rapidly became the most widely used amazing plastic to date. Over one billion pounds has been produced annually for the United States alone with a world wide estimate of approximately eighty million metric tons!



Aerosol Spray

THE CONCEPT OF AEROSOL SPRAYS MAY BE OLDER than you realize. The very first condensed aerosol was developed in the eighteenth century by confectioners in France, creating self-pressurized carbonated beverages. This remarkable novelty was only the beginning for aerosols.

The next advance in aerosol technology was pioneered by Charlie Plinth in 1825. Originally a machine was used to dispense the fizzy drink, however this method required a visit to the location of such a device in order to enjoy the rare treat of soda water, as the machine was immobile. Charlie saw the potential in a smaller, carriageable dispenser and invented "The Regency Portable Fountain". This invention is what we know more commonly today as a soda siphon or a seltzer bottle.

Nearly three quarters of a century later, two inventors named Helbling and Pertsch patented a method of pressurizing aerosols by using methyl and ethyl chloride gases as propellants. Twenty-eight years after this discovery a Norwegian man named Erik Rotheim invented a aerosol can designed specifically for being able to dispense different types of fluids that could be chemically propelled. It is none too long thereafter in history that World War II erupts and America finds the idea of aerosols could be potentially advantageous. Malaria carrying mosquitoes were nearly as dangerous as the enemy soldiers they were combating in the Pacific and the US Government funded research into finding a transportable solution to the problem. In 1943 two researchers of the Department of Agriculture, Lyle Goodhue and William Sullivan,

reengineered Rotheim's original design and used a less expensive fluorocarbon as a propellant. The insecticide and its handy container rapidly gained grand praise and recognition for the relief it provided. Soldiers began to affectionately refer to the canister as a "bug bomb" because of its effectiveness and the resemblance to the hand grenades they carried.

At the time there was a strong tendency for the nozzles and tubes to become clogged up during use, nevertheless the development of aerosol sprays was invaluable.

By the 1950s the aerosol technology that had been improved by the military made its way back into the joyful hands of the public where Robert H. Abplanalp created a clog free spray valve. Since then the design of aerosol sprays have remained largely unchanged, but are of a constant use in our daily lives. Not only do we still use aerosol spray to deliver insecticides, but also many other products such as hair spray, deodorizers, spray paints, asthma medications, and pressurized air for cleaning electronics. •



