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Second Edition

Based on the Award-Winning Novels by David Brin

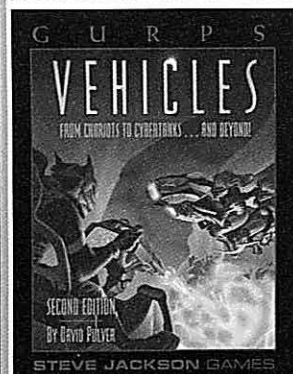
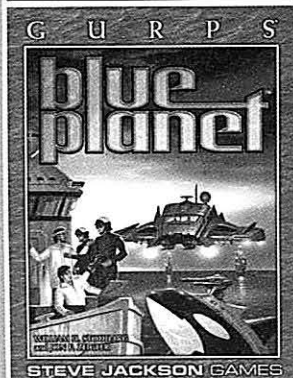
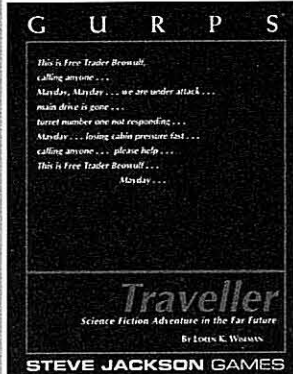


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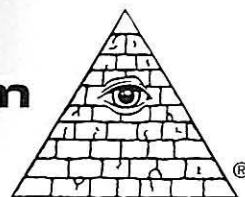
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About GURPS

Steve Jackson Games is committed to full support of the *GURPS* system. Our address is SJ Games, Box 18957, Austin, TX 78760. Please include a self-addressed, stamped envelope (SASE) any time you write us! Resources include:

Pyramid (www.sjgames.com/pyramid/). Our online magazine includes new *GURPS* rules and articles. It also covers *Dungeons and Dragons*, *Traveller*, *World of Darkness*, *Call of Cthulhu*, and many more top games – and other Steve Jackson Games releases like *In Nomine*, *Illuminati*, *Car Wars*, *Toon*, *Ogre Miniatures*, and more. *Pyramid* subscribers also have access to playtest files online!

New supplements and adventures. *GURPS* continues to grow, and we'll be happy to let you know what's new. For a current catalog, send us a legal-sized or 9"x12" SASE – please use two stamps! – or just visit www.warehouse23.com.

Errata. Everyone makes mistakes, including us – but we do our best to fix our errors. Up-to-date errata sheets for all *GURPS* releases, including this book, are available on our website – see below.

Gamer input. We value your comments, for new products as well as updated printings of existing titles!

Internet. Visit us on the World Wide Web at www.sjgames.com for errata, updates, Q&A, and much more. *GURPS* has its own Usenet group, too: rec.games.frp.gurps.

GURPSnet. This e-mail list hosts much of the online discussion of *GURPS*. To join, point your web browser to www.sjgames.com/mailman/listinfo/gurpsnet-l.

The *GURPS Uplift* web page is at www.sjgames.com/gurps/books/uplift/.

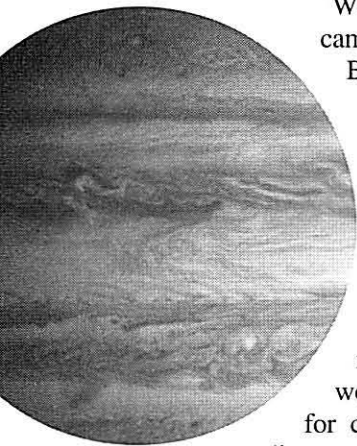
Page References

Rules and statistics in this book are specifically for the *GURPS Basic Set, Third Edition*. Any page reference that begins with a B refers to the *GURPS Basic Set* – e.g., p. B102 means p. 102 of the *GURPS Basic Set, Third Edition*. Page references that begin with CI indicate *GURPS Compendium I*; those that begin with S are for *GURPS Space, Third Edition*. The abbreviation for this book is U. For a full list of abbreviations, see p. CI181 or the updated web list at www.sjgames.com/gurps/abbrevs.html.

INTRODUCTION

Welcome to the future. It's a tough neighborhood!

Five hundred years from now, the Earthclan is under siege. The galaxy is populated by thousands of ancient races with superior technology, races who view Humanity – along with our neo-chimp and neo-dolphin companions – as lowly “wolflings” without place or pedigree. Only the wits, unpredictability, and daring spirit of the terrans and their few allies have kept the clan free.



With *GURPS Uplift* you can set a campaign in the universe of David Brin's award-winning “Uplift” novels. Players will take on Earth's boldest adventurers, wildest diplomats, and most cunning warriors, trying to carve a niche for Earthclan, resisting the schemes of the genocidal Tandu and the arrogant Soro. Beyond character, race, and world descriptions, this worldbook includes a set of rules for creating and “uplifting” realistic alien species.

For this long-awaited new edition, whole new sections have been added, including updates and player-generated corrections/suggestions, plus extensive material carefully drawn from David Brin's latest “Uplift” novels! It has also been designed to work well with *Contacting Aliens: An Illustrated Guide to David Brin's Uplift Universe* (see p. 174).

What You'll Need

The *GURPS Basic Set* and *GURPS Compendium I* are required to play this worldbook. Unless you are satisfied with planetbound adventures, you'll want a copy of *GURPS Space* as well.

We strongly suggest the GM read the initial “Uplift” novels to pick up some of the flavor of the future history. The “Uplift Storm Trilogy,” although primarily set on the colony world Jijo, is a must-read if you intend to set your campaign after the Great Sundering.

About the Author

Stefan Jones, a long-time gamer and SF fan, has worked as a software developer, SF convention organizer, teacher, technical support specialist, traveling sales trainer, and trade show roustabout. He has written material for a number of games, including *Villains and Vigilantes*, *Traveller*, *Space Opera*, *Tunnels & Trolls*, and *Car Wars*. Non-gaming writing credits include articles on model rocketry, reviews of music CDs, and environmentalist rants, for publications as diverse as *WIRED* and *Whole Earth Magazine*.

Stefan currently makes his living as a QA engineer for a Oregon firm which produces digital video hardware and software. Except for the time a confused derelict tried to set him on fire, he has led a relatively placid existence.

FOREWORD BY DAVID BRIN

I am most pleased to recommend *GURPS Uplift*, a role-playing expansion on themes first created in my novels *Sundiver*, *Startide Rising*, and *The Uplift War*. As one who's gone on an adventure or two in his day, I can't say how delighted I am with the job Stefan Jones has done here.

First, this is a well-organized, well-conceived game universe for use with Steve Jackson's *GURPS* roleplaying system. It's filled with opportunities for fun and excitement, and contains some brash new innovations unseen in other games.

Suggested Reading

We highly recommend reading the books on which this is all based, David Brin's “Uplift” and “Uplift Storm” series. The first trilogy consists of *Sundiver*, *Startide Rising*, and *The Uplift War*. The “Uplift Storm” series includes *Brightness Reef*, *Infinity's Shore*, and *Heaven's Reach*.

Compleatists may wish to look up the Uplift short stories “Life in the Extreme,” published in the August 1998 edition of *Popular Science*, and “Temptation,” published in the anthology *Far Horizons* (Robert Silverberg, editor). Both are also now available for download at www.davidbrin.com.

Contacting Aliens: An Illustrated Guide to David Brin's Uplift Universe, by Kevin Lenagh and David Brin, is a comprehensive guide to the aliens of the “Uplift” setting,

presented as a handbook for Terragens Agents. Published by Bantam Books. See p. 174.

See also:

Earth, also by David Brin – not set in the “Uplift” history, but a good exposition of the earth-conscious attitudes that a Terragens character would hold.

Sirius by Olaf Stapledon – a low-tech uplift story.

Norstrilia by Cordwainer Smith – another sort of “uplift universe.”

Star Maker by Olaf Stapledon – a future history with the same multi-galactic scope as the “Uplift” universe.

In the Shadow of Man by Jane Goodall – a look at a potential species for uplift in our future.

Web Resources

We've created a web page to keep you up-to-date on Uplift universe issues: www.sjgames.com/uplift/. Check there for the latest errata, variant material, and "outtakes." We'll also maintain a current list of notable fan sites, such as the amazing Alliance for Progress encyclopedia.

David Brin's own official website may be found at www.davidbrin.com.

Foremost among these is a method for designing or rolling up a whole new alien species, deriving not only their physical attributes but their basic personalities, as well. This part of the game book was created in part at the request of CONTACT, a conference on Human-extraterrestrial interaction, held yearly by scientists, anthropologists and science fiction writers. It attempts to bring a bit of realism into the making of ETs. We hope you enjoy it, and look forward to receiving your feedback!

But there is another aspect to *GURPS Uplift* I want to mention. As a longtime gamer myself, I began to find it tiresome just going out and smashing and bashing for fun and profit. Oh, sure, you can do a lot of that in this universe. But *GURPS Uplift* also takes players to a different kind of cosmos than they may be familiar with. It's not the usual "Hey, I'm a Human, so eat leaden death, BEM scum!" sort of place we've all seen all too often.

When we do get out there among the stars, we're likely to find things are pretty complicated. And many of the problems we face on Earth will drag along with us – and hold us back – if we don't grow up a little first.

In *GURPS Uplift*, players and characters soon learn:

That what you do may affect more than just yourselves. It may help or endanger the whole of Humanity!

That the universe doesn't owe us any special favors, just because we're Human. We ain't necessarily gonna be the big boys. In fact, someday we may find ourselves in the precarious position held by Native Americans a few hundred years ago, facing much tougher and endlessly numerous. Others we can barely understand. In a situation like that, you learn to adapt – to be light on your feet – or else!

That the ultimate job of any species is to avoid making really bad mistakes!

That planets are much more delicate places than a lot of games might have you think. Grave damage is all too easy to accomplish, all too hard to correct.

That you really know who your friends are when you're the little guy, and the universe is a lot harder to survive in than a schoolyard!

I guess you could say *GURPS Uplift* is where you graduate to when kindergarten is over . . . when it's time to roll up your sleeves and play in the big leagues.

Can you make it here? There's only one way to find out. Just watch your step!

Good luck.

– David Brin

Acknowledgements for Fictional Vignettes

Chapter 5

The excerpt on pp. 88-89 is from *The Uplift War*, © 1987 by David Brin, published by Bantam Books

Chapter 6

The excerpt on pp. 104-105 is from *The Uplift War*, © 1987 by David Brin, published by Bantam Books

Appendix A

The fictional excerpts on pp. 159-161 are © 2002 by David Brin.

Elsewhere

Fictional excerpts in all other chapters are by Stefan Jones.



CONTACT: Cultures of the Imagination

CONTACT is a long-running multidisciplinary conference attended by astronomers, biologists, anthropologists, science fiction fans and authors, teachers, and students. It is held annually, traditionally in California's Bay Area. In addition to informative presentations and panel discussions, each conference features a session of COTI (Cultures of the Imagination). This sophisticated world-building and creature-creation exercise climaxes in a roleplaying simulation of contact between two alien cultures.

The alien creation system in the first edition of *GURPS Uplift* has been used as a resource by many COTI teams.

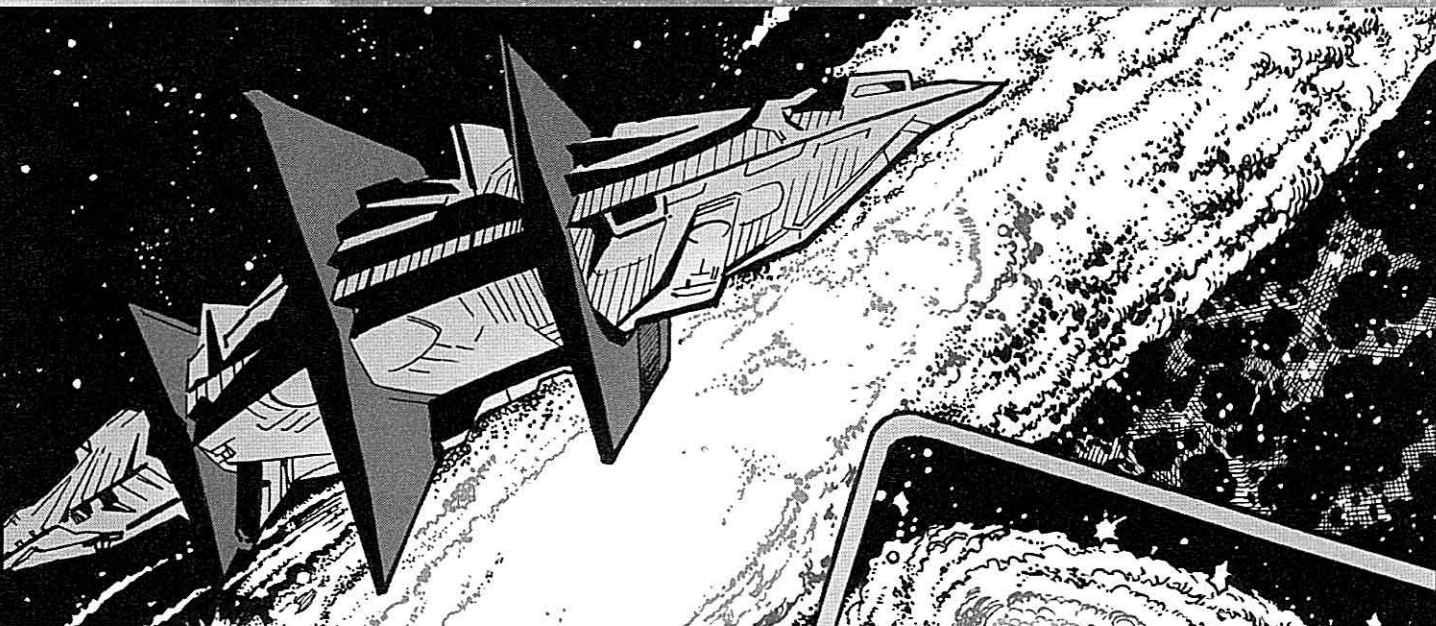
For more information:

Web page: www.cabrillo.cc.ca.us/contact/

Mail address: CONTACT, Department of Anthropology, Cabrillo College, 6500 Soquel Drive, Aptos, CA 05003

THE UPLIFT UNIVERSE

CHAPTER 1



The Five Linked Galaxies are home to thousands of intelligent species, including gas-giant dwelling hydrogen-breathers, sapient machines, and things far stranger. Many, though, are carbon-based, oxygen-breathing species hailing from earthlike worlds. Every known oxy-race belongs to a single, loosely-knit confederation: *The Civilization of the Five Galaxies*.



GALACTIC HISTORY

Galactic history goes back nearly two and a quarter billion years, when the first patrons – the *Progenitors* – uplifted the first clients. Along with the gift of sapience, these mysterious creatures left their charges strict laws and codes of conduct. The nature and origin of the Progenitors themselves is unknown.

According to Galactic legend, the time of the Progenitors was a Golden Age when all patrons were wise and all clients obedient. Records buried deep in the Library suggest that the Progenitors' age was not at all golden, and that they learned their wisdom only after eons of bitter strife.

THE CYCLE OF UPLIFT AND COLONIZATION

The variety of Galactic culture, art, religion, government, and philosophy is staggering. However, almost all oxygen-breather races agree on the role of civilization: To preserve and spread life (especially sapient life) through the universe. The *preservation* ethic manifests in Galactic society's strong environmentalist streak. Habitable planets are registered and leased to deserving races. Strict guidelines govern the stewardship of colony worlds' ecosystems. Practical patrons see these guidelines as plain good sense; fanatics consider them religious commandments.

Environmental scofflaws are subject to censure, fines, and even extinction. The Bururalli, former tenants of the Human colony Garth, were wiped out for abusing that world. Had the Galactics rediscovered Earth in the 20th and 21st century, Humanity might have met a similar fate. They would treat the extinctions and ecological damage wrought by the industrial age as unforgivable crimes. Fortunately, Humanity had repaired much of the damage by the time of First Contact.

When a lease on a world is up, it is declared *fallow* and off limits to colonization. This gives its ecosystems time to

recover from the stresses of settlement. To further enforce fallow status, large regions are periodically put off-limits. These become the haunt of the mysterious hydrogen-breathers, who have their own patterns of migration. When one region is reopened, another region is closed, and their respective tenants must move on.

Galactic civilization *spreads* life through terraforming, colonization, and *uplift*, the creation of new sapient species from animal stock. Uplift has become the *raison d'être* of Galactic civilization. Almost every race hopes someday to uplift its own clients, contributing to its own immortality in the same way that parents preserve part of themselves through their children.

Uplift is a lengthy process bound up in tradition and ritual. Patrons are held responsible for the survival, moral instruction, and well-being of their clients. In return, clients become indentured to their patrons for about 100,000 years. Indentured clients are subject to second-class citizenship (sometimes, virtual slavery), restricted reproductive rights, and further genetic modification.

The Five Galaxies

A tenuous network of long-distance transfer points allow FTL travel between the Five Linked Galaxies, which in real space terms are widely scattered through the Local Group.

Galaxy Two – The Milky Way – is the current hub of culture and political activity. It is sometimes referred to as “Central Galaxy” by its inhabitants. About a third of it is fallow. There are no current plans to entirely evacuate the Milky Way.

Galaxy One once outshone the Milky Way in population and activity, but much of it is fallow and will soon be totally evacuated. No new uplift and settlement licenses are issued, and populations of existing colonies are being reduced. Once evacuated, Galaxy One will remain the haunt of the hydrogen-breathers for about 5 million years. Rogue hydrogen-breathers have been caught claim jumping, and even harvesting minerals from worlds still occupied by oxygen-breathers.

Galaxy Three is an experiment in “phased occupancy,” with alternating spiral arms occupied by either hydrogen-breathers or Galactics. The large, heavily mineralized Horpie

arm is just being opened up to resettlement by oxygen-breathers after 3 million years of lying fallow. The Zang tenants are slowly and grudgingly moving out, while fleets of world-hungry oxygen-breathing “Sooners” wait at the fringes. Incidents of gene raiding and illegal colonization by overeager Galactic clans have been reported.

Galaxy Four was declared all-fallow and off-limits to Galactic settlement about a half-million years ago . . . the first total evacuation in 150 million years. Except for a few Institute bases, the only Galactic settlements are “retirement worlds” of elder races awaiting transcendence. Galaxy Four is home to enormous populations of Zang and other hydrogen-breather races.

Although never totally evacuated, most of Galaxy Five was effectively off-limits to Galactic settlement until about a million years ago, when a hydrogen-breather clan that controlled the transfer point network was persuaded to migrate to Galaxy One. A number of lesser-known and new clans have risen to positions of power here; the great powers of Galaxy Two are present, but only in small numbers.

Indenture and indoctrination are integral to the preservation of Galactic civilization. Brash young species are kept busy serving their masters until they learn to behave and have a vested interest in the status quo. Potential warmongers (and “peaceful” expansionists who might damage virgin ecospheres through rampant colonization) are detected early and steered back along the straight and narrow.

THE GALACTIC INSTITUTES

Hundreds of thousands of sapient species have come and gone since the Progenitors roamed the galaxies, but their laws are enforced and traditions preserved by powerful, ancient organizations: The *Galactic Institutes*.

The Institutes are not government bodies per se, but they are very influential; when they talk, the Galactics listen. Some Institutes function like non-governmental organization (NGOs): they are advocacy groups, political think tanks, ecumenical societies, and environmentalist organizations. Unlike these bodies, the Institutes can enforce their will. Institute fines are an effective deterrence to aggression, exploitation, and unorthodoxy. Institute censure can turn races and whole clans into pariahs. Institute condemnation may amount to an invitation to aggressive races to wipe the miscreants out.

The Institutes can also punish scofflaws by denying them services. The Library Institute could refuse to open a branch on the new colony world of a censured race. The colony might never get started if the Institute for Migration decided not to put the race in the queue for worlds leaving fallow status.

Some races are powerful enough to shrug off petty fines, or uncivilized enough to ignore censure. Institutes can declare a *war of enforcement*, calling up a “posse” to challenge such miscreants. If the offender is a patron race, it may be stripped of its clients and colonies. Client races may be indentured to foster patrons for remolding into a less troublesome species. Truly obnoxious felons may be hunted to extinction. (Some fanatic clans hope Humanity provides them with an excuse for this treatment.)

The Institutes run on trust and honesty. For the most part, they deserve their lofty reputations. Institute personnel are

The Civilization of the Five Galaxies is *old*, and it is a civilization; its members stand a good chance of being around for a very long time and – if they are patient and behave – can look forward to becoming rich and powerful clan heads with many clients and grand-clients. Worthies such as these do not look fondly upon innovation, revolution, and troublemakers.

supposed to dedicate their lives to impartial service, but because it is hard for these acolytes to ignore racial, clan, and alliance affiliations, Institute powers are occasionally misused. For example, Humanity’s petition to uplift some of Terra’s Potential species was thwarted by the Institute for Uplift, which declared those species off-limits on rather flimsy grounds. The august Library Institute, which has many Pilan personnel, has been accused of furthering the interests of the Soro clan. Clans, or even individuals, can accuse an Institute of impropriety and demand compensation. This can be done publicly (resulting in the formation of an ad-hoc court of respected patrons) or quietly. Plaintiffs of low or moderate rank prefer the quiet approach, since it allows the accused party to make restitution under the table and thus save face.

The Institute for Uplift

The Institute for Uplift regulates the activity most central to Galactic status: the creation of new sapient races from animal stock. The Institute dictates which types of species can be uplifted, and what kinds of modifications can be made to them. Tradition demands that uplifted species must be fully intelligent, independent, rational beings who can pilot starships and aspire to become patrons themselves. The Institute for Uplift also oversees Uplift Ceremonies (see p. 83).

The Institute for Civilized Warfare

This Institute regulates the conduct of battles, in space and (especially) on the ground. The Galactic code of warfare resembles those of medieval Europe’s chivalric age. The rules are complex, full of precedents, ritual, and millennia of tradition. They are designed to favor the underdog, halt escalation, limit civilian casualties, and deter ecological damage.

The Institute enforces these rules through fines and posses. They have kept Galactic civilization from being shattered by endless feuds and ruthless expansion. Only the most desperate or arrogant fanatics openly defy the rules and Institute rulings; saner races realize that they will pay for their indiscretions sooner or later, and that the rules protect them, too.

The unrest following the *Streaker’s* discovery has led to a general breakdown in battlefield ethics. Some races believe that the present conflict is a Final Battle after which the rules will be rewritten. Honorable races still follow the codes.

Recount!

Records considered old even by the Progenitors mention 17 galaxies, and the Progenitors themselves seemed to have access to as many as 13 galaxies. Although it is little mentioned today, access to two galaxies was lost during the Gronin Collapse. Today’s fanatic alliances suggest that a return to orthodoxy would allow the faithful to travel to these lost regions. More sober Library accounts suggest that the expansion of the universe and upheavals in hyperspace periodically rearrange the transfer point network, reducing the number of linked galaxies.

Recently, just such a disaster has struck the Five Galaxies. The few transfer points to Galaxy Four have totally unraveled.

Timeline: History of Galactic Civilization

Because of relativity, dates are approximate even at the high end of the scale.

-3.1 (?) *billion to 2.8 billion* – Evidence of age-long world-shattering conflicts and massive terraforming campaigns. References to 17 galaxies.

-2.8 *billion to 2.2 (?) billion* – Golden Age of Progenitor rule. Records extremely sketchy. References to as many as 13 galaxies.

-2.71 *billion* – Cosmological torque opens up transfer points to Galaxy Three. Shattered remains of advanced civilization discovered.

-2.7 *billion* – Machine Wars. Institute for Foresight created in the aftermath to regulate self-replicating AIs and nanotechnology.

-2.3 *billion* – Progenitors separate themselves from affairs of lesser races, leaving behind body of law and tradition.

-2.26 *billion* – Progenitors physically leave known space (according to Inheritor legend).

-2.25 *billion* – Wars with hydrogen-breathers. Compact with Zang.

-2.22 *billion* – Progenitors “Pass On,” according to Transcendor faith.

-2.2 *billion* – Power vacuum leads predecessors of today’s alliances to battle for control of galaxies.

-2.1 (?) *billion to -1.9 billion* – Formative stages of Galactic civilization.

-1.9 *billion* – Institute for Civilized Warfare formed.

-1.4 *billion* – Current versions of the Library Institute and Uplift Institutes chartered. Civilization is referred to as “Eight Galaxies League.”

-620 *million* – The “Lions” seize political and military control, colonizing and terraforming without restriction.

-618 *million* – The Tarseuh forge a coalition to overthrow the “Lions.”

-598 *million* – Ultra-conservative Institute for Recovery of Honor, dedicated to repairing damage wrought by the “Lions,” dominates Galaxy Two.

-590 *million* – Institute for Recovery of Honor wracked by ideological disputes, leading to the Obeyer/Abdicator holy war. Moderate consensus formed in its aftermath influences Galactic politics to this day.

-280 *million* – Memetic plagues strike computing systems across the galaxies. Library branches are isolated and purged of questionable data, while other data systems are reworked to prevent further outbreaks. Machine races, blamed for the disaster, suffer terrible persecution.

-150 *million* – Gronin Collapse. Disruption of transfer point network leads to economic and political chaos.

-89 *million* – Contact established with sapient members of the Quantum Order.

-33 *million* – Thennanin uplifted; join Abdicators.

-12 *million* – The last recorded “wolfling” race, the Paranaj, is discovered. Within a thousand years, it is extinct.

-2.1 *million* – Soro uplifted by Hul.

-50,000 – The Bururalli Holocaust wipes out most higher animals on Garth; Bururalli destroyed in retaliation.

-4,000 – Tymbrimi patrons, the Caltmour, wiped out.

-2,491 – 1 A.D. on Earth.

-431 – First manned Human space travel.

-390 to -300 – Earth dominated by The Bureaucracy.

-389 – Chimp uplift effort begins.

-310 – Dolphin uplift effort begins.

-290 – Jacob Demwa born.

-280 – First Galactic contact with Tymbrimi.

-279 – NuDawn Incident.

-265 – Humanity recognized as patron. Neo-chimps, neo-dolphins granted Stage One client status.

-251 – Neo-chimps recognized as Stage Two clients.

-249 – First Library branch installed on Earth. Disappearance of starship *Tabernacle*.

-240 – Sundiver incident (2246 A.D.). Humanity has three colony worlds.

-161 – Neo-dolphins achieve Stage Two status.

-98 – Garth colonized by Earthclan.

-70 to -5 – Human-Galactic relations stable.

-3 – *Streaker* encounters derelict fleet; psi-cast message sends Galaxy Two into turmoil. Earth and many colonies besieged.

-2.75 – Garth invaded by Gubru.

-2.5 – Intercepted Soro time-drop message reports *Streaker* fleeing Kthsemenee system.

-2.25 – Rumors place *Streaker* at a Retired Order habitat in Galaxy Four’s halo. Images of a bizarre and wondrous incident on Garth transmitted through hyperspace shunt.

-2 – Earthclan-Thennanin alliance formalized.

-1 – Canaan colonies occupied by Soro.

-.5 – Calafia conquered by the Brothers of the Night.

-.25 – Rumors of frantic activity in the remote havens of the Retired order. Fanatic clans renew siege of Earth.

0 – Transfer point network disrupted; many layers of hyperspace impassable or lethal. All contact lost with Galaxy Four. Strangely altered *Streaker* appears in Earth orbit.

The Library Institute

The great galactic Library is maintained by one of the oldest and most influential Institutes. Its entries describe the histories, science, and art of hundreds of thousands of species – living, extinct, and “Passed On” – of the Civilization of Five

Galaxies. Some Library records are *billions* of years old. Branch Libraries, ranging from breadbox-sized shipboard units to installations as large as a town, are distributed to every race. Institute law requires that every sapient creature, down to the lowliest first-generation client, be allowed access to the Library.

The Institute distributes and maintains branch libraries, gathers and abstracts data for storage. It is the galaxies' historian and cultural secretary. As the Earthclan has discovered, the Library is not entirely neutral. The branches provided to Humanity and its clients are undersize, and seem crudely programmed. Reports from explorers and spies have confirmed that Earthclan's Library branches, at least, provide information which can be incomplete, vague, and in some cases deliberately distorted. The Tymbrimi claim that their own Libraries are little better; if there is a conspiracy, it is a wide one indeed. The capture of an intact Library from the Soro or Tandu would be an important coup.

The Institute for Migration

The Migration Institute administers the galaxies' habitable worlds. It grants colony leases on newly discovered or reopened worlds, and evicts abusive tenants. It can fine, censure, or even declare wars of enforcement against claim jumpers, squatters, and environmental scofflaws.

The Institute also manages galactic-scale migration. It chooses which sectors, spirals arms, or entire galaxies are to be evacuated and turned over to the hydrogen-breathers. This segregation of life orders prevents wars and makes it very tough for "sooners" to found illegal colonies.

The Migration Institute despises wolfling species, which are infamous for being slovenly and careless world-stewards. As a result, many of the colony worlds granted to Humanity have been tattered hand-me-downs and ecological basket cases. Earthclan has turned this insult into an opportunity to display their talent for ecological restoration. Impressed Institute officials have suggested that Humanity may be worthy of leases on high-quality worlds in Galaxy Three's Horpie Arm.

Other Institutes

There are many other institutes, but they do not have the power, standing, or long histories of the Great Institutes. A few are described below.

Institute for Progress

This organization promotes research, exploration, and innovation. It has a paradoxical and strained relationship with the Library Institute, whose archive theoretically contains all knowledge of any importance already. Yet the Institute for Progress depends heavily on the Library for funding

and resources, and is honor-bound to report all its findings immediately.

The Institute has found a *cause celebre* in Humanity, which achieved space travel and many other technologies entirely on its own, without the benefit of the Library.

Institute for Co-Existence

This organization manages relations with other life orders. It works in concert with the Institute for Migration to arrange territory exchanges with the Zang and other hydrogen-breather species.

Relations with the galaxies' few Machine races are handled jointly by this institute and the Institute for Foresight. The Galactics' tenuous relations with the Quantum and Memetic life-orders are also managed by the Institute for Co-Existence.

Institute for Navigation

This Institute maintains charts of Jump Points and hyperspatial "terrain." All this information is shared immediately with the Library; the Institute justifies its separate existence by maintaining a small fleet of mapping and research vessels. It is the Galactic equivalent of the Survey, an oddity in a universe whose rulers believe that they have already discovered everything worth discovering.

NavigInst's corps of E-Level hyperspace pilots is considered the best in the galaxies.

Institute for Foresight

This Institute regulates the manufacture of "Von Neumann" machines (see *Machine Races*, p. 12) and the use of nanotechnology. It is a watchdog on those few machine races which are legitimate Galactic citizens. Once hugely powerful, this Institute has diminished in size and influence as its policies became ingrained in Galactic culture, but it is still respected.

The Institute for Foresight is also charged with limiting research that could reveal the secrets of cryptographic reproductive keys (see *Machine Races*, p. 12), or that could create AIs or Von Neumann machines that don't need keys. The Institute has not had to use its enforcement arm in 70 million years. Few races are interested in making Von Neumann machines, and consider independent research distasteful and unnecessary. However, the Institute keeps a close eye on Humanity and the Tymbrimi. These clans' artificial intelligence research is a cause for concern among conservative Galactics.

GALACTIC POLITICS

In the three centuries since Contact, Humanity has barely begun to master the baroque intricacies of Galactic politics. Every race and clan has quasi-religious beliefs; ties to patrons, clients, and alliances; environmental policies; trade treaties; and duties to the Institutes.

The left wing / right wing scheme familiar to primitive Terrans is insufficient to describe the attitudes and policies of

the Five Galaxies' clans and alliances. There are many "scales" by which a clan's politics could be described. Each has opinions and policies on ecological management, treatment of clients, the value of original research, and so on.

The Earthclan – new kids on the block with strange ideas – often rate clans and alliances by their attitude to change:

Radicals: Occasionally, coalitions of races – usually oppressed clients – try to overthrow the whole system of uplift and patronage. Sometimes the rebels' motive is revenge, or lust for power. Sometimes they seek to institute reforms. Library records describe dozens of uprisings against the status quo. Some of these succeeded, but the triumphant rebels inevitably became patrons, and instituted their own oppressive regimes.

Reformers: Reformers like the Kanten and Tymbrimi seek to update the laws of the Five Galaxies, purge the Institutes of biased personnel, and limit the powers of the more arrogant senior clans. Many reformers are sympathetic to Humanity's plight.

Moderates: The vast majority of clans follow the rules and don't make trouble. While they might not be happy with all of the aspects of the status quo, they believe that following the Progenitors' laws and accepting Institute administration generally results in greater prosperity and stability. Moderates are happy to live and let live, and are even willing to tolerate upstarts like the Earthclan as long as they don't rock the boat. Some moderates welcome the wolflings as a source of interesting cultural novelty.

Conservatives: Staunch supporters of the status quo. They tend to either be in positions of power, or social climbers vying for greater influence. The Pila are typical conservatives. They freely use the system to their own ends but usually follow the law and can even be influenced by public opinion. Many conservatives, such as the Thennanin, are quite earnest and honorable.

Fanatics: Fanatics seek a return to a mythical golden age when clients respected patrons, the Institutes existed to serve the righteous, and impudent wolflings like Humanity were crushed with a minimum of fuss. They freely and skillfully use Galactic law and tradition to further their own ends, but will break the rules if they think they can get away with it. Typical "moderate" fanatics include the Soro and the Gubru.

Some fanatics are effectively *insane*. They may be congenitally obsessed with religious dogma; some were mentally twisted during uplift. The *Streaker's* shocking discovery has convinced the worst fanatics that an apocalypse is at hand, and that the universe must be put right to prepare for the return of the Progenitors. Extreme fanatics include the Tandu, whose idea of putting the galaxy right requires the extinction of everyone but themselves and the maniacal Jophur.

The Alliances

Many races and clans belong to quasi-religious alliances. Their esoteric beliefs and dogmas date to the time of the Progenitors. Like many ideologues, they can be rather intolerant. Some segregate themselves from Galactic society, where their fanaticism is only a threat to heretics in their own ranks. Other alliances are activists, and consider it their duty to purge the galaxies of non-believers and reform society to their liking. Unfortunately, mankind – whose claim of self-uplift is a threat and an insult to orthodox beliefs – is at the top of many of these activist alliances' "hit list."

The larger alliances include:

Inheritors

This alliance's members consider themselves holy warriors . . . virtuous genocidal armies charged with cleansing the universe of infidels in preparation for the return of the Progenitors. Many Inheritors, including the militant Tandu, practice combat skills by volunteering for duty in Institute-declared wars of enforcement.



Transcendors

Transcendors are fascinated with the fate of elderly races who have retired from the mainstream of Galactic society. They have a mystical bent, and believe that sapient beings of even the Oxygen-Breathing Order can aspire to levels of existence that transcend normal physical laws. Some Transcendors practice the spiritual disciplines of the Retired Order, hoping to get a head start on the road to perfection. The ability to emulate the mindset of these elders allows the Transcendors to maintain tenuous lines of communication with the advanced beings who live in retirement worlds. Their understanding of the Transcended Order is very limited, however, and their notions of what lies beyond are rather pedestrian and often ridiculous.

Time

There is no "Galactic Standard Time." The Institutes, helped by high-tech devices provided by elder races, do their best to keep a common calendar. But the uncertainty theorem, relativistic effects, and probability leakage from high-tech devices make it difficult to know *exactly* "when" it is on a particular world.

It is *especially* difficult for the crew or computers on a ship to know how long it's been since they left port. Concepts like simultaneity, and even cause and effect, become fuzzy across interstellar distances. Voyagers often return home to find their loved ones dead and (unless their culture is static) their worlds changed beyond recognition. On other occasions, travelers return home unexpectedly early – too soon to account for the time they spent traveling and on other worlds!

