

BY JOSHUA BISHOPROBY

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A ROLEPLAYING GAME WITH CHARACTER

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for Laura, the original Commander Alexander

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"Captain," the etherwave radio squawked, "the pirate cutters are taking refuge in the asteroid field. We're staying uplight from them, but the shadows are increasing." The warbling voice warned, "We're going to lose them, and they know that, sir. Request permission to open fire."

"Negative," Captain Aldis Fitzgerald responded, folding his hands behind his back. "They only have so much air, lieutenant. Their containment can't be much more than one hundred cubic feet, and they'll need to return to port soon. We shoot them down now, we lose the port. Keep a wary eye out."

"Yes sir," came the response, and the Captain signaled for the wireless operator to cut the connection.

"Get me the apiary," Fitzgerald growled next, and the bridge crew hurried to comply. Distant echoes came up the voice tube as segments connected to create a path to the rooms deep in the ship where the analytical engines were held. Once they were ready, he barked into the fluted voice bell at his side, "Lieutenant Commander, we need that profile identification immediately. The Aries pilots are about to lose them, and we'll have nothing to show for this endeavor."

The reedy voice of the beekeeper downstairs came echoing up the voice tube: "We're punching petals as quickly as we can, Captain. The daguerreotypes we were able to expose were less than clear. The hive is buzzing, sir, but no honey yet."

"Dammit man, we need to know who is supplying these pirates with their ships," Fitzgerald spat. "If it's the French..."

"Yes sir, we'll notify you as soon as something comes out," the beekeeper promised, and then hesitantly added, "I really need to be getting to work, sir."

"Results, Lieutenant Commander," the Captain reminded. "Show me it's worth lugging that infernal contraption around. Dismissed."

A CLEVER GAMBIT BEYOND CERES

"Sir?" The towheaded Ensign Theodora Schwartz-child called, approaching the quarterdeck from the lower portion of the bridge. At the Captain's nod, she lifted a few plates of tactician's glass. "I may have the answer here. We've been assuming the cutters will be returning to a stationary port on an asteroid, but if their eventual destination was instead moving..."

"Pirates with capital-class ships?" Fitzgerald laughed, but then quickly sobered. The lady officer was rarely wrong in tactical matters. "You think they've got something with bays large enough to take those cutters?"

"Those cutters' manoeuvres make little sense with an assumption of a limited operating window and a stationary destination," Schwartzchild explained, and held the plates of glass out for the Captain to see. The coordinate grid printed on the surface was littered with markers and dotted lines. "They'd be killing themselves, or at the very least, playing with their own lives. And pirates are not known for self-sacrifice, sir." She gestured at the second glass. "But if one assumes a destination following the course marked epsilon there, the cutters' maneuvers perform a slow spiral, always keeping within range, able to bolt back when their air ran low."

"Optics!" the Captain shouted across the bridge. The optics officer flinched, then looked up. "Train the telescopes on a bearing of thirty-six degrees with a declination of sixteen. Reflect it up on the screen when you have it, and lower the bridge lights." As the opticians began working, the Captain bellowed into the voice flute, "Starboard battery, ready the snap cannons to fire at thirty-five, twelve down."

The gunnery officer's acknowledgment came up the voice tube, and then there was the distant clatter of another connection being made somewhere down the tube. "Captain, we have your profile identification," reported the feathery voice from the apiary.

"It's about time," Fitzgerald grumbled even as he smiled with satisfaction. The lights went down, and a ghostly image flickered up on the screen set above the forward windows.

At first it merely appeared to be a series of white flecks of light, but as the focus was adjusted, they resolved into the sunward side of tumbling asteroids, dented with pockmark craters. The focus resolved further, and the distant backdrop of stars appeared, dusting the background with points of light. But the sharp lines of manmade ships were absent. The bridge audibly deflated; there was no carrier, no target, here.

"They're Japanese, sir," the beekeeper downstairs explained. "Tanto Classification. Containment of ninety-

six cubic feet, armed with three sixteen pound cannon, crew complement of three—"

The Captain cursed, cutting off the man on the horn. "Japanese!" he barked, "we're not looking for a capital ship, we're looking for a mobile asteroid."

Ensign Schwartzchild nodded. "Like they use in their mining concerns. Optics, what are the speeds of each of those rocks relative to each other?" Fitzgerald frowned slightly at the girl's bucking of rank, but let the question stand. It was what he was about to ask, himself, after all.

The silhouette of a pencil appeared on the projection, pointing at one of the asteroids near the center of the clump, with very little spin. "This asteroid is moving contrary to the rest of the field, sir."

Fitzgerald eyed the numbers along the side of the projection and barked into the voice bell, "Starboard battery: your target is an asteroid at thirty-four and thirteen down. Repeat, thirty-four and thirteen. You may fire at will."

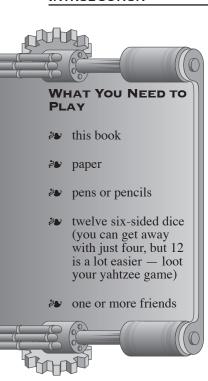
"Aye, sir," came the reply, and then the distant reports of the snap cannons reverberating through the ship. On the projection screen above, puffs of dust were rising off the side of the asteroid in question.

"Captain," called the wireless operator, "the Aries are reporting the cutters are breaking for the target."

Fitzgerald nodded, unsurprised. "They're going to try and run," he declared, and the asteroid, rubble and dust ablating off it in great gusts, began to pick up speed. "Optics, keep the 'scopes trained on the target; Astrogation, get their course tabulated. Engine Room!" There was a rumble and clank from the voice bell at his side making the connection, and he leaned over to bellow into it. "We are giving chase, Commander. We need Full Light, Full Steam!"

WHAT IS FULL LIGHT, FULL STEAM?

A handful of friends come together armed with paper, pencils, and a couple books to tell a story together. Each person has a character in the story that they portray for the others, except for the last person who takes up the slack and portrays all the minor characters that are left over. The story entails heroics, drama, and perhaps a touch of comedy on a spaceship traveling between British colonies on distant planets in the late Victorian Era. With any luck, when they finish (or when they run out of time that day), they will have created a story that they enjoyed hearing and



participating in. This is, in the most basic terms, what *Full Light, Full Steam* is all about.

Full Light, Full Steam is a role playing or collaborative storytelling game for adults who want to spend some creative time with friends. There is a common fictional world — the setting — which they draw their characters from and then narrate their characters' actions in. There are a few rules that say when one person gets to narrate and when they let someone else go, and whether or not a given character can actually pull off whatever feat of heroism they want to attempt. One player, called the Game Master (or just 'GM') portrays all the minor characters and arbitrates conflicts when they arise.

WHAT MAKES FULL LIGHT, FULL STEAM DIFFERENT?

Veterans to roleplaying and collaborative storytelling may well read the above paragraphs and identify them as "The Required What-is-Roleplaying Paragraph" that appears in every book. Before you jaded grumps pass on to the rest of the book, it is important to note the ways in which *Full Light, Full Steam* is different from many other roleplaying and collaborative storytelling games which you may have experience with. Many of these differences, while touched on below, are detailed in the gameplay chapters at the end of the book.

REACHING BEYOND YOUR CHARACTER

Many games work under the assumption that players control their characters and nothing else, that player actions are sharply limited by the character's abilities, and that the decisions that the player makes for their character should be solely based on the knowledge and motivations of the characters themselves. While this can be a rewarding stance, this game is written to allow all the players to contribute to the world and developing story. Every character has three *thematic batteries* which are used to modify die checks in positive or negative ways at the player's discretion. Characters are encouraged to consider the story as a whole while roleplaying, and motivate their character to take actions that develop and complicate the story. If their characters are uninvolved in a scene, players in *Full Light*, Full Steam, may be asked by the GM to portray one of the NPCs instead of waiting on the sidelines.

PLAYGROUP POWER DYNAMICS

Many games privilege and empower the GM to the point where the players are powerless and disenfranchised. Often, when a player or group of players does not like how the game is progressing, their only option is to quit the game entirely, which is hardly fair. There are a number

of mechanics throughout *Full Light, Full Steam* which remove the GM from a position of absolute authority and raise up the players' power to the point where they can help guide the game in directions they want. Any player at the table can call for a die check, not just the GM. Players do not simply explain what they want to do to the GM and let her dictate how events play out; if the player wins the check, the *player* narrates the ensuing success. Characters do not progress by spending experience points handed out by the GM but by spending spoils that they earn through cooperation and collaboration. This approach to roleplay requires the entire playgroup work together and communicate, rather than everyone else simply accepting the dictates of the GM.

ONE-ROLL COMBAT

In an average-length session of roleplaying, one single combat can take up more than half of the elapsed time. When the game focuses on skilled swordsmen and legendary warriors, this kind of time commitment can be appropriate, but *Full Light, Full Steam* is a game of heroism, leadership, teamwork, and society. The game mechanics are explicitly designed to put a focus on these central elements rather than spend most of the time counting off hit points. Mechanically, combat is dealt with in a single roll—how elaborately the combat is described, however, is entirely up to the players.

THE STEAMPUNK GENRE

Full Light, Full Steam takes place in a "steampunk" setting in which Victorian-Era science and technology enable Victorian-Era humanity to reach for the stars.

The chemical battery, the printed circuit, and the propeller are unknown, replaced with spring batteries, clockwork analytical engines, and etheric faraday drives. Technology is a monolithic affair powered by steam engines and built out of flywheels, gigantic cogs, and conveyer belts. The smallest, most portable items rely on old, reliable technology like gunpowder sidearms and pen and paper. Information technology is in its infancy, with ubiquitous networking a distant dream.

While it's easy to define the genre in terms of the technology, it's important to note that it's not just the etherships and snap cannons that come from the Victorian Era. The people — especially the characters that the players will portray — come into play with anachronistic sentiments and motivations. The British colonize the far-flung planets to spread civilisation and convert the heathen aliens to the Christian faith. Brave servicemen risk their lives for the glory of Empire and to win enough spoils to retire and marry well.

The world is different from our own — following simpler ideals and using improbable technology, where adventure and heroism are easier to come by.

ANATOMY OF THIS BOOK

This book is separated into three parts and eight chapters. The GM should familiarize herself with all aspects of the book in order to run her first game. While the players do not need such a comprehensive understanding, there is nothing in this book that will detract from their enjoyment of the game, and a great deal that may give them intriguing insights or helpful advice for portraying their character. The GM need not dictate which parts the players can or can't read, although she may want to identify which parts players *must* read in order to play!

The **Introduction** here in Part One gives you a broad overview of the game as a whole, along with the very basics of what *Full Light*, *Full Steam* is all about. If you've read this far, you're almost done with the Introduction.

The Sun Never Sets. This part consists of a number of documents from the world in which Full Light, Full Steam is set. While all of the information in this part may not be known to the characters, it is worthwhile for players to make themselves familiar with this content. Knowledge of these details can be a great help in developing your character — even if your character has never been to Venus, they've enjoyed the fruits of the colonies there! The players will not be spoiled by reading this material there is no Top Secret information here. There is, in fact, no Top Secret information anywhere in this book — that's up to you to create. The setting is presented in three chapters:

The first chapter, **For Queen and Country**, presents the reader with a variety of disparate documents detailing different aspects of life in the Royal Astronomical Navy. From advertisements in the pulps to the distinguished *Lady's Guide to Military Service*, the different pieces combine to present a broad picture of the naval life. These documents describe the function of military ranks, commissions, and the operation of the Chain of Command, as well as the inclusion of women in Britain's army and navy. An accounting and description of the various classes of British ships is also included here, as well as how these are organized into the well-oiled machine of the British Fleet.

A Daring Tourist's Solagraphy: A Travelogue is included as chapter two, following the perigrations of Miss Marcie Edgewood, a woman of wide travels and fierce courage. Miss Edgewood kept a journal of her travels throughout the Solar System, both as an enlisted woman in the Royal Astronomical Navy and later as a civilian. These

accounts, later serialized in *The Times*, detail the planets and asteroids of the inner Solar System and the colonies founded on them. These locales can provide the setting of many game sessions, and is worthwhile reading if you plan to play a game about manners, politics, and society. The more the players know about their circumstances, the better they will be able to portray them for each other.

The third chapter provides the **Layman's Reports** from the Royal Society, a series of articles written by Britain's leading scientists and published in the closing pages of chapbooks in an attempt to educate the common man in the advances of today's sciences. These articles explain the foundational principles upon which much of the day's technology is based, including the lumineferous ether, mechanical physics, beekeeping, horticulture, and planetology. Most officers in the Royal Astronomical Navy will be acquainted with these basics, as any gentleman (or lady) worth the name has a grasp of the developments of the day. This material is useful for players who prefer an emphasis on etheric science and engineering.

Part Three, **Playing the Game**, describes just that: the procedures, techniques, and rules that you will employ in playing Full Light, Full Steam. Unlike Part Two, this section is not derived from the fictional world of the game; it is instead an instruction manual on how you can create and improve your Full Light, Full Steam stories.

The fourth chapter of the book describes **The First Session**, the beginning of every solid game of *Full Light*, Full Steam. In the First Session, players discuss what they want out of the game they are about to play, then create the characters they are going to portray, and collaboratively create their immediate setting: their ship or home port and their superior officer.

The fifth chapter describes **Engineering the Situa**tion, the process by which the Game Master prepares for a session of play. This chapter has all the tools and techniques that you will need to build an engaging situation to present to the players. While the GM must absolutely read and understand this chapter, it is highly recommended that the other players don't leave the burden entirely on the GM's shoulders.

The sixth chapter describes **Roleplay**, the part of the game where you portray your characters and develop the unfolding story. Focusing on Narration and Direction, this chapter includes information, advice, and techniques useful to all players of the game, including ways to share narrative power and build a better game.

The seventh chapter explains the rules for **Checks**, the procedure by which players arbitrate the success and failure of their characters. Static and dynamic checks and



SIDEBARS

While most of the book is laid out so you can read from start to finish, you may find that tips and rules described in sidebars like these make no sense at all. Many of the sidebars are designed to be used during play, after you've read most of the book, and reference rules and concepts described later in the text.

So if you're meandering along through the book and find a sidebar talking about stuff you've never even heard about, don't worry: when you come back to it, everything will become clear.



cooperative rolls are described here, as are the mechanics for thematic batteries, dice promotions, and dice demotions, which allow the players to adjust their characters' chances of success. Lastly, this chapter explains the role of condition batteries, which account for the character's health and well-being.

The eighth and last chapter, **Between Sessions**, describes the important steps that every playgroup should perform at the end of every session, including Feedback and Spending Spoils.

CHAPTER 1:

FOR QUEEN AND COUNTRY

ATTENTION, BRAVE YOUNG BOYS!

(excerpted from Daring Adventure Stories Magazine)

There comes a time in the life of every British boy when he looks on his favored toy soldiers and thinks to himself, "What would it be like to stand on the bridge of a battleship, hunting pirates and protecting the Empire? What would it be like to explore the jungles of Venus, or trek across the high deserts of Mars? How would it feel to know that it is my heroism and my courage that keeps my mother and sisters at home safe and sound?"

Well, I am here to tell you — the answers to those questions may be closer than you think. You need not content yourself with playing with toy soldiers when you can look forward to being one, in the Royal Astronomical Navy!

Her Majesty's Royal Astronomical Navy is looking for brave young boys such as yourself with the will and drive to do what is necessary to protect the interests of the Empire. Cabin boys may volunteer for service beginning at the age of thirteen. As a Cabin Boy, you will assist one of our brave captains in their day-to-day tasks, traveling alongside them as they visit exotic ports and battle the enemies of the Crown. You must have your parents' permission to become a Cabin Boy. If your Mother does not understand the noble sacrifice that you wish to make, you must only wait a short while before you can simply enlist as a sailor.

Sailors are the backbone of the Astronomical Navy, and perform all the necessary duties to keep our ships the finest solar steamers in the skies. As a sailor, you might operate mirror sail armatures to capture sunlight, tend to the steam engines as they turn that dazzling light into the ship's power, or perhaps see to the great faraday drives on their giant gyroscopes in the engine room. You might man the optics station at the end of the ship or aim and fire off the great snap cannons as part of a broadside against dastardly pirates. You may even elect to train as a marine and participate in boarding actions and ground assaults on enemy ports! Sailors enlist for a tour of duty of three years, and receive good pay for their noble service. To enlist as a sailor, young men (and the occasional girl) must be of good health and at least fifteen years of age.



Or perhaps your family line has a proud tradition of service as officers among the Queen's soldiers. Perhaps you wish to be the first in your family to take such a bold step forward. Officers lead groups of enlistedmen in the execution of their duties, and may also take the controls of Her Majesty's battleships, escorts, and fighters. Unlike enlistedmen, naval officers purchase a commission and serve as an officer for as long as they are able and willing to answer the call to defend the Empire. They receive a generous salary and are awarded spoils when they arrest pirates or scuttle enemy ships of ill fame. Officers must be possessed of a reputable character, a strong education, and the willingness to make hard decisions and follow difficult orders. It is on their shoulders that the safety and prosperity of the Empire rests.

There is a recruitment office near you — ask at your local post office and speak with the friendly recruitment officers there as soon as you can. A life of excitement and adventure awaits anyone who takes that brave step forward!

THE FAIRER SEX AND HER MAJESTY'S NAVY

(two excerpts from the Lady's Guide to Military Service)

"Skirts and the lack of gravity do not mix. This is no argument against our fairer sex serving in Her Majesty's Navy; rather, that we should wear trousers while doing so."

It has been some time since I wrote my first impassioned letter to the editors of the Times in London. Since then, the world has experienced many changes. Ether sails have been replaced by faraday drives; the last of Ishtar's natives have accepted British rule and the Christian faith; there are more Japanese, American and independent ships plying the Greatest Sea; we see less and less of the Dutch and Spanish pass by. Yet while these seem the greatest movements of our present history, greater changes yet are occurring, in the cause of women's suffrage and our rights to contribute and perform military service.

Ever since Queen Elizabeth refused to marry another Prince of Europe, we have had our role model in that great monarch and in her friend and confidante, Samantha Redding, who had for years masqueraded as a man as she scaled the hierarchies of the British armies. Redding's near-fatal sacrifice in protecting her Majesty from the Popish Easter plot revealed to the world the courage that might beat in a lady's heart. Redding's foundation, with the Queen's support, of the exclusively female Guinevere's Guard created a precedent allowing women to enter the armed forces of Britain. The history of women in military service was restricted to explicitly female corps, such as the Rangers



of Boudecia and the Welsh 'Morrigan Corbie' for the next two hundred years. It was not until another female monarch took the throne that further progress could be made.

The Crimean War, now known in some circles as the Ladies' War, provided our sex with a chance to display our value and valor. Curiously, our fortune came at the hands of General Arthur Chester, a rabid anti-feminist who publicly denounced women's place in the military. His army had pushed to just within sight of the space elevator ringed with artillery and could go no further, despite demands from his superiors behind the lines. Thinking to rid himself of his longtime rivals, he selected the Amazons to lead a charge of light calvary and infantry against the heavily fortified target. The Amazons, led by Commander Florence Nightingale, accepted the suicide orders with equanimity. The next morning, they charged to the guns' silence: Nightingale's midnight raids on supply lines and armouries within the elevator's base had decimated their defenses. By the day's end, the elevator was in British hands.

Victoria congratulated Commander Nightingale personally and offered to promote her to General. Nightingale stunned onlookers as she refused to serve as the general of a woman's army, citing that she would vastly prefer to be a commander in an army of British subjects of both sexes. An Act of Parliament followed shortly thereafter, desegregating the British army and navy, allowing women to join in nearly any arm of military service.

Official decree and public acceptance, however, have been long in being reconciled. The Times' editorial to which I responded fifteen years ago typified us in unflattering terms and questioned whether we ever expected to catch a husband with such a background. From the start, women were happily accepted as enlisted recruits and as ensigns but found promotion exceedingly difficult. In the thirty years since the Feminine Military Service Act, there have been only three captains of the fairer sex; no commodores or admirals have been of our sex, and yet eleven men have been promoted into those positions with less than thirty years service on their records. When I first published my letter in defense of female military service, I was obliged to use a pen name to disguise my identity and protect my career from reprisals; sadly, I still find this practice necessary. Slowly, however, we are pushing at the upper ranks, demanding attention and recognition for our valor, and this above all other things is the element of change that I find most exciting in the past thirty years: equality has drifted ever-closer to our grasp.

Soon will come a critical point where we shall prove our worth again, where we will stand as tall as men and shine as bright as stars. To any ladies of valor who read this, I hope you will be there with me.



THE SUN NEVER SETS; FOR QUEEN AND COUNTRY



PLAYING A LADY OFFICER

If you want to play a female character, you might find their second-class status intriguing and want to explore that in play. You might be completely disinterested in such content. The key to getting the kind of play you want lies in your character's thematic batteries.

If you are interested in the curious and troubled role of women in the service, take an appropriate thematic battery such as *Lady Officer*, *Suffragette*, or even *Chip on her Shoulder*. Play will naturally come to focus on this aspect of your character.

If you're not interested, take different thematic batteries. Play will focus on those things, instead.



ETIQUETTE FOR LADIES IN THE SERVICE

To be both a lady and an officer or servicewoman gives rise to a number of questions regarding etiquette and manners. Lady officers are addressed as "ma'am," not "sir." Gentlemen are not required to open bulkhead doors for such officers, but I would advise you to graciously accept the assistance when it is offered. The next time the situation arises, open the door for him.

Proper dress is also a common concern. The necessities of space and its lack of gravitation make skirts and dresses unfeasible for ship operations. Therefore the ladies' service uniform, worn onboard ship, employs trousers. For formal occasions within the domain of gravity, another uniform, this one equipped with a skirt, is used; this is the default dress uniform. Lady officers are encouraged to wear ball gowns or other feminine clothing in place of this dress uniform. Their rank, division and assignment are displayed on a navy blue sash. Gowns are optional, but subsidized with an adequate stipend from the Navy.

The most glaring difficulty is a lady's escort, for no lady worth the name goes out in public unchaperoned. Matters have been resolved nicely by considering a lady as 'chaperoned' whenever she is onboard her own ship. When on foreign vessels, ports, or even home ports it is advisable for all, men and women, to travel in pairs or groups. Chaperones are never hard to find on a ship filled with men of character, as all officers in Her Majesty's Astronomical Navy are.

A Lady may be tempted to apply the charms of the fairer sex to the astronaval hierarchy. This is a course of action which I must entirely denounce, if only for our own safety and benefit. As ladies we are trying to establish ourselves as equals in ability; to muddy the waters with flirtations will not further this goal. Moreover, an officer who believes himself to possess a kept woman on board his own ship reacts irrationally and inappropriately; as soldiers and as ladies we cannot allow such perversion of Her Majesty's own armies to take place. Always conduct yourself with as much honor and courtesy as possible.



ABSTRACT OF THE OLYMPIC SOLAR STEAMER

(excerpted from the Olympic Proposal submitted to Parliament)

It is my pleasure to present to you, kind sirs of the Navy Committee, the design of the most modern solar steamer yet conceived. The details of this, the Olympic classification, follow in attached documents, but with your permission I should like to briefly summarize its innovations and advantages over prior designs currently in use by the Royal Astronomical Navy.

With a containment of just under seven hundred thousand cubic yards of air, the Olympic will be the largest solar steamer in the skies outside of the Russian fleet. Unlike the ponderous tubs of the Russians, however, the Olympic's two sets of dual faraday drives, rated at four thousand volts each, will propel the craft at an enviable estimated acceleration of up to fifteen astronomical knots per second. While this speed is indeed less than prior classifications such as the Triumph and Puncher, the Olympic's firepower will not rely on past designs' speed.

As the mixed-poundage batteries have seen reduced utility in recent engagements of the Bayleaf and Chiddinfold classifications, the Olympic adopts a main gun philosophy in the form of four turrets, each bearing two hundred-watt etheric snap cannons. These cannons' greater capacity and precise focus allow them a drastically increased range over prior batteries, precluding the need for costly and dangerous pursuits. The ship-versus-ship power of the cannons is supplemented by an array of shock bomb torpedo tubes for use against port and asteroidal targets.

The recommended crew complement for the Olympic is six-hundred thirty-two able-bodied hands, including forty-eight officers. Quarters are adequately comfortable for our fighting men, with enlistedmen in eight-man quarters outfitted with secured hammocks, junior officers in paired quarters, and senior officers in single-occupancy quarters suitable for both living arrangements and private interviews. The core of the ship contains a twenty-five thousand cubic yard garden and solarium to refresh ship air, supplement the larders, and process human waste. The primary light shaft runs the length of the solarium, connecting the fore and aft engine rooms and equipped with automatic shutters for full light, full steam operations.

Both fore and aft engine rooms are equipped with their own steam engines to provide redundancy, powering dual faraday drives mounted in heavy gyroscopes rated to bear thousands of foot-pounds of torque. Spring rooms sit adjacent to each engine room, the spring batteries together capable of storing enough energy for ninety minutes



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ARMAMENTS

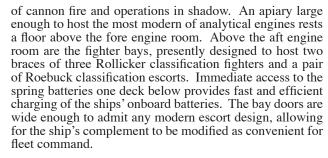
Etheric Snap Cannon create a shockwave communicated through the etheric medium to the target. The target explodes in light and heat.

Shock Torpedoes are flung from catapults at a target or into a minefield. When they detonate, they produce a greater etheric shock than cannon.

Glass Cannon use an array of mirrors to focus light into a coherent beam which is capable of communicating incredible amounts of heat into the target. Most glass cannons have been replaced with etheric Snap Cannon.

Ramming Prows, while presently out of fashion, can still be found on a number of ships.

Chemical Ordnance, using gunpowder or cordite to propel an explosive shell, is not often used due to the oxygen requirements of the explosives involved.



Prodigious cargo holds on the order of fifty thousand cubic yards sit forward of the ship bays, with access to the top deck through reinforced bay doors. The cargo may be pressurized or left in vacuum, depending on the needs of the cargo. The holds are flanked, in turn, by the sail-armature stations, partitioned against catastrophic decompression to afford the most sailors the most protection and ensuring continued performance in battle. The armatures' movement is supplemented by steam pistons, allowing one man to do the work of six, with a cunning mechanism allowing the armature and light sail to be manipulated manually in the case of pressure loss. We will have no incidents as happened to the Scylla.

The fore and aft prows hold the optics and collection centres, with undiverted access to both the light funnels and the primary light shaft. The battery of telescopes and mirrors designed to be installed in the optics compartments are the same as presently used in the Blue Rover and Diligence designs, capable of spotting the sunward side of a battleship and resolving its identifying details at a gross range of thirty-five astronomical miles. These images may be forwarded to the apiary for daguerreotyping or directly to the bridge for command decisions.

The bridge's position above the main hull allows for opened portholes to provide natural visual range in the unlikely loss of optics, although normal battle operations will see the bridge crew safely behind heavily armoured plating. The bridge affords eight crew stations, including dedicated stations for pilot and copilot, optics, etherwave, and fire control. Command stands or sits on a configurable raised dais allowing our often idiosyncratic captains to install tables, boards, and chairs as they see fit. Here at the operational centre of the Olympic, our captains will be in command of the most powerful, durable, and efficient solar steamer ever to defend Britain's interests, able to take all requisite actions to protect and promote the rights and privileges of every British citizen throughout the solar system.

I, along with the rest of the Empire, await your considered response to these designs.

Augustus Nessington, Shipwright



UNDERSTANDING CLASS AND CLASSIFICATION

(excerpted from The Times' Editorial page)

In your recent article detailing the engagement of HMS Dreadnought and HMS Orangeleaf against Turkish pirates around Ceres, you referred to both ships as dreadnoughts, but also pointed out that the Orangeleaf was of the Sentinel classification. What kind of ships are they?

Yours, Confused in Liverpool.

Don't fret, Confused. The ships of the British Royal Astronomical Navy have both a class and a classification, and the distinction between the two can be rather confusing.

Capital ships in the Royal Astronomical Navy are classed on a scale of 1 to 6 to indicate their battle readiness. First-class ships are the most capable, the flagships of the British Astronomical Naval fleet; second and third class ships flesh out the fleet's numbers and follow the lead of first-class ships in battle. Fleet Command prefers to use only the first three classes — typically referred to as battleships — in martial affairs, relegating the fourth through sixth classes to support roles such as ferrying supplies or patrolling territory well within British space. A given ship's class will change over the course of the ship's lifetime, usually increasing into obsolescence.

Classification is the design and configuration of the ship; ships of the same classification are nearly identical to each other. Until the turn of the century, there were only ever a handful of classifications in active use in the British naval services; with the quickening march of progress, however, there are a dizzying number of classifications currently in use today. Often only two or three ships of a given classification will be constructed before a new design is put forward. While identifying the classification of a given ship can yield useful information such as armament or design flaws, the sheer number of different designs presently in the skies makes this a difficult proposition at best.

Class breaks down roughly by size, measured by the ships' containment of air. Larger ships are capable of bearing larger engines, larger crews, and a greater complement of weaponry; smaller ships are more specialized to specific functions. Because of this, most classifications are grouped within a single class — all Sentinels are First-Class battleships, for instance — but this is not always the case. Differences in crew complement, changes in the ship's armament, or permanent damage from old battles can upgrade or downgrade an individual ship's class.



DREADNOUGHTS (FIRST CLASS)

The flagships of our fleet, there are nearly two score Dreadnoughts in the skies. With powerful guns, thick plating, and dual faraday drives, these ships represent the pinnacle of modern naval warfare. Discarding the prior preference for a variety of cannon weights and ranges, Dreadnoughts typically have two or four batteries of super-heavy snap cannons around a half-ton each. Such an astounding display of firepower is supplemented by shock bomb catapults and torpedo tubes as well as wings of fighters housed in internal holding bays. New innovations also allow dreadnoughts to fold and retract their sails in battle; the ship can operate entirely on battery power for the space of an hour or more. Dreadnoughts boast an air containment of at least 500,000 cubic yards and a crew complement around 500, and are known as "Sailing Cities".

These ships lead fleets in wartime; in peacetime they patrol British space, protect our trade routes, respond to reports of pirates or infringements on our space, and in all other ways support Britain's trade networks. As the grandest ships in existence, dreadnoughts are also commonly called upon to host and escort members of Parliament, the royal family, and other important personages.

The most common Dreadnought classifications are the original Dreadnought, the Libra, and the Sentinel.

BATTLESHIPS (SECOND AND THIRD CLASS)

All ships with a battle rating less than 4 are classed as battleships. Technically, this includes dreadnoughts, but the term usually refers to the second- and third-class ships that form the backbone of the Fleet. The line between second and third class is murky at best, and designated by Fleet Command based on armament, crew experience, and the all-important containment. Battleships tend to be older than dreadnoughts, and often carry a variety of arms, including light- and medium-weight snap cannon, shock bomb catapults, and the occasional superheavy cannon battery. Some second-class battleships are large enough to carry wings of fighters; others bear only lightly-armed landing craft. Most battleship sails cannot retract; instead, they are hardened, made more durable but less reflective. Their engine's performance is therefore less than a dreadnought's. Generally speaking, battleships may contain anywhere from 300,000 to 500,000 cubic yards of atmosphere and carry a crew complement of 250 to 450.

Battleships are primarily patrolling vessels, and their use is almost exclusively martial. Their ability to operate beyond the reach of friendly ports means that they are often put into deep sky missions and may be away months at a time. In wartime, a half-dozen battleships are grouped with every dreadnought; the collective barrage of cannon poses a serious threat to any enemy port or ship.





Fig 1.1 Lieutenant Hargrave occupies the attention of the pirate "Admiral" Black while HMS Chesterfield engages his "fleet."

There are over fifty different classifications of battleship currently in the skies. Most prominent are the Capricorn, known as "Old Goats" for their incredible operational range; the Warrior, known for its devastating barrages; and the Bayleaf, which has a reputation for indomitable tenacity.

FRIGATES (FOURTH AND FIFTH CLASS)

Usually considered less than battle-worthy, ships in the fourth and fifth classes are called frigates. Often dating from the advent of the faraday drive and the infancy of interplanetary colonization, these ships were half warship and half freighter. Today they fulfill the latter role more often than the former, although most have been retrofitted to replace their old glass cannon with modern armaments. Frigates have neither fighters nor landers, but instead are capable of landing in any body of water large enough to fit them; while this design is convenient for landings on Earth, Mars, and most of Venus, the lack of any standing water on Mercury and in the Venerian Highlands resulted in this design being discarded. Many ports still maintain "landing pools" for the older ships, which often have to be filled before the ship can land.



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With so many old ships in the frigate class, there are many different classifications. Some examples include the Puncher, its ramming prows now out of vogue in ship design; the Sir Bedivere, only one of which remains in service; and the Taurus, often called "Oxen" due to their usual role hauling freight.

WAR SLOOPS AND SLOOPS

(SIXTH CLASS AND ABOVE)

The sixth class of the navy's ships is the war sloop, so named to distinguish it from the unrated sloops, which have no battle class and are hardly armed at all. Most sloops were originally ethersailing ships; some still sail while the rest have been retrofitted with faraday drives. Their primary task is ferrying supplies between British holdings; war sloops are called into battle only at the direst hour as a last desperate line of defense.

ESCORTS

The largest of the subcapital ships, the escort is a new class no more than twenty years old. Escorts have no onboard solar steam engine, relying on a capacious spring battery to power the ship's systems. Since this battery must be charged by a steam engine, these ships have a limited operational range tied to terrestrial charging stations or dreadnoughts capable of recharging them. However, without the weight of the steam engine, escorts become highly maneuverable and can be more heavily armed than their size might otherwise suggest.

Escorts are most commonly seen patrolling the skies close to British ports and in naval warfare, where their smaller size and increased maneuverability allows them to protect the larger ships from fighters and torpedoes.

The Leo is the oldest and most common escort classification; its six-man crew configuration is often considered the default Escort design. Others include the sprightly Roebuck and the Bicester port defender.

FIGHTERS

These compact craft are little more than a spring, a faraday drive, a tank of atmosphere and a collection of guns. Manned by one or two sailors, these ships are exclusively used in naval warfare to maneuver past the capital ships' cumbersome cannon and deliver their own firepower at close quarters. The pilots and gunners of fighter ships are brave men indeed, the death rate of their sorties being as high as one in ten.

The Rollicker and the Aries are the two most common fighter classifications, their differences being little more than the weight of their armaments.



RANK AND THE CHAIN OF COMMAND

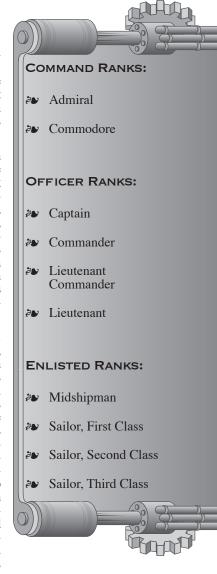
(excerpted from the Lady's Guide to Military Service)

The Astronomical Navy is organized along a structure of rank derivative from the sea navy it superseded. Those of higher rank give orders and instructions to those of lower rank, whose job is to execute these orders without questioning them. Rank also comes with privileges, from the Officer's Club when in port to better accommodations while on assignment.

The highest ranks are command ranks, invested in men of great savvy and experience, most of whom have left their sailing days behind them — they spend the bulk of their time in important ports like Cydonia, Madras, Ceres, or London. The ranks of Admiral and Commodore, of which there are never more than ten or twenty active, are for those who make executive decisions about astronaval strategy, the placement of fleets and the programs and regulations that keep us in fighting trim. In general, a Commodore is placed in charge of a fleet of ships, between ten and thirty given the situation; Admirals command fleets and execute the strategies that they have laid out in conference beforehand.

On a typical ship, the highest rank is the Captain. Even when an admiral or commodore is aboard a ship, the command officers are within the Captain's domain and under his hospitality. Captains are the absolute rulers of their ships and their decree is law. While the Captain takes and interprets orders from Command and determines the priorities of ship objectives and requirements, it is the Commander who executes his final decisions. If captains are the absolute rulers of their shipboard kingdoms, commanders are their majordomos, who ensure that the captains' orders are initiated and other routine concerns are attended to. Since the Commander cannot run the entire ship himself, he is assisted by lieutenant commanders who each oversee a specific segment of the ship. Common departments are Engineering, Optics, Tactics, Horticulture and Logistics. Within each department, lieutenant commanders rely in turn on their lieutenants to oversee shifts and provide leadership to the men. Ensigns assist lieutenants or their lieutenant commander directly; nearly all are in a temporary stage of hands-on training, and can be expected to be promoted soon.

Marshaling the enlisted crew together are midshipmen: noncommissioned officers, enlisted themselves and raised to a position of slight authority. The midshipmen enforce daily regulations such as dress and bunk detail. The rest of the servicemen and women possess the rank of sailor, with the distinctions of third, second, and first class





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marking gradations of increasing experience and proven service, not to mention pay. The enlisted are not eligible for bounties, but kind officers may elect to reward their men when such a windfall is earned by the ship.

The chain of command dictates that astronaval personnel will follow official orders given them by their superior officers. Orders which are not official and orders which are not legal may be disregarded or reported to *their* superior officer. Orders from a higher-ranking officer who is not your direct superior may be ignored, but not with impunity: the officer in question is quite capable of speaking with your superior officer, who may discipline you for insubordination. In general, unless you have conflicting orders from your superior officer, accept the orders given you by another officer. It is, at the very least, polite.

DRIVING FORCE

To Stuart Lampson —

I understand that I am your first assignment on HMS Cumberland. The Captain assures me that you are a young lad of character and breeding, which is all well and good excepting the fact that the last ensign was, too. What I need in a new officer of my Engineering crew is that you be quick on your feet, flexible, and an apt student. I don't give three damns about who your mother and father are.

Cumberland is not a new ship, son, and half her parts have been added since she was launched. We're built for a crew of two hundred and we carry three — and still there's only twenty men to see to the mechanics of the beast, which is less than what's needed. It's possible that you fancy the ether or the steam or the mirrors or what-have-you, but I will tell you this now, before you set foot in my engine room, you will need to learn everything you can about every piece of machinery in here. We've no time, space, or breathing air for specialists on my boat. To that end, you have three weeks before we hoist anchor to familiarize yourself with as much as you can. I suggest you start with what makes the ship go, since everything else tends to be thrown out the porthole when things start to go wrong.

That starts with the mirror sails, and if you are under the impression that the armatures are only the concern of enlistedmen than you have another thing coming to you. Cumberland has six masts, three to a side, to collect sunlight. I'll tell you this now that our most efficient configuration is the butterfly traverse, but the mirrors get pointed the way the Captain needs them, and it's a rare instance where he chooses to steam cross-light just because it's more convenient for the likes of you and I. The main masts reflect sunlight to the collection arrays at fore and aft of the ship; because we're a creaky old tub the aft mirror tail





Fig 1.2 A saboteur wreaks havoc in the motor room of HMS Puncher.

bounces the light back to fore instead of pouring it down its own funnel. Once the light's in the funnel, it's down the primary light shaft towards the engine room, and that's assuming the ship's gardener doesn't gobble it all up en route to grow his damned strawberries.

In the engine room you will take the light and turn it into electric current. Out of the shaft, the light is focused into a coherent beam — look up glass cannons, since it's the same mirrors and lenses used a different way. The beam is directed into a great glass bulb filled with water. The water boils, creating steam, which is fed into the turbines, turning the magnets inside to create an electric current. Now that current is a fickle thing; if it is not used immediately by the ship, it goes to winding up the spring batteries housed next door. When we don't have light to keep the steam engines boiling, we discharge the batteries to keep us going. The engine room is a hot place, boy, with a great many moving bits the size of your house. You'd do best to watch yourself in there; the last ensign didn't and look what happened to him!

Now if you're a good lad, I'll let you into the motor rooms to look after the faraday drives. We're an odd



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ship that doesn't have the drives next to the engines; we swapped them both with bigger models a long time ago. We've got gyroscopes where the mess used to be, and the mess is what used to be the secondary hold. In any case, the faraday drives take the current from the engines and put out an electromagnetic field — don't worry if you don't understand this bit, there's only a few on the ship that do — then the electromagnetic field interacts with the ether like an oar against the water. The gyroscopes rotate the drives around so that they're pointing at where we don't want to be, and the whole ship moves towards where we do.

That's the bit of magic that distinguishes us engineers from the rest of the crew, lad, and that's what you'll be learning under me if you can keep your wits together and refrain from putting your fingers where they ought not go. It's not an easy tack to take, but it's what's been given to you and I expect the best from you.

Lt Cmdr Joseph MacKintosh, Ship's Engineer, HMS Cumberland

THE SOLAR POWERS

Dearest Samantha -

I am sorry it has taken so long to respond to you, my dear. There was a little trouble with the Americans bandying about a bit more ore than they should have been, and we had to track down the smugglers that were stealing out of British mines — we only received mail once we returned to Ceres. It's a sad thing when a father only hears from his daughter once every month, and that by post, but I treasure every letter you send.

The school project you describe seems quite strange, but also a good step forward from the nonsense that tutor on Venus foisted on you. Every young citizen of Britain (because that is what you are, even living in Cydonia) should know about the Solar Powers. I am more than happy to explain how the matter stands to you, and I should dare say that I will be a bit more accurate than anything you might read out of those textbooks they give you!

BRITAIN

As the greatest of the Solar Powers, we are often the target of envy, espionage and outright war. Britain's possessions include approximately a quarter of the surface of Mars, the hegemony of Venus, bases and mining operations on Mercury and scattered holdings in the asteroid belt. Our Parliament rules both the country and its colonies; British colonists have 'virtual representation' in Parliament through members elected at home. The greatest power in Parliament is of course Queen Victoria's Diamond Coali-



tion, whose primary goals are expansion and economic development. Britain is presently at peace with all other Solar Powers — no small trick, let me assure you.