Oil spray canister designed by Goodhue and Sullivan



Saipan Island, ca July 1944

Sanitation

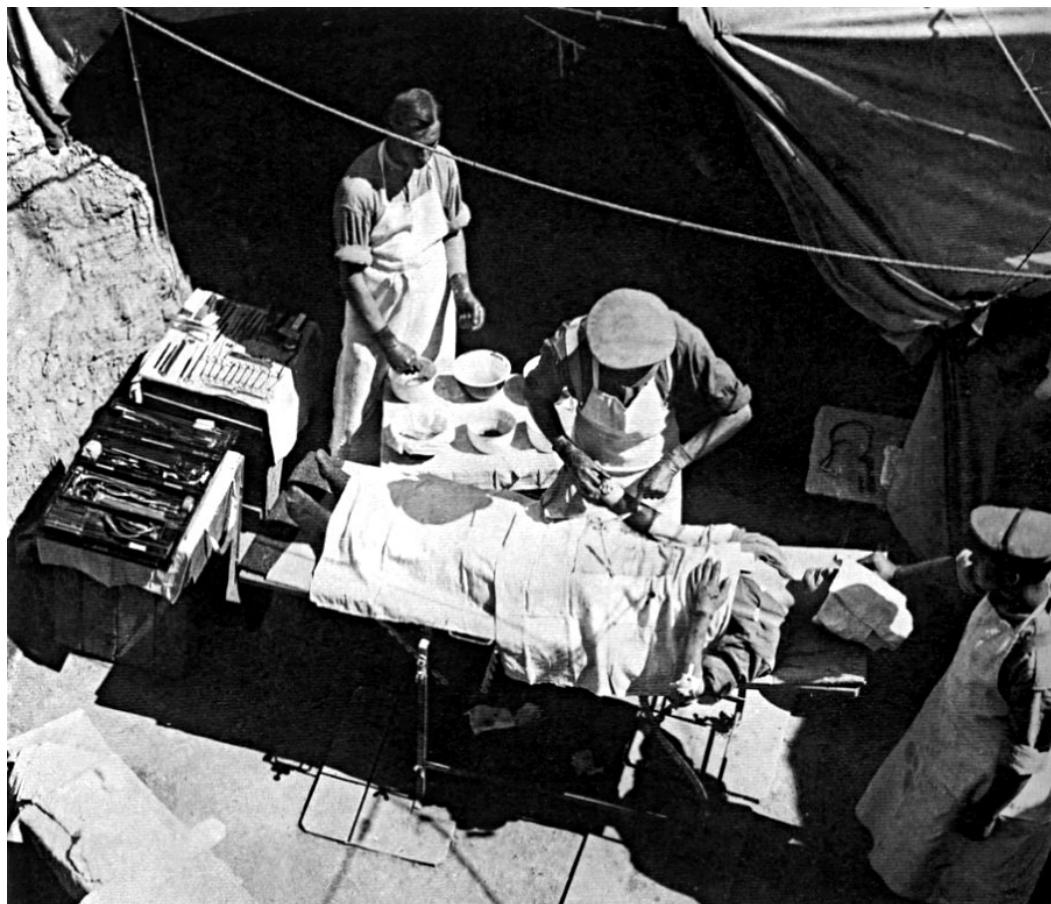
WHILE THERE ARE NOW MULTITUDES OF WAYS TO maintain sanitation, it was not always the case. In our none too distant past black smog choked our skies and human waste flowed through the streets. In the middle of the nineteenth century it was commonly believed that illness and disease were caused by miasma, or bad air. It made sense to assume that in places that had a good deal of stagnant polluted water or decomposing waste, poisonous vapors were created that carried sickness to the nearby areas.

The notion that disease could not spontaneously generate emerged in the early 1700s when it was discovered that microorganisms were responsible for spreading illness. It had been theorized by various persons, notably physicians Francesco Redi and Nicolas Andry during this time, that disease could not appear from nothing (Redi) and so it must be minute living "worms" too small to be observed by the human eye (Andry), but popular thought discouraged further investigations of such nonsense. Nearly two hundred years and many battles later a surgeon named Joseph Lister happened to read a paper, penned by the French chemist Louis Pasteur which had proven that if microorganisms were present rotting and fermentation could still occur under anaerobic conditions. The paper suggested ways to kill the microorganisms in order to prevent diseases such as gangrene and Lister thought it would be prudent to experiment. By using Carbolic acid, also known as phenol, to sterilize his surgical instruments, for instance. His results were remarkable; trying out his new procedure on compound fractures he managed to save nine out of eleven limbs, losing only one patient. This may not sound impressive compared to the successes of modern day medicine, but during the nineteenth century compound fractures necessitated amputation and were frequently fatal.

Lister's discovery revolutionized the practice

of medicine and with it, of course, the Medical Corps. Lack of sanitation on the battlefield seriously contributed to both combat and civilian related casualties and deaths. Surgeons were forced to rush between patients and never considered that they were spreading illness among them. Disease evolved in novel unexpected manners threatening everyone's health during the First World War, because of the advent of trench warfare and chemical weaponry, but through the revelation of sanitation thousands of lives that would have been as sure as lost were provided with recovery.

Among the many influences of the Great War, one was medical reform for everybody. Now that death rates had dropped in a significant way people began to trust doctors more than they had in previous years. Additionally with the germ theory of disease gaining more respect, many areas considered the advantages of promoting cleanliness and hygiene. Soon it was not only hospitals that underwent drastic adjustment to their sanitation methods but food producers and city planners became involved as well. Because the war was able to bring the hazards and their solutions to the forefront of the public mind we are able to live in a renewed, fresh environment today. •



Field surgery in the Gallipoli Peninsula during World War I. Photo from The War Illustrated, August 1915

Mountain Bicycles

IT WAS 1870 WHEN THE FIRST OFFICIAL "BICYCLE" was introduced. The High Wheel was an all metal machine with solid rubber tires. There were previous constructions, however their frames were wooden and tires made from steel making these modes of transportation uncomfortable and impractical. High Wheels front wheel steadily grew in size as manufacturers came to recognize that the larger the wheel the greater amount of distance could be covered in a single rotation of the petals. Wealthy young men would spend a goodly sum to own one of these bicycles and promenade about the city for everyone to admire.