It is not unusual for Galactic craft, especially from stable senior patron-lines, to take hyperspace trips that cost them hundreds of years of "outside" time. They don't expect any changes in either the home culture or the political situation during all this time; usually, they're right.

Galactic Time Units

Paktaar – 19.25 jataar, 3.21 Earth years, 2.75 Galactic years.

Galactic Year – 12 jataar, about 14 earth-months (1.16 years).

Jataar – 7 darstaar, about 35 Terran days.

Darstaar – 1,000,000 ketaar, 7,000 miktaar, about 5 Terran days.

Miktaar – 144 ketaar, 62.25 seconds.

Ketaar – .43 seconds.

Abdicators

The Abdicators believe that ethereal creatures, possibly the Progenitors themselves, roam through the galaxies and actively guide civilizations. These “Great Ghosts” manifest themselves by entering the bodies of pre-sapient species. Once uplifted, these avatars are destined to become powerful patrons who will fight corruption, defeat tyrants, and counter threats civilization. Abdicator beliefs are popular among Galactic underdog races.

Abdicator beliefs date back to the Tarseuh Incident. “The Lions,” an alliance of powerful races, had conquered many of the galaxies, damaged many worlds through rampant development, and nearly destroyed the Galactic Institutes. The Tarseuh managed to convince six elder races – all widely thought to have “passed on” to the Retired or even the Transcended Order – to help. After defeating the Lions, the heroic Tarseuh and the six elders disappeared forever.

Abdicators greatly revere the Code of Uplift. Many of the faithful serve as inspectors for the Uplift Institute, and even moderate Galactics consider it an honor to have an Abdicator elder officiate at their clients’ uplift ceremonies. Notable members of the Abdicator alliance include the Thennanin.

Obeysers

The beliefs of the Obeysers are similar to those of the Abdicators. Indeed, their dogmas are so alike that Humans can’t understand why the two alliances utterly despise each other.

Obeysers are staunch defenders of galactic law and conservative ideals. Alliance races contribute many hard-working individuals to Institute service. While not as murderous as members of the Inheritor alliance, the most fanatical Obeysers are vindictive, self-righteous tyrants eager for opportunities to punish those who scoff at tradition. The Jophur and their unpleasant step-patrons, the Oailie, fall into this latter category.

THE EIGHT ORDERS OF SAPIENCE

The Library recognizes eight *orders* of sapient and quasi-sapient life: Oxygen-Breathing, Hydrogen-Breathing, Machine, Memetic, Quantum, Hypothetical, Retired, and Transcendent.

The oxygen-breathing Galactic races maintain regular but uneasy contact with the Hydrogen-Breathing and Machine Orders. The races of the Retired and Transcendent Orders once belonged to these three orders, but have long since removed themselves from the cycles of settlement and uplift to concentrate on esoteric and mysterious pursuits.

The creatures of the other orders are strange indeed.

The Hydrogen Breathers

There are dozens of gas giants for every habitable terrestrial world. Many support life of a very alien sort, and some of that life is intelligent. These *hydrogen-breathers* maintain a parallel galactic civilization of enormous size and diversity. There are at least as many species of gas-giant dwellers as there are oxygen-breathing races. These races have political divisions as well. Their rivalries have turned many a populated Jovian world into a midget sun.

Neither civilization takes much interest in the other’s real estate. In fact, the hydrogen-breathers and Galactics prefer to avoid each other. Hydrogen-breathers distrust oxygen-breathers, because they live and think at a much slower pace. The vast numbers and resources of the hydrogen-breathers make the Galactics nervous. Misunderstandings and territorial incursions have led to raids and even wars. Ships intruding into interdicted areas are subject to quick annihilation, a practice approved of by both sides since it keeps gene raiders and sooners from meddling with fallow worlds.

Contacts between the hydrogen-breathers and the oxygen-breathing Galactics are limited and highly formal. Most agreements are designed to simply maintain the separation of the civilizations (by coordinating migration patterns, for example – see *Institute for Migration*, p. 10). A very few

especially tolerant hydrogen-breather races maintain trade contacts with the oxygen-breathers. Some even allow mutual tenancy of systems containing worlds suitable for both orders.

Known hydrogen-breathing races include the Zang (p. 167) and the Fah’fah’n*fah, who inhabit an area near the Canaan colonies.

Machine Races

Intelligent, self-aware computers, and robots can be built with Galactic technology. Machines are often cheaper to employ than clients, don’t have civil rights, and don’t join unions. But while Galactic cybernetics can create machines to do most any job, making a device capable of *reproduction* – especially a *sapient* device – is virtually forbidden. The Progenitors acknowledged that intelligent, self-repairing, and reproducing machines (called *Von Neumann machines* on Earth, after the first Human to come up with the concept) had their uses, but they also left stern and eloquent warnings about their misuse. The dangers were made plain by incidents in the early epochs of Galactic civilization. Self-replicating machines were then commonly used for construction and terraforming projects. Most were conscientiously dismantled or recycled when their jobs were done, but a few “mutant” machines escaped and caused great havoc.

Several hundred million years ago the Galactic Institutes cracked down on the manufacture of intelligent robots and instituted the “key” system. All of the Library’s plans for AI devices, advanced fabrication facilities, and related technologies are subtly deficient. Highly complex cryptographic “keys” are required to make these devices work, and more keys are required to make them work *together*. Even if a machine succeeded in making a copy of itself, the keyless “child” machine would be stillborn. Manufacture and distribution of keys is handled by the Institute for Foresight.

Several races of self-willed sentient machines survive to this day. They are often paranoid, with good reason. They

know that the Oxygen-Breathing and Hydrogen-Breathing Orders have it in for them. Bases where the machines “breed” are routinely blasted out of existence. Some machine races have taken to raiding shipping, both for revenge and to acquire vital supplies.

A few mech races, such as the Seven Spin Clans, live peacefully in unwanted areas on the edge of civilization, trading cautiously with the Galactics. According to the Library, at least one machine race has uplifted living clients!

The Retired Order

Some Galactic species *retire* when they grow weary of the intrigue and ambition of active political and economic life. Rather than dying out and willing their worlds to their clients, they physically relocate to vast artificial settlements in out-of-the-way places, such as the galactic halos. Once established in their new homes, they are rarely if ever heard from again, preferring the company of other retirees.

The goals of retired species as a whole are mysterious. It is known that individuals participate in group meditation, and in the exploration of altered mental states. Fabulous rumors of group-minds, memory stores, and bizarre pan-species meldings have found their way back to the Galactics. Reliable reports describe a strange compulsion to experience the grip of tidal forces deep in strong gravity wells.

The Transcendent Order

The Library entries on the Transcendent Order amount to little more than “That which emerges from the Retired Order.” A few races, particularly those with strong psi abilities, are reported to have reached transcendence directly, without the usual period of purification and contemplation in the Retired Order.

What the Transcendents look like, and what they do with their time, is a matter of conjecture. The Trancendors claim that these elders-among-elders include former members of the Hydrogen-Breathing and Machine Orders. The beings of the Quantum Order claim that the Transcendents spend at least some of the time (or part of themselves all of the time) as convolutions in the underlying strata of space-time.

Some believe that the Transcendents keep themselves aloof from Galactic affairs. Others (such as the Abdicators) insist that they regularly meddle in them. Some fanatic alliances believe that transcended races are vassals of the Progenitors, with the duty to carefully watch, record, and judge the actions of lesser races.

The Memetic Order

Memetic lifeforms are literally *living thoughts*: ideas and notions that perpetuate, reproduce, and evolve. They have two habitats: the bizarre realm of E-Level hyperspace (see p. 108), where they have a quasi-physical existence, and in the minds of sentient creatures.

Most memoids (like most ideas) are simple, inoffensive things. Others are rapacious and seek to destroy other ideas and the minds that carry them. A very few memoids are

intelligent and self-aware, and can engage in conversations with members of other orders.

Rules for encounters with memoids are given on p. 165.

The Quantum Order

Quantum life is an emergent phenomenon, arising from the furious coming and going of virtual particles . . . the “quantum foam” that fills even the vacuum of deep space. They are not part of our space-time; the probability variations that give the “quants” their existence cannot be detected without exquisitely sensitive and advanced equipment. Our realm of particles and waves is as impalpable and cryptic to them.

Quantum creatures have little concept of time and place, but they can manifest themselves as quasi-material amorphous shapes in D-Level hyperspace (see p. 107). “Quants” are also known to travel along the probability threads that connect immature transfer points . . . without a spaceship or any visible instrumentality. Quant sightings in E-Level hyperspace (see p. 108) are rare but not unknown. Tenuous communications between quants and the Galactics have been established, but because the lives of the two realms are so different, there is simply not much for them to talk about.

The Hypothetical Order

“Hypothetical” is the literal and precise translation of the Galactic’s description of this order, but Institute for Progress members sheepishly admit that a better name would be “None Of The Above.” The category is reserved for sapient beings that the Galactics *suspect* exist, or *could* exist. Possibilities discussed through the aeons include mass-minds formed by radiotelepathic microbes living deep inside planetary crusts, civilizations, ghosts, and other, even more dubious notions.

For millions of years, intelligent plasma beings were classified as Hypothetical. Now that they are known to exist (see *The Solarians*, p. 14), radicals and free-thinkers in the Institute for Progress and Institute for Co-Existence are suggesting that they deserve an order of their own.

Pronunciation

Humans and neo-chimps find many Galactic names difficult or impossible to pronounce. They may include tones, trills, harsh gulps, and a variety of clicks, pops, and rasps. These special sounds are designated in Anglic (and its primitive ancestor, English) with various digits and symbols. A basic guideline follows.

! – A click.

% – An extended glottal stop.

– A throaty, open-mouthed hiss. Sounds a bit like an ancient modem connection tone.

* – A pop.

0 – 9 – A brief musical tone, ranging from a bass rumble (0) to a soprano squeak (9). Members of Earthclan memorize this scale by pronouncing the digits in the appropriate tone, much as music students memorize standard musical notes by assigning them to nonsense words like “do re mi.”

Earth

The Galactics knew about Earth as long as a billion years ago. Fragmentary records suggest that it was surveyed during the Precambrian. Sometime after this it was placed in fallow status and forgotten. No Migration Institute survey ships came to visit. The Navigation Institute didn't scan the Sol system for transfer points. It was not even settled by gene-raiders or sooners. This isolation allowed a rich ecosystem full of remarkable species to evolve.

How did this happen? None of the answers – a malfunctioning and imperfect Library, corruption, or conspiracy – much please the Library and Migration Institutes.

Wolflings

Humanity claims to have evolved to full sapience and developed starfaring technology *entirely on its own*, and has presented evidence to prove it. Most Galactics don't believe any of it. The Library has records of other "wolfling" races, client species who were abandoned by their patrons due to neglect or accident but managed to achieve spaceflight. In each of these cases the actual patron was eventually identified. Many Galactics have theories about the identity of Humanity's lost patrons. If any of these claims are true, then Humanity's precarious independence would be endangered. Debating the merits of these claims, and searching for further data, is a passion of the times.

THE TERRAGENS

Earth's history from the dawn of the space age is a harrowing tale with an upbeat ending. The 21st century was a time of tumult and travail. Environmental change, war, and a wildly unstable political situation nearly wiped out Humanity. Fortunately, sanity prevailed over militant nationalism, religious fanaticism, and careless industrial development. America enjoyed a brief "Indian Summer" during which it regained some of its former glory and launched Humanity's first starships. Many nations participated in ecological reconstruction projects; standards of living rose worldwide as

resources from asteroids and energy from power satellites brought new wealth to the planet.

Perhaps in fear of a resurgence of the insanity of earlier times, an unwieldy and callous world government was formed to oversee reconstruction work and regulate development. For a century the pyramid of red tape known as "The Bureaucracy" had a chokehold on Earth society. But the introduction of mandatory personality profile tests – intended to spot troublemakers and thus preserve the status quo – backfired. Many of the bureaucrats were just the sort of greedy, unscrupulous people the Probation Board was designed to detect and manage. A more representative and less repressive world republic – the Earth Confederacy – filled the power vacuum left by the collapse of the Bureaucracy.

Thus, when the first slow Terran ships blundered into a Tymbrimi-held area and met the Galactics, Humanity was ruled by a single, responsible government, and had largely erased the evidence of its past blunders. Furthermore, Humans had already fallen into the Galactic culture-pattern by uplifting clients of their own. By the 25th century two new intelligent species – neo-dolphins and neo-chimps – had joined the Earthclan. Galactic society had to grant Humanity the status of *patron*, with all the rights and privileges thereof.

If the Galactics had found Earth a few centuries earlier, Humanity would have been put into foster care for a hundred millennia *if it was lucky*. Earth's ecosphere was in terrible shape and many of its finest potential client species extinct; the full extent of mankind's early mismanagement of its homeworld is not general knowledge, even on Earth. The need to suppress the seamier episodes of man's career, and to provide the Earthclan with a competent and knowledgeable diplomatic corps to deal with the Galactics, led to the creation 200 years ago of the *Terragens Council* (see p. 15).

After things settled down, Humanity and its clients began cautiously introducing themselves to Galactic society. A few races – the Tymbrimi, Synthians, and Kanten – became Earthclan's friends, protectors, and mentors. Intrigued Institute personnel and Galactic tourists flocked to Earth to study the novel "wolfling" society. The clan earned grudging respect – and

The Solarians

Could there be a *ninth* sapient order?

The Library notes the existence of simple star-dwelling plasma creatures, but it provides no hard data and says nothing about sapient star-dwellers. The Galactics have shown little desire to investigate further.

A persistent rumor contends not only that Sol is home to sapients, but that Humans have contacted them! Almost every educated Human, Chim, or Fin will have heard rumors about the "Sundiver Incident." No one in the Terragens Council will confirm the tale. But they *smile* when they deny the rumors . . .

In fact, a secret program of Solar investigation is going on even now. The Terragens Council has a "Library Patent" on the subject . . . the Institute's official blessing to do new research. This coup was the result of considerable political maneuvers following the discovery that influential Pila Library personnel were trying to sabotage Earthclan's research efforts. The Pila paid a high price to cover up the truth and bear a grudge against Humanity.

The Solarian research project has led to the recruitment of Humans by the Institute of Migration and Institute of Co-Existence. The Solarians seem to have an affinity with the hydrogen-breathers.

Only a highly-placed Terragens agent, or a Kanten or Tymbrimi diplomat – or, of course, a Pilan librarian – will know the whole story of the Sundiver incident.

some fanatic foes – when it refused to give up its claim of independent evolution and meekly assimilate itself into Galactic culture. Terran artwork, lurid novels, and recordings of neo-dolphin dance and song became valued trade items among the Five Galaxies.

Had it continued on this cautious track – exploring, leasing colony worlds, and learning to integrate the Library’s teaching with original Human design – Humanity might have eventually secured a small but secure niche in Galactic society. But Earth’s races weren’t destined for obscurity. A few decades after Contact, an effort to study plasma creatures in the Sun’s chromosphere earned Earth the enmity of the Soro clan. The incident also gave the Earthlings a mysterious influence on the Institutes. The huge bureaucracies almost immediately ceased their subtle efforts to mold Earthclan into a Progenitor-fearing model junior patron. Conservatives and Fanatics began to see the wolflings as a threat, and drew plans to enslave or expunge them.

The Earthclan went from minor celebrity to the center of Galactic political attention several years ago, thanks to a shocking discovery in a globular cluster in Galaxy Two’s halo. The dolphin-crewed *Streaker* discovered a vast fleet of ancient, dead starships – a fleet created by a race unknown to the Library. Unfortunately, news leaked out. Convinced that *Streaker* had stumbled on secrets from the age of the Progenitors, half the fanatic clans in the galaxy joined a hunt to capture the ship. They also laid siege to Terra and blockaded or invaded many of Earthclan’s colony worlds.

If Earthclan’s position had been precarious before, it was now utterly desperate. Races on the verge of alliance with the Terragens suddenly became nervous about befriending a race whose colonies were besieged by elder clans. Moderates, who would normally call for a cease-fire and adjudication, laid low and looked for consensus on what was to be done. The only

bright spots in the whole gloomy situation were Humanity’s new alliance with the Thennanin, and a truce with the Gubru.

This perilous situation came to an abrupt end recently, when the *Streaker* returned to Earth mere days after a cataclysm disrupted the transfer point network and severed all contact with Galaxy Four. Alarmed at the theological implications, the fanatics harassing Earthclan fled.

For the moment, the siege of Earth has been lifted. But the Terragens Council must now deal with a new political landscape, disrupted trade routes, and the onus of fame.

The Terragens Council

The Terragens Council is the ruling body of the federation of Earth and its colonies. It has authority over matters that affect the security and well-being of the entire Earthclan. Though powerful, the Council is subject to many checks and balances. Council members hail from all colonies; neo-chimps and neo-dolphins are well-represented. Council members are appointed by the Council itself, subject to approval of the Earth Confederacy and colonial governments.

Many institutions answer to the Council, including the Center for Uplift, the Terragens Space Corps, the Colony Service, the Terragens Marines, and the Ecological Reconstruction Service. The Council also maintains a cadre of highly trained agents for diplomatic and espionage missions.

Attitudes Toward Aliens

Human (and Chim, and Fin) attitudes toward Galactics vary wildly. Most members of Earthclan are able to distinguish between the genocidal fanatics and the moderates. They consider the former to be dangerous, clever, but somewhat pitiable creatures. Moderates are viewed with respect. However, Terrans are increasingly annoyed at this silent majority’s reluctance to join forces and suppress the fanatics.

Some Terragens citizens are unabashed xenophobes, who hate and despise even allied races. Most people view these isolationist conspiracy-mongers with a mix of amusement and irritation. To the alarm of the Council, their ranks have swelled in the last few years as news of sieges and invasion filter in from Earth’s colonies.

A substantial fraction of Humanity (and some neo-chimps and neo-dolphins) worship anything Galactic. Some of these xenophiles join cults with revisionist views of Human evolution and history. Others devote their lives to studying and emulating the ways of a particular race or alliance. (The Tymbrimi are popular role models for many Galactic fans.) Educated members of Earthclan look down on these dilettantes.

Individual Galactics visiting Earth or a colony will be treated with respect by almost every Human or Human client. Only fanatics or the criminally insane would dare harass Galactic visitors.

A Moat of Ashes

When the crews of the first Terran starships found system after system of ecologically depleted, blasted worlds, they thought they’d solved the Fermi Paradox – the puzzling lack of evidence of extraterrestrial civilizations, past or present. The explorers concluded that some irresistible logic caused star-traveling sapients to either blast themselves into oblivion with super-weapons or run their ecosystems to ruin. While some of the ecosystems they surveyed showed signs of slow recovery, only a handful could support a self-sustaining colony without extensive terraforming.

The Earthlings had hardly begun to consider the implications of this dreadful discovery when the *Vesarius* encountered the Tymbrimi cruiser *Cuthmar*. Humanity’s view of the universe was overturned once again. The Tymbrimi explained that the region surrounding Sol system was wracked by war and exploitation during a “time of troubles” 60 million years ago. These “Ash” worlds were left fallow, without the benefit of corrective ecopoiesis, as an object lesson for the races of the sector.

CHARACTERS



G *URPS Uplift* is designed with Human, neo-chimp, and neo-dolphin characters in mind, but Tymbrimi, Kanteni, Synthians, and other races may also be used as PCs.

CREATING CHARACTERS

The *Uplift* universe is a dangerous one, particularly for Humanity and its clients. Adventurers must be well trained and equipped to accomplish their missions!

Character Points

The experience level of the players should match the campaign the GM has planned (see Chapter 7). High-level Terragens agents would be wasted on an assignment to escort an eatee visitor; that's a job for a junior diplomat or TAASF lieutenant. But unless the players are into a real challenge, it's not cricket to throw 100-point characters into conflict with the Tandu, or to match wits with the Soro clan.

Civilians and Trainees

Earthclan cultivates well-rounded and competent people. A non-adventuring Terran civilian might start off with 40 character points, a colonial with as many as 45. The extra points usually go toward Terragens Education (see p. 31).

The Terragens Council only lets its best travel the stars and deal with aliens, but tomorrow's adventurers have to start somewhere. Young adventurers, fresh out of the academy or university, could find themselves assigned to aid the militia of a threatened outpost, as a research assistant on a survey mission, or as a merchant vessel's protocol officer. These 100-point characters will have a Terragens Education (see p. 31), some technical skills, and a smattering of Galactic language and social skills. *Example:* Toshio Iwashika, midshipman of the *Streaker*. Toshio, a native of Calafia, may have started out with less than 100 points – though he certainly earned some more by the end of *Startide Rising*!

Above-average civilians and military personnel swept into an adventure might also start with 100 character points. Such characters need not be perfect specimens, and could well include “fringies,” Humans with Probationary Personalities, and disreputable clients with red cards. Examples from the novels include Fiben Bolger, neo-chimp ecologist and reserve officer in the Garth colonial fleet, and Robert Oneagle, who began *The Uplift War* as a spoiled playboy.

Citizens of the Galaxy

Characters dealing with eatees on their own turf have to be tough and *smart*. Astronauts and interstellar trader-diplomats should start off at a 150-point level. They should be well educated, technically adept, and prepared to defend themselves. They must also have the skills necessary to deal successfully with alien races, including fluency in several Galactic languages, Savoir-Faire (Galactic), Area Knowledge, and Xenology. Terragens Marines also start at this level. They have extensive survival and combat training, plus a few minor bio-organic enhancements.

Major Players

High-level Terragens agents and veteran Marines are nearly superhuman, thanks to years of experience, extensive training, and augmentation. They have visited many worlds and dealt with dozens of alien races. They will have high attribute levels, a variety of skills, and often some special enhancements. They might start with 200 or more points. Thomas Orley, Jacob Demwa, and Admiral Alvarez rank among these elite heroes.

ADVANTAGES, DISADVANTAGES, AND SKILLS

Accurately describing characters from the complex *Uplift* setting requires more advantages and disadvantages than are included in the *GURPS Basic Set*. Racial and “high tech” advantages and disadvantages are described in *GURPS Compendium I* and *GURPS Space*.

Certain advantages, disadvantages, and skills are especially important, or have different implications, in the *Uplift* universe. Some new skills, advantages, and disadvantages are introduced here as well.

Advantages

Acute Taste & Smell see p. B19

There are two racial limitations on this advantage:
Acute Smell Only costs just 1 point per level.
Acute Taste Only costs just 1 point per level.

Ally

see p. B23

Galactics from powerful Patron species may have client-species servants or aides as Allies. These lackeys may feel a heartfelt Sense of Duty toward their patron, may have a Duty as a result of indenture, or may even have a racial Slave Mentality. In any case, the relationship will not be one of equals. Earthclan members unfamiliar with Galactic custom may feel scandalized by these relationships.



Animal Empathy

see p. B19

Animals and presapient characters with this advantage don't necessarily like animals, or vice versa. An animal with Animal Empathy can sense another creature's moods and motivations. This is useful for both predators and prey.

Clerical Investment **see p. B19**

Traditional established religions don't seem to be an important part of Terragens society. Human and Human client characters who buy Clerical Investment may belong to a cult, possibly one that follows the tenets of one of the fanatic alliances. In any case, the character's status will only have an effect on believers. Outsiders may regard Clerical Investment as an odd affectation.

Drug Factory **see p. C153**

The original version of this advantage was for a cyborg implant. Jophur (and possibly other races) have chemical synthesis organs that are tied into their nervous and metabolic systems. Such organs typically have the enhancement and limitation shown below:

Requires Feedstock: The drug factory requires raw chemical feedstocks in the form of powdered minerals and fluids. 1d lbs. of material, costing \$5/lb., is sufficient for a day's production. Drugs and compounds with known exotic reagents require costlier feedstocks. -50% cost.

Learned Product: The characters can *learn* to produce additional drugs and chemicals. Being able to produce a medication (e.g., anesthetics, disinfectants) or compound from TL1-TL5 requires learning a Mental/Average skill. Being able to produce a medication (e.g., antibiotics, plastiskin) or compound of TL6-TL9 requires learning a Mental/Hard skill. Roll versus this skill to successfully produce a dose of drug or chemical; may be done HT/4 times a day. +50% cost.

Faz Sense **see p. C155**

This advantage is available, as a racial advantage, in its original form (detection of atmospheric vibrations) and in an electric variant. The electric variant also has an underwater limitation available.

Electric faz: You have an antenna or other organ that is very sensitive to electrical charges. It works best underwater and in humid air, and when sensing objects with high moisture content, including most life forms. There is no wind speed penalty. There is a *humidity* effect. In low humidity air (desert air, climate-controlled rooms), double the range penalty (see p. B201). In very humid air (e.g., heavy fog or drizzle) halve the range penalty. You are at +4 to detect objects made of conductive metals. +5 points.

Underwater limitation: Your electric sense is *active*. You have an organ that sends out minuscule electric pulses. It works very well underwater (quarter normal range penalty). It works poorly in heavy fog or drizzle (double range penalty), and barely at all in normal or dry humidity (limited to range of 1 hex). -5 points.

Flight **see p. C156**

Balloon Flight is a special limitation to the Flight advantage. Your body has (or *is*) an inflatable bag of thin, tough flesh which can be filled with organically created hydrogen. The diameter of the inflated sack is three times your height. Inflating the sack takes 100/HT turns, halved if you are also Hyperactive (see p. C157). Deflating the sack takes 10 turns.

Once inflated, you are free to rise into the air at a rate of 2 yards/turn, or safely descend at up to 4 yards/turn. By pulsing your sack, you can move 1 hex/turn. However, you are also subject to the *wind*. Your normal flying move will only allow you to stand still in just a 2 mph wind! Having a special *propulsive vane* allows you your normal move when flying, but you will still be subject to drifting with the wind.

Your inflated balloon's membrane is PD 2, DR 4 to swung weapons, PD 1, DR 1 to thrust weapons. 4 or more points of thrust damage punctures the sack; a single puncture will empty the sack enough to cause descent in 20 turns. (Halve this to 10 for two punctures, quarter for four punctures, and so on.) 4 or more points of swing damage causes a long rent that empties the sack in 5 turns. Safely descending with a punctured sack requires a Flying skill roll.

Because your balloon is filled with hydrogen, you are *flammable*! An energy weapon or flaming arrow that punctures your sack has a 50% chance of igniting your hydrogen. An exploding airbag does 4d + HT/2 damage to you, and 2d damage to everyone within twice its radius. You may also have to deal with damage from a fall. If you survive, your burned sack will regenerate in 100/HT days.

Unmodified balloon flight cost: -20 to the base cost for the Flight advantage. If your species has a propulsive vane, cost is -15.

High Technology (racial) **see p. C126**

Average Galactic technology is TL10-TL11. This costs a Galactic race or character no points. Some Galactics are even more advanced. TL12 costs 20 points, TL13 costs 50 points, and TL14/15 costs 100 points.

Having this advantage means the character is part of a society which has the economic and educational infrastructure to manufacture and support high-tech gear. He can learn engineering and scientific skills at the appropriate TL, and has easy access to advanced equipment.

Earthclan characters may not buy this advantage; the most they can do is buy off their Primitive disadvantage to bring them up to the Galactic average of TL10-TL11.

Humans and clients with the Unusual Background (Quisling) may buy this advantage if their patrons are of a higher-than-average TL.

Patron **see p. B24**

This is a Patron in the standard GURPS sense, not a Patron Species.

Client individuals can't automatically claim their entire patron *species* as a Patron. A client-species character could of course buy the Patron advantage, but it would be a particular individual or organization. There's no reason this Patron couldn't be a powerful and successful client!

Galactic Institutes are very powerful patrons. They are almost universally respected, and their law enforcement powers span entire galaxies! Institutes can help cut through (or create) red tape, aid research, arrange transportation, and provide expense accounts. Unfortunately, it is very hard for a single

member to get their attention (appear on a 3d roll of 6 or less; this is figured in the costs below and cannot be modified).

The *Institute for Civilized Warfare* and the *Institute for Migration* are 20-point Patrons, because they can deploy fleets of starships and armies of enforcers. The other two major Institutes, the *Library* and the *Institute for Uplift*, are 15-point Patrons. Minor bureaucracies, such as the *Institute for Trade* and *Institute for Progress*, are 10-point Patrons.

The costs above include one level of Rank, reflecting the character's standing in the Institute's bureaucracy. This Rank is recognized throughout the Civilization of Five Galaxies without penalty, and supersedes Racial Status as long as it is clear that the creature is a member of an Institute. Members of Earthclan may start off with two additional levels of Rank in their Institute. (Heroic actions in the course of a campaign may allow wolflings to break through this "glass ceiling.") Galactic characters may buy up to seven levels of Rank in the Institute. Each level of Rank in an institute costs 5 points.

Institute personnel automatically have a *Duty* as well. They are expected to devote their lives to furthering the ideals of their Institute, essentially abandoning former loyalties to race and clan. This duty calls Quite Often, but is usually not hazardous. This 5-point disadvantage is figured into the above costs and does not count as a separate disadvantage.

Psionics **see p. B165**

The psionic powers Telepathy, ESP, Antipsi, and Probability Alteration exist in the *Uplift* setting. Psychokinesis and Teleportation do not exist (although at high level, Probability Alteration can open gates that approximate teleportation).

The nature of psi is well understood by the Galactics. The powers are rooted in the probability-altering effect that conscious minds have on reality. Advanced Galactic technologies can dampen or enhance psionic power. Unfortunately, Humans, Chims, and Fen have little psi talent, and Earthclan researchers have found it difficult to make the available Library branches cough up details on advanced psionic training techniques.

Unaltered Humans and Chims can buy up to two power levels of Telepathy (see p. 25) or ESP. Neo-dolphins can buy up to two levels of Telepathy or up to three levels of ESP. Learning psionic skills, or buying higher levels of Power, requires the character to have the *Psionic Training* Unusual Background advantage (see p. 20).

Radar Sense **see p. C163**

The *underwater only* limitation of this advantage simulates the natural electronic sense of many fish. It can only be coupled with the low-res variant of Radar Sense. Out of water, the sense only has a range of three hexes. *Cost* -50%.

Rank and Status **see p. B18**

Social Status and Rank (military or otherwise), high or low, does not mean much outside one's own clan. Galactics forming their opinions of an individual pay far more attention to Racial Status (see p. 28). When dealing with all but the very closest ally-species, a character's effective Status is Racial Status. Only after the start of a working relationship

will individual Rank and Status come into play. *Example:* A Human TAASF captain (Rank 4) approaches a Lesh administrator in charge of a ship repair syndicate, seeking parts for a Level B hyperdrive. The Lesh reacts to her at +1, thanks to her status as a Minor Patron. Over several years, the captain becomes a regular customer. The Administrator reacts to her at +4, based on respect for her Rank.

Having Rank in an Institute overrides Racial Status. If the Institute member is wearing the uniform or symbols of an Institute, his Rank takes precedence over Racial Status.

Tunnel **see p. C169**

The *realistic* restriction to this Super advantage is an appropriate racial trait. It allows the character to dig through earth at 1/4 a hex per turn, or rock at 1/16 a hex per turn.

Additional levels of tunneling speed cannot be purchased, but a level of Enhanced Movement (tunneling) would increase speed to 1/2 a hex per turn. *25 points.*

Unusual Backgrounds

Dolphin Friend **5 points**

You grew up with neo-dolphin friends and neighbors. You are bilingual in Underwater Anglic and Anglic, may study Trinary and Primal, and know how to deal with neo-dolphin quirks and habits. You must be a Human or Chim from Calafia, Deemi, or Earth to buy this advantage. Dolphin Friends must spend one point each in the Scuba and Swimming skills.

Fringie **10 points**

You are a Human or Earthclan client outside the bounds of Terragens society. You may be a criminal, a separatist, or a member of Earth's tiny and almost invisible underclass. You must have this background if you are Poor or Dead Broke, are Zeroed (p. B237), or want to learn Thief/Spy skills (aside from those learned in the military or law enforcement).

If your mental disadvantages qualify you to be a Probationary Personality, you may choose to be a Fringie instead. No one knows you are crazy . . . yet!

Unless you are an expert forger or hacker, you will have a hard time leaving your home world or getting a "real" job.

This background includes 2 points of Contacts in your particular fringe of society, and 2 points of Area Knowledge of your home colony or region.

Geneered **10 points**

You are a product of Earthclan's cautious and secretive "Human uplift" project. You may buy higher levels of psionic Power (up to Power 10 in Telepathy or ESP) and may freely learn psionic skills. You may buy enhanced senses such as Infravision, Telescopic Vision, and Ultrahearing. Spectrum Vision and 360° Vision are not appropriate, since enhancements that make the character inhuman or freakish-looking are not allowed.

Handlers and agents from the Terragens Council will keep track of you to determine the success of their experiments.

Psionic Training

5 points

You are one of the few Humans, Fen, and Chims to receive psionic training. If you wish to buy psionics skills, you must take this advantage as well.

This background includes 2 points of Contacts with either trainers and administrators in the Terragens Council's low-profile Special Research Division, or with Tymbrimi liaisons. The division has hard-won information on Galactic psionic science and technology.

Quisling

10 points

Some Humans, Chims, and Fen are not of the Terragens civilization. They are the descendants of "Von Danikenite" cults who threw in their lot with a Galactic clan, in the belief that the aliens are Humanity's long-lost patrons! These "Quislings" are often raised in sequestered colonies, and are trained to follow Galactic norms of behavior appropriate to a junior client. Only loyal, ideologically trustworthy agents are allowed contact with Terragens citizens. They must carefully guard their background and beliefs. Publicity over what amounts to the illegal adoption of a race would bring great shame and scandal on their faux-patrons.

Within their closed societies, Quisling Humans are treated, for reaction roll purposes, as Average Clients; Quisling Fen and Chims are treated as Minor Clients (see p. 28) for reaction roll purposes. Quisling agents abroad in the galaxy are treated just as though they are of the Earthclan.

Quislings do not have the Primitive disadvantage, and may be able to buy the High Technology Advantage to gain access to TL12 and TL13 skills. They must purchase the Patron advantage (in the traditional *GURPS* sense . . . to represent the aid and power of their Galactic masters) and a Duty disadvantage, to represent their fealty to their betters.

New Advantages

Some of the advantages below may be bought by individuals. Others, detailed here and in *GURPS Compendium 1*, are racial advantages and disadvantages. They may only be obtained by creating a character belonging to a race that has them. With the GM's approval, some racial advantages may be obtained through bionic technology. This means they may be purchased by members of the Terragens Marines, Council agents, or similar non-Earthclan agencies. See *Implants and Body Work*, p. 97.

For more possible augmentations, see *GURPS Bio-Tech* and *GURPS Ultra-Tech 2*.

Coat of Slime

15 points

Your skin (or rarely, fur or scales) secretes slippery mucous. It can be wiped off, but grows back in 100/HT minutes. While you have no problem handling objects (your hands and feet have friction pads) others have great deal of trouble getting a good grip on your naked skin. You also have an easier time working your way through narrow openings. Very hot, dry weather dries your skin and makes you very uncomfortable; lose 1 Fatigue each hour you can't drink a half-quart of water.

The cost above includes one level of Increased Life Support (see p. CI102), reflecting the need for a high-humidity environment and lots of drinking water.

The slime gives you PD 1. Opponents in close combat are at -2 to Grapple you.

Discriminatory Touch

10 points

Most appropriate as a racial advantage, but this could be a cybernetic enhancement as well. The character has an exquisitely sensitive sense of touch, and can perform feats such as reading the printing on a page by running his fingers over the inked letters. He can also detect minute vibrations and differences in temperature.

Unrestricted Reproduction

5/15 points

This advantage is only appropriate for individuals of client species. The Terragens carefully test and gene-scan each individual and issue a reproduction license. These range from the ignominious red card to the coveted white and blue cards. Players may use character points to buy greater-than-average reproduction rights for new client characters. Blue and even white cards may also be awarded for extraordinary feats of heroism or intellectual achievement. Galactic races have equivalent rewards for their promising clients.