FRANCE

Our neighbors across the channel occupy a strange position in our foreign diplomacy as both our closest ally and greatest rival. Of all the Solar Powers, we are the most alike, which breeds both camaraderie as well as rivalry. Its extensive possessions, approximately a third the surface of Mars, its moon Phobos, significant mining facilities and bases on Mercury and few asteroids, make it the second largest Solar Power. As such, it is quick to defend the rights of established, incumbent colonists, a trait we both share, but it is also constantly seeking ways to undermine or overtake our power, technology and territory. Britain in turn does its utmost to defend against these casual plots. We are like two hunting dogs, eager to participate in the hunt but always seeking to gain dominance of the pack.

France's Parliament, highly factionalized and often self-contradictory, is second to the nation's extensive bureaucracy, whose Ministry of Stars effectively makes all decisions regarding its offworld colonies. The French Navy d'Etoile operates the second largest fleet in space, a combination of solar steamers and the new Curie Plant ships, which require no sails. The technology of the Curie Plant and their artificial gravity are their great secrets — I'm led to understand that our engineers have been trying to replicate them for years, but sadly without success. The addition of gravity would make taking tea much simpler!

RUSSIA

The Romanovs' massive Empire lurks beneath France as the next greatest Solar Power. Russia's largest holding is on Mars, where it controls almost one third of the surface; it also controls eight Icaran asteroids in stable orbits within Earth's own orbit. Russia, along with Britain, was awarded Venus in the Congress of Vienna. Since that time, however, Britain has shown the greater skill at taming and civilising the natives, and has therefore won two of three continents of the Jungle Planet. Russia constantly dispatches espionage teams with the goal to undermine British authority and send the natives into an uprising, in the hopes that Russian troops can then arrive to quell the rebellion and assume control under the Accords. The scheme has yet to bear fruit. Relations between Russia and Britain are understandably tense, but the intercession of France (Russia's ally) generally maintains the peace.

For the bulk of its history, Russia has striven to earn the respect of the other European Powers, with varied success. The Romanov Czars (of which Alexander III is currently reigning) have invested heavily in industrialization and extraplanetary colonization to this end, although the



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results are mixed. Russian ships are uniformly enormous, slow, and armoured like a fortress. They spin the whole massive thing to produce something akin to gravity. A captain like me in a third-class battleship would never want to challenge one of those things, but their small fleet proved almost useless in the recent Russo-Japanese War, in which Japan seized Manchuria, numerous islands, and the Martian moon Deimos. To be defeated by a heathen power has been terribly embarrassing for Russia, and it has been seeking to redeem itself in the eyes of its 'peers' since.

HOLLAND

The Dutch are a decaying power, once great but now only a shadow of their former glory. Like Spain before it, Holland may soon fade out of the interplanetary theater altogether. Their King and Hague (what they call their Parliament) are both saddled with debts and favors to other Powers, with the result that its policies are commonly dictated by foreigners. Its extraplanetary possessions are few and mostly unremarkable: a motley collection of asteroids and depleted mines on Mercury. Zonnendam is its pride and joy, however: the largest port of call in the Solar System, situated on Mercury. Ships flying every flag commonly favor the metropolitan Zonnendam over their own ports, accepting the dock fees for the chance to indulge in the city's diversions. Holland also maintains a number of bases on Venerian islands, from which it, like Russia, attempts to undermine British rule there. Our diplomatic stance towards Holland would be wary, if the Power was not on the verge of extinction already.

AMERICA

The United States of America was uninvolved with offworld colonization until a little over twenty years ago, when it, quite suddenly, bought Spain's territories on Mars. A mere two years later, gold deposits were found there, and Americans began immigrating en masse. When most of American Mars had been claimed, Americans led the movement to colonize and exploit the asteroid belt. America bought over half of Holland's holdings on Mercury shortly thereafter and recently became a signatory of the Extraplanetary Colonial Accords. In the time since you were born, dear, America has blundered onto the interplanetary theater and claimed status as a Solar Power.

America's fleet of solar steamers appears capable on paper, but it has yet to participate in an actual war. They recently sent their "Great White Fleet" in a tour throughout the solar system to show off a bit — so far we have not been very impressed. As I understand it, the American Congress (Parliament) has nominal control of its offworld possessions, but the details of operation are left to the military in the form of governor-generals for each colony, with whom I deal with regularly.



JAPAN

The Empire of the Rising Sun, presided by its Emperor Meiji and guided by its fledgling Diet (why they can't all call their parliaments "Parliament" I'll never know), is perhaps the most ambitious and certainly the youngest of all the Solar Powers. The Nipponese followed the Americans' push to colonize the asteroid belt and then did the unthinkable, establishing orbital bases above the fiery innermost planet Vulcan to harvest its molten surface. Its defeat of Russia in the recent Russo-Japanese War earned it a place among the Solar Powers, and a reputation as inscrutable and dangerous. Japan's refusal to sign the Accords makes many nervous; do they refuse because they plan to violate the carefully-orchestrated peace?

Japan's Kamikaze (it means 'Divine Wind' in their language) Fleet is known for small, fast ships. They don't use these ships to haul cargo – instead they build battery-powered faraday drives and control stations on asteroids, fly the entirety to processing plants, and construct 'Flying Drums' of the largest asteroids to transport the finished material home. This alien practice only adds to the ambient distrust of the Oriental Power.

Your letter did not list the Spanish, Germans, or Turks, which I suppose is well enough as the first is vanishingly rare and the latter two only have sad aspirations of catching up with the established Solar Powers. The Americans' trick of leaping onto the interplanetary stage can only be performed once, I suspect. I hope these short notes are enough for you to complete your schoolwork, and that they reach you before the term is over. Give your mother and brother my love, and tell Sydney that if he hides your books again he will not enjoy my return home. With any luck, that should be soon.

— your loving father, Huntington Poundsweight

THE TYCHO ACCORDS

(excerpted from the Royal Astronomical Naval Academy's Diplomacy textbook)

The Extraplanetary Colonial Accords, penned by the Congress of Vienna, define the bulk of international law beyond Earth's atmosphere. This landmark treaty was pioneered by the British and Russia after the fall of Napoleon and the end of nearly fifty years of constant wars between France and the rest of the world. The goal, to create a balance of power that would allow humanity to colonize the planets of the Solar System, was for the most part successful. Certainly we would not still be following these guidelines today if it were not so. The primary aspects of the Extraplanetary Colonial Accords are as follows:



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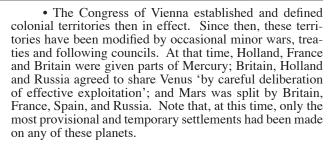


TYCHO ACCORDS

When facing down an arrogant French captain, it is often useful to wave the Tycho Accords in his face. The obvious question that arises, however, is what the Accords actually say.

Players on either side of any such argument should feel free to "quote" articles and sections at will, making them up as they go along. The Accords are nothing if not long and convoluted. A section may appear to support a position, only to be contradicted somewhere else in the lengthy document.

The final interpretation accepted to be correct is the one espoused by the player who wins their die check, whether they use Diplomacy, Duplicity, or Intimidation to get there. Whether or not the French captain then opens up with a broadside is another matter entirely.



- The 'Lunar Peace' was established, proscribing all war or other hostile actions occurring at or originating from Lunar bases. As every signatory power had recently lost at least one base on the Moon, no one wanted their delicate gateway to the Solar System to be threatened with the outbreak of war again.
- Colonial territory extends only as far as the planet's atmosphere; beyond the altitude where the atmosphere thins to one hundredth of Earth's sea level begins International Space. Among other things, this removed the onus of trying to establish and defend borders and territories in space, a problematic matter when the planets continually orbit around the sun. This guideline proved very beneficial to British Venus, whose atmosphere extends nearly one hundred miles off its surface. Holdings on Mercury, by contrast, have little more than space to take off and land (Holland, reconstituted by the Congress of Vienna, could hardly demand better status for their primary holding).
- International Space is the domain of no nation and passage is guaranteed to be 'free and unrestricted'. While not a written component of the Accords, this proviso is considered overruled in times of declared war, during which time participating powers will fire on and board enemy ships.
- Frequency One was restricted from general use and dedicated as a hailing frequency. When contacting a foreign ship, initial contact is made over Frequency One. Another frequency is then selected and further conversation continues there. Frequency One was selected due to its infinitesimal range of a scant five and a quarter astronomical miles.
- It is worthwhile to note that neither the United States nor Japan were included, as only European powers attended the Congress of Vienna where the Accords were created. The States has since adopted and signed the Accords. Japan has never accepted the Accords, but generally follow them in order to avoid having all of Christendom turn on them. In particular, they have dedicated Frequency One to hailing, in accordance with the practice of all other nations.



CHAPTER 2.

A DARING TOURIST'S SOLAGRAPHY

VENUS: JEWEL OF THE EMPIRE

INSTALLMENT THE FIRST

by Mrs Marcie Edgewood, former sailor & solar traveler

I was sixteen when I first enlisted in the Royal Astronomical Navy, wide-eyed and eager to see the solar system. It was with some minor disappointment that I accepted my first posting on Venus, to man a supply ship ferrying materials across the planet. My dreams of serving on a solar steamer and traveling from port to port and planet to planet were crushed (I thought); the variety that I sought I would never (I thought) experience. I was happily mistaken, for Venus, the jewel of the Empire, is a varied and diverse world, as full of beauty, character, and dangers as our own planet Earth.

Below I have selected a few excerpts from my diary, occasionally annotated with my present-day perspective.

THE LOWLANDS

What a miserable place, dear diary, to discard sorry souls such as myself. I begin to believe the gross movements of my life may in fact be the actions of a vast conspiracy to condemn me to some corner of the universe and there forget me. We have arrived on Venus.

The air here is damp, hot, and positively filled with both insects and pollen spores. Our supply ship has landed in the low marshlands to deliver comestibles to a garrison of our army, camped nearby a tribe of natives loyal to the Queen. The ground is wet, and more often unstable than firm; Ensign Black taught me how to walk along the roots of the cage trees, an infuriating but usually necessary practice that may take a pedestrian in a distant arc instead of a direct line to her destination. The ubiquity of the root systems, which one might count as a boon to the traveler, only means that their trunks and broad leaves spread out overhead, around, and in short everywhere, blocking out the sun but not its heat, making the marshland floor the dimly-lit, steamy prison that it is.

The sounds of the jungle surround us, with roars and twitters and lowing from unimaginable fauna. We were nearly stepped on by a great flat-footed lizard, which seemed all but oblivious to our presence. This is only understandable as our height reached, perhaps, its knee.

There is also a certain insect here called the Blood Wasp, which Ensign Black was so good to warn me about; these malicious creatures, a little over two feet long with stingers of at least eight inches, think nothing of attacking large animals (of which the planet has many) and people. Luckily, they are dissuaded by loud noises; Ensign Black furnished me with a pair of pans, the clanging of which I am told will keep the bugs at bay.

After a full day of moving goods along root systems to the camp (which is slowly sinking into the muddy ground, and must be moved every few weeks), we have repaired to the ship, and will continue on to the launch accelerator tomorrow. I do not know if I can stand to complete my tour of duty, dear diary, if this is all that I have to look forward to!

 The Blood Wasp, I feel compelled to note today, exists, but not in quite so mammoth proportions. They measure instead perhaps six to eight inches in length, and their danger lies not in their two-inch stingers but their numbers, for they are indeed carnivorous, and attracted to the scent of blood. Battlefields on Venus are evacuated as soon as the fighting concludes, for fear of the inevitable descending swarm. Needless to say, they are also completely unfazed by the banging of pots or other such noises — how naïve I was!

THE HIGHLANDS

I praise God and humbly retract my maudlin complaints of the prior entry, dear diary, for we have arrived at the Lakshimi launch accelerator in the Venerian highlands. Here the air is still hot and scented of the jungles below, but not half as cloying, and absent are the ever-present spores of pollen. Here there are even winds instead of stale, leaden air.

Happily, our supply ship will be stationed here, making the occasional run out to the lowland garrisons and other operations. Here, on the rocky plateaus that rise above the steamy jungles, willful Britons are in the process of recreating proper civilisation. Lakshimi is a veritable city, with streets, stores, and a bustle of people and horses. The greatest buildings — the garrison, the armoury, the governor's house — are even built of stone (the rest use lumber from the lowlands, which is quite an accomplishment, since so few trees there grow in straight lines). The more important streets are lit with gas lamps, and while there are no wells, there is 'water service' which delivers fresh water to every door by native Venerian hand.

The soil here is rocky, unsuitable for anything resembling agriculture, and we must import our foodstuffs from tribesmen living at the foot of the plateaus; the only flora here are tough twisted trees with clutching roots, thick



BLOOD WASPS

Should the player characters encounter them, Blood Wasps do not function as characters, but as a prop hazard or set complication. One lone Blood Wasp can be felled with a serviceable success with Marksmanship or Survival, but once a swarm's ire is raised or their lust for blood incited, there is little recourse available save fleeing and seeking shelter. Creative actions by the player characters may disperse or ground a swarm, but never for long.



vines which curl their way up rocky promontories to reach for the sun, and hardy grasses with serrated leaves (I am informed these plants gain sustenance from the blood their blades spill onto the ground). For all that, though, the Highlands are just as verdant green as the lowlands, and I have been given strict warnings that no sailors are to wander off into the backcountry without being accompanied by two or more mates. There are dangers here as well as below.

There are other such settlements, as well as mines, across the broad plateau, but there are as yet no reliable roads to them; it is simpler to shuttle goods and materials via flying ship. Each settlement's first priority, after building itself basic shelter, is to construct a steam engine capable of recharging supply ships such as ours. Often it is the plume of smoke that is first visible; we sighted many of these as we crossed the highlands.

THE NATIVES

Our ship has been grounded; the Lieutenant suspects Dutch sabotage. We are, however, stranded at our delivery site until repairs can be made, and therefore enjoying the strained hospitality of the natives here. Their name for themselves is all but unpronounceable by human tongue: blu-bar-plu-niss is as close as I can fashion it, and they hiss slightly whenever we misspeak it. No wonder we are in the habit of giving the Venerian tribes noble new names of our own: I am far more used to speaking with the Chartreuse, Yorkshire, and Disraeli tribes near Sedna and the Fortuna Coast. As I understand it, these Venerians, natives of the Hellenic lowlands, are only occasionally our allies, and were until a few years ago trading partners with the Dutch. Our mission was to deliver trade goods in the hopes of gaining their support, a practice in which our ship is employed often. The chieftess of this tribe will in turn disburse these goods to her loyal warriors, extending our largesse to every segment of Venerian society. It is through gifts such as these that the Empire keeps native tribes placated and loyal.

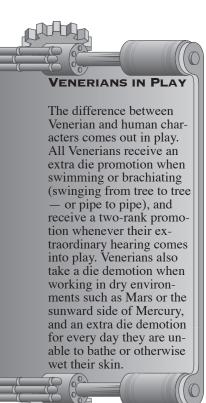
Their favored gift is guns, of course, but they also cherish metal implements of all kinds, which they have little hope of fashioning themselves given the marshy lands in which they live. Neither can they populate the highlands due to their need to keep their damp green skins moist. Native Venerians generally travel by swimming and swinging tree to tree, and walk only with a limping gait; it's no wonder they eschew the rocky plateaus above. In fact they call the highlands the 'no water, no trees land' and tribal pagan superstition holds it as the place where the wicked go after death. Of course those who have converted to the Anglican faith know better, and welcome us when we descend to their settlements. The image of British sailors, who stand head and shoulders above most of the stooped and limping Venerians, is one that always fills my heart with pride



VENERIAN CHARACTERS

You may wish to include Venerians in your campaign, whether as loyal servants or antagonistic tribesmen. Brave players may even wish to play one, perhaps as a secondary character in Troupe Play. Venerians are created the same as any other character, although few will have many Engineering Skills, and only "civilized" Venerian servants will have many Culture Skills. On the other hand, they are more likely to have Exotic Skills like Venerian Customs or Knife Fighting. They may be built on any point budget, from Modest lackey servants to Largerthan-Life champions of their tribes.





and joy; we are shining beacons of civilisation, displaying for them the bright future available to both them and their children, now that they need not content themselves with barbarism.

As I write this, I am in one of their stilt-houses, one of two kindly donated to us for lodging for the night. The surrounding sounds of the village, the burbling and hooting of their language, flows just beyond the thin walls. Occasionally the sound ceases, prompted, we think, by some sound in the jungle beyond our human ken. The Venerians' hearing is truly impressive, able to hear the creak of branches or the rustle of leaves deep within the press of the jungle, and made all the more impressive by their lack of ears. I am told the broad circular patches at their temples reverberate in sympathy with sounds, much like a frog's tympanum. These patches, usually brown or tan against their variously-shaded green skin, sadly matches their bulbous black eyes. They are not pretty creatures by any means. Perhaps, as they learn the ways of civilisation, they will stand upright and their features will gain the noble lines found in other cultured peoples. What a wonderful reward this would be for them, to stand with stature and grace mirroring their progress!

Addendum: We are back at Mt. Themis, much the worse for wear. The tribesmen waited until we were asleep before attacking; it was only through our superior training and armament that we were able to return to the ship and make our stand there. We lost Alice and Toby before the rest of us were even awake, and Frederick may lose his leg to the spear flung at him when he sortied from the ship. Luckily, we were rescued by our sister-ship, and I am told the village will likely be destroyed for their treachery. I myself was shot with an arrow to my side, and am now fighting the effects of the poison in the Infirmary. It has taken me a full hour to write this meager paragraph, and I must now rest again.

ISHTAR, BRITISH VENUS

Oh, dear diary, I am nearly lost in wonder. Memories scant hours old are already fondly cherished, and I swear I can still feel gentle touches on my skin and the taste of champagne on my lips. I am just returned from a salon at the Fortuna Anchorage, and I shall never forget the experience.

How did one such as me, who has never seen the cultured side of anything, find her way into a grand salon? Lieutenant Black was kind enough to invite me, he being invited by the salon mistress herself. Apparently he did the lady a service in Lakshimi — her horseless carriage had escaped her control, with her on it — and out of gratitude she invited him to her 'petite soiree' that she was holding the next week. Lieutenant Black, fearful of not knowing what



Fig 2.1 The crew of HMS Ocelot hold their crash site against hostile Venerians.

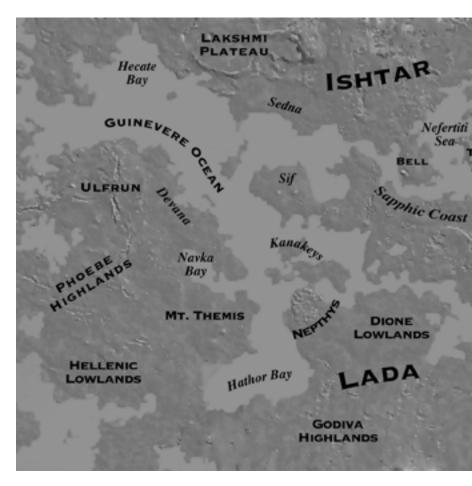
to do, asked me to join him in the mistaken impression that I, as a woman, might know the proper way to comport oneself. All I had to guide me where the novellas I read as a girl, but I did not let on for fear of losing the invitation!

We flew into the Anchorage in the late afternoon, landing at the docks at water level and taking the elevator up to the platforms high above the wrath of Venerian storms and waves. Fortuna is laid out in a broad hexagon (supported at its corners by its six legs, of course) with additional platforms rising up from the edges; it took us a little time to decode the address we were given as which of the anchorage's sides we were to go to, then which level we should ascend to, and then which building we were to seek out. Our eventual destination was a charming little house of red brick and possessing a vibrant garden filled with imported plants from Earth. It faced inwards, towards the great bowl of the anchorage — I understand that the apartments facing outward, built into the structure of the platforms, are of lesser stature, usually filled with the colony's laborers and servants. Let me assure you, diary, that it was a heady experience to be on the other side of affairs for a change!

By the terms of our hostess, Madame Chesterfield, we were "fashionably late" and as a half-dozen guests arrived after we did, I gather that this was nothing out of the ordinary. Mme. Chesterfield introduced us to the others attending, a constellation of artists seeking out savage landscapes to paint, botanists here to study the strange flora, officers of the navy and army, industrialists and entrepreneurs, and the wives of all of these. Everyone was charming and witty and smartly dressed; I felt quite out of my league in my best blue dress and my hair done simply in ribbons. No one seemed to disdain my presence, however, and I simply lost track of how many dazzling conversations I had with perfect strangers of fierce intelligence and strident opinions. Some professed communist or even anarchist agendas — and to the faces of the officers attending, to boot!

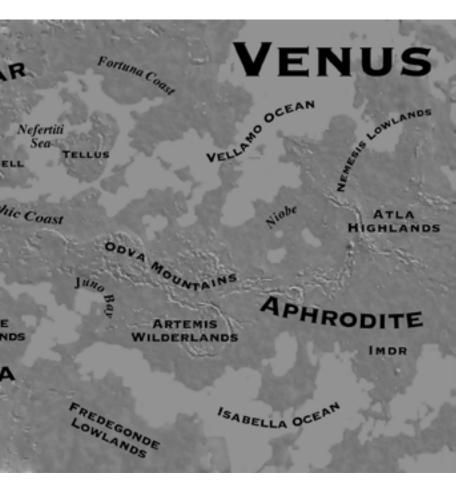
Fig 2.2 Map of Venus

One figure that stands out in my mind is a strong-featured woman by the name of Mrs. Shelley, touring the solar

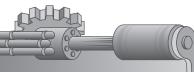


system. When I mistakenly inquired as to who among the assembled was her husband, she informed me that her husband had passed away (in a tragic boat accident, no less) and she was traveling alone with her young son. This precipitated a long conversation ranging across many topics, from women's suffrage to my place as a female sailor to my own diary writing. She urged me to keep you current, dear diary, and thought it terribly important that someone tell the story of a woman (she kept calling me a lady) who seized opportunities to live in the style she preferred. How nice it would be if that were my case, and not having selected naval service as the least of a handful of evils!

Still, she was a well-mannered lady and seemed, like so many there, to listen with an intensity that felt positively intimidating. Some, of course, pretended to listen only long enough until it was their turn to speak again, spouting off whatever thoughts of import they felt obliged to saddle the world with. These I will happily forget in favor of



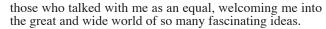
THE SUN NEVER SETS; SOLAGRAPHY



THE GREAT GAME

One of the more interesting spins you can put on your game is to play Naval Intelligence Officers. In a world of ostensible peace, the solar powers are all more than willing to engage in clandestine efforts to watch, infiltrate, and undermine their purported allies.

Such a playgroup might have a small ship at their disposal, or be working within a larger ship or port, perhaps even secretly. Their superior officer could be a shadowy figure whose identity is unknown or a character much like James Bond's M. Situations could revolve around extracting prisoners or defectors, stealing plans for technology, sabotaging troubling operations, or any number of shady dealings, with double-crosses and triple-agents simply par for the course.



— There were, of course, other balls and salons to attend over the course of my career, and even more after I became a civilian again. I would meet other names of note, even if I did not recognize Mary Shelley's name that day. None of them have struck the memory such as that first one, however, and no matter what else has passed since then, I fondly cherish the recollections still.

LADA, RUSSIAN VENUS

I am not even sure I should be writing to you, dear diary, of my actions in the past twenty-four hours. The bulk of this last night has been spent skulking in shadows and holding my breath — and in the company of officers from Naval Intelligence, no less! How I came to be in such a strange situation is quite a story.

We were scheduled to make a materials run from Themis to Juno Bay, but were surprised when our "cargo" turned out to be three officers, the aforementioned Naval Intelligence. Shortly after we flew over the Kanakeys islands, we developed "mechanical trouble" which consisted of a great and ineffectual explosion off of our starboard drive pod. One of the agents, whom we called Lieutenant C, explained that the pyretics were for the benefit of a Russian observation post on the islands below, and as we careened "off course" to the south, we sent a wireless distress call pleading for permission to make an emergency landing.

Lieutenant B then introduced me to my "replacement," a dummy made of rolled-up cloth dressed in a naval uniform, which was thrown out of the ship along with Midshipman Henry's double. They fell into the trackless swamps of Lada, and there detonated, burning up to scorched rags. Ensign Westmore spiraled our smoking ship down into another stretch of the same swamp, guided by Lieutenant A. Moments after landing, myself, Henry, and the three Intelligence officers disembarked and dashed into the jungles. Russian ships were already on the horizon, coming to assist their "beleaguered British allies."

Lieutenant-Commander Hawkins later recounted his own histrionics in demanding that the Russians help him recover his fallen countrymen. As they searched for our dummies, we five moved west at quite a pace, until we found ourselves at the foot of Nepthys plateau. There we were met by a shady-looking fellow with a pronounced Arabic accent, who showed us up a treacherous path — but only after demanding more money from Lieutenant A. Henry and I accompanied the Intelligence officers to the top and thereafter secured the path back down while the gentlemen disappeared into the Russian port.

They were gone for less than a quarter hour, with Henry and I nervously checking our watches, before they melted back out of the shadows. Smoke was rising from a far corner of the port as we pelted down the path and back into the jungles below. More dashing between shadows ensued, this time with Russian floodlights illuminating the night sky behind us. We found our way to a Venerian village the inhabitants of which Lieutenant C seemed to have some familiarity with, and from them we purchased the services of a fisherman's skiff. It was nearing dawn, now, and the eastern sky was pinking as Lieutenant-Commander Hawkins swooped across the sea to retrieve us.

Lieutenants A, B, and C can not tell us what purposes took them to Nepthys, of course, so this entire adventure must remain yet another Venerian mystery for myself and fellow crewmen.

MANY TIMES THROUGH LUNA

INSTALLMENT THE SECOND

by Mrs. Marcie Edgewood, former sailor & solar traveler

While I have never been posted to any of Britain's holdings on Luna, my various tours of duty and later travels have taken me through these ports on many occasions. The largest moon in the Solar System, Luna is also a peaceful place kept so by the Tycho Accords. It is the primary waystation between our home planet and the rest of the Solar System, and the vast majority of traffic between Earth and these destinations makes a stop here.

THE SURFACE

I have walked on the surface of the Moon, Dear Diary! The midshipmen mocked us for the trip, telling us it was a waste of our time and that we would not see anything of note, but with a little cajoling and after buying them a round, they admitted that on their first tour, en route to their first assignment, they did the very same. The four other new enlistedmen that are traveling with me to postings on Venus all proceeded to the airlock, near which was a man whose shop rented vacuum suits for just such an endeavor. He explained to us, as he fitted us with his second-hand but still serviceable suits, that he does a brisk business in bright-eyed young recruits ready to get their first experience beyond the comforting embrace of Earth.

So suited, we proceeded through the airlock and onto the surface. The lessened gravity which was an oddity within Victoria Station took on an edge of surreally outside, with our leaden boots crunching on bits of pebbles and dust that coat the surface. I could not help but compare the ground to the pebbled drive outside of Buckingham Palace, although that austere residence does not possess the strange fluted hills and promontories that we saw on our walking tour today. Without the benefit of wind and rain, I am told, the geography of the moon — or lunagraphy, as it were — is not battered away into the smooth rolling hills we know in Sussex, but retain their jagged, alien lines.

The sky above is as clear and velvet black as I have ever seen it, with sharp pinprick stars all around. How astounding is the thought that among these are the planets and asteroids where I will soon find myself, in Her Majesty's service!

THE TUNNELS

Again I am on the moon. Now on my way to my third tour of duty, the chambers and storefronts of Victoria Station have lost the patina of novelty to the point that the old haunts no longer have their old compelling appeal. So it was that a handful of my shipmates decided to 'tour' the old mining tunnels below the station. Technically speaking, these are restricted areas, but emboldened by the hospitality of the pub, we decided that Ensign Grey had sufficient rank to chaperone us.

What mineral resources the moon once bore have long ago been tapped out, and now the tunnels once used to plunder that wealth stand empty. It surprised all of us how far the shantytowns below Victoria Station descended, but eventually the squatters were behind us and we found ourselves alone. Ensign Grey did little to help our sense of disquiet by describing how criminal gangs were known to fashion themselves lairs there; none of us were armed with anything besides penknives and handheld torches. The light was barely enough to see the rough-hewn walls around us.

The tunnels progress downwards in switchbacks and slow spirals, branching occasionally; we took care to mark every fork so that our ever-upward return would be unhampered by confusion. I was surprised on more than one occasion when the passages opened onto large chambers filled with the looming shadows of forgotten machinery, mostly foundries and smelting equipment, mostly in heavy disrepair and neglect. In all, it was a haunting experience, and again Ensign Grey only exacerbated the situation with his terrible ghost stories of lost miners forever wandering the tunnels.

We came at length to an intersection with a passage without slope in either direction, its walls as smooth as marble. It took us a moment to realize just how different the new tunnel was, and then resolved to explore down its length. It continued in a perfect straight line for perhaps a quarter mile before it opened onto a chamber of incredible proportions; our meager lights could not reach the opposite wall. Across the floor of the chamber were bits

and pieces of machinery much like those we had already seen, although made of the same glossy white material as the walls, and lacking the serial numbers stamped on all British components. Then we perceived, distantly but approaching, a sort of shambling gait echoing off the unseen walls. Remembering we were unarmed, we quickly took our leave of the chamber, and returned to the station as quickly as possible.

Whatever we had blundered into I do not know. In our hurried return, we speculated that we had found a criminal headquarters, or stumbled into the mines of the French or even Japanese. Ensign Grey suggested once that it was perhaps something else entirely, but we disregarded him, his wild stories have inured us to his overactive imagination. We spent the rest of the evening in the safety of the pub.

VICTORIA STATION, MARE CRISIUM

Much like Paddington Station is to many Londoners, Victoria Station has acquired for me the comfortable familiarity of a frequent waystation. Each of my tours of duty found me through this station on the edge of the moon's face at least twice; since our marriage and the onset of our perigrations I have visited many more times. There is an easy familiarity among the travelers here, and especially between the countless service personnel in transit to their next postings, or ready to be demobilized. The residents of the base, some of them the third generation serving the travelers and servicemen I've counted myself among, treat us with the patronizing tolerance one might find in the denizens of Brighton or Bath.

For all their polite disdain for us, the people of Crisium have established an extensive underground complex at the centre of the crater they call home, the sole purpose of which is to provide for whatever needs that solar travelers may have. Their needs, in turn, are provided for by the sprawl of settlements that have spread out across the rest of the circular crater. On approach, the green fields laid out under glass domes look extensive enough to feed the entire city, but the multitudes that live underneath number in the tens of thousands. Food is one of the few things that comes into Victoria Station and does not come out. The rest comes into the docking facilities at the centre of the crater for customs inspection and are then transferred to shuttles bound for the ports of London, Edinburgh, Perth, and Surat. Needless to say, the docks are bustling with activity every day of the week.

It is the periphery of the docks that holds the most interest for most travelers, for it is here where we find our entertainments while we wait on our outbound ships. With the predominance of sailors, there's no surprise at the number of taverns, with at least one on every block and level; there are some levels like the infamous Midshipman's Row where there are nothing but! With age my tastes have shifted from the dives to more staid distractions, and as Victoria Station relies on wide-eyed travelers such as I, there are hotels, gardens, and even theaters here to attract my tourist coin. I have stayed at the same hotel Prince Edward visits when here (though not, of course, the same caliber of rooms!), as have countless other dignitaries of the royalty and Parliament.

But I, the brave men and women in her Majesty's service, Prince Edward and the Members of Parliament, are all here for mere days and then we leave; the residents here remain, their lives all but invisible to those of us passing through. I have had the opportunity over the past week to visit with an old friend, the concierge at the Lunar Arms, at his home halfway between the docks and the crater rim. Away from the bright lights and ever-present press of humanity, the rest of the colony is composed of quiet corridors and rooms dug into the white-grey rock. Occasionally a light well will open onto a larger chamber filled with the green of a small park, or a wanderer will find herself in a cavern holding a 'pond', a water reservoir also used for recreational bathing (thoughtful planners have of course provided private changing rooms against all the walls). Otherwise, life in Victoria Station is surprisingly similar to what one might find in any other British city; at least in this case, the work of bringing civilisation to distant worlds is all but complete.

NEW MOON AND MANY PORTS

On Earth, calendars mark today as a New Moon; for those back at home, Luna is a ghostly shape barely visible in the daytime sky, close enough to the sun to make would-be observers squint. That is not the view which we are privy to in orbit — between Earth and Luna, the sun hides behind the moon, casting the entire face of the Near Side into shadow. One might think that such a view is dreadfully dull, but on the contrary, it is only once a month when all the ports of the moon are visible as pinpricks of light, looking like lace spread out across black velvet.

I pick out Victoria Station first, patriot that I am — my eyes are simply drawn over to the glittering lights and the long line of the linear accelerator at the edge of Mare Crisium. A similar line then draws my eye westward, to the Americans' own accelerator in nearby Mare Tranquilitatis. Nothing has been tranquil since they transformed the sleepy San Rafael into the Ulysses S Grant Lunar Base — rather short-sighted planning shot their ships directly through the flight path of Victoria Station's own accelerator. As I understand it the crews of the two accelerators now contact each other over the wireless to prevent collisions.

On the other side of Mare Crisium shines Hooghaven, the old Dutch port nestled high up in the rocky embrace of Mare Undarum. I find it so hard to imagine, dear diary, the infancy of interplanetary travel when that port was constructed. They did not care for space or sunlight, then, choosing that rocky mare for nothing more than its altitude — closer to Earth by that little distance, and higher above the harsh landscape of the moon lest their clipper ships gut themselves on the jagged topography.

Half a world away (although it is not a large world) one can see the elaborate twists and swirls of Verne, the primary French port in Mare Serenitatis. Why build a straight launch accelerator when it can curl around itself, after all? The answer is obvious to the French, who have built not one but two of this design. They claim that the turns simulate gravity during launch; we believe they built two because they cannot keep one in reliable working order. Still, they say that Verne is a beautiful city, even compared to the cities of Earth. Eventually, dear diary, I hope I am able to visit if only to see for myself.

There are dozens, uncountable, spots of light across the globe of the moon, rambling across the rugged mountains and flat-bottomed mares as naturally as grass grows in the countryside. And of course, out to either edge, lie Port Cyril in Mare Orientale and Uchutansa-Han in Mare Marginis. The Russians and the Japanese, late to the party, claimed these territories at the very edges of the moon's Near Side. The Russians' port is a gargantuan affair ripped out of the mare with explosives and back-breaking labor; it also serves as that power's shipyard, building the massive flying fortresses in one-sixth the gravity of Earth, where such designs would be impossible. By contrast, the Japanese port is a small, cramped affair in a claustrophobically thin mare. They will run out of space soon, and I am not alone in worrying what they will do, unburdened by the Lunar Peace, when they decide they need more space.

MARS, CONTESTED GROUND

INSTALLMENT THE THIRD

by Mrs Marcie Edgewood, former sailor & solar traveler

My tour of duty on Venus passed faster than I thought possible, and after spending Christmas back at home, I decided to re-enlist. This time I found myself stationed on Mars, there to support the Corps of Engineers in expanding the canals that connected and fed the Martian settlements. I worried again that I would not see much, for even if Venus was impressive, our holdings there are nearly ubiquitous; Mars is a smaller planet, and Britain controls only a quarter of it, besides! What I found, however, cheered me, for the presence of rival powers meant we had neighbours,

THE SUN NEVER SETS; SOLAGRAPHY

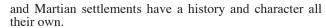


CANAL CUTTERS

While nearly everyone on Mars travels via canal boat, most employ mechanical oars or wind sails. The British Astronomical Navy, however, uses convertible craft. In addition to the floatation hull and oars, these cutters possess faraday drives allowing them to take to the sky.

Both the oars and faraday drive are spring-powered, and thus the ships must visit settlements often to recharge. One full charge is sufficient for a few days' water travel but less than a day in flight. During the winter months, the cutter can be equipped with an icejam to clear the surface ice on the canals. The cutters are not pressurized for orbital flight.

Canal cutters are lightly armed and armoured; they have rare occasion to engage in battle, but have proven their worth in border skirmishes and in quelling colonial uprisings. They fulfill the bulk of their services performing patrols and transporting men and equipment across the Martian surface.



I do hope the excerpts of my journals I have included below prove entertaining and illuminating.

THE CANAL BASINS

One can see the criss-crossing lines of the Martian canals even from Earth via telescope, but these murky images are as nothing to the crisp vision one can have through the port of a ship in orbit. The canals spread out like a lattice, some arms thicker and bolder, the arteries that in turn supply the smaller branches, which spread out into endless filigrees. Their blue-white colour is sharp against the dirty red sands of the planet, twisting between the darker brown snarls of the rocky high desert, taking water from the southern ice cap and transporting it, ever downhill, to the warmer equator. My memory and poor writing fails to express the grandeur that I saw today as we approached the planet, but it is an image that will remain with me forever.

We landed in Cydonia, and I was quickly introduced to my new unit and appraised of my responsibilities as we toured the rangy settlement. It is a simple thing to see, both from the air and on the ground, the potent effect that the canals have. The surrounding hills, dry and sandy, with rocky escarpments honed and sculpted by hot winds, are the picture of the alien landscape I expected to find. Downhill, however, within reach of the canal's watery touch, the land quickly turns to the colours of cultivation, with green trees and golden fields spread out like leaves laid on the ground. At the centre of any space of green one finds the canal, which the Engineers are tasked with maintaining.

Mankind did not build the canals, but we now repair and even expand them. Farms and settlements bloom along the canal's course, the colonists pumping what water they need from the stream for their fields and orchards. Earth life has long ago taken hold of Mars, with native species, hardy and with few water requirements, pushed back to the edges of our irrigated land. Their spikey spears of green often stand as a sort of wall between cultivated land and the wastes beyond. I am informed that Martian fauna is not above descending on and devouring Earth crops, and farmers curse the names of the Sand-Badger and Desert Vole. Luckily, imported dogs and cats are as happy to dine on Martian pests as the pests are on the imported crops. Rats and mice have also made the trip, stowed away on our ships as they have throughout all time.

Needless to say, with water such an essential commodity, the settlers at the furthest reaches of the canals are often at odds with those further up the stream. While local government works hard to provide proper water management for all, the Engineers I work with ceaselessly fulfill



one unchanging request: increase the flow of water to the basins. We travel, as nearly everyone on Mars does, by canal boat. The canals range from a mere three feet across at their ends to nearly a mile across in the trunk arteries. The largest of these are the original canals left to us by the High Martians; the filigrees and the canals cut to service specific farms have been created by settlers. The ancient engineering is mindboggling in its scope; the Commander speculates that the Martians, on realizing their planet was drying up, must have engineered their entire planet in order to put the ice caps uphill from the rest of the land. We are as dwarfs, living in the abandoned home of giants.

THE HIGH DESERT

We are having a change of pace today as we were called away from canal work and pressed into service searching for a trio of youngsters lost in the high desert above Argyre. Normally this might not have

included my unit in the ranks, but one of these three is the daughter of the governor. So it is that I find myself out on the rocky plateaus and craggy cliffs of the high desert, seeing this barren region in detail for the first time. I must say I am not impressed.

Tractless sand and rock, the landscape here is dry, alien, and rather boring. The air is crisp, thin, and somewhat cold; the absence of hardly any water results in very little flora or fauna. There are the occasional spikeroot plant, its stumpy leaves above ground one-tenth the length of the taproot below, and in depressions one can very rarely find an oasis with a natural spring. Between these landmarks rove sandbeasts, which bear as much similarity to the native Martians as apes do to man; these monstrous creatures hunt endlessly for smaller prey, devouring them as much for the water in their bodies as for the meat on their bones.

The only items of note here are the ruins of the High Martians, scattered structures built of a material not unlike steel, but lighter and stronger — light enough to be pulled apart by the winds of a sandstorm, but strong enough to re-



Fig 2.3 Admiral Westerfield makes the acquaintance of a sandbeast.

SANDBEASTS

Grunting, primitive, and of questionable sentience, sandbeasts can be created as complications to a set or as cogs themselves. They are uniformly aggressive, travel in small packs, and favor surprise tactics — especially bursting from the sands through which they swim.



main in pieces for the centuries since they were inhabited. Never have we found cities, just isolated clumps of two or three or at most five buildings or their remains. These are the remains of the High Martian civilisation, those to whom the canals are attributed, the great culture which must have fallen, much like Rome. The remnants became, in time, the Low Martians we know today.

I am writing this within the shelter of one of these half-collapsed ruins, waiting for a minor sandstorm to blow over before we continue the search. Most believe the youths we are looking for are either similarly taking shelter, or have already been set upon and killed by sandbeasts. We shall see.

— The governor's daughter was eventually found, I should add here from my comfortable fireside chair in the present day; four sandbeasts had cornered them in an extensive ruin. The sandbeasts were fought off and all three were rescued, the only wounds to their pride.

THE LOW MARTIANS

I am unnerved and unsettled, having just had an encounter with the natives of this planet. Unlike the cooperative and servile Venerians, the Martians care little for human civilisation, and trade with us only sporadically. They have remained standoffish for decades, showing no desire to learn the ways of civilisation or enjoy the bounties that civilised life may offer. As the sun set today, however, a dozen of them approached the segment of ancient canal we were working on. At first they merely stood on the horizon, their squat triangular forms easily mistaken for rocks were it not for the sudden appearance of their long shadows. They are alien things, perhaps once sharing a shape similar to humanity, but now their arms and legs are hardly different from each other, ending in long-fingered hands that fold into broad flippers, their heads elongated and streamlined. They swim through the sands of Mars as dolphins might swim through the sea, and have been known to burst out of the ground by way of introducing themselves.

They seemed to wait until the sun touched the horizon before coming forward, spears in hand (some in their front hands, some in their back hands, or what would be on a human their feet), and asked us in perfectly unaccented English what our business was with the 'Seventeenth Road of the Old Ones.' We assumed they meant the canal, and explained that we were moving an escarpment of rock that was interfering with the flow of water at the base of the canal; despite the pains we took to explain the complexities, the leader raised one wide hand to stop us. He then proceeded to ask us a long string of questions that belied his significant understanding of geology and engineering. We answered as best we could, for we were still working to discover the scope of the unwanted rock, and then he

calmly informed us that a "great evil" rested at the bottom of the canal, and we should not upset it.