Immediately the military recognized the bewildering potentials for the use of such a magnificent contrivance. Messengers could travel twice their normal speeds, transport supplies, and there was the additional benefit of not having to feed a bicycle as you would horses. They understood that the ordinary design would have to be extensively modified however in order to be serviceable to their troops. Intensive reconstructions and experiments went underway. Bicycles went through amazing transformations.

To begin, the frame was shortened to provide a safer, more structurally stable construction. Then chain and sprocket elements were added in order to use the power of the back wheel to propel the rider just as quickly as the High Wheel originals. Furthermore, pneumatic tires and bicycle shocks were developed in order to assist in smoother travel. These new bicycles were able to handle rough rocky terrain and steep slopes without being cumbersome, and affectionately became known as mountain bikes. A multitude of other adaptations were also introduced such as foldable models for carrying, wheels that traveled upon existing train tracks, and tandem models to transport multiple soldiers.

The versatility inherent within the bicycle lent



Drawing of a Japanese courier from Le Patriote Illustré, October 1904

itself to being used extensively throughout both world wars. They were able to deliver munitions to troops with ease that larger motorized vehicles would have found impassable. Whole bicycle battalions evolved due to their capability to outmaneuver large tanks, evacuate wounded soldiers, and even charge opposing infantry footmen! Advancements made in motorized vehicles eventually pushed the once esteemed bicycle to the wayside, but the technology developed by the military still exists within our daily lives.

Public commercialization brought these glorious developments into the hands of citizens worldwide. Their use has been as valuable to us as they were to the armies in which they first served. By encouraging healthy exercise, increased socialization, and an inexpensive alternative to motorized transportation the mountain bicycle has no doubt been a significant boon cultivated through the necessities of war. •



Bicycle Corps at Fort Missoula, Montana, 1897

Nellie Bly in Mexico

BY CAROL McCLEARY

A chapter from the history of Nellie Bly by the author of *The Alchemy of Murder* and *The Illusion of Murder*.

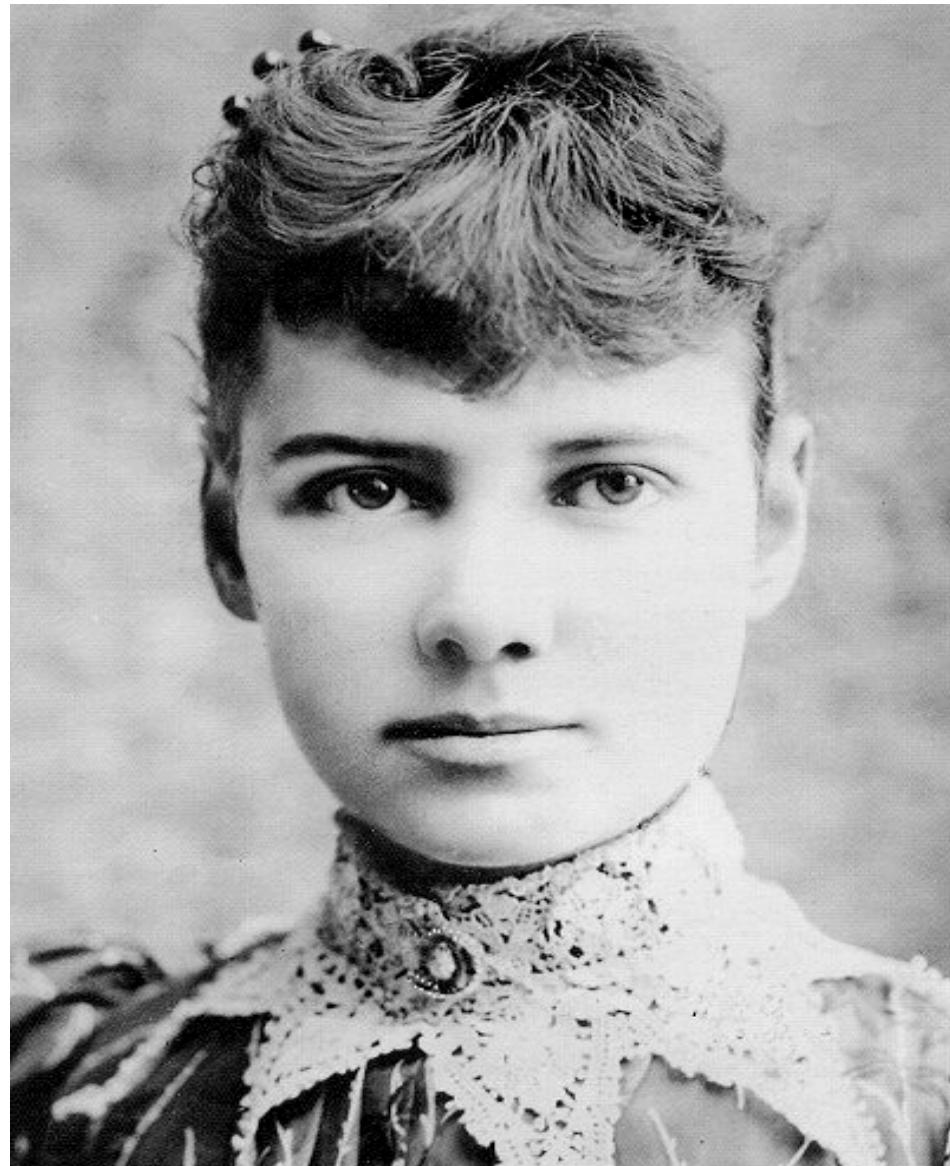
THE NINETEENTH CENTURY WAS a period in history marked by drastic changes, new inventions, advances in science and exploration, and the spurring of military conflicts. The world was in a frenzy and major turmoil.