Blue cards can have two or even more children, and approval is easy to come by. They get a +1 reaction bonus when dealing with patrons, other client species, and members of the same species with a green card or better. Clients of the same species with yellow and red cards *resent* blue cards (-1 reaction penalty).

Blue cards may have no antisocial mental disadvantages or inherited physical disadvantages. (Some blue cards sport a lost eye, bad back, or other injury incurred doing something heroic!) The character must also *buy off* some or all of his species' *Stress Atavism* disadvantage, reducing severity or frequency of attacks by one level. See p. CI105. Blue Card is a 5-point advantage.

White cards are a client race's best. They are *encouraged* to have as many children as possible. This brings a +2 reaction bonus from patrons, clients of other species, and members of the same sex *and* species who have a green card or better. Members of the same species and *opposite* sex of green card status or better react at +4. (White card males are liable to be mobbed by eligible females!) Yellow and red card clients *resent* white cards of the same species, reacting at -3.

Characters starting with this advantage must have no inherited physical or antisocial mental defects; they must have totally *bought off* their Stress Atavism disadvantage (this costs 8 points for neo-chimps and neo-dolphins). Each attribute score must be at least 1 point higher than species average. White Card status costs 15 character points.

Disadvantages

Terragens society is prosperous, sophisticated, egalitarian, and shrewd. For better or worse, it feels a duty to take care of

its citizens. This ranges from superior education to making sure unstable people don't embarrass Earthclan in front of a watchful galaxy. Fortunately, the institutions that handle these matters are enlightened and humane. Though bureaucratic, the authorities are never intentionally oppressive or cruel. Compared to other races' regimes for handling clients, the Uplift Board is positively benign.

Most physical disadvantages can be cured with 25th-century Human medical technology. Mental disadvantages are rare; most congenital defects can be "cleaned up." Humans with serious (greater than 5-point) antisocial disadvantages must either take the Probationary Personality disadvantage or have the Unusual Background "Fringie." Clients with antisocial defects must also have the Yellow Card or Red Card disadvantage; those with congenital physical defects cannot have a blue or white card.

Antisocial disadvantages are mental disadvantages that might lead the character to physically harm, severely neglect, or abuse others. (Honesty, Gullibility, and most Phobias *aren't* antisocial!) They include Bloodlust, Berserk, Megalomania, Pyromania (even though it's worth only 5 points!), Sadism, and certain Odious Personal Habits. Stress Atavism that is more severe (or occurs more frequently) than is average for the character's species also counts as an antisocial disadvantage.

Terragens society is fairly egalitarian. Racism, "speciesism," and intolerance of most sorts are rare, and actively discouraged by the Terran and colonial governments. Social stigmas – other than being a Probationary Personality or having a red card – are few. Nevertheless, in several important ways being a client is different from being a patron. Client individuals most prove themselves worthy to qualify for responsible positions, particularly those that involve contact with Galactics.

Age **see p. B27**

Improved health care and geriatric medicine have postponed aging. Characters start aging at age 70. Aging accelerates at 90 and 110 years. Characters who buy the Age disadvantage get -3 points per year over 70, not 50.

Blindness **see p. B27**

Some species have a limited form of Blindness . . . Motion Detection Only. The character sees the world about as well as a Human with his eyes closed. He can sense light sources, orient himself by them, and can detect objects moving between his crude eyespots and the light source. The character is at -4 at any combat roll; other restrictions on combat while blind apply. Having Blindness (Motion Detection Only) is worth -40 points.

Delusions and Fanaticism **see p. B32**

Many Galactics have minor delusions connected with their "religious" beliefs. Almost *all* individuals from conservative and fanatic clans and the Library Institute believe that the Library contains everything worth knowing. Human Quislings – members of Von Danikenite cults – share this belief. And

many Galactics are simply fanatic in their allegiance to clan or dogma.

No Sense of Smell/Taste **see p. B29**

This advantage has some racial-only limited forms.

No Sense of Taste (Only) is worth -2 points.

No Sense of Smell (Only) is worth -2 points.

Poor Sense of Taste: You can detect *strong* flavors, but can't discriminate between subtle tastes. You get a -4 on rolls to detect or discriminate tastes. It is worth -1 point.

Poor Sense of Smell: You can smell *strong* odors, but can't smell faint odors at all. You get a -4 on rolls to detect or discriminate smells. It is worth -1 point.

Poverty **see p. B16**

Entire Galactic races may be poor, due to sanctions or poor political connections. Individuals from these unfortunate species start off at the "racial" poverty level. They may, of course, spend character points to start off with more wealth.

Utter poverty is incredibly rare on Earth and the colonies; a character cannot be Poor or Dead Broke without buying the Fringie Unusual Background advantage!

Primitive **see p. B26**

Humans and their clients start out with the Primitive disadvantage; the general Tech Level of Terragens civilization is 9. Unless they buy off the disadvantage, they will not be able to learn technical and science skills at TL10 and higher.

Library branches and common starship systems are easy enough for even TL7 "primitives" to use. TAASF personnel routinely train on TL10 and TL11 equipment, and will have no trouble piloting and operating the Earthclan's hand-me-down starships. Even operating TL14 A-Level hyperdrives isn't a problem because these devices have relatively low-tech front ends. Repairing high-tech equipment is another question; Earthling engineers must buy off their Primitive advantage to obtain TL10 and TL11 technical skills.

It is possible for Humans to start off even more primitive than TL9. Jijo's industrial base is pre-industrial, but its natives are treated as TL6 because technological knowledge is not lost, merely unused. Natives of Horst, a regressed colony world, may start off as low as TL3.

New Disadvantages

Businesslike **-1 point**

A quirk-level version of No Sense of Humor, often a racial trait. The character does play, and can make and enjoy jokes, but does not do so easily or freely.

Compulsive Play **-5/-10 points**

A compulsive behavior, found in both animals and sophonts, which depending on the circumstances can be either endearing or irritating. The character eagerly seeks out opportunities to play, and greatly enjoys jokes. *Examples:* A dog that drops a drool-covered tennis ball in front of everyone

he meets, and barks until they toss it for him. A co-worker who distributes photocopied cartoons to everyone in the office, every day. A friend who is never without a throwing disc and an excuse to start a game.

Trickster (see p. CI94) is a very severe form of this compulsive behavior!

Dour -5 points

This combines the Businesslike quirk with a form of Intolerance. The character understands jokes and appreciates play, but does not think they are appropriate much of the time. Dour NPCs react at -1 to jokers, clowns, and overtly playful characters.

The ambassador watched as his son casually marched into his father's office, leaned against his desk, and began playing with a ceremonial calligraphy set. Errol was too old a kid to easily cry or ask for sympathy, but it was obvious that the boy was in distress.

"So," the ambassador said easily, "did you get some swimming in on your visit?"

Errol nodded.

"Get to try out your GalSeven with the other kids?"

"Xou, kooack."

"Use your enzyme kit when S'ent Booaachaa served lunch? Tytlal food looks and tastes like ours, but . . ."

"I remembered, Dad, I've been doing that for years."

The ambassador cringed. That left one skill the boy had been sent to the chancery down the hill to practice. "Did you try out . . ."

"Yes, Dad, and they laughed!"

"Well, when you tell jokes you expect . . ."

Errol waved his hands in a precise circular motion: a Tymbrimi gesture that was just short of rude. "They were laughing at the jokes, Dad, not the punchlines. The material you gave me sucks!"

Late Maturation 0 or -5 points/level

This is only appropriate as a racial disadvantage.

The species has a long childhood. For each level of the disadvantage, the age of maturity for the species is increased by 50%. A species of normal lifespan that normally matures at 18 would instead mature at age 27.

This disadvantage has a beneficial side-effect: Individuals of the species are able to learn a *lot* during their long childhoods. The number of points characters can spend on starting skills is increased by 25%. Thus, a 27-year-old character could choose up to 67 points of skills!

The first level of Late Maturation is worth 0 points; every additional level adds -5 points.

Playful -1 point

A quirk-level version of Compulsive Play. The character is notably, but not obnoxiously, good-humored and playful.

Poor Tactile Sense -5 or -6 points

This could be a racial disadvantage, or the result of neurological disease or injury.

At the -5 point level, the character's sense of touch – including the ability to detect whether an object or surface is hot or cold – is limited; it is roughly equivalent to that of a Human wearing thick winter gloves. The character rolls at -2 to sense things by touch. This cost includes the disadvantage Reduced Manual Dexterity -1.

At the -6 point level, the character's hands (and other surfaces) are virtually numb, able to only sense only gross pressure and extremes of temperature. The character rolls at -4 to sense things by touch. Accidental burns, cuts, and abrasions are common. This cost includes the advantage High Pain Threshold (see p. B20) and the disadvantage Reduced Manual Dexterity -2.

Probationary Personality (Humans only) -5 points

This is a form of Social Stigma for Human characters with serious, antisocial mental problems. They are registered by the Probation Board and casually tracked by the government. PPs are required to report monthly to counselors. They are rarely allowed to deal with aliens; they need permission to move into areas near eatee residences or to leave their homeworlds. Characters with the Probationary Personalities suffer a -1 reaction modifier if their status is known.

Many brilliant and skilled people have Probationary Personalities. The Terragens does not waste their talents. A PP who receives an important assignment or gets into a responsible position will be assigned a handler who ensures that he doesn't get into trouble!

Note: Being a PP does not count against the -40-point disadvantage limit! Unless the character has an Unusual Background (i.e., he has managed to avoid testing), it *must* be taken by characters with serious antisocial disadvantages. Galactic races maintain even stricter programs for their aberrant individuals!

Restricted Reproduction (Clients only) 0/-7/-10/-15 points

Most Terragens client individuals have limited reproductive rights. Neo-chimps and neo-dolphins are routinely sterilized, reclaiming stored eggs or sperm when a child is desired . . . and allowed. Individuals of less than sterling pedigree are assigned a green, gray, yellow or red card.

While the Earthclan has progressed beyond many of the petty bigotries of the past, clients with severe reproductive restrictions are treated as second-class citizens.

Note: Restricted Reproduction does *not* count against the usual -40-point disadvantage limit! It is the *penalty* for having certain disadvantages. Galactics maintain similar categories for their clients, but the strictures for "defective" individuals are even harsher.

Green Card **0 points**

The majority of clients receive green cards. Clients with green cards, or their equivalent in non-Terragens cultures, can raise children but must seek permission to bear their own, biological young. There is no cost or penalty to be a green card client; this is the default.

Gray Card **-7 points**

Gray card clients have undesirable hereditary traits. They may adopt and raise children, but are rarely allowed biological offspring. Gray card females may gestate implanted fetuses of better pedigree. Patrons and clients not similarly afflicted react to gray cards at -1.

Yellow Card **-10 points**

A client must have a serious hereditary defect (mental or physical, whether corrected by technology or not) to be rated Yellow Card! They are not allowed to raise children, adopted or otherwise. Yellow cards are discriminated against; patrons and clients not similarly afflicted react to them at -2.

Red Card **-15 points**

A character must have an antisocial disadvantage to be rated Red Card! Red card clients may not reproduce or raise children. In fact, they are rarely allowed to go *near* children. They are a despised minority and greatly resent their lot. Patrons and clients not similarly afflicted react to them at -3.

Uneducated **-5 points**

Just as a character in modern-day campaigns can choose to be Illiterate, Humans and their clients can cut class and not take the skills listed under Terragens Education, p. 31. They may be from Horst (a regressed colony world), a member of an isolationist or Luddite sect, or from Earthclan's small and elusive underworld. Being Uneducated is a Social Stigma. Educated characters react to them at -1. Uneducated characters may not learn Mental/Hard skills other than Thief/Spy skills. Uneducated characters may still be Literate, but Illiterate characters are always Uneducated. Uneducated characters will have a tough time leaving their home world.

Skills

Area Knowledge (Galaxy) **see p. C1146**

The Five Galaxies contain many thousands of inhabited worlds. A general Area Knowledge of all five galaxies would be meaninglessly broad. This skill includes the location of very important planets (homeworlds and transfer point nexi), awareness of major races, and a general understanding of the current political situation and history in a single galaxy (such as Galaxy Two, the Milky Way).

Armoury/TL **see p. B53**

In this setting the following specialties are common at each tech level: Projectile Small Arms, Beam Small Arms, Projectile Heavy Weapons, Beam Heavy Weapons, Body Armor, Spaceship Armor, Spaceship Weaponry, Vehicular Armor, and Psi Weaponry.

Astrogation **see p. B59**

This skill requires a specialization and the defaults listed on p. B59 do *not* necessarily apply.

Realspace (M/A): This is used for navigating between the stars without using hyperspace or transfer points. It defaults to Astronomy-4.

Hyperspace (M/A): Required for navigating in the strange layers of hyperspace (A-D). Failing a navigation roll in these strange realms is likely to be far more dangerous than in realspace. There is no default.

Transfer Point (M/A): This skill is required for plotting the correct entry speeds into a transfer point (p. 105). Failure is rarely dangerous unless the vessel rams into something after a failed entry. It does not help in "thread running" (p. 106). Defaults to the Realspace specialization at -4.

E-Level Hyperspace (M/VH): Navigation in this layer of hyperspace is as much an art as a science and requires a will of steel combined with a knowledge of psychology and symbology. At the GM's discretion a navigator in this realm may receive a +1 bonus for a skill of 14+ in Linguistics, Mathematics, Occultism, Physics/TL, Psychology, or Theology. As travel in this place is never the same from moment to moment, there are no defaults.

Exotic (M/VH): Operating exotic TL12-14 systems, such as Soft Quantum Tunneling Drives and Probability Drives, requires specialties only available to the major clans. They may require exotic prerequisites such as skill in psionics or a thorough understanding of probability physics. No Earthclanner currently possesses these skills (likely requiring an Unusual Background to take); their acquisition would be seen as a major coup by the Terran Confederation.

Beam Weapons/TL **see p. B49**

Specialties common to this setting are:

Blaster: Weapons that fire plasma bolts or particle beams, such as saber rifles.

Laser: Weapons firing coherent electromagnetic radiation (light, microwaves, X-rays, or gamma rays), such as phase burners.

Neural: Psionic beam weapons use this skill, as do non-psionic weapons that disrupt neurological function, such as nerve guns and hypnagogic projectors.

Electronics/TL **see p. B60**

In addition to the specialties listed on p. B58 the following are also available:

Psychotronics: Covers the design, tuning and repair of artificial psionic gear: amplifiers, shields, detectors, weapons, and so on. This field only exists at TL10+.

Probability: This skill is required to repair and design probability weapons, reality anchors, hyperspace navigation gear, and most Galactic stardrives. Probability technology only exists at TL11+.

Electronics Operation/TL **see p. B58**

Psychotronics and Probability are two new specialties, as above.

Gunner/TL **see p. B50**

Common specialties include Beams, Cannon, and Machine Gun.

Hidden Lore **see p. C1147**

Possession of this skill could be very dangerous, especially if it deals with the Progenitors or the Retired Races. Such an individual would at best be considered a heretic and at worst a good reason to wipe out his entire race.

Some possible specialties include:

Hydrogen-Breather Lore: You know a lot about the hydrogen breathers. This knowledge will be in high demand by the Library and major clans.

Progenitor Lore: You know a secret about these beings that is either otherwise completely unknown, or buried deep in the Library or the private datawell of a major clan. This information could spark wars and change the face of the Five Galaxies.

Racial Lore: You know at least part of the true history of a specific race or clan. A Terragens character with this skill would learn the various embarrassing (and potentially very dangerous) details of Human history that have been "edited" from the records since Galactic contact.

Retired Race Lore: You have discovered the secrets of one or more Retired clans. This is typically only appropriate for those who have been invited to one of their facilities.

History **see p. B61**

Characters taking the History skill *must* choose a specialty. The specialty may be Galactic history (a grand view of all two-billion-plus years of Galactic civilization) or a particular clan's or race's history. History skill for your own clan or race defaults to IQ-6.

The history of a famous or powerful clan (other than your own!) defaults to History (Galactic)-4. Galactics get no default in History (Earthclan).

Mathematics **see p. B61**

Between the universal availability of easily operated computers, and a cultural blindness that may have been deliberately encouraged by the Progenitors, Galactic culture has never developed higher mathematics, instead relying on complex arithmetic algorithms. Galactics are baffled and amused by "wolfling math," which they consider a pseudo-science on par with astrology.

As a result, non-Earthclan characters may not take the Mathematics skill. When required as a prerequisite for another skill, a Galactic character may take Cyphering (M/E, see p. C1156) and Computer Operation/TL (M/E, see p. B58). His equivalent skill at Mathematics is the lower of these skill levels, with a modifier for the computing equipment available (computer Complexity-4). If no computing equipment is available, the character must rely on his Cyphering skill -6.

Example: A Soro scientist with Cyphering-12 and Computer Operation-11 is attempting to calculate the orbital period of a newly discovered asteroid. The computer being used is Complexity 11, which grants a +7 to the Soro's skill level, giving him an effective skill level of 18 for the calculation. If

forced to use "pencil and paper," the Soro's effective skill level would be 6.

A Galactic with an Unusual Background of being raised and educated by Earthlings speaking a Human language would be able to take Mathematics. A member of the Institute for Progress might also obtain this skill. Non-Human natives of Jijo grow up learning Human-style mathematics, and are similarly not affected.

Piloting/TL **see p. B69**

This setting uses the specialties as described in *GURPS Vehicles, Second Edition* (pp. VE144-145). The most common specialties include:

Aerospace: Use this for any high-speed flying vehicle with a top air speed of 3,000 mph or more, as well as any vehicle making a winged flight to orbit or winged reentry. Defaults to High Performance Aircraft at -2, other Piloting at -4.

Contragravity: Any craft operating in the atmosphere that flies primarily due to contragravity lift. Defaults to Vertol at -3, others at -5.

High-Performance Spacecraft: This is used for a vessel with at least 0.1 G of sAccel when in space. It defaults to Low Performance Spacecraft at -2, Aerospace at -4.

Low-Performance Spacecraft: Any vessel maneuvering in space with less than 0.1 G sAccel. Defaults to High-Performance Spacecraft at -2, Aerospace at -4.

Starship: At up to TL12, this covers piloting ships through A-D level hyperspace and using transfer points. Piloting through E-Level hyperspace requires familiarity. Piloting (Starship)/13+ allows use of esoteric FTL methods such as Probability Drives and Soft Quantum Tunneling Drives.

Sex Appeal **see p. B64**

This skill does not typically cross species divides unless the target possesses Xenophilia or is Lecherous and desperate (completely alien species can only hope the person has both). Species that look similar (Tymbrini and Humans, for example) *may* use it without significant penalty at GM discretion, but Appearance bonuses do not count.

Shiphandling/TL (Mental Hard) **see p. C1161**

Prerequisites: Astrogation/TL,
Piloting/TL (Starship), and
Shipmaster/TL at 12+

This is the skill of commanding a large (50,000 cf or more) starship. Includes routine management of operations, conduct of battles, and handling emergencies.

Theology **see p. B62**

Those with this skill may specialize in Galactic, clan/racial, or alliance theology. Galactic theology is a "survey" course; it allows a default of skill-4 in the theology of the fanatic alliances (the Obeyers and Inheritors, for example) and major races. The default Theology skill of IQ-6 only applies to one's own race. (Galactics get no default in Theology (Earthclan) and vice versa.)

Medical Skills

Each medical skill requires a specialization by species. Healers practicing their craft on an unfamiliar species may do more harm than good. Apply the following penalties to medical skills when cross-species medicine is attempted without the appropriate specialization:

- Very similar (Human treats neo-chimp): -1
- Distantly related (Human treats dolphin): -3
- Very distantly related (Human treats reptile): -5
- Bizarre, extremely different (Human treats octopus): -7

If the patient's species is from another world, apply a further -2 penalty if reference texts are available; -4 if working on the fly. If the proper pharmaceuticals are not available, increase the penalty by a further -2!

First Aid is fairly basic care that can be applied to a wide variety of species. Reduce the above penalties by 2. Surgery is trickier, however: Increase the penalty by -3!

Example: A Tymbrimi treating a Human would suffer a -3 penalty to his medical skill; Humans are close enough in structure to be treated as "very similar" (-1 penalty) but are from a different world (-2 penalty). Biochemical data would be available in any Tymbrimi doctor's datawell.

Physiology/TL see p. B61

Physiology is a study of the details of a *particular* species' anatomy and bodily functions. It must be bought on a per-race basis.

Psychology see p. B62

This skill must specialize in a particular sapient species. It is possible to default to other specialties at -4, as most Galactics have roughly similar psychology. Galactics do not get a default for wolfing psychology, however.

Veterinary/TL see p. B47

This skill is a form of the Physician/TL skill (p. B56) in this setting and does not exist separately.

Xenology/TL see p. C1159

The Five Galaxies are home to thousands of races. Rolls to recognize and remember the details of a particular race are made at -4, but this penalty is reduced to -2 for major and infamous clans or those the character is familiar with (for the Terragens this would include the Tandu, Soro, and Thennanin).

New Skills

Keneenk Logic (Mental/Hard) No default

A mental discipline practiced almost exclusively by neo-dolphins, Keneenk combines Human-style logic with the non-causal heritage of the "Whale Dream." (Human and neo-chimp practitioners must take cetacean RNA to supply the Whale Dream element.)

Successful use of Keneenk (requires 1d+4 turns of concentration) gives the practitioner a +4 bonus to resist Stress Atavism (see p. 84) for one hour. A successful roll also gives the practitioner +6 bonus to talk a neo-dolphin out of a Stress Atavism roll.

Keneenk Logic also allows the user to analyze dreams. (See Dreaming skill, p. C1139.) This requires a night's worth of meditation and a hard (-4) Keneenk Logic roll. On a failure, the user is lost in the Whale Dream and is effectively Presentient (see p. 86) for 1d hours. On a critical failure, the user is Presentient for an entire *day*.

Savoir-Faire (Galactic) (Mental/Average)

Defaults to IQ-4

This is an essential skill for interstellar travelers. Users will know how to greet Galactics of various stations, the proper use of racial names, and how to insult with subtlety and style. Savoir-Faire skill for a *particular* Galactic clan's culture (the Terragens don't count!) defaults to Savoir-Faire (Galactic) -2.

Note that this is a general knowledge of the pleasantries, traditions, and regulations for Galactic society. Individual cultures will have their own customs that will be much harder to learn – for example, the Earthclan Tea Ceremony (p. C1160).

Shipmaster/TL (Mental/Average) Defaults to IQ-5, Astrogation/TL-3, Aviation/TL-4

The professional knowledge of spaceship operations and procedures, port protocols, and ship's business. Shipmaster is the spacefaring equivalent of the Sailor skill (p. C1154). It is to spacecraft what Aviation skill (p. C1153) is to aircraft; these skills default either way at -4.

Under limited circumstances the Shipmaster skill can be substituted for routine use of Electronics (Computers), Electronics Operation (Computers or Sensors), Astrogation (Real-space), or Vacc Suit. Normally this is limited to situations where a trained individual would roll at +4 or higher.



Psionic Powers

Telepathy & Telempathy

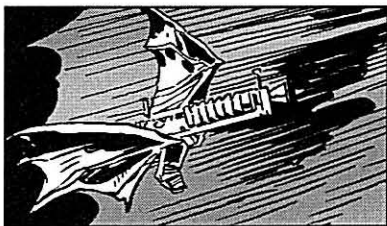
Full telepathy is very rare in the *Uplift* setting. *Telempathy* is much more common. This is telepathy with the restriction that it can only be used to project and receive emotions (using Telesend and Telereceive respectively). Telempathy does not allow Mindwipe, Sleep, Mental Blow, or Telecontrol.

This restriction decreases Telepathy cost by 50%.

Probability Alteration

This set of powers lets the adept tinker with reality through sheer force of will. No being's level of Probability Alteration Skill or Power may exceed his Will -4. Certain personality traits and mental advantages and disadvantages can increase this upper limit:

- Selfish: +1
- Self-Centered: +2
- Callous: +1
- Solipsist: +4
- Megalomaniac: +6
- Versatile: +1



Bend Probability

*5

This is the ability to affect the probabilities of normal events. Unskilled adepts with a Power of at least 3 effectively have the Luck advantage (15 points, see p. B21). 6 levels gives Extraordinary Luck (30 points, see p. B21), and Power 12 is equal to Ridiculous Luck (60 points, see p. CI29). Default use is limited by time, as noted in the advantage descriptions, but such use does not have the negative side effects of attempts at skilled use.

Skilled adepts can choose to bend probability before making a die roll. Warping probability requires a successful Bend Probability skill roll (this roll may *not* be altered by any power or advantage!) and expending 1d fatigue. If the roll affects only the user, then this power can be used as an Active Defense. If it affects another being, it requires a turn of concentration. The event affected should be within the range determined by the Power level (use the Telepathy range table, p. B167).

If successful, make the appropriate roll three times, and choose the desired result.

A failed Bend Probability Skill roll effectively makes the adept a Weirdness Magnet (see p. CI100) for long enough for one odd incident to occur; the GM should secretly roll 1d to determine how many hours later the Weirdness strikes. A Critical Failure results in an incident of Unluckiness (see p. B37) within the next 24 hours.

Control Probability

*10

This is the ability to dictate the outcome of an ordinary event. An unskilled user with Power 10 effectively has the Super Luck advantage (see p. CI46).

A skilled user may dictate the outcome of any one die roll within range (use the Telepathy range table, p. B167) after a successful Skill roll and the expenditure of 1d Fatigue points. If the roll affects only the user, this Power may be used as an active defense. If it affects another, it requires a turn of concentration. Alternatively, a successful use of the power may be equal to the effect of Serendipity (see p. CI30).

A failed Skill roll effectively makes the adept a Weirdness Magnet (see p. CI100) for long enough for one odd incident to occur; the GM should secretly roll 1d to determine how many hours later the Weirdness strikes. A Critical Failure results in an incident of Unluckiness (see p. B37) within the next 24 hours. A natural roll of 18 results in the adept getting a Destiny disadvantage (-5 points, see p. CI97).

Reality Anchors and Hyperspace

Use of Alter Reality is completely blocked by an operating Reality Anchor within TL × 100 yards. Use of the power is severely hampered in hyperspace. There is a skill penalty of -1d-1 in D-level (minimum of 1), -3 in C-level, -1d+1 in B-level, and -5 in A-level hyperspace. The skill penalty is -5 in E-level hyperspace, but Power is effectively doubled. All failures in E-level space should be treated as Critical.

Bend Probability and Control Probability affect only macroscopic events within the normal reach of cause and effect, and are unaffected by Reality Anchors or Hyperspaces.

Alter Reality

20

This extremely dangerous ability allows the adept to completely alter local reality and cause a desired effect to occur. All attempts require a turn of concentration and the expenditure of 1d Fatigue points. At a minimum, Alter Reality effectively allows the adept to use any psionic skill listed under Psychokinesis (p. B172) and Teleportation (p. B175). (The Tandu use Episiarch adepts to open up interstellar teleportation gates; see p. 41).

Almost anything else could be made to happen, GM willing. As a general guideline:

Use the Telepathy table (see p. B167) to determine the *range* of the effect.

Use the Telekinesis table (see p. B172) to determine the *amount of mass* that can be affected.

Damage dealt is equal to Power level/2 dice.

The adept can choose to use the skill at a lower power, and get a +1 skill bonus for every two levels of power reduction.

On anything other than a critical success, the adept is subject to 1d incidents of Weirdness (as per Weirdness Magnet, p. CI100, each 1d hours after the previous one, all rolled secretly). Normal failures results in the opposite effect occurring. A critical failure results in an effect equal to a hit from a probability weapon, or any other disaster the GM chooses.

Languages see p. B54

GURPS Uplift characters may learn the following tongues:

Anglic (Mental/Average for Humans, Chims; Mental/Hard for Galactics, neo-dolphins)

Anglic is a version of English that has been both deliberately engineered and subject to natural linguistic evolution. Over the last hundred years, many Galactic loan words have entered the language. It is the *de facto* official language of Earth and its colonies. Almost all Terragens characters start out knowing some Anglic.

While neo-dolphins can learn Anglic, they have trouble pronouncing many of its sounds. They have invented a

dialect, Underwater Anglic, which is optimized for talking underwater. Humans and Chims not used to dolphin speech find even the most eloquent neo-dolphin's Anglic difficult to comprehend. When dealing with non-dolphins who are not conversant with Underwater Anglic, dolphins suffer a -4 penalty to their Anglic skill.

Ethnic Languages

Though Anglic is spoken virtually everywhere you find Humans, Chims, and Fens, characters may wish to learn one of Terra's regional languages. Some of these are still in everyday use; others are learned as a hobby, or to maintain a nostalgic tie with the past.

Nihanic and *Rossic* – a mixture of Japanese and Mandarin, and a evolved version of Russian, respectively – are modern languages widely spoken by both Humans and clients. An Earthclan character can choose one of these, rather than Anglic, as his native tongue. Primers are available for Galactics wishing to learn the language. They are both M/A for Humans and Chims, M/H for Galactics and neo-dolphins.

More obscure ethnic tongues include Late English (21st-22nd century English, before it merged into Anglic), and pre-merger French, German, Spanish, Cantonese, Portuguese, and so on. *Galactics* who wish to learn one of these tongues treat the language as one difficulty level higher than usual, and they *must* know Anglic first! (The Library does not have lesson plans for these obscure languages; Terran-made tutorials written for Anglic speakers must be used.)

Primal (Mental/Easy for neo-dolphins, Mental/Very Hard for others)

Primal is virtually useless for anything other than what it evolved for – coordinating the actions of a pack of dolphins. Most of the vocabulary relates to hunting, rescues, mating, and other natural dolphin activities.

Humans and Chims with the Dolphin Friend advantage may learn Primal. Even they suffer a -2 penalty to understand it unless they have Ultrahearing.

Trinary (Mental/Average for neo-dolphins, Mental/Hard for others)

A more complex neo-dolphin tongue, created by trainers and the dolphins themselves during uplift. Trinary uses “three-valued” logic, which is alien to Human yes-no thought patterns. It is difficult to communicate abstract thought and technical information with Trinary, but its poetic sweep has won many a dolphin free drinks in distant watering holes.

The Galactic Languages

Difficulties shown for the 12 standard Galactic languages are for members of the Earthclan. To a Galactic, his preferred clan language, and probably one or two others,

will be Mental/Average. Galactics do not have “native” languages other than their preferred clan language; it has been hundreds of millions of years since a new language appeared on the Galactic scene. Different psychologies and vocal apparatus produce different “dialects” of the Galactic languages, but all are mutually comprehensible.

Earthclan members often refer to the various numbered languages as, e.g., “GalTwo” and “GalSeven.”

Galactic One (Mental/Hard)

Based on pure mathematics. Depends on pause and interval, like Morse code, and therefore can be “spoken” in many different ways – flashing lights, sounds, bars of color, and so on. Used to program “dumb” Galactic computers; the smart ones can handle any Galactic language.

The Library contains no instance of a race that could not learn to communicate in GalOne. It is also the slowest of the languages.

Galactic Two (Mental/Easy)

A popular language among Humans. Many GalTwo words have been incorporated into Anglic.

Galactic Three (Mental/Hard)

Hard for Humans to pronounce. Favored by the clan of the Gubru, who use it as a formal language. It is Mental/Average for neo-dolphins.

Galactic Four (Mental/Hard)

A high-pitched language with a repetitive, formal structure. The Gubru use this compact tongue in everyday situations where speed is more important than style. It is Mental/Average for neo-dolphins.

Galactic Five (Mental/Very Hard)

A language of grunts, growls, and squeals that few Humans have mastered, and none without vodor assistance. Favored by the J'8lek. It is Mental/Hard for neo-chimps.

Galactic Six (Mental/Average)

Spoken by the Synthians and Thennanin. A guttural, sibilant language, but not hard for Humans to deal with.

Galactic Seven (Mental/Easy)

Popular among many humanoid races; clan language of the Tymbrimi.

Galactic Eight (Mental/Hard)

This language of hoots and honks is favored by the Jophur. Humans speaking it may get a sore throat. GalEight's rigorous structure makes it Mental/Very Hard for neo-dolphins.

Galactic Nine (Mental/Very Hard)

A language of chimes and tones preferred by the Kanten. Human voice boxes can't duplicate it; even dolphins don't speak it well.

Galactic Ten (Mental/Hard)

This fluting language is favored by the Brothers of the Night, among others. Some GalTen words have been adopted into Anglic. It is Mental/Average for neo-dolphins.



Galactic Eleven (Mental/Hard)

A “bridge” language with a grammar designed to reduce ambiguity, GalEleven can be “spoken” using sound, light flashes, or even psionic glyphs. Favored language of the Tandu. Spoken by the Kanten when dealing with races that can’t handle GalNine.

Galactic Twelve (Mental/Average)

A throaty, complex language with interesting properties. Best known as the racial language of the Soro.

Racial Status

Racial Status is a measure of the species’ standing in Galactic society. It is determined by the species’ wealth and power, its ancestry, and particularly by whether it is a client or patron. Racial Status is very important in the ritual-bound culture of Galactic diplomacy and politics. Racial Status acts as a modifier to initial NPC reaction rolls. Every individual of a race can take advantage of this bonus, or suffer from the penalty!

Even bitter political and ideological foes recognize Racial Status. The respectful hate that a Tandu feels for a Soro is very different from the contemptuous hate the Tandu feels for a neo-dolphin! It will address the Soro politely and scrupulously abide by the rules of warfare. The Tandu won’t feel as bound by such niceties when dealing with the Fen.

Major Patron Race (racial)

25 points

The character is a member of the ruling species of one of the galaxy’s mightiest clans. His race has many clients; some of these are now free and patrons themselves. The race’s own patrons were powerful and/or well respected. Examples described in this book include the Soro, Gubru, Jophur, and Thennanin. Others include the Lesh and Pargi. They have Racial Status 5.

Powerful Patron Race (racial)

20 points

The character is of a powerful and respected species that does not have the august background of a Major Patron. Examples include the Tandu, who despite great military power and political cunning do not have an impressive lineage. They have Racial Status 4.

Notable Patron Race (racial)

15 points

The character is from a fairly well-known patron race, with respectable clan ancestors. The clan has considerable military and/or economic influence. Examples include the Kanten. They have Racial Status 3.

Average Patron Race (racial)

10 points

The character’s species is from a respectable patron race of unremarkable achievements. They have at least one client species. The clan military is adequate for its own needs, with

a little extra for strategic uses. Examples include the Synthians and Tymbrimi. They have Racial Status 2.

Minor Patron Race (racial)

5 points

The character is a member of a poor, young, or unremarkable patron race. They have Racial Status 1. Mankind falls into this category, despite having two good clients. So do the Urs, who are well-established. This group also includes Galactic citizen races who have not managed to uplift a client.

Major/Respected Client (racial)

5 points

The character is a member of a client race, but one that has powerful patrons or has distinguished itself by extraordinary service. They may already control several colony worlds. The Kwackoo of the Gubru/Gyooksu clan and the Thennanin’s Ynnin warriors are respected clients. They have Racial Status 1.

Respectable Client (racial)

0 points

A well-behaved client of a respected, but not extraordinary, patron would have Racial Status 0. Examples include the Pring.

Average Client (racial) -5 points

An unassuming client species indentured to an average patron. Examples include the Wazoon and Tytlal. They have Racial Status -1.

Average Clients suffer a -1 reaction from their patrons or the clients of other species. Other patrons or major client species react to them at -2. Clients of the same clan react to them normally, unless there is some specific “sibling rivalry.”

Minor Client (racial) -10 points

Clients belonging to minor patrons, or the undistinguished efforts of major clans, are third-class citizens. Minor clients rarely shrug off their patrons’ influence, much less become patrons in their own right. Examples include the Soro’s Forski, and Earthclan’s neo-dolphins and neo-chimps. They have Racial Status -2.

Minor clients suffer a -2 reaction from their own patrons, a -1 reaction from clients of the same clan, and a -3 reaction penalty from everyone else.