The Commander immediately protested, and informed the Martians that the escarpment would be moved, because we had already lost three ships to its hull-gutting proclivities. The leader repeated that it was a great evil, and in order to prove the truth of his words, he looked at the Commander and said, "You were a coward once, and work now to erase this from memory." He looked to Lieutenant Hawthorne and told him, "The man you seek lives in the basin nearby, the one you call Argyre; he murdered your wife." Both the Commander and Hawthorne drained white as he spoke, and then he turned to me. "The love you harbor will never be fulfilled; he is too distracted to love again." Immediately I knew what the Martian was talking about — but I have not even written in this diary my feelings for the Commander! "As you know the truth in these words," the Martian went on, "know that I speak the truth about the canal and the evil that resides beneath it. Do not disturb what lies beneath." And with that, the Martians flipped and dove into the sand, disappearing from sight.

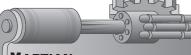
We turned in for the night, deeply troubled; I haven't been able to sleep a wink, and morning is not far off. Tomorrow we will be unearthing escarpment, and excavating it with explosives. I pray that the Martians' warning does not prove true.

— Again I invade the past from the present, and insert a short note here. We did not use explosives, due to Hawthorne devising a clever plan to use the force of the water to dig out the "escarpment". What we had thought was rock, however, revealed itself to be a strange construction built of the same material as High Martian ruins. This we loaded onto the ship and left with the Quartermaster at Cydonia; when last we heard, it was being shipped back to Earth for further study.

ARGYRE AND CYDONIA, BRITISH MARS

It has been a grueling few weeks, dear diary, and I apologize for my infrequent and brief entries of late. It was with equal parts amusement and shame that I read my last entry, dated more than a week ago, "Phison lock completed; crushed left hand." How I have neglected you! Now, though, we are in Argyre, here for a few days' rest before returning to those damnable canals.

Recent work south of here successfully increased the water flow from the ice cap down the Acheron canal at the expense of the Daemon line. The Acheron feeds most of British Mars, while the Daemon wanders off into Russian territory. For obvious reasons the Russians were less than supportive of the repairs, and work suffered endless equipment failures until the cabal of saboteurs were caught.



MARTIAN CHARACTERS

Much like Venerians, you may find a place for a Martian character in your campaign, or a player may wish to play a uncommonly curious member of the species. Martians are created with the same rules as any other character, although they have little access to Earth's Culture skills. They might take Exotic Skills such as Martian Occult Lore or Aura-Reading. They may be built on any point budget, from Modest scouts to Larger-than-Life priests.

In actual play, Martians have a few advantages and disadvantages over human characters. Martians receive an extra die promotion to avoid surprise or to otherwise sense the presence of other sentients. Their powerful intuition and 'soul-sight' give them a two-rank promotion when discerning the true motivations of others. However, they work on a different level than humanity and find it hard to explain themselves, often appearing cryptic or disdainful; they have a two-rank demotion when it comes to communicating with non-Martians.



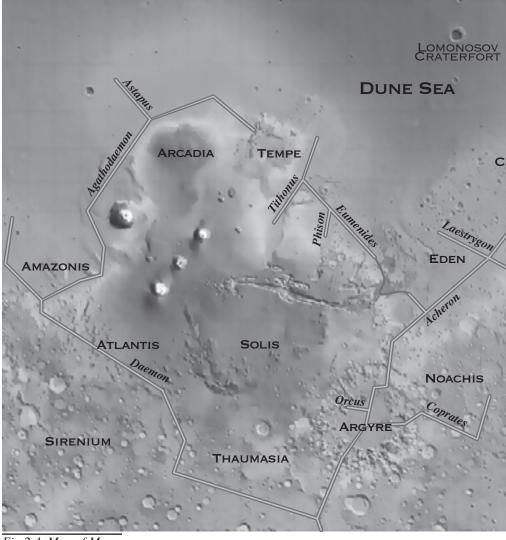
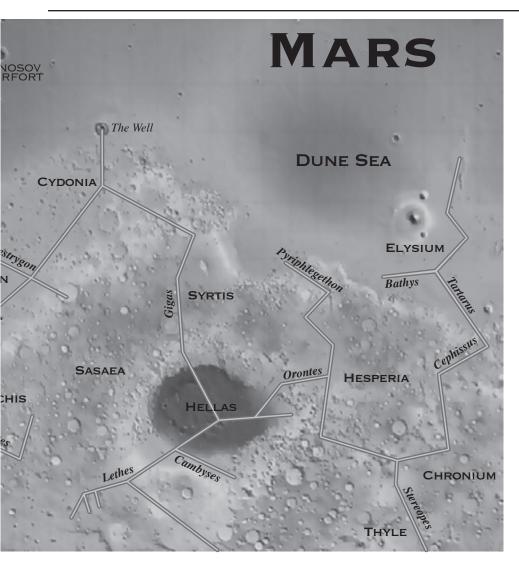


Fig 2.4 Map of Mars

The work completed, the entire Acheron line swelled and threatened to overflow its banks; thus were we obliged to flit all across the landscape making repairs and elaborations to the system.

First we worked here in Argyre Crater and the neighbouring Noachis Valley These pleasant if rocky settlements are some of the oldest on Mars, and thus while the company was friendly there was little we could do in the way of gross changes without destroying fields which have now been tilled for three generations. The Commander had little wont to displease the loyalist locals, and so we did what we could and proceeded northward.





After the Acheron flows out of Argyre, it splits off the Eumerides, which until recently was nothing more than a useless spur. Some massive impact — the Commander believes it to have been an errant asteroid — fell and destroyed a segment of the canal. British engineers, however, have since rejoined the 'spur' with its estranged tributary. Water now flows there, into the Phison and Tithonus canals, which had been nothing more than dry ditches for ages. With water came new settlements, their people drawn mostly from Ireland and India. Our work took us there, to the more rough-and-tumble frontier, to better the canals and locks for further expansion. Neither the Irish

or the Indian settlers are known for their goodwill for the British Crown and we its representatives, but as the Commander says, it is not for us to return their ire but provide for them the same prosperity as any other British subject. Still, I was happy to leave when it came time.

We returned to the Acheron and followed it into Eden and Cydonia, the breadbasket of the British Empire. The canal makes its lazy way across these broad plateaus, calving off smaller extensions every mile or so, feeding lush green stretches of farmland. Here the settlers are Welsh and Scots, each one less comprehensible than the other, both possessing the independent streak so often referred to as "the Martian spirit." While not as hostile as the colonists along the Tithonus, they are somewhat suspicious and prefer to do for themselves. I believe they resent the Crown's custodianship of the canals, if only because they believe they could do a better job maintaining them — as they will explain to you at length.

As we progressed north into Lower Cydonia, the land grew sandier, the canals thinner, and the settlements poorer. Here was the brunt of our work, and for all their stubborn independence, the locals were happy to see us as we rode the wave of new water and prosperity. I would have written, dear diary, if I had not been so busy. The last few days have been suffused with the sense that this is what I joined the Navy for. In eight short weeks we bettered the lives of countless people, ensuring a lasting presence here on alien soil.

SOLIS, AMERICAN MARS

We traveled today up into Solis, in the Badlands settled by the Americans, in order to trade for the metals they mine there. Their holdings are almost entirely in the high desert, dry and rocky expanses of little life. The land here is rich in minerals, however, and the home of a handful of aquifers that supply the Americans with some water. They still import a great deal, which was our business there today: trading water for steel.

The land is rocky and bare, outcroppings thrust up from the ground in great towering spires and canyons. Olympus Mons, the greatest mountain in the Solar System, towers on the western horizon, ringed with its smaller cousins. The Noctis Labyrinth and Valles Marineris canyons tear great winding gouges into the ground, exposing the planet's mineral wealth. The lingering smoke of the volcanoes mixes with the smelting stacks of the mines, pervading the air and only occasionally brushed away by the hot Martian winds. The Americans have built their own canal system, a meager thing fed by wells and reservoirs, flanked by the green and gold fields one sees in the basins, but the scale seems reversed: the mountains and canyons

are great massive things, and the canals small and almost forgettable.

The American colony is disgustingly disorganized and chaotic; the territorial governor runs little besides the militia and the tax and claims bureau. The canals, fields, mines, and railroads are all built and maintained by entrepreneurs and corporations. Graft and corruption are rife. The colonists don't seem to mind or care, however, and spend most of their time arguing over statehood: the placement of the capital, the number of states the American holdings can be segmented into, and the borders between them are all topics which will engender long and sometimes violent arguments here. Our Commander wisely avoided such talk, dealt with a miner he trusts through long association, and we made our way home, back to our sensible and well-ordered colonies in Eden and Cydonia.

AMAZONIS AND ELYSIUM, RUSSIAN MARS

I write to you today again weary and exhausted, although not so much from labor as athletics. We were, as we have been this week, at work on the Daemon, close to the Russian border. The ship was lifting a plate of heavy metal destined to be a part of the tributary canal when the wireless began squawking. Criminals smuggling Old Martian artefacts were quickly closing on our position, traveling by ice skiff in an attempt to gain the border and escape British jurisdiction. As our cutter was burdened with its load, the Commander commandeered a local ice skiff just as the criminals shot past us like a bullet. The chase was on.

As it is early winter, the ice on the canals was new and smooth, so it was not long before both our vessels (and the colonial law enforcement, far behind us) were barreling down the canyons of Sirenium, the questionable borderlands between British and Russian possessions. Piloting these wind-driven craft is difficult in the best of times, but the winding canyon walls made it an exercise in leaping, shouting, and tacking.

Small farms began shooting by on either side of us, and we were in Russian territory. The Commander refused to give up the chase, however, and we continued into the broader Atlantis valley. Sparsely populated, the area bore little threat of Russian authorities interfering with our chase — no doubt he would have called off our efforts if we had strayed into far more populous Elysium. We drew close enough to begin trading fire, although with our small arms, our only hope was to down them individually, reducing their crew and thus their speed. We felled one of their men, but Edwards was clipped on the shoulder and fell overboard. We ran low on ammunition, and the Commander ordered us to conserve it for a better opportunity.

It seemed only minutes but must have been hours when the lights of Amazonis appeared on the darkening horizon. Russian civilisation — such as it is — was looming near, and the ice was thinning in the warmer climate. Our quarry ahead of us crashed through the surface and into the ice-clogged water first, and we quickly skated forward to join them. This is what the Commander had been waiting for, and in such close quarters they were little match for our superior training.

As the evening fell, we levered our commandeered skiff onto the bank and then back onto the ice (not an easy thing to do), and proceeded South with all possible speed. We collected Edwards on the way, saw to his broken arm, and by dawn were back in British territory with both criminals and artefacts in hand.

HELLAS, FRENCH MARS

We have arrived in Hellas, the French colony situated in mammoth crater of the same name in southern Mars. I fear, dear diary, that I have been quite remiss in writing, for we have been here on honeymoon for nearly a week without my setting pen to paper once. James — I still find it odd not to think of him as Mister Edgewood — has been very eager to show me this place that I have only ever seen from the air in my years when I was a sailor.

By canal cutter or solar steamer, Hellas is a rich blob of olive green against the ochre sands and rocks of Mars. With access to canals leading directly to the ice cap, the French have devoted their copious water supplies to this crater, making use of three fans of canals to service the entire crater floor. Its largest city, Cherson, is visible from orbit, cut into the cliffs where the canal flows into the crater.

James first took me there to see the great mill wheels the French have constructed to turn these waterfalls into a potent power source. The wheels are perfectly massive, many stories tall and rolling under what seems oceans of water, which fall into a broad lake. While the canals spread out from the lake along the crater floor, the city spreads out across the cliff faces on either side of the falls and wheels. At night the houselights cover the cliff face and shine with an enchanting sort of joy. We dined there, overlooking the lake, on our first night here, and I do not believe I will ever forget the experience.

The next day we departed for "la compaigne," the great spread of farmlands that fill the rest of the crater. James had arranged for us to stay at a charming bed and breakfast adjacent to a winery owned by longtime friends. Every day we take meandering walks through the vine-yards, or carriage rides out to small lakes or scenic vistas. I have grown quite attached to one of the carriage horses, a bay mare named Marie. I think I will miss her more than

the beautiful land when we go — alas, there is no hope of taking her with us, but James has promised me that we will visit here again. He makes many travels throughout the Solar System, and plans for me to accompany him as often as possible. I am a very lucky bride, dear diary.

THE DUNE SEA

Our work today brought us to the very ends of the canals in Cydonia, with the Dune Sea within sight to the north. I find it difficult to describe the Dune Sea, as someone who has never seen the ocean might feel describing so much water. The Dune Sea is nothing but sand, endless dunes carved by ceaseless winds, with little water and less life. The Commander speculated as we ate our midday meal that the sands were the end result of the engineering that lifted the southern ice cap high enough to trickle through all the canals. Sadly, there is little means to either prove or disprove the theory; I suppose the Dune Sea remains as a silent, barren question left for the generations that follow us to answer.

DEIMOS, JAPANESE MARS

A short note, dear diary, before I must meet Elizabeth in the mess. Today we broke orbit with Mars and proceeded back towards the Belt; in the course of this maneuver we passed close by Deimos. It was a shriveled little lump of a moon — looking much like a bad potato, I thought — mostly in shadow. Lights blossomed in the shadowed craters, and at our closest approach we were 'escorted' by a pair of Japanese battleships who were very solicitous to help us leave as quickly as possible. What is it, I wonder, that the Japanese are doing on the little moon they snatched from Russia?

HUB OF THE SOLAR SYSTEM — MERCURY

INSTALLMENT THE FOURTH

by Mrs. Marcie Edgewood, former sailor & solar traveler

What solar traveler worth the name has not been to Mercury a dozen times over? At the centre of the solar system, Mercury is a common waystation for countless voyages between the planets. Of course, when one thinks of Mercury, one thinks of Zonnendam, but there is a wealth of fascinating experiences to be had outside its walls, as well. Mercury is something of an oddity due to its being "tidelocked," constantly presenting the same face to the sun. The planet's Brightside, blazingly hot and eternally sunny, and its Darkside, incredibly cold and plunged in never-ending night, are so completely different that it is difficult to believe that they reside on the same planet. Due to such

extremes, the surface of Mercury is sadly not a popular destination for holidays.

ZONNENDAM, DUTCH MERCURY

Another shore leave in Zonnendam, dear diary, and I am much the worse for wear. It seems that every time I visit that port, I find another layer of the town and lose another ounce of innocence. I remember my first shore leave there, astounded at the mirror towers ringing the crater rim, reflecting so much light onto the zonbal suspended high above the town. It shone so bright you could grow tulips! I was deliriously astounded. This trip was still more delirious and astounding, but neither of them in a pleasant way.

It began with a gaggle of us descending on the town ready to enjoy ourselves after a long and somewhat grueling tour. We had enthusiastic plans to visit our favorite public houses and pay far too much for chocolates and sweet meats. The great crater perched at the north pole of the planet seemed to rise up towards us, and soon it swallowed us. Our escort ships are hardly the great clippers that Zonnendam's caves were dug for, but we settled into one of the larger landing pools, sharing it with a landing boat from a French battleship also loosing its sailors on the town. We then spilled out onto the cobblestone streets of Zonnendam.

My first mistake was in disregarding the most important rule of shore leave: stick together. Zonnendam is hardly enemy territory, but the port will happily employ divide-and-conquer strategies to divest sailors of their pay, if nothing else. We began as eight strong, but split into four and four after the first pub; shortly thereafter we lost Midshipman Waters and Freddy Jenkins to a nicely-appointed brothel. Elizabeth and I preferred the chocolatier's. We, dear diary, were good; that did not especially seem to matter. When we returned to the house of ill repute to rendezvous Waters and Jenkins, they were nowhere to be found. The girls there directed us to "the other place" that our boys had been sent on to.

To say that the "other place" was not as nicely appointed would be an understatement of grave proportions. Hidden in a dark hollow near the rim, the street was shadowed and ill-kept and the house was in poor repair. The business housed within was not so much a brothel as it an opium den, complete with Freddy collapsed in a corner nearly insensate. The chinaman who tended the place, ringed with curling smoke and bristling with suspicion, demanded we remove Freddy before shore patrol arrived for him. Midshipman Waters had, we were told, elected to accompany some other sailors to a gambling parlor "down the street." I collected Freddy as the chinaman collected a small bribe from Elizabeth in exchange for the exact address of the gambling parlor.

When we found our way to the gambling parlor, it was in disarray and the shore patrol was bustling about it shouting orders. Elizabeth and I convinced Freddy to pretend to be coherent for a moment and then rather deftly persuaded the patrolmen to explain what had happened. A band of known deserters and suspected privateers had nearly been apprehended there, we were told, but they managed to escape out the back as the shore patrol moved in. As they were interrogated, the girls of the gambling house rather adeptly described Midshipman Waters as one of the men who had fled. After shore patrol left and a rather sizable incentive came out of my wallet, the girls speculated on where the deserters and Waters might have gone.

Hours had already passed, and the mirror towers were minutely angling their light away from the zonbal, slowly lowering the city into the dark grip of night. With less than an hour before we would be expected back on board, we lugged Freddy along with us as we descended down back alleys and forgotten access stairs, deep into the cave systems that ring the crater. It was not difficult to find the game, given the bouncers outside the door; inside there was little more than a discarded cable spool serving as a table, a barrel of grog slowly leaking onto the filth-ridden floor, and Waters sobbing into his arms across from a disreputable old salt gloating over the cards he'd just set on the table.

It quickly turned out that Waters had suffered an "unlucky streak," owed more than he had, and had then been offered one last hand to win back all he'd lost. Needless to say, his streak had continued, and now the thin sheaf of paper under his elbow was the pirate's prize: on it was scrawled the access code to the ship's hive. Unarmed and burdened with a blithering Freddy, we could hardly take the code back by force. The grizzled old man cackled, and made a proposition which I am loathe to recount even in these pages. He invited me to play a hand to win back the code; all I needed to put up for my side of the wager was a night of my company. With trembling breath I accepted, replacing Waters as the cards were dealt.

We barely made it back to the ship before night fell.

NEW DAKOTA, AMERICAN MERCURY

I have never experienced such dread at being "trapped" inside the strong bulkheads of a British solar steamer as I do tonight, dear diary. We travel with all possible haste to Earth, after having some unfortunate adventures in the American territory of New Dakota, on Mercury. The American territories, bought wholesale from Spain, include stretches of land the likes of which do not occur in Britain's much smaller Mercurial holdings. The biota found in these lands is of scientific interest, so it was that the Americans provided access to their backcountry,

THE SUN NEVER SETS; SOLAGRAPHY



Monsters such as those found in New Dakota are best created as complications to sets, especially when they swarm. The player characters will certainly not be subduing each and every member of the swarm individually, so there is no need to create them as individual cogs.

On the other hand, a single bug-monster found in some mad scientist's lab or similar should probably be a "critter" prop or even a character itself with some strange exotic skills. and Britain supplied scientists (American 'science' being much like their literature — quaint in its flailing attempts at sense). The entomologists from the Royal Society had been working alongside their American "colleagues" for some months and were quite ready to return to civilisation after their sojourn in American lands. The ship bearing me home from Venus was due to collect them in Abestown, the local port serving the New Dakota territory, but on arrival they were nowhere to be found.

The wireless operator then detected a faint signal from the West, pleading for help. As this was where the team of scientists had been stationed, the ship's compliment of landers as well as one escort were dispatched to investigate. Technically speaking, this was a violation of the Concords of Vienna (I do not agree with Commander Donovan that it was a "gross violation"), but as the Captain did not know who had besieged the science post, we acted with regard for our scientists, not any treaty. We dreaded the possibility that the Americans had turned on us and hoped to hold our bright lights hostage.

The sight that greeted us on approach, however, was no such dilemma. The scientists' outpost was a little adobe compound in the middle of a narrow, rocky valley; the surrounding fields and hills around the structure were crawling with great scrabbling monsters that appeared to be horrific hybrids of spiders, scorpions, and any other disgusting insect one cared to imagine, yet each as tall as a man and as wide as a carriage. The beasts seemed focused on the outpost, from which small arms fire was spewing, keeping them at bay. Over the wireless, the story unfolded — the horrors had erupted from the ground shortly after the scientists had completed their last survey. Most of the American infantry that escorted the team had already fallen, leaving the scientists defending themselves — and quickly losing.

With the ships laying down cover fire, a detachment of sailors and marines made landfall just outside the compound. As the marines held back wave after wave of monstrous attackers, we proceeded into the outpost to evacuate the scientists and their research samples, which they refused to leave without. At the peak of their pyramid of samples was a crate closed off by thick bars, in which a live Mercurial beast sat, bloated almost beyond recognition and keening a terrible wail. It quickly developed that this was the only package the senior researcher had any real interest in securing. Whenever the crate was moved towards a space in the walls and thus towards a landing craft, however, the swarms seemed to redouble their efforts and send us fleeing back into the courtyard, barely holding their surging numbers back. With our survival becoming less and less certain, Commander Donovan hit upon the idea of replicating the caged monster's wail, and cobbled together a contraption using the scientists' gramophone, which was

then loaded into a lorry and sent careening out the gates and across the landscape. The beasts turned and followed, giving chase and leaping onto the back of the lorry. They dismantled the entire vehicle in short order, and we were hard pressed to load the caged monster into the landing craft and embark before the tide of creatures surged back upon us.

On returning to the ship, I escorted the senior researcher to see the Captain. I was dismissed shortly thereafter, but not before I heard him deliver a chilling warning that has been ringing in my ears since: "We must proceed to London with all haste, Captain — we must arrive before she begins giving birth!"

THE CZERPIZAK MINES, RUSSIAN MERCURY

What a vision of misery have I seen! We were out above Mercury when the wireless began squawking about a sunspot-produced storm sweeping our way — they are common enough within Mercurial Orbit, and have a habit of appearing with little warning. We were forced to tack into the etheric wind and take refuge in the planet's shadow and electromagnetic field. Without the benefit of light, however, we were unable to run the engines and maintain altitude: thus we hailed the closest cluster of lights on the surface and humbly petitioned to use their port for the space of a few hours. We landed at Czerpizak shortly thereafter.

The Russian mining settlement lies mired in the endless snows of Mercury's Darkside, and many of the buildings are simply buried under a white blanket, with paths from their doors to the mines stamped out. There was no public house to speak of — the port officials informed us with few manners that the colony residents have little need for one. We instead toured the "market", the shelves of which were more often shelved with nothing than with actual comestibles.

It was only after speaking with a fatalistic babushka that we learned that the "mining colony" we thought we had landed in was in fact a penal colony for dissidents too vocal for the czar's tastes. Those who were too outspoken found not only themselves but their entire families shipped off to these snowy wastes, the only source of food the single market (owned by the colony's governor) and the only employment to be found in the mines. The prices are so exorbitant and the wages so low that women and children are pressed into service — many households send everyone to the mines each morning just to keep food in their mouths.

We fled this monstrosity of a colony as soon as the storm passed, hoping we never had to return and counting ourselves blessed to have been born British.

Vulcan, Japan's Desperate Gambit

I do not know how, dear diary, but James arranged for us to see the ports above Vulcan as we visit with an associate of his, a man named Mister Hirogato. It was a strange contrast with the reception that I am used to in my Navy days, where the Japanese wanted us as far away from their holdings as possible. When we arrived today we were treated to an enthusiastic welcome from what seemed the entire crew of the facility. Our little yacht was berthed in a capacious docking bay and we were afforded nicely appointed (if understandably small) quarters during our stay. I was assigned to a charming young lady named Mei, the daughter of Mister Hirogato, who speaks very good English and was charged with being my guide around the port while the men dealt with business.

I will say this of the Vulcan ports — they are small and rather warm, which is to be expected. It took us little more than an hour to walk around the circumference of the port's outer ring as Mei showed me the quarters of the workers, their mess hall (which she assured me we would not be eating in, as if it was a fate worse than death), and their curious, meticulously maintained gardens. It is in the last of these that the port workers practice a curious sort of dancing pasttime, very slow and controlled, which Mei explained to me was a form of calisthenics.

Mei then showed me into the inner ring, where the real work of the port takes place. Here the rooms were much larger and wider, and blisteringly hot. The source of the heat was easy to identify, as great flows of molten material poured from chamber to spigot to centrifuge, lighting the room with a fierce red glow. The liquid ore came in turn from the inner docking bays at the core of the port, from battered and blackened ships, all container and faraday drive with a miniscule crew cabin nestled on their noses. Mei directed me to step back as the ship loosed its load of scalding material into a wide funnel; the temperature in the room soared in seconds, and the two of us in corsets quickly beat a retreat before we fainted.

Amusingly, as we settled in to bed for the night, James groused that the Japanese had shown me far more of the port than they would allow him to see. I laughed, recalling Mei's eager but ill-informed explanations of how the facility operated, and speculated that they did not expect a woman to understand what she saw. I quickly dashed off some illustrations and schematics of the day's tour, promising to take better notes tomorrow. James believes that such information will assure him an upper hand in the negotiations — it will teach them to underestimate a British woman!

THE BELT: THE SKY'S FRONTIER

INSTALLMENT THE FIFTH

by Mrs. Marcie Edgewood, former sailor & solar traveler

Nearly a full third of the colonial fleet is employed in the Asteroid Belt, and yet so vast is this region's size that great swaths of it are all but untouched by human hand and never before seen by human eye. Asteroids are excellent sources of easily mined ore and ice, and ports dug out of the largest asteroids can grow their own food and refresh their own air. I served three tours of duty in the Asteroid Belt — and one of these tours changed the course of my life forever.

CERES,

PREMIER BRITISH PORT OF THE BELT

Civilisation at last! After months of patrolling the far-flung British mines throughout the Belt, we have returned to Ceres. Elizabeth and I have taken a small room in one of the hotels here, not for sleeping but for the bath! After allowing each other nearly an hour therein, we went out in search of a supper that was not hard bread and craterbloom lettuce.

Like most ports, Ceres boasts a number of taverns, public houses, hotels, and less reputable businesses near the docks. Ceres' offerings are even more extensive than most due to the volume of traffic which flows through here. Most are miners and ore freighters, but there are many ships here delivering supplies and comestibles to the miners. It seems there is always at least one ship in port bringing new miners from Earth and Mars, and half a dozen ships of veteran miners here to spend their hard-earned profits. The thoroughfares are thronged at all hours, especially since the ports here do not bother to maintain a standard day and night cycle (although they do keep Greenwich time).

The Belt is a rough place, and Ceres is no exception. There is a handful of local government officials and businessmen making a valiant effort at propriety, but the port remains a frontier post. Brawls in the taverns between rival mining outfits are common, although to be fair I should recognize that our own naval personnel are not entirely innocent, especially when a Ministrie d'Etoile ship is in port. The army keeps a garrison on hand to supplement the local police, but they do not always contribute constructively.

For all that, though, Ceres does stand here at the edge of human colonization, a beacon of civilisation. Smugglers and pirates give Ceres and its miniature fleet of escorts a wide berth, and despite the preponderance of drunken brawls, miners and captains know that their cargo is safe here. Given enough time, I imagine Ceres will become the



OTHER NOTABLE ASTEROIDS

- Amphitrite
- Ariadne
- Astraea
- Bellona
- Circe
- Daphne
- Doris
- Egeria Egeria
- Eugenia Eugenia
- Eunomia
- **Euphrosyne**
- Fides
- Flora
- Fortuna Fortuna
- Harmonia
- Hebe
- Hestia
- Hygiea
- Irene
- Iris Isis
- * Kalliope
- Laetitia
- ₽ Leda
- Leukothea
- Lutetia
- Massalia
- Melpomene
- Metis
- Nysa Nysa
- ₽ Pallas
- Parthenope
- Phocaea
- Polyhymnia
- Pomona
- Proserpina
- Psyche
- Thalia
- Urania
- Victoria



Belt's version of Surat, Sydney, or Cydonia — a future that I suppose the governor and his handful of respectable businessmen are well aware of. In the mean time, I will content myself with our supper of broiled fish and vegetables, the price of which I quite willfully ignored.

JUNO, A FRENCH POSSESSION

We have docked at the French port of Juno, and by all reports we will spend a few days here. The scuttlebutt says that the Captain keeps a lover here, but I am skeptical of rumors the sole intent of which seems to be defamation. If the Captain is courting a Frenchwoman, I will not cast aspersions, especially if his love affair affords us shore leave.

Juno is not, as is commonly believed, a hollow ball of rock waiting for an impact to crumple it like an egg shell. Rather, the body of the asteroid is riddled with chambers and fissures which the French have expanded, joined together, and otherwise embellished. The result is a seemingly endless series of wide, open chambers in which the colonists live. A cunning network of light tubes channels sunlight from collectors on the asteroid's surface into the deepest caverns below. As the French are not constrained to make use of the light for power, they are quite content to use it for their rooms and copious gardens.

Elizabeth and I have spent the large measure of the day touring the tunnels and chambers, seeming to find another wonder around every turn. While the great majority of the colony is without gravity, the larger gardens are equipped with gravity generators and boast elaborate waterfalls. It was under one of these displays where we made the acquaintance of a Mister Edgewood, an Englishman en route to a mining facility his corporation is building nearby (in British territory, of course). We shared a pleasant, if short, conversation, and I believe he sorely misses the manners of Englishwomen, so far as he is from any of our civilised settlements. The hour, ship's time, was growing late, however, and we had to take our leave.

He insisted we meet for a luncheon tomorrow; Ensign Grey has agreed to chaperone us, although now I only worry if I can properly launder my yellow frock in time.

VESTA, AN AMERICAN ENTERPRISE

I write today solar-inbound at terrific velocity, in pursuit of a pirate freighter at similar breakneck speeds. The both of us owe our haste to the American installation at Vesta, the only linear accelerator constructed and operated outside of gravity's weight.

The pirates beguiled their way into the accelerator queue in order to evade us; we in turn convinced the Americans that it was in their best interests to allow us passage

without waiting our turn. Pirates are pirates, after all — or at least the Americans were obliged to say so (we suspect that Vesta does regular business with them when other eyes are turned) — and respectable and honest gentlemen should band together to confront lawlessness wherever it rears its head.

As we were in something of a hurry, I did not see the interior of the port, only the exterior as we approached and the accelerator itself. Vesta is a strangely oblong asteroid, far longer than it is wide. Most of the settlement is clustered on the sunward end, while the port facilities lie on the opposite end. Between the two, and down the length of the asteroid, the American have bored a tremendous tunnel hundreds of yards across, and it is here where they have constructed the accelerator.

There is always a collection of ships waiting at the port end (Ensign Grey tells me the sunward settlement is often referred to as "Starboard End", which like most things American, is almost clever). The captains there are continually engaged in jockeying for position or cajoling the port authorities and other captains to allow them to "cut" and go through the accelerator before their assigned time. Since it takes almost half an hour for Vesta's solar steam engines to recharge the batteries that power the accelerator, the haggling can get very elaborate. Cargoes of ore and foodstuffs are often traded, and the port is not above taking bribes.

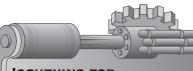
Once a ship is cleared for passage, however, it maneuvers its way into the mouth of the tunnel, strikes its ethersails, and comes to a full stop. From there, the tunnel's powerful electromagnets are charged up in succession, forcing the ship down its miles-long length at ever-increasing speeds. By the time the ship emerges from the other side, Starboard End is nothing more than a sunlit blur.

Thus it is that we are hurtling in towards the Sun — ah, battle stations have just been announced; we must be closing in to our quarry, and I must go.

BEYOND THE BELT

I find myself, dear diary, as far from the Sun as mankind has ever been — or at least, this is what Lt. Cmdr. Foxworth has said. We have traveled far beyond Vespa, and are now in the empty space outside of the Asteroid Belt. Normally there is no reason to go so far. The Gallilean Moons around Jupiter cannot have resources so precious that they justify the year's voyage it would take to reach them. There are no ports for shelter in case of an emergency, and the sunlight and etheric wind are thin.

It takes a great emergency to lead the Fleet to so endanger one of its flagships, but in this case we had no choice. The Prince of Wales is wont to tour the Empire's



JOCKEYING FOR POSITION

When it comes to getting ahead in Vesta's queue, there are as many tactics as there are ships and officers. While Diplomacy may be the most obvious choice, players can just as easily tap Acquaintances, resort to Intimidation, employ Duplicity, or even snap off a few shots with Gunnery!

If there are no character cogs to contest the player characters, the question is best resolved with a static check. A servicable success will bump them up one or two places; a good show will put them up next; a brilliant success might convince the Vesta traffic controllers to pull out whoever's already in the accelerator and let the PC's ship go next.

Of course, it may be that the characters don't want to go next so much as they want some other ship to be delayed...



THE SUN NEVER SETS; SOLAGRAPHY

possessions on occasion, and while visiting Mars his yacht was beset with Martian antimonarchist traitors. Their plot to kidnap him was foiled, but only after the yacht's engines were damaged, sending the ship hurtling out of control. Upon hearing of the Prince's plight, we plotted a course to intercept, one that took us to this distant reach. The Prince is safe, at least for the moment.

The horticulturist worries that we may not have enough sunlight to power both the trip back and keep our gardens alive to feed us on the way. If we do survive the return voyage, we will almost certainly be weak from hunger on arrival, and easy prey for pirates or enemy powers. Nevertheless, the only thing we can do is make the attempt; if we are successful, at least we will be hailed as heroes.

The midnight depths of the Greatest Sea lie all about us; it is as if the ship is a dust mote fallen on the surface of an inkwell. The lonely cold that fills the rest of the solar system feels so much more present, here, and makes the bright centre shine that much more precious. We return to civilisation with our Prince in the Captain's quarters; we are all but spent, but our duty calls us back to protect that beacon of light, lest it become like this, a dark wasteland of nothing at all.

CHAPTER 3:

LAYMAN'S REPORTS FROM THE ROYAL SOCIETY

Greetings, gentle reader! We at High Street Books have long been proud of our readership's broad interests and abiding curiosity. Therefore we are happy to cooperate with Parliament's initiative to better educate the common man on the advances of the modern age, and the last few pages of our chapbooks this year will include a feature called Layman's Reports, written by the scientists and experts of the Royal Society. Each feature will examine one field of science, portraying it in terms understandable by those without the benefit of expensive formal education. We hope, as the Honorable Member of Parliament Thomas Wright hopes, that we may in our own small way uplift the understanding of the common Briton and therefore better the way of life to be had under Her Majesty the Queen's noble rule.

MYSTERIES OF THE LUMINIFEROUS ETHER

by the Right Honorable Sir Lee Mason

In order to rightly understand the existence and nature of the lumineferous ether, one must begin with a basic understanding of matter. Let us begin with the ground beneath our feet. This is matter in its most comprehensible form: we can touch it, feel it, pick up a piece of it such as a rock. It exists, and we can tell that it exists because it is plainly obvious to our five senses. If we examine the sea, we find matter in its liquid state. Again we can touch it and feel it but we find it more difficult to pick up because it is fluid and will flow between our fingers. Then if we look above us we find the air and clouds of the sky, which are composed of matter in its gaseous form, which can be touched and felt only with difficulty, and is so fluid that it is compressible — given sufficient pressure, a cubic foot of oxygen can be compressed into a smaller container. It is a simple matter to move our hands through a volume of gas such as the air around us, because it is both fluid and compressible, capable of squeezing between and around our fingers.

Now we must, at least at first, extend our attention up beyond the atmosphere, to where there are no more gasses. The vast space between the stars and planets is occupied by the most rarefied form of matter, that of ether. The ex-



THE SUN NEVER SETS; LAYMAN'S REPORTS

istence of ether was for many years difficult to determine because, like the air, it is both fluid and compressible, but is also permeable — that is, this is matter which is so flexible that it passes through coarser forms of matter, and vice versa. Much like the atoms of air might slip between one's fingers, atoms of ether are capable of slipping between the atoms which compose one's fingers. Matter in etheric form is ubiquitous throughout the universe, both between the planets and stars as well as within them, since ether passes through all other matter harmlessly and without any simple interaction.

Readers with agile minds may now be asking how the scientists of our day have been able to determine the existence and qualities of the ether if it proves so difficult to touch or interact with. This is an excellent question, and one which occupied the scientific minds of every age since that of the Philosopher, who postulated the ether's existence as a means to propagate light. It was only until we properly understood the electromagnetic nature of light, however, that we were able to investigate the medium through which it traveled. While ether refuses to interact with normal matter, it readily interacts with electromagnetic phenomena such as waves and fields, of which light is counted a member. Once mankind harnessed the wonders of magnetism and electricity, we were able to interact with the ether, and begin to investigate this rarest state of matter directly.

Before we continue, we must take a slight departure to consider one of the basic elements of physics, that of the wave. If we tie one end of a rope to a doorknob and hold the other end at some distance, we can raise and then lower our arm in a quick motion. This will create a raised curve which will travel down the rope until it reaches the doorknob, at which point it will return to our hand. In the terminology of science, the rope propagates the wave back and forth — that is, the wave only exists as a curve in the rope, and cannot exist without the rope to hold it.

Similarly, light and other electromagnetic phenomenon exist as disturbances in the ether. Thus the term 'lumineferous,' meaning 'transmitting light'. This transmission of electromagnetic energy is communicated by both compression (such as the pressure in a steam engine) and transverse waves (like the rope). Manipulating electromagnetic fields creates corresponding disturbances in the ether, which may facilitate or interrupt the normal transmission of light and other electromagnetic phenomenon. The most dramatic example of this is the etheric cannon, or snap cannon, which focuses energy in a transverse wave across the etheric medium, thereby transmitting massive amounts of energy to its target — usually to the target's detriment. It is through a number of very clever applica-



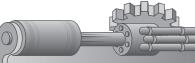
tions of these interactions that today's leading minds have made their discoveries regarding the universal medium.

Ether is the result of processes involving such massive amounts of energy that they can only be found in the heart of the sun and other stars. Ether is created by these processes — processes which still defy today's scientific understanding beyond the crudest suppositions — in a state of high compression and powerfully energized. In order to relieve this initial pressure, the ether flows out and away from the sun, its permeability allowing it to escape without regard to whatever matter might be in the way. This is most commonly referred to as 'etheric wind'.

The only thing which may impede this flow of ether is a large and powerful electromagnetic field, most commonly found emanating from the planets of our Solar System. This field is what makes compasses point north and is also responsible for repelling the brunt of the sun's etheric wind from sloughing through the Earth and everything on it. The action of the planets, and various asteroids with electromagnetic fields, churns the etheric wind, creating wakes and currents in the etheric medium. Given the ether's powerful and lasting charge, significant disturbances in the ether can create knots and twists capable of sustaining themselves; these are commonly referred to as 'storms' and can create significant difficulties for our astronomical sailors.

Ether is produced in our sun in a highly-charged state, and it is its eternal function to shed this energy; this constitutes one other way where the ether can interact with coarser matter, although this interaction is both complex and subtle. The simplest example of this interaction is what we experience when we visit Brighton and lie out in the sun: we grow warm. The sunlight, transmitted through the ether, falls on us and gives up some of its energy in the form of heat. Contrariwise, matter which is made to shed its energy — such as wood being burned — gives more energy to the ether, which then transmits it outward as heat and light. This interaction is easy to overlook safe within the protective shroud of Earth's electromagnetic field, but outside of its aegis the etheric wind produces a constant and deleterious erosive effect on normal matter, discharging its energy in the form of heat, static electricity, and lowgrade atomic disruption.

The last characteristic of the ether which deserves our attention is the combination of its compressibility and permeability. A strong electric field focused in a single direction will interact with the etheric medium, pushing it away and compressing it into a local area of high etheric pressure. The ether, in attempting to return to equilibrium, will flow back towards the original electric field. The ether's permeability does not apply to the field, however, and thus



ETHER STORMS

Terrible enough to make a veteran sailor blanche, ether storms represent one of the most dangerous threats of open space.

Any ship-based checks within an ether storm are assumed to have risk involved; this applies not only to simple manuevering as the storm wreaks havoc with the faraday drives, but also to snap cannon fire and etherwave radio. The unpredictable and violent nature of the storm can easily overload the most durable systems.

Ether storms can serve as complications on set cogs -- such as 'an ether storm overtakes the asteroid field' -- or they may be created as entire sets themselves with their own situation efects and complications.



the flow of ether pushes the field — and whatever machinery created it — in the opposite direction. This technique is what drives our ships through the Greatest Sea, allowing us to colonize and civilise the rest of the Solar System.

In this way, ether allows us to deliver the benefits of civilisation to the furthest barbarians of distant planets, and if for no other reason than this, harnessing this most elusive of substances might be counted not only as the greatest discovery for mankind, but for all peoples throughout the Solar System.

A PRIMER ON MECHANICAL PHYSICS

by Professor Augustus Scribner, Royal Society

The science of mechanical physics is as comprehensively broad as it is profoundly deep; while there is no doubt that I cannot provide a exhaustive accounting of the field, I am afraid I do not share my editors' faith that even the most basic survey can be accomplished in the small space we are provided in these chapbooks. I am further hampered by a perfectly unreasonable proscription against including any maths in this article, despite the fact that mathematics forms the backbone of mechanical physics. Nevertheless, I shall devote the full brunt of my own knowledge and education to the writing of this survey, and encourage any intrigued readers to school themselves in mathematics and seek out further instruction wherever they may find it.

We divide the study of physical mechanics into three fields. Statics investigates objects at rest, and focuses on matters of pressure, stress, and material strength. Kinematics, by contrast, studies objects in motion, disregarding the forces at work and only concerning itself with the motion itself; it is especially useful when calculating vectors and gear differentials. Dynamics, in turn, concerns itself with objects in motion by examining the forces at work on them; through this we understand energy, momentum, and deformation. Some physicists count as a fourth field the developing understanding of electromagnetic interactions, but I have precious little space for this article as it is.

Beginning students of natural mechanics tend to disdain the study of statics as less than exciting; they are sorely mistaken. This field provides the foundation of vast portions of modern engineering, especially in terms of materials science and steam power. On the first matter, statics allows us to measure the strength of different materials used in building and construction, and use these ratings to calculate all manner of things such as the maximum load a bridge can bear or the stress that a piece of armour plating can take. Such considerations also predict how much



pressure a vessel can contain without rupture as well as what a body of steam can be expected to do when heated. Even without my maths, I am sure any reader can see the importance of these figures!