Amid all this, Nellie Bly, first female staffer on the *Pittsburg Dispatch* in Pittsburgh, Pennsylvania, declared she wanted to become a foreign correspondent, a position never held by a woman.

After a few months of reporting soft news—stories about women's tea-parties, weddings, the theater—Nellie became bored and went to her managing editor, George Madden, requesting to be sent abroad to report what was happening.

He not only refused her request, stating that it was inappropriate for a woman to traipse off unescorted to some foreign country, but told her it was unheard of. Her job was to report on social news and that was the end of the discussion.

Being too impatient to work along at the usual duties assigned women on newspapers and being a woman who was never afraid to venture down the path not taken, Nellie went home that night to think of a place that was basically virgin territory—one that had not been saturated by newspapermen: Mexico, the land of excitement, turmoil, and adventure, a place where President Porfirio Díaz perpetuated an illusion of democracy; he kept control of the people by wielding power where it mattered the most, the military and



the *guardias rurales*, or countryside police.

Eager to go, Nellie announced to Madden that Mexico was the place she wanted to report on. Again, he was aghast at this crazy notion of hers and told her flatly no.

She stated she was going to take a leave of absence and bade her few journalistic friends adieu. Accompanied by her mother, she left

for Mexico in January of 1886. They made their way across America to Mexico by steam driven Iron Horse and stage coach, at a time before the West was won.

Over the next six months Nellie sent back reports of her travels in Mexico which the *Pittsburg Dispatch* published under variations of the headline: "NELLIE BLY IN MEXICO."

"For the first time I saw women plowing while their lords and masters sat on a fence smoking. I never longed for anything so much as I did to shove those lazy fellows off.

And the cowboys! I shall never forget the first real, live cowboy I saw on the plains. The train was moving at a 'putting-in-time' pace, as we came up to two horsemen. They wore immense sombreros, huge spurs, and had lassos hanging to the side of their saddles."

Nellie was surprised to find such a great contrast between two cities that sat side by side, separated only by a river, the Rio Grande. "El Paso is a progressive, lively, American town; El Pasco del Norte (the pass to the north), the Mexican town is as far back in the Middle Ages, and as slow as it was when the first adobe hut was executed in 1680. On the El Paso side they raise the finest grapes and sell the most exquisite wine that ever passed mortals' lips. On El Pasco del Norte they raise vegetables and smuggle the wine over."