New/Botched/Weird Client (racial)

-15 points

Sometimes a client species doesn’t turn out quite right. This may be a result of poor craftsmanship, or a side effect of drastic (and possibly illegal) modifications. Their standing may be questioned by the Institute for Uplift. Examples include the Tandu’s Acceptor and Episiarch clients, and the horribly mistreated Karrank. Because they may be present-tent, mute, or still driven by instinct, brand-new clients fall into this category as well. They have Racial Status -3.

Respectable patrons are supposed to feel pity for these creations, and the Institutes are supposed to respect and protect

their rights. In practice, botched and weird clients are severely discriminated against. They suffer a -4 reaction penalty from all NPCs except their own patrons, who react to them with a -2 penalty. (Handlers, uplift specialists, and the like are not affected by this penalty; they may even feel protective of the poor creatures.)

Racial Reputation ± 5 per level

A race may have high status but a poor reputation, or vice versa. The Soro, for example, are from a venerable clan, and it is wise to be properly deferential when greeting one. But few races will *trust* a Soro, thanks to the race's well-earned reputation for ruthless ambition.

First choose the reaction bonus or penalty. A race might receive +2 bonus for having a long history of good Galactic

citizenship. A +1 bonus is appropriate for a race famed for its skill at uplift or ecological management. A legendary diplomatic *faux pas* might incur a -2 penalty. Vile mistreatment of a client species might earn a -4 penalty. Ruining a fertile ecosystem could bring a -6 penalty.

Next, determine the size of the affected group. If a single alliance or large clan is affected, reduce the value of the reputation to 1/3. If the Reputation affects several clans or alliances, halve the value. If all galactic civilization is aware of the onus, the value is not affected.

Finally, determine how frequently an individual recognizes/reacts to the racial status. *All the time*: no modifier. *Sometimes* (roll 10-): 1/2 value. *Rarely* (roll 7-): 1/3 value.

Humanity, a wolfling race which refuses to conform, has a -10 point reputation (-2 from most Galactics, all the time).

ECONOMICS



Terragens society has many benefits and safety nets, but everyone who *can* work is encouraged to do so. Unemployed or drifting characters may be drafted into a Workfare brigade or ERS (Economic Reconstruction Service) unit. Workfare and welfare recipients *must* study a trade: 20 study hours a week are allowed in any Craft skills or "non-game value" Professional skills.

Most jobs listed in *GURPS Space* are available. A job table describing professions unique to the *Uplift* universe appears below.

Starting Wealth

Terragens characters start off with \$20,000. Unless the character is a rootless nomad, all but \$4,000 of this will be tied up in a household, clothing, and other non-adventuring equipment.

The cost of living is \$1,000 monthly for a person with Status 0, and increases proportionately (\$2,000 for Status 2, \$4,000 for Status 3, and so on). This is relatively high for a Tech Level 9 society; it includes the costs of environmental maintenance, social programs, and medical insurance.

Alien characters from higher tech levels start with slightly higher wealth (\$5,000 more for each tech level above TL9). Most client races start off poorer than this; powerful patrons start off wealthier. Take Poverty or Wealth as appropriate.

Currency

Earth and its colonies use the *credit* as a standard unit of exchange. Most transactions take place via computer, but bills (holographically imprinted to resist counterfeiting) are used on undeveloped colonies and for petty expenses. In addition, a wide variety of paper, plastic, and metal currency based on the money of yore (pounds, marks, dollars, shekels, francs, rubles) is used in some countries to provide local color, maintain a connection with the past, and bilk tourists (the exchange rates are not good).

The various Galactic clans and alliances have their own banking systems. Exchange rates between systems are based on the closest thing to a universal currency, the *GalCoin*. It originated as a token for buying priority Library access time, but has become a widely acceptable currency. A single GalCoin, worth 2d+3 Earthclan credits on any particular day (Terra's "stock" fluctuates wildly!) buys a prime time hour of datastation use (see p. 92). Earthlings and colonials are constantly looking for ways to get more of this "hard currency."

Job Table

The job table is geared for use by Earthling (Human, Fin, or Chim) characters. Characters from alien societies will have similar jobs, but the requirements may differ. Specifically, clients will rarely get high-paying, prestigious, or responsible jobs.

Some bad job-failure results have entries like "Reputation-1." This means the character has picked up another disadvantage! The amount of the reaction penalty is shown. Disgraced politicians, bureaucrats, and media stars are recognized by everybody. Scientists and spacers who get bad reputations are recognized by people in their professions. The penalty is applied occasionally (roll 7 or less).

Job Table

Jobs (Required Skills)

Monthly Income

Success Roll

Critical Failure

Poor Jobs

Hustler* (Unusual Background/Fringie)	\$400	Scrounging	-1i/put on Workfare; roll IQ each month to escape.
Welfare Recipient (sick, disabled, or raising children)	\$250 + Study	8	-1i/put on Workfare reapply in 1d months.
Workfare Recipient (none)	\$300 + Study	ST or 10	-1i/2d

Struggling Jobs

Actor/Actress* (Acting 10+)	\$500	PR	-1i/1d
Agroworker (HT 10+)	\$500	PR	LJ
ERS Laborer (ST 10+)	\$600 + Study	PR	1d/2d
Historical Reenactors** (Performance 10+, Local History 10+, Ethnic Language 10+)	\$700 + Study	PR + Reaction	-1i/1d, LJ
Laborer (ST 9+)	\$550	PR	LJ/5d
Shop Clerk (Merchant 9+)	\$600	IQ + Reaction	LJ

Average Jobs – All Average or better jobs require a normal education (see p. 31).

ERS Specialist (Ecology 10+ plus Agronomy, Botany, or Zoology 12+)	\$125 × worst PR-6 + Study	PR	1d/2d
Health Worker (Diagnosis 12+, Electronics (Medical) 11+, Physician 12+)	\$1,000	Worst PR	-1i/LJ, -2i
Journalist* (Research 12+; Bard, Writing, or Photography 12+)	\$70 × best skill, plus \$500 per +1 general Reputation	Best PR -3i,	1d/LJ, 3d
Lab Assistant/Tech Worker (Computer Operation 10+, Research 11+, Worst PR any Science skill 10+)	\$100 × worst PR-6	Worst PR	-2i/LJ, 2d
Local Politician/Administrator (Status 0+, Administration 11+)	\$1,000	IQ + Reaction-2	-2i/LJ, Reputation-1
Regional/Colonial Militia (Not red card or PP, appropriate combat skill 10+)	\$1,000 + \$200 × Rank	Best PR-2	2d/-2i, LJ ¹

Comfortable Jobs

Datawhacker* (Computer Programming 12+, Research 12+, Administration or Merchant 12+)	\$300 × worst PR	PR	-2i/LJ, -4i ²
ERS Scientist (as Scientist plus Ecology 14+, Status 1+)	\$400 × best science skill	Worst PR-1	-3i/LJ, -5i
ET Products Importer* (Merchant 12+, Xenology 10+)	\$3,000	Merchant	-2i
Media Star* (Acting, Bard, Musical Instrument, or Singing 12+)	\$350 × (best PR + Reaction bonus)	Best PR	-3i/LJ, Reputation-1
Medical Researcher (Diagnosis 13+, Physiology 13+, Electronics (Medical) 11+)	\$425 × best science skill	Worst PR-1	-3i/LJ, -4i
Regional/Colonial Politician/Administrator (Status 1+, Administration 11+, Politics or Savoir-Faire 11+)	\$2,000	Worst PR	-4i/LJ, -5i, Reputation-1
Scientist (Computer Operation 12+, Research 13+, any Science skill 14+)	\$300 × best science skill	Worst PR	-2i/LJ, 2d
TAASF Starship Crew ³ (Xenology 9+, Free Fall 10+, any shipboard skill 10+ (see p. 31), Status 0+)	\$200 × best appropriate skill + \$300 × Rank	Job's PR	LJ, 2d/LJ, 8d ³
Terragens Administrator (Administration 12+, Xenology 10+, Status 2+)	\$3,000	Worst PR	-4i/LJ, -5i, Reputation-2
Uplift Specialist (Genetics 14+, Zoology 14+, Ecology 12+, Anthropology 12+, Status 1+)	\$425 × best science skill	Worst PR-2	-5i/LJ, Reputation-1

Wealthy Jobs – Unless they have blue or white cards, clients will have a tough time getting the jobs below.

TAASF Science Officer ³ (Free Fall 10+, Status 1+, Computer Programming 12+, Xenology 11+, Electronics (sensors) 11+, two or more Science skills 10+)	\$700 × (Status + Rank + Best PR-12)	Worst PR	1d, -2i/LJ, 3d, Reputation-1
TAASF Ship's Captain ³ (Free Fall 10+, Leadership 12+, Tactics 12+, Xenology 10+, Status 2+)	\$1,000 × (Status + Rank + Leadership-12)	Worst PR	-4i/LJ, 1d, Reputation-2
Terragens Council Member (Status 4+, Administration 14+, Xenology 12+)	\$10,000	Worst PR	-5i/LJ, Reputation-3
Uplift/ERS Administrator (Status 3+, Administration 12+, plus required skills for Uplift/ERS specialists, noted above)	\$5,000	Worst PR	-5i/LJ, Reputation-3

* Freelance Jobs: +/-10% per point the skill roll is made/missed by. Critical success triples income; critical failure means no income – and check the table for other penalties.

1. On colonies besieged or occupied by Galactics, the GM may apply a penalty to success rolls!
2. Datawhackers are the successors to computer programmers. They are systems analysts/cyberneticists, smoothing relations between people and self-programming (but still not perfect) computers.
3. Terragens Space Corps crew cannot have dependents or duties outside the service. They can't have Probationary Personalities or red cards.

Ordinary spacers – those who fly in-system ships or who staff regular supply runs to the colonies – should see the appropriate job description in *GURPS Space* (p. 40). Some of the more freebooting space professions – Pirates, Free Traders, and Belters – don't exist in the Uplift universe.

4. Historical Reenactors work in parks, shops, and tourist traps. They dress in period clothing, speak archaic languages, and act as much as possible like stereotypical ancients. Tourists like them, but their countrymen hold Historical Reenactors in the same esteem as amateur clowns and street mimes.

CHARACTER TEMPLATES

A template is a blueprint for a player character who can successfully fill a specific role in a particular game world. By specifying many character traits in advance, the template reduces the amount of work needed to create the character and guarantees that the character will be comparable to others built on the same amount of character points. Templates can also be helpful for experienced players who are pressed for time. Finally, templates can be used to help the GM determine the abilities of NPCs.

The player purchases the template, then spends his remaining points to customize it into an actual character by choosing background skills and unique talents. If the template includes fewer disadvantages than the campaign limit, more may be taken and the extra points used for customization. The same applies to quirks.

A "lens" is a sort of sub-template that can be used with many different templates or with building a character nearly from scratch. While certain specific character types get the full template treatment below, nearly every *GURPS Uplift* character that finds itself in contact with alien races will have gotten, at the minimum, a Terragens education, as described in this lens:

Terragens Education Lens 15 points

Life as a wolfling clan is dangerous, and Earthclan cannot afford unskilled minds. Higher education is considered necessary for the long-term survival of the clan. Unless you take the Uneducated disadvantage (see p. 23), apply this lens to your new Earthclan character:

Skills (*TL9 where applicable*): Computer Operation (M/E) IQ [1]; First Aid (M/E) IQ [1]; Naturalist (M/H) IQ-2 [1]; Psychology (M/H) IQ-2 [1]; Research (M/A) IQ-1 [1]. Five points from at least three of the following: Meteorology (M/A); Anthropology, Astronomy, Autohypnosis, Botany, Chemistry, Ecology, Economics, Geology, History (Earthclan), Mathematics, Physics, Xenology, or Zoology, all (M/H). Characters from *colonies* may also choose from Fishing (M/E); Agronomy, Survival, or Tracking, all (M/A); or Animal Handling (M/H). Mentally deficient individuals (IQ 8 or less) may choose craft skills instead of science skills.

Languages: Five points, with at least 2 points toward Galactic languages.

The Space Force (TAASF)

The Terragens has no naval forces *per se*. Starships are too valuable to be kept on permanent military duty. Except for patrol ships and guardian satellites, the vessels of the Terragens and Allied Space Force are kept busy on survey missions,

supply runs to colonies, and acting as far-ranging merchant pioneers.

The Force is an elite corps; its men, Chims, and Fen are expected to be well-educated, self-sufficient survivors. They must be prepared to be soldiers, explorers, merchants, and diplomats. They must also be prepared to leave their pasts behind. Because of the vagaries of interstellar travel, there is no guarantee that their loved ones will be alive or their home towns recognizable when they return from the stars. The rewards are many: pay is high, educational opportunities many, and the adventure incomparable. Corps officers often find their way into Council politics after retirement.

The TAASF has two divisions: Survey, which is responsible for far-ranging interstellar missions, and the Guard, which organizes, trains, and provisions the militia aerospace squadrons that patrol colonial systems.

TAASF Spacer 50 to 70 points

Attributes: ST 10 [0]; DX 10 [0]; IQ 10 [0]; HT 10 [0].

Advantages: Military Rank 0-4 [0-20].

Disadvantages: Primitive (TL9) [-5].

Shipboard Skills (*TL9 where applicable, unless otherwise noted*): Computer Operation (M/E) IQ+1 [2]-11; Free Fall (P/A) DX [2]-10; Shipmaster (M/A) IQ [2]-10; Vacc Suit (M/A) IQ [2]-10. Six points from the following: Astrogation (Hyperspace), Astrogation (Realspace), Astrogation (Transfer Point), or Shipmaster (Aviation), all (M/A); Astrogation (E-Level) or Shiphandling, both (M/H). Six points from the following: Piloting (Low-Performance spacecraft), Piloting (High-Performance spacecraft), or Piloting/TL10 (Starship), all (P/A). Six points from the following: Electronics Operation (Communications), Electronics Operation (Computers), Electronics Operation (Force shields), Electronics Operation (Sensors), Mechanic (Fusion drive), Mechanic/TL10 (Hyperdrive), Mechanic/TL10 (Thrusters), all (M/A).

Groundside Skills (*TL9 where applicable*): Area Knowledge (Galaxy Two) (M/H) IQ-2 [1]-8; Naturalist (M/H) IQ-2 [1]-8; Psychology (M/H) IQ-2 [1]-8; Research (M/A) IQ-1 [1]-9; Savoir-Faire (Galactic) (M/A) IQ [2]-10. Five points from at least three of the following: Meteorology (M/A); Anthropology, Astronomy, Autohypnosis, Botany, Chemistry, Ecology, Economics, Geology, History (Earthclan), Mathematics, Physics, Xenology, or Zoology, all (M/H). Eight points from the following: Scrounging (M/E); Freight Handling, Merchant, Performance (see note), or Planetology (specialization), all (M/A); Singing (P/E); or Carousing (P/A).

Combat Skills (*TL9 where applicable*): First Aid (M/E) IQ [1]-10, and four points from the following: Beam Weapon (laser) or Knife, both (P/E); Judo (P/H).

Languages: Five points, with at least two points from Galactic Two (M/E), Galactic Six (M/A), or Galactic Seven (M/E).

Customization Notes: Spacers will have a standard Terragens education (see p. 31), and will probably want to buy off their Primitive disadvantages. High-ranking officers will have the Shiphandling and Leadership skills. Many Earthclan spacers practice performance skills, both to pass the long days between ports and to use as a trade item! Talented neo-dolphin spacers are particularly sought after.

TAA5F Protocol Representative **88 to 98 points**

Attributes: ST 10 [0]; DX 10 [0]; IQ 13 [30]; HT 10 [0].

Advantages: Military Rank 2-4 [10 to 20].

Disadvantages: Primitive (TL9) [-5].

Primary Skills (TL9 where applicable): Area Knowledge (Galaxy Two) (M/H) IQ [4]-13; Savoir-Faire (Galactic) (M/A) IQ+1 [4]-14; Xenology (general) (M/H) IQ+2 [8]-15. Four points from History (Galactic) or Theology (Galactic), both (M/H). Four points from Economics or Diplomacy, both (M/H).

Shipboard Skills (TL9 where applicable): Computer Operation (M/E) IQ+1 [2]-14; Free Fall (P/A) DX [2]-10; Shipmaster (M/A) IQ [2]-13; Vacc Suit (M/A) IQ [2]-13.

Secondary Skills (TL9 where applicable): First Aid (M/E) IQ [1]-13; Naturalist (M/H) IQ-2 [1]-11; Psychology (M/H) IQ-2 [1]-11; Research (M/A) IQ-1 [1]-12. Five points from at least three of the following: Meteorology (M/A); Anthropology, Astronomy, Autohypnosis, Botany, Chemistry, Ecology, Geology, History (Earthclan), Mathematics, Physics, Xenology, or Zoology, all (M/H).

Languages: Eight points from Galactic One (M/H), Galactic Two (M/E), Galactic Six (M/A), or Galactic Seven (M/E); four points from at least three *other* Galactic languages.

Customization Notes: Spacers will have a standard Terragens education (see p. 31), and will probably want to buy off their Primitive disadvantages.

Terragens Council Agents

The Terragens Council employs thousands of highly skilled individuals in a wide variety of positions. The very best of the Earthclan races may find themselves tapped to serve as Council Agents. Agents' duties include diplomacy, espionage, and exploration.

Terragens Agent **138 to 158 points**

Attributes: ST 11 [10]; DX 11 [10]; IQ 13 [30]; HT 10 [0].

Advantages: Legal Enforcement Powers [10]; Military Rank 2-6 [10-30].

Diplomatic Skills: Diplomacy (M/H) IQ [4]-13; Savoir-Faire (Galactic) (M/A) IQ+1 [4]-14; Xenology (general) (M/H) IQ+1 [6]-14; and four points from History (Galactic) or Theology (Galactic), both (M/H).

Shipboard Skills (TL9 where applicable): Free Fall (P/A) DX-1 [1]-10; Shipmaster (M/A) IQ-1 [1]-12; Vacc Suit (M/A) IQ-1 [1]-12.

Survival and Combat Skills (TL9 where applicable): First Aid (M/E) IQ [1]-13. Eight points from the following: Leadership (M/A); Tactics (M/H); Beam Weapons (Blaster), Beam Weapons (Laser), or Knife, all (P/E); Judo or Karate, both (P/H). Six points from Camouflage (M/E); Survival (at least three regions) or Tracking, both (M/A); or Stealth (P/A).

Espionage Skills (TL9 where applicable, unless otherwise indicated): 12 points from Acting, Disguise, Fast-Talk, Interrogation, Lockpicking, or Streetwise, all (M/A); Cryptanalysis/TL10, Detect Lies, or Forgery/TL10, all (M/H); or Computer Hacking (M/VH).

Secondary Skills (TL9 where applicable): Naturalist (M/H) IQ-2 [1]-11; Psychology (M/H) IQ-2 [1]-1; Research (M/A) IQ-1 [1]-12. Five points from at least three of the following: Meteorology (M/A); Anthropology, Astronomy, Autohypnosis, Botany, Chemistry, Ecology, Economics, Geology, History (Earthclan), Mathematics, Physics, or Zoology, all (M/H).

Languages: Galactic Two (M/E) IQ+1 [2]-14; Galactic Six (M/A) IQ [2]-13; Galactic Seven (M/E) IQ+1 [2]-14; Nihanic (M/A) IQ-1 [1]-12; Rossic (M/A) IQ-1 [1]-12. and four points from at least three *other* Galactic languages.

Note: Council Agents will have a standard Terragens education (see p. 31).

Terragens Marines

Earth and its colonies all have militias and space guard forces. Most are created and controlled by regional authorities, such as colonial governments. Most of these military and paramilitary forces have few personnel on active duty at any one time, but if required most of their manpower can be called up from the reserves. These reservists have the important but unglamorous job of protecting their worlds from invasion. Full-time military service is not a popular career choice for many Terragens; only recently has military service been seen as a necessary and important social responsibility.

The most famous military unit in the Terragens is the Marines, a small, highly trained unit that serves as a quick reaction force. They act as commando teams, intelligence, and security detail onboard starships, and advisors to colonial militia. Although there are units that are arguably better trained and have more personnel, it is the Marines that all Terragens and many Galactics see as the most elite force the Council possesses.

The Marines are highly trained to counter the advantages that Galactics have over Terragens – and the list is long. They specialize in commando operations and guerrilla warfare. Accustomed to styles of combat that approach ritual, the Institute for Civilized Warfare would be shocked at some of the Marines' methods. The fact is, the Marines need every advantage they can get. The Galactics may be stodgy and conservative but they are certainly not stupid, and the Library has vast amounts of tactical and strategic advice to offer even the most unimaginative Galactic.

The Terragens Marines are respected – and perhaps a bit feared – by other members of the Earthclan. Marines have a reputation for being very conservative, even Human chauvinistic; the very few Chim and dolphin personnel are in separate units, with Human officers. Some Council members take pains to exclude Marines from politics and decision-making, fearing that overly eager agents acting on their own could injure the Terragens' reputation. The perception among the Marines is that the Council is becoming more and more like the Galactics every year. This has led to a wide cultural divide between the Marines and the Terragens political leadership – and could possibly result in trouble in the future.

Terragens Marine Varies

Attributes: ST 12 [20]; DX 13 [30]; IQ 13 [30]; HT 12 [20].

Advantages: Fit [5]; No Primitive [5]; 20 points chosen from additional ST or HT, Combat Reflexes, Contacts, Military Rank, Patrons, and Reputation.

Disadvantages: Extremely Hazardous Duty [-20].

Primary Skills (TL9 where applicable): Administration (M/A) IQ-2 [1/2]-11; Armoury (Small Arms) (M/A) IQ-2 [1/2]-11; Beam Weapons (P/E) DX [1]-15*; Brawling (P/E) DX [1]-13; Camouflage (M/E) IQ [1]-13; Climbing (P/A) DX [2]-13; Demolition (M/A) IQ-2 [1/2]-11; Driving (Automobile) (P/A) DX-1 [1]-12; Electronics Operation (Comm) (M/A) IQ-1 [1]-12; Electronics Operation (Sensors) (M/A) IQ-1 [1]-12; Escape (P/H) DX-1 [2]-12; First Aid (M/E) IQ-1 [1/2]-12; Forward Observer (M/A) IQ-2 [1/2]-11; Free Fall (P/A) HT [2]-12; Guns (LAW) (P/E) DX-1 [1/2]-14*; Guns (Light Auto) (P/E) DX [1]-15*; Guns (Pistol) (P/E) DX [1]-15*; Guns (Rifle) (P/E) DX [1]-15*; Hiking (P/A) HT [2]-12; Jumping (P/E) DX [1]-13; Knife (P/E) DX-1 [1/2]-12; Leadership (M/A) IQ-2 [1/2]-11; Navigation (M/H) IQ-2 [1]-11; NBC Warfare (M/A) IQ-1 [1]-12; Orienteering (M/A) IQ [2]-13; Parachuting (P/E) DX-1 [1/2]-12; Piloting (Contragrav) (P/A) DX-1 [1]-12; Powerboat (P/A) DX-1 [1]-12; Savoir-Faire (Military) (M/E) IQ-1 [1/2]-12; Scrounging (M/E) IQ-1 [1/2]-12; Scuba (M/A) IQ+1 [4]-14; Skiing (P/H) DX-2 [1]-11; Stealth (P/A) DX-1 [1]-12; Survival (any three) (M/A) IQ [6]-13; Swimming (P/E) DX+1 [2]-14; Tactics (M/H) IQ [4]-13; Throwing (P/H) DX-1 [2]-12; Traps (M/A) IQ-1 [1]-12; Vacc Suit (M/A) IQ [2]-13.

*Includes +2 bonus for IQ.

Languages: Galactic Two (M/E) IQ [1]-13; Galactic Six (M/A) IQ-2 [1/2]-11; Nihanic (M/A) IQ-2 [1/2]-11; Rossic (M/A) IQ-2 [1/2]-11.

Other Skills: Other skills vary depending on team assignment:

White: Increase Beam Weapons, Guns (Light Auto), and add Gunner (ATGM).

Green: Add Teaching (M/A) IQ [2]-13, Intimidation (M/A) IQ-1 [1]-12, and increase Leadership.

Blue: Increase Powerboat, Scuba, and Swimming. Add Underwater Demolition (M/A) IQ [2]-13.

Black: Increase Hiking, Orienteering, Stealth, and Survival specializations.

Purple: Add Savoir-Faire (Galactic) IQ [2]-13, Computer Hacking (M/VH) [8]-13, Cryptanalysis (M/H) [4]-13, Interrogation (M/A) IQ-1 [1]-12.

Customization Notes: Some Marines have Chauvinism and/or Intolerance (of Galactics or colonials) at the quirk level. Marines will have a standard Terragens education (see p. 31). It is also almost unheard of for a Marine to not have at least one cybernetic or bionetic implant. See p. 97.



The ERS

The Ecology Reconstruction Service is one of Terragens society's largest institutions. The ERS heals environmental damage done by past civilizations. Millions work for the service. Some are paper-pushers, others are scientists, but most work in the field, planting trees, cleaning up old landfills, obliterating strip-mine scars, and managing wildlife relocation efforts. Branches exist on every colony. Indeed, duty on Earth is considered a mere mopping-up action.

Life in the ERS has military overtones. Strict discipline and hard work are expected of field workers. Pay is not high, but workers are insured against injury and eligible for free education (15 hours a week in Ecology, Botany, Agronomy, Geology or Zoology, or 20 hours a week in Outdoor skills.) Career ERS professionals are well paid and highly respected; many important Terragens officials served a stint in the ERS. Most ERS nonprofessionals are young people earning money while school is out; the rest are a mixed bag of drifters, PPs, and people trying to forget their pasts. Unmarried Workfare recipients are routinely pressured to join the service. In times of need, ERS workers can be counted as part of Earthclan's military reserves.

ERS Field Worker Lens 10 points

Skills (TL9 where applicable): Agronomy (M/A) IQ-1 [1]; Boating (P/A) DX-1 [1]; Climbing (P/A) DX [2]; First Aid (M/E) IQ [1]; Running (P/H) DX-1 [2]; Survival (three regions) (M/A) IQ-1 [1 each].

ERS Animal Control Specialist Lens 12 points

Skills (TL9 where applicable): Animal Handling (M/H) IQ [4]; Guns (Rifle) (P/E) DX+1 [2]; Net (P/H) DX-2 [1]; Stealth (P/A) DX-1 [1]; Tracking (M/A) IQ [2]; Zoology (M/H) IQ-1 [2].

SERIES CHARACTERS

The characters below were introduced in the *Uplift* novels. Before using them in a campaign, we recommend reading the books to get to know them better.

Admiral Helene Alvarez

156 points

Age 75 subjective years, was born 250 years ago. 5'7", 135 lbs. Sparse white hair, blue eyes; commanding appearance despite advanced age.

Helene deSilva was born on a solar power satellite at the height of the Bureaucracy. She became an accomplished spacer and managed to get a berth aboard the *Calypso*, one of Terra's first interstellar ships. Thanks to time dilation her three years aboard the ship deSilva covered over a century of Human history. By the time *Calypso* returned home, Humanity had made Contact.

She returned from her second trip (a supply mission to the colony on Omnivarium) to find that the Bureaucracy had been overthrown. Helene retired from spacing and became the Confederacy's Commandant on Mercury. Her stint there ended as a result of the *Sundiver* Affair. Shortly afterward, she and her new husband Jacob Demwa (she adopted his clan name, Alvarez) spaced out on the *Vesarius II*, which she helped design. They cruised Galaxy Two for decades, visiting Human colonies and Galactic worlds on behalf of the Terragens Council.

Helene has become an influential figure in the Council thanks to her diplomatic skills. She is currently based on Earth, but makes frequent diplomatic missions.

While Helene was born a century too early to have a Terragens Education, she is not considered Uneducated thanks to her experience and contributions to civilization.

ST 9 [-10]; **DX** 12 [20]; **IQ** 14 [45]; **HT** 10 [-10].

Speed 5.50; Move 5.

Dodge 5.

Advantages: G-Experience [10]; Military Rank 8 [40]; Reputation +2 (Legendary diplomat, among Terragens service personnel) [4].

Disadvantages: Age (75) [-5]; Duty (Terragens official, 15 or less) [-15].

Quirks: Uses late-21st-century slang and expressions. [-1]

Skills: Administration-16 [6]; Area Knowledge (Galaxy Two)-15 [6]; Astrogation (Hyperspace)-13 [1]; Astrogation (Real Space)-14 [2]; Astrogation (Transfer Point)-13 [1]; Astronomy/TL9-13 [2]; Beam Weapons/TL9 (Lasers)-13 [1/2]; Chemistry/TL9-12 [1]; Computer Operation/TL9-15 [2]; Diplomacy-14 [4]; First Aid/TL9-14 [1]; Free Fall-12 [2]; History (Earthclan)-13 [2]; Judo-11 [2]; Leadership-15 [4]; Mathematics-15 [6]; Physics/TL9-13 [2]; Piloting/TL9 (Aerospace)-11 [1]; Piloting/TL9 (Contragrav)-11 [1]; Piloting/TL9 (Low-Performance Spaceship)-11 [1]; Piloting/TL9 (Starship)-12 [2]; Psychology-12 [1]; Savoir-Faire (Galactic)-15 [6]; Shiphandling/TL9-13 [2]; Shipmaster

/TL9-15 [4]; Strategy (Space)-12 [1]; Vacc Suit/TL9-14 [2].

Languages: Anglic-14 [2]; Galactic Two-14 [1]; Galactic Four-11 [1/2]; Galactic Six-13 [2]; Galactic Seven-14 [1]; Galactic Ten-11 [1/2]; Late English (native)-14 [0]; Trinary-11 [1/2].

Alvin (Hph-wayuo)

32 points

Hoon male, age 23. 6'6", 228 lbs. A lanky, relaxed-looking young Hoon with a few interesting scars, unkempt leg-fur, and callused hands.

Hph-wayuo is a native of Jijo, an illegal sooner colony in Galaxy Four (see Appendix A). He grew up with his parents and sister in Wuphon port. While the scholarly young Hoon respected his racial heritage and his father's seafaring ways, he was a writer at heart and loved the tales of adventure that Humans had brought to Jijo. He adopted the "humicker" nickname Alvin, and kept a remarkable journal. Under the sponsorship of an Urrish master smith, Alvin and a motley group of friends descended into an ocean trench in a bathyscape of their own construction. Rescued from disaster by the crew of the *Streaker*, Alvin and his friends eventually found themselves whisked to Galaxy Two.

Today Alvin lives on Hurmuphta, a Hoon colony world, with his wife Dor-hinuf and a young son. He and his g'Kek friend Huck are the *de facto* leaders of a growing but controversial cultural renaissance. Despite being from a backwater colony, Alvin received enough of a liberal education on Jijo not to be considered Uneducated by Earthclan citizens. He has begun to buy off his Primitive disadvantage.

ST 11 [-10]; **DX** 10 [0]; **IQ** 12 [20]; **HT** 11 [-10].

Speed 5.25; Move 5.

Dodge 5.

Advantages: Comfortable [10]; Hoon [53].

Disadvantages: Dependents (Wife and young child, both 9 or less) [-56]; Primitive (TL8) [-10].

Skills: Boating-11 [4]; Fishing-12 [1]; History (Galactic)-10 [1]; History (Terran)-10 [1]; Knife-9 [1/2]; Literature-11 [2]; Mathematics-10 [1]; Naturalist-9 [1]; Poetry-10 [1/2]; Seamanship/TL5-14 [1]; Teaching-12 [2]; Writing-14 [6].

Languages: Anglic-14 [6]; Galactic Two-12 [2]; Galactic Six (native)-14 [4]; Galactic Seven-12 [2].

Gillian Baskin

190 1/2 points

Age 36 (objective years). 5'6", 135 lbs. Blonde hair, brown eyes.

Gillian's primary education was as a physician, but like her partner, Thomas Orley, she has had training as a spy, scientist, and survivalist. She has minor psionic powers as a result of Earthclan's low-profile "Human uplift" project.

Commander Baskin was assigned to the *Streaker* as ship's physician. She assumed command of the vessel after it fled Kithrup; and after a spectacular series of adventures

brought it safely to Earth shortly after the Great Sundering. She eagerly awaits news of Thomas Orley's fate.

ST 11 [10]; **DX** 12 [20]; **IQ** 14 [45]; **HT** 11 [0].

Speed 5.75; Move 5.

Dodge 5.

Advantages: Human [0]; Military Rank 5 [25]; No Primitive [5]; Special Rapport (Thomas Orley) [10]; Unusual Background (Dolphin Friend) [5]; Unusual Background (Geneered; Acute Hearing +4) [13].

Disadvantages: Duty (Terragens agent and TAASF officer, 15 or less) [-15]; Sense of Duty (Thomas Orley) [-5].

Skills: Acting-11 [1/2]; Anthropology-12 [1]; Area Knowledge (Galaxy)-13 [1/2]; Astrogation (Hyperspace)-12 [1/2]; Astrogation (Real Space)-12 [1/2]; Astrogation (Transfer Point)-12 [1/2]; Astronomy/TL9-11 [1/2]; Beam Weapons/TL10 (Blasters)-13 [1/2]; Beam Weapons/TL9 (Lasers)-13 [1/2]; Computer Operation /TL9-14 [1]; Diagnosis/TL9-14 [4]; Driving/TL9 (Groundcar)-11 [1/2]; Electronics Operation/TL10 (Comm)-12 [1/2]; First Aid/TL9-14 [1]; Free Fall-11 [1]; History (Earthlan)-13 [2]; Judo-10 [1]; Karate-10 [1]; Leadership-13 [1]; Naturalist-12 [1]; Physician/TL9-15 [6]; Psychology-13 [2]; Research-13 [1]; Scuba-13 [1]; Shiphandling/TL9-12 [1]; Shipmaster/TL9-13 [1]; Strategy (Space Combat)-12 [1]; Surgery/TL9-14 [8]; Survival (Desert)-13 [1]; Survival (Forest)-13 [1]; Survival (Island/Beach)-13 [1]; Swimming-14 [4]; Vacc Suit/TL9-12 [1/2]; Xenobiology (Terrestrial)-13 [1]; Xenology-14 [4]; Zoology-13 [4].

Languages: Anglic (native)-14 [0]; Galactic One-12 [1]; Galactic Two-15 [2]; Galactic Four-12 [1]; Galactic Six-14 [2]; Galactic Seven-15 [2]; Galactic Twelve-13 [1]; Nihanic-12 [1/2]; Primal-11 [1]; Rossic-12 [1/2]; Trinary-13 [2].

Fiben Bolger **161 points**

Neo-chimpanzee male, age 27, 4'8", 165 lbs. Brown fur and eyes.

Fiben, an ERS field scientist, was a lieutenant in the Garth colonial militia reserve when the Gubru invaded. His patrol boat was blasted out of the skies early in the campaign, but Fiben survived and played a crucial role in the Resistance. The Gubru selected him as Uplift Representative at their rigged neo-chimpanzee Uplift Ceremony, where he witnessed the incredible events surrounding the revelation of the Garthlings. Fiben, now a commander in the militia and possessor of a white card, spends his spare time touring Garth with his wives.

ST 14 [0]; **DX** 13 [10]; **IQ** 11 [20]; **HT** 12 [0].

Speed 6.25; Move 6.

Dodge 6; Parry 8 (Brawling).

Advantages: Contacts (Senior government officials) [4]; Luck [15]; Military Rank 4 [20]; Neo-Chimpanzee [56]; Unrestricted Reproduction (White card) [15].

Disadvantages: Duty (Militia, 6 or less) [-2]; Primitive (TL9) [-5].