It is in kinematics that we turn this knowledge to good use. Now we consider objects in motion, calculating position, speed, and acceleration. Speed is the derivative of position, in that it is the rate at which position changes; acceleration, in turn, is the derivative of speed, and the rate at which speed increases or decreases. It is important to note that all of these, position, speed, and acceleration, must always be considered in the context of a frame of reference. That is, a man walking down the aisle of a train car, towards the engine, is moving at walking pace in relation to the train car; in relation to the landscape outside, however, he is moving faster than the locomotive! Using position and its derivatives, we are able to construct vectors, conceptual notations which include an object's position, direction of motion, speed, and acceleration. Plotting out these vectors allows us to predict the motion of multiple bodies in the same frame of reference.

I find the subject of wheels, gears, and differentials to be a particularly significant portion of kinematics as it is most often applied today. It is through kinematic equations that we can find the speed at which a wheel must roll down an incline to avoid slipping. In turn, it is kinematic equations which allow us to calculate the speed of engaged gears; if my editors will allow me some minor illustrative math, consider the following. A gear with thirty teeth makes a full rotation in one full minute; this gear is in turn engaged to another with only fifteen teeth. Since the teeth of the gears engage each other singly, by the time the thirty-tooth gear turns once, the fifteen-toothed gear has made two complete rotations, one rotation every half-minute. This is known as a gear differential, and allows us to transmit the power of a slow-turning shaft (with the thirtytooth gear) onto another shaft (the fifteen-tooth gear) and turn the second faster.

While we can turn the second shaft faster, it moves with less power; now we come into the realm of dynamics, which considers the energy and forces behind motion. In its simplest configuration, Newton's Second Law of Motion, the energy borne by a moving object is equal to the product of its mass and velocity squared; that is, a heavy object in motion bears more energy than it does a lighter object moving at the same speed. This much is intuitive, but our equations allow us to calculate these matters with precision rather than vague estimations. When we combine this with the axiom given us by Newton that energy cannot be created or destroyed, only transmitted and transformed, we find we are able to calculate not only the energy transferred from one object interacting with another, but also the



speed at which the new mass will move. In the gear system above, the second shaft will move faster, but will spin only a lesser mass at this speed.

Dynamics primarily concerns itself with three types of force — tensile, or pulling force, compression, or pushing force, and torque, or twisting force (other forces, such as etheric shock, are considerably rarer). These forces, when applied to objects of mass, set these objects in motion as governed by the Second Law explained above. It is these forces at work within the barrel of a rifle, where exploding gasses provide the compressive force to motivate the bullet down the barrel, or a heavy flywheel providing the torque to turn a lump of clay on a potting wheel. When two forces conflict, such as the potter's hand conflicting with the spinning pot, the result is deformation. That is, the structure of the object beset by opposed forces will be changed, either shaped, as with the potter, or destroyed, as with the bullet impacting a wooden target.

We come full circle now, back to statics and its material strengths. Some materials such as armour plating stand up against compressive forces better than torque forces. These material strengths can be compromised by the application of heat energy, which has a tendency to assist in deformation; etheric shock, with its attendant heat and electrical discharges, creates a similar effect. Rock, for instance, can withstand great amounts straightforward abuse, but is vulnerable to the turning of a drill and more vulnerable still when the drill is blisteringly hot. Other materials, such as braided rope, have a greater tensile strength than compressive strength; braided rope can bear the pull of a heavy crate, but is easily crushed underneath the same weight.

If nothing else, I believe that I have succeeded in displaying the vast landscape of mechanical physics, suggesting the gross topography of the field and painting the broadest strokes of its portrait. The specifics of its details are as complex a world as there can be, for it is the underpinning of our own world, in all its manifold glory.

THE BUZZ ABOUT BEEKEEPING

by Augusta Ada Byron, Countess of Lovelace

It has been with the tender affection of a mother (and more recently, that of a grandmother) that I have observed the progress of Analytical Engineering, or as it is more frequently referred to, Beekeeping. This most curious of appellations is a direct development of the most basic unit of our science, that of the Binary Element, or BE, and stands



as a touchstone for the slight eccentricity that tends to mark those who choose to practice our developing field.

Yet no matter how touched the common man's life may be by the benefits our machines, our computations and coordinated information seems to come to him from nowhere, or perhaps only out of a building called an apiary. The actual mechanism of calculation remains a mystery. It is my goal in this essay to draw the curtain aside and remove the veil of ignorance from this singularly incredible field.

We take as the ancestor of our modern machines the apparati of Leibnitz, Pascal and others of the previous centuries, which consisted primarily of columns of wheels which could rotate on a common axis; along the outside of these wheels were printed the numbers zero through nine. Numerals of many places could be displayed on these columns, and by mechanical operations performed by the apparatus, the value of one column could be transferred onto another. Values from column one and two could be transferred to column three, rather capably performing addition; repeated many times over, the apparatus could perform multiplication. Reversing these operations resulted in subtraction and division. These machines were somewhat limited both by size (and the concurrent precision its calculations, displayed on wheels, could represent) and in function (they were limited to the four basic operations).

Mister Charles Babbage resolved to develop the capabilities of mechanical computing by creating an engine capable of superseding these limitations. Firstly, his designs were of greater size, with columns of forty wheels allowing greater precision. Secondly and more importantly, he reasoned that more complex operations could be accomplished by performing the basic four operations in an iterative manner. His first apparatus applied the Law of Differences, which employed a series of operations in a certain order, to calculate polynomials. He called it the Difference Engine.

In order to direct the engine to perform the correct operations in the proper order, he turned to the punch cards originally used to automate looms by the Frenchman Joseph Jacquard. These punch cards were of stiff material (although today they are made of various materials, ranging from vellum to copper) and punctuated with holes in specific places. Drawn into the machine, the card selectively interferes with the operation of levers, blocking some and allowing others to move through the punched holes. By this mechanism, Babbage was able to direct his engine to perform a series of operations in a predefined order, and is often acknowledged as the Father of Analytical Engineering.

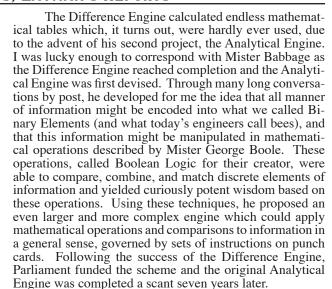


BEEKEEPING LINGO

- BE (pronounced 'bee') a Binary Element, 0 or 1
- swarm a collection of BEs organized to perform a function
- hive an Analytical Engine
- wax hardware that composes the hive
- straw hive substandard or juryrigged hardware
- apiary the housing

 either a building
 or a portion of a
 ship where a hive
 operates
- nectar input
- petals punchcards containing data (either honey or a swarm)
- honey output
- honeycomb

 a collection
 of specialized
 information, such as
 ship profiles
- heather honey arcane output, only useful to highly skilled specialists
- ADA Analytical Data Alphabet, a programming language



After decades of development, the modern Analytical Engine has been impacted both by advancements in materials and in theory. The gears, wheels, levers, and pins have grown both smaller and more durable, making an engine of today capable of calculations which are orders of magnitude more complex and precise than the comparatively clumsy original, now in the London Museum. More importantly, every year has brought us clever new techniques through which we can encode and manipulate information. The realization that both the instructions and the information submitted to the engine could be spelled out in Binary Elements led to the standardization of punch card grammar. This in turn allowed instructions and information created for one engine to be used with many other engines. At this point I am forced by my editor to explain that this prestidigitation is often accomplished by using the Analytical Data Alphabet, sometimes shortened to its acronym ADA. One might note the name's odd similarity to my own, which can only be attributed to overzealous analytical engineers eager to destroy what little humility I possess.

While Mister Babbage's vision for the Analytical Engine was a truly generalized machine capable of following any combination of operations to perform any number of useful functions, later-day engineers have found that specialized components can be quite useful in specialized circumstances. The best example of this is found in analytical engines used to compute routes through the three dimensions of the Greatest Sea. On a generalized machine these computations are possible, if time consuming, as they require almost countless iterations of the four basic operations. Responding to this complication, the Royal



Astronomical Navy developed a specialized module that computes the complex geometry involved at a fraction of the iterations. Mounted on the end of a lever, this module is engaged with the analytical engine when it is needed and removed when it is not, allowing for the machine to process these specialized operations quickly and efficiently when necessary. Today most analytical engines are composed of both generalized and specialized components, optimized to whatever uses the apparatus is intended for.

One of the most common applications of analytical engineering is the storage and manipulation of vast reservoirs of information, now commonly referred to as honeycombs. It is quite possible to, for instance, compile all the information from the National Census into one engine, and allow it to perform operations on this information to yield incredible insights. Not only does this analytical power allow us to know what the average Briton household earns in a month, but to track this information, foreseeing the rise and fall of our national fortunes. This in turn allows Parliament and the Bank of England to chart out a course of increasing prosperity and decreased disaster. Similarly, criminals have their orthogenic information — such as the span of their arms and the length of their face — encoded into machines that allow Scotland Yard to quickly identify culprits based on the stride of footprints found at the scene of a crime. The Royal Astronomical Navy maintains stores of data detailing the strengths and weaknesses of foreign ships; the latest development of these honeycombs include the ability to identify a distant ship based on its visual profile — allowing our Captains to know what they are up against long before any battle is engaged.

I suppose I should also include in this essay a short discussion on the rather eccentrically hymenopterous terminology adopted by the latest generation of analytical engineers and popularized by the newspapers and pulp media of today. The Binary Element, or BE, remains the foundation of our science, and thus the rest of this lingo follows along this theme of the bee. A proper instruction set requires a large collection of BEs and is thus therefore a 'swarm'. BEs are encoded and stored within an Analytical Engine, which is therefore called a 'hive' — and all the mechanical bits and pieces the engine is built out of is called 'wax'. 'Beekeepers', of course, are the people who corral the BEs and harvest their 'honey' - which is the information rendered to us by the machines. The honey is in turn made from 'nectar', or the information we enter into the engine. Beekeepers work in an 'apiary' where the hives are kept. Of course, I have only scratched the surface of this dizzying cyclopedia of terms; my editors inform me that a more comprehensive list appears in the margins of this article.

BEEKEEPING LINGO

- sting an unwanted result from a hive; bad news
- queen bee privileged, readonly data, usually operating systems
- bumblebee a misplaced BE that leads to an error, or the error itself
- wasp invasive, disruptive swarms designed to steal information or sting the hive
- beekeeper an operator of a hive
- **buzz, buzzing** work, operation of a hive
- drone an operator with dull duties, such as cleaning gears
- do the dance - technically, communication between swarms; colloquially, a beekeeper leaking a password or other
- smoke them out subverting a hive to steal honey

secrets

bear - an unauthorized user, often attempting to smoke or sting the hive

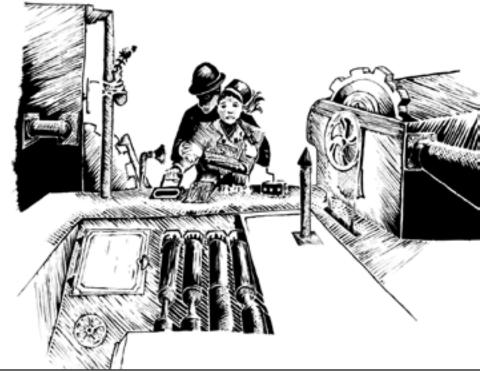


Fig 3.1 Lieutenant Graves steadfastly refuses to "do the dance."

It is my hope that you, my readers, may be inspired by the contents of this article — or perhaps by perusing that list of curious terminology — to make your own inquiries into our dazzling field. Please do not discount yourself due to age or station or sex — if a young daughter of a poet can involve herself as thoroughly as I have, I have full faith that you can overcome whatever obstacles may stand in your way. Analytical Engineering, or as you the next generation will call it Beekeeping, offers Britain more promise than any other technology discovered by Man; I wish you all the best in unlocking its potential for the further glory of Mankind and the British Empire.

TODAY'S HORTICULTURE

by Commander Eustace Montgomery, Chief of Horticulture, Victoria Station

Interplanetary travel is not all about hard metal edges and great electrical charges. Her Majesty's sailors rely on another science for the food they eat, the water they drink, and even the air they breathe — I speak, of course, of Horticulture. Often overlooked in favor of the towering



constructions of our industrial age, the science of plants is nonetheless a vibrant, intriguing, and bountiful world.

No longer bounded by just one planet's botanical menu, today we are offered a smorgasbord of variety from Venus' jungles, the deserts of Mars, and the many terrains of our own Earth. With so many sources, we have a cornucopia of resources which we may elect to exploit with careful application of the horticultural sciences.

From the highlands of Mars comes the Tharsis Craterbloom, a cabbage-like vegetable the leaves of which are remarkably adept at converting carbon dioxide into the oxygen we breathe. most etherships in the skies maintain a number of these plants to refresh the air on board — and for salads to prevent vitamin deficiencies. Craterbloom is often wrapped around meatfruit buds – these from the Venerian marshes – and soaked for a few days in a strong stout; this is colloquially known as Sailor's Sausage, and is a common, if not particularly well-loved, staple onboard.

The many jungles of Venus, once they are completely tamed and cataloged, will fill many pharmacological texts. Extracts which reduce tumors and other cancers have already seen wide use throughout the Empire. An arboreal parasite — much like mistletoe except somewhat disturbingly vibrant green — is cultivated on all ships. This, the Navkanese Danglingcress, has proven to reduce the effects of excessive exposure to ether. As there is little respite from the ever-present etheric winds, the Danglingcress is much cherished by sailors. The wasting death that often struck interplanetary explorers is almost unheard of today.

Even the Asteroid Belt has provided us with with new plantlife in the form of the Pallasian elephant vine. This strange midnight-black creeper gains its nutrients from the rocks it anchors to, spreading vast leaf canopies to catch the meager sunlight found in that remote locale. The seed pods fill with hydrogen gas and are highly explosive — understandble given their purpose is to propel seeds between asteroids and drill them into the rock once they arrive. Elephant vine seed pods are regularly harvested to heat and power settlements and ports in the portions of the belt where the creeper is found.

Horticulture has also had broad success in transplanting specimens from one planet to another. The fields of Mars are planted in dwarf wheat from India, potatoes from the Americas, and dates from Arabia. The natives of Venus happily cultivate rice from the Indies and sugarcane from Africa, both of which are significantly easier to handle than native species. While neither the Belt colonies or Mercury have adequate atmosphere for agriculture, settlements there maintain extensive gardens. The initial soil is imported, but later refreshed with compost and human waste.



THE SUN NEVER SETS; LAYMAN'S REPORTS

Shipboard gardens, while significantly smaller, employ the same principles. It is difficult to assign a "primary function" to a ship's garden — they are at the same time the ship's larder, its air refreshment, its pharmacy, and its waste disposal. The gardens of the largest ships are arranged aesthetically and provide the sailors with a pleasant reminder of home's green hills. Some gardens are cleverly arranged to create spaces where the bulkheads are completely out of sight.

It is no simple matter to fulfill so many essential functions at once. The ship's plumbing constantly deposits waste into a central reprocessing tank; discarded vegetable matter is shredded and added. This mixture must be turned over regularly to create an even consistency, a process which is only occasionally assisted mechanically (and these machines invariably break down). While the solids are allowed to compost, water is drawn from the dregs of the heap and used to irrigate the gardens. Runoff water is collected and circulated back into the gardens through "rain" fixtures in the ceiling. Water for human consumption is diverted from these pipes, tested, and then passed to the kitchens.

Produce from the gardens — craterbloom leaves, meatfruit buds, and more prosaic strawberries or potatoes — are harvested when ripe to supplement the ship's stores. A ship's garden rarely accounts for the entire diet of the crew, but nonetheless provides essential nutrients that shelvable food can not. Horticulture must plan a cultivation schedule which will continually supply the kitchens with a balance of fruits and vegetables; failure to do so sees scurvy haunt the ship.

Members of the crew are not the only ones who may fall victim to disease. Insects, rots, and fungal infections are a constant threat that horticulturists must work to prevent and contain on a daily basis. An ever-vigilant eye is necessary to catch any such problems before they spread throughout the garden. Here the many different planets we draw from hinders us, as we must combat diseases and parasites from three planets. Diseased plants may be quarantined or simply jettisoned depending on their size and necessity (a rack of strawberries is far more disposable than the apple tree which hosts the ship's danglingcress). Diseased plant matter and its soil is never composted, lest the infection spread everywhere.

Horticulture is a field both expansive and essential. The wonders of the Solar System's plantlife is glorious in its variety, and offers the horticulturist years of fascinating study. More puissantly, its requirement reminds us that no matter how far from solid ground we travel, we are still children of the Earth.



THE HEAVENS AND THE EARTH: PLANETOLOGY

Doctor and Reverend Joseph Ansel

For many generations, humans have looked at themselves and asked "Where did I come from?" Others looked around themselves, at their fellow men, the mountains and oceans, the sky, the sun, and the stars, and asked the greater question, "Where did it all come from?" Until this century, mankind lacked the tools and perspective to answer these questions. He had to rely on fragmentary and obscure records like the Old Testament in order to piece together their understanding. The advent of interstellar exploration and communication with the people of other planets has finally allowed us to see the broader picture.

The sun is the foundation and genesis of our entire Solar System. This energetic body produces not only light and heat, but casts off matter as well. This matter, often very hot, collects in drifts and clouds around the sun. Some falls back into the great gravity well, but the rest takes up an orbit around it, its momentum keeping it from falling back in. We might relate this stage of creation with the Lord passing above the world when it was "formless and without shape."

Eventually the cast-off solar matter coalesces according to Sir Isaac Newton's formula of universal gravitation. As more and more of this matter collects, it establishes its own gravity well and draws more matter into it. Eventually, all cast off matter from a given period (some tens of thousands of years) falls into one mass. Some errant portions of the matter may collect on their own and orbit the main mass; this is how moons form. This stage of planet-building I identify with the "first day" of Genesis, where our Lord God "created the heavens and the earth." At this point, the new planet is still incredibly hot, and retaining (as it forever will) its initial momentum from being flung out of the Sun. The planet Vulcan is a telling example of this stage.

As the planet moves outward from the sun, it cools down. This slow loss of heat allows the previously molten rock to become solid land; at the same time, the drop in temperatures allow liquid water to form and collect in the lowest areas of the planet's new topography. Now we have reached Genesis' "third day" where the sea and the land are separated. Mercury, with its blister-



THE SUN NEVER SETS; LAYMAN'S REPORTS

ing deserts, scant Brightside rainfall and prodigious Darkside blizzards, seems to be in the midst of this step.

The next few "days" entail the addition of all manner of life as the Creator populates his new canvas with plants, birds, fish, and animals. Finally the Lord God creates a thinking being capable of worship. The Venerians in their teeming jungles have no records more than a few generations back; we can only assume that they are a relatively new race, perhaps only a few hundred years old. Our own planet Earth, on the other hand, has had thousands of years to develop, giving rise to the civilisations that fill our history books and the science which takes us to beyond our own planet.

Mars is older yet, its race once traveling between the planets as we do today — Martian ruins have been found on Luna and on Venus (which would have then been much like Mercury is now). Time has left its mark on Mars, however. The fifth planet has drifted farther from the Sun and lost much of its heat. Today most of its surface is covered with cold deserts. Its dropping temperature seems to have resulted in the collapse of Martian agriculture. Even the last relic of the Old Martian civilisation, the ancient canal system, could not forestall the catastrophe.

Beyond Mars we find the disparate Asteroid Belt and the great gas giants beyond. These planets (and we must count the Belt as a planet, here) date back thousands upon thousands of years, to when the Sun itself was young. The solar matter cast off from the Sun then was thin, light, and diffuse. When the giants were formed, the matter was not heavy enough to collapse into a solid planet. The Belt represents a transitional stage, during which the matter was coarse enough to fall into solid bodies, but not heavy enough to coalesce into a single primary planet.

The worst consequence — or perhaps the saving grace — of planetology's discoveries is to see Earth's demise in the face of Mars: eventually even our planet will turn cold, unable to support the human race. But as humanity was able to reach for the other planets using abandoned Martian technology, so too may we take the example of Mars to guide our race. The Old Martians discovered their fate too late to save themselves. Perhaps we, forewarned by their chill planet, may yet have time.



CHAPTER 4:

THE FIRST SESSION

Full Light, Full Steam is played collaboratively: all the players work together not only to tell the story, but also to create their characters, personalize the setting, and set the general course of the campaign. The First Session is where everything begins.

The importance of the First Session cannot be overemphasized. The discussions that you have will determine how the game is played and how the game develops. Leaving those details up to chance doesn't mean that they will go bad — you could luck out, after all — but spending an hour or so putting a little effort into it can only improve your chances.

The First Session begins with a discussion of the Social Contract, the agreement that everyone at the table is after the same thing — an enjoyable story — and how they are going to go about creating it. Players then discuss expectations and the scope of the upcoming campaign. Next, everyone makes their characters together, and then the players collaboratively create the ship or port to which the characters are assigned. The result is a solid foundation on which to build the rest of the campaign.

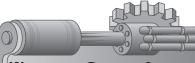
CREATE THE SOCIAL CONTRACT

Any time a few people sit down at a table and do something together, the way they interact is going to be as important, if not more important, then whatever they are actually doing together. Roleplaying is an essentially social activity, and so any discussion about how it works must start with the social context in which it happens. Everything from who is "in charge" to who pays for the pizza can have an impact on your fun.

ROLES AROUND THE TABLE

In addition to the character roles within the game, all the players fulfill roles around the table (or across the internet, or over the campfire). Who does what sometimes changes from session to session (or minute to minute!), but everyone will be best served if they try to stay conscious of the interactions happening.

Players - Players create and portray the main characters of the story, detailing not only their actions and dialogue, but also their motivations, emotions, and beliefs. Players also narrate other aspects of the story, such as describing a set or a series of events. Everyone around the table (including the GM) is a player in the game. No matter if they are playing Commander Merriweather or the swarm of moon bats that are attacking him, all the play-



WHAT IS A SESSION?

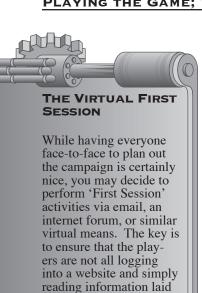
Generally speaking, a game of *Full Light*, *Full Steam* is not played in one sitting. The players will gather and play a few times, perhaps regularly or on a catch-as-catch-can basis. Either way, each sitting is called a session.

A session can be anywhere from two to six hours long; marathon sessions might even go longer. Players might incorporate meals into the session, turning the event into 'Dinner and Game Night'.

It's possible to play a complete game of *Full Light*, *Full Steam* in just one session; see **One-Shots** on page **81**.



PLAYING THE GAME; THE FIRST SESSION



out by the Game Master,

but participating in a real

input is incorporated into

discussion where their

the campaign's design.

ers behind the characters are here for the same purpose: to play a game, enjoy a story, and have fun. Needless to say, all players deserve respect. All players will also come to the game with expectations, which should similarly be respected.

Game Master - One player commonly takes on the role of the Game Master, more commonly referred to as the GM. The GM does not typically portray a main character. Instead, the GM is responsible for all the characters, settings, threats, and other elements beyond the other players' characters. She creates the details that populate the story the player characters experience, and in play she narrates what all these details do. She determines the difficulty factor and situational modifiers for checks, and rolls dice for NPCs. This is a lot of work (GMs tend to be masochistic types), but a savvy GM can delegate many of these tasks to other players. Regardless of such delegation, however, the GM remains responsible for those details. Alternately, you may decide to have Multiple Game Masters (see page 80) or none at all.

Leaders - In most social groups, one or more individuals tend to give the group direction — their suggestions on what to do are taken up, and they have a deciding voice when a collective choice needs to be made. These leaders are usually informal, but present nonetheless. In a roleplaying game, they might be the GM or they might play a character in a leadership role. In most games of *Full Light*, *Full Steam*, leadership among the characters is very formalized and explicit. If the group's usual leader is not playing the officer in command, they may need to be especially careful not to step on the toes of the commanding officer's player. If the only leader-type in the play group is the GM, she might consider creating an NPC superior officer to provide the other players direction.

Host - The player that provides the space you play in — whether it be their house, place of business, or whatever — is the game's host. Treasure these players! Don't leave them to do all the cleaning up alone, and respect their wishes while enjoying their hospitality. You may even want to pay their share of the pizza as a thank you.

New Players - You may have one or two players in your group who have never roleplayed before (you may all be new players, for that matter). The key to sharing your hobby with others is patience; the game will go a little slower. You will have to explain how to count dice more than once. They may take a while to getting into the swing of narrating their character's actions. With some encouragement and constructive criticism (whatever you do, don't be silent!) they'll soon be swapping war stories like an old hand. In the meantime, GMs should refrain from delegating too many tasks to them, and should remember to guide them into the spotlight occasionally so that they can shine.

POWER AROUND THE TABLE

It's easy to see that the GM, Hosts, and Leaders have power, but it's important to recognize that all the players in the game have power in different ways and in different degrees. Not only can anybody at the table get up and leave, but any disgruntled player can easily stay at the table and make the experience a living hell for everyone else.

The best way to make sure everyone enjoys themselves is to treat all players with respect, paying attention to their expectations, and to use what power you have responsibly. A good Leader will find a way to make use of the skills of a New Player's character; a good GM will allow time at the end of the session for everyone to help clean up the Host's house. Lastly, good Players make sure that the GM is having as much fun as they are!

COMFORT ZONES

Not all subject matter is appropriate for all players to enjoy. While *Full Light*, *Full Steam* does not concern itself with more commonly hot-button topics like rape or insanity (much), there are some places that the game can go that may make one or more of your fellow players uncomfortable. This may be anything from the more gross injustices of Imperialism, to the forcible proselytization of the Christian faith, to sexuality and romance between player characters. Whatever it is that makes some aspects of play uncomfortable for your fellow players, don't force it on them - no one should be made uncomfortable in their hobby play. Never make a player roleplay through content that makes them squeamish. If other players are interested in roleplaying that content, you might consider narrating it out of earshot, or not at all.

It's not easy to talk about what you're uncomfortable with, so when your playgroup discusses comfort zones,



HMS Exemplar Holds First Session

Amanda, Jamal, and Sam are getting together to play a game of *Full Light*, *Full Steam*. Around the coffee table festooned with snacks, they hold their First Session, and start talking about the game they're about to play.

Sam is the only player who has read through the entire book, and she volunteers to be the Game Master, at least at first. Jamal has played in other roleplaying games before, but this is Amanda's first game of anything. They decide that, at least at first, Jamal's character can be Amanda's superior officer to show her the ropes.

When Comfort Zones come up, Amanda's only request is that

religion play a relatively minor role in the game, which Sam and Jamal agree to easily. The trio also discuss some basic arrangements, such as when and where they'll play, who'll bring food and drinks and snacks, and the like. They decide to play at least three sessions of the game to start with.

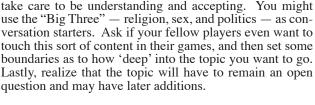


PLAYING THE GAME; THE FIRST SESSION



The discussion that you have regarding Expectations will have some important repercussions later. It may be a good idea to take down some quick notes as you go. You don't need to be too detailed — just jot down topics of discussion and important points. The Game Master will appreciate having notes to reference when she gets to **Engineering the Situa**tion on page 107.

In the example to the right, the notes might be as simple as "Flagship, Military Culture, Tough Choices, Brink of War"



EXPECTATIONS

Every player in your game comes to the table with expectations, hopes, and goals. To begin with, they will want to be treated with respect and not be dragged through an awkward experience outside of their comfort zone. Beyond that, however, the range of possible expectations becomes incredibly broad. When player expectations are met, the players walk away happy; when they sit through a few hours of roleplay and do not fulfill any of their expectations, they are inclined to see the experience as a waste of time.

Take some time to discuss what expectations each player has of the upcoming game and how everyone around the table can help provide opportunities for these expectations to be fulfilled. Some expectations to consider include the following:

Scope - Which parts of the Solar System sound like interesting locales for the story the players want to create? Do the players want to travel all across the Solar System, with each adventure calling them from port to port among the planets and asteroids of the Empire? Or do they want to stick close to one location, developing its local character and creating a story with a strong sense of place? Do you want to try and strike some compromise and explore the middle ground between the two?

Heroism - The range of heroism that the players expect their characters to exhibit is often very broad. Some may want to portray larger-than-life legends while others may be perfectly content playing spear-carrier sidekicks. Some may be interested in playing what Campbell called "the Hero's Journey" in which their character develops from an inexperienced novice to a knowledgeable veteran. Often, all of these disparate expectations can be met in the same game — the heroic types can perform their derring-do while the less bombastic characters play support roles (while fulfilling their own expectations).

Drama - Again, there is wide variety here. Whereas some players want to tug at their characters' heartstrings until they break, others have little interest in playing out their characters' emotional lives. Much like Heroism, different expectations here are usually compatible — it's just a matter of everyone at the table allowing the right characters the right opportunities.



Humor - Comedy and its straight-faced cousin Camp are both highly compatible with *Full Light*, *Full Steam* — but that doesn't mean everyone will enjoy it. Faced with different expectations in this area, one might turn to the example of Shakespeare and other Renaissance playwrights, who juxtaposed highly dramatic and profound scenes with moments of comedy. The comedy can serve to stress the irrationality or desperation of the dramatic situation, even as it gives the clowns in your play group something to enjoy.

Politics - Matters of State and political machinations are some players' bread and butter; it makes others yawn. Disparities in this area are harder to reconcile; while it is sometimes possible to split up the player characters into different scenes and jump between them, this can't happen every time, and eventually the unpolitical types will have to sit through the political type's enjoyable scene. However, delegating cameos to these otherwise disinterested players may give them an interesting change of pace and an entertaining means to get into the action.

Mystery and Surprise - Since there is no privileged information anywhere in this book, any "twist endings" or hidden setting secrets must be created by the players. Some players may want to discover that there are great and secret forces behind the world, while others may not want

The Kimes

Crew of HMS Exemplar have Expectations

Amanda wants to play characters on a flagship solar steamer, having adventures all over the solar system, which sounds good to everyone else. Jamal wants to focus on matters of duty, honor, and military life, and Sam wants to examine tough decisions made tougher by their characters' personal foibles. All that isn't very difficult to put together, as Amanda illustrates by mentioning the new Battlestar Galactica. The game can be about officers on a flagship having to make hard decisions that are

complicated by their military and personal backgrounds.

Jamal points out the lack of Battlestar Galactica's Cylons to keep up the pressure on every situation that comes up in the story. Sam suggests as an alternative the looming threat of an inevitable war — diplomatic relations are falling apart across the Solar System and hostilities will break out over the course of play. The inevitability of war will put the player characters between a rock and a hard place, trying to keep the peace as best

they can while shoring up their own defenses so that Britain is in a good position when war breaks out.

They conclude that the game will be high on drama, have good helpings of politics suspense, and while heroism will turn up, it will usually be a difficult choice. Amanda's insistence, they don't close out the possibility of humor cropping up every now and then, if only to contrast with the increasingly desperate times the characters will be living in.



the setting so fundamentally changed from what they can read in the book. Whether large portions of the setting as presented can turn out to be incorrect or misconstrued, and who can decide to subvert those expectations, should be discussed beforehand.

Setting Canon - Playgroups should feel free to deviate from "setting canon" if they can get a better story out of it. As described in this book, the Solar System is presently at peace, but a playgroup who wanted to roleplay through a war need only change a few details to get the martial conflicts they desire. Insectile natives of Mercury, blood-thirsty and cruel, can be added if there is any need for them. The only thing to remember is to make sure everyone discusses and is aware of the canon changes that will affect their roleplay — discovering that ant-people rule Mercury and always have can be rather frustrating when you were expecting a friendly port as described in the book!

GAME STRUCTURE

There is more than one way to structure your game of *Full Light, Full Steam*, and your playgroup should discuss how to set up the responsibilities around the table, or even if there will be a table at all.

VANILLA PLAY

The default structure for a game of *Full Light, Full Steam* entails a handful of friends playing around a table, with one Game Master and all the other players portraying one character each. Any of these parameters can be changed, either by necessity or by preference, often to great effect.

TROUPE PLAY

In Troupe Play, players are not limited to just one character each. You might allow each player to play up to a set number of characters, or you may simply open the door for players to create as many characters as they like. Players might run multiple characters concurrently or be limited to one at a time. NPCs that appear regularly might turn into alternate PCs for the players who grow attached to them.

There are many possibilities, and if your group elects to use Troupe Play, there are a number of questions you should consider.

How Many Characters? This basic question should be settled, even if the answer is "We'll see." Generally speaking, players shouldn't begin the game with a stable full of twenty alternate characters — one to three should do just fine. You can always raise the limit as the game progresses, or swap out some characters for new ones.

When's the Switch? If players can "switch out" their characters at will, the resulting game may turn out very differently than if they must choose one character and stick with her through a complete situation. Sticking with the same character also makes Engineering the Situation easier, and allows you to spotlight characters more effectively. You should determine how much latitude players have in this area.

How Many at Once? Beginners may want to stick with one at a time, although it's important to point out that the GM rarely gets this luxury! Running multiple characters simultaneously does run the risk of one player's characters "teaming up" and continually stealing the spotlight, and players should be very careful to avoid this. Even two characters played by the same player will only work together as well as their Leadership scores allow. Remember, you can always call for a die check!

How are they related? Whether or not players are allowed to portray their own subordinates is a good question. While this can be a useful technique to portray a coordinated Engineering team, it also runs the risk of one player's passel of characters stealing the show. Additionally, if the same player portrays two characters who interact regularly, that player may end up talking to herself for most of the game! Your playgroup may decide on some safeguards to prevent this from happening, or allow another player to "pinch hit" and portray the second character in the scene.

Shared Characters? Characters can even be shared between a couple players or the entire playgroup. One player may be the 'primary' player while another player is the 'understudy', capable of playing the character when the primary player is either absent or playing another character. Players have a tendency to get attached to their characters, so set boundaries on who can play which character in which situations. You may want to allow players to claim exclusive rights to their favorite characters, as well.

What About Rivals? It can be loads of fun to play both sides of a conflict. Players might have characters on both a British ship and its longtime French rival. Care should be taken not to "go easy" when conflict arises — it's no fun if the rivalry turns out to be ephemeral. Mixing up roles (the British Captain's player also plays the French Engineer) can reduce the frequency of head-to-head conflicts with yourself.

ONLINE PLAY

The players need not be at a physical table to play — *Full Light, Full Steam* can be played via a chatroom, web forum, email, or MUSH. With free calls between cellphones, you might even play by Nokia.



UPSTAIRS-DOWNSTAIRS TROUPE PLAY

One interesting Troupe Play option is to have each player make two characters: a member of the Command Staff drawn from Britain's elite and an enlistedman from the lower echelons of society. Players can split 300 points between their two characters. This can allow you to make a number of comparisons between the characters, starting with how competent you build the upstairs characters compared to the downstairs characters. It can also give you a broader range of potential scenes, since your Captain and Staff may not be the types to slum around the backstreets of Zonnendam or take places in the first wave of marines assaulting the pirate lair.



Scheduling can be easier (or more difficult) with an online game, but there is also the distinct possibility of players being online without the GM! Whether or not players are allowed to play "unsupervised", and whether that roleplay is considered similar to **Bluebooking**, described on page **155**, is an important concern.

Bookkeeping can be complicated in some of these media; character sheets aren't sitting there on the table, after all. If there is no way to incorporate this information into the medium (posting to fora, creating a +sheet command in MUSH), it's a good idea for the GM to have a copy of everyone's character sheet at least.

Dice are perhaps the most problematic aspect of online play — apart from the lack of nonverbal cues, of course. If there is no die roller available (as in MUSH and some chatrooms), one player might perform all dice rolls — or the players can trust each other not to fudge.

SOLO PLAY

Finding a time when all your friends who want to play can get together can be difficult. Sometimes, finding friends who want to play is the hard part! Luckily, *Full Light, Full Steam* can be played with as few as two people — the GM and "the player."

Solo Play usually entails switching narration between the GM and the player a little more often than usual. Solo Play is also a good match with Troupe Play, allowing the player to portray the entire crew or Command Staff of a ship. Plots are easier to create since there are fewer issues with sharing the spotlight, although the onus of moving the plot forward rests on just two players, instead of four or five. Solo Play games require a little more effort on both the GM and player's part, since neither really ever get to "play audience." Sessions may be shorter, or incorporate more breaks.

MULTIPLE GMS

Just as there can be just one player, it's also entirely possible to play *Full Light*, *Full Steam* with more than one GM. GMs might work together concurrently or trade off the GMing duties.

The most important consideration when playing with multiple GMs is delineating where one GM's authority stops and the others' begin. This is a simple matter in Round Robin play, where each player takes a turn GMing one situation. The changing of the guard, so to speak, is clear and straightforward — when the plot line ends and a situation is resolved, so does the GM's authority.

Any other place where GMs trade off should be similarly clear, to avoid confusion on whose difficulty factor to roll over. In situations where two (or more) GMs are



working together concurrently, it is generally a good idea to designate one as the "Lead GM." The other GM(s) may run the game as normal, but when a question or conflict arises, the Lead is the final arbiter. Direction defaults to the Lead GM or whichever GM gave the difficulty factor or rolled opposing dice in Dynamic check.

Who does what may also be a factor; not all GMs need to develop starting player characters or discuss spending XP. Some may only be interested (or any good at) one or two GM tasks.

Multiple GMs work well with Online Play, providing more coverage for player needs. Troupe Play can blend into Multiple GMs very easily. Ironically, Multiple GMs can work under Solo Play as well, with the two players involved swapping the GM hat back and forth. If everyone takes on some GM duties or tasks, there may be no need for one "Game Master."

ONE-SHOTS

An entire game of *Full Light, Full Steam* can be played in one session, although this usually requires some significant modifications. Usually, the decision to run a One-Shot occurs before the players get together to play, and the "First Session" becomes the First Hour. Alternately, the details discussed in the First Session can take place online (see **The Virtual Session**, page **74**) or character creation can be done by one player (usually the GM) beforehand. Players may simply use the sample characters described on page **168**. Players may be able to spend experience points in the middle of a session instead of at the end. While this is not the optimal way to play, it can serve as an excellent introduction or "taste" of the game.

REINFORCING THE SOCIAL CONTRACT

Ideally, setting out and openly discussing the Social Contract and player expectations will pre-empt most common problems. It is not, however, a guarantee that everything will work flawlessly. The playgroup will need to evaluate the game and make changes — small and sometimes large — to the social contract as the game progresses. Be sure to discuss with your group how you will address problems as they arise. Despite all precautions, the Social Contract may still be violated.



HMS Exemplar Structures Game

While Troupe Play sounds interesting, Amanda and Jamal feel they'll be more comfortable with just one character to keep track of — at least at first. Sam is very interested in the Multiple GMs option, but suggests that if they decide to extend their game past their first three sessions, they can begin trading off Game Master duties.



PLAYING THE GAME; THE FIRST SESSION

When the events of the story make your eyes roll, when you are stifling yawns of boredom, and especially whenever you are uncomfortable — speak up! You might wait for an opportune time such as a break or the feedback at the end of a session, but do not hesitate to "interrupt" if it can't wait. As with all other aspects of communication, take care to be sensitive and tactful. Present your concerns without accusations or finger pointing — explain that you are bored or uncomfortable, not that you are being ignored or singled out. Often your fellow players just haven't noticed the problem and will be quick to respond once they find out that you aren't enjoying yourself.

Playgroups should expect some criticism, especially from the start: things will need some fine-tuning to work well. With a little discussion and a willingness to work together, most problems can be resolved just by talking it through.

In the worst-case scenario, a player may disregard the Social Contract to such an extent that the game is consistently unenjoyable for other players. It is not your responsibility to keep playing in a situation that is consistently uncomfortable. It is not your responsibility to provide other people an opportunity to play — especially when they make the experience uncomfortable for others. Roleplaying is an activity where people come together and agree to cooperate in telling an entertaining story. When people refuse to cooperate or the story isn't entertaining, there is nothing wrong with stopping the whole affair.

It is never easy to ask a player to leave, but this may become necessary. If it does, make it clear that the player is no longer invited to that specific game; leave open the possibility that other games, with different social contracts, are not affected. Since your fellow players are very often your friends, make it clear that you are not terminating the entire friendship over compatibility in one game.

CHARACTER CREATION QUICK REFERENCE PAGE

1) CHOOSE POINT BUDGET

≥ 200+ Larger Than Life

2 125-150 Cinematic

≥ 100 Competent

₹ 75 Modest

2) CHARACTER CONCEPT

A short sentence or phrase describing your character. It's okay if it's rough right now.

3) THEMATIC BATTERIES

Choose or create three.

4) ATTRIBUTES

- Rank 1 is free
- Rank 2 costs 5 CP
- Rank 3 costs 15 CP
- Rank 4 costs 30 CP

5) SKILLS

- Rank 1 costs 1 CP
- Rank 2 costs 3 CP
- Rank 3 costs 6 CP
- Rank 10 costs 10 CP

6) SETTING

- Ship or Port?
- Name it
- Propose & Vote on Station Thematic Batteries
- Fill in your Assignment and your Superior Officer
- Name Superior Officer
- Choose Point Budget
- Propose & Vote on Superior's Thematic Batteries
- Take turns spending 5 points each until Budget is spent

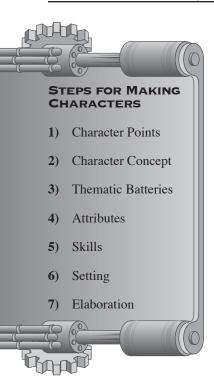
7) ELABORATION

- Draw Portrait or Write History
- Only include elements that you want to see in later play. If you don't want your character's parents showing up, don't mention them.
- Charge a Thematic Battery one level if you included it.

HELP ENGINEER THE SITUATION

You may be able to help the Game Master with Engineering the Situation when you're done.