She reported about a real Mexican prison. "There are no cells,

but a few adobe rooms and a long court, where the prisoners talk together and with the guards and count the time as it laggingly slips away. They very often play cards and smoke cigarettes. Around this prison is a line of soldiers. It is utterly impossible to cross it without detection."

And she was horrified to find out what happened to American prisoners in a Mexican jail: "Two meals, not enough to sustain life in a sick cat, must suffice him for an entire week. Prisoners also have the not very comfortable knowledge that, if they got too troublesome, the keepers have a nasty habit of making them stand up and be shot in the back. The reports made out in these cases are 'shot while trying to escape.'

Policemen occupy the center of the street at every termination of a block. Reminding one, as they lookdown the streets, of so many posts. They wear white caps with numbers on, blue suits, and nickel buttons. A mace now takes the place of the sword of former days."

To Nellie's delight more than thirty articles appeared not only in

the *Pittsburgh Dispatch*, but were picked up and reprinted by other newspapers around the country. People were interested to learn what she discovered in Mexico and she was getting the recognition of being a 'real' reporter.

Nellie reported about how Díaz approach to governing was "Bread or stick"—those who could not be brought to support him were violently repressed and how his government was internally fraught with corruption. From other newspapermen she learnt she must be careful in her words and who she wrote about, so she tried to stick to writing about descriptions of the places and people. Yet she found it impossible to not tell about the conditions of poverty that many Mexicans lived under. One pastime she hated and compared it to American dog fighting and boxing was their bullfights.

At these bullfights she discovered "soldiers, known as 'daisies' of Mexico, who are clad in buckskin suits, elaborately trimmed with silver ornaments, yard wide sombreros, and armed with gun, revolver, sword, dagger, mace, and



lasso, which they had no hesitation in using (on the public) in a quite a characteristic manner, asking no questions, expecting no information, performing their duties fatally."

"They are all outlaws, bandits, fierce and uncontrollable. Their many deeds, always done in the name of the law, are fearful to relate, so the present president thought it policy to engage their services. They ride handsome horses, furnished the government, and are said to be the most faithful, reliable men in the employ of the republic. Their only fault is killing without asking questions, for which they go scot-free without even so much as a rebuke."

Nellie soon became aware that her open criticism might lead to imprisonment: "I had some regard for my health, and Mexican jail is the least desirable adobe on the face of the earth, so some care was exercised in the selection of topics while we were inside their gates. Quite innocently one day I wrote a short notice about some editors, who received no pay from the government, being put in jail. The article was copied from one paper to another, and finally reached Mexico. The subsidized sheets threatened to denounce me and said in Spanish, "One button was enough;" meaning by one article the officials could see what my others were like, but by means of a little bravado I convinced them that I had the upper hand, and they left me unhurt."

With this little bit of luck, Nellie choose to leave. Besides, she was tired of the food.



Mexico City, ca 1884-1885

Once in America, Nellie no longer felt repressed and decided to report everything she learnt about the Mexican Government.

"The Mexican papers never publish one word against the government of officials, and the people who are at their mercy dare not breathe one word against them, as those in position are more able than the most tyrannical czar to make their life miserable.

All the papers which I know of are subsidized by the government, and, until within several months ago, they were paid to abstain from attacks on the government. This subsidy has stopped, through want of funds, but the papers say nothing against the government, as they care too much for their easy lives; so they circulate among foreigners misrepresenting all Mexican affairs, and putting every thing in a fair but utterly false light. If a newspaper even hints that government affairs could be bettered, the editors are thrown into prison, too filthy for brutes, until they die or swear never to repeat the offense."

Nellie also stated, "The constitution of Mexico is said to excel, in the way of freedom and

liberty to its subjects, that of the United States; but it is only on paper. It is a republic only in name, being in reality the worst monarchy in existence. Its subjects know nothing of the delights of a presidential campaign; they are men of a voting age, but they have never indulged in this manly pursuit, which even our women are hankering after."