Quirks: Embarrassed at fame; Fatalistic sense of humor. [-2]

Skills: Agronomy/TL9-10 [2]; Astrogation (Real Space)-10 [1]; Beam Weapons (Lasers)-14 [2]; Boating-12 [1]; Botany/TL9-10 [2]; Brawling-13 [1]; Computer Operation/TL9-11 [1]; Driving/TL9 (Groundcar)-11 [1/2]; Ecology/TL9-10 [2]; First Aid/TL9-12 [2]; Gunner/TL9 (Beams)-12 [1]; Hobby (Thunder Dancing)-12 [1]; Leadership-9 [1/2]; Naturalist-9 [1]; Piloting/TL9-13 (Aerospace) [2]; Piloting/TL9-11 (Contragrav) [1/2]; Piloting /TL9-12 (High-Performance Spaceship) [1]; Psychology-9 [1]; Research-10 [1]; Riding (Horse)-12 [1]; Running-12 [2]; Savoir-Faire (Galactic)-9 [1/2]; Shipmaster/TL9-10 [1]; Stealth-12 [2]; Survival (Forest)-10 [1]; Survival (Island/Beach)-10 [1]; Survival (Swampland)-10 [1]; Tactics-9 [1]; Zoology-9 [1].

Languages: Anglic (native)-12 [1]; Galactic Two-11 [1]; Galactic Three-9 [1]; Galactic Six-9 [1]; Sign Language-10 [1].

Captain Creideiki **285 points**

Neo-dolphin male, age 39; gray, 8'2" long, 410 lbs. Scars on side of head.

After years of distinguished service in the TAASF, Creideiki was designated captain of the *Streaker*, the Terragens' first dolphin-crewed starship. He showed a unique ability to bring out the best in Fen under his command, and helped his crew stay disciplined with lessons in Keneenk Logic. The captain had successfully led the *Streaker* to the isolated water-world Kithrup and was organizing repair efforts when he was severely injured in an assassination attempt. Creideiki suffered damage to the "new" areas of his brain associated with speech and rational thought. Though still intelligent, he speaks with difficulty and has trouble using technology. Creideiki must make a Will roll to speak a sentence in Anglic or Trinary. He must make an IQ roll to use technology more complex than an airlock or walker.

Creideiki also has a Delusion; he spends 1d hours per day talking to an imaginary (?) cetacean "god" dwelling in his subconscious. Fen listening to Creideiki in this state feel very uncomfortable; he uses a primal dialect similar to whale languages. When the captain recovers from these spells, he often has strange insights and intuitions about any problems facing him or his crew.

Creideiki and several other members of his crew were believed to be on a ship's boat spotted leaving the Kthsemenee system by transit point.

ST 15 [-10]; **DX** 12 [0]; **IQ** 12 [30]; **HT** 12 [0].

Speed 6.00; Move 12*.

Dodge 6.

* Swimming Move; 1 on land.

Advantages: Charisma +3 [15]; Interface Jack [10]; Military Rank 6 [30]; Neo-Dolphin (Tursiops) [121]; No Primitive [5]; Strong Will +2 [10]; Unrestricted Reproduction (Blue card) [5].

Disadvantages: Brain Damage (see above) [-10]; Delusion (Talks to cetacean "god" living in his subconscious) [-10]; Duty (*Streaker* and its crew, 12 or less) [-10].

Skills: Administration-11 [1]; Astrogration (E-Level)-10 [2]; Astrogration (Hyperspace)-11 [1]; Astrogration (Real Space)-11 [1]; Astrogration (Transfer Point)-11 [1]; Astronomy/TL9 [1]; Chemistry/TL9-11 [2]; Computer Operation/TL9-13 [1]; Electronics Operation/TL9 (Comm)-12 [2]; Electronics Operation/TL9 (Computers)-12 [2]; Electronics Operation/TL9 (Sensors)-11 [1]; Exoskeleton/TL9-12 [2]; First Aid/TL9-12 [1]; Free Fall-11 [1]; Keneenk Logic-14 [8]; Leadership-14 [6]; Mathematics-12 [2]; Mechanic/TL10 (Thrusters)-11 [1]; Naturalist-10 [1]; Physics/TL9-12 [4]; Piloting/TL9 (Aerospace)-11 [1]; Piloting/TL9 (Starship)-11 [1]; Psychology-10 [1]; Research-11 [1]; Savoir-Faire (Galactic)-13 [4]; Shiphandling/TL9-14 [8]; Shipmaster/TL9-15 [8]; Sonar Imaging-14 [6]; Strategy (Space)-11 [2]; Tactics-11 [2]; Teaching-12 [2]; Tracking (Aquatic)-12 [2]; Vacc Suit/TL9-11 [1].

Languages: Anglic-13 [6]; Galactic Two-12 [1]; Galactic Six-11 [1]; Galactic Seven-12 [1]; Galactic Ten-11 [1]; Primal (native)-12 [0]; Trinary-13 [4].

Jacob Alvarez Demwa

Age 79 (subjective years; was born about 290 years ago). 5'11", 145 lbs. Gray hair, brown eyes, bushy eyebrows, dark complexion.

Jacob Alvarez Demwa is a legend among Terragens diplomats and uplift workers. He was born *before* Contact, into the Alvarez clan of Caracas. Two of his grandparents were active in the overthrow of the Bureaucracy, and Jacob's uncles were powerful members of the Confederation Assembly. After an extensive education, Demwa became an investigator specializing in scientific crimes. His notoriety soared after he foiled a terrorist attack on the Vanilla Needle, but his first wife and partner died heroically. This devastated Demwa, who switched to a career at the Center for Uplift, where he worked with the first neo-dolphins and even consulted for other patron lines. This work attracted the attention of Fagin, the infamous Kanten agent. Fagin involved Jacob in the mysterious *Sundiver* Affair. The assignment introduced him to Helene deSilva, his second wife. Jacob and Helene "honeymooned" on a long trip aboard the *Vesarius II*.

Despite his advanced age, Demwa is still quite active in Terragens affairs. He has spent the last few years in an academy on Earth, passing on his skills and experience to Council agents.

Demwa (Age 79) 146 points

ST 9 [-10]; DX 10 [0]; IQ 14 [45]; HT 9 [-20].

Speed 4.50; Move 4.

Dodge 4.

Advantages: Charisma +1 [5]; Human [0]; Intuition [15]; Reputation +3 (Wily agent and diplomat, among Terragens Council personnel) [7]; Status 2 (Respected scholar) [10]; Strong Will +4 [20]. Unusual Background (Two native languages) [10].

Disadvantages: Age (79) [-27]; Duty (To Terragens Council and Uplift Board, 9 or less) [-5]; Reputation -4 (Troublemaker, among Soro clan species, 10 or less) [-5].

Quirks: Broad-Minded; Playful. [-2]

Demwa's Dark Dimension

Jacob's first wife, Tania, fell from the Vanilla Needle in the couple's dramatic attempt to save the megastructure. Her loss devastated Demwa and caused him to develop a split personality. Most of the time Demwa is good-natured, rational, and looks down on violence. The other persona is a sly, suspicious thrill-seeker... a charming but slightly menacing sleuth with skills and talents Jacob's public persona can't quite admit to. Danger, or a need to *be dangerous*, can bring out this "dark Demwa." Apply these changes when this persona is active:

Advantages: Loses Intuition Gains Alertness +2 [10]; Charisma +1 [5]; Danger Sense [15].

Disadvantages: Gains Paranoia [-10].

Quirks: Replace all with Mild Bloodlust, Mild Lecherousness, and Thrill-seeking. [-3]

Skills: Gains Intimidation-13 [1]; Lockpicking/TL9-13 [1]; Pickpocket-11 [8]; Sex Appeal-13 [1]; Stealth-11 [4].

The alternate personality maintains control until the dangerous situation is passed, or the need for his skill-set is over.

Meeting Helene deSilva and resolving the *Sundiver* Incident healed the schism in Demwa's soul; the "current day" Demwa never manifests the dark alternate persona.

Skills: Acrobatics-11 [8]; Anthropology-12 [1]; Area Knowledge (Galaxy)-15 [6]; Beam Weapons/TL9 (Lasers)-12 [1]; Detect Lies-13 [2]; Diplomacy-14 [4]; Driving/TL9 (ATV)-9 [1]; Driving/TL9 (Groundcar)-9 [1]; First Aid/TL9-13 [1/2]; Forensics/TL9-12 [1]; Genetics/TL9-12 [2]; History (Earthclan)-12 [1]; History (Galactic)-14 [4]; Intimidation-13 [1]; Judo-11 [8]; Karate-11 [8]; Law-12 [1]; Lockpicking/TL9-13 [1]; Pickpocket-11 [8]; Piloting/TL9 (Contragrav)-8 [1/2]; Psychology-16 [8]; Savoir-Faire-14 [1]; Savoir-Faire (Galactic)-14 [1]; Scuba-13 [1]; Sex Appeal-13 [1]; Stealth-11 [4]; Swimming-10 [1]; Teaching-14 [1]; Writing-15 [4]; Xenology-14 [4]; Zoology-14 [4].

Languages: Anglic-15 [4]; Galactic One-12 [1]; Galactic Two-15 [2]; Galactic Four-12 [1]; Galactic Six-14 [2]; Galactic Seven-14 [1]; Galactic Twelve-12 [1/2]; Late English (native)-12 [0]; Rossic-12 [1/2]; Spanish (native)-12 [0]; Trinary-12 [1].

Demwa (Age 32) 152 points

32 subjective years old. 5'11", 150 lbs. Black hair, brown eyes, bushy eyebrows, dark complexion.

Before the *Sundiver* Affair, Demwa was a vital, talented agent and uplift specialist with a dark secret (see *Demwa's Dark Dimension*, below). He can act as an interesting NPC patron in campaigns set in the decades just after Contact.

ST 10 [0]; DX 10 [0]; IQ 14 [45]; HT 11 [0].

Speed 5.25; Move 5.

Dodge 5.

Advantages: Human [0]; Intuition [15]; Reputation +1 (Respected Uplift worker and Confederacy agent, among Confederacy personnel) [2]; Strong Will +4 [20]; Unusual Background (Two native languages) [10].

Disadvantages: Duty (To Terragens Council and Uplift Board, 9 or less) [-5]; Split Personality (see box) [-10].

Quirks: Broad-Minded; Playful; Thoughtful. [-3]

Skills: Acrobatics-11 [8]; Anthropology-12 [1]; Area Knowledge (Galaxy)-13 [2]; Beam Weapons/TL9 (Lasers)-12 [1]; Detect Lies-13 [2]; Diplomacy-12 [1]; Driving/TL9 (ATV)-9 [1]; Driving/TL9 (Groundcar)-9 [1]; First Aid/TL9-13 [1/2]; Forensics/TL9-12 [1]; Genetics/TL9-12 [2]; History (Earthclan)-12 [1]; History (Galactic)-12 [1]; Judo-11 [8]; Karate-11 [8]; Law-11 [1/2]; Psychology-15 [6]; Savoir-Faire-14 [1]; Savoir-Faire (Galactic)-14 [1]; Scuba-13 [1]; Stealth-11 [4]; Swimming-10 [1]; Writing-14 [2]; Xenology-13 [2]; Zoology-13 [2].

Languages: Galactic One-12 [1]; Galactic Two-15 [2]; Galactic Four-12 [1]; Galactic Six-14 [2]; Galactic Seven-14 [1]; Galactic Twelve-12 [1/2]; Late English (native)-12 [0]; Rossic-12 [1/2]; Spanish (native)-12 [0]; Trinary-12 [1].

Huck 18 points

g'Kek female. Age 20; 3'9", 111 lbs. An active, young g'Kek with traces of scars that suggest she had an interesting early career.

Huck, a native of Wuphon Port, was adopted by a Hoon couple after being orphaned at an early age. She and her friends Alvin, Ur-ronn, and Pincer Tip were products of Jijo's cosmopolitan, multi-species culture.

Huck currently lives on the Hoon colony world Hurmuphta. When she arrived she was literally the only g'Kek in Galactic space; since then she has produced five children and is expected to produce many more, thanks to a gene bank she brought with her from Jijo. Hoonish nannies do much of the gruntwork of child rearing, leaving Huck free to teach informal literature classes.

Huck's education on Jijo was comprehensive enough for her to not be considered Uneducated. She has begun to buy off her Primitive advantage.

ST 8 [10]; **DX** 11 [0]; **IQ** 13 [20]; **HT** 8 [0].

Speed 4.75; Move 4*

Dodge 4.

* 8 in flat, open terrain; 1 in broken terrain.

Advantages: g'Kek [36]; Racial Status (Minor Patron) [5]; Strong Will +1 [4].

Disadvantages: Curious [-5]; Dependents (Three very young children, 9 or less) [-48]; Enemy (Obeyer Alliance, 6 or less) [-20]; Primitive (TL7) [-15]; Reputation -1 (Fey and unseemly risk-taker, by conservative Galactics) [-5]; Stubbornness [-5].

Skills: Fast-Talk-13 [2]; History (Galactic)-10 [1/2]; History (Jijo)-10 [1/2]; Literature-12 [2]; Mathematics-10 [1/2]; Naturalist-11 [1]; Research-13 [2]; Teaching-10 [1/2]; Writing-12 [1].

Languages: Anglic-14 [4]; Galactic Two-15 [4]; Galactic Four (native)-13 [0]; Galactic Six-13 [2]; Galactic Seven-13 [2].

Toshio Iwashika 53 points

Age 18; 5'9", 145 lbs. Asian features. Brown eyes, black hair.

Toshio was a cadet in Calafia's TAASF academy when the captain of the *Streaker*, in port on its shakedown cruise, made him an offer he could not refuse. Toshio and his Fin classmate Akki joined the *Streaker's* crew.

While duty on the dolphin-crewed ship let him hone his recently acquired spacing skills, Toshio's true education as an officer and adventurer came on the ocean world Kithrup. He and several other members of the ship's crew were believed to be on a ship's boat spotted leaving the Kthsemenee system by transit point.

ST 10 [0]; **DX** 11 [10]; **IQ** 11 [10]; **HT** 10 [-10].

Speed 5.25; Move 5.

Dodge 5.

Advantages: Human [0]; Military Rank 3 [15]; Unusual Background (Dolphin Friend) [5].

Disadvantages: Duty (TAASF spacer) [-15].

Quirks: Bothered by ribbing; Homesick. [-2]

Skills: Astrogation (Real Space)-10 [1]; Astronomy/TL9-9 [1]; Area Knowledge (Galaxy)-9 [1]; Autohypnosis-9 [1]; Beam Weapons (Lasers)-12 [1]; Boating-11 [2]; Chemistry/TL9-9 [1]; Computer Operation/TL9-11 [1]; Driving/TL9 (Groundcar)-10 [1]; Ecology/TL9-9 [1]; Electronics Operation/TL9 (Sensors)-10 [1]; First Aid/TL9-11 [1]; Free Fall-9 [1/2]; Judo-9 [1]; Leadership-9 [1/2]; Naturalist-9 [1]; Piloting/TL9 (Aerospace)-9 [1/2]; Piloting/TL9 (Contragrav)-10 [1]; Powerboat-10 [1]; Psychology-9 [1]; Research-9 [1/2]; Savoir-Faire (Galactic)-10 [1]; Scuba-13 [4]; Shipmaster/TL9-10 [1]; Survival (Island/Beach)-10 [1]; Survival (Plains)-10 [1]; Swimming-14 [8]; Tactics-9 [1].

Languages: Anglic (native)-11 [0]; Galactic Six-11 [2]; Trinary-9 [1].



Sara Koolhan 40 points

Age 25; 5'6", 125 lbs. Brown eyes, black hair. Plain appearance.

Sara is a native of Jijo. She grew up in Dolo village, with her father Nelo, a famed papermaker, mother Melina, brother Dwer, and step-brother Lark. Trained as a linguist, she turned to mathematics after the tragic death of a suitor. Her studies of ancient Terran mathematical traditions led to the development of powerful predictive tools. When these discoveries came to the attention of Gillian Baskin, Sara was convinced to leave Jijo with the crew of the *Streaker*. She now lives on Earth, with her fiancée Emerson D'Anite.

Despite growing up on low-tech Jijo, Sara is not considered Uneducated due to her scholarly background. In fact, her research is generating delight and controversy among Terran philologists.

ST 9 [-10]; **DX** 9 [-10]; **IQ** 14 [45]; **HT** 11 [0].

Speed 5; Move 5.

Dodge 5.

Advantages: Human [0]; Mathematical Ability [10].

Disadvantages: Absent-Mindedness [-15]; Primitive (TL8) [-5]; Unattractive [-5].

Skills: History (Terran)-11 [1/2]; Linguistics-15 [12]; Literature-11 [1/2]; Mathematics-16 [8]; Naturalist-12 [1]; Craft (Papermaking)-12 [1/2]; Research-14 [2]; Swimming-9 [1].

Languages: Anglic (native)-14 [0]; Galactic Two-13 [1/2]; Galactic Six-13 [1]; Galactic Seven-14 [1]; Nihanic-12 [1/2]; Rossic-12 [1/2]; Sign Language (Anglic)-13 [1].



Robert Oneagle 119 points

Age 20; 6'1", 170 lbs. Brown eyes, black hair, olive skin.

Before the Gubru occupation, Robert Oneagle was primarily known as the playboy son of Garth's planetary administrator and an avid patron of Port Helenia's bars and casinos of the Archipelago. Just before the invasion, he was assigned to escort Athaclena (daughter of the Tymbrimi ambassador to Garth) to a safe haven in the mountains. He emerged from the hills a hero, having helped lead a guerrilla army of Chims and gorillas.

ST 12 [20]; **DX** 11 [10]; **IQ** 11 [10]; **HT** 11 [0].

Speed 5.5; Move 5.

Dodge 5.

Advantages: Attractive [5]; Charisma +1 [5]; Human [0]; Military Rank 3 [15]; No Primitive [5]; Reputation +4 (War hero, among Garth's Chim citizens, 10 or less) [5]; Telepathy (Telepathy restriction, power 2) [5].

Disadvantages: Duty (Militia Captain, 6 or less) [-2]; Impulsiveness [-10].

Skills: Autohypnosis-9 [1]; Beam Weapons (Blasters)-12 [1]; Botany/TL9-9 [1]; Bow-11 [4]; Carousing-11 [2]; Computer Operation/TL9-11 [1]; Crossbow-12 [2]; Ecology/TL9-9 [1]; First Aid/TL9-11 [1]; Gambling-12 [4]; History (Earthclan)-10 [2]; Naturalist-11 [4]; Psychology-10 [1]; Research-10 [1]; Running-12 [8]; Savoir-Faire-11 [1]; Savoir-Faire (Galactic)-9 [1/2]; Stealth-12 [4]; Survival (Forest)-10 [1]; Swimming-10 [1/2]; Tactics-11 [4]; Tracking-10 [1].

Languages: Anglic (native)-12 [0]; Galactic Four-9 [1]; Galactic Six-11 [2]; Galactic Seven-12 [2].

Thomas Orley 252 1/2 points

Age 39; 6'3", 160 lbs. Brown eyes, dark brown hair. Lean and muscular. Often wears a beard and mustache.

Thomas Orley was destined for an interesting life since before his conception. His parents, Bruce and May Orley of Minnesota State, Confederacy of Earth, were participants in a genetic engineering experiment. Young Thomas was born with a modified larynx and sinuses (he can whistle Trinary and Primal almost as well as a dolphin), increased convolutions in the frontal lobes, and enhancement of *Homo sapiens'* almost dormant telepathic sense. Orley's education was extraordinary as well; he studied on Earth, Calafia, and the Tymbrimi colony Cathrhennlin. Later, accompanied by his wife Gillian Baskin, he visited more than a dozen worlds, including the Library world Tanith.

Orley is good-natured, rational, and inquisitive. Though a firm believer in the unique values of the Earthclan, he is no bigot and deals well with aliens. He enjoys the company of dolphins, and is a skilled swimmer. The Council considers Orley one of their best – and deadliest – agents.

Orley was assigned to the *Streaker* as an alien technologies expert and neo-dolphin psychology consultant. The last confirmed sighting of Orley was on the surface of Kithrup, amidst a fierce skirmish. There are rumors that he left the system in a small spacecraft, with other members of the *Streaker's* crew.

ST 12 [20]; **DX** 13 [30]; **IQ** 14 [45]; **HT** 12 [10].

Speed 6.25; Move 6.

Dodge 6.

Advantages: Combat Reflexes [15]; Cool [1]; Human [0]; Military Rank 5 [25]; Neural Jack [10]; No Primitive [5]; Special Rapport (Gillian Baskin) [10]; Ultrahearing [5]; Ultrasonic Speech (Unreliable: 12 or less) [15]; Unusual Background (Dolphin Friend) [5]; Unusual Background (Geneered) [10].

Disadvantages: Duty (Crew of *Streaker* and Terragens Council agent, 15 or less) [-15]; Sense of Duty (Gillian Baskin) [-5].

Quirks: Broad-Minded; Playful. [-2]

Skills: Area Knowledge (Galaxy Two)-14 [4]; Astronomy /TL9-12 [1]; Autohypnosis-14 [2]; Beam Weapons (Blaster)-15 [1]; Beam Weapons (Laser)-15 [1]; Boating-12 [1]; Computer Operation/TL10-13 [1]; Driving/TL9 (Groundcar)-11 [1/2]; Electronics Operation/TL10 (Comm)-12 [1/2]; Electronics Operation/TL10 (Security Systems)-12 [1/2]; Electronics Operation/TL10 (Sensors)-12 [1/2]; First Aid/TL9-14 [1]; Free Fall-13 [2]; History (Earthclan)-12 [1]; Judo-12 [2]; Karate-12 [2]; Leadership-15 [6]; Naturalist-12 [1]; Physics-12 [1]; Piloting/TL9 (Contragrav)-13 [2]; Poetry-13 [1]; Powerboat-10 [1]; Psychology-14 [4]; Research-13 [1]; Scuba-13 [1]; Shiphandling/TL9-13 [2]; Shipmaster/TL9-14 [2]; Sonar Imaging-12 [1/2]; Swimming-14 [2]; Stealth-13 [2]; Strategy (Space Combat)-13 [2]; Survival (Desert)-13 [1]; Survival (Island/Beach)-13 [1]; Survival (Swampland)-13 [1]; Tactics-14 [4]; Vacc Suit/TL9-13 [1]; Xenology-12 [1].

Languages: Anglic (native)-15 [2]; Galactic Two-13 [1/2]; Galactic Four-11 [1/2]; Galactic Six-13 [1]; Galactic Seven-14 [1]; Galactic Ten-12 [1]; Galactic Twelve-12 [1]; Primal-11 [1]; Trinary-13 [2].

FAMILY,
FRIENDS, AND FOES

There are thousands of intelligent species in the galaxy, ranging from barely sapient new clients to elder beings waiting to pass beyond our stage of existence. The races below are likely to deal with Humans, either as allies or enemies. Chapter 4 has a system for creating and uplifting your own Galactic races.



BROTHERS OF THE NIGHT

A-Brothers, absu-Nighthunters

The Brothers (the word is used in the monastic sense, and refers to both males and females) were born, bred, and uplifted to be the pitiless holy warriors of a splinter sect of the Awaiter alliance. The Nighthunters found their clients difficult to control, and had to put down a series of well-planned rebellions during the Brothers' indenture. The Nighthunters' cunning and warrior prowess kept the Brothers in line for more than 90,000 years. Their final rebellion was successful, and fatal for the patrons. It is said that the Nighthunters took a perverse joy in their own extinction, since it meant they had succeeded in creating a race more cunning than they.

True to the precepts of their faith, the Brothers use all their efforts to making the universe a quieter place by taking every legal (or illegal but undetectable) opportunity to wipe out other sapient life. The Brothers will probably never become patrons, but they have earned respect through service to various institutes. They make up for a lack of large war fleets and loyal clients with their maniacal dedication and skill.

Biology

The Brothers are warm-blooded, amphibious carnivores. Their animal ancestors evolved on the rocky coastline of a chilly, tundra-covered continent. They hunted fish, seal-like amphibians, and slow-moving land dwellers. The ur-Brothers lived and hunted in packs, which maintained solidarity through complex social rituals. A mistake in these rituals could result in an individual being hounded out of the community. Widespread acceptance of changes in a ritual can split a pack into squalling factions. In the sapient Brothers, this

Galactic Patronymics

The headers for each race include its *patronymic*, a polite title that acknowledges the species' clan lineage and tallies its most important accomplishments . . . Its clients, living, dead, indentured, or free.

A patronymic has the species' name (prefixed by "A"), their patron's and grand-patrons' names (prefixed by "ab"), and finally the names of their clients (prefixed by "ul"; extinct clients are prefixed with "ulsu"). The name goes back to the oldest living grand-patron. If an intermediate member of the line is extinct, they are honored with the prefix "absu."

Proper Galactic greetings must include the species patronymic. Omitting it is an insult; using an incomplete, badly constructed, or erroneous patronymic marks the speaker as a buffoon, at best.

Example: The Tymbrimis' patronymic is "A-Tymbrimi, absu-Caltmour, ab-Brma, ab-Krallnith, ul-Tytlal." This indicates that they have one client species (the Tytlal), an extinct patron, and two extant grand-patron species.

instinct behavior manifests as extreme xenophobia and a fussy intolerance over even slight ideological differences.

A Brother's streamlined body is about two yards long. The front pair of limbs are powerfully muscled arms ending in hands with three thick, strong fingers. Nestled underneath is another, slender pair of arms with delicate fingers capable of fine manipulation. Thick, shaggy black or brown fur, which slicks down in water to form a streamlined coat, covers the entire body.

Brothers were built with swimming in mind. The legs can be locked together around a thick tail, forming a powerful swimming fluke. On land, they can manage a speedy waddle on their splayed legs, balancing their upper bodies with uplifted tails.

Brother Society

The Brothers of the Night have a regimented, hierarchical society organized along the lines of a religious order. Brothers dedicate their lives to the service of either a military unit, an intelligence service, or an agricultural or industrial "production brigade." Advancement within the hierarchy is by merit and tests of correct ideology.

Brothers do not have permanent families. Those who receive permission to mate can choose their own partners (most often others in their regiment), turning over offspring to be raised by a group called a "host." A host has six to a dozen children, three to seven adult Brothers (male or female; they may or may not be related to the children), and a few elderly retirees. After learning to talk, swim, hunt, read, and write, youngsters are assigned to a military unit or production brigade; this usually happens at age 8. Adult Brothers, who look on their time in a host as a kind of extended leave, may participate in two or three hosts during their adult life. Eventually, they become "grandparents," and join a final host to pass on their child-rearing skills and wait to die and be eaten. Relations between Brothers in a host are warm, affectionate, and informal, but very private. Outsiders rarely see this side of the Brothers of the Night! The thought of dealing with outsiders in other than a highly formal, diplomatic manner (or with weaponry!) is considered revolting and blasphemous.

Each Brother has a sinister-sounding formal name (e.g., Lesser Brother of the Inky Darkness, 13th Sister who Seeks Enemies), a serial number, and a nickname used only by host-mates.

Though callous and even cruel to outsiders, the Brothers of the Night are loyal and considerate to each other. They cooperate well both in combat and off the battlefield. Lesser Brothers take and follow orders well; this is fortunate, since the race has no clients to do the messy jobs in factories, mines, and farms.

A Brother's mouth is set on the ventral surface of its upper torso; it features two rows of sharp teeth which would do a shark proud. An eye is set on either side of the flat, frilled head. Though they can see in very dim light, and have a wide field of view, brothers are color blind and near-sighted. Their sonar-sense and acute tactile sense makes up for their poor eyesight. Brothers in military service have no compunctions about augmenting their senses with mechanical implants.

Brothers have two sexes. Females are larger but clumsier and less muscular than males; they tend to stay at home and take up less physical occupations. Children are born live, in litters of 3-4; young are fed regurgitated food. They take about 12 years to achieve full growth.

Brothers 100 points

Brothers are Tall; height increment is 1.5", weight increment is 6 lbs. Start at 6' 2", 180 lbs.



Attributes: *Male:* ST +2 [20]; DX +2 [20]; HT +2 [20].
Female: ST +1 [10]; DX +2 [20]; HT +3 [30].

Advantages: Amphibious [10]; Early Maturation 1 [5]; Enhanced Move (Swimming) 1 [10]; Extra Arms (2 extra) [20]; Fur [4]; Gills [10]; Notable Patron [15]; Peripheral Vision [15]; Sonar Vision [25].

Disadvantages: Bad Sight (Nearsighted) [-10]; Color Blindness [-10]; Congenial [-1]; Dull [-1]; Fanaticism (Inheritor cause) [-15]; No Depth Perception [-10]; Racial Reputation -4 (As an Inheritor Alliance member; 10 or less) [-10]; Reduced Manual Dexterity -2 [-6]; Staid [-1]; Xenophobia [-15].

Skills: Acrobatics at DX-3 [1]; Tactics at IQ [4].

Languages: Galactic Ten (native) at IQ [0].

EPISIARCHS

A-Episiarchs, ab-Tandu, ab-N8ght

Moderate Galactics wonder how even the Tandu were allowed to create a race as perverse as the Episiarchs. They evolved from small, unprepossessing carrion scavengers who used their powers to survive in a viciously competitive home environment. The Tandu increased the ur-Episiarchs' ego to the point of insanity, and amplified their "luck" powers to a level that allowed them to twist reality.

Episiarchs are dangerous but pitiful creatures who see the universe as a maddening parade of surreal props and set pieces. The vast majority live near-solitary lives on heavily guarded, rigidly managed colonies. Without automated factories and robot attendants supplied by the Tandu, Episiarchs could not even maintain societies based on subsistence agriculture and handicrafts (TL1). One Episiarch colony, left unsupervised as an experiment, blasted itself out of existence when its inhabitants started using their "magic."



Biology

Episiarchs are shaggy, mammal-like quadrupeds. They shamble along in a semi-upright posture, dropping to all fours on inclines or in rough terrain. They have crude, oversized four-fingered hands and big clumsy feet. Their two beady eyes are rarely visible through the fur on their misshapen heads.

Episiarchs rarely socialize; encounters between individuals are regulated by a spare, formal protocol of brusque gestures and ritual phrases. Even these social niceties are

forgotten during mating season, a time of tension, confusion, and violence. In nature, the females birth and rear litters of three to seven young. Most of these die as the siblings try out their powers on each other. Each survivor is apprenticed to an adult who passes on to him its own rudimentary knowledge of agriculture, crafts, or healing.

Tandu-trained Episiarchs are too insane to breed normally. Their patrons learned long ago that the young of psionically-adept females came out dead, or warped into *things* so frightening (and powerful?) that the Tandu desisted from further experiments. Now, captive brood females are lobotomized and artificially fertilized.

Episiarch Adepts

The Tandu use Episiarchs to open interstellar transit gates, and to accompany shock troops on assaults on fortified positions. Each year, the Tandu cull especially adept individuals from the population and ship them to indoctrination centers. After neural taps and pain/pleasure stimulators are implanted in their brains, the recruits' egos and will are augmented through drugs and conditioning. Further training hones their ability to manipulate the "illusions" around them. Even after all this training, the adepts have to be handled carefully.

Trained Episiarchs live in an almost perpetual megalomaniac fugue state, raging against the constraints of Reality. Their keepers have to lead them around on a leash, and off-duty Episiarchs are kept in shielded chambers where they can alter ersatz realities to their heart's content. When the Tandu press their emotional buttons and turn on the psionic amplifiers, they gleefully smash the barriers of improbability that stand in their way. They can rip holes in reality big enough to fly a ship through by thinking "I don't WANT to be here, I want to be THERE! RAUGHHH!"

Episiarch Characters?

Even with an Unusual Background (escaped from Tandu supervision), it is nearly impossible to conceive that an Episiarch could make a viable player character. For starters, they're literally insane – deliberately driven into solipsistic madness by their Tandu masters in order to augment their reality-bending psionic powers. An Episiarch who had both a useful level of power and enough shreds of sanity to manipulate that power without supervision would be unique – and very valuable to the Tandu . . . or any other clan who wanted to know their secrets. Such a character, hunted across the universe by powerful races intent on capture, painful research, and probable vivisection, would have a very short life expectancy. The character should take high-point Enemy disadvantages from a number of Galactic races, with a point cost equal to the bought-off mental disadvantages. The GM should not allow the player to buy off

social disadvantages such as Weird Client, since even the most liberal and open-minded clans (such as the Terragens) would view Episiarchs as walking time-bombs and maintain a careful distance – and even then keep a weapon nearby. It is entirely appropriate for GMs to simply rule that Episiarch player characters are not possible.

Even encountered as NPCs, Episiarchs should be enigmatic mysteries at best, and dangerous loose cannons at worst. Adventurers might find themselves escorted down the hallway of a Tandu ship, only to be ushered into a side room as an Episiarch – and his four heavily-armed Tandu escorts – shamble down the hall toward the Episiarch's rest chamber. And in the unlikely event of an encounter with a rogue Episiarch, it would be difficult to say which would be more dangerous – the hordes hunting the Episiarch down, or the Episiarch's own unpredictable powers.

Though they qualify (barely) as tool-using, social sapient, it's doubtful that Episiarchs will ever amount to anything other than psionic tools.

Episiarchs

83 points

Episiarchs are of Normal height with a Heavy build; height increment is 1", weight increment is 7 lbs. Start at 5'9", 180 lbs.

Attributes: DX -1 [-10]; IQ +2 [20].

Advantages: Extra Hit Points +1 [5]; Probability Alteration 5 [100]; Racial Skill Bonus (Probability Physics) +2 [6]; Single-Minded [5]; Thick Fur [29]; Versatile [5].

Disadvantages: Bad Sight (Nearsighted) [-10]; Loner [-5]; Megalomania [-10]; Oblivious [-3]; Reduced Manual Dexterity -2 [-6]; Reduced Move (Running) 1 [-5]; Semi-Upright [-5]; Stress Atavism (Severe, rare; grants

a Delusion, "I am the center of the universe") [-13]; Weird Client [-15]; Stubbornness [-5].

Languages: Galactic Eleven (native) at IQ [0].

Customization Notes: Tandu-trained Episiarchs may learn the Alter Reality psionic skill under Probability Alteration (see p. 26) and may purchase additional levels of this Power.



GARTHLINGS (NEO-GORILLAS)

A-Garthling, ab-Thennanin, ab-Worl, ab-Kosh, ab-Rosh, ab-Tothtoon

Garthlings are actually Terran gorillas in the very first stage of uplift. They were illegally exported to the Human colony world Garth and hidden in a secret lab run by an outlaw band of Chim and Human geneticists. Their presence remained a secret throughout the Gubru occupation, until the neo-gorillas revealed themselves and – taking advantage of an Uplift ceremony already in progress – chose the Thennanin as their patrons! Humanity was chosen to be the newly rechristened Garthlings' first-stage uplift consorts, cementing an alliance with the still-baffled Thennanin.

Except for a few dozen specimens taken offworld for examination by Thennanin uplift specialists, all known Garthlings live in the Mountains of Mulun on Garth. The region is carefully guarded by the colonial militia and Thennanin soldiers. Unmodified, fallow gorillas still exist on Earth. The watch on their preserves has been doubled since the Garth incident.

Garthlings

73/48 points

Garthlings are Tall, with a Heavy build. They have a size increment of 1.5" and a weight increment of 8 lbs. Males start at 6'2" and 296 lbs. Females start at 6'2" and weigh 270 lbs.

Attributes: DX +1 [10]; IQ -2 [-15]; HT +4 [45]. *Males:* ST +10 [110]. *Females:* ST +8 [90].

Advantages: Alertness +3 [15]; Fur [4]. *Males:* Extra Hit Points +4 [20]. *Females:* Extra Hit Points +2 [10].

Disadvantages: Distractible [-1]; Dull [-1]; Mute [-25]; New Clients [-15]; Presentient [-20]; Primitive [-5]; Reduced Manual Dexterity -2 [-6]; Semi-Upright [-5]; Short Lifespan 1 [-10]; Sleepy (50% of the time) [-10]; Stress Atavism (Moderate, common) [-16]. *Males:* Edgy [-5].

Skills: Climbing at DX-1 [1]; Survival (Jungle) at IQ [2].

It costs 73 points to play a male Garthling, 48 points to play a female.

GELLO

A-Gello, ab-Soro, ab-Hul, ab-Puber, ul-Bahtwin, ul-Ym

Gello are swift, carnivorous bipeds uplifted by the Soro to be deadly skirmish troops. They filled this role well; once aroused they become fearsome and dedicated soldiers. They are quite competent off the battlefield as well.

The Soro organized Gello society along military lines. While not a perfect fit, the clients maintain the traditions they have been taught, which highly value discipline, duty, and dignity.

Shortly after their indenture ended, the ambitious Gello attempted to uplift the Bahtwin, exotic airbag creatures with telepathic powers. The project did not go well. The Bahtwin's second stage uplift consorts, the Soro, have effectively become the creatures' patrons. The Gello turned their ambitions to gaining wealth and political influence. They have founded a small but thriving trade empire, and it is increasingly common to find individuals in Institute service. It is rumored that the race pays stiff tribute to the Soro, perhaps to fund the Bahtwin uplift effort. Gello marines can still be found on every Soro warship.

Biology

Gello are tall, lithe bipeds. They are warm-blooded but not mammalian; they lay eggs and have no body hair; their smooth skin is pulled tight over lean muscles and bones. The most common coloration is a mottled pattern of gray and green. Their long, muscular legs end in sharp, cloven hooves. Gello hands have sharp retractable claws. The mouth is surrounded by a cluster of short, dexterous cilia which is used for tasks requiring fine manipulation.

Gello work best in couples, a holdover from their pre-sapient ancestors, who hunted in pairs. They have two sexes and mate for life. Gello have an unnerving habit of stalking things: blowing leaves, squirrels (or their equivalent), domestic animals, even passersby. They do this casually, almost

unconsciously, much as a Human walking down the street might whistle or kick at rocks.

Gello personalities are an interesting combination of jumpiness and dignity. They are considered the most easy-going beings of the Soro clan. They would probably get along well with Humans if not for their political affiliation.

Gello

53 points

Gello are Big with a Slight build; height increment is 2", weight increment is 4 lbs. They start at 6' 8", 180 lbs.

Attributes: ST +2 [20]; DX +2 [20].

Advantages: Acute Smell +2 [2]; Claws [15]; Enhanced Move (Running) 1 [10]; Extra Arms (Mouth cilia; Short, no physical attack) [2]; Notable Patron [15]; Single-Minded [5]; Telescopic Vision 2 [12].

Disadvantages: Color Blindness [-10]; Compulsive Behavior (Stalking) [-5]; Congenial [-1]; Dull [-1]; Fanaticism (Follower of Soro) [-15]; Honesty [-10]; Responsive [-1]; Stress Atavism (Mild, uncommon; results in Bloodlust) [-11].

Skills: Stealth at DX [2]; Tracking at IQ [4].

Languages: Galactic Twelve (native) at IQ [0].



G'KEK

A-g'Kek, ab-Drooli

The g'Kek are one of the few *wheeled* oxygen-breather races listed in the Library. The details of their uplift are not available, but their Drooli patrons seemed to be interested in creating creatures adapted for life in deep-space colonies.

According to the Library, the g'Kek are extinct, wiped out by the Obeyor alliance thousands of years ago. They were known as a lighthearted, insouciant people, fond of gambling and daring stunts. However, a substantial population of refugees still lives on the "lost colony" of Jijo, unknown to the Library and all save a very few.

Biology

Library records suggest that the g'Kek originated as a species of amphibious omnivores who navigated their native

swamps using rotating, spoke-like organs that ended in inflatable pontoons. It is fairly certain that an earlier version of the species was uplifted, had a career as a minor patron species, and then chose to devolve.

One of the first Humans to encounter a g'Kek likened the creature to "a kid-sized squid in a wheelchair." The wheels, which are powered by magnetic impellers, are mounted on hubs at the joint between the g'Kek's vertical torso and an L-shaped tail. Two stiff legs, sprouting from the front of the torso, can be used to drag the creature over rough terrain at crawling speed. Two tentacle-like arms with delicate hands extend from the torso. At the top of the torso is a flap-covered mouth. It is surrounded by four eyestalks.

g'Kek are born hermaphrodites, but during puberty the individual chooses its gender, thus determining which set of reproductive organs will mature.

g'Kek

36 points

g'Kek are Short with a Light build; height increment is 1", weight increment is 3 lbs. Start at 3'8", 108 lbs.

Attributes: ST -3 [-20]; IQ+1 [10]; DX +1 [10]; HT -2 [-15].

Advantages: 360-Degree Vision (Eyestalks, -20%) [20]; Acute Vision +2 [4]; Enhanced Move 3 (Wheeled, on flat, hard terrain; Reduced Move -3 on broken terrain, -50%) [15]; Manual Dexterity +3 [9]; Perfect Balance [15].

Disadvantages: Playful [-1]; G-Intolerance [-10]; Nosy [-1].

Languages: Galactic Four (native) at IQ [0].

Customization Notes: The above template is appropriate for g'Kek on Jijo and the secretive family group on Hurmuphta. g'Kek leaving these safe locations would instantly gain an Enemy (Obeyer Alliance; formidable group, quite rarely) [-20], a Racial Status (Minor Patron) [5], and a Reputation (considered fey and unseemly risk-takers; -1 reaction from conservative and respectable Galactics, most of the time) -5.

A g'Kek's Reduced Move disadvantage applies in any terrain that a Human in a wheelchair would have trouble navigating. They can ascend stairs at crawling rates.

GUBRU

A-Gubru, ab-Gyooksu, ab-Kooyio, ab-Ot'ahh, ul-Kwackoo, ul-Okukoo

The pseudo-avian Gubru are a wealthy, powerful, and ambitious race. They are the dominant members of the Gubru/Gyooksu clan, a prestigious line with a long and honored history.

Gubru tend to be arrogant, manipulative, and overbearing, even with their own patrons. Their self-righteousness and lust for control is tempered by a unique "troika" system of leadership. Political seats (perches) are filled with three bureaucrats or *suzerains*. One leader concentrates on conquest (or other aggressive actions), another on logistics and cost-control, while the third focuses on religious and ethical matters. Healthy triumvirates quickly come to a consensus and provide wise leadership; unbalanced troikas lead to disaster.

The Gubru are the sworn enemies of the Terragens, and a definite threat. They are more bound by their own traditions and the rules of the Galactic Institutes than other fanatics, however; clever manipulation of this weakness led to a humiliating and costly defeat at Garth, a Human colony.

Biology

Gubru are flightless avian bipeds with two arms and an upright posture. Their bodies are covered with fine down; a dramatic crest tops the head. The Gubru's ancestors gave up their wings long ago; they are now well adapted to life on the ground, and walk digitigrade (on tiptoe) on three-toed feet. The presapient proto-gubru lived in large, tight-knit communities with a rigid social hierarchy. Members advanced through success in complex, instinctive rituals. Much of this ritual has been retained in the sophont gubru.

A Gubru's love life is quite complex, if it has one at all! Most Gubru are servile, white-feathered neuters who instinctively adore and obey their virile leaders. When put in a position of power with two suitable partners, neuters begin to develop sexually. The lucky troika's plumage lengthens and becomes more lustrous. Their personalities change as well; leaders are passionate, vain, and ambitious. After a number of ritualistic power plays (designed to establish a pecking order) the members of the troika assume a gender. The most dominant becomes a red-feathered queen. The others become blue- or

amber-feathered males, both of which are necessary to produce fertile eggs. This bizarre intermingling of sex and political intrigue, which was inherited from the Gubru's presapient ancestors, seems to work well most of the time.



Gubru

Male: 20 points

Female: 25 points

Neuter: -16 points

Gubru are Short with a Light build; height increment is 1", weight increment is 3 lbs. Start at 5'3", 108 lbs.

Attributes: DX +1 [10]; HT -1 [-10].

Advantages: All: Claws [15]; Major Patron [25]. *Male:* Charisma +2 [10]; Single-Minded [5]; Status 2 [10].

Female: Charisma +3 [15]; Status 3 [15].

Disadvantages: All: Delusion (The Library knowledge is superior) [-5]; Dour [-5]; Fanaticism (Patriotism) [-15]; Sense of Duty (To race and clan) [-15]. *Male:* Selfish [-5]. *Neuter:* Callous [-6]; Chummy [-5]; Status -1 [-5].

Languages: Galactic Three (native) at IQ [0].

It costs 20 points to play a male, 25 points to play a female, and -16 points to play a neuter.

Customization Notes: The fiasco on Garth caused the clan to lose face, reducing them to Notable Patrons [20] and gaining them a Racial Reputation -1 (As manipulative and dishonest, 10 or less) [-3]. Reduce the point value of Gubru characters after the Garth incident by 8 points.

Gubru characters can take the High Technology advantage (TL12, 20 points) and gain access to the clan's advanced technologies and technical skills.

Hoon

A-Hoon, ab-Guthatsa

Among the Four Galaxies, the Hoon are best known as bureaucrats. While they are actually a broadly competent people, clan tradition steers the brightest, most ambitious young Hoon toward careers in the Galactic Institutes – particularly Trade, Navigation, and Foresight – where they become nit-picking, impatient, by-the-book pencil-pushers whose only pleasure seems to be in making life miserable for the next person in line. Humans bear a grudge against Hoon for their role in the brutal and humiliating NuDawn Incident.

By contrast, the Hoon of Jijo are easy-going, tolerant, leisure-loving people whose idea of the good life is messing around on boats.

Biology

Hoon are tall, gangling, omnivorous bipeds. Their leathery gray-green skin has a scaly appearance; the forelimbs of their double-jointed arms and legs are covered with dense, wooly hair. Their heads are vaguely horse-like, with a throat sporting an inflatable sac. Males can use their inflated sacs to create “umbles” – a deep, resonant song that adds emotional

undertone to their spoken words. Hoons breed rarely and greatly cherish their children.

Hoon

53 points

Hoon are Big, with Light builds. Height increment is 1.5”, weight increment is 6 lbs. Start at 6’8”, 240 lbs.

Attributes: ST +2 [20]; HT +2 [20].

Advantages: Absolute Direction [5]; Composed [5]; Double-Jointed [5]; Minor Patron [5]; Penetrating Call [5]; Racial Skill Bonus (Seamanship) +2 [1].

Disadvantages: Attentive [-1]; Humble [-1]; Racial Reputation -2 (Officious, pitiless bureaucrats; 10 or less) [-5]; Devoted to Young (Sense of Duty, Hoon children) [-5]; Staid [-1].

Languages: Galactic Six at IQ [0].

Customization Notes: Many Galactic Hoons take positions in Institutes. These bureaucrats typically have Stubbornness [-5], Intolerance (Customers) [-10], and quirks such as Petty [-1] and Officious [-1].

HUMANS

A-Human, ul-Chim, ul-Dolphin

25th-century *Homo sapiens* are almost identical to today’s Humanity. While no species-wide attempts have been made to improve the breed, most genetically-transmitted diseases have been wiped out through highly selective genetic engineering. The average Human is healthier, longer-lived, better educated and more competent, but this is mostly due to a saner society and advanced technology.

Humans

0 points

Humans are Average, with Average builds. Height increment is 1”, weight increment is 5 lbs. Start at 6’, 150 lbs.

Attributes: HT +1 [10].

Advantages: Minor Patron [5].

Disadvantages: Primitive (TL9) [-5]; Racial Reputation -2 (As dangerous wolfings) [-10].

Languages: Anglic, Nihonic, or Rossic at IQ [0].

Customization Notes: Most Humans from Earth and its colonies have the Terragens Education Lens (p. 31).

Humans from the “lost colony” of Jijo are significantly different from the rest of Humanity. See Appendix A.

J’8LEK



A-J’8lek, ab-Khilp, ab-Brawch, ul-Kaschan, ul-Stoort, ul-Heebi, ul-B’8koo

The J’8lek were once a wealthy and respected race, but a client rebellion shattered their empire, reduced them to poverty, and made them an insular, jealous people. Though far from moderate, the race feels that it has been wronged by Galactic society and doesn’t share the common prejudice against Humans and their allies. A J’8lek may do his best to cheat Terran travelers out of their cargo, but he’ll do the same to a Gubru or Jophur.

Biology

J’8lek descend from desert-dwelling hunter-scavengers. Their fallow ancestors lived in burrows and caves during the day, emerging at night to stalk prey and look for carrion. Their twin pairs of arms are believed to have developed to allow the creatures to efficiently gather insects and small animals hiding under rocks. The presapient J’8lek lived in small packs of five to 13 adults and children; tribe hierarchies were loose and egalitarian. The ur-species developed sophisticated social behaviors – and presapience – in order to coordinate cave guard duty and protect the pack’s offspring. A J’8lek cycles between male and female several times during its life. An individual’s current gender seems to have no effect on its status or behavior.

The Fall of the J'8lek

The J'8lek's patrons, the Khilp, found their clients made excellent household and shipboard servants. As traders and soldiers they were less competent. Once freed from indenture, the J'8lek uplifted clients whose personalities complemented their own unusual psyches. These included the quiet, subservient Heebi, who acted as unobtrusive servitors for patrons on field duty, and the empathetic, loyal, but forceful Kaschan, who had permission to rein in individual J'8lek whose out-of-the-house behavior (see below) threatened the reputation of the clan. J'8lek trade, diplomatic, and espionage missions took a "combined arms" approach, teaming a patron with a mix of clients whose personalities and talents fit the assignment. These task-teams were ruthlessly efficient, but the demands of service were hard on the junior members of the clan.

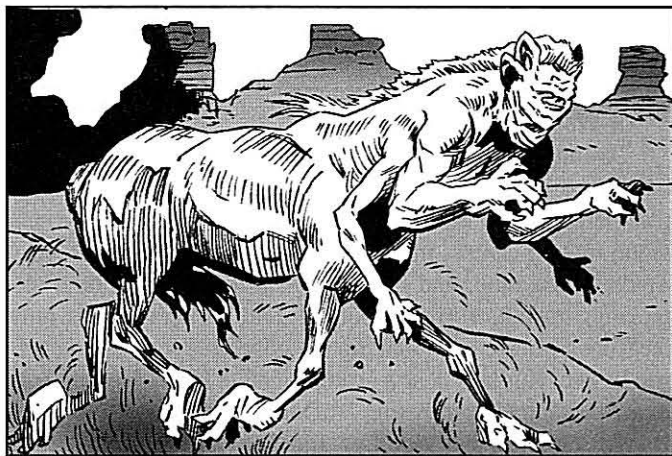
The J'8lek became a powerful and prosperous patron race. They controlled many well-run colonies and ran a profitable trade operation in the Lonely Dendrite, an isolated part of Galaxy Two. Though law-abiding, the ambitious J'8lek gained a reputation as severe, demanding patrons. After 70,000 years of harsh discipline the Stoort revolted, freeing the Kaschan and Heebi from indenture for good measure. This left the J'8lek in a bad position. Their remaining clients, the excitable centauroid B'8koo, were not suitable traveling companions. Without their personality-complements, the J'8lek were limited to a mostly passive role in Galactic politics. Their holdings shrank to include two colonies, their rather depleted home world, and the strategic Szawgae transfer point. Tolls on the point are the clan's main source of income, and the J'8lek's exorbitant rates have made them unpopular with travelers.

The J'8lek recently made a bid to restore their former glory by dispatching the Szawgae guard fleet to pursue the *Streaker*.

J'8lek and Hyde

J'8lek suffer from a peculiar sort of "split personality." They are easy-going, rational, and generous when dealing with small groups of relatives or colleagues, especially when in familiar surroundings. Away from home and friends, however, they become suspicious, self-sufficient, and somewhat vicious loners. *Most* J'8lek PCs encounter will be loners; only individuals found on J'8lek ships, colonies or enclaves will act normally.

J'8lek in the field will have the following additions to their template: Callous [-6], Selfish [-5] and Single-Minded [5]. This modifies the J'8lek template cost to 52 points.



The J'8lek are quadrupedal centauroids. They have eight limbs: four legs, two muscular "club arms," and two flexible, dexterous "fiddler arms." Both arms end in hands that have two thumbs and three fingers. Those on the club arms are big and knobby with muscles; the fiddler arms are long-fingered and exquisitely sensitive. All hands have sharp claws. J'8lek of high status trim one or both sets of these claws into flower-like "sculptures," to demonstrate that they do not need to burrow or fight to make a living. J'8lek walk plantigrade (on the entire sole of the foot) on heavily clawed feet; ground speed is not great, but the creatures can climb trees and steep slopes at impressive speeds. They can dig and burrow well, too.

J'8lek are cold-blooded. They prefer warm, dry climates and tend to stiffen up in chilly weather. They are covered with a coat of soft, rich fur; the hairs can be made to stand up in hot weather, releasing heat. The fur also acts as a water-trap. Presapient J'8lek rolled around in streams and water holes to store moisture for cooling and for use by children and pack members on guard duty; the sapient J'8lek do this for enjoyment. Their heads are small and spherical, with very heavy, muscular jaws. Four large, cup-like ears are spaced around the top of the head; they have one eye set in a deep, bony socket.

J'8lek

58 points

J'8lek are Short with a Light build; height increment is 1", weight increment is 3 lbs. An average specimen stands about 3'6" high, is 3'10" long, and weighs about 110 lbs.

Attributes: ST -1 [-10]; HT -1 [-10].

Advantages: Average Patron [10]; Claws [15]; Extra Arms (2 extra, ST +0) [25]; Extra Legs (4 legs) [5]; Full Coordination 1 [50]; Fur [4]; Manual Dexterity +1 [3].

Disadvantages: Cold-Blooded (Below 65°) [-10]; Cowardice [-10]; No Depth Perception [-10]; Racial Reputation -4 (As touchy, abusive, grim, and avaricious; 10 or less) [-10].

Skills: Brawling at DX [1]; Climbing at DX-1 [1]; Survival (Desert) at IQ+1 [4].

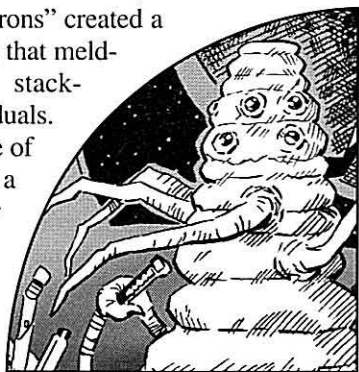
Languages: Galactic Five (native) at IQ [0].

Customization Notes: Many J'8lek roam the galaxy, looking for opportunities to support their families back home. Many of these individuals have lower than average Wealth (many are Poor or Struggling), with a strong Sense of Duty.

JOPHUR AND TRAEKI

A-Jophur, absu-Poa, ul-Sarrphor, ul-Phasheni, ul-Dor-rvi, ul-Voam-voam

The Poa were pacifistic but intellectually fervent members of the Obeyer alliance (see p. 12). The Poa's first try at uplifting the ring-colony creatures of Jophekka resulted in the Traeki: gentle, non-judgmental, and rather dithering creatures who did not seem destined to succeed their patrons as keepers of the Obeyer catechism. Despairing, the Poa turned over the clients to their final-stage Uplift Consorts, the terrible Oailie. These "step patrons" created a new type of component ring that melded the consensus-minded stack-colonies into driven individuals. By the time the Jophur came of age, the Poa lived on only a few Preserve worlds. They are thought to have since joined the Retired Order or even become extinct.



Biology

The Jophur are colonial life forms. They are composed of "sap rings," self-contained organisms with toroid-shaped bodies. The ring's interior is fluid-filled spongy material. The translucent skin is thin but tough; punctures are rare but serious injuries. Rings live off a combination of photosynthesis and saprophytosis (scavenging); they move by creeping, using their internal juices to stretch and retract parts of the ring. Short tentacles, rich with nerve endings, stud the bottom surface of the ring. The ring-creatures communicate through pheromone cues and direct neural contact.

Individually, the rings have a simple animal intelligence, but under the right circumstances they join together in a colony-stack to create a sapient individuals. Once joined, the rings' tentacles grow and specialize into sticky-soled feet, sensory organs or brain-nodes. For most purposes, the stacked rings become one fully-knit creature.

The Jophur's patrons (and later the Jophur themselves) created more types of rings, including brain-nodes specialized for rapid computation, oration peaks to give high priests entrancing voices, and rings with heavy-duty tentacles for rapid movement. The Oailie's contribution, the *master ring*, turns a Traeki into a Jophur. Hundreds of castes can be built by combining these rings.

Jophur eat by settling into a pile of rotting meat and vegetable matter and resting. They usually do this for five or six hours per day. They are aware but passive when eating; it is the Jophur equivalent of sleeping. Jophur prefer to work under bright, ultraviolet-rich light; without this they feel uncomfortable and fatigued.

The creatures reproduce by budding off ring-creatures. Growing ring-buds look like little craters on the host's skin. Jophur are sexless; genes are exchanged by immature rings. Rings which have "mated" refuse to join with each other.

Individual Jophur vary in appearance greatly. When a Jophur is agitated the dark sap shows through, turning the individual a purple-brown color.

Typical Jophur

Fourteen-ring Jophur stand about 6'6" high and weigh 280 lbs. Each additional ring adds 6" to height and 10 lbs. Oration peaks add another 1' of height.

Traeki Pharmacist 171 points

A Traeki pharmacist can be found in nearly every village on Jijo.

Rings: BS [×3], PS, MT [×4], SV, SA, CS, UR [×2].

Attributes: ST -2 [-15].

Advantages: 360-Degree Vision [25]; Double-Jointed [5]; Drug Factory [20]; Extra Arms (24 total, no physical attack) [110]; Extra Legs (6 total, cannot kick) [5]; Full Coordination 1 [50]; Manual Dexterity +2 [6]; Ultrasonic Hearing [25].

Disadvantages: Attentive [-1]; Enemy (All Jophur, 6 or less) [-20]; Jophur Body [-25]; Primitive (TL6) [-20]; Reduced Move (Running) -1 [-5]; Selfless [-10]; Undiscriminating [-1].

Skills: 8 points toward Diagnosis/TL5 (MH) and First Aid/TL5 for several races; 10 points of M/A drug and medication production skills (e.g., anesthetic, burn ointment, disinfectant.).

Languages: Anglic at IQ-1 [3]; Galactic Six at IQ-1 [1]; Galactic Eight (native) at IQ [0].

Jophur Psychology

The Jophur see themselves as holy warriors, setting an example for other Obeyers and protecting the integrity of alliance dogma. Vague notions of an afterlife, and possibly reincarnation, are implicit in Jophur beliefs; they worship their ancestors who are believed to pass on "spiritual" rings to just-assembled Jophur. Their high priests follow Obeyer dictates to the letter . . . often to the displeasure of the Jophur's harassed diplomatic and strategic corps! They despise the Terragens and would like to see them wiped out.

A Jophurs' master ring rules them all, and with its ego binds them. This gives them tremendous will and sense of purpose. However, this is not quite the same as free-willed individuality; Jophur stacks are created and trained with a specific task in mind. They pursue this goal with single-minded fervor, and the consequences and feelings of others be damned! It takes the talents of the even more egotistical and charismatic leaders and priests to sway a stack ruled by a master ring.

Traeki

Traeki are racial Jophur who lack a master ring. They have a "consensus consciousness." Their component rings actually converse (although not precisely with words) on a level that can be perceived by the individual. Shared memories are stored as waxy deposits on the stack's inner core. It is very difficult for a Traeki to "pull the wool over its own eyes" and indulge in self-deception; one ring or another is usually all too willing to let the individual know that it is being a fool!

Traeki are considered anathema by all Jophur, who consider a stack without a master ring to control it to be a misguided cripple at best, and more commonly a perverse traitor. They will mercilessly round up any individuals they encounter. Captives will either be split into component rings or converted into Jophur.

Instead of Racial Status: Major Patron [25], Traeki have Enemy (All Jophur, 6 or less) [-20]. Replace Chauvinistic, Fanaticism, and Selfish with Attentive [-1], Selfless [-10], and Undiscriminating [-1]. Being a Traeki is a -36-point modification to the Jophur package.

Jophur Technician 185 points

Rings: BS [×3], BM, PS, MT [×4], SV, SA, CS, UR [×2].

Attributes: ST -2 [-15].

Advantages: 360-Degree Vision [25]; Double-Jointed [5], Extra Arms (24 total, no physical attack) [110]; Extra Legs (6 total, cannot kick) [5]; Full Coordination 1 [50]; Major Patron [25]; Manual Dexterity +2 [6]; Ultrasonic Hearing [25].

Disadvantages: Chauvinistic [-1]; Fanaticism (Obeyer cause) [-15]; Jophur Body [-25]; Reduced Move (Running) -1 [-5]; Selfish [-5].

Languages: Galactic Eight (native) at IQ [0].

Jophur Soldier 123 points

Rings: BS [×3], BM, PF, MS [×2], SV, SA, CS, UR [×2].

Attributes: DX -2 [-15].

Advantages: 360-Degree Vision [25]; Acute Vision +2 [4]; Enhanced Move (Running) 1 [10]; Extra Arms (6 total) [40]; Extra Legs (6 total) [10]; Full Coordination 1 [50]; Major Patron [25]; Ultrasonic Hearing [25].

Loose Rings

Unspecialized rings may be encountered as animals. They have a rudimentary sense of vision and hearing, depending on scent and taste to lead them to offal. They are usually shy, but will fight if cornered or very hungry.

They have these attributes: ST 4, DX 8, IQ 4, HT 6/4. Basic Speed is 4. They have the advantage Alertness +4. They are a little over a yard wide and 6" high (Size 1). They attack by contracting around limbs and secreting acid; this works like the Constriction Attack advantage. Their corrosive venom does damage as described in the *Jophur Body* box.

Disadvantages: Chauvinistic [-1], Fanaticism (Obeyer cause) [-15], Jophur Body [-25], Selfish [-5].

Languages: Galactic Eight (native) at IQ [0].

Jophur Construction Kit

Jophur social organization requires a host of specialized types, or *castes*. A whole industry is devoted to growing specialized rings and assembling them into individuals. In effect, Jophur characters are made, not born. Rules for making "customized" Jophur follow.

Once assembled, the Jophur individual "wakes up," becoming a sapient being. Rings may be added or subtracted during the life of the individual, but this tampering often results in the loss of an individual's former personality and a large portion of its memories. Though it is risky, Jophur occasionally find it advantageous to "draft" rings from several individuals, combining them into a new Jophur with new traits and some memories from all of its former selves. Removing or adding a ring requires a Surgery-2 roll, with a failure causing Partial Amnesia [-10] and a critical failure resulting in Total Amnesia [-25] as well as possible brain damage. A successful combination will result in a new individual possessing a combined Racial Memory [15]. On a critical success the new Jophur can recall all the memories of its components, for [50].

Common rings are described below. Each ring is given a name, code (shorthand used when describing an individual's rings), and description – including the number of *metabolism points* produced or consumed by the ring.

Brains

A Jophur without at least one brain ring is little better than a plant, and is not suitable as a player character (IQ is 0 and cannot be raised). It would be unable to use any special abilities and only moves to locate nearby food. In many respects they are even less capable than a wild unspecialized ring. However, mental capacity is metabolically expensive and an individual often must trade off between general intelligence and job-specific talents.

Brain Ring (BS): Adding a single brain ring results in a presapient creature with only minimal mental faculties. Such a crippled Jophur has IQ -4 [-30], Bestial [-10], Cannot Learn [-30], Gluttony [-5], Hidebound [-5], Innumerate [-10], Obdurate [-10], Presentient [-20], and Sleepy (50% of the time) [-10]. It may not have any other specialized brain ring.

Jophur Body -25 points

All Jophur and Traeki have Cast Iron Stomach [15], Cold-Blooded (Below 65°) [-10], Dependency (Sunlight; daily) [-15], Hemophilia [-30], Injury Tolerance (No Neck) [5], Slow Eater [-10], and Venom 2 (Corrosive; Enhancement: Contact, +75%; Limitation: Passive delivery, -75%) [30].

The critical threshold for Jophur sapience is two brain rings. Beyond that, metabolic requirements and the high signal-to-noise ratio from each brain ring quickly reduce the utility of additional ones being added. Two-ring brains (the standard) provide IQ -2 [-15], and more importantly, have none of the other disadvantages possessed by a single ring. Three-brain ring Jophur have IQ +0 [0]. Four-brain Jophur (the maximum usually seen) have IQ +2 [20]. Five-brain ring Jophur have IQ +3 [30]. Every two brain rings after that raises base IQ by 1. Each brain ring requires 2 metabolism points.

Calculator Ring (BC): This ring gives the Jophur the Lightning Calculator [5] advantage. A second ring adds Mathematical Ability [10]. Adding three or more calculator rings replaces these advantages with Intuitive Mathematician [25]. Each calculator ring requires 1 metabolism point.

Leader Ring (BL): This ring is used to build high priests and leaders. It functions as an additional brain ring (above) and also adds Intuition [15], Language Talent +4 [8], Proud [-1], Strong Will +4 [16], and Stubborn [-1]. Requires 4 metabolism points.

Master Ring (BM): This ring is what separates a Jophur from a Traeki. It gives the following traits: Chauvinistic [-1], Fanaticism (usually to the Obeyer cause) [-15] and Selfish [-5]. Requires 1 metabolism point.

Propulsion

There are three types of propulsion rings: Standard, Fleet, and Swimmer. A Jophur may have one propulsion ring; an individual's propulsion ring *may* be surgically removed and switched without risk of destroying the individual.

Standard (PS): This ring has six sturdy, foot-long tentacles. Treat as Extra Legs (6 total, cannot kick) [5] and Reduced Move (Running) 1 [-5]. Jophur don't tend to do much jumping, climbing, or acrobatics. Requires 2 metabolism points.

Fleet (PF): The tentacles of this ring are much longer (1 yard) and stronger. This is Extra Legs (6 legs) [10] and Enhanced Move (Running) 1 [10]. Some Jophur can use them as arms; see below. Requires 4 metabolism points for individuals of up to 16 rings; larger Jophur may not have Fleet propulsion rings.

Swimmer (PW): This ring has six flippers. By itself it gives Reduced Move (Running) -3 [-15] and Enhanced Move (Swimming) 1/2 [5]. Combined with a standard or fleet propulsion ring it adds Amphibious [10]. Requires 2 metabolism points.

Manipulation

These give a Jophur its ST and DX. An individual with no manipulation rings has ST -2 [-15], DX -4 [-30], and No Fine Manipulators [-30]. The Jophur have hundreds of variant manipulator rings; the two below are just very common examples. Others will have Strikers (such as Claws), more or fewer tentacles, Human-style arms, or even wings for low-gravity flight. Note that Jophur equipment is designed to be used by their tentacles. When using equipment designed for non-tentacled species they may suffer from Bad Grip [-10] and Reduced Manual Dexterity [-3/level].

Manipulator Ring (MS): This ring has three tough, vine-like tentacles. One standard manipulator ring by itself gives ST +0 [0] and DX -2 [-15]. It also counts as Extra Arms (3 total) [10]. Each additional standard manipulator ring adds three more Extra Arms and 30 points to the total. The first added standard manipulator ring (only) adds a level of Full Coordination [50]. Requires 2 metabolism points.

Tinkerer (MT): This ring has six skinny tentacles capable of fine manipulation. Alone they are ST -2 [-15] and DX +0 [0] with Double-Jointed [5], Extra Arms (6 total) [40], Full Coordination 1 [50], and Manual Dexterity +2 [6]. With a standard manipulator ring they have no attribute modifier but provide the other advantages. Requires 1 metabolism point.

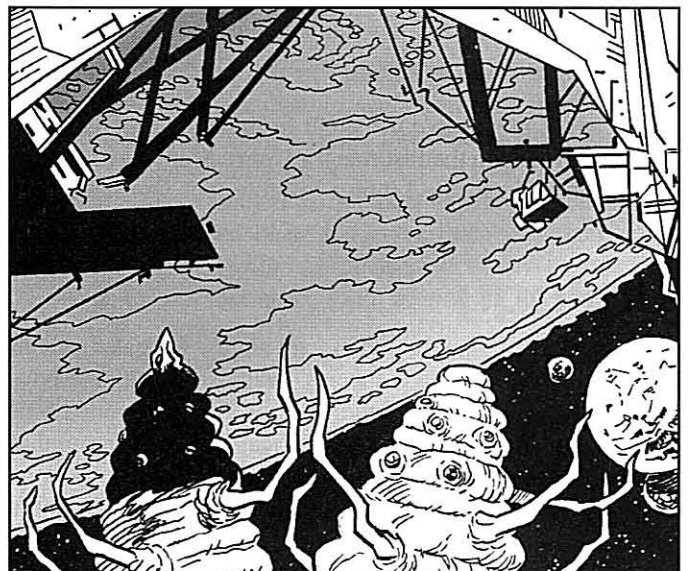
Senses

All Jophur have a rudimentary sensory capability, thanks to receptors in the husks of all varieties of rings. However, without sensory rings a Jophur will have combinations of Bad Sight (Nearsighted) [10], Hard of Hearing [-10], and Night Blindness [-10] (among other reduced faculties). Large numbers of other rings combined with sensory rings can result in various degrees of Alertness [5/level].

Vision (SV): Standard Jophur vision rings have six evenly spaced eyes, providing 360-Degree Vision [25]. Some Jophur have high-quality vision rings with Acute Vision [2/level], Infravision [15], Night Vision [10], Spectrum Vision [40], or Telescopic Vision [6/level]. As a special effect Jophur see orange and red as black. The basic vision ring requires no metabolism points. Each additional special ability requires one metabolism point.

Chemosensor (SC): A chemosensor ring has a fair amount of specialized chemical sensors and a sort of "mini brain ring" for interpreting the information. Provides Discriminatory Smell (Empathy toward Jophur only, within 2 hexes, +0%) [15] and Acute Taste and Smell +2 [4]. Uses no metabolism points.

Aural (SA): Provides Ultrasonic Hearing (10 points). Many also provide various levels of Acute Hearing [2/level]. Uses no metabolism points.



Communication

The basic Jophur is Mute [-25]. It is entirely within their capabilities to incorporate cybernetic components into rings to allow abilities such as Radio Speech [25] but this is not common. The two rings below are some of the typical examples; the Jophur assemble specialized rings for dealing with races that use Subsonic Speech [20], Ultrasonic Speech [25], or various forms of Secret Communication [20].

Squeaker (CS): The standard organ of speech. This gives the individual a voice and the ability to whistle and blow streams of air. Always put on the top of the stack. Requires no metabolism points.

Oration Peak (CO): A priest's speech organ. Gives the individual Voice [10] and Penetrating Call [5]. Can be used as a music synthesizer as well. Requires no metabolism points.

Other Rings

Chemosynthesis Ring (OC): This ring can synthesize a wide variety of chemical compounds. Trained ring-bearers can produce complex chemicals for use in medicine, industry, or warfare. The Traeki or Jophur that has this ring has the Drug Factory advantage (See p. CI53), with the Learned Product enhancement and the Requires Feedstock limitation (see p. 18). [20].

Requires 4 Metabolism points. Extremely difficult tasks render the stack exhausted and immobile.

Influence Ring (OI): This ring produces specifically tailored pheromones. Properly applied, these can be used to sway the feelings of other Jophur. Jophur clients have been made susceptible to this peculiar form of "propaganda" as well; treat this as Weak Will (Only against pheromones, -75%) [-2/level]. This gives the ring-bearer Pheromone Control [25]. Requires 4 metabolism points.

Metabolism

Unspecialized Rings (UR) are used to space apart the specialized rings, and more importantly to provide energy-rich sap to the other rings. Each standard ring provides 8 *metabolism points* for use by other parts of the body. (All rings can digest and assimilate food, but the specialized ones are usually net consumers of metabolism points.)

A number of metabolism points equal to 50% of the total requirement *must* be provided if the Jophur is to be viable; otherwise it becomes sickly, weak, and guided by instinct.

The under-provided stack has Obsession (Obtaining food) [-15], Unhealing [-10] and Very Unfit [-15]. HT can be as low as -6 [-50]. In extreme cases the body will begin cannibalizing itself to support the brain rings, treat this as Terminally Ill [-100].

If the individual has 50%-80% of the points required, it has Gluttony [-5], Slow Healing 1 [-5] and Very Unfit [-15]. HT can be as low as -4 [-30].

If the individual has 81%-99% of the points required, it has Unfit [-5].

If the metabolism supply equals 100%-149% of the points required, the Jophur has HT +0 [0].

Excess metabolism points can be the source of stamina and speed-related advantages, such as higher HT, Combat Reflexes [15], Fit [5], Increased Speed [25/lvl], and Very Fit [15]. Allow 5 points of these advantages for every extra point of metabolism.

Note that every unspecialized ring after the third gives the Jophur a level of Increased Life Support [-10/level]. A Jophur with but a single unspecialized ring has Decreased Life Support [10].

KANTEN

A-Kanten, ab-Linten, ab-Siquil, ul-Nish

The Kanten were uplifted by the Linten "Gardeners," who are famed for their clever use of tailored vegetation in terraforming and reconstructing damaged ecosystems. The Kanten themselves are law-abiding but devious reformers. They are Humanity's most influential advocates among the Galactics.

Many Kanten serve the small Institute for Progress; others can be found in the Institute for Uplift. Many have applied for membership in the Library Institute, but few have been accepted.

Biology

The Kanten, like the Jophur, are among the galaxies' relatively few sapient plant species. Waggish Earthlings have likened them to walking bundles of broccoli. Rounded blue and green shoots form symmetrical growths around a gnarled, striated trunk. Some branches bear flakes of a crystalline material. A cluster of these flakes is located around a

breathing-hole on the top of the body; Kanten communicate with chime-like sounds produced by air blowing through this cluster. Kanten have four thick foot-legs and four flexible arm-tentacles.

Kanten

44 points

Kanten are Tall with Bulky builds; height increment is 1 1/2", weight increment is 8 lbs. Start at 5'5", 270 lbs.

Attributes: ST -3 [-20]; IQ +1 [10]; HT +4 [45].

Advantages: 360-Degree Vision [25]; Average Patron [10]; Cool [1]; Extra Arms (4 total, no physical attacks) [10]; Extra Legs (4 total) [5]; Injury Tolerance (No Vitals) [5]; Sensitive [5].

Disadvantages: Broad-Minded [-1]; Cold-Blooded (Below 50°) [-5]; Dependency (Sunlight; daily) [-15]; Nosy [-1]; Reduced Hit Points -2 [-10]; Reduced Move (Running) -3 [-15]; Xenophilia [-5].

Languages: Galactic Nine (native) at IQ [0] or Galactic Eleven (native) at IQ [0].

NEO-CHIMPANZEES

A-Chim, ab-Human

Chimpanzees were the subject of Humanity's first uplift projects, started over a century before Contact. They were a good first choice. Chimps had considerable intelligence, good hands, and a social system close enough to their patrons' to allow easy assimilation. Some polishing and improvements are still under way to make the Chims more comfortable in their new sapience, which can sometimes lapse under stress.

Neo-chimps (*Pan argonostes*, commonly called *Chims*) are well treated for a client race. The simple fact that they are a young race, and still slightly less intelligent than Humans, has relegated them to unofficial second-class status. There are plenty of Chim doctors, scientists, politicians, and merchants, but the average Chim has less wealth and lower status than the average Human. In addition, neo-chimps are still subject to strict quotas on parenthood and Probationary Personality laws. Humans and Chims look forward to the day when a relaxation of the reproduction laws erases the differences between the two species. Humans find Chims likable, but are annoyed by their occasional lack of respect and discipline.

Biology

Neo-chimpanzees look a lot like their fallow ancestors, but there are some differences. Chims can stand and walk fully upright, although they have been known to knuckle-walk when under stress. Their hands are more dexterous than a fallow chimp's. A voice box, adapted from the Human design, has been added to the neo-chimp DNA pattern. The brain-pattern to use vocal cords is not fully developed, however; young Chims (up to 10 years of age) have trouble talking; they use sign language and sometimes voders to

communicate. These changes have made neo-chimpanzees a little less strong and agile than their tree-dwelling ancestors, but they are still physically formidable.

Chims are more "laid-back" and sociable than Humans. They put great importance on group grooming rituals, and marry into large group families. Chimmies (female Chims) go into heat ("pink" in street language) once or twice a year; this makes them (and male neo-chimps they encounter) very amorous. Neither sex is very "interested" at other times. Females bear one baby at a time; Chim children grow up quickly (mature at 16 years) but have a normal lifespan.

Neo-Chimps

56 points

Neo-chimpanzees are Small with a Heavy build; height increment is 1", weight increment is 4 lbs. Start at 5'2", 92 lbs.

Attributes: ST +4 [45]; DX +2 [20]; IQ -1 [-10]; HT +2 [20].

Advantages: Alertness +2 [10]; Brachiator [5]; Prehensile Toes [7]; Very Thin Fur [0].

Disadvantages: Congenial [-1]; Distractible [-1]; Dull [-1]; Minor Client [-10]; Racial Reputation -2 (As wolfing clients) [-10]; Social Stigma (Second-Class Citizen) [-5]; Stress Atavism (Moderate, uncommon; results in Bestial) [-13].

Skills: Acrobatics at DX-2 [0]; Climbing at DX [0].

Languages: Anglic (native) at IQ [0].

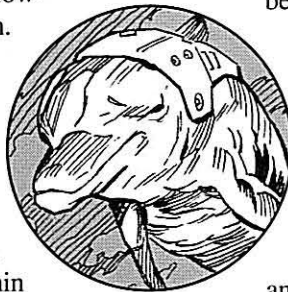
Customization Notes: All neo-chimpanzee characters must select Unrestricted Reproduction (p. 20) or Restricted Reproduction (p. 22).

NEO-DOLPHINS

A-Dolphin, ab-Human

Neo-dolphins ("Fen") are uplifted bottlenose dolphins (*Tursiops truncatus*). The scientific name of the new race is *Tursiops amicus* – "friendly dolphin." Besides increasing their already considerable intelligence, Human genetic engineers improved the dolphin's eyesight and altered the blow-hole to enable it to produce intelligible speech. Even 200 years after they were uplifted, neo-dolphins still have some rough edges. Many have trouble with certain sorts of abstract thinking, and nearly all neo-dolphins are subject to stress atavism.

A few decades ago, Earthclan uplift specialists began breeding Fen with gene-grafts from another dolphin species, the rough-toothed dolphin (*Steno bredanensis*). The resulting individuals are more aggressive and prone to stress atavism than typical neo-dolphins; they are significantly larger than unaltered rough-toothed dolphins and even bigger than most bottlenoses!



Biology

Most neo-dolphins tend to be gray-green or gray-brown in color, darker on the back fading to a white or pale belly – this is an effective camouflage when seen from above or below. All have a single blowhole above and behind their rostrum (beak).

Bottlenose dolphins have a distinctive, well-defined beak that gives them their name. It is filled with conical teeth designed to grasp, but not tear apart, food; the mouth lines form what appears to be a big grin. Their ears are barely discernible openings located just behind the eyes.

Rough-toothed dolphins are similar in appearance, but lack the prominent crease that separates the melon (forehead) from the beak. Their smoothly sloped forehead, unusually large eyes and narrowness of the head give them a somewhat reptilian appearance.

Dolphins and Language

All dolphins instinctively know a natural language called *Primal*. It is used by fallow dolphins to cry for help, communicate feeling ("Stay away from my cow!"), and coordinate fish-herding. Primal is useless for dealing with abstract concepts like time, planning, and mathematics. Neo-dolphins thinking in it are little better off than their fallow kin. It is considered rude and sloppy to use Primal, especially around Humans, but nearly every dolphin curses in Primal now and then.

Trinary was especially developed for use by neo-dolphins. It is well suited to underwater use and cetacean thought-patterns, but unlike Primal it can communicate (though not as well as Anglic) abstract ideas and cause-and-effect relationships.

Neo-dolphins can learn Anglic, other Human tongues, and Galactic languages. No matter how well they study these, however, current-day dolphins will speak with a unique squealing accent. An exception is Galactic Eleven, which incorporates ultrasonic sounds.

Both are gregarious creatures and form social groups known as pods that can range from seven to 40 individuals; males occasionally become loners or form small groups of two or three. Humans and neo-chimps are often thought of in these terms, and neo-dolphins are very loyal to their companions.

Neo-dolphins retain some fallow dolphin thought patterns. The calls of a distressed Fin sometimes cause a type of stress atavism called *rescue fever*. Fen struck with this are compelled to frantic efforts to aid their comrade, ignoring danger and forgetting how to speak Anglic or use technology. Dozing or meditating neo-dolphins may feel the call of the mysterious "Whale Dream." Characters accepting the Dream enter a strange realm of non-causal, timeless, intuitive thought. They may "see" mysterious sonar-images and may hear the songs of whales and primal dolphins. The Dream is definitely mind-expanding, but unless the dreamer has practiced Keneenk Logic (see p. 25), no useful insights may be obtained from it.

Neo-Dolphins

121/137 points

Tursiops-based Fen are Huge with an Average build; length increment is 2.5", weight increment is 13 lbs. They start at 8', 400 lbs. *Steno*-variant Fen are Huge with a Heavy build; length increment is 2.5", weight increment is 16 lbs. Start at 8', 480 lbs.

Attributes: DX +2 [20]; IQ -1 [-10]; HT +2 [20]. *Tursiops*: ST +6 (No Fine Manipulators, -40%) [42]. *Steno*: ST +10 (No Fine Manipulators, -40%) [66].

Advantages: 3D Spatial Sense [10]; Absolute Direction [5]; Acute Hearing +4 [8]; Alertness +1 [5]; Enhanced Move (Swimming) 1 [10]; Extra Hit Points +4 [20]; Independently Focusable Eyes [15]; Injury Tolerance (No Neck) [5]; Interface Jack [10]; Nictating Membrane 1 [10]; Oxygen Storage [14]; Peripheral Vision [15]; Pressure Support 2 [10]; Sonar Vision (Limitation: Underwater only, -30%) [18]; Temperature Tolerance 1 [1]; Ultrasonic Speech [25].

Disadvantages: Aquatic [-40]; Chummy [-5]; Distractible [-1]; Disturbing Voice [-10]; Dull [-1]; Horizontal [-10]; Inconvenient Size [-10]; Increased Life Support 1 [-10]; Minor Client [-10]; No Manipulators (Limitation: Can be mitigated by technology, -60%) [-20]; No Sense of Smell [-3]; Racial Reputation -2 (As wolfling clients) [-10]. *Tursiops*: Stress Atavism (Moderate, uncommon) [-8]. *Steno*: Stress Atavism (Moderate, common) [-16].

Skills: Acrobatics at DX [4]; Survival (Open Ocean) at IQ [2]. **Languages:** Primal (native) at IQ [0].

It costs 121 points to play a *tursiops*, 137 points to play a *steno*.

Customization Notes: All neo-dolphin characters must select a level of Unrestricted Reproduction (p. 20) or Restricted Reproduction (p. 22). Lecherousness (see p. B34) is very common in male neo-dolphins.

Because neo-dolphins don't have hands, they must use the arms of a walker (or similar equipment) when performing many skills. These are operated with the Exoskeleton skill (p. C1161).

Neo-dolphins who don't take an Interface Jack are limited in their career options.



PILA

A-Pila, ab-Kisa, ab-Soro, ab-Hul, ab-Puber, ul-Pring

In public, the Pila are upstanding and outstanding Galactic citizens. They are strict but equitable patrons, and take extreme care to protect the ecospheres of their colonies. However, when the cameras are off, the arch-conservative Pila are arrogant, vindictive, and patronizing. They bear a bitter grudge against the Terragens.

Many Pila serve in the Galactic Institutes, especially the Library Institute. Their diplomatic and administrative skills have served them well in these positions.

Biology

The Pila are short, furry bipeds. They might be mistaken for teddy bears from a distance. They are surprisingly strong, thanks to their homeworld's high gravity. Their flattened snouts contain tiny, sharp teeth. Clusters of short, cilia-like hair surround Pila eyes; a line of fleshy buttons run from crotch to neck along their furry bellies. Their hands have four fingers, each mutually opposable to the others. Pila are vaguely mammalian but lay eggs; little is known about their reproductive habits. Pila have a different biochemical base than Humans; their food is poisonous to Earthlings and vice versa. They come from a 1.5 G planet circling an F3 star.

PRING

A-Pring, ab-Pila, ab-Kisa, ab-Soro, ab-Hul, ab-Puber

Pring are the indentured clients of the Pila. Their patrons use them as laborers and technicians. They are kept on terraformed colonies for the most part; the Pila don't want their clients to accidentally damage ecosystems.

Though near the end of their servitude, Pring are still subject to their patrons' whim. In fact, most suffer under some sort of "probation." They are subject to dirty, degrading jobs and extraordinary discipline. The Pila just don't seem to trust them. The reason isn't commonly known, but some whisper that it has something to do with a crime committed by a Pring several hundred years ago.

Biology

Pring are descended from brachiating omnivores. The proto-Pring had a single eye with a natural laser used to provide depth perception. The Pila's modifications were considerable: Modern Pring are tall, slender bipeds. The skin is glossy white. The Prings' large, round heads are supported by a slender neck; the face is dominated by two large, lidless glassy red eyes and a wide mouth. Inside the mouth is a pair of menacing serrated dental plates, designed to grind and mash food. The hands have six slender fingers. They come from a 1.05 G planet circling an F7 star.

Pila voices are almost inaudibly high; though they can speak Anglic, Pila require voder units to produce sounds in ranges audible to Humans.

Pila

-8 points

Pila are Small with Heavy builds; height increment is 1/2", weight increment is 3 lbs. Start at 3', 96 lbs.

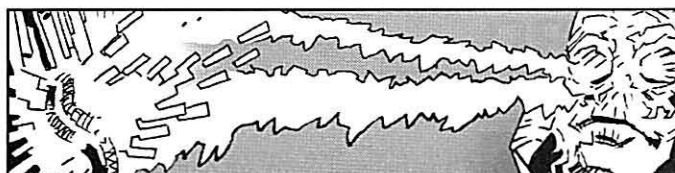
Attributes: ST +1 [10]; IQ +1 [10].

Advantages: Extra Arms (Mouth cilia; short, no physical attack) [2]; Notable Patrons [15]; Ultrasonic Speech (No regular speech) [0].

Disadvantages: Bad Temper [-10]; Callous [-6]; Fanaticism (Soro) [-15]; Intolerance (Non-clan) [-5]; Proud [-1]; Racial Reputation -4 (Manipulative and vindictive, among moderate clans and Humans) [-10].

Languages: Galactic One at IQ [2]; Galactic Twelve (native) at IQ [0].

Customization Notes: Pila make challenging player characters. They have many dealings with Earthclan (to the pleasure of neither party) and are individualistic enough to go off to seek their fortune. They are also a good choice for campaigns with Galactic characters opposing the Terragens. A Pila with a Vow to "put the screws" to Terrans is being a patriot!



Pring

45 points

Pring are Big with Light builds; height increment is 2", weight increment is 6 lbs. Start at 6'2", 160 lbs.

Attributes: ST +2 [20]; HT +1 [10].

Advantages: Brachiator [5]; Laser (Enhancement: Flash, +25%; Limitation: Costs 2 fatigue, -10%) [29]; Respectable Clients [0]; Sharp Teeth [5].

Disadvantages: Duty (Penance; dangerous, humiliating service to the clan; 12 or less) [-10]; Humble [-1]; Solipsist [-10]; Stress Atavism (Rare, mild) [-3].

Skills: Acrobatics at DX-2 [0]; Climbing at DX [0].

Languages: Galactic Twelve (native) at IQ [0].

Customization Notes: Pring laser-vision can be used to accurately scan and memorize the contours of an object and take ranges. Specially trained pring can perform other tricks with their lasers, such as creating holographic images. Each such ability is a separate Mental/Very Hard skill.

QHEUENS

A-Qheuen, ab-Zhosh

The Zhosh uplifted the Qheuen 200,000 years ago. The proto-Qheuen had a hive-like social structure, with multiple castes. The gray queens exercised an almost hypnotic power over the red and blue subspecies. Library entries suggest that the presapient grays actually selectively bred the lower castes, culling out the larvae of reds and blues who showed independent tendencies.

Qheuens have become a respectable patron of modest accomplishments. While emancipated from their Zhosh patrons, the race devotes a lot of its wealth and energies to furthering the interests of the clan's Awaiter faith.

Biology

Qheuens have bulky, dome-shaped bodies with radial symmetry. They have five stout limbs, are each tipped with a heavy grasping claw. Under each leg/arm is a toothless breathing mouth, all capable of speech. Atop their dome-shaped, armored bodies is an armored cupola circled with a vision strip.

A Qheuen lives and dies without ever seeing its "eating mouth," or anything else situated on the bottom of its broad, armored body. This is a particular disadvantage because the species' most precise handling organs are its prehensile lips and tongue.

Qheuen are "low K" breeders. Fertilized females lay dozens of eggs, which quickly hatch into intelligent but

virtually helpless (ST 4, DX 4, HT 6, Move 2) larva. After a few years, the larva spin a shell. After a few weeks they emerge as adults . . . if they are lucky enough to survive molting.

Qheuens

172/159 points

Qheuens are Big with Bulky builds; height increment is 1", diameter increment is 2", weight increment is 12 lbs. Start at 2'6" high and 4' diameter, 363 lbs.

Attributes: ST +4 [45]; DX -1 [-10]; HT +4 [45].

Advantages: Amphibious [10]; Armor Plates [59]; Extra Legs (4 total); Minor Patron [5]; Regrowth (Limitation: Only small extremities, -50%) [20]. *Blue and Red Qheuen:* Breath Holding 2 [4]. *Gray Qheuen:* Breath Holding 1 [2]

Disadvantages: Dull [-1]; Indifferent to Young [-1]; Semi-Upright [-5]; Staid [-1]. *Blue Qheuen:* Dependency (Fresh water; daily) [-15]; Humble [-1]. *Gray Qheuen:* Proud [-1]. *Red Qheuen:* Dependency (Salt water; daily) [-15]; Humble [-1].

Skills: Galactic Five (native) at IQ [0].

It costs 172 points to play a gray Qheuen, 159 points to play a red or blue Qheuen.

Red and blue Qheuens who miss out on their daily dip (in salt and fresh water, respectively) become Very Unfit. Twenty-four hours later, they go into a coma. If they are not immersed within HT hours, they will die.

SORO

A-Soro, ab-Hul, ab-Puber, ul-Gello, ul-Paha, ul-Forski, ul-Kisa, ul-Stheee

The combative, matriarchal Soro are huge, leathery carnivorous reptilians with an abundance of claws and sharp teeth. Their political, social, and love lives are violent and competitive.

The Soro are highly skilled at the art of uplift. They take great delight in manipulating and perfecting their specialized client species; though they meet the minimum requirements set by the Code of Uplift, some of these unfortunates are so one-sided in their development that survival on their own is doubtful. Most members of the tightly knit Soro clan are quite patriotic, serving and fighting alongside their patrons even though their indenture is over. Even the Soro's "grand-clients" tend to feel more loyalty to the Soro race than to their own patrons, and the Soro encourage this.

Politically the Soro are conservative, but highly ambitious and opportunistic. They stick to the letter of custom where it will help them or hurt their enemies . . . but they would readily violate uplift regulations, the Rules of War, and possibly even the strict Galactic ecological policies to further their power. They would like to see the Terragens subjugated and put under their patronage. While certainly preferable to

the treatment Humanity and its clients would receive at the hands of the Tandu, domination by the cruelly manipulative Soro would be a dire experience indeed.

Biology

Soro are four-limbed, warm-blooded reptilians. They have a semi-upright posture. Soro walk in a scuttling squat, balancing their torsos with their long, thick tails. Their leathery hide is covered with small, hard scales.

Both Soro sexes are sapient. Females are notoriously clever, manipulative, and perceptive. Males are driven by instinct and impulse, and rarely qualify as more than farmers, laborers, or cannon fodder. This is perhaps a fortunate arrangement; males may not survive mating. Females with blooded mating claws (located at the tip of the muscular tail) lay a single egg many months after mating; maternal care is intensive.

The Soro's presapient ancestors hunted by stalking, pouncing when they cornered their prey. The *coup-de-grace* was (and is) delivered by a lightning-fast strike with their mating claw. When their unassuming Hul patrons found the proto-Soro, they were beginning to use spears and knives.

Soro

72/65 points

Female Soro are Huge with Heavy builds; height increment is 2 1/2", weight increment is 16 lbs. Start at 8'6", 544 lbs. Male Soro are Huge with Heavy builds; height increment is 2 1/2", weight increment is 13 lbs. Start at 8'4", 439 lbs.

Attributes: Female: ST +4 [45]; DX -1 [-10]; IQ+1 [10].
Male: ST +3 [30]; DX +1 [10]; IQ -1 [-10].

Advantages: Major Patrons [25]; Spear (Reach 2) [35]; Thick Hide [28]. **Males:** Combat Reflexes [15]. **Females:** Racial Skill Bonus (Leadership) +2 [2].

Disadvantages: Bad Temper [-10]; Callous [-6]; Dull [-1]; Fanaticism (Soro) [-15]; Impulsiveness [-10]; Intolerance (Non-clan) [-5]; Reduced Move (Running) -1 [-5]; Selfish [-5]; Semi-Upright [-5]; Staid [-1]. **Males:** Social Stigma (Second-Class Citizens) [-5].

Languages: Galactic Twelve (native) at IQ [0].

It costs 72 points to play a female Soro, 65 points to play a male Soro.

SYNTHIANS

A-Synthian, ab-Tharner, absu-Chelbi, ab-Pee'oot, ul-Wazoon, ul-Klick-Klick, ul-Se'een

The Synthians are a moderately powerful patron race. They like Humans, and enjoy Terran culture and fads, but do their best to appear neutral in Galactic politics. Though they have given considerable help to the Terragens in peace, the Synthians have offered little military assistance.

Biology

Synthians are furry mammals similar in appearance to bipedal raccoons. They are slightly shorter than Humans, but rather stocky. Thanks to their descent from nocturnal hunter-gatherers, Synthians have excellent night vision. They commonly wear thick sunglasses during the day.

The proto-Synthians lived in small tribes with complex social hierarchies. Battles for dominance rarely involved violence; for the most part, they consisted of subtle, painfully

cautious social power-plays. Sapient Synthians are simultaneously wary and pompous. They have an above-average awareness of other creatures' moods, and have proved to be shrewd and compassionate patrons.

Synthians

-7 points

Synthians are Short with Heavy builds; height increment is 1", weight increment is 6 lbs. Start at 5'5", 157 lbs.

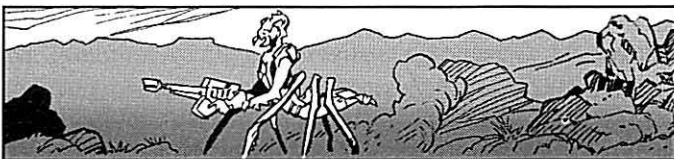
Attributes: ST -1 [-10].

Advantages: Claws [15]; Fur [4]; Metabolism Control 1 (Limitation: Hibernation, -50%) [3]; Night Vision [10].

Disadvantages: Cowardice [-10]; Edgy [-5]; Proud [-1]; Reduced Move (Running) -1 [-5]; Weakness (Sunlight; 1d fatigue/minute; Mitigator: Glasses, -60%) [-8].

Languages: Galactic Six (native) at IQ [0].

TANDU



A-Tandu, ab-N'8ght, ul-Acceptor, ul-Episiarch, ul-Incrementor

The Tandus are hexapodal insectoids descended from ferocious pack-hunting carnivores. They now satisfy their lust for the hunt in space battles; when a call goes out for a "posse" to chastise a wayward race, the Tandus are the first to volunteer, whatever the supposed infraction. The total extinction of several species has been blamed on the Tandus' enthusiasm for war and destruction.

The Tandus make even more daring excursions into questionable uplift practices than the Soro. The insectoids are surprisingly good at uplift, especially considering their lack of empathy. Some credit this proficiency to instinct; the Tandus domesticated several animal species *before* they themselves were fully sapient! Two Tandus client species – the Acceptors and the Episiarchs – are typically twisted specimens; both are

utterly mad psionic adepts with little chance of making it on their own.

Tandus hold to the tenets of the Inheritor alliance. In the short run, the Tandus would like to see Humanity and its clients and allies crushed and extinct. They are among mankind's worst enemies, and are feared even by other powerful fanatic clans. Every living Tandus has applied for admission to the Institute for Civilized Warfare. So far, only about 200 have been accepted, but they keep trying. The Institutes' refusal to take on more Tandus is *not* due to any lack of qualifications.

Tandu Head Buds

Tandus have a ring of head-buds at the top of their torso. If a Tandus has its head removed or severely damaged, one of these buds grows into a new head. All mental skills and memories are lost along with the old head's personality; but because of the Tandus' partially decentralized brain, physical skills are only reduced by 3, and not below default levels. Tandus arms regrow slowly (1 year). These abilities are considered 0-point features.

Biology

Tandu are six-legged, cold-blooded, insectoid centaurs. Their slender but surprisingly strong limbs are covered with dark brown chitin. Their torsos are tough but brittle; once their armor is breached, they rapidly go to pieces. Tandu are hermaphroditic. They exchange genes by eating the spore-pods of dead Tandu; once fertilized, they lay a dozen or so eggs at a time. Promising youngsters receive a fair amount of attention; runts are eaten.

Tandu are voracious, pack-hunting carnivores. Their favorite pastime is hunting live game (occasionally sapient!) with only a club and a tracking-beast or two. This isn't Bloodlust, though; it is quite controlled. They are xenophobic and tend toward regimented, hierarchical societies.

Their arid home planet has 0.95 Gs, and circles an unassuming M5 star.

Tandu "speak" a peculiar variant of Galactic Eleven. They produce a ratcheting sound by rubbing horny knobs on their legs together. The insectoids need a voder to speak any other tongue.

THENNANIN

A-Thennanin, ab-Worth, ab-Kosh, ab-Rosh, ab-Tothtoon, ul-Paimin, ul-Rammin, ul-Ynnin, ul-Olumimin, ul-Nahalli, ul-Garthling

The priggish, self-righteous Thennanin may be considered either mild fanatics or fanatical conservatives. They are staunch environmentalists, demand respect and proper behavior from clients, and uphold Galactic law and ethics. Many Thennanin have an almost religious respect for animals with Potential; they have a similarly superstitious dislike of "unholy" technologies like psionics and probability manipulation.

Like many Galactic patrons, the Thennanin would like the Terragens wolflings (whom they view as willful juvenile delinquents) as foster clients. They would be harsh but fair masters, genuinely concerned with molding Humanity into a more responsible and respectful life-form. Fortunately, the Thennanin have recently become – unwillingly but definitely – "in-laws" of the Terragens, thanks to the extraordinary events on Garth.

Thennanin are at once naive and pompous, considerate and demanding. Though they seem slow, even dim, to many Humans, Thennanin patronize Humans and Human clients, treating them like brain-damaged primitives.

Many Thennanin dedicate themselves to service with the Institute for Uplift, the Institute for Migration and the Institute of Civilized Warfare.

Biology

Thennanin are hulking, reptilian bipeds. Their bullet-shaped heads are mounted between blocky shoulders. A rippling crest like that of a helmeted Greek soldier tops the thennanin scalp; the organ is apparently part of the respiratory system. Thennanin breathe – and talk – through gill-like

Tandu

87 points

Tandu are Tall with Normal builds; height increment is 1 1/2", weight increment is 6 lbs. Start at 6'2", 180 lbs.

Attributes: ST +1 [10]; DX +2 [20]; HT -2 [-15].

Advantages: Carapace [56]; Combat Reflexes [15]; Extra Legs (6 total) [10]; Racial Skill Bonus (Brawling) +1 [1]; Racial Skill Bonus (Tracking) +1 [1].

Disadvantages: Cold-Blooded (Below 65°) [-10]; Proud [-1].

Languages: Galactic Eleven (native) at IQ [0].

Customization Notes: A Tandu's personality depends on deeply ingrained caste conditioning. Apply one of the following lenses to the base Tandu template:

Warrior: Callous [-6]; Careful [-1]; Hidebound [-5]; Humble [-1]; Single-Minded [5]; Xenophobia [-15]. -23 points.

Worker: Hidebound [-5]; Selfless [-10]; Obsession (advance the clans' interests) [-10]. -25 points.

Leader: Callous [-6]; Intolerance (Non-clan) [-5]; Paranoid [-10]. -21 points.

slits on the sides of their necks. They have two sexes; females lay clutches of 1-3 eggs.

Thennanin

93 points

Thennanin are Big with Heavy builds; height increment is 2", weight increment is 10 lbs. Start at 6'11", 288 lbs.

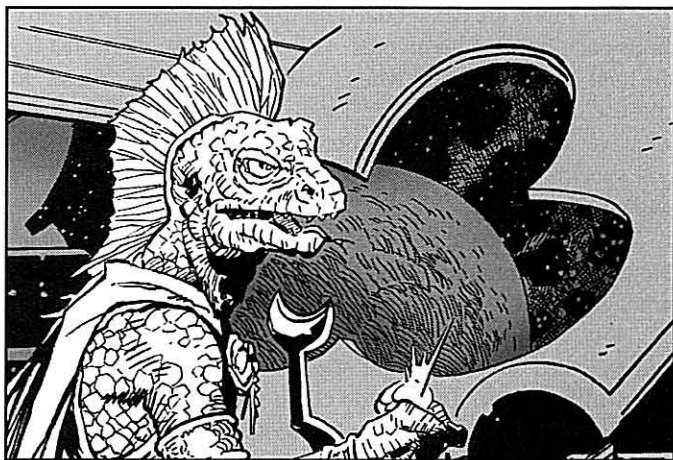
Attributes: ST +4 [45]; HT +2 [20].

Advantages: Claws [15]; Heavy Scales [28]; Major Patron [25].

Disadvantages: Dour [-5]; Dull [-1]; Fanaticism (Ecological preservationist) [-15]; Incurious [-5]; Oblivious [-3]; Proud [-1]; Stubbornness [-5]; Truthfulness [-5].

Languages: Galactic Six (native) at IQ [0].

Customization Notes: The clan's alliance with the Terragens opens the possibility of Thennanin officers, protocol specialists, and uplift advisors visiting Earth and its colonies and even serving about TAASF vessels.



TYMBRIMI

A-Tymbrimi, absu-Caltmour, ab-Brma, ab-Krallnith, ul-Tytlal

The Tymbrimi are mischievous, daring, and incredibly clever "tricksters," notorious in Galactic society for being innovators and practical jokers. Their insouciant attitude, lack of respect for elder clans, and capricious sense of humor make them suspect in many corners of Galaxy Two. Though they are careful to obey the letter of the law, and respect the ethical foundations of galactic society, the Tymbrimi constantly skirt the edge of respectability in their quest to deflate the dignified and to foul the plans of fanatics.

It is fortunate that the first Galactic Humanity encountered were the Tymbrimi. Without their advice and guidance, Humanity and its clients would probably have long since been subjugated.

Biology

Tymbrimi (singular "Tym") are humanoids, descended from creatures similar in appearance and habit to terrestrial primates. They are shorter and slighter than Humans, and are oddly proportioned as well. A Tym's calves are longer than a Humans, and thighs shorter. Tymbrimi are better suited to climbing than Humanity, but less adept at long-distance running.

Tymbrimi facial features are arranged like Humanity's. They have oval eyes and angled brows, giving them an ironic, vaguely vulpine appearance. Skin color varies; body hair is light, but a ruff of fur-like hair runs along their spine from their upper back, over their scalp to end in a crest above their brow's. A "halo" of fine, silvery tendrils borders the crest around their temples, above each ear.

Tymbrimi are true mammals. Females have six small breasts and a marsupial-like pouch; they give birth to single babies (twins are very rare) after an 11-month gestation period. Tymbrimi are highly neotenic creatures; they take a long time to grow up, and are imaginative, playful, and flexible.

Tymbrimi are incredibly adaptable. Thanks to enzyme-secreting glands called "change nodes," they can alter their metabolic rate, modify their muscular and skeletal structure, alter thickness of body hair, change skin texture, and more. Gradual body changes are relatively easy to make, and free from side effects. Tymbrimi tailor themselves to their jobs in this way. A runner might lengthen her legs and alter her leg musculature to increase speed, and change metabolism to

Tymbrimi Gheer Reaction

20 points

Tymbrimi bodies are capable of extraordinary changes in times of stress. Gheer transformations take a terrible toll on the Tym's long-term health, but in some situations they are all that stands between life and death.

In an emergency (as defined by the GM) the Tym gains the advantages of Hyper-Reflexes and Hyper-Strength. Both of these advantages can only be used once per day, and have their Fatigue cost changed to 2 per minute. This totals to a -60% mitigator on both.

increase endurance. A laborer might increase his upper body and arm muscle mass to make lifting heavy objects easier. Tymbrimi ambassadors routinely alter their facial features (including the underlying muscles) to give themselves the ability to duplicate the facial expressions of their hosts. In poor light, a skilled Tym could pass for a Human, assuming the observer wasn't paying too close attention.

Stress and fear can trigger a more sudden change, called the *Gheer reaction*. This painful process can dramatically increase strength, agility, and speed for a short period of time. Gheer reactions have a terrible metabolic cost.

Tymbrimi

14 points

Tymbrimi are of Normal size, with Light builds; height increment is 1", weight increment is 4 lbs. Start at 5'8", 131 lbs.

Attributes: ST -2 [-15]; DX +1 [10].

Advantages: Average Patron [10]; Elastic Skin (Five weeks to prepare, cannot be used for disguise) [0]; Gheer Reaction [20]; Versatile [5]; Telepathy 4 (Telepathy limitation, see p. 25), [10].

Disadvantages: Bad Sight [-10]; Compulsive Behavior (Practical jokes and tricks; -4 reaction from conservative species) [-10]; Compulsive Play [-5]; Nosy [-1].

Languages: Galactic Seven (native) at IQ [0].

Customization Notes: Tymbrimi may buy up to 4 additional levels of Telepathy (with Telepathy limitation). Many Tyms have Playful [-1], and a few have Trickster (see p. CI94).

TYTLAL

A-Tytlal, ab-Tymbrimi, absu-Caltmour, ab-Brma, ab-Krallnith

The Tymbrimi were delighted when they won permission to uplift the cunning Tytlal. While not as clever or individualistic as their future patrons, the ur-Tytlal showed signs of being natural jokesters, a necessary prerequisite to fit into Tymbrimi society.

The Tytlal also proved to be talented artists and skilled traders and businessmen. While they did not have their patrons' inherited psi-talents, a higher than expected percentage of Tytlal were telepathic and ESP adepts.



Shhhh . . .

The Tytlals' Third Stage Uplift ceremony occurred at an inauspicious time, just after the extinction of their Caltmour grand-patrons. As the proceedings wound down, the chief Tymbrimi representative was approached by a shadowy figure who made an interesting offer. The Tymbrimi began a secret project to create a hidden colony where a population of the fallow form of their beloved clients could be safeguarded. Several thousand genetically diverse ur-Tytlal, plus a few hundred uplifted Tytlal trained as guardians, were smuggled to Jijo, in Galaxy Four (see Appendix A). The trip was made in ships without Library branches (and their prying WOM recorders).

The only records of the project are kept in sealed, legally privileged vaults that can only be accessed by the most senior Tymbrimi and Tytlal officials.

Biology

Tytlal are warm-blooded mammal-like creatures. They look a lot like terrestrial otters, although with longer limbs and sharper muzzles. They breed slowly; children are often raised by large groups of adults.

Tytlal

2/-13 points

Galactic Tytlal are Small with Light builds; height increment is 1/2", weight increment is 1 1/2 lb. Start at 4'6", 64 lbs. The Tytlal of Jijo are Tiny with normal builds; their height increment is 1/4" and their weight increment is 1.5 lbs. They start at 3' and weigh 45 lbs.

Attributes: ST -2 [-20]; DX +2 [20].

Advantages: Acute Smell +2 [2]; Animal Empathy [5]; Extra Arm (Whiskers; Short, no attacks) [2]; Fur [4]; Perfect Balance [10]; Secret Communication (Pheromones;

Enhancement, Other cannot perceive, +40%; Limitation: General concepts and emotions only, -50%) [14]; Versatile [5].

Disadvantages: Average Clients [-5]; Broad-Minded [-1]; Chummy [-5]; Curious [-5]; Edgy [-5]; Compulsive Play [-5]; Reduced Hit Points -2 [-10]; Semi-Upright [-5]. The Tytlal of Jijo have Reduced Hit Points -4 [-20].

Skills: Swimming at DX [1]. The Tytlal of Jijo also have Climbing at DX [2], Survival (Swampland) at IQ-1 [-1]; and Tracking at IQ [2].

Languages: Galactic Seven (native) at IQ [0].

Customization Notes: Tytlal often have the more severe form of Compulsive Play; just as many only have the "Playful" quirk. Tytlal may buy up to three levels of Telepathy (with the telepathy restriction), and up to four levels of ESP.

It costs 2 points to be a Tytlal of Galactic civilization. It costs -13 points to be a Jijo-native Tytlal.



Urs

A-Urs, ab-Som, ab-Afue, ab-Mani

Urs are one of the Galactics' silent majority of law-abiding, politically moderate races. They are of an undistinguished lineage and modest accomplishments. Other than a bit of trouble with the Migration Institute's Population Bureau a few millennia back, their career since emancipation has been unremarkable.

The Urs have yet to uplift a client species, and (despite soothing assurances to the Som) don't seem particularly interested in becoming full patrons. To date, the species has spent much of their excess racial wealth to expedite applications for new colony worlds, where individuals can pursue the race's obsession: rearing a large family and obtaining a large herd of *simla*. Females without the wealth, connections, or social accomplishments required to get a male often take careers off-planet. Urrish technicians and merchants can be found on vessels throughout the Five Galaxies, where they

are earning a reputation as skilled, hard-working, motivated workers. Many return home wealthy.

Biology

The Urs are centauroids. Their four slender but muscular legs end in delicate hooves. They have two short arms that end in delicate hands. Their long, sinuous bodies are covered with a pelt of short fur, almost always tan in color. Their necks are long and muscular. Urrish heads are trilaterally symmetrical, with three triangular jaws, three eyes, and a single fur-lined nostril. The eye on the skyward-facing segment is a lidless, primitive composite that can "keep a watch" while the urs is asleep. A shaggy mane runs from the neck to tails.

Only female Urs – who are about the size of a small deer – are fully sapient. Under each of a female Urs' arms is a veined, bluish brood pouch, which can contain either a clutch of squirming young . . . or her husband! Male Urs are *small*,

about the size of a large house-cat, and are only capable of rudimentary speech and cognition. Urs of both genders begin as tiny, six-legged larvae; these crawl away to live in the grassy wilds of Urrish home worlds. After several years, the survivors assume their adult forms, and find themselves compelled to seek out adults who smell like "family." The females become clan members. A few of the healthiest and cleverest males are also welcomed to the clan, as property. They are awarded to females who prove themselves useful.

Urs are carnivores. Besides meat, their prey is a source of their beverage of choice . . . blood. Their presapient ancestors evolved on an arid world where open water was rare. Rain was quickly absorbed and held by mats of vegetation. As a result, Urs find "raw" water to be irritating and distasteful. They will only drink it if nothing else is available. An Ur who falls into water or is otherwise drenched must make a Will roll to avoid panicking and doing anything possible to reach a dry place. Urs will never even *think* about learning to swim.

Female Urs **90 points**

Female Urs are Big with Average builds; height increment is 1.25", weight increment is 7 lbs. Start at 5' long, 5' high, 210 lbs.

Attributes: Upper body, ST +4 (No Jumping Bonus, -5%), lower body ST +15 (No Fine Manipulators, -40%) [79]; HT +2 [20].

Advantages: Combat Reflexes [15]; Deep Sleeper [5]; Enhanced Move (Running) 2 [20]; Extra Legs (4 total) [5]; Minor Patron [5]; Quadruped Encumbrance [0]; Striker (Head butt; 1d crushing) [5].

Disadvantages: Attentive [-1]; Careful [-1]; Inconvenient Size [-10]; Increased Life Support 1 [-10]; Phobia (Water) [-10]; Proud [-1]; Short Arms -10]; Short Lifespan 2 [-20]; Staid [-1].

Languages: Galactic Seven (native) at IQ [0].

Urs whose "watch eye" spots something unusual will wake instantly. A Stealth roll is required to sneak up on or past a sleeping Ur.

Urs have Increased Life Support due to their size and their dependence on unusual beverages.

While they can talk, most male Urs are about as intelligent then a fallow chimp and are, at best, considered little more than valuable pets. They are not appropriate as a player character race.



WAZOON

A-Wazoon, ab-Synthians, ab-Tharners, absu-Chelbi, ab-Pee'oot

The Wazoon (singular Wazoo) are the Synthians' first clients. They are small, agile tarsier-like creatures descended from arboreal insectivores. They are notably loyal and steadfast clients, but given to good-natured impertinence.

Biology

Wazoon have coats of short, fine fur that comes in a variety of camouflage patterns. Their large eyes are adapted to night use; Wazoon dislike bright light and stay indoors (or under leafy forest canopies) during the day. Individuals change from male (the norm) to female every four or so years. Females give birth to litters of two to five pups, nurse them through regurgitation for about two years, then turn back into males. Wazoon families consist of three or four adults and

their children. Wazoon grow up fast and age quickly; the Synthians are trying to give them longer lifespans.

Wazoon **-22 points**

Wazoon are Tiny with Slight builds; height increment is 1/4", weight increment is .5 lbs. Start at 3', 27 lbs.

Attributes: ST -5 [-40]; DX +3 [30].

Advantages: Alertness +4 [20]; Brachiator [5]; Night Vision [10]; Perfect Balance [15]; Versatile [5].

Disadvantages: Congenial [-1]; Humble [-1]; Inconvenient Size [-15]; Minor Client [-10]; Reduced Fatigue -5 [-15]; Sense of Duty (To Synthians and clan) [-5]; Short Lifespan 2 [-20].

Skills: Acrobatics at DX-2 [0]; Climbing at DX [0].

Languages: Galactic Six (native) at IQ [0].

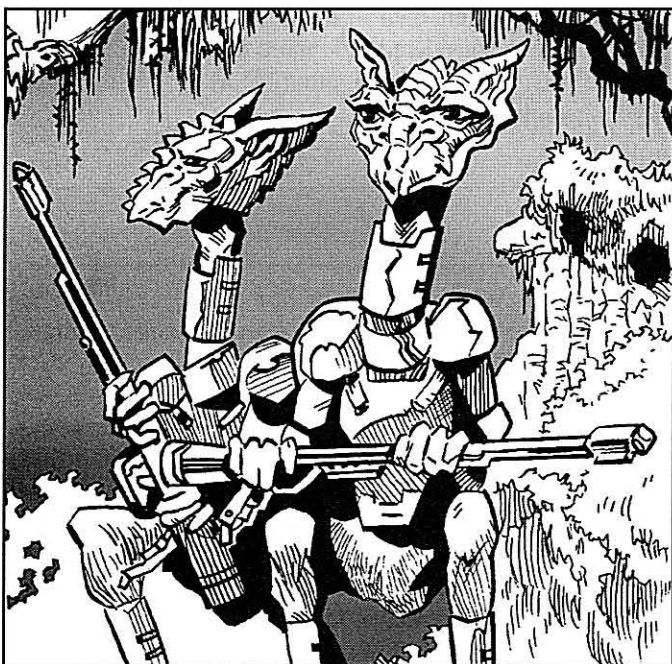


YNNIN

A-Ynnin, ab-Thennanin, ab-Kosh, ab-Rosh, ab-Tothtoon, ab-Paimin

At the time they were discovered by the Thennanin, the proto-Ynnin had developed a crude, instinctive form of inter-herd trade and even a crude form of record keeping . . . and these primitives weren't even the most promising species of their bountiful homeworld! However, the shrewd Thennanin had need of a client with habits and capabilities of the proto-Ynnin, and began to uplift the creatures in their slow, methodical, careful fashion.

The Ynnin officially worked off their indenture more than 500,000 years ago. However, they still serve the clan and hope to continue their patrons' championship of ecological causes. Many Ynnin enter service to individual Thennanin as bodyguards and administrative aides.



Ynnin toe the clan line as far as relations to Earthclan are concerned. They tend to be fair-minded and law-abiding, but eagerly embrace their patrons' fanatical embrace of environmental law.

Biology

Ynnin are warm-blooded opportunist browsers. They are bipedal, with legs and feet specialized for jumping. Their skin is covered with small scales, but its protective strength lies in a quiltwork of tough hide and fatty tissue.

The proto-Ynnin diet consisted of grasses, grubs, and scavenged meat. The young and adult females lived in matriarchal herds. Males spent most of the year browsing in the amiable company of a few fellows. During mating season, the herd-mothers would give up sovereignty and await to see which males best competed for mates and territory.

Ynnin

101 points

Ynnin are Tall with Light builds; height increment is 1 1/2", weight increment is 5 lbs. Start at 6'2", 154 lbs.

Attributes: DX +2 [20]; HT +1 [10].

Advantages: Alertness +1 [5]; Claws [15]; Combat Reflexes [15]; Cool [1]; Racial Skill Bonus (Karate) +1 [2]; Super Jump 2 [20]; Heavy Scales [28]; Striker (Tail; 1d-2 crushing damage, 1-hex reach, -5 DX) [5].

Disadvantages: Businesslike [-1]; Chauvinistic [-1]; Chummy [-5]; Dull [-1]; Reduced Move -2 [-10]; Respected Client [-1]; Staid [-1].

Languages: Galactic Six (native) at IQ [0].

Customization Notes: Ynnin respond enthusiastically to Thennanin propaganda and are very prone to Intolerance (of non-Abdicators, or of ecological scofflaws) [-5] and Fanaticism (Thennanin clan) [-15].

EARTH'S OTHER RACES

Earth, even after the ecological disasters of the 20th century, is one of the most potential-rich worlds in Central Galaxy. Two of the best species – chimpanzees and dolphins – had already been uplifted to Stage Two status when Human explorers contacted the Galactics. Humanity's plans to uplift other promising cousins were thwarted when conservative Galactics forced the Institute for Uplift to declare the remainder of Earth's high-Potential species "fallow." All new work on them had to cease. Two species undergoing uplift were left unfinished by this ban: canines and elephants.

In a rare move, the Institute for Uplift let the Terragens keep these species as domestic animals. Limited neo-dog development continues. Under careful Institute supervision, research teams are trying to improve the race's longevity and mental stability. They are not allowed to improve the species'

intelligence or self-awareness. The researchers obey the rules – something is better than nothing – and it is a chance to get hands-on instruction from Galactics. Earthclan looks forward to the day when these millennia-old friends are allowed to become fully sapient members of the Terragens.

Neo-Dogs

Neo-dogs are sturdy, presapient canines. Most of the experimental breeds are wolf-like. Others resemble oversized border collies and poodles. All have high foreheads, oddly full lips, and five-toed feet with extended dewclaws. All are fully domesticated.

Neo-dogs have the same language capacity as a fallow chimpanzee, and are considerably more willing to obey

orders. They are easy to train, dignified, loyal, and polite, but are not automatically friendly to strangers. They love jobs that let them put their keen senses to use.

Unfortunately, the current version of neo-dogs is subject to mental disturbances. They are prone to obsessive behavior and depression. Frustrated and shamed neo-dogs may become suicidal or (very rarely) go on killing sprees. As a result, all neo-dogs are employed in structured environments and worked by specially trained, empathetic, and conscientious handlers. People dealing with neo-dogs must treat them as partners, not pets!

Neo-Dogs **-106 points**

Neo-dogs are Tall with Slight builds; height increment is 1 1/2", weight increment is 3 lbs. Start at 5' long and 3'1" high, 108 lbs.

Attributes: ST-1 [-10]; DX +2 [20]; IQ -4 [-30]; HT +1 [10].

Advantages: Acute Hearing +4 [8]; Acute Taste and Smell +4 [8]; Alertness +5 [25]; Combat Reflexes [15]; Discriminatory Smell (Enhancement: Works as Empathy within 2 hexes, +50%) [23]; Enhanced Move (Running) 1/2 [5]; Extra Legs (4 total) [5]; Fur [4]; Sharp Teeth [5]; Ultra-hearing [5].

Disadvantages: Chummy [-5]; Color Blindness [-10]; Dead Broke [-25]; Dull [-1]; Playful [-1]; Horizontal [-10]; Innumerate [-5]; Mute [-25]; No Fine Manipulators [-30]; Presentient [-20]; Proud [-1]; Responsive [-1]; Short Lifespan 5 [-50]; Social Stigma (Valuable Property) [-10]; Staid [-1]; Stress Atavism (Mild, rare; results in Bestial) [-8].

Skills: Running at DX -2 [2]; Stealth at DX [2].

Customization Notes: Many neo-dogs have Compulsive Play [-5], or have Compulsive Behaviors [-5] such as herding, stalking, and scent-seeking.

It is possible that renegade genetic engineers are continuing the effort to produce sapient canines. The Terragens Council would strongly disapprove of any such project, and if one were discovered would go to extreme measures to shut it down and bury the evidence. A neo-dog from such a program could buy off Presentient and Mute, replacing them with Semi-Literacy and Stuttering. They would also gain Secret (Possible Death). The point total for this sort of neo-dog remains unchanged.

Other Fallow Creatures

Gorillas, now known as "Garthlings," are discussed on p. 42.

Neo-elephants are modified Indian elephants. Most work done on neo-elephants prior to the ban was on the behavioral level. They are very bright and social but are not truly pre-sapient. Neo-elephants take orders well, enjoy the company of people, and are hard workers. They have replaced fallow elephants in circuses, religious processions, and logging operations. Neo-elephants are also employed as ecologically sound

New Dogs, Old Tricks

Neo-dogs are socially savvy creatures, self-aware enough to realize their position in society. They understand insults and condescension, and stubbornly ignore people who patronize, deceive, or tease them. Surprisingly, most of these wonder-canines seem utterly defenseless against one sort of misdirection: *magic tricks*.

A simple trick – such as "pulling off your thumb" or producing a biscuit from behind an ear – is enough to convince a neo-dog that the magician is an interesting person worthy of attention and respect. A neo-dog who witnesses the classic Man Cutting a Lady in Half, or the full-blown Indian Rope Trick (and can be restrained from attacking the performer halfway through) may well be convinced that the magician has god-like powers and must be offered loyal service.

Neo-dog handlers often learn a few tricks to keep their charges faithful and entertained. A few carry a kit of juggling balls, flash-paper launchers, and other props, to use when one of the canines becomes distraught or angry and needs serious distraction.

Successfully pulling off a magic trick in front of a neo-dog requires the magician not only succeed at Sleight of Hand, but either have the Animal Empathy advantage or make an Animal Handling roll.

tractors and "all-terrain vehicles" (with built-in cranes!) by wilderness maintenance organizations on Earth and some colonies.

Earth has one other species of recognized high Potential: Orangutans. These primates, once thought to be extinct, exist in very small numbers in the restored forests of Southeast Asia. A hushed-up rumor has it that the species had become extinct, only to be recreated from preserved gene stocks.

The Institute for Uplift has put the following terrestrial species on their Fallow List: brown bears, certain baboons, bonobo chimps, Barbary apes, otters, domestic cats, rats, raccoons, pigs, coyotes, and – for some reason – octopuses! Fallow List species are not allowed to become extinct. The creatures may continue to be used domestically, and even "harvested" (eaten, skinned, or hunted for sport). Genetic modifications performed cannot increase or reduce their intelligence, self-awareness, or ability to survive in the wild. The species cannot be transplanted to another world without permission of the Institute.

All cetaceans are also on the Fallow List, including orcas (though some orca genetic material is part of the neo-dolphin experiment). The cetaceans, especially the large whales, represent a type of intelligence that is nearly unique even by Galactic standards; they and their songs are Galactic treasures, and Uplift meddling will never be permitted. There are races that care nothing for the Terragens, and little even for Earth as a living planet, but would go to war if the whales were endangered.



“You gave this Hoon your protein supplement?” Bertie Sohng stared at his feet. “Yes, Doctor. I’m sick of peanut butter, and he did ask, and so . . .”

The Traeki produced a sound that reminded Bertie of the time his entire kindergarten made simultaneous underarm noises. “You are old enough to know that Human foods can hurt a person of another sept. Or make them a little crazy, like this poor boy.”



Bertie turned to look at Wourootle Hiroo, who tossed and turned and babbled the way that Bertie's sister did when she had had a bad fever.

"What's he saying?" the boy whispered to the Traeki, who was using a lemony-smelling secretion to remove the last traces of peanut butter from the young Hoon's throat sack.

"Very interesting, actually," said the ring-stack. "He is reciting his race's extended-recursive patronymic. He is five generations past the Guthatsa's esteemed grand-patrons, the PHEE!5t-5t, who I believe are the oldest of the line as it is taught in school. Either Master Wourootle's parents encouraged him to do extra reading, or your snack's hallucinogenic properties have given him access to some sort of racial memory. Or perhaps he's just making it up. Have you heard of this race he mentions, 'Ivanhoe?'"

Uplift is a long, exacting process, but it yields great rewards for both the patron race and interstellar civilization.

Patrons get a hundred millennia of service from their new clients, and the status that comes from having a large clan. The Civilization of Five Galaxies gets fresh blood and new talents. Uplift also has a religious dimension; many races take the Progenitors' commandment to increase the diversity of sentient life very seriously.

The system in this chapter simulates the "natural" evolution of presentient species, and the process of uplift that turns them into sophont species. Some of these may be suited for use as player character races.

This system is deliberately biased toward creating oxygen-breathing creatures from environments that are not radically different from those found on Earth. (There are many such worlds, thanks to over two billion years of terraforming!) You are welcome to imagine the effects of different day and night cycles, wildly variable climate, and so on. To determine how a species from an exotic world deals with Galactic Standard environments (which are similar to Earth standards) use the environment rules in *GURPS Space*, Chapter 7.

CREATING AN UR-SPECIES

The first step in the uplift process is to choose an animal species to work on. Patrons carefully search the ecosystems of their colony worlds for possibilities. Law, tradition, and practicality limits the choice to species with *potential*, who just need a little push in the right direction to achieve "sophont" level intelligence. Most Galactics consider it blasphemous to endanger species with potential, or even environments that might support or produce such species.

There are exceptions to the "high potential only" rule. A few Galactic races were uplifted from pack-beasts and household pets. Others are based on low-potential species with interesting talents. The drastic changes needed to turn such creatures into tool-using sapients are considered unseemly.

Starting Out

Get out some dice, scratch paper, and your copy of *GURPS Compendium I*.

Physical Attributes

Ur-species start off with ST 10, DX 10, and HT 10. IQ will be determined later.

Personality Traits

Each species has a set of eight *personality traits* (see p. 80 and p. CI180) that describe the animal's instinctive behaviors. All ur-species start off with these personality trait scores:

Chauvinism 5, Empathy 3, Concentration 2, Gregariousness 2, Curiosity 2, Imagination 1, Egotism 3, Suspicion 3.

An animal's diet, selection of senses, reproductive patterns, and other traits have a powerful influence on its behavior. As you roll (or choose) these details, the initial personality traits may change as well. (Humans gain a point each in Gregariousness, Curiosity, and Imagination, and lose one in Chauvinism, thanks to the habits of our social-primate ancestors!)

The final, uplifted species will retain many of these instincts and emotional baggage. They become the species' equivalent of "Human nature." In *GURPS* terms, these become *racial* quirks, advantages, and disadvantages.

Using the Tables

The tables below help you determine the ur-species' home environment, physical appearance, place in the food chain, reproductive patterns, environment, and more. You can make die rolls to determine these traits and features, or pick table entries to fit your mental picture of the ur-creature.

Unless otherwise indicated, modified rolls that end up negative are treated as 0.

Guided Evolution

You can alter rolls, or choose a result, to guide the creature to a certain desired end. To create a fierce animal to menace characters on a wilderness journey, re-roll results on the Size and Natural Weapons table (or just choose the ones you want) until you get a formidable, toothy species. If your adventure requires a race renowned for repairing esoteric hyperdrive units, modify die rolls to ensure that they have nimble hands and sharp senses.

You can also use this system to flesh out races mentioned, but not fully described, in the *Uplift* novels. For example, in *Sundiver*, Helene DeSilva mentions a race uplifted from camel-like pack animals that controls an important transfer point. To create them using these tables, select Desert for their home environment, ground dweller for the mobility type, and browsing herbivore for the diet type. Let the dice decide the rest.

Many feature descriptions include a list of personality trait changes, skills, advantages, and/or disadvantages. It may also get bonuses or penalties on rolls made on a table in this chapter. For example, the Pouncer carnivore listing includes “*Sharpness of Vision table +1.*” When the time comes to roll on the Sharpness of Vision table, add 1 to the roll. These bonuses are cumulative.

If a parenthesized range of numbers is shown after an entry, the species only has a *chance* of gaining it. Roll 3d for each entry; if the roll falls within the range shown, apply the personality trait change, or add the skill, advantage, or disadvantage. *Example:* The Pouncer carnivore description contains the following:

Personality traits: Concentration +1. Advantages: Sharpness of Vision table +1 (3-10), Hearing table +1 (3-8), Penetrating Call (3-6). Skills: Stealth (3-10).

To determine exactly which of the “specials” apply to the ur-species, roll 3d four times. If the rolls came up 12, 4, 8, and 9 respectively, the species would get a bonus of +1 on the Hearing table, and the Stealth skill.

Personality Traits

Modify the trait as shown if you roll within the noted range. If there are two levels of a trait possible, and you roll for both, only take the more extreme of the two modifiers. *Example:* Pure ergivores have these possible personality trait changes: *Suspicion -2 (3-6), Suspicion -1 (3-8)* If your roll a 6 and 7 for these entries, adjust Suspicion downwards by 2.

Advantages and Disadvantages

If a species gets a “leveled” advantage twice, add the levels. For example, a species may get a half-level of Enhanced Move for being a Stalking Carnivore, and a full level of Enhanced Move for having running hooves. It gets 1 1/2 levels of the advantage, worth 15 points. Similarly, leveled disadvantages will accumulate.

A species may get a contradictory Advantage and Disadvantage. These will cancel out, though perhaps only partially. For example, Tiny species have the Decreased Life Support advantage, and Hyperactive species have the Increased Life Support disadvantage. A tiny, hyperactive species requires normal levels of life support.

Innate Skills and Skill Bonuses

Innate skills represent an animal species’ instinctive talents. Hunting beasts may have an inborn ability to track prey; agile arboreal creatures may be able to climb and jump with great skill. Innate physical skills start off at a level equal to DX. Innate mental skills start off at level 12; this is reduced to IQ when the creature is uplifted to sapience.

An ur-species may end up with a racial skill *bonus* instead of a full-blown skill. For example, brachiating species may get a +2 bonus for Acrobatics. An individual must obtain the skill to take advantage of the skill bonus.

The point cost of the final, uplifted client species should include the cost of skills and skill bonuses. See p. B44 for the cost of skills. See p. CI177 for the cost of skill bonuses.

The Home Environment

Ideally, an entire *homeworld* would be conceived for the ur-species. A planet’s day and night cycles, atmospheric density, eccentricity of its orbit around its sun, and even the period of its moon(s) could all influence its inhabitants’ evolution. As a shortcut, this system starts by determining the ur-species’ home environment. This primal habitat powerfully affects the ur-species’ form and diet. The final, uplifted species will be most comfortable in this environment. Choose a habitat, or roll 3d and consult the table below.

3-4 – Arctic.

5 – Desert.

6-8 – Plains.

9-12 – Forest.

13 – Swamp, bog, or marsh.

14-15 – Seashore or riverside. (Roll 2d+1 on this chart to determine surrounding terrain.)

16 – Mountains. (Roll 2d+1 on this chart to determine surrounding terrain.)

17-18 – Sea or ocean.

The environments are described below. Each section has tables to determine the species’ diet and mobility type.

Arctic

A frigid wasteland. What little vegetation can survive appears during the short growing season. Always *cold*, for the purpose of these tables.

Mobility type, roll 3d – 3: amphibious, 4-6: swimmer, 7-8: burrower, 9-17: ground dweller, 18: flyer.

Ground dwellers only: Ice Skates (3-6).

All types have a Survival (Arctic) skill bonus +1.

Diet, roll 3d (swimmer, amphibious: -2) – 1-10: carnivore, 11-13: omnivore, 14+: herbivore, 18+: ergivore.

Desert

Arid lands, ranging from shifting dune-seas to slightly more hospitable scrublands dotted with sparse, hardy cover plants. Deserts can support a surprising variety of life. Always *hot*, at least for the purpose of these tables!

Roll 3d – 3-8: burrower, 9-16: ground dweller, 17-18: flyer.

Survival (Desert) skill bonus +1 (3-14), Nictitating Membrane, one level (3-9) (see p. CI62).

Diet, roll 3d (swimmer, amphibious: -3, burrowers: +1, flyers: -3) – 2-9: carnivore, 10-13: omnivore, 14: herbivore, 15+: ergivore.

Swamp, Bog, or Marsh

Wetlands, either on a seashore or lake or river side. Plentiful vegetation, many ecological niches, little in the way of solid land. Choose or roll 1d for a temperature range – 1: cold, 2-5: temperate, 6: hot.

Roll 3d – 3-8: amphibious, 9-10: swimmer, 11-17: ground dweller, 18: flyer.

Diet, roll 3d (flyers: -1) – 2-9: carnivore, 10-13: omnivore, 14-16: herbivore, 17+: ergivore.

Forest or Jungle

A region dense with trees, or their local equivalent. Forests provide a wide variety of ecological niches. Choose or roll 1d for a temperature range – 1: cold, boreal forest, 2-5: temperate forest, 6: hot jungle or rain-forest.

Roll 3d – 3-4: glider, 5-6: brachiator, 7-8: burrower, 9-11: climber, 12-17: ground dweller, 18: flyer

Diet, roll 3d (flyers: -2) – 1-8: carnivore, 9-11: omnivore, 12-16: herbivore, 17+: ergivore.

Plains

A relatively level region, covered with grasses or equivalent cover vegetation. Choose or roll 1d for a temperature range – 1: cold, tundra, 2-5: temperate grasslands, 6: hot savannah.

Roll 3d – 3-6: burrower, 7-17: ground dweller, 18: flyer.

Diet, roll 3d (flyers: -3) – 2-9: carnivore, 10: omnivore, 11-15: herbivore, 17+: ergivore

Seashore or Riverside

This is a terrain “subtype,” adjacent to or surrounded by another type of terrain. Dwelling by a body of water modifies results on some of the other tables.

Roll for the mobility type here, and diet under the surrounding terrain.

Roll 3d – 3-9: amphibious, 10-12: swimmer, 13-17: ground dweller, 18: flyer.

Mountains

This is a terrain “subtype,” adjacent to or surrounded by another type of terrain. Living in the mountains modifies results on some of the other tables.

Roll for the mobility type here, and diet under the surrounding terrain.

Roll 3d – 3-6: burrower, 7-10: climber, 11-16: ground dweller, 17-18: flyer.

Sea or Ocean

The open sea, far from the mainland. For purposes of these tables, seas and oceans are always temperate.

Roll 3d – 3-9: amphibious, 9-17: aquatic, 18: flyer.

Diet, roll 3d (flyer: -1) – 2-12: Carnivore, 13-14: Omnivore, 15-16: Herbivore, 18+: Ergivore.

Mobility Types

Ground dwellers have no special advantages or disadvantages.

Brachiators are really at home in the trees, and are able to not only climb them, but swing from branch to branch at a good clip. *Advantages:* Brachiator [5] (see p. CI51), Modified Arm ST+2 [varies] (see p. CI61). Use arm strength to determine how well the animal brachiates.

Climbers are especially nimble ground dwellers. These include creatures like raccoons and cats that can climb trees, and mountain goats that can scramble up and over steep slopes and other obstacles. *Advantages:* Perfect Balance (3-8) [15]. *Skills:* Climbing skill bonus +2, Jumping skill bonus +2. *Quirks:* Dislikes being on level ground (3-10).

Swimmers are land animals who hunt or forage in streams, lakes, or coastal waters. They swim well and prefer to live near water. *Examples:* otters, polar bears, and beavers. *Advantages:* Breath Holding, 2 levels (3-14) [4] (if the species doesn't get Breath Holding, it has Gills [10]). *Skills:* Swimming. *Quirks:* Likes to be around water.

Amphibious creatures breathe air, but move and work well both on land and in water. *Examples:* seals and frogs. *Advantages:* Amphibious [10], Breath Holding, 2 levels (3-12) [4] (If the species doesn't get Breath Holding, it has Gills [10]); Walk on Liquid (3-6) [15] (see p. CI71; this advantage is lost if the creature is Normal size or larger!). *Disadvantages:* Dependency, requires daily swim [-5] (3-8).

Burrowers can tunnel under the ground. They may live in underground dens, but probably don't spend all their lives there. *Examples:* badgers, prairie dogs. *Characteristics:* ST+1 (3-8). *Advantages:* Claws [15], Nictating Membrane, one level (3-8) [10] (p. CI62), Tunnel (realistic restriction, see p. 19) [25]. *Disadvantages:* Phobia, agoraphobia, mild (3-8).

Aquatic species live in the sea. They are very uncomfortable out of water, if they can survive there at all! *Advantages:* Oxygen Storage (3-12) [14] (see p. CI62) (If creature doesn't get Oxygen Storage, it has Gills, *only*, and can't breathe air! [0]); Sonar Vision (3-10) [25]. If the creature does not have Sonar Vision, it gets Faz Sense with electrical enhancement and underwater restriction (3-10) [10]. *Disadvantages:* Aquatic [-40]. see p. CI101.

Gliders have small wings or membranes that allow them to glide down from heights safely. *Characteristics:* DX+1 (3-8). *Advantage:* Flight advantage with the Gliding limitation [20] (see p. CI56). *Disadvantages:* Phobia, claustrophobia, mild (3-8); Fragile (3-10) [-20] (see p. 102).

Flyers use wings or balloon-like organs that allow actual flight. Roll 1d, adding +1 for Oceanic or Arctic flyers. On a roll of 1-5, the species has the Flight advantage with the Winged Flight limitation [30] (see p. CI56). On a roll of 6+ the species has the Flight advantage with the Balloon limitation [20/25] (see p. 18).

Advantages: Absolute Direction (3-9) (see p. B19) [5]. *Characteristics:* DX+1 (3-8). *Disadvantages:* Phobia, claustrophobia, mild (3-10) [-15]; Fragile (3-10) [-20] (see p. 102); Airbag flyers only: Phobia, sharp objects, mild (3-12) [-5].

Exotic Environments

Galactics prefer to uplift species that can survive in environments similar to their own. Creatures from exotic places – the hot, turbid water surrounding a “black smoker” in an ocean trench, or the interior of a comet – have a hard time interacting meaningfully with Galactics. For example, they may be confined to an encounter suit whose mechanical abilities are of more importance than their own.

These rules aren't designed to randomly generate creatures from the myriad possible exotic environments. Visualize the environment with as much detail as you can, then pick physical and behavioral features that you think make sense! Unless the environment has a developed ecosystem, the creature will likely be an ergivore.

Homeworld Gravity

Homeworld gravity has a big effect on the initial characteristics of the ur-species. Once uplifted specimens of a client race are exported to its patrons' colony worlds, they will acclimate – as individuals and a species – to the local gravity. The effect of an individual's home gravity will eclipse the effect of the ur-species' native gravity.

Choose the home gravity, or determine it randomly (roll 4d+6 and multiply by .05g). Apply these changes:

Light gravity (.2g to .7g): ST-1, Reduced Hit Points -1, weight -20%, height +10%, G-Intolerance, .1g (see p. CI81) [5].

Heavy gravity (1.5g to 3g): Improved G-Tolerance, .3g (see p. CI26) [5], ST+1, Extra Hit Points +1, weight +20%, height -10%.

Some species will have gravity-related special abilities or disadvantages. Roll 3d (+ 3 for light gravity, -3 for heavy gravity) – 0-6: Acceleration Weakness [-5] (see p. CI79), 7-13: No special, 14-15: Acceleration Tolerance [10] (see p. CI19), 16-21: Space Sickness [-10] (see p. CI84).

Basic Physical Shape

The number of limbs the creature has, and the pattern in which they are arranged, are determined first. Bodies with *bilateral symmetry* have a right and left side that are mirror images of each other. Examples include mammals, fish, and insects.

Bodies with *radial symmetry* have a “circular” layout, with limbs evenly spaced around the perimeter of a flat (starfish-like), or column-shaped body. On Earth, nature has not been kind to pure radial symmetry; over the ages, radially symmetrical body plans tend to evolve into bilateral symmetry.

Symmetry

The creatures' symmetry is determined first. You can choose bilateral or radial symmetry, or roll 3d:

Arboreal types (climber, glider, brachiator): -3.

Winged flyers: -3.

Aquatic: +3.

0-15 – Bilateral.

16+ – Radial.

Number of Limbs

These tables determine the number of primary limbs. These include arms, legs, and especially well-developed tails.

Bilaterally symmetrical creatures use the table below. Roll 3d and modify as shown:

Winged flyers, Arboreal types (forest climbers, gliders, brachiators): +1.

3 – One limb.

4 – Three limbs.

5-6 – Two limbs.

7-10 – Four limbs.

11-14 – Six limbs.

15 – Five limbs.

16-18 – Roll 3d, divide by two and round up to determine the number of *pairs* of limbs, with a minimum of four pair.



For creatures with radial symmetry, first determine the number of *sides* that the creature has. Roll 1d:

1-2 – Three sides.

3-4 – Four sides.

5 – Five sides.

6 – 1d+5 sides.

Then roll 1d to determine the number of limbs per side:

1-3 – One.

4-5 – Two.

6 – Roll 1d+4, divide by two, and round up. Minimum of three.

Posture

Posture is the position in which a creature carries itself. Posture determines its basic speed, and its ability to use tools while on the move. There are separate tables for bilaterally symmetrical and radially symmetrical creatures.

Bilateral Symmetry

Roll 1d and modify as shown.

Arboreal types (forest climber, glider, brachiator): +1.

Flyer +3.

Swimmer -1.

Amphibious, Aquatic -2.

0 – Invertebrate: Slug-like (see p. CI102). [-20].

1 – Horizontal: Like a cat, dog, or fish. See p. CI102. [-10]

2-3 – Semi-upright: (see p. CI104) [-5]. If the creature has eight or more limbs, it is instead a centauroid with four arms.

4-5 – Centauroid: see p. CI101 [0]. (Six or more limbs only; otherwise it is semi-upright.)

6+ – Upright: Standard Human posture. (Must have two or more limbs, otherwise it is semi-upright.)

Radial Symmetry

Roll 1d and modify as shown.

Plains dweller: +1.

Arboreal types (mountain and forest climbers, gliders, brachiators): +2.

Swimmer, Amphibious, Aquatic -2.

Two or more sets of limbs per side: +3.

0-1 – Invertebrate: Splayed out like a starfish (see p. CI102). [-20].

2-3 – Horizontal: Qheuen (see p. CI102