CHARACTERS

The second half of the First Session is spent creating the characters and setting. Each player besides the Game Master in *Full Light, Full Steam* creates one (or more) characters for the story. That player will be responsible for that character's actions and reactions, for understanding and developing their personal motivations, and for portraying them for the other players. Each character will need a character sheet, where important details about the character will be written down for later reference. Many of these details will be 'bought' with a budget of character points.

Character creation consists of six steps listed to the left. You will write down the decisions you make about your character on the character sheet.

THE CHARACTER SHEET

While the subtleties and complexities of a fully-developed character cannot be reduced to a handful of words and numbers on a page, the character sheet attempts to describe your character in a sort of shorthand, much like a schematic might describe a solar steamer. The schematic is not the solar steamer, and the character sheet is not the character, but the former can describe the essential characteristics of the latter.

Each character is written out on their own character sheet. A **Blank Character Sheet** can be found at the end of this book on pages **166-167**, and can be downloaded from the Kallisti Press website. You are free to make as many copies of it as you like.

STEP ONE: CHARACTER POINTS

Players should discuss what kind of characters they want to play and determine the number of character points they will use. There are four broad point ranges that characters can be built on: Larger than Life, Cinematic, Competent, and Modest. Ranks in attributes and skills are bought out of this budget of character points. Roughly speaking, the more points you spend building your character, the more competent your character will be.

A budget of 200 points or more would allow players to create **Larger than Life** characters. 200+ characters are not only nearly infallible in their chosen specialties, but are also highly capable outside of their chosen field. Characters at this level will have abilities that distinguish them as natural geniuses and respected experts throughout the Solar System. Characters of this magnitude may in fact be too competent to require teamwork, but may make rewarding solo characters, perhaps in command of NPCs built on lesser point budgets and played by the GM.



A budget of 125 to 150 points allows **Cinematic** characters whose abilities are broad and well developed, but still well within the realm of plausibility. Such characters are a cut above the average naval officer, and the stuff that heroes are made of. A crew of officers at this level would represent a force to be reckoned with; an officer of this power level might be paired with subordinate characters of lower budgets.

A budget of about 100 points results in **Competent** characters whose capabilities are still limited. These characters will be able to hold their own in most situations, but will need support, either from other PCs or by subordinate NPCs, for especially complex or specialized tasks. This power level is well suited to the command staff of a large ship of the line, or lesser officers and enlisted men of remarkable natural talent.

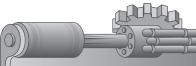
A budget of 75 points or less will allow players to make characters of **Modest** abilities, usually specialists. These characters absolutely must work together — and carefully coordinate when creating their characters — in order to be effective. Such characters might be under the direction of an officer created on a larger budget, either played by another player or as one of the GM's NPCs.

Not all characters must be built out of the same number of points. It's quite acceptable for one player to portray a wet-behind-the-ears new recruit while another player takes up the role of an old veteran or officer. The "recruit" simply does not spend all of the points in his point budget.

SPOILS EXCHANGE RATE

When the play group decides what point budgets characters will be built on, you should also discuss how quickly the characters will increase in ability by spending spoils. You do this by setting the spoils exchange rate. A low exchange rate will result in fast character progression, while a higher exchange rate will slow character progression down.

As characters are played, especially over long periods of time, they will turn their *spoils* into character points, which are spent in exactly the same way as their original



EXCHANGE RATES

1 Spoil to 1 Character
Point - Very fast. This is appropriate for campaigns that are planned for only a few sessions, one-shots, or convention games. Characters will typically be able to raise an attribute every session, or raise a number of skills by one or more ranks at a time.

5 Spoils to 1 Character Point - Moderate rate of progression. This is appropriate for campaigns expected to last for a handful of sessions. Players will probably be able to raise one or two skills each session, and raise an attribute if they save up.

10 Spoils to 1 Character Point - Very slow. Selecting this rate will make character abilities develop occasionally, with skills raised every session or two, and attributes rarely increased at all.



HMS Exemplar Chooses Point Budget

Based on what they've already decided in terms of expectations, Amanda, Jamal, and Sam now discuss character points. Jamal points out that competence is assumed; it's what the players do with that competence that matters. On the other hand, Sam points out that the characters can't all be worldfamous crack-shot master tacticians or else their decisions would be too easy to resolve. They decide on a Competent budget of 100 points, and a moderate exchange rate of 5 spoils to 1 character point.



character points. Consequently, as their point totals rise, they will progress up the above scale. Characters who begin as 75-point enlistedmen may become 150-point or even 200-point heroes by the end of their campaign. Unless you are participating in a 'one shot' game that will play out in one session, try to build your character with room to grow.

Once set, the spoils exchange rate is not final; players can discuss raising and lowering the exchange rate during the **Feedback** at the end of each session; see page **155**.

STEP TWO: CHARACTER CONCEPT

Most characters begin with a "character concept" or basic idea. This is the most basic germ of an idea, such as 'grumpy old vet,' 'headstrong lady officer,' or 'unconventional inventor'. Starting from that foundation, the player adds details such as:

- Where the character might have been born and raised (London? Scotland? Mars?)
- What training they received or natural talents they may have discovered (daughter of a diplomat? technical training? tactical genius?)
- What difficulties they encountered and overcome (demanding parents? prejudice? a tragically dead fiancée?)



HMS Exemplar Creates Character Concept

One of Amanda's favorite parts of the genre is steam and technology, ether and so she decides she'd like to make someone who deals with that aspect of the setting. She also finds the place of a woman in the Victorian armed services to be intriguing, and speculates that the RAN may be the only place where a woman would be allowed to tinker with all that high technology. Her concept might be described as 'inquisitive engineer woman'.

It's not pretty, but it doesn't have to be yet.

She develops her character concept by adding details: the character might come from an impoverished background in the London suburbs, where her parents worked their lives away with the massive machines of the factories there. Fascinated by the machines but horrified at the lives her parents were forced to live, the character enlisted in the RAN to gain access to the former and escape

the latter. Amanda decides that while her character is more interested in working with machines than gaining recognition as a woman, the fact of her sex has probably restricted her options before, much to her frustration.

Amanda gets an image in her head of a girl with mousy brown hair and bright blue eyes; she can't be that much older than 19. Amanda decides to name her character Gwendolyn St. James March.



Or even something so simple as what the character looks like (blonde? brunette? bald?).

Before you know it, the character starts to develop a life of their own.

The player might find ideas and inspiration in the setting chapters in the second part of this book. While it is hardly necessary, a player might also seek additional resources on the British Empire, Victoriana, naval culture, or other applicable topics at the local library or on the internet.

STEP THREE: THEMATIC BATTERIES

This is the most personalized part of the character. The thematic batteries are what makes every character a unique and interesting individual, different from any other character that might have the same Attributes and Skills.

All player characters are created with three thematic batteries. A thematic battery is a word or phrase which describes an aspect of the character's personality, place in society, or role in the unfolding story. In order to be useful, a thematic battery must be a trait that can be both good and bad — a character whose thematic battery is *Veteran* will be knowledgeable and experienced in martial matters, but also suffer from an over-reliance on tradition and "tried and true" methods, for instance.

You are always in control of your character's thematic batteries. During play, you may elect to take a handicap to 'charge' your thematic battery. If your character was the *Veteran* in the example above, you might have your character make a poor impression on a female officer when he claims that women have no place on a naval vessel. You may also 'discharge' that battery to claim an advantage for



HMS Exemplar Picks Thematic Batteries

Amanda now needs to take the fundamentals of her character and reduce it to three words or phrases she can use for thematic batteries. The first is easy, taken directly out of her character concept. She makes her first battery *Inquisitive*.

The second battery is also drawn out of Gwendolyn's char-

acter concept. One of the things which originally intrigued Amanda was a woman in military service. The discrimination's habit of frustrating Gwendolyn leads Amanda to make the second battery *Chip on her Shoulder*.

For her last thematic battery, Amanda remembers her character's roots and her family. Unlike most other officers in the Royal Astronomical Navy, Gwendolyn comes from a lowerbackground, class with a very different perspective than her genteel colleagues. She makes her third battery Cockney. She can make embarrassing faux pas in formal situations and prove an asset in any down and dirty barfight.



PLAYING THE GAME; THE FIRST SESSION

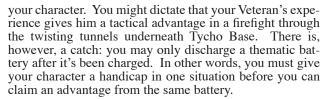


NUMBER MEAN?

Since Full Light, Full Steam's stats range from 1 to 4, there is no 'average' score and it can be difficult to get a good feel for what exactly a Coordination of 2 or a Acquaintances of 4 might mean.

A rank of 1 in an Attribute represents an astounding lack of ability; a character with Coordination-1 would consistently stumble and fumble through the story. In a skill, a rank of 1 represents a basic, but by no means complete, understanding of the subject: a character with Marksmanship-1 might have received basic rifle training, but seen little improvement since. When rolling a stat at rank 1, count the lowest die.

Attribute ranks of 2 indicate acceptable but still lacking facilities: a character with Intellect-2 would hardly be mentally deficient, but would neither be a bright light. Skills at 2 indicate completed professional-grade training or its equivalent. Pilots typically attain Shiphandling-2 before graduating Flight School. When rolling a stat with



Players are encouraged to invent their own thematic batteries. The range of possibilities is incredibly broad, so let your imagination run wild. What follows are a few example thematic batteries and short descriptions of when and how they might be used.

The *Gentleman* acts according to genteel rules of behavior. In a chase through Zonnendam's crowded streets, he may fall behind when he rescues a toddler who had wandered into harm's way. When he negotiates with the self-reliant Quartermaster Jennifer Brookes, she may already think less of him due to his regular insistence that female officers should have appropriate chaperones on shore leave. Despite such drawbacks, his insistence on honorable behavior accords him respect from others who share his ideals. He may even have a reputation that precedes him and predisposes the Admiral to believe his outlandish story about the ring of Venerian assassins. The *Lady* is similar, but not identical, given social roles.

Common among Victorian inventors and innovators is the thematic battery Fever Genius. On boarding missions this character kneels to deactivate a bulkhead's steam locks only to find that he forgot to put all his tools back into the case, and curses his infernal absent-mindedness. On duty on the bridge, he might be so distracted by his lofty ideas that he neglects to keep a watchful eye as the pressure gauge tips dangerously into the red. When it comes to applying those lofty ideas to reality, however, the Fever Genius makes up for his prior lapses. When the lander crashlands in the Australian Outback, he is able to comb through the wreck and build a helicopter to ferry the survivors to Sydney; when the ship can't keep up with the fleeing pirate cutters, he can coax that needed burst of speed from the already overtaxed engines.

The *Rake* lives a profligate lifestyle of wine, women, and debauchery. It is not unknown for his performance to suffer due to last night's bacchanalia and the subsequent hangover, and he may well be distracted from his guard duty by a passing woman's beguiling flash of stocking. For all that, he has full knowledge of the darker corners of the human heart, and knows how to tempt the rival ship's beekeeper into spilling the password over drinks. He might also have connections in the seedier neighborhoods in Ceres which allow him to help find the disgraced former Commodore's opium den.



A Competitive character takes great pleasure in contests with others. Sometimes, such as when she bests the Venerian chief's son, her gloating can interfere with delicate diplomacy with the chief himself. Worse, her obsession with winning can lead her to overcompensate: in a race through a field of asteroids, she might push the engines well beyond their limits and risk stalling while her opponent crosses the finish line. On the other hand, that same competitive streak can give her the boost she needs to overcome obstacles she might not otherwise have the reserves to master. Beaten bloody and left for dead, a Competitive character is the one who drags herself across the Mercurial deserts back to base to reveal the Admiral's treasonous collusion with the Japanese.

Even an ostensibly honorable thematic battery like Loyal can have drawbacks as well as benefits. A Loyal character might get into sticky situations due to that unquestioning loyalty, letting himself be persuaded to go drinking in the seedier ports with his rakish comrades, to 'keep an eye on them'. If a friend or loved one is threatened by a devilish criminal mastermind, a Loyal character might abandon his post at the worst possible time. His attachment to the objects of that loyalty can also be a bonus. It gives him that added impetus to break through a knot of Venerian warriors to reach his fiancée before she is sacrificed on the aliens' pagan altar, or gives him the faith to stand by his commander when the French ambassador accuses her of unthinkable treason.

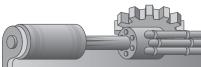
Using Thematic Batteries is explained in detail on page **147**.

STEP FOUR: ATTRIBUTES

Unlike the unique thematic batteries, attributes are common to all characters in *Full Light*, *Full Steam*. They represent the basic facility at tasks ranging from the simplistic to the complex. During the game, attributes are paired with skills (see **Checks**, page **135**) to determine characters' successes or failures in the story.

All characters have at least one rank in each attribute. When creating a character, the player must spend character points to buy higher ranks. An attribute at 2 costs five points, attributes at 3 cost 15 points, and attributes at 4 cost 30 points. As you can see, unless the game has a relatively high power level, ranks of 3 will be prized and 4s will be very rare.

If you are using the character sheet provided at the end of this book or at kallistipress.com, it costs one point to fill in each square. The first bar next to each Attribute has no squares and is already filled in, since all characters start with Attributes at one. The second bar contains five squares, the third ten, and the fourth fifteen. Fill up an entire bar to buy a rank in a skill.



WHAT DOES THE NUMBER MEAN? (CONT'D)

a rank of 2, count the second-lowest die.

While a rank of 3 in an attribute is noteworthy, it is still not world-class ability. The debutante with Savoir-Faire-3 would be a dazzling guest, but still pale before the true socialites of the Season. Professionals with a good deal of experience, or those with a high degree of innate talent, may have skills at 3, such as the professor who has Classics-3 or the natural engineer with a three in Mechanics. When rolling a stat with a rank of 3, count the second-highest die rolled.

Ranks of 4 reflect the cream of the crop and the greatest talent in the solar system. Attributes of this caliber are incredible, from the inspiring captain with Leadership-4 to the eagle-eyed gunner with Acumen-4. A skill at 4 indicates a degree of mastery most devote their lives to achieving: brilliant scientists might have Theory-4 and elder statesmen might reach Oratory-4. When rolling a stat with a rank of 4, count the highest die rolled.



The six attributes are as follows:

Acumen reflects the character's ability to take in his surroundings and act accordingly, especially when quick wits are required. This attribute governs both simple tests of perception, such as identifying the colours of a passing vessel, to more comprehensive feats such as identifying and targeting multiple enemy ships.

Brawn defines the ruggedness of the character's physique. It determines a host of tasks, from how much one can lift to how long one can run to how much torture one's body can take before caving in. Whenever it is a question of pure strength, stamina, or fitness, Brawn is rolled.

Coordination denotes the character's control of his body, ranging from small, precise handiwork to overall motion and full-body agility. Whenever one is called upon to maneuver one's body around or through obstacles, jump over gaping pits, or work with a soft touch, Coordination is rolled.

Intellect rates both mental prowess as well as the character's general knowledge base. Intellect is used in many (but not all) technical pursuits, such as designing a ship, but can be applied in any situation where brainpower is needed, such as deciphering enemy tactics or arbitrating treaty disputes.

Leadership represents the spark of charisma that allows the character to inspire loyalty, trust, and enthusiasm in others. This attribute is the purview of leaders of men, whether they be ship captains giving orders to their crews or medics arriving on the scene of an accident and taking control of the situation.

Savoir-Faire describes the character's politesse and social graces, a sort of behavioral flexibility which allows them to act appropriately and use social mores and customs to their advantage. Savoir-Faire is used to attend balls and



HMS Exemplar Buys Attributes

doesn't Amanda think it is that important for Gwendolyn to be quick on her feet, so puts her Acumen at 2. A childhood of hard living and years afterward spent lugging around heavy cogs and spring batteries has given her a hefty Brawn of 3. She doesn't want Gwendolyn to be a klutz with a Coordination of 1, so she puts that at 2. She is, however, no leader, and Amanda is fine with leaving her Leadership at 1. If nothing else, Gwendolyn is a bright girl, so Amanda puts her Intellect at 3. Lastly, she decides to set her Savoir-Faire at 2 no darling of the ball, but not a completely uncultured clod.

Amanda totals the points she's spent so far: Acumen-2 costs 5 points, Brawn-3 costs 15, Coordination at 2 cost her 5 points. She spends nothing for her Leadership at 1. The Intellect at 3 goes for 15 points, and the Savoir-Faire of 2 costs her 5 points. Her total thus far is 45 points out of her total budget of 100.



be acknowledged as a gracious guest, to interact with royalty and other important personages, and to navigate the social scene of any group of people.

STEP FIVE: SKILLS

Unlike attributes, which everyone has, skills rate a character's training, experience, and ability in endeavors that are not common to everyone. Skills come in three rough categories: Heroics, which concerns physical and martial feats, Culture, which deals with the finer and softer (but by no means less important) things in life, and Engineering, which encompasses all things scientific or technical. A fourth category, Exotic skills, exists for Players' customized use.

When creating a character, a player must spend character points to buy ranks of a character's skills. Because skills are not common to everyone, characters do *not* begin character generation with a rank in each skill as they did with attributes. A skill at 1 costs one point, a skill at 2 costs three points, skills at 3 cost 6 points, and skills at 4 cost 10 points. Skills at 3 and 4 are far more common than attributes of the same rank.

If you are using the character sheet provided at the end of this book or at kallistipress.com, it costs one point to fill in each square. The first bar next to each skill has one square, the second two, the third three, and the fourth four. Fill up an entire bar to buy a rank in a skill.

What follows is a listing of the thirty standard skills. Each entry includes a short description of the skill and examples of how to pair the skill with different attributes. Each entry also includes examples of how the skill can be used in static checks (attempting a feat of a set difficulty) and dynamic checks (a contest between two or more different characters). **Checks** are discussed in more detail on page **135**.

HEROIC SKILLS

Whenever the two-fisted hero wrestles rebel Venerians, whenever the captain takes his ship into battle, whenever a Martian scout has to deliver the plague serum by foot across the desert, Heroic skills come into play. These are the skills used for physical feats and confrontation, pitting the character against other opponents or against the hostile universe.

Athletics measures the character's ability to run, jump, swim, catch, and throw — all the basic skills that sports tend to emphasize. Note, however, that a high skill in Athletics does not require a background of playing sports — an active lifestyle or a harsh environment can develop these skills just as easily.

Athletics can be used dynamically to determine if character can outrun the fleeing assassin (paired with Brawn) or to referee a rugby match (paired with Acumen). Static uses might gauge a character's attempt to swim through the Artemis Rapids without injury (paired with Coordination, difficulty 6) or even dashing down a corridor to escape an explosion (paired with Brawn, difficulty 8 or more).

Gunnery is the skill of using ordnance mounted on a ship or other stationary foundation. Typically, this entails the use of etheric Snap Cannons, glass cannons, or similar weapons, and includes such intricacies as fire control, targeting, leading a target, and estimating how effective fire will be against enemy armouring. In general, this skill concerns itself with weapons of startling complexity, and only confers the ability to use, not necessarily understand, the heavy weapons (see the Engineering Skills for maintenance and repair).

Gunnery is used in naval combat and is rarely used dynamically outside of this setting. Friendly competi-



HMS Exemplar Buys Skills

After spending 45 character points on attributes, Amanda has 55 to spend on Heroic, Culture, and Engineering Skills. As a guideline, Amanda decides she'll try and spend about 15 points on Heroics, 15 on Culture, and 25 on Engineering. It's not necessary to set quotas, but it can help give direction.

In Heroics, Amanda drops a single point each for the first rank in Athletics, Shiph-andling, Stealth, and Weightless — things that Gwendolyn isn't specialized in but should have the rudiments of (4 points). She's something of a scrapper, so Amanda buys Pugilism at 2, and her affinity with

technology of all kinds suggests she'd be a good enough shot to take Marksmanship at 2 as well (3 points each, 6 total). Her technological obsession manifests itself strongest in her love of the horseless carriage. so she takes Motoring at 3 for 6 points. She's spent 16 points on Heroics, which is only a point over her goal. Not bad.

For Culture skills, she takes the first rank in Empathy and Language (2 points). She's much better at lying, however, so she spends three points for two ranks of Duplicity, and even better at Intimidation, which she takes at 3 (6 points).

She comes out at 11 points on Culture — under 'budget', but that just leaves more points for the rest.

And as for Engineering skills, Amanda flips things around and starts at the top. She takes Ether, her specialty, at rank four for 10 points. puts the supporting Skills of Mechanics and Steam at three (12 points). Jury-Rigging and such 'creative engineering' seems like something Gwendolyn would be interested in, so Amanda spends three points to get it at rank two. She finds she has three points left, and so takes the first rank in Beekeeping, Gadgeteer, and Theory (3 points).



tions between Gunnery crews would be one of those rare instances. Used statically, Gunnery allows a character to judge how long a ship or station can withstand a barrage (paired with Intellect, difficulty 6) or hitting a target outside of combat, such as an incoming rouge asteroid (paired with Coordination, difficulty 4 to 10, depending on circumstances).

Marksmanship is the science of handling, using, and maintaining firearms. Because of the weight of spring batteries, personal firearms generally make use of gunpowder and bullets, rather than etheric shockwaves. These simpler weapons are also easier to upkeep, and their maintenance and repair falls under this skill, as well.

Marksmanship might be used dynamically to simulate a shooting contest, and once the targets become the participants, winning and losing may result in wounds (see **Risk and Discharging Condition Batteries**, on page **141**). Static uses include unjamming a gun exposed to a Martian sand storm (paired with Intellect, difficulty 7) or directing fire control in a skirmish (paired with Leadership, difficulty 6).

Motoring governs driving horseless carriages as well as road etiquette and such simple maintenance as oiling, refueling, and changing flat tires. The vehicle's engine and drivetrain fall under Mechanics and possibly Ether or Steam, depending on its power source.

The obvious dynamic use of Motoring is a chase, but racing and even pit stop crews could also qualify. Negotiating the vehicle across the craters of Mercury's Dayside (paired with Acumen, difficulty variable) and speeding through the twisting corridors of Ceres station (paired with Coordination, difficulty 8) are both examples of static use.

Pugilism represents the fine art of unarmed, hand-to-hand combat. While the first level or two may represent natural 'scrapping' ability, higher levels all but necessitate formal training, which is easily gained in military service. Used with Coordination, Pugilism represents nimble fighting; used with Brawn, Pugilism focuses on heavy hits at the expense of finesse.

Static use of Pugilism might include teaching the finer points of fisticuffs to another (paired with Intellect, DF 6) or analyzing another fighter's style and weaknesses (paired with Acumen, DF 8) to gain an advantage in a later fight. Dynamically, Pugilism is used in actual fights, and may result in the combatants discharging their Health condition batteries.

Shiphandling displays the character's ability to helm an ethership, from tiny and maneuverable fighters to the monolithic and ponderous battleships. Paired with Coordination or Acumen, this skill represents actual maneuvers;



paired with Intellect this skill might allow a pilot to judge how difficult a proposed maneuver might be.

Shiphandling can be used statically to model taking a ship through difficult maneuvers (DF 6 to 10) or flying through an asteroid field unharmed (DF 8). Dynamically, Shiphandling checks express piloting ability in races, tactical maneuvers, or dodging through bombardment fire zones without taking a hit.

Survival models surviving in hostile environments such as the Martian badlands or the Venerian jungles. In Full Light, Full Steam, Survival is less a matter of knowing what to do as having the will and ingenuity to make due with what one has. Therefore, Survival can be paired with Brawn to represent trekking across the Mercurial Dayside or matched with Leadership to organize a crashed crew into a working camp.

Most uses of Survival are static: finding food (paired with Acumen, DF variable), building shelter (paired with Intellect, DF variable), or simply scraping by long enough to be rescued (paired with Brawn, DF variable) are all good examples. Dynamic uses would only be appropriate when another agency is trying to prevent the characters' continued survival; setting up a viable camp despite the interference of murderous Venerian natives might pit one's Brawn and Survival against their Intellect and Tactics.

Stealth shows how well the character can move quietly and without being seen, which, while not being very British, is still sometimes necessary. Stealth can be paired as easily with Intellect as with Coordination: being able to plan out one's route with careful deliberation may rely on Intellect, while very complicated circumstances, or a rushed time frame, calls for Coordination. Navigating a crowded ballroom floor without being seen by the Rear Admiral, however, makes use of Savoir-Faire.

Stealth is rarely used statically. More often, Stealth is used dynamically, with the sneaking character pitting their stats against the Acumen and Stealth, or occasionally something different like Acumen and Tactics, of whomever they are trying to sneak past.

Tactics represents a character's grasp of military strategy, formations, and judging relative martial strengths. It displays an understanding of the tilting balance of advantage and disadvantage, and the facility with which the character can manipulate events in battle. It is most commonly paired with Intellect, to formulate strategies, or Acumen, to analyze others' strategies.

Tactics is rarely used statically, as it is an inherently competitive affair. Even analyzing an enemy's strategy as it unfolds is best modeled dynamically, as hiding the ultimate goal of a plan is often a central to its success.



ENTERING

Getting into a place that somebody doesn't want you to be without anyone noticing falls under Stealth. However, the other side may not be there keeping an eye on their "secure" location. How can you pit the characters' Stealth against their Tactics when they're not even there?

The answer's simple: roll anyway. The character need not be physically present for their preparations and countermeasures to be effective, and those preparations are measured by the character's skills. Sure, they're not there, but that doesn't mean they can't win their stakes of "capture the intruders" or "know that someone's broken into my lab."

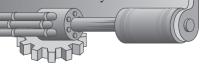






Fig 4.1 Crewmen aboard HMS Aetherstone take a moment for tea.

Weightless measures the character's ability and facility in moving and performing tasks without the familiar assistance of gravity. Only the French and Russians have gravity on their ships, leaving the rest of the Solar System to make due without it. Graceful movement is performed with Coordination, while moving unwieldy objects uses Brawn. Generally speaking, the players might roll Weightless at the beginning of scenes without gravity and for particularly tricky maneuvers.

Leaping across a gap in the hull of a derelict freighter (paired with Coordination, DF 6) or helping to unload the cargo from that freighter (paired with Brawn, DF 6) are both good examples of static checks. Outrunning a pirate through the airless tunnels of an abandoned asteroid mine, on the other hand, would require Dynamic check.

CULTURE SKILLS

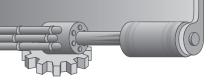
Martial and technical skills are all well and good, but what defines an Englishman (or Englishwoman) is the understanding and participation in the philosophy, arts, and traditions of home: in a word, Culture. Many assignments





Players need not ever ask the Game Master "do I know anyone here?" The answer is as easy to discover as picking up the dice and rolling them. If the player wins the check, they can narrate whoever it is that they do know. Of course, if they lose the check, they suffer the counterstakes, and may even discharge a condition battery.

Game Masters are also perfectly capable of introducing situation effects to make dialing up a friend difficult; if the players are skulking about one of the satellites above Vulcan, for instance, the isolation from home and help may be part of the situation. Putting "Find Help -3" on the set cog lets the players know they're on their own and act accordingly.





entail dealing with other people as often as dealing with technology or performing feats of heroism. Culture skills allow characters to interact with, understand, and even compete in the milieux of societies found throughout the Solar System.

Acquaintances is the polite term for social networking, pulling favors, and listening to gossip. It reflects not only one's relations with others and how trustworthy they and their own relations may be, but also how well one maintains one's network of acquaintances. A character adept in this skill may know at least someone nearly anywhere in the Solar System. Paired with Savoir-Faire, it can be used to gather information or arrange for assistance; used with Intellect, it might help a character puzzle out the members and intent of a conspiracy.

Acquaintances can be used statically as easily as it can be used dynamically. Statically, this skill can be used to find an old acquaintance in the character's present port (paired with Savoir-Faire, DF variable according to setting), or to tap an old friend for favors or information (paired with Savoir-Faire, DF variable). When influences are at stake and politicking is the medium of conflict, Acquaintances can be used dynamically to socially outmaneuver another character. It can also be used after such a conflict to repair the loser's reputation.

Classics represents a character's general education, founded solidly in Greek and Latin works of literature and history. The breadth of one's education is often valued above other 'more useful' skills such as Tactics or Gunnery. The primary business of the British is to spread civilisation, after all, and a high rank in this skill can accord the character great respect. This skill might be paired with Intellect in order to correctly quote Pliny or with Acumen in order to identify the same quote.

Correctly recalling information, history or quotes (paired with Intellect, DF variable) or identifying the same (paired with Acumen, DF variable) both fall under static checks. Dynamic checks might cover a battle of wits to stall the mad scientist from pulling the lever; viscous repartée in front of a salon hosted by genteel socialites can result in an embarrassing failure, discharging the Grace condition battery.

Diplomacy expresses a character's ability to negotiate with people in power, whether those be people with established power, such as a governor-general, or those who only have power at the moment, such as the pirate with a gun to the Captain's head. Most often used with Savoir-Faire and Leadership, some situations might pair it with Intellect (to predict what strategy the French ambassador might take in upcoming talks) or Acumen (to figure out what the French ambassador is angling for as he speaks).

The GM may decide to use a static check when the character tries to convince an NPC of a simple course of action, such as allowing the player characters an interview with an important government official (paired with Savoir-Faire, DF 6). More complex matters rely on Dynamic checks, and may result in discharged condition batteries, usually Will (for the above pirate, who is being stubborn) or Grace (for the ambassador, who is doing business).

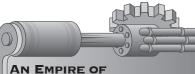
Duplicity measures the character's ability to lie, cheat, and deceive. It is paired with Savoir-Faire when one is using it to convince others with rhetoric and argument, such as getting the Venerian commandant to rouse the troops by playing off his fears with a few well-chosen (but inconclusive) facts. It is used with Leadership when calling on others to trust you regardless of proof — rousing that same commandant to action by pulling rank and telling him, rather than asking him, to ready the troops. This is an inherently social skill, and is rarely used with any other attribute.

Static uses of Duplicity are rare; used dynamically, one character's Savoir-Faire or Leadership and Duplicity are pitted against another character's Acumen and Empathy or Duplicity (as good liars tend to recognize each other). While an uncovered lie might not necessarily result in discharging the Grace battery, it makes good fodder for a follow-up Etiquette or Oratory check.

Empathy shows how good a 'feel' the character has for other people. It does not necessarily track compassion or generosity, but the capability of the character to recognize when compassion and generosity are called for. Further, when comforting others, this Skill displays how well the character says the right thing at the right time. The uses when paired with Savoir-Faire are obvious, but ship captains might use Leadership and Empathy to judge the mood of their crew, and a neutral observer might use Acumen and Empathy to puzzle out the social interactions at a distant French outpost.

Empathy is used statically when the subject is not resisting, such as having a chat over tea to figure out what is bothering someone (paired with Acumen, DF 4 for a friend, 6 for an acquaintance, 8 for a stranger). This falls under the purview of dynamic checks when the subject is trying to hide their feelings — too embarrassed by their cowardice in front of the Venerian savages, or if the French really are actively lying again. This Skill may be used to help recharge Condition Batteries; see page **150**.

Entertaining reflects the character's social graces when hosting an event, whether it be a formal dinner, naval parade, or shore leave. An event hostess might pair Entertaining with Savoir-Faire, but the planning stages would match it with Intellect, and a critic might use Acumen.



AN EMPIRE OF PARTIES AND GIFTS

The British Empire is built on three things: a powerful navy, a powerhouse commercial-industrial infrastructure, and the good graces of innumerable petty chieftains and local leaders. The British outfight, outproduce, and outsocialize the rest of the Solar Powers, and it is an open argument which of the three is the root cause of their success. Skills like Entertaining and Etiquette can often overcome challenges that brute force and technical wizardry cannot.



PLAYING THE GAME; THE FIRST SESSION

Entertaining is almost always used Statically, the DF determined by how elaborate the planned event will be. Hosting a salon in London with a capacious budget might only rate a DF of 4 or 6, while hosting a dignitary in deep space, with few convenient resources, may be 8 or even 10. Socialites on Earth, in the colonies, and even on Her Majesty's naval ships often take part in elaborate 'battles' of Entertaining, continually trying to one-up the others; this falls under dynamic checks.

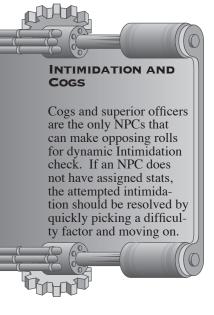
Etiquette is the measure of one's social grace in formal settings, the learned habits and practices that allow one to fit in with society. Visiting officers attending a formal ball in London or more casual salon on Mars make use of this skill to be remembered as a polite and charming visitor; petitioners to army and government officials make use of this skill to make a good impression. Matched with Savoir-Faire for use in society, it can also be paired with Acumen in order to place where a subject grew up or learned their manners, or with Leadership when delivering unpleasant orders through the formal chain of command.

Etiquette is used statically to make a good impression, whether it be with socialites already fawning over the officers, wanting to hear stories of bravery (difficulty factor 4), or having a tête-à-tête with a Japanese captain to discuss cooperating efforts against a particularly pernicious pirate lair (a DF of 10). It is occasionally used dynamically, such as if a Martian-born settler tries to pass himself off as a cultured Londoner.

Intimidation records the character's ability to compel others through threats, fear, and authority. Its frequent partnership with Leadership is obvious, but it may also be paired with Savoir-Faire for more delicate and subtle intimidation (smilingly telling the French that you will be forced to prevent supply ships from docking at their station), or with Brawn when displaying one's fearsome strength (staring down the stubborn Martians who stand guard at a cave entrance). Even academics might pair this skill with Intellect to cow their peers with the power of their mind.

Quick and dirty intimidation of NPCs can be performed by setting a static difficulty factor (DF 4 to intimidate subservient Venerians, DF 6 for countrymen on another ship, DF 8 to stare down a foreign captain, DF 10 to take an Admiral down a peg or two). More involved face-offs might use dynamic checks. The target of intimidation need not roll Intimidation in response; Savoir-Faire and Etiquette work in social situations, Brawn and Pugilism are appropriate for a physical face-down, and so on. Used dynamically, Intimidation almost always results in discharged condition batteries, usually Will.

Language represents the character's facility with foreign languages and linguistics in general. It is not un-





common for a Royal Astronomical Naval officer to speak a smattering of half a dozen languages, having visited many ports of call throughout his career. This skill is paired with Intellect to speak and be understood, with Acumen to puzzle out what others are saying, and with Savoir-Faire to speak with appropriate delicacy and grace.

Language is rolled statically, the DF determined by how foreign the language is. English-speaking British understand Dutch and German at DF 4, French and other Romance languages at DF 6, all other human languages such as Japanese at DF 8, and alien languages of the Martians and Venerians at DF 10. Word games and puzzles with a linguistic bent make good opportunities to use Language dynamically.

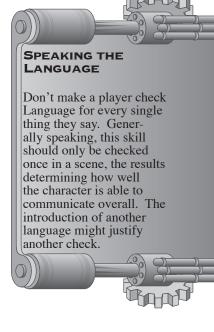
Oratory is the fine art of speaking effectively, compellingly, and well. Oratory is rolled when the character has the freedom to speak at length without burdensome interruption; it is the skill of speechcraft, not conversation (for that, see Etiquette). The uses of Oratory are more varied than may be immediately obvious; Savoir-Faire and Oratory allow a character to give a speech or rousing toast; Leadership and Oratory allow an officer to inspire her men; Intellect and Oratory allow a scientist to explain a complex matter in understandable terms.

Excepting in cases of head-to-head speechcraft, such as court martial hearings or Parliament, Oratory is most commonly used Statically to sway the opinions and loyalties of other characters. Unlike Intimidation, Oratory rarely discharges the batteries of the audience; instead, Oratory more commonly incites action and enthusiastic response. Convincing those who already agree in principle — stirring the top brass to take decisive action against a notorious pirate — is a simple matter (DF 4 to 6). Bringing dissenters into your camp calls for a higher difficulty factor, however, depending on how inimical the audience is to the character's agenda: getting the French to join in against the aforementioned pirate (DF 8), or even recruiting other pirates to take up arms against their 'colleague' (DF 10).

ENGINEERING SKILLS

The world of *Full Light, Full Steam* is a world of giant clockwork analytical engines, crackling cannons ripping shockwaves through the ether, and massive solar steamers plying the Greatest Sea. Most characters have at least a passing familiarity with steam and ether technology, while others will specialize in technical matters. Engineering skills allow characters to use, repair, and even build all the steam and ether technology they might encounter in the game.

Astrogation reflects the character's ability to plot and understand interplanetary routes throughout the Solar



ROUSING THE

Oratory can be an incredibly useful tool for officers in command. Not only can they use this skill in times of crisis, but they can make die checks right before the crisis in the hopes of scoring a *Good Show!* or *Brilliant!* success. The situation modifier can then be applied to checks in the actual crisis.



System, finding the optimal route of adequate sunlight and fewest dangers. A good astrogator can usually estimate where the different planets and important asteroids are in their orbits at any given time, and judge where they will be by the time the ship arrives. Lastly, this skill allows the character to analyze the routes of that American flagship and judge how long it will take for it to reach Mercury.

Used Statically, this skill can be used to plot courses (paired with Intellect, DF 6 to 8) or analyze pre-existing courses (paired with Intellect, DF 6 to 8). Judging whether the Russian flying fortress leaving from Venus or the Japanese interceptor leaving from Mars will reach Earth first also falls under static checks (paired with Intellect, DF 8). Dynamic uses are rare, including two astrogators competing to create the best route, or an astrogator pitting his ability to set a course against a pursuing attack force's Tactics.

Beekeeping is the art and science of the analytical engine, so named due to its foundational element, the Binary Element, or BE. While only the largest ships have the space for an apiary to house an analytical engine, they can also be found on stations and colonies. They serve as a well of essential information and offer computing power in very selective tasks. This skill is often paired with Intellect to operate or program a hive or Acumen in order to work out the function of an undocumented swarm.

Extracting information from a ship's hive on the offensive capabilities of an American cruiser (paired with Intellect, DF 6) or creating a program to sort through personnel files and extract everyone on board who is left handed (paired with Intellect, DF 8) both fall under static checks. Combatting invasive 'wasp' programs (paired with Acumen) or surreptitiously stealing data from a honeycomb (paired with Intellect), on the other hand, are dynamic uses.

Ether comprises the character's understanding of the interplantary medium called the lumineferous ether. The manipulation of ether is central to ship engines, snap cannons, shock bombs, and etherwave radios. It can be paired with Intellect in order to build or repair such machines, or Acumen in order to diagnose problems or decipher the operation of foreign equipment. Ether can also be paired with Leadership when an officer directs a engineering crew working on ether technology.

As a technical skill, most uses of Ether are static, whether the character is surveying the damage on a incapacitated snap cannon (paired with Acumen, DF 6) or building an etherwave radio from cannibalized parts (paired with Intellect, DF 8). Ether may be used dynamically to represent the damage control on engines as the ship is bombarded from pursuers or to arbitrate whether a



Russian spy's sabotage is detected before the engines blow themselves out.

Gadgeteer represents not only a character's ability to create useful handheld gadgets, but also how many of her ingenuous creations she is able to keep on her person. The player may pair this skill with almost any attribute: collapsable binoculars might make use of Acumen, while a pneumatic jack might be paired with Brawn.

The first roll of Gadgeteering is always static, but the second roll may be dynamic, depending on the gadget's use. Using a miniature circular saw to cut through manacles (paired with Coordination, DF 6) is static; a superior scope which allows the character better aim when hunting (paired with Acumen) is dynamic.

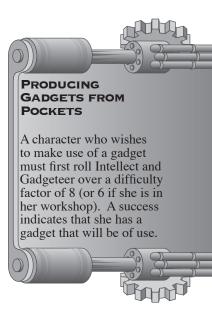
Horticulture is the often-overlooked science of maintaining a ship or station's gardens, which provides not only fresh air but also vegetables for the mess tables. Water is filtered through the gardens, and human waste is processed here. While not glamourous, this job is absolutely essential. This skill may be matched with any number of attributes: Leadership to manage the gardening crew, Acumen to identify invasive fungus and root-rots, Intellect to comprehend a previously undiscovered Venerian poison flower, or even Brawn to manhandle vats of fertilizer into position.

As Horticulture is not a highly competitive field, most uses of Horticulture are static. The difficulty factor can range widely. Managing the gardens under routine circumstances would only rate a DF of 4; identifying that highly obscure root-rot, on the other hand, may require a DF as high as 10.

Jury-Rigging measures the character's ability to make repairs or even create new machinery with parts which may not be meant for that purpose. This skill is most often paired with Intellect when working on one's own, or with Leadership to represent directing a unit of engineers forced to make 'creative' repairs. Repairs and new machines made with Jury-Rigging are not permanent, and will not work beyond the immediate need they are created for.

Repairs and inventions, when performed without interference, are resolved statically, such as turning the last working snap cannon on a derelict ship into a morse code transmitter (paired with Intellect or Leadership, DF 8) or turning the tables in the mess hall into hull patches (paired with Intellect, DF 4). Dynamic uses comprise situations where the repairs are interfered with, such as hasty repairs on a fleeing ship still being bombarded by its pursuer.

Medicine covers not only the in-depth skills and knowledge displayed by ship's doctors, but also the rudi-





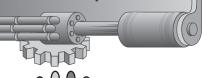
PLAYING THE GAME; THE FIRST SESSION



EXOTIC SKILLS

While the defined skills above cover most of the action that will take place in a Full Light, Full Steam game, they can not cover everything. The Exotic Skill category exists to fill this gap. If a player wants to create a character who is skilled at something outside the list, a new skill may be created and listed in the Exotic Skills section of the character sheet. Players who wish to create Exotic Skills should discuss the option with the rest of the playgroup.

For example, suppose a Game Master wanted to create a pair of archeologists who have uncovered a strange device in the asteroid belt. Suppose further that she plans that the archeologists will remain in the campaign and will be called upon to answer questions and theorize on archeological issues. With no defined skill available to roll, the Game Master could elect to create an Exotic skill, Archeology. She then writes 'Archeology' in the NPCs' Exotic Skills section, and rates them on the same 1-4 scale that other skills are defined by.





ments of first aid which, while basic, are sometimes the difference between life and death. Paired with Acumen, it allows a character to diagnose a patient's injuries or diseases; paired with Intellect, it allows a character to treat those problems. The lead doctor of a medical team can match this skill with Leadership to lead effectively.

Outside of intelligent germs invading a patient's body, this skill is used statically. The difficulty ranges based on sanitary conditions and appropriate equipment: 4 is appropriate in a hospital setting, 6 for working out of a field kit, and 8 for treating injury with hardly any tools at all. Difficulty factors can range up to 10 for truly obscure and sometimes alien ailments with inscrutable diagnosis and creative treatment. This skill may also be used to help **Recharging Condition Batteries**, described on page **150**.

Mechanics governs the real guts of most technology in *Full Light, Full Steam*. This includes everything that comes down to gears and cogs, spring batteries, and pistons — power transmission, the axles and booms that angle mirror sails, the turrets of snap cannons, shock bomb slings, and even bay doors. As with Ether and Steam, this skill is paired with Intellect to build and repair, Acumen to diagnose or analyze, and Leadership to delegate.

Like Ether, most uses of Mechanics are static, whether the character is estimating repair time on a thrown drivetrain (paired with Acumen, DF 8) or building a working motorcar from parts scavenged from two half-destroyed lorries (paired with Intellect, DF 6). Mechanics may be used Dynamically to represent the damage control on a ship in the midst of a bombardment or to see if a character can chase a stowaway through the whirring innards of a ship without falling into the gears.

Steam is, at present, the most efficient power system known to British engineering. This skill governs all facets of power generation: pressure differentials within steam engines and steam pipes, mirror angling, and the maintenance and repair of this essential system. Unlike Mechanics and Ether, which primarily concern themselves with fixing and building machines, Steam also entails the actual operation of a steam engine, which requires constant monitoring to perform at peak condition.

The Steam skill is used statically under routine operation (paired with Acumen, DF 4), for repairs after battle (paired with Intellect or Leadership, DF 6), or to build a steam engine from the ground up (paired with Intellect or Leadership, DF 8). Dynamic uses are less common, but a wily opposing tactician may use his Tactics to attempt to push the opposing ship past its limits; the engineer's Steam skill keeps all systems operational in dynamic checks.

Theory measures the character's understanding of the underlying science behind the technology represented

in other Engineering skills. It is this skill which allows true innovation and invention, and it is this skill which is used for arcane problems which sometimes befall a ship far from port. Theory may be paired with Acumen for understanding or Intellect for design and speculation, but also with Leadership to lead a group of scientists or with Savoir-Faire to impress other theoreticians.

Theory is used statically when applied to problems, such as determining what atmospheric pressure to fill the hanger bay with to force the doors open without undue damage (paired with Intellect, DF 7) or to puzzle out how to track the emissions put out by the French ship, powered by an exotic Curie plant (paired with Intellect, DF 10). Dynamic uses include social affairs among scientists, or solving puzzles couched in scientific terms.

STEP SIX: SETTING

Now that everyone has their character, the players collectively create their immediate setting, comprised of their station and their superior officer. The station — as in "where are you stationed?" — is usually a ship or a port. The superior officer is either the ship's captain or, if a player is already portraying the captain, a Commodore or Admiral they report to.

YOUR STATION

Ships and ports are created by giving them a name, a short description, and three thematic batteries. The name and description can be decided by the group through discussion; if you absolutely cannot come to a consensus, you can simply put the question to a vote. Alternately, if you come up with two excellent ship names, one can be the name of the battleship and the other the name of an escort ship or fighter that the player characters will use frequently. There is a listing of potential ship names on page 104.

Britain recycles its ship names, reusing the same name for a long series of vessels, often stretching back to medieval times. The current holder of a historical name is often considered the heir to the legacies of all the ships that came before it. You may want to discuss whether the ship has a heritage that comes along with its name.

To select the thematic batteries of your ship or port, have everyone write down two suggestions on the same piece of paper. Once everyone's suggestions are written, pass the paper around the table three times. Each time it passes through their hands, each player marks an 'X' next to a suggestion that they favor. The three suggestions with the most votes are selected, and the players can write them down on their character sheets.



PLAYING THE GAME; THE FIRST SESSION

SHIP NAMES OF THE VICTORIAN ERA

- Achilles 4
- **≱** Ambuscade
- **≯** Anglesey
- Appleleaf
- **₽** Apollo
- Archer
- Arethusa
- Argus
- **≱** Arun
- Attacker
- Atherstone
- Aurora
- Bayleaf
- Beaver
- Berkeley
- Bicester
- Bickington
- Blazer
- Blue Rover
- **∌** Brave
- Brambleleaf
- Blackwater
- Carron
- 2 Challenger
- Charger
- Chiddinfold
- **Courageous**
- **Coventry**
- Daedalus
- **∌** Dasher
- Dusher
- Diligence
- **∂** Dovey
- Dragon
- Edinburgh
- Engadine

- Essex
- Fife Fife
- Forward
- € Galatea
- **Guardian**
- → Hallam
- → Helford
- Helmsdale
- Herald
- Heron
- Humber
- Hurworth
- Itchen
- Juno
- **≥** London
- Mercia
- Naiad
- Ocelot Olmeda
- Olna
- Olympus Olympus
- Onslaught
- Orangeleaf
- Orwell
- **∂** Otus
- Palatine
- Pearleaf
- Pellew
- Plumleaf
- Protector
- Puncher
- Pursuer
- **∂** Quorn
- **₽** Quail
- Raleigh
- ₽ Ranger

- Redpole Redpole
- Regent
- Resource
- ₽ Ribble
- ₽ Roebuck
- Rollicker Rollicker
- Salford
- Sceptre Sceptre
- Scylla Scylla
- Seahawk
- Sentinel
- Sheffield
- Sherwood
- Sir Bedivere
- Sir Galahad
- Sir Lancelot
- Sir Tristram
- Smiter 5
- Sovereign
- Spey
- Stromness
- Superb
- Swallow
- Swift
- Swiftsure
- Tidepool
- Tidespring
- Trenchant
- Trumpeter
- Turbulent
- Typhoon
- Upholder Upholder
- Vernon
- Vigilant Vigilant
- **∌** Walrus
- Warrior

YOUR SUPERIOR OFFICER

The superior officer is a little more complex. First, the players must discuss what kind of point budget to build the officer on. This can have a significant impact on the game, as an incompetent admiral built on a small budget will make for a very different game than a masterful captain built with an abundance of points. The playgroup can discuss the officer's name and personality at the same time. Again, if the group cannot come to a consensus, you can always simply vote by a show of hands.

Select the officer's thematic batteries in the same way that you selected the ship or port's batteries, and write these down on a fresh character sheet. Then begin passing the character sheet around the table. On their turn, each player can spend five character points anywhere on the sheet, clumped together or separated among multiple attributes and skills. Go around the table until all the points in



HMS Exemplar Collaborates on Setting

Amanda has made her puckish engineer while Jamal has made Lieutenant Preston White, a veteran pilot (see page 170 for his complete sheet); they decide that Gwendolyn is the technician assigned to Lieutenant White's escort ship. They are unsure whether to make the escort ship that White flies or the flagship that the escort is assigned to; Sam suggests they simply do both.

Jamal explains that he'd like the escort ship to be a plucky, battle-scarred survivor that gets through improbable scrapes. That sounds good to the others, and they look over the list of names and decide that Blackwater is a good fit — especially with a Lieutenant

White at the helm. They each write down two suggested thematic batteries and then cast three votes. The winners are: Survivor, Lightweight, and A Certain Roguish Charm.

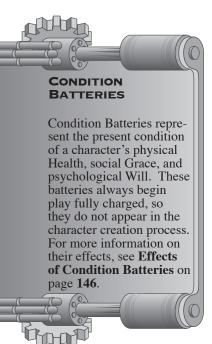
As for the flagship, the playgroup talks about the ship serving as a symbol of Britain, both the characters' home and an instrument of Empire and military might. They choose to name it HMS Exemplar, and come up with the thematic batteries Imperial, Proud Tradition, and Home.

Everyone quickly agrees that they do not want the characters to be outshone by their captain, and decide to build him on the same point budget as the characters

— 100 points. In order to fulfill their expectations of making tough decisions, the playgroup agrees that the captain needs to give the player characters some discretion in following their orders, but at the same time holds them to high standards. They name him Captain Alistair Hancock, and give him the thematic batteries of *Trusting*, Man of His Word, and High Standards. The character sheet goes around the table, with each player adding five points to the sheet. Hancock comes out of the process with Acumen, Leadership, Tactics. Acquaintances, and Oratory at three, and a whole host of other stats at twos and ones. His full character sheet appears on page 172.



PLAYING THE GAME; THE FIRST SESSION



the agreed-upon budget are spent. Hand the officer's character sheet to the Game Master, who will be responsible for portraying that character in the sessions that follow.

STEP SEVEN: ELABORATION

Lastly, players will elaborate their character in text or in image. They may write a short character *history*, draw a character *portrait*, or both. While the other players are performing this step, the Game Master can proceed to her next task, **Engineering the Situation**, described on page **107**.

Histories are short (no more than two hundred words or so) descriptions of where the character comes from, how they were raised, how they came into military service, and what they've done since. These histories can help establish some of the character's core beliefs and document the genesis of their thematic batteries. Be careful when writing your history: you are performing a special kind of magic. By putting something in your history, you are making it an important part of your character. If you do not want to see your characters' parents appear in the game, do not include them in the history. Given its short length, you should only include things that are important to how you see your character.

Portraits are player-created pictures of the character doing something, somewhere. The portrait must be *active* and *placed* in order to count. The character must not be merely standing or sitting, smiling at the viewer, doing nothing. Similarly, the character needs to be located somewhere, like an engine room, the high desert of Mars, or the bridge. What the character is doing and where they are doing it are important decisions that affect the portrait. The same guidelines that apply to the history applies here: anything you include becomes important to your character.

You may charge each of your character's thematic batteries one level if you make reference to it in your history or portrait. If you draw your character at a salon drinking tea and making light discussion, you might charge his *Gentleman* battery, but probably not his *Crack Pilot* battery.

Once you are done writing your histories and drawing your portraits, read them aloud and show them around, respectively, to all the other players at the table. The Game Master will probably be hip-deep in engineering the situation at this point, and she may have some parts that you can help out with.



CHAPTER 5:

ENGINEERING THE SITUATION

You've got a group of players all ready to play, characters primed for action, and a ship ready for launch. Now all you need is something to do. That 'something to do' is the game's situation, which falls under the Game Master's responsibility. If everything turns out well, the players' interacting with the situation creates an enjoyable story for everyone involved. It's important to note that the GM doesn't necessarily create all of this on her own — she will take suggestions from players or even have them create elements used in the story. It's the GM's job to put all the pieces together and present them to the players. This process is called Engineering the Situation.

The situation can be recorded in a number of different forms, depending on the GM's preferences. It can be an outline, a visual map displaying the characters and their relations, or even a collection of index cards with important information on them. These are primarily notes for the GM's reference, so they should be organized in whatever way works best for her. Every situation is summarized in an abstract, which is a short paragraph describing what's happening that caught the player characters' attention. Whatever the form they take, all situations have a few things in common. They are all composed of *story cogs* like characters, sets, and props, and they all run off the same engine: conflict.

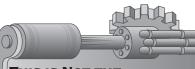
STEP ONE: GATHER INSPIRATIONS

The first step in Engineering the Situation is to gather together the things that the players want to see in the game. These are called Inspirations, and they serve as the foundation for the whole story that the players will tell together. You simply cannot play a game of *Full Light, Full Steam* by using a situation that does not begin with what the players are interested in, and for that reason you need to gather Inspirations. Luckily, this is easier than it sounds.

INSPIRATIONS FROM PLAYER EXPECTATIONS

The most straightforward Inspirations come from the players talking with each other, which comprises the first half of the First Session. The discussions about the game's Scope can tell you what kinds of content the players want to see, and what players said about Heroism, Drama, and Comedy can tell you what lens they want to see them through.

Go player-by-player and write down two things that they spoke about with interest during the first half of the First Session. If you can't remember anything, *ask them*.



This is Not the "GM Section"

Lots of roleplaying games have a section or chapter on "How to Run a Game" which the GM is expected to read and follow, while the other players are supposed to play along without having read these rules. Some books actually tell "normal" players not to read this section. Putting this sort of burden on the GM can be one of the more intimidating aspects of a game.

This disparity in information, power, and responsibility simply does not work with *Full Light*, *Full Steam*'s cooperative play style. All players are invited (and encouraged) to read this chapter — in many cases you may be able to help out!



You can write the list on a blank sheet of paper, on a collection of index cards, or similar. Make sure each inspiration is labelled with a player name so you know who it came from.

INSPIRATIONS FROM THEMATIC BATTERIES

Players write a list of things they'd like the story to be about, often without even knowing it. A character's thematic batteries can often be plundered for stimuli that will get an enthusiastic reaction. After all, this is what the character is about — what better way to grab the character but the core of who they are? Thematic batteries are the simplest inspirations the Game Master can get her hands on. A situation can be engineered solely off of thematic batteries, and produce a very compelling story!

Transcribe the characters' thematic batteries along with the name of the player portraying the character.

INSPIRATIONS FROM CHARACTER

HISTORIES AND PORTRAITS

While the Game Master usually won't be able to use the character histories and portraits in the first situation, these often prove fertile harvesting grounds later. Old enemies, lifelong friends, and family members can make situations personal. Unfinished business, long-held ideals, and lingering regrets not only bring the situation home, but also escalate the importance of any situation that includes them, since no one wants to fail again at something they never quite got over. The general tone of a character's history or the stance in which they are drawn in the portrait can also be useful: characters who are rough-and-tumble survivors will take to challenges out in the wilds, and be challenged by social maneuvering in cultured salons; xenophile diplomats will enjoy situations which put them between their own culture and those they study.

Read through the characters' histories and take a good hard look at their portraits. List off the things that they mention, and take notes as to what seems to be important to them. The players have only included things that they want to see in their histories and portraits — everything is fair game. Don't hold back. Remember to clearly label each inspiration by who it came from.



HMS Exemplar Gathers Inspirations

While Amanda and Jamal are writing their Histories and drawing their Portraits, Sam begins Engineering the Situation. She starts by collecting Inspirations: Flagship, Military Culture, Tough Choices, Brink of War from Expectations and Inquisitive, Chip on Her Shoulder, Cockney, Hot Shot, Martian

Colonist, and Rake from thematic batteries. Since the Histories are being written as she Engineers the first Situation, she won't get to use those until next session.



INSPIRATIONS FROM FEEDBACK

From the second session onwards, the players will have talked among each other during the Feedback portion at the end of each session. These short discussions can often tell you a great deal about what the players liked and didn't like, and what they'd like to see more of in the sessions to come. You should remove inspirations when players are no longer interested in them, and add new inspirations that come up in the conversation. When a player switches out a thematic battery, replace the old inspiration with the new one. Be sure to keep your collection of inspirations current — otherwise you'll be working off of obsolete information!

When you're done, you should have five or more inspirations per character written down. If you have no inspirations from the Game Master, you're not done — your input and expectations are important, too. You'll use these inspirations for reference in the rest of the Engineering process, but don't discard them once you're done. You'll be using the same list, updated, in the next situation.

STEP TWO: CREATE CONFLICTS

If all the characters did was sit around the bridge and look at each other, the game wouldn't be very enjoyable. Something has to happen so that the characters have something to do. That "something" can be external like a pirate attack on a nearby port, or it can be internal, like one of the characters trying to prove her worth as a soldier. Whatever its character and circumstance, this is conflict, and all conflict has two parts. The conflict must engage the characters' desires and there must be a threat or obstacle to the fulfillment of those desires.

It's easy to create flash and noise, but conflict requires a little more than blazing cannons. Pirates attacking a nearby Russian freighter might pique the character's curiousity, but unless one of the characters really likes Russians or really dislikes pirates, it does not immediately engage them and get them to care. Their response may be — quite legitimately — "so what?"

Instead, consider the following:

- Make it a British freighter and appeal to the characters' desire to protect their countrymen and serve their duty.
- Make the ship's captain someone who the characters know and respect in order to appeal to their desire to protect a friend.
- Or pull out all the stops and put the younger sister of one of the characters on board the attacked ship. That will really gets their attention!

PLAYING THE GAME; ENGINEERING THE SITUATION

The difference is a matter of immediacy: how close to home does the conflict come? Making conflict personal increases character involvement and player enjoyment.

On the other hand, conflict needs teeth. A player interested in playing out the difficulties of serving as a lady officer will be sorely disappointed if her character is surrounded by people who assume she is as competent as any man. If there is no resistance, there is no conflict, and the players' expectation of playing out that content is not fulfilled.

So let's consider our other options:

- Give the lady officer a misogynistic rival so she has something to play about whenever she has to deal with him.
- Make her captain paternal and patronizing, which affects what assignments she is given.
- If the other players portray their characters as often discounting her abilities due to her gender, too, the conflict is real and no mere window dressing.

Conflict is made to be overcome, and so the rival will be bested, the captain's respect will be earned, and the other player characters will come to value the lady officer. If these victories come too easily, though, there is little satisfaction in winning them.



HMS Exemplar Creates Conflicts

Now Sam goes through her ten Inspirations, juxtaposing two at random until something jumps out at her.

The first combination is Tough Choices and Martian Colonist. Perhaps the situation could put the characters in the place to make a decision that threatens the freedoms of the independent-minded colonists of Mars. Her first conflict is: "The freedoms of

Martian Colonists are threatened by the needs of Empire. (Jamal and Sam)"

The next combination that sparks an idea is *Chip on Her Shoulder* and Military Culture. While they're allowed, women are far from accepted as equals in the Royal Astronomical Navy. Her second conflict is: "A superior officer disdains the contributions of women. (Amanda and Jamal)"

third Her Conflict arises from Cockney and Brink of War. As perpetual underclass, it is often Cockney soldiers dying at the front lines: at the same time, it's one of the few ways for them to escape the urban slum. Therefore any Cockney community would have a complicated response to an outbreak of hostilities. Sam's third conflict is: "Rumors of war disturb Cockney community. (Amanda and Sam)"



For the purposes of Engineering the Situation, a Conflict is a short sentence or phrase that includes both a desire and an obstacle to the fulfillment of that desire. Conflicts do not include names. "A damaged colony ship is losing atmosphere" and "A salon mistress is blackmailing an admiral" are both good examples.

Conflicts must always be inspired by two or more Inspirations, preferably from two different players. One inspiration might be the desire and another the obstacle, but this is not the only option. Inspirations can be stacked together — for instance, a "Colonist Family" inspiration and a "Hindu Background" inspiration might result in some Hindi colonists involved in the conflict. A relatively easy way to come up with conflicts is to take two inspirations and see if they spark an idea. If they don't, try two different inspirations. With just ten inspirations, a Game Master has at least forty-five combinations of two each and even more combinations of three each.

You will need three conflicts for your situation. If you come up with more, great — save them for next time.

Note for each conflict whose inspirations the conflict is built on. Before you go on to the next step, make sure that your chosen conflicts are based off of inspirations from all the players. If somebody doesn't have an inspiration involved in one of the conflicts, find a way to connect one of their inspirations to an existing conflict or create a new one.

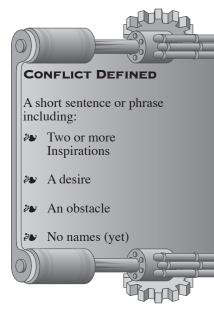
STEP THREE:

BUILD CONFLICTS WITH SIMPLE COGS

If conflicts are the fuel that makes a story go, *story cogs* are the pistons, gears, and wheels that do all the moving. A cog can be a person that the characters speak with, the swift-moving rapids that they must travel down, the ballroom of a Martian manor, or the social milieu of a catty salon. Cogs are bits of the situation that the characters interact with, the specific and concrete illustrations of the general and abstract conflict.

There are, roughly, three kinds of simple cogs: *characters*, *sets*, and *props*. Most conflicts suggest the necessary cogs in pretty plain terms. For "A salon mistress is blackmailing an admiral" there must be a salon mistress (a character, the antagonist), an admiral (a character, the victim), a salon that the mistress presides over (a set), and some incriminating evidence (a prop). Depending on who the admiral does not want the evidence shown to, the admiral's wife or visiting member of parliament could be added, as well.

Some conflicts need a little prodding before their power can be adequately expressed in tangible terms.



CONFLICTS FROM THREE OR MORE INSPIRATIONS

While the easiest way to come up with conflicts is to put two inspirations together and see if they 'click', there's no reason why you cannot do the same with trios or even quartets of inspirations. Alternately, if you have a pair of inspirations which work together and a third inspiration seems to fit naturally, it's a simple matter to include all three in that conflict.



PLAYING THE GAME; ENGINEERING THE SITUATION

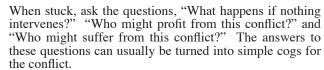


REW CHARACTERS

Crew members are as common as fish in the sea when playing Full Light, Full Steam. Most crewmembers are nameless and faceless bodies in the background, meant only to swell a progress or take orders, and that is perfectly fine. The typical battleship has crew numbering in the hundreds, so not everyone gets a character sheet of their own.

You may want to create a handful of crew "regulars" with whom the player characters regularly interact. You can begin with just a name and a short description of their appearance; such regulars often take on a life of their own with little planning.

However, a Crewmember is never a cog and never has stats unless she is directly involved in a conflict. The only exception to this rule is the Captain.



You will need at least five simple cogs per conflict, although each conflict must have at least one antagonist, at least one victim, and at least one set. However, as with conflicts, do not include any names for the cogs you use just list what simple cogs you will need.

CHARACTERS

The most versatile cog is the non-player character, or NPC. These are characters portrayed by the Game Master or her delegate, and range from the story's antagonists to the characters' dependents, and all points in between. What is important is that they serve their role in forwarding and developing the story.

Victims are those people who suffer or might suffer because of the chosen conflicts. Victims need not be helpless individuals, but they are unable to overcome the conflict's antagonists (see below) on their own. Sometimes a Conflict will have tons of victims — a whole population of a colony threatened by an army of Venerian savages, for instance — but as the characters will not be interacting with each and every colonist, creating only one or two lets you focus on representative individuals.

Antagonists are the NPCs whose actions and intentions the player characters contest and overcome. In a simplistic world, antagonists are the "bad guys" but there is no reason that antagonists need be evil, or even malicious. The noble French captain defending the port that the PCs are ordered to assault is a perfectly valid antagonist even in he is kind to his men and donates to charity. The world of Full Light, Full Steam is full of genteel conflict — the only important thing is that the PCs and their antagonists are opposed (at least at first).

Note that unremarkable enemy soldiers do not usually count as antagonists, but their leaders do. Some or all of the antagonists may be an organized group, but this is not strictly necessary. There is no need to list off the entire crew of the French battleship that the player characters will be confronting; just the Captain and an officer or two that they may interact with.

Rivals are similar to antagonists but are different in one important way: whereas player characters and their antagonists are opposed, player characters and their rivals compete. Rivals often have goals parallel to the player characters — a rival ship may be after the same gang of pirates, or the Russians may want to gain the support of the same tribe of Venerians. Rivals aren't the enemy, but they can certainly contribute their fair share of conflict! Rivals can also be useful because they are easier to bring back into later adventures — or bring back from prior adventures. Antagonists tend to be nullified by the actions of the PCs, but rivals can always come back after being a little embarrassed.

Allies are NPCs friendly to the player characters, whether through similar motives or grudging cooperation. As such, Allies are usually helpful, although where their goals diverge from the player characters', they may become obstacles to a slight or significant degree. Occasionally, an antagonist or rival may temporarily serve as an ally, but only until the situation is resolved and they return to their "true nature."

Ships could be considered very big, very complex tools, but they are often encountered in the game as characters. Indeed, naval ships have enough individual personality that it is a simple thing to think of them more as people than objects. Creating a ship as a character cog also precludes the need for creating the faceless crew that operates it. Ships can serve as antagonists (the pirate ship), victims



HMS Exemplar Builds Conflicts with Cogs

For her first conflict "The freedoms of Martian colonists are threatened by the needs of Empire. (Jamal and Sam)" Sam decides that, like many problems on Mars, the issue comes down to water, and a planned canal improvement is being canceled so the materials can be used elsewhere. She reasons she will need a Colonist Farmer (the victim), a Martian Colony (the set), a representative of the Empire (the antagonist), and some Canal Construction Materials that he's trying to divert from use on Mars (a prop). For her fifth cog, she decides to add a Profiting Colonist (a

character), this one a farmer who lives upstream and already has a ready supply of water, and therefore stands to gain in relation to the other colonists who do not.

To build "A superior officer disdains the contributions of (Amanda women. and Jamal)" Sam decides that the officer in question will be faced with a malfunctioning piece of equipment — some-thing big — that he himself can't fix, but simultaneously can't believe that a woman can. She will need the Misogynistic Officer (the antagonist), a Capable Woman (the victim), the Broken Facility (a set),

a Male Alternative (a character) who the officer prefers over the woman, and a Dependent (a character) who suffers as long as the facility is not working.

Her last is "Rumors of war disturb a Cockney community. (Amanda and Sam)." She imagines that rumors of foreigners encroaching on British territory nearby might stir up some hot-blooded Cockney youths. She'll need a Rumormonger (the Antagonist), a Local Pub (the set), a Hot-Blooded Youth (a victim), the kid's Mother (a victim), and the Invaded Territory (a set), which may or may not actually be invaded.

PLAYING THE GAME; ENGINEERING THE SITUATION

(the ship the pirates are attacking), rivals (the French pirate hunter), or allies (the HMS Spitfire, happy to help hunt pirates). When using a ship as a character cog, be sure to name the captain — but choose stats based on the ship, its capabilities, and personality.

SETS

Any given game of *Full Light*, *Full Steam* will visit many different imaginary places through the course of its story. Some of these places are simply convenient locations for a scene or two to take place. However, the most interesting locations in a story are those that impress themselves on the progress of the story. These places are sets. Sets have character and personality of their own, and often exhibit that character by helping, hindering, guiding, and challenging the characters who act within them.

Arenas are areas where two or more characters or groups of characters struggle for supremacy. The struggle can be physical combat, such as an asteroid field where pirates prey on freighters; social maneuvering, such as a salon where diplomats meet and socialize; or technical creativity, such as the workshop run by a domineering engineer. Strictly speaking, any such conflict can be played out without the location being made a cog; what distinguishes an arena from any old place a fight breaks out is that a cog possesses attributes that make the fight more interesting. The asteroid field might have ferrous rocks that disrupt etherwave radio; the salon might be caught in a power struggle between two would-be mistresses; the workshop may be the home of an experimental Curie plant on the brink of meltdown.

Crime Scenes have information or props that the player characters might need, whether it be footprints to be measured and fed into the ship's hive or incriminating evidence of a rival captain's treason. Not every "crime scene" need be about a crime, however; a crime scene may just as easily be an ancient Martian temple in the wilds of Aphrodite which describes how to deactivate a Martian doomsday device. Crime Scenes are made more interesting if the information or prop that the player characters are after is itself threatened — make the temple sinking into the Venerian swamp, its mosaics drowned in sludge, or the captain's private quarters periodically patrolled by loyal guards.

Obstacle Courses are Sets which pose a danger to the player characters or present an obstacle for them to pass through. An obstacle course can be a stretch of Martian Badlands hiding sandbeasts and dust storms or the guts of an engine room filled with swinging beams and crushing gears. An obstacle course need not threaten physical injury, however. Social hurdles may also make for a good obstacle course, like the foyer to the Admiral's office, where the Admiral's secretary and assistants try to keep needless requests away from the Old Man. An obstacle course that is visited once is usually not prominent enough to be made as a cog; the best obstacle courses stand between the characters and their goal, then stand between the characters and getting back with what they came for, and then the place where they lose the thing they came for. Such retracing back and forth allows the players to thoroughly explore the obstacle course, and to express how their characters interact with its dangers.

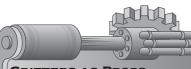
Death Traps appear often in *Full Light*, *Full Steam*, whether the characters are thrown to their tender mercies or are rescuing someone else from certain doom. Death traps are uniformly elaborate, display some aspect of their creator's character, and are terribly, irreparably flawed. It is up to the Game Master to determine the death trap's elaborate nature and how it fits in with the character of its creator. However, the flaw in a death trap should not be created by the Game Master beforehand — the players will quite happily find their own ways to bring the death trap to its knees. The difference between a death trap and an obstacle course is somewhat subtle; an obstacle course must be overcome and typically remains unchanged by the passage of the player characters, while a death trap must be defeated and is usually destroyed or rendered inoperable by the course of the story.

Havens are places where characters are safe and have an opportunity to rest and recuperate. A Haven can be the kitchen of friendly colonists, happy to give some tired soldiers a helping hand, or an abandoned mine shaft in the middle of the Martian desert.

PROPS

No game of *Full Light, Full Steam* would be complete without props — the steam engines, alien artifacts, uniforms, exotic offworld food, and analytical engines that constantly remind the players that they are anywhere but home. Most such items are relatively ephemeral parts of the story, without the strident "personality" found in characters and sets. On occasion, though, some props are important enough to merit being prepared as a cog.

Gear are items that the characters would use on a regular basis, such as sidearms, wrenches, pens and paper, and the like. Generally speaking, the player characters are assumed to have whatever gear their ship or port's stores would supply, and these need not be created as cogs. However, if the characters are separated from their usual gear and unable to supply themselves normally, the items they took for granted suddenly become important enough to become cogs.



CRITTERS AS PROPS

Some wildlife and elements of nature are best rendered as props, even if they may be alive and animate. Base motivations like "eat that tastylooking Brit" are no more complex than the "desires" of a bomb or incoming asteroid.

However, a critter must be central to a conflict in order to be made as a prop itself; otherwise it is probably better used as a set complication or even another character cog's exotic skill. See the Blood Wasps on page 28, Sandbeasts on 41, and Mercurial Horrors on 52 for examples.



Components are highly specialized and often unique items which are all but necessary to resolve a given conflict. Components are really only good for one thing, whether that be using the Hydrodynamic Stabilizer to fine-tune the automaton's brain to stop the killing sprees or the crucial evidence that proves that Lord Astor is in fact behind the pirate attacks outside Pallas. Components need not be inert items the player characters just fetch to save the day. They can be made more interesting by making them difficult to acquire, difficult to maintain, or difficult to protect. The evidence on Lord Astor might be used as blackmail by a reporter from the Times, who doesn't want to give it up easily; the Hydrodynamic Stabilizer might be very delicate, making it difficult to install on the raging automaton.

Hazards are props that pose risk to the characters or what they care about. These props may threaten the characters' well-being directly, or may fill the role of the "teeth" in a story's conflicts, threatening the desires of the characters. Put simply, the bomb may be on the characters' own lander, or on the ship transporting one the daughter of the Captain.

STEP FOUR: COMPLICATE COGS

Three conflicts with all their attendant cogs make for three rather straightforward stories unconnected to each other — not exactly dazzling material. That's also a lot of cogs to keep track of. To solve both problems, cogs are *complicated*, or doubled up. The Spurned Lover cog from one conflict can also be the Murderer cog from another conflict. The spurned lover is thus also the murderer. The



HMS Exemplar Complicates Cogs

Sam has planned for the following cogs: Colonist Farmer, Martian Colony, ImperialRepresentative, Canal Construction Materials, Profiting Colonist, Misogynistic Officer, Capable Woman, Broken Facility, Male Alternative, Dependent, Rumormonger. Local Pub. Hot-Blooded Youth, Mother, and Invaded Territory.

The first two cogs that Sam compli-

cates are the Capable Woman and the Worried Mother. While it would be simple to make the Imperial Representative Misogynistic Officer, Sam elects to make him the Male Alternative, instead. The Profiting Colonist can be the Rumormonger; the Hot-Blooded Youth can be the Colonist Farmer. Lastly, she decides to make the Facility the Invaded Territory.

Sam now has the following cogs: Colonist Farmer/Hot-Blooded Youth, Martian Colony, Imperial Representative/Male Alternative. Canal Construction Materials, Profiting Colonist/Rumormonger, Misogynistic Officer, Capable Woman/ Worried Mother, Broken Facility/Invaded Territory, Dependent, and Local Pub.

She's gone from 15 cogs to 10 — much easier to keep track of!



Rival French Battleship cog may also serve as the Fugitive's Hideout cog — the fugitives are then hiding out on the battleship. Since the cogs have not yet been named or given any characteristics, this is as easy to do as declaring that they are in fact one in the same. This ties the conflicts together and greatly reduces the total number of cogs that the players need to keep track of.

Complicate as many Cogs as you possibly can.

STEP FIVE: ENGAGE COGS AS FOILS

Even though all cogs are based on conflicts drawn from the players' inspirations, it is useful to take a moment to pick a cog to specifically connect back to each player character as a *foil*. A foil is a cog that has some characterization in common with a player character but also sharply contrasts with the player character in motive, action, or background. Foils exist to call attention to elements of the player character's character — the player character is heroic next to cowardly foils, noble next to unscrupulous foils, or cultured next to uncivilized foils. Antagonists and rivals often serve as foils.

There are a few ways to go about making a cog into a serviceable foil:

Relationship Foils - Making a cog have a relationship with a player character, whether it be their sister, son, old friend, past lover, or bitter rival, provokes the character to demonstrate not only how they are similar but also how they are different. Either way, this increases characterization and intensifies the character's engagement with the conflict. That's not just anybody about to be sacrificed to the Venerians' dark gods — that's their sister!

History Foils - Similar to a relationship foil, making a cog something that the player character has a past his-



HMS Exemplar Engages Cogs

Of her ten cogs, Sam needs to select one to be Gwendolyn's foil and another to be Preston's. The Capable Woman/Worried Mother is both technically adept and whereas Cockney; Gwendolyn joined the Navy to escape the desperate streets of London, this character seems to have become a colo-

nist. She is a perfect fit as a thematic foil for Gwendolyn.

Preston's family are Martian Colonists, so Sam's first impulse is to make the Colonist Farmer/Hot-Blooded Youth a thematic foil for Preston, but this doesn't seem immediate enough. Jamal would likely recognize the entire Martian Colony as connecting to his background, but not this specific character. Sam decides to go in a different direction and uses the Imperial Representative — the depriving the one Colonists of their water — as a relationship foil, making him Preston's uncle. There's no way that Jamal can miss that connection!



tory with can help connect the character to the cog. The colony can be their childhood home, the renegade ship an old posting, or the Venerian pike the same one used to kill their father. A history foil does its characterization work by making the character display how they've changed since that cog was a part of their life. They may have outgrown it, discarded it, never forgotten it, or learned lessons from it — whatever the case, it will serve to provoke a response, and a more vital connection.

Thematic Foils - One of the easiest ways to create a foil is as an inversion of one of a player character's thematic batteries. For instance, a debutante can be a foil for a *Lady Officer* player character — they're both women, but very different kinds of women. Introducing such a cog allows the character to better express what that thematic battery means to them.

Select one cog for each player character to serve as their character foil.



HMS Exemplar Writes Situation Abstract

Complicated Cogs have tied up the three Conflicts pretty tidily, but Sam decides to make one connection - the Materials intended for the canal are being diverted to fix the Facility, which she decides is a charging station for canalboats and the Navy's cutters. She writes the following as the Situation Abstract:

The Martian colony of Bowbell is up in arms. The planned canal extension that would bring water to the parched colony has been scrapped in favor of repairing the local charging station, recently the victim of a boiler explosion. The source of the controversy is Commander Aston, of the Naval Engi-

neering Corps, who has hired on Frederick White, noted industrialist, to do the necessary repairs. White, in turn, requisitioned the canal materials that were 'just lying around'. The local colonists, mostly drawn out of London's East End, insist that they will not be able to survive another Martian summer without the promised water supply.

Chief among the dissenters is Elijah Brown, whose lands at the north end of the colony are the furthest from the canal's terminus. Thadeus Cooper, lucky enough to live above the canal terminus, is quietly goading him on, spreading rumors of Russian saboteurs lurking around the

charging station at night and making secret rendez-vous with Commander Aston late at night. Elijah claims that the charging station was sabotaged by the Russians, and when he is really in his cups, that Aston is taking bribes, which is why the Commander has completely ignored the offers of repair work from Elijah's mother, Susan Brown, who worked years with the steam engines of London.

Disregarding the wild claims by the Cockney rabble, Commander Aston has requested some assistance from the Fleet in moving the construction materials — as HMS Sussex is presently in orbit over Mars, it dispatches HMS Blackwater to help.

STEP SIX:

WRITE THE SITUATION ABSTRACT

By now the conflicts and cogs should be firming up into one big, multifaceted crisis. The *situation abstract* is a sizable paragraph or two that describes that crisis and explains what draws the player characters into it. The abstract should include all the conflicts involved and name and situate each cog (yes, you finally name the cogs now).

If any of the conflicts are not yet connected by the doubling up of their cogs in Step Four, now is the time to link them together. If the Conflicts "Epidemic spreading through Martian colonies" and "Smugglers trafficking ancient alien device" are still dangling, the device can be causing the epidemic — or be able to cure it.

The player characters also need a reason to involve themselves in the situation. Such a reason may need to be added if there isn't one already present — if the Captain's youngest sister is kidnapped by pirates, there's no need to add more hooks. Since the player characters are in the military service, it is usually a simple matter to rope them in with a distress beacon or request for assistance from colonial authorities.

STEP SEVEN: ELABORATE COGS

The last step of engineering the situation is to take the list of cogs and flesh them out into interesting people, places, and things.

ELABORATING CHARACTER COGS

NPCs are created with the same rules as Player Characters. NPCs may be built on any point budget, from Modest to Larger-than-Life, although the creator of the NPC should keep power level and threat in mind. An antagonist who cannot be beaten makes for a very poor story, second only to antagonists who never pose a real threat. Similarly, allies or rivals that outshine the player characters destroy player engagement with the story — why should they even try if the guest stars will win the day without them? In the end, all antagonists are designed to fail, and no ally can succeed without the player characters' help.

ELABORATING SET COGS

A set's sole purpose is to make things a little more interesting for the player characters. To that end, a set it built out of three parts: a *description*, a handful of *situation effects*, and a few *complications*.

Descriptions give a basic layout of the area with a handful of evocative details. Descriptions need not be more than a couple lines to serve as a guideline for the narration and scene-setting that will take place in that set.



PREPARING FOR CAMEOS

To simplify delegating NPC narration to other players, you can write any non-player character's stats and basic personality on an index card. When a player's normal character is not involved in a scene. the GM can hand the card to that player, delegating this "Cameo" NPC to the player to portray. This means one less thing for the GM to take care of and adds some variety to the scene.





Fig 5.1 Georg "Bubbles" Van Veen makes sure Zonnendam's Ruddick Club is a pleasant stop for travellers of all stripes.

Situation **Effects** describe what kinds of actions are easier or more difficult in that set, and are rated from -4 (very difficult) to +4 (very For instance, it may be very easy to hear the latest gossip at Madame Beausoliel's salon (Getting the Latest Gos- $\sin +2\bar{)}$, but difficult to cow or embarrass the haughty salon mistress herself (Embarrass Hostess -2). Situation effects apply to everyone in that set — "Dr. FitzSimmons Controls Plant Monsters" would not be an appropriate effect for the Secret Lab; instead, the effect could read "Control Plant Monsters" just in case the player characters find a reason to take control of the monsters themselves. A set can have three to five effects, but their ratings must total up to zero. Applying Situation Ef**fects** to die checks is described in greater detail on page **144**.

Complications are events that may happen in the Set to make things difficult for the player characters. This may be an loud-mouthed and inquisitive child in the governor-general's mansion or a wall of lava sweeping down to overtake the temple. You will need three to five of these. Complications are most useful in **Setting Stakes**, described on page 135.

ELABORATING PROP COGS

Props are simple things, consisting of a *description*, a *function*, and a few *complications*.

Descriptions are a simple overview of what the given prop looks, feels, and sounds like. They need not be any longer than a line or two.

Function describes what the prop is good for. Props do not make the given task easier; they make the task *possible*. The medical supplies can cure the sick village, for instance, or the mining explosives can collapse the tun-



nels. "Critter" props can attack passers-by, steal food from camp, or even serve as a mode of transportation!

Complications for props work exactly as set complications, except they list things that might go wrong when the prop is present. A crate of nitroglycerin might explode; the scent of the venerian chieftain's body might attract blood wasps; the file marked 'Top Secret' might tempt a player to look inside. You will need three to five of these.

DELEGATING COG ELABORATION

The elaboration of cogs can easily be delegated to the other players. If you are Engineering the first situation of a campaign while the players write Histories and draw Portraits, one or more of them is probably already finished and can create that collapsing mine tunnel for you. Alternately, if half the players are waiting for the others to arrive for the night, the early arrivals can lend a hand in creating



HMS Exemplar Elaborates Cogs

Sam first decides which cogs can be elaborated by Amanda and Jamal. She puts Frederick White and Susan Brown aside, and when the other two players are done with their own Histories and Portraits, she will ask Amanda to make Preston's uncle and Jamal to make the Cockney Engineer.

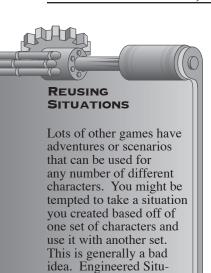
She makes Elijah and Thadeus herself, giving Elijah the thematic batteries Dead Father, Over His Head, and Gullible, and Thadeus In Love with Susan. Proud. and Underhanded. She builds them on 75 points each, primarily in Attributes and Horticulture and sprinkling a few points out among Heroics and Culture.

spends a little more time on Commander Aston, giving him the thematic batteries Misogynist, Grizzled Veteran, and Gentleman. She builds him on 125 points, focusing on Leadership, Culture, and Engineering (she makes sure not to give him much in Steam, since he had to hire Frederick White to repair the charging station).

Sam needs three sets: the Colony, the Station, Charging and the Local Pub. She decides to let Amanda design the Pub and Jamal create the Colony. She then describes the Charging Station as a mammoth installation built beside the canal, with a short spur of the waterway siphoned off to feed the steam engines. There's evidence of an explosion and fire: one wall still bears gaping holes, the edges of which are seared black. For its Situation Effects, Sam gives the Charging Station "Hiding among debris +2, "Finding useful scraps +1," and "Looking clean, collected, or otherwise respectable -3." As for Complications, she writes down, "Unstable ceiling," "Sharp bits of twisted metal," and "Memories of servicemen lost in explosion."

Sam's only prop is the Materials, which are a simple Component. She describes the pile of rebar, plating, cobblestones, and mortar, and defines its function as 'Build the canal extension or repair the charging station.'

PLAYING THE GAME; ENGINEERING THE SITUATION



ations are built to order

You'll lose out on half

situation.

and highly personalized.

the fun if you stick your

players in somebody else's

NPCs. You can even send an email to players a few days before the session and ask them to make and bring certain cogs to the game session.

Simply hand them a character sheet or piece of paper and ask them to make a pirate captain or describe a French battleship, complete with thematic batteries. Ask them to set up the abandoned mining colony and its Situation Effects and Complications. For obvious reasons, don't ask the players to make the murderer in a mystery plot — or at the very least, don't tell them that she's the murderer; just ask for the charming socialite she appears to be, and make a few subtle changes before using them in play.

You're Done!

Once you have the Situation Abstract and the elaborated cogs ready, your preparation work as a Game Master is done. In case you didn't notice, at no point do you try and figure out how the conflicts will be resolved and how the characters will get to the happy ending. That's something that only the entire group can create. Most of the time, what they come up with will surprise even you, and that's far more entertaining than waiting to see if they figure out what you've had planned for them all along. You're ready to roleplay.

CHAPTER 6:

ROLEPLAY

All the players at the table will contribute to the developing story. The Game Master is primarily responsible for presenting the story's situation and portraying the individual characters and events in such a way that the other players cannot just sit idly by. The other players, in turn, are primarily responsible for describing what their characters do in the developing situation. Sometimes these responsibilities overlap — the GM may suggest a plausible course of action for the player characters, or the players might elaborate on an element of the situation. The GM may even ask a player to portray one of the situation's characters. All of this comprises roleplay.

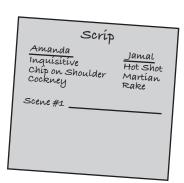
In broad terms, roleplay consists of two activities: narration and direction. Other things do affect play — imagining your character's thought processes, planning out future actions, explaining your character's motivation to other players, and the like — but once everyone is sitting around the table ready to play, most of the interaction boils down to these two things.

Narration is the act of describing to the other players what is happening in the story. Direction is the process of deciding who does the narration. Ideally, all the players in the group share narration more or less equally, ensuring that everyone is involved. While the GM tends to direct more often than the other players, she doesn't do it all. The other players can try to take direction with interjections or interruptions or hand direction off to another player. This is accomplished according to some simple rules.

STARTING A SESSION

A typical game of *Full Light*, *Full Steam* is separated into many sessions, which may be spread out over a long time. In order to create a sense of continuity, begin each session by going around the table. Have each player name their character and their thematic batteries, and recall the events of prior sessions. The GM should go last, naming any recurring NPCs and their thematic batteries, and recapping any important details that the players may have missed.

While the players are listing off their thematic batteries and recalling past events, the other players should be preparing their spoils scrips. A spoils scrip is a piece of paper — a quarter sheet will do just fine — that will be passed around the table throughout the game. In order to prime their spoils scrip for play, each player should write down the other players' thematic batteries in boxes labelled





with the players' names. There should be a lot of space left over for signatures during the game.

The GM then sets the first scene, or delegates it to another player, and you're off!

NARRATION

When it is your turn to narrate the story, it falls to you to entertain your fellow players. You have center stage; the spotlight and all eyes are on you. Whether you narrate for a short thirty seconds or a stretch of five minutes, there are a few things you can keep in mind to make your part fun for everybody.

Use specific details. The more details you can include, the better. As you narrate, the other players are trying to imagine what you are describing. In addition to what is happening in general, provide them with specific morsels and anchors that their mind's eye can latch on to. You could simply say, "My character jury-rigs a jack to lift up the boulder," but this doesn't give everyone else much to go on. It would be far more descriptive to say, "While everyone else is circled around the boulder speculating on how heavy it is, Anastasia quietly breaks out a spare cannon spring from the lander's spare parts and lashes it onto one end of a rusty set of calipers lying out in the archeological dig. Shouting, 'gang way!' she wheels the construction up to the boulder." Now the other players really know what is going on!

Appeal to the senses. Instead of simply saying, "My character sneaks up to the nearest hut," you might narrate, "George takes a quick look left and right through the drizzle, then hurries forward through the slurping mud. It smells putrid, and he tries not to get it all over his shoes. He presses himself up against a rain-slick bamboo wall, then peeks around the corner of the hut." Giving the other players the visceral anchors of the mud's stench and the texture of the wall helps them imagine the scene that much better.

Include the others. Even when you're in the spotlight, you're not the only actor in the play. Keep the other players and their characters in mind. Don't make your narration all about your character, and when including other characters, consider how their players would want them portrayed. Don't just tell the other players, "My character turns the telescopes to look at the enemy ship." Draw the others into the story by narrating, "With a short nod and 'Acknowledged' for the Captain, Sam directs the other optics technician to begin bringing the main telescope to bear, and starts wheeling the viewfinder into place alongside it. While he's pumping the crank, he calls across the bridge, 'If that is your husband captaining that ship, Ensign Waters, you're going to have some explaining to do." Not

only are the other characters kept "in the scene," but you provide them with stimuli to respond to.

Keep it Active. Details are good; active details are great. This is especially important when setting the scene or describing a new location. The backdrops of your story are not all the same empty room with a different paintjob each time. Fill your story with things happening in the background — merchants hawking wares in the market, machinery clanking in the factory, even tumbleweeds bouncing along on the winds of the Martian Desert. In addition to making the story more alive for everybody, it provides the other players with elements to pick up and include in their narration: your dangling jungle vines just might become somebody else's escape route later.

Back it Up. While the first half of this book is full of information you can use in your narration, there's no way one hundred pages can describe in exhaustive detail the world in which your stories will take place. All players — the GM as well as everybody else — should feel free to create new details as they need them. Go ahead and make up names of Venerian jungle plants, make references to towns on the Martian frontier, or talk about your character's old assignments on other ships. It's your story; add to it as you like.

GAME MASTER NARRATION

Because the Game Master is responsible for all the details outside of the player characters, there are a few aspects of her narration that are unique.

The GM is not the Narrator. The first thing to understand is that the GM does not do most of the narration, tempting though this may be. It is not the GM's job to tell a story, it is the GM's job to present the situation and keep the cogs engaged with the player characters. In all, the GM tends to do more direction (below), and must work to keep her narration relatively brief — just not so brief it ceases to be evocative.

Provide the Ingredients. The GM's narration is actually more constrained than the other players', since its primary purpose is to serve as a platform or foundation for the other narration. The GM introduces conflict; the others resolve it. The GM lays out the setting; the others act within it. The GM portrays NPCs to help or hinder the PCs; the other players make use of the assistance or interference to develop their story. You can imagine the GM's narration as continually providing pizza ingredients; the others are the ones who make the pie.

Precision is Key. While all narration benefits from including specific details, GM narration must also be precise. Euphemisms and slang shorthand that is dependent on context can be very confusing when the spoken words

are the context. Outside of the game, idle conversation might include statements like "Those guys blew away the competition" but when used in GM narration, this statement can become disastrously ambiguous. Which "guys"? By "blow away" did she mean "overcome by a large margin" or literal destruction with a cannon broadside? Such confusion is only exacerbated by the fact that players rarely confirm their understanding of what the GM says — they tend to assume that what they heard was what she meant. For this reason, a good GM does not rush, is precise with her details, and chooses her words carefully. This may take a little practice, but the extra effort will pay off.

Involve all Players. The GM's narration often sets up the action and challenges of the ensuing roleplay, and the basic details of where characters are and environmental elements can dictate who enjoys the most action. It is incredibly easy to set up one or two characters to be in the spotlight — which isn't necessarily a bad thing when done intentionally. The problem arises, however, when the *same* one or two characters are constantly pushed into the spotlight at the expense of the others. GMs should remain conscious of every such "set up," positioning, and context to ensure that all players get their chance to shine.

Delegate, Delegate, Delegate! Lastly, GMs should realize that, while they are *responsible* for all the details outside of the player characters, that doesn't mean that they are the only ones who can narrate it. GMing can be a big undertaking, and GMs should remember that they can delegate a lot of narration to the other players. Guidelines for this are provided below.

PLAYER NARRATION

While the GM juggles the rest of the world, the other players have their little corner to worry about. The other players narrate about as much as the GM, but their narration tends to be more focused on the actions of their characters. As such, their narration tends to be different in a few important ways.

Narrate the Internal World. Since the stories you tell in *Full Light, Full Steam* are about the player characters, sometimes *why* they do things is more interesting than *what* they are doing. Don't limit yourself to just giving the other players a laundry list of character actions. Describe how your character feels, what is going on in her head, and how her actions are the expression of her beliefs. You'll create a far richer story for everyone to enjoy.

Limit your Character. Your character doesn't have to succeed or "win" every time to make a good story. Even larger-than-life characters have their flaws and make mistakes, and usually it is a character's failures that make a story compelling and the character memorable. Your character doesn't need to immediately comprehend any situation that you yourself understand, or blithely and effort-lessly trounce every opponent encountered. In fact, utter victory can undermine story and character development. It's the bloody lip that proves you've fought for your ideals — not the unconscious opponent crumpled on the floor.

Reach Beyond your Character. Many games assume that players will only narrate things that their characters do — how limiting! Half of a character's personality is expressed in how she interacts with her environment — physical, social, and cultural — and you should not hesitate to use elements of that environment to better portray your character. Narrate the beggar croaking to your character for a few quid, the knocking and chugging of the engines around her, or the jungle bat sweeping down to grab for her hair. Your character's reaction will tell everyone — including you — more about her than anything you might narrate "on her own."

Step On Up. During the course of an adventure, your GM may delegate other narration to you that she would otherwise handle herself. She may ask you to set the scene or hand you an NPC to portray. If this happens, jump in with both feet — the more effort you put into the portrayal, the more you are helping out the GM. More on delegating narration follows below.

PASSING THE SPOILS SCRIP

At the beginning of each session, each player prepares a *spoils scrip*. This is a small piece of paper that will be passed from player to player collecting signatures. Scrips do not belong to the players that prepare them, and players do not have any responsibility for any individual scrip. Instead, it is the goal of the entire table to pass the scrips as much as possible and collect as many different signatures as possible. The spoils scrip serves two purposes: it earns the players passing the scrip valuable spoils, and it determines when scenes end and new scenes begin.

During a scene, players may pass a spoils scrip to another player if they narrate something that refers to the player's character's thematic batteries. This may be a direct reference like having your character say, "Fosters will figure something out; he probably has a gadget." It can be an action, like opening a door for a *Female Officer* character. It can even be an implication, like telling a young boy to stay on the straight and narrow and shooting a significant look at a *Rake* character. Whatever form it takes, the reference is an acknowledgment of the other character's thematic battery, a commentary on it, and an invitation for the other player to respond in a way appropriate to their character.

Players may also pass the scrip to the Game Master by referencing the ship's thematic batteries. If there is no Game Master, the player portraying the Captain is a good pick, instead.

SCORING SPOILS WITH THE SCRIP

When you pass a scrip, the player you pass it to signs their name on the current line. If they have not signed that scrip in the current scene, you score three spoils. If they have signed the scrip before, you score one spoil. Spoils are spent to improve your character's abilities. Therefore it's in your best interest to pass spoils scrips to players who have not had scrips passed to them yet.

ENDING THE SCENE WITH THE SCRIP

The spoils scrips also determine when a scene ends and new scenes begin. Scenes cannot end without one of two conditions being met:

Full Circle When you pass a scrip that everyone in the scene has signed on the current line, you may elect to end the scene and set the next one.

Jump Cut If any player passes a scrip referencing a thematic battery of a character (PC or NPC) who is not in the scene, the receiving player may end the current scene and frame a new scene where that character is present. Players may also jump cut to the ship by referencing one of the ship's thematic batteries.

When a scene ends, all scrips at the table add a new line for the next scene. If you like, the player setting the next scene can announce where it is, and the new line can be labeled with this location. As scrips are passed in the new scene, players will add their signatures on the new line; their first signature will again be worth three spoils.



HMS Exemplar Scores Spoils with Scrip

Ayse is narrating her character Lieutenant Hargrove's success in outmaneuvering the pursuing French fighters in a stolen corvette. Meanwhile, Jeremy's character Ensign Murdoch lays down covering fire with the ship's sole turret. Ensign Murdoch has the themat-

ic battery *Deadeye Killer*. Ayse narrates: "Hargrove yanks on the stick, twisting the craft in hard turns over, around, and through the gigantic chunks of asteroidal rock. She shouts over the whining engines, 'Murdoch, in five seconds there's going to be a short

dash where we're wide open. I'm giving you two seconds to shoot all three of them!" Ayse hands over the scrip to Jeremy. Jeremy adds his signature to the list. Since he hasn't signed that scrip in this scene, Ayse scores three spoils.



DIRECTION

Direction is the silent partner to narration: it is just as important, but it is best when it's all but unnoticeable. Direction is the process of deciding who does the narration. Direction determines when one player stops talking, who narrates next, when another player can interject or interrupt, and in general keeps the story moving. The GM tends to do more direction than the other players, but not all.

Smooth direction takes practice, and the practice takes patience on the part of all the players around the table. Once mastered, however, direction can be a powerful tool for making your stories interactive and engaging. Some groups will find themselves handing off direction voluntarily all the time; other groups will be throwing dice at each other and challenging each other to back up what they just said. Play around a little to find your group's style. Direction is handled by a few simple rules and guidelines:

WHEN TO SHUT UP

The first element of direction involves when a player stops narrating. Mostly this is self-regulated, following a few guidelines outlined below. Players simply need to remember what they are narrating for: to entertain the other players. If you are no longer entertaining the others, it's time to stop narrating.

Keep it Moving. Most good stories in *Full Light*, *Full Steam* see the narration bounce back and forth be-



HMS Exemplar Ends Scene with Scrip

Ayse and Jeremy have only one pursuing ship left. Jeremy has a spoils scrip that everyone has signed, and he thinks the scene is ready to be over. He eyes Lt. Hargrove's thematic battery of *Hotshot Pi*lot and narrates, "The last fighter strains to keep up, bobbing and weaving through the hurtling rocks after us. The Frenchie at the helm is no match for Hargrove, however, and it's only a matter of time before he doesn't see one of the smaller rocks, and

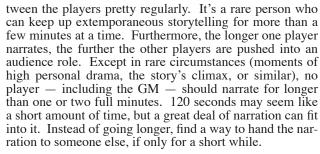
runs it right into his port drive. The drive pod explodes and the fighter goes careening off course, leaving us in the clear." Since Ayse has already signed this scene, Jeremy scores one spoil, and he is free to set the next scene.

If Jeremy did not have a scrip that could end the scene, he might have looked over at the absent captain's character sheet and seen the thematic battery *Cavalier with Others' Safety*. Throwing the scrip

at the captain's player Marie, he could narrate, "That last fighter is bearing down on us something fierce, dodging Murdoch's fire and keeping up with every twist and turn that Hargrove throws at it. Murdoch curses, shouting, 'Where the hell is the Captain? were supposed to rendezvous on the other side of the asteroid field!" Jeremy would score three points since Marie has not signed, and then Marie could set a scene involving the captain.



One particularly useful technique when setting the scene is to start things off in the middle of the action. Instead of outlining the layout of the marketplace and listing off what is bought and sold there, you can start off the scene describing the characters stepping through the entrance of a merchant's tent, ready to start haggling. Instead of going through the mundane details of traveling across the Martian desert into American territory, you could jump right in and describe the characters' ship flying in across the Valles Mareanis.



Allow Interjections. Interjections are quick and short bits of narration from another player, no more than a sentence or so, and intended to clarify or add helpful details to the current narration. It may be a quick statement like "Alice is racing down the hall towards Ensign Montrose," or a question such as "Is Ensign Montrose moving, or standing still?" It can be a request to narrate next — Alice's player would probably like to narrate catching up to the Ensign, for instance — but is ideally couched in narrating details rather than asking the player outright and disrupting the flow of the story. Players should allow for short interjections, and can even weave them into their ongoing narration. After the brief interjection, the original player continues narrating until they turn over direction to another player.

Yield to Interruptions. Any player may, at any time, interrupt to call for a check. From time to time, the Game Master will also interrupt the narrating player. In either of these circumstances, the narrating player should wrap up in the next sentence or so with good grace, knowing that it will not be long before they are narrating again. Interruptions by Check and Interruptions by the Game **Master** are detailed on page **132**.

Share the Wealth. One of the most important functions of direction is ensuring that all the players get their chance to narrate. Direction can and should be used to give narration to a player who hasn't gotten to participate. This sort of direction can be facilitated by narration that focuses attention on the quiet player's character, giving the player a natural prompt to begin narration from.

For example, while Charlie is narrating his character's rollicking bar brawl, he notices that Lieutenant Majors has been left out of the action. He decides that he wants to turn over narration to Majors' player Jamal, so he narrates how his character's opponent goes flying and lands at the Lieutenant's feet. Jamal now has a great opportunity to jump into the action.

If it ain't Broke... Of course, there are always exceptions. Sometimes a story climaxes and is best narrated by one player all at once. Sometimes one player gets on a roll to the entertainment of everyone else. Direction is

a tool that you can use, not a requirement that you must perform. As long as everyone is still having fun, there's no reason to make the player in the spotlight stop.

HANDING OFF THE CONCH

Once it's time for one player to stop their narration, the obvious question is who next begins talking. There are three possibilities:

Player to Player. When any player (including the GM) ends his narration, he may direct narration to another player of his choice, usually complemented by focusing attention on that player's character at the end of his narration. He may put a question to the character, have his character hand over a tool, or something similar. The directing player may prompt the next player verbally, point, or nod, but this direction should be clear and explicit.

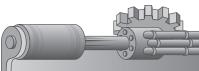
Player to Game Master. If a player ends narration without specifically giving narration to another player, direction defaults to the Game Master. The GM might narrate at length, narrate a short follow-up to the player's narration, or simply direct another player to narrate next.

Game Master to Any Player. The GM may elect to "toss up" narration to whichever player wants to narrate, ending her narration with an open question to all of the players, such as "What do you do?" Whoever speaks up first picks up narration. If the GM is consistently met with blank stares when she attempts this, she may want to direct narration to specific players more often.

DELEGATING NARRATION

One special kind of direction only available to the Game Master is delegating narration to other players. The GM can delegate any narration that she might normally do herself and have another player to do it instead. Obviously this only works for narration which does not involve information unknown to the players, but a great deal of the story can be told by the players themselves, even if it concerns matters outside of their character.

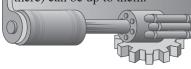
Delegate the Basics. Players can be asked to narrate unfolding events in the story, from the progress of a long trip around the Belt to a descending swarm of blood wasps. The GM may even delegate narrating the results of one player's failed check to another player. This is a potent



TIPS FOR USING EN MEDEA RES

Give the other players opportunities to add details to the current narration to explain what their characters did in the "skipped" time. One player might narrate how their character steps into that tent eating a vole kabob they picked up in the market outside.

Once your playgroup is comfortable with the technique, you can even drop the characters into running firefights or dangling over the Artemis rapids, holding on to vines for dear life. How they get out (and even how they got there) can be up to them.





HMS Exemplar Delegates Cameos

The player characters have split up so Alice's officer character parlays with the French captain while Edward's en-

gineer character secretly sabotages his engines. The GM hands the character sheet for the French captain to Edward. Now Edward and Alice can narrate the officers' interaction back and forth, leaving the GM free to handle other details.



tool for keeping the story going and including everyone in the narration of the story.

Delegate Cameos. When the players do not all have a character in the current scene, the GM can delegate one of the NPCs in the scene to an uninvolved player. The player takes up that character, interacting with the other players as normal. He narrates and directs as normal, and can call for checks. The last is facilitated by having separate character sheets or cog cards with the NPCs' stats, but this is not a requirement. Players can portray everything from grunting sandbeasts to Queen Victoria herself. If the character crops up in later scenes, the same player can portray the NPC again.

Delegate the Details. The GM can even delegate to players narration which will require them to make up details as they go. The GM might ask a player to describe the interior of the Venerian High Shaman's inner sanctum the first time the characters visit there. The details that the player comes up with become the way things are — if the player narrates that the shaman collects croquet balls from the British settlement, the GM can later explain why he finds them fascinating, or the other players might end up trading croquet balls for his assistance.

INTERRUPTIONS BY CHECK

At any time, any player may interrupt the current narrating player (including the GM) with a request that dice be rolled in a check. The player himself may roll dice, or he may call on the GM or another player to roll dice. The player may do this for any number of reasons. He may want his character to respond to events in narration and get in on the action. He may want to challenge the success of an NPC or even another PC. He may simply be calling for a check in order to charge his own thematic batteries. Whatever the intent behind the interruption, the check and the ensuing narration will add to the ongoing story.

When an interruption is made, the narrating player wraps up, finishing his train of thought or perhaps leaving the story at a dramatic hang (like a commercial break).

If the interrupting player's character is going to do something, he explains what he wants to accomplish, what attribute and skill he will use to accomplish this, and what may happen if he fails. Contrariwise, if the interrupting player is challenging another character, he explains what actions the character must back up with dice and the consequences of failure; whoever is playing that character decides what attribute and skill to use. Dice are rolled as described in the **Checks** chapter on page **135**.

If the player rolling dice wins the check, that player takes up the narration, describing his character's successful actions and their results.

If the player rolling dice loses the check, the Game Master will either narrate the character's failure or direct another player (potentially even the interrupting player himself) to narrate the details of defeat. If an NPC wins a check to convince, persuade, or otherwise force the hand of a player character, it is usually a good strategy for the GM to direct that player to narrate, thereby allowing them to decide what it is that gets to their character.

If the Game Master is being interrupted, she may postpone the interruption for a minute or two if she needs to narrate some important details that the characters would be aware of before taking any action. The GM may wish to give the interrupting player a marker or some other reminder that as soon as she is done narrating, direction falls to them.

INTERRUPTION BY THE GAME MASTER

The GM may interrupt the current narrating player at any time, with or without a call for a check. Usually she interrupts to relate unfolding events to the players or to introduce or complicate conflicts, but she may also do so to prevent one player from monopolizing the spotlight or to involve an overlooked player. The GM is the only player who can interrupt at will. Because she can do this at her leisure, she should take care to do it only when she needs to, and without disrupting the flow of the narration.

CHAPTER 7.

CHECKS

A character's attributes and skills reflect how talented they are in general, but during play these stats are used to determine the character's measure of success or failure in specific instances. This process is called a *check*, and there are two versions, *static checks* and *dynamic checks*. In a static check, the player tries to beat a number set by the Game Master; in a dynamic check, the player tries to beat another player's check.

If a player wins the check, their preferred outcome — their *stakes* — come to pass. If they lose, the opposing stakes happen, instead.

Some checks entail *risk* — the possibility that failure will cost the character in terms of physical wounds, social embarrassment, or will-crushing disappointment.

Checks can be called for at any time by any player; see **Interruptions** on page **132**.

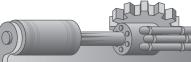
INITIATING AN INTERRUPTION

When a check is called for, the interrupting player declares whether he will roll dice or challenge another player to do so. The Game Master then decides whether the situation calls for a static or dynamic check. Static checks are used for tasks with an unchanging difficulty such as docking a ship; dynamic checks are used when the contest is between two active participants, such as a lively debate.

SETTING STAKES

The interrupter then briefly describes what they'd like to happen. These are his stakes, and they are what will happen if he wins the check (or the challenged player loses). The opposing stakes are what will happen if the interrupter loses the check or the challenged player wins the check. These are declared by the person challenged to roll dice, the interrupted player, or the Game Master, in that order.

Both stakes must change the immediate situation in an interesting way. Stakes should never be stated passively, but should always be stated as an active result. Instead of simply saying "you don't find anything," it's much more interesting to put out the stakes, "the Commandant returns to his quarters before you find anything!" If you're having trouble thinking of something interesting, the complications listed on the set and prop cogs may prove inspirational.



STEPS FOR CHECKS

- 1) Interruption; current narrator wraps up or "hangs."
- Determine if the check is static or dynamic.
- 3) Negotiate stakes (is there risk?).
- 4) Select the attribute and skill to be used, as well as thematic battery (optional). The Game Master determines difficulty factor if required.
- 5) Roll dice
- 6) Apply promotions and demotions.
- 7) Compare against difficulty factor or opposing roll.
- 8) Direct and narrate.



PLAYING THE GAME; CHECKS



Fig 7.1 Roll the dice.



Fig 7.2 Arrange in ascending order.



Fig 7.3 Select the dice corresponding to your ranks.

Either side can make risk a part of their stakes. If there is risk involved in the winning stakes, the losing player's character must discharge one of their condition batteries one or more levels. To add risk, a player must declare it explicitly — "There is risk" or "There is risk to your Health."

If the stakes seem fair to both sides, it's time to roll dice. If, however, either side is unhappy with the other side's stakes, they can modify their stakes up or down to prompt the other side to do the same. Once the stakes are agreed upon by both parties, proceed to rolling dice.

ROLLING DICE

The players rolling dice suggest an attribute and skill from their character's sheet which they feel are most appropriate. If the character is climbing a wall, Brawn and Athletics are good choices; if the character is attempting to fix a drivetrain, Intellect and Mechanics would probably be best. The Game Master either accepts the suggested stats or suggests different stats if she feels they are more appropriate.

The player rolls four six-sided dice and arranges them in ascending order (so if the player rolled 4, 2, 3, and 6, he'd arrange them going 2, 3, 4, and 6). The player then takes the values of the dice corresponding to the ranks of the attribute and skill being used, and adds them together (so if the player's attribute was at rank 2 and the skill was rank 3, he counts the second die, the 3, and the third die, the 4, for a total of 7). The higher the result, the better the character's performance.



HMS Exemplar Sets Stakes

Brand interrupts Mo's narration of her negotiations with the Martian elders to call for a check.

Brand: "You've got to display some pretty savvy diplomacy, otherwise you'll accidentally call doubt on their ancestral honor, and then the Martians will attack."

Mo: "But if I make the check, they'll

tell me where to find this 'Seventh Key' we're looking for."

If both sides agree to the stakes, they proceed to rolling dice. However, if Brand thinks Mo would be getting too much for one roll, he can turn down his stakes.

Brand: "Okay that's a little too much, maybe they won't attack, but they'll

disappear into the sand without giving you any answers. There'd still be a risk to your Grace."

Mo: "Then my stakes will be that they'll only tell me what the Seventh Key really is, instead of where I can find it."

Brand: "Ah, I like that much better."

Mo: "Alright, then."



The character's dice may be modified by *promotions* and *demotions*, which make their attributes or skills count as one or more ranks higher or lower than they might normally be. In the above example, if the character's skill was promoted one rank, it would count as rank 4 instead. Instead of the third die, he'd count the fourth die, for a result of 3 + 6, or 9. If his attribute was demoted, it would count as a measly one. **Promotions and Demotions** are explained in detail on page **143**.

The difference between static and dynamic checks lies in what one does with the result; static checks compare the result to a difficulty factor, while dynamic checks compare the result to another roll made by the GM or another player.



Fig 7.4 A die promotion lets you count a higher die

STATIC CHECKS AND DIFFICULTY FACTORS

Static checks are used when the character is attempting a task the difficulty of which is unchanging. Climbing the cliffs of the Valles Marineris, jury-rigging a boat out of Venerian plantlife, or making a good impression at the Ceres Governor-General's ball are all good examples.

The GM determines how difficult the attempted task is with the suggested stats and assigns a difficulty factor. Most difficulty factors range from 1 to 10; a DF of 1 is an utterly simple task that anyone with good sense can accomplish; a DF of 4 is appropriate for a task which requires some understanding and training, but is still routine. A DF of 6 represents a challenge, and a DF of 8 a significant undertaking. A DF of 10 or higher should only be used for truly incredible feats which, successful or not, will be talked about afterwards.

The player rolls four dice and organizes them in ascending order. The player then takes the values of the dice corresponding to the ranks of the attribute and skill and adds them together. If the sum is equal or higher than the assigned DF, the player narrates the characters' success; if the sum is lower, the GM narrates the character's failure (or delegates a player to do so).

If the check entailed risk, the character will discharge condition batteries on a failure; see **Risk and Discharging Condition Batteries** page **141**.

If the player's result is significantly higher than the difficulty factor, he earns a *situation modifier* that can be applied to a second check that builds on the foundation of the first. See **Situation Effects** on page **144**.



DIFFICULTY FACTOR SCALE

- *DF 4 Routine. Bringing a ship in to dock with a station (Coordination and Shiphandling). Placing a recognizable quote from Plutarch (Acumen and Classics). Retrieving basic information from the apiary (Intellect and Beekeeping).
- vines (Coordination and Athletics). Deceiving the Commodore about your ship's progress against the pirates (Savoir-Faire and Duplicity). Repairing a very damaged etherdrive (Intellect and Ether).
- DF 8 Significant. Hiking back to civilisation from your crash site in the Martian Badlands (Brawn and Survival). Serving the rescued Prime Minister a dinner befitting his station while outside the orbit of Mars (Savoir-Faire and Entertaining) Predicting a departing French ship's destination based on the starting trajectory (Acumen and Astrogation)
- DF 10 Nearly Impossible. Leading a group of untrained civilians past watchful sentries (Leadership and Stealth). Inciting pirates to fight alongside British ships against a common threat (Leadership and Oratory). Rebuilding a Curie Plant to power a disabled British ship (Intellect and Theory).



HMS Exemplar Makes Static Check

Lieutenant Georgina Thompson is attempting a tricky maneuver, leaping from the small asteroid she is on and grabbing onto the passing Japanese cutter. She calls for a check herself, declaring as her stakes that she will make the jump and grab ahold of the ship. GM declares opposing stakes that she crashes into the cutter, hurting herself, so there is risk to her Health. Both sides accept the stakes. Her player suggests Coordination and Weightless, and since it is a signifi-

cant challenge, the GM sets the difficulty factor at 8. Georgina has Coordination at 3 and Weightless at 2; she rolls a 3, a 2, a 6. and a 5. She then arranges the dice in ascending order: 2, 3, 5, 6. The third die (for her Coordination) is a 5, and the second die (for her Weightless) is a 3. Together they add up to 8, equal to the DF of 6, a success.

Georgina's player narrates: "I bound along the surface of the asteroid, barely touching the ground except to give myself more speed. As the

cutter streaks along above me, I run up to an outcropping of rock and launch off of it. There's a moment of freefall as I drift in space, and it's only at that point that I realize that if I miss, I'm going to be floating around for eternity. Those thoughts are eclipsed by the Japanese cutter, though, as its hull is suddenly right in front of me. I reach forward and grab a rung bolted onto the side. My momentum sends me crashing into the ship, but I hold on for dear life."



DF 12 - Impossible! Leaping from a ship in orbit above Mars and landing on Deimos (Coordination and Weightless). Speaking with native elders who do not understand English, just Old Martian (Savoir-Faire and Language). Retrofitting alien technology to work on a British battleship (Intellect and Jury-Rigging). This level of challenge is generally accomplished by tapping thematic batteries.

STAT SUGGESTIONS AND

DIFFICULTY FACTORS

Many situations can be addressed in different ways with different stats. A character might get across the Artemis Rapids by brute strength (Brawn and Athletics) or by carefully picking her way boulder to boulder (Intellect and Survival). A charging Japanese officer could be shot (Coordination and Marksmanship), grappled (Brawn and Pugilism), or sidestepped (Coordination and Athletics).

The difficulty factor need not be the same for every approach, however. If there are few boulders in the river, it may be more difficult to hop across (a DF of 8) than it is to jump in and swim across (a DF of 6). A player might still elect to take the 'harder' option, either because the less-advised course of action is more in line with their character, or if they have significantly higher ranks in those stats. One approach may be more appropriate for charging or discharging their character's batteries. Perhaps most importantly, the approach that the characters take to challenges is often more entertaining than the victories they win.

DYNAMIC CHECKS AND OPPOSING ROLLS

Dynamic checks are used when characters try to succeed at something while some other agency — player character, NPC, or giant seed-spitting attack plants — tries to make them fail. A firefight against American claimjumpers is a prime example, as is a battle of wits with a demimondaine in a genteel Salon or plotting out the optimal interstellar route to beat the French to the pirate lair.



Fig 7.6 Two players use dynamic resolution and compare dice.

Only characters who have been assigned stats during character creation and in Engineering the Situation may participate in dynamic checks.

When a dynamic check is called for, two or more players roll dice and compare the results. Often the GM will roll dice for an NPC opposing a PC, but the other players might roll dice when they are playing cameos or when the PCs are in direct conflict with each other.



Both players must declare what attribute and skill they will be using. In most cases, all involved parties will be using the same attribute and skill, but other instances may have different parties performing different tasks whose successes are mutually exclusive. Racing lorries across the Martian Badlands, for instance, will call for all parties to roll their Acumen and Motoring; an officer trying to shoot down a Venerian razorwing, on the other hand, would pit the officer's Coordination and Marksmanship against the razorwing's Coordination and Athletics.

There is no difficulty factor to determine in dynamic checks, but the GM may assign a Situation modifier to represent unequal footing between the two participants.

All involved parties roll four dice, arrange them in ascending order, and add together the dice corresponding to the ranks of their stats. Whoever's total is highest is the victor. Ties represent the opponents coming to loggerheads, fighting or bantering to a standstill or crossing the finish line at the same time; if necessary, a second check (and continued effort by the characters) may break the tie. See **Trying Again** on page **143**.

If the check involved risk, the loser discharges one or more levels of the appropriate condition battery.



HMS Exemplar Makes Dynamic Check

Quartermaster Lieu-McDonald tenant wants to know if Captain Westerbrook is trying to deceive her regarding the goods seized from recentlydefeated pirates, so she calls for a check. Her stakes are that she finds evidence of what's happening; the GM makes opposing stakes that the Captain will suspect her and change her assignment to get her out of the way. McDonald's player suggests rolling her Savoir-Faire and Empathy, while the GM declares that Captain Westerbrook will be rolling his Leadership and Duplicity. West-

erbrook's Leadership is 3 while his Duplicity is simply 1; Mc-Donald possesses a 2 in Savoir-Faire and a 2 in Empathy. Westerbrook rolls 1, 3, 4, and 5, and so adds the 4 (for his Leadership) and the 1 (for his Duplicity) together for a total of 5. McDonald rolls 2, 3, 3, and 6, and counts the second die twice (since her Savoir-Faire and Empathy are both two) for a total of 6. The GM informs Mc-Donald's player that the Captain is lying.

McDonald's player narrates: "It's the little things that give people away. I'm

careful, of course, not to voice my suspicions, and ask quite innocently if Captain needed additional men to ferry the spoils taken. He's a little flustered at the question, and I can see him mentally doing the math to give a believable answer. His eyes trail over to the duty roster as he speaks; he's going to have to falsify that record afterwards in the same way he explained the situation to me, and memory has never been his strong point. No doubt he's squirreled away a few prized pieces for himself, off the spoils manifest record."



RISK AND DISCHARGING CONDITION BATTERIES

In addition to the immediate consequences of failure, a lost check may also leave a character with lasting detrimental effects. Risk is this possibility of a character being hurt. Some contests are safe, without the possibility for harm coming to those involved, such as fixing a damaged snap cannon, making a good impression with a stranger, or sneaking through the Venerian backcountry without being seen by airborne observers. In other words, checks to determine character success in these cases entail no risk.

Firefights, vicious character attacks, and interrogations through torture, however, all carry a risk of the character being hurt. Any time a character initiates a check with the intent to harm another character, he adds risk to his stakes. If a character attempts to peacefully incapacitate another character, the targeted character may add risk to their stakes by refusing to go quietly. It's worth noting that the targeted battery need not be obvious; it's perfectly possible to use a fist fight to embarass someone, discharging their Grace or Will instead of Health.

Additionally, a static check may entail risk — this is useful for characters weathering greulling slave labor or overcoming the effects of hallucinogenic drugs.

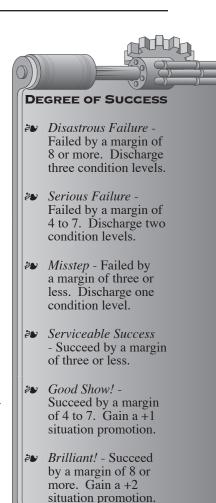
If a character loses a check involving risk, one of the character's condition batteries is discharged one or more levels. The discharged battery corresponds to the kind of conflict which harms the character.

Health governs physical conflicts such as hand-tohand combat or firefights; discharging this battery indicates physical wounding. The Health battery might also be discharged in other instances where the character may be hurt or weakened, such as from drowning or falling.

Grace governs social poise and the ability to remain cool and collected, the better to interact with others. Discharging this battery reflects embarrassment and loss of credibility; sincerely depleting this battery might mean the character has become a laughingstock of society.

Will governs mental and psychological stability. It is discharged most commonly in battles of wills, but can also lose charge due to the effects of hallucinogenic poisons or psychological trauma. Depleted Will batteries leave the character distracted, inattentive, and docile.

Hull does not represent any aspect the individual character, but is used in ship-to-ship conflicts. It represents the integrity of the ship's hull and is discharged in naval combat, sabotage, and bungled docking maneuvers. A ship with a Hull battery low on charge is in sincere need





of repair, or the ship's air containment may begin leaking, shutting the ship down.

The battery in question is discharged a number of levels depending on how thorough the loss was.

If a character loses a check by a margin of three or less, he has been *bested* or suffered a *misstep*; the appropriate battery is discharged one level.

If a character loses a check by a margin of four to seven, he has been *trounced* or suffered a *serious failure*; the appropriate battery is discharged two levels.

If a character loses a check by a margin of eight or more, he has been *routed* or suffered a *disastrous failure*; the appropriate battery is discharged three levels.

If a Dynamic Check ties, *all* participants in the conflict discharge one level of the appropriate battery.

The discharge of condition batteries is *in addition* to other effects of the check; if a player rolls dice to resolve a fistfight with Venerian thugs and bests them, the thugs



HMS Exemplar Takes Risks

Commander John Alexander is facing down a Japanese infantryman, they have both begun trading fire. The stakes have been set, and risk is involved in both sides. John's player elects to use his Coordination (of 2) and Marksmanship (of 2) and rolls 2, 2,4. and 5. He counts the second die, a two, twice, for a result of four. The Japanese will respond with his Coordination (of and Marksmanship (of 3). The GM rolls 1, 4, 5, and 6 and counts the second and third dice. for a result of nine. His total of 9 is five higher than the player's, so not only does the infantryman win, but he has trounced the Commander. The Commander is forced to retreat. He also discharges his Health battery two levels; he's in a world of hurt.

The GM narrates: "It's you, a welltrained member of the British aristocracy, a proper gentlemen armed with all the education of civilisation and the tools of empire, against one dark-haired Japanese crouched out in front of the guard post with a rifle that looks in very poor repair. It's no contest, until the bullets start flying. The guard gets off the first shot, winging your shoulder, which throws off your own aim. The both of you reload under cover. but before you can get off your second shot, he comes out of nowhere on your left and puts a bullet into your thigh." She then gives direction to John's player to continue.

John's player narrates: "It's about that time that John feels blood trickling down his arm, and he realizes that that 'winging' shot was a little more serious than he first imagined. the chinaman is already pulling out a service pistol, it's plain that John's been outmatched; he fires off his last shot that sends the infantryman diving for cover, and then takes the opportunity to stagger into retreat."



discharge their Condition Batteries one level *and* have lost the fight — they may be knocked silly, incapacitated, tied up, or thrown over the rail of the airship, depending on the stakes of the check. The fight is *over*.

SPRUNG BATTERIES

A character may discharge the four displayed levels of a condition battery. If their battery is discharged further, the battery is considered *sprung*. A sprung Battery signals destruction; it cannot be healed or repaired without incredible effort. If a character's Health battery is sprung, the character is at death's door in an unresponsive coma. A sprung Grace battery indicates that the character has become a social pariah, and cannot perform any social actions (including any Leadership-related tasks) in civilized society. Lastly, once the Will battery is sprung, the character's psyche has broken, making them a spineless husk without initiative or creative thought. A character with a Sprung battery cannot act or participate in any check until the battery is repaired.

For the specific effects of discharged condition batteries, see **Effects of Condition Batteries** on page **143**.

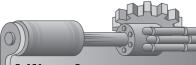
TRYING AGAIN

Often times a failure is followed up by the character wanting to try the same task again, in the hopes of succeeding the second time. In static checks, this is modeled by the GM raising the difficulty factor by one or two points.

Failures in Dynamic Checks may not allow the character to try again. Racing an NPC to the command console, for instance, may be a win or lose affair, with no possibility of retrial: the winner pushes the button and the loser doesn't. For instances where a second attempt is feasible, such as a standoff between two ships, the GM should arbitrate a second dynamic check, the previous loser being penalized according to their discharged condition batteries. Usually, the second dynamic check represents a second conflict; players should feel free to interject dialogue or other actions between checks while the opponents circle and size each other up for a second engagement.

PROMOTIONS AND DEMOTIONS

Normally, characters will roll dice and use their stat rankings as displayed on their character sheet. However, the character's ranks may be promoted or demoted for the purposes of the present roll. When a stat is promoted, it counts as if it was one or more ranks higher than normal; when a stat is demoted, it counts as if it was one or more ranks lower than normal.



A WORD ABOUT GRACE

Of the three condition batteries, Grace is both the most savage and the most forgiving. A crippled Grace battery can make dealing with the rest of the world all but impossible, but there is one significant caveat: if nobody knows about it, it never happened. No matter how discharged the Grace battery gets, even if it is Sprung, if the witnesses to those embarrassing failures don't spread word of the ignominy, there is no damage done and the GM may allow the player to recharge the battery at the end of the scene.

While this might lead disreputable figures to resort to blackmail threats or even murder in order to cover their tracks, the witnesses are not always relegated to victims. A witness to terrible social failure can secure favors from characters in order to buy their own silence. Such a witness can turn up later to inspire new wrinkles in the game's unfolding story.



Stat promotions and demotions are always declared before dice are rolled. Stats may not be promoted beyond 4. Stats demoted to 0 are simply not counted, as if the character did not have the stat. Stats may not be demoted lower than 0.

There are four reasons to promote or demote dice: Situation Effects, Cooperative Rolls, Condition Batteries, and Thematic Batteries.

SITUATION EFFECTS

Hiding from a search party in the featureless expanses of Mercurial desert where there is little to no cover is a trifle more difficult than hiding in the depths of the Venerian jungles. Similarly, it is far easier to convince one's countrymen of the need to take up arms against the incoming Russian dreadnought than it is to convince the mercenaries and pirates in the depths of Zonnendam to do the same. Situation can be used to model these things in checks.

The GM may decide how many ranks a character's dice are promoted or demoted in the given situation. Promotions generally range from +1 (a slight advantage) to +4 (so significant an advantage that nearly anyone could win the contest); demotions generally range from -1 (a minimal disadvantage) to -4 (an all but impossible situation). Situations can only promote or demote skill ranks, not attributes.

Players may also gain situation promotions from set cogs introduced in the game. Typically, these cogs only provide a +1 or +2 rank promotion, and only in specific situations. For more detail on cogs' **Situation Effects**, see page **114**.

Alternately, the player may score Situation promotions on one roll and apply them to a second roll that builds upon the successes of the first. If a character raced mining carts through tunnels to catch fleeing spies and scored a



HMS Exemplar Demotes Dice

Yeoman Josephina Grandmaison is attempting to reprogram the ship's analytical engine, and plans to use her Intellect rank of 3 and her Beekeeping rank of 1. Unfortunately, her attributes have been demoted one rank. Therefore, when she rolls 2, 2, 3, and 4, she does not count the third and first dice as she normally would. Her Intellect has been demoted to 2, and thus counts the second die and the first die instead. Her result is a 4.

The GM hands narration to Josephina's player, who narrates: "Under normal circumstances, this would be a simple affair, but with my ears still ringing from the ship's decompression, I'm not at my best. My fingers fumble, the petals spill all over the place, and I can't find the honey I need."



Good Show! or *Brilliant!* result, the promotions can be applied to a subsequent check governing a firefight subduing the cornered spies.

COOPERATIVE AND SUPPORTING ROLLS

When two or more characters work together on a project, some coordination must exist in order to mesh their efforts together effectively. In *Full Light, Full Steam*, this is represented by one character taking the lead role and all others taking orders in a process known as a cooperative roll. cooperative rolls are used in tandem with static or dynamic checks.

When working cooperatively, everyone but the leader rolls an appropriate attribute and skill against a difficulty factor of 6. The leader then rolls their Leadership and an appropriate skill, gaining a promoted die for every subordinate who succeeded and a demoted die for every subordinate who failed. The result may then be compared against a difficulty factor or opposing roll.

If the check involves risk, the leader and all supporters on the losing side discharge the appropriate condition battery the same amount. If bested, all discharge one level; if trounced, two; if routed, all discharge three levels.

Cooperative rolls are generally only worthwhile when Player Characters and important Non-Player Characters are involved. Cooperative rolls can only be made by NPCs who were created as cogs for the current situation.



HMS Exemplar Sees Situation Effects

Ensign Alouiscious McMurphy has found himself stranded in the Aphrodite backcountry on Venus, with Russians jamming transmissions and tracking him down. He attempts to boost the signal on his etherwave radio using his Intellect (of 3) and Jury-Rigging (also of 3). Without anything resembling proper tools, however, the GM assigns a -2 demotion to his Jury-Rigging, making it count as a 1. Alouiscious' player rolls a 3, 3, 4, and

6, counting the third die, a 4, and the first die, a 3, for a result of 7. The Russian technician jamming etherwave signals uses his Intellect (of 2) and Ether (also of 2); the GM rolls 2, 3, 4, and 6, for a result of 6. Ensign McMurphy's signal breaks through the jamming.

Alouiscious' player narrates: "There is a plant in the Ishtar backcountry, the flowers of which have a long, rigid stamen with a broad, flat head. Properly harvested, they make serviceable screwdrivers. Thus I am able to open the back panel of my wireless and get into its guts. Using my belt buckle for a proper conductor, I connect the contacts across the thing, putting twice the charge into the transmission coils. The buckle overheats rapidly, but not so quickly that I am unable to contact the HMS Cydonia in orbit, and inform them of the Russian plot to kidnap the Governor-General's daughter."



Even crew NPCs are of no help to the PCs unless they're directly involved in the current situation.

EFFECTS OF CONDITION BATTERIES

Every character has three condition batteries, which display the present status of their physical Health, their social Grace, and their psychological Will. Play begins with all three Condition Batteries fully charged. As long as the character's Condition Batteries remain fully charged, the character can act normally, rolling their dice at their full values.

Whenever the character enters into a conflict with risk, however, he risks this fully-charged state. If he loses, one or more of the character's batteries may become discharged partially or completely. Whenever a battery is discharged, character actions that fall within that battery's aegis (physical actions for Health, social actions for Grace, and mental and psychological actions for Will) are rolled with the Attribute rank demoted. A character's conditions never affect their skills.



HMS Exemplar Employs Cooperation

Eager to even the score with the Japa-Commander John Alexander returns the next week that Japanese guard post with two other characters. His nemesis the Japanese infantryman has also brought a friend, his commanding officer. Stakes are set with risk on both sides. John's two subordinates both roll their Coordination Marksmanship against a DF of 6; both succeed, giving John two promoted dice. John's Leadership is 2 and Marksmanship is still 2; he elects to use those two promotions to raise both stats to 3. He rolls a 2, 3, 4, and

5, counts the third die. a 4, twice, for a result of 8. The Japanese infantryman rolls and succeeds, giving his commanding officer one die promo-The Japanese tion. officer's Leadership is 3 and his Marksmanship 1; the GM decides to raise his Leadership to 4. The GM rolls a 1, 4, 5, and 6, counts the first and fourth dice for a result of 7. The British take the day, with the Japanese officer and infantryman on the losing side after they both discharge their Health by one level.

John's player narrates: "I send Edward and Alice to the left and right, with myself

in the same position as my first attack. When I know they have reached their marks, I stand up to present myself as a target, and fire off a round to gain their attention. two Japanese, thinking I need to reload, hurry forward out of the guard post for a better shot; I dive out of the way while Edward and Alice move in, wounding both of the yellow men. I rise up, rifle reloaded, and put a bead on the original guard's head. Knowing themselves outgunned and outclassed, they throw down their weapons and submit themselves to capture."



With one level discharged, all checks which fall under a condition battery's purview are rolled with the attribute demoted one rank.

With two levels discharged, all such checks are rolled with the attribute demoted two ranks.

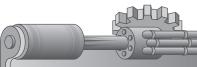
If three levels have been discharged, checks have their Attribute demoted three ranks *and* any dynamic check that risks that condition battery and results in anything less than the character trouncing her opponent (winning by 4 or more) results in the battery being completely discharged.

Once the battery is completely discharged (all four levels), all checks are performed with the attribute demoted four ranks *and* any risky dynamic check, regardless of its success, results in a sprung battery.

USING THEMATIC BATTERIES

Every character has three thematic batteries which help define their personality, social standing, tragic flaws, and redeeming qualities. These batteries can be used to gain bonuses during critical parts of the game, but such bonuses can only be used after the character has suffered the thematic battery's handicap. These bonuses and handicaps come in the form of dice promotions and demotions.

Thematic batteries may be applied to attributes or skills or split between both. One thematic battery may be charged repeatedly before being discharged, but its level can never go above four. Promotions and demotions from



OPTIONAL RULE: PROMOTIONS BEYOND RANK 4

If your gaming group decides to use this rule, attributes and skills may be promoted beyond rank 4. Above rank 4, the player still counts the fourth die for that stat, but each level above 4 allows the player to reroll the lowest die. If a stat was promoted to rank 5, the player gets one reroll. If a stat is promoted to rank 6, the player gets two rerolls. If the first reroll is high, the second reroll may be used on a different die. Rank 7 provides three rerolls, and rank 8 four rerolls.



HMS Exemplar Feels: Condition Batteries

Captain Reginald Ascot, recently disgraced by a viscous attack on his character by the Martian salon-mistress Genevieve Masters, must convince Fleet Command that a Japanese armada is amassing preparation for an attack on Zonnendam. He reasons that his Savoir-Faire (of 3) and Oratory (of 2) are appropriate, even if his Grace battery has been discharged two levels. The GM decides the DF will be 4, since

Command is eager to put the Japanese in their place. Reginald bites the bullet and rolls 2, 2, 6, and 6, counting the first (for his damaged Savoir-Faire) and second, for a total of 4.

Reginald's player narrates: "The communications officer patches the ship into Fleet Command and shortly I have the ambient sounds of the Admirals' offices echoing in the bridge. I try to quiet the stammer in my voice,

and put my best foot forward. I explain to them the past few days' events and explain that I have evidence of the armada's existence, but cannot transmit the daguerreotypes over the radio. They must trust me, as they have trusted me to captain this ship, that the evidence is good, and that they must act immediately if we are to intervene in our ally's defense. I thank them for their time, and advise them on our own course towards Mercury."



thematic batteries are cumulative with situation and condition effects.

CHARGING THEMATIC BATTERIES

A player may *charge* one of his character's thematic batteries by voluntarily demoting his attribute or skill rank for one check. This may be a check that the GM calls for, or a check that the player requests, *even if* the player requests the check for the *sole purpose* of charging his character's battery. The battery is charged one level for every rank that the player demotes his stats. The player always decides how many ranks he is demoting his stats and the consequent charge added to his battery.

The demotion of ranks must reflect the theme of the battery it is charging: a character with the thematic battery of *Gentleman* might refuse to stoop to underhanded tricks in a Tactics roll, or a character with *Rake* might demote her dice due to her hangover from shore leave the night previous. Handicaps beyond the purview of the thematic battery are not allowed. Players cannot charge the *Gen*-



HMS Exemplar Charges Thematic Batteries

Lieutenant Angela Parker has taken the thematic battery Female Officer. Towards the beginning of the game, she is leading a detachment of marines to board a French ship suspected of assisting pirates. She calls for a check to determine how well her men respond to her command. The GM decides the DF will be 6. She suggests her Leadership of 3 and Tactics of 4, and declares she is charging her Female Officer battery two levels by demoting her Tactics to 2. She rolls 1, 2, 4, and 6, counting the third (a 4) and second (a 2) dice, for a result of 6.

Angela's player narrates: "You'd think they got used to taking orders from a woman, but there is always the inevitable grumbling. Two detachments are organized, what did I do wrong that I got put into the woman's unit? They are, soldiers. however. and their grumbling doesn't prevent them from following their mostly orders because they know how much trouble they'll get into if they disregard them."

If Angela's player had decided to charge three levels of her battery and therefore failed (a result of a 5), the GM might have handed narration to another player

whose character takes a dim view of "suffragettes." He'd narrate: "None of us men signed on to be led around hostile ships schoolchildren behind some woman. The grumbling starts immediately, and as we clear out the first deck, we pass criticisms of her tactics back and forth under our breath. It's when we get to the mess hall on the second deck that she goes too far, and a few of the men refuse to be her poppet and take needless fire for her illconceived tactics. In the end, the other unit — the unit headed up by a man — takes the mess hall, while we're relegated to clearing out the lightly occupied forecastle."



tleman battery by claiming a hangover from excesses the night before!

It is important to note that charging a thematic battery does not necessarily entail failing the roll; it is quite possible to demote dice and still succeed. This is especially feasible if the player elects to slowly charge the thematic battery one level at a time — the character just won't be quite as successful as he might have been.

DISCHARGING THEMATIC BATTERIES

The player may later *discharge* his thematic batteries to promote the attribute or skill ranks of any check. The battery is discharged one level for every rank that the player promotes his stats. Again, the player always decides how many levels to discharge from his battery.

The promotion of ranks must reflect the theme of the battery it is discharging: the *Gentleman* character above might claim a promotion when making an appearance at a formal ball, while the *Rake* might claim a promotion when charming a young man who has information he needs.

Fully-charged thematic batteries may also be completely discharged to charge condition batteries one level; this is described in **Recharging Condition Batteries**, on page **150**.

The X Times

HMS Exemplar Discharges Thematic Batteries

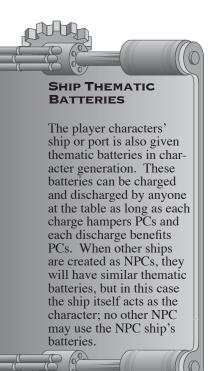
Having charged her Female Officer battery earlier in the Lieutenant game, Angela Parker is now facing down the arrogant French captain, who's just explained that HMS Britannia is rigged with shock bombs that will destroy Ceres when it comes to port there. Angela's player calls for a check to open fire on the Captain and his men to prevent the disaster. She will discharge her Female Officer battery to do it, citing the French captain's slurs against her gender as extra encouragement. She suggests her Coordination (of 2) and

Marksmanship (of 3), and will promote both her Coordination and Marksmanship bv one each. She rolls 2, 4, 6, and 6, counting the third and fourth dice (for her promoted stats) for a total of 12. Since the check is dynamic, the GM rolls dice for the French Captain and cooperative rolls for his men. comes up with an 11.

Angela's player narrates: "Every time the French captain looks at me, his lip curls upwards, and his eyes trail downwards. It's quite plain that he thinks that there's only one use for a woman, and

after he's explained his plan, I am determined to show him there are other things we are good for. First I snap my rifle up to bear and fire at the steam ducting above a trio of his men; boiling steam engulfs their screams. I throw my spent rifle directly at the captain, draw my pistol and fire at his Commander, who goes down clutching his gun hand. Then I leap forward, divest the good Captain of his own sidearm, and hold it up to his telling him, neck, 'Now you'll have to explain to your superiors that you got beaten by a woman."





NPC THEMATIC BATTERIES

The thematic batteries of NPCs work exactly opposite the way PC thematic batteries do. Instead of charging when the player takes a disadvantage and discharging when the player claims an advantage, NPC thematic batteries charge when the GM (or controlling player) takes an advantage, and discharge when the *other players* force them to take a disadvantage. The name and nature of a thematic battery is declared when the character receives an advantage; later in the game, any player can discharge the thematic battery and give the NPC an appropriate disadvantage.

For instance, Commandant Pietr has the thematic battery *Large*. When the PCs are 'introduced' to Pietr in a fistfight, the GM claims advantage. He announces the thematic battery he is using, charges it two levels, and promotes his dice two ranks. Later in the game when the PCs have to get through Pietr to escape, one of the players remembers his huge size. He declares Pietr is at a disadvantage, the GM discharges the thematic battery two levels and demotes Pietr's dice two ranks. In the ensuing narration, the player describes his character relying on quick motion evading Pietr's lumbering swings, and ends with the inevitable tagline, "The bigger they are, the harder they fall."

RECHARGING CONDITION BATTERIES

Risk may discharge characters' condition batteries, leaving them weakened, shamed, or hurt. In order to restore their faculties, players will want their characters to rally, heal, and vindicate themselves. This is accomplished by recharging the discharged condition battery.

The primary factor in recharging condition batteries is time. Wounded characters must have bedrest, disgraced characters must stay out of the public eye while their faux pas are forgotten, and weakened wills must recuperate and mend, as well. The more the condition battery has been discharged, the more time is needed.

Recharging a battery from 3 to 4 takes one full day; going from 2 to 3 takes a full week. Charging a battery from 1 to 2 calls for two weeks, and a full month is required for a completely discharged battery to regain the first level of recharge.

These times can be reduced with outside help. Doctors and nurses may help charge the Health battery with medical attention. Friendly socialites can help repair a character's reputation — and Grace battery — by spreading the good word or playing the apologist. Lastly, alien-



ists or chaplains may counsel the character and help charge the Will battery.

Players may roll to determine the extent of this help if their characters are providing it. Doctors roll Intellect and Medicine; Socialites roll Savoir-Faire and Acquaintances; Alienists and Chaplains roll Acumen and Empathy. The check is static, rolled against a difficulty factor based on the situation (setting a bone is far easier in a sick bay than in the trenches). A success halves the length of time necessary, and a success by four or more quarters that time; an incredible success by eight or more recharges one level in the space of time it takes to apply the treatment. Outside help supplied by NPCs may be rolled by the GM, or simply assumed to halve the time.

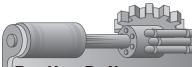
Lastly, and in parallel to the methods and times outlined above, a fully-charged thematic battery can be completely discharged to immediately charge one condition battery one level. The thematic battery may be the patient or the doctor's. This is the only way to recharge a Sprung battery (afterwards the battery is considered to be completely discharged, and subject to the wait times above), and should be accompanied with a dramatic turnabout or incredibly creative action. A character with a topped-off thematic battery for *Stubborn* can discharge the entire thing to recover from an intense physical beating; a character with four charged levels of the thematic battery *Connections in High Places* might "pull some strings" to redeem the reputation of a friend.

COMBAT RULES

Full Light, Full Steam is designed to allow for combat to be determined in one check. As such, there are no real 'Combat Rules' let alone an entire chapter devoted to them.

For example, a fistfight between Sir Roger Edwige and a Russian guard would be resolved in a single dynamic check, pitting Edwige's Coordination and Pugilism against the far beefier Russian's Brawn and Pugilism. Both Edwige's player and the GM roll four dice, add up the appropriate numbers, and compare results. If Edwige's total is higher, he subdued the guard; if it is not, the reverse is true.

The key is the narration that follows the actual roll. Under no circumstances should Edwige's player simply say "And so I overpower the guard." Instead, this is the player's chance to shine, narrating an entertaining fight to the GM and other players. All the cunning, daring, and surprising turnabouts of a 'more complex' system of combat rules can still make their appearance as Edwige's player describes:



BUT HOW DO YOU KILL THINGS?

Characters in Full Light, Full Steam cannot die without their player's consent. There is always a way to repair a sprung Health battery; it just requires some creativity. Even a character thrown out of an airlock might be revived... waking on the examination table of a wild-eyed doctor, deep within his secret lair inside a rogue asteroid.

Similarly, defeated antagonists can always turn up again, no matter how final their demise seemed to be!



"I shimmy across a pipe directly above the guard, then leap down upon the great brute when he least expects it. At first surprise is on my side, and with his helmet shoved down over his eyes, he's not sure what to do as I pummel his sides with my fists. Once he has his bearings, however, he takes two ponderous swings at me which, had they connected, would have certainly dislocated my jaw. I am too wily for that, however, and while his considerable bulk is put behind the force of his blows, I twist around and behind him, one hard shove unbalancing him so that he crashes into a bulkhead and collapses to the floor, seeing stars."

Note that the guard does not have to be *killed* in order to be subdued. The guard is beaten, and the obstacle he represented is overcome — the characters can freely proceed with breaking into whatever Russian base the guard was protecting. Not only is it not necessary to kill the hapless guard, it's just not British.

NAVAL BATTLES AND FLEETS

Cooperative rolls are the best way to model naval combat between ships manned by various characters. Each ship has a commanding officer, who rolls Leadership and Tactics (or another appropriate skill) while his subordinates each make checks appropriate to their assignments. Artillery Officers roll Acumen and Gunnery for "fire control", the pilot rolls Coordination and Piloting for "maneuvering", and Engineers roll Intellect and Mechanics for "damage control." Any player may use the ship's thematic batteries if it makes an appropriate match to what they are doing. Each success gives the commanding officer an additional die promotion. The results of each ship's commanders are compared, and the losing ship discharges levels of its Hull battery.

It might be tempting to ask the GM to apply cooperative rolls in order to model the engagement of two or more *fleets* of ships, rolling for every level of rank hierarchy from NPC sailors up to NPC Commodores. This will result in your poor GM rolling handfuls of dice for half an hour only to come up with the answer 'all British ships discharge one level of Hull Battery'. It is simply not worth the headache and the accounting. Instead, nearly all checks performed by the GM should be on the same level as the PCs' actions.

If the PCs are manning a ship, the GM should only roll for the ships which the PCs are fighting. Usually the battle will hinge on the PCs' success in some way: they must take out a strong point in the Russian perimeter, or neutralize the battery of snap cannon on the French station. If they pull it off, the rest of their fleet seizes on the tacti-

cal advantage to win the day. If they fail when the fleet is depending on them, their side flails uselessly against their unhindered opponents. The GM need not roll to represent the strategies being used by the Fleet tacticians; these are background elements. What is important is what the PCs do.

On the other hand, if the PCs are the tacticians plotting out the fleet's strategies, the success or failure of individual ships is not important. At this level, the conflict can be resolved with a dynamic check between the PCs and the opposing tactician(s). Both sides might roll Intellect and Tactics with situational modifiers to represent the difference in forces. Groups of tacticians (PCs or NPCs) working together might use a cooperative roll before comparing results. The winner of the check leads their fleet to victory.

It is possible that the PCs may be split up, with one or two creating fleet strategies while the rest of the group mans one or more ships in that fleet. The easiest way to resolve the conflict while keeping everyone involved is to use cooperative rolls with one group supporting the other. If the strategist supports the skirmishers, the strategist rolls Intellect and Tactics against a DF of 6 and gives *all* the skirmishers dice promotions (and demotions). If the skirmishers support the strategist, every ship which beats a DF of 6 confers a die promotion on the Leadership and Tactics roll.



CHAPTER 8:

BETWEEN SESSIONS

Give yourself some time between the end of a session's roleplay and when you really plan to quit. There are a few details that need to be taken care of after the story is officially done or 'on pause,' and you should take a little time to talk about the session.

SPENDING SPOILS

At the end of the session, each player tallies the number of spoils points he has accrued and divides it by the exchange rate that the play group agreed on in the first session. The result is the number of character points that the player may spend on each of the characters he portrayed in the game. This includes characters that they portrayed as Cameos. These character points are spent exactly as in character generation. In order to raise an attribute or skill, the player must spend the difference between the old rank's cost and the new rank's cost.

CHANGING THEMATIC BATTERIES

At the same time, players can review their characters' thematic batteries and may change one battery to something else. This does not cost any character points. Similarly, the playgroup may decide to change one of the ship's thematic batteries as well. This is especially appropriate if the thematic battery to be changed was somehow resolved or removed during the session — a character with the battery *Thug* may have got religion, or the ship with Experimental Faraday Drive may have blown out the engine in question.

However, if a thematic battery simply hasn't been used, or turns out to not work as well as may have been hoped for, there's no reason not to quietly retire it in favor of something that will hopefully work better.

FEEDBACK

At the end of every session, before everyone is putting away dice and character sheets and empty snack bowls, the group should take a few minutes to talk about the session — what they liked, what they disliked, rules that got in the way, and rules that worked well. If anyone's comfort zone was threatened and they didn't say anything at the time, they should speak up now — even if they're over it or okay or relieved that it didn't go 'too far'.



BLUEBOOKING

This is an optional rule that your playgroup may choose to use. Players write short scenes and stories describing what happens to their characters in the time between one session and the next. These usually entail reflection on events in play, but may be entire stories themselves. Bluebooking may take the form of in-character journals (like the Solagraphy chapter in this book), short stories, scripts, or whatever the playgroup is comfortable with. Bluebooks may even include other players' characters if the players are game, or players can write them collaboratively.

As with character histories and portraits, bluebooking can charge the character's thematic batteries before play begins. Bluebooking may charge one battery two levels or two batteries one level each. The batteries charged must be addressed in the bluebooking entry.



PLAYING THE GAME; BETWEEN SESSIONS

Go around the table and have everyone say at least one thing, even if it is "I had fun." Most importantly, everyone needs to listen to what each person is saying, and ask follow-up or clarifying questions to make sure they understand where they're coming from. The Game Master may find some of this feedback useful as inspirations for the next situation she needs to engineer, and should write down anything that she'll want to remember for next time.

PACKING UP

It's usually a good idea to give the Game Master all the character sheets, so she can refer to them as she engineers the next situation (even if she leaves some of the elaboration to be delegated to early arrivals next session). If you want to keep a copy of your own character, it doesn't take long to make a copy.

APPENDICES

ACKNOWLEDGEMENTS

This book would not exist without a number of marvelous people.

LAURA BISHOPROBY

This game began as a campaign I was running for my wife. It developed over the course of many years, but its center has always been Laura, and the many things that she's taught me about the joy of playing games.

THE PLAYTESTERS

A game is only as good as the playtests that make sure that it performs as expected. I hate the process of playtesting ("anybody wanna try my half-baked game?") but I love the results. Additionally, you tend to meet some awesome people. My eternal thanks goes out to Mark Vallianatos, Judson Lester, and Alex Duarte of LA Games; to Jason Morningstar, Clinton R. Nixon, and Remi Treuer of the Durham 3; to Seth Roby, Sonja Roby, Benjamin Roby, and Laura BishopRoby of, well, my immediate family; and to Ben Woerner and his unnamed crew in Phoenix. I had a number of cold-readers as well, including Daniel Wood and Victor Gijsbers, who provided valuable advice.

THE FORGE (INDIE-RPGS.COM)

The main benefit of the Forge is that it gets you off your ass. This website hosted by Clinton R. Nixon and Ron Edwards is a clearinghouse of information, advice, and discussion. The best part is that you don't have to agree with it in order to benefit from it — just discussing games in such a setting of exacting discourse tends to give everybody involved new insights.

STORY GAMES (STORY-GAMES.COM)

Slightly less academic than the Forge, Story-Games still yields great insights, powerful motivation, and a valuable sense of camaraderie. Maintained by the inestimable Andy Kitkowski, who also happens to be the current Chairman of the Game Chef competition, this casual forum is one of my favorites.

DEEP IN THE GAME, CHRIS CHINN

Chris is also active on the Forge and Story-Games, but he also wrote an excellent blog at bankuei.blogspot. com where he discussed game design under his "Fun Now" Manifesto. One of these days he's going to get around to writing his own game and I suspect we'll all be blown away.

STEAMPUNK BIBLIOGRAPHY

Finding material on steampunk and Victoriana is harder than you might think! For a recognizable genre, its reference materials are well hidden. Here's some of the sources that I used and which you may find useful.

VICTORIAN WEB (VICTORIANWEB.ORG)

This website is perhaps *the* source for Victorian material online. It's not the prettiest thing in the world, but it has an astounding number of articles on all manner of material, ranging from fashion to politics to religion to economics. It hasn't seen many updates in the past few years, but I'm of the firm belief that this is because they've already got almost everything, anyway.

ENCYCLOPEDIA OF FANTASTIC VICTORIANA

This fantastic guide to period literature and culture tracks what is pretty much the genesis of the modern day genres of science fiction, horror, and fantasy. The author, Jess Nevins, has done his homework. Laid out in encyclopediac format, it has entries for everything from Nikola Tesla to Doctor Moreau to the New Woman. And at over one thousand pages long, it can crush anyone who suggests you might want to do something productive like develop the manuscript instead of read yet another entry.

WIKIPEDIA (EN.WIKIPEDIA.ORG)

It's disturbing how many times a day I hit up Wikipedia. In fact I just hit it up to do this Acknowledgements page. In any case, though, Wikipedia is a great *first source* for doing any kind of research, steampunk and victoriana included. The old english teacher in me makes me stress, though, that Wikipedia functions like an encyclopedia — a pointer, not a definitive source. Use it to find other sources with greater depth and detail. Start with the Victorian Era and Steampunk pages, follow the links and see where you find yourself.

GURPS STEAMPUNK AND GURPS STEAMTECH

Leave it to Steve Jackson Games to write the book on Steampunk in all its multifaceted glory. While these titles focus harder on the technology than the society (and which one produces more interesting conflicts in play, hm?), these books can be an invaluable resource on how things might have been if the world was just a little bit kookier than reality. Available through the sigames.com website.

TRADITION BOOK: SONS OF ETHER

First edition, not this pansy-ass World of Darkness reboot repackaging thing. The Sons of Ether practice retrotech in the modern day, applying ether and phlogiston and whatever else they can get their hands on to the problems of the Awakened soul. This book also has some stel-

lar sections on the aesthetic behind steampunk technology — how the form is as important as the function, and what is not beautiful is not worth building. Sadly, this book is long out of print.

USGS ASTROGEOLOGY

(HTTP://PLANETARYNAMES.WR.USGS.GOV)

All those beautifully evocative place names throughout the book aren't mine. They are the real names (sometimes slightly modified) of the geographic features of the planets and the asteroid belt. I would not have been able to find them all or produce the maps without the United States Geological Survey's Astrogeology department. They have maps and satellite images from all of NASA's space missions. Beware, though: you can spend hours looking at maps of Venus and Mars. Or at least I can.

PLYMOUTH'S VICTORIAN NAVY

(HTTP://WWW.CYBER-HERITAGE.CO.UK)

Cyber-Heritage is maintained by some enlightened madman named Steve Johnson who roves around the world photographing and scanning primary sources and then archiving them on his website. The page devoted to the Victorian Navy and Army is primarily comprised of material taken from Plymouth, a prominent shipyard and naval base. There is a wealth of photographic material here, many of which served as the visual references for this books' illustrations.

HISTORY OF THE WORLD'S NAVIES

(HTTP://WWW.BATTLESHIPS-CRUISERS.CO.UK/)

While this site is far from easily navigable, it still provides a wealth of visual reference and the odd smattering of descriptions and explanations of period navies.

FRIESIAN SCHOOL'S MILITARY RANK PAGE

(HTTP://WWW.FRIESIAN.COM/RANK.HTM)

While I cannot speak for the rest of this site, the pages dealing with military rank through history and period military tactics are very interesting and well-informed. They were also invaluable for helping a non-military type like me have even the vaguest understanding of military life.

LUDOGRAPHY

The following games were inspirational to the creation of *Full Light, Full Steam* or have been developed along parallel lines. If you like this game, you should take a look at these.

DOGS IN THE VINEYARD BY VINCENT BAKER

Roleplaying God's Watchdogs in a West that never quite was, playing this game can yield some profoundly awesome experiences. A large portion of this is due to the Town Creation rules, which is why I stole them, beat them soundly, and included them here as **Engineering the Situation**. Also, the dice system is amazing and you should check it out. *Dogs in the Vineyard* is available at lumpley. com.

PRIMETIME ADVENTURES BY MATT WILSON

The roleplaying game where you produce a television series, the game's collaboration procedures create a groupthink that is both awesome and terrifying to behold, let alone participate in. I'll be happy if *FLFS* emulates half of the creative power harnessed in *PTA*. You can get the game at www.dog-eared-designs.com.

THE SHADOW OF YESTERDAY

BY CLINTON R. NIXON

One of the most clearly-articulated game designs out there — I'm talking about second edition — there are still bits and pieces of *TSOY* that I wanted to steal but ran out of space. Keys and thematic batteries are close cousins; his treatment of items and gear was transmogrified into set situation effects. Oh, and the game's setting is this crazy fantasy thing with goblins and elves, if you actually care about what the game is, you know, "about." *The Shadow of Yesterday* is available at crngames.com.

NINE WORLDS BY MATT SNYDER

Steampunk taken in a *completely different* direction. The gods of the Greek pantheon are real, but they're aren't gods, they're people with the power to bend reality — just like you. So hop on an aethership and go galavanting off into the solar system to serve and challenge them. *Nine Worlds*' crazy-ass premise is backed by a slick card-based resolution and powerful motivation system called Muses. This is a stellar game that I cannot play enough of. *Nine Worlds* is available at chimera.info.

GURPS BY STEVE JACKSON

It doesn't matter how "indie" I get, I cut my gaming teeth on the Generic Universal Role Playing System, and it still shows. Point-based character generation? Sliding power scale? Overblown emphasis on how things work whether or not it matters once you sit down at the table? Oh yeah, give me an extra serving of that!

GREY RANKS BY JASON MORNINGSTAR

This one isn't out at the time of this writing, but it will be shortly. This game is like if you took *FLFS*, took away all of the technology and crazy cinematic genre abilities, and stuck the characters in the middle of the Seige of Warsaw. Oh, and make them sixteen. You know, now that I think about it, *Grey Ranks* is nothing like *FLFS*. But it does have some very cool situation creation rules, which let you create a game that actually feels like the Seige of Warsaw, and not what you maybe think the Seige of Warsaw might have been like. Oh, and it's grim — really, really grim. *Grey Ranks* will be available from bullypulpit-games.com.

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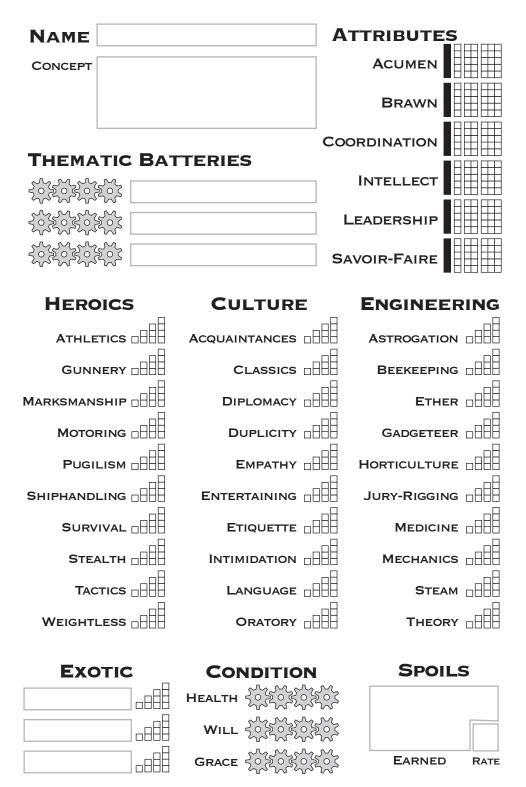
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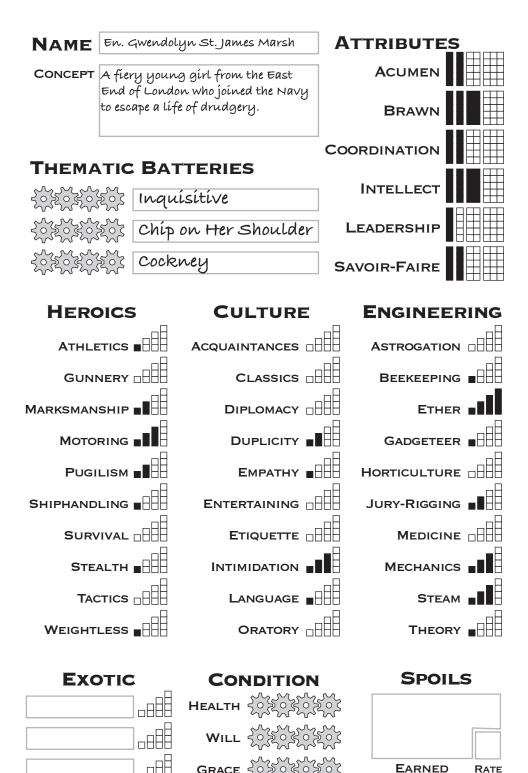
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STATION	HULL
CLASSIFICATION	STATION BATTERIES
CLASS	202080202 202080202
ASSIGNMENT	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~
SUPERIOR OFFICER	
HISTORY	PORTRAIT



STATION HMS Sussex		HULL
CLASSIFICATION	STATION BAT	TERIES
Sentínel	1	
CLASS	Imperial	202080203
First Class - Dreadnought	Proud Trao	lítí om
ASSIGNMENT	Productiva	545454545
Escort Technician		English Ships
SUPERIOR OFFICER	Home	A M AL M
Lt. Preston White		3030303
HISTORY	Porte	ΡΔΙΤ

Lieutenant Preston White NAME ATTRIBUTES ACUMEN CONCEPT charming, good-looking, and slightly arrogant, Lt. White is every woman's dream and fears of a navy COORDINATION THEMATIC BATTERIES INTELLEC Hot Shot Pilot LEADERSHI Martían Coloníst Rake SAVOIR-FAIRE HEROICS ENGINEERING MECHANICS LANGUAGE WEIGHTLESS ORATORY -THEORY -



STATION HMS Blackwater	HULL
CLASSIFICATION Leo	STATION BATTERIES Survivor
Escort	Li glaturai glat
Assignment Pílot	Lightweight
SUPERIOR OFFICER Lt Cmdr Jonathan Marshall	A Certain Rougish Charm
HISTORY	PORTRAIT

Captain Alistair Hancock NAME ACUMEN CONCEPT A man of ideals, Hancock believes in the nobility of the human spirit -and unfortunately expects to find COORDINATION THEMATIC BATTERIES INTELLECT LEADERSHIP Man of His Word High Standards SAVOIR-FAIRI HEROICS CULTURE ENGINEERING ACQUAINTANCES CLASSICS THE MARKSMANSHI PUGILISM I HORTICUL TURE MEDICINE MECHANICS -F STEAM ¬ WEIGHTLESS ORATORY THEORY --**EXOTIC** CONDITION SPOILS

HEALTH CONDITION WILL CONDITION GRACE CONDITION HEALTH CONDITION GRACE CONDITION



STATION HMS Sussex		HULL
CLASSIFICATION	STATION	BATTERIES
Sentínel CLASS	Imperia	l
Fírst Class - Dreadnoug Assignment	ht Proud T	radition
Captaín		27272727
SUPERIOR OFFICER	Home	mann
Comm. Augustus Perry		20208020
HISTORY	Рог	RTRAIT

SITUATION ENGINEERING SHEET

CAMPAIGN:	SITUATION:			
INSPIRATIONS (LABEL WHICH PLAYER EACH COMES FROM.)				
CONFLICT #1	CONFLICT #2	CONFLICT #3		
INSPIRATIONS & PLAYERS	INSPIRATIONS & PLAYERS	Inspirations & Players		
CHECK: ARE ALL PLAYERS REPRESENTED WITH AT LEAST ONE INSPIRATION?				
SIMPLE COGS	SIMPLE COGS	SIMPLE COGS		
(ANT)	(ANT)	(ANT)		
(VIC)_	(VIC)	(VIC)		
(SET)	(SET)_	(SET)		
COMPLICATED COGS (STE	RIKE SIMPLE COGS AS YOU LIST CO	OMPLICATED COGS HERE.)		
A COS				
A.				
ENGAGE ONE COMPLICATED COG TO EACH PLAYER AS A FOIL.				
SITUATION ABSTRACT (REMEMBER TO PROVIDE THE HOOK TO INVOLVE CHARACTERS!)				
HTTP://KALLISTIPRESS.C	COM/FLFS/DOWNLOADS/FL	FS-SITUATION-SHEET.PDF		

SITUATION ENGINEERING SHEET

CAMPAIGN: Thursday Game SITUATION: A Scuffle on Mars

INSPIRATIONS (LABEL WHICH PLAYER EACH COMES FROM.)

Flagship

√Military Culture √Tough Choices Brink of War

Inauisitive

√Chíp on her Shoulder **V**cockney

Hotshot Pilot

√Martían Coloníst Rake

CONFLICT #1

The freedoms of Martian colonists are threatened by the needs of Empire.

INSPIRATIONS & PLAYERS Jamal's Martían Colonist Sam's Tough Choices

CONFLICT #2

A superior officer disdains the contributions of women

INSPIRATIONS & PLAYERS Amanda's Chip Jamal's Military Culture

CONFLICT #3

Rumors of war disturb a Cockney community.

INSPIRATIONS & PLAYERS Amanda's Cockney Sam's Brink of War

CHECK: ARE ALL PLAYERS REPRESENTED WITH AT LEAST ONE INSPIRATION?

SIMPLE COGS

Imperial Representative Colonist Farmer QWIC) Martian Colony (SET) Construction Materials Profiting Colonist C

Misogynistic Officerant) capable Woman Q (VIC) Broken Facility (SET) Male ALternative Dependent

SIMPLE COGS

Rumormonaer Hot-Blooded Youth (VIC) Local Pub (SET) Worried Mother

COMPLICATED COGS (STRIKE SIMPLE COGS AS YOU LIST COMPLICATED COGS HERE.)

Colonist Farmer / Hot Blooded Youth

Profiting Colonist / Rumormonger

Capable Woman / Worried Mother Broken Facility / Invaded Territory

Canal Construction Materials

Imperial Representative / Male Alternative > Misogynistic Officer Martían Colony

> Dependent Local Pub

ENGAGE ONE COMPLICATED COG TO EACH PLAYER AS A FOIL.

SITUATION ABSTRACT (REMEMBER TO PROVIDE THE HOOK TO INVOLVE CHARACTERS!)

The planned canal extension that would bring water to Bowbell has been scrapped in favor of repairing the local charging station, recently the victim of a boiler explosion. Commander Aston has hired on Frederick White, noted industrialist, to do the repairs. White, in turn, requisitioned the canal materials. Elijah Brown, whose lands at the north end of the colony are the furthest from the canal's terminus, objected. Thadeus Cooper, lucky enough to live above the canal terminus, is quietly goading him on, spreading rumors of Russian saboteurs lurking around and making rendez-vous with Aston. Elijah claims that the charging station was sabotaged by the Russians, and that Aston is taking bribes, which is why the Commander has completely ignored the offers of repair work from Elijah's mother, Susan Brown, who worked years with the steam engines of London.

Disregarding the wild claims by the Cockney rabble, Commander Aston has requested some assistance from the Fleet in moving the construction materials — as HMS Sussex is presently in orbit over Mars, it dispatches HMS Blackwater to help.

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Sic Semper Tyrannus
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MARK VALLIANATOS

PHOTOGRAPHS BY
MARCELO MONTECINO
DAVID CLIFFORD
DON YAP
ABRA FRANKEL





THE FUTURE DIES AT IS

JON HODGSON JIM PINTO



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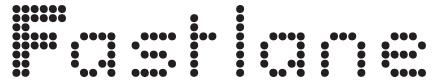


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