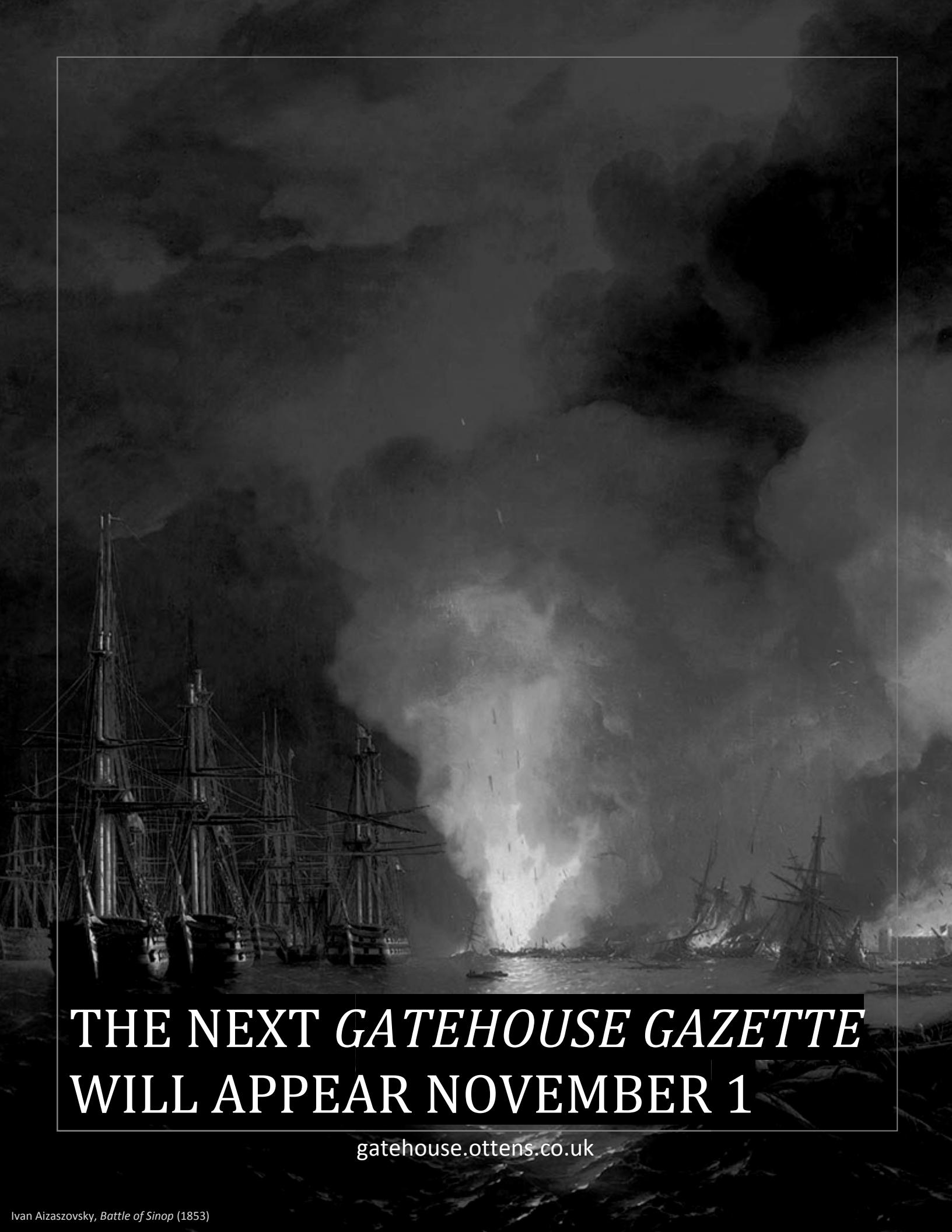
She concluded, "President Díaz has two years from next December to serve, that is, providing a revolution does not cut his term short." However, unbeknownst to Nellie, Díaz would retain power for another twenty-five years, before the Mexican Revolution did occur.

Even with this exceptional reporting, when Nellie Bly returned home in June, she was put back to being a society page reporter. This was unacceptable to her. She wanted to be a foreign correspondent or at least do articles that meant something to the people and help improve society.

One day she didn't show up for work. Instead her editor, Wilson, found on his desk a note:

"Dear Q.O. - I am off to New York. Look out for me. Bly."

And the rest is history... •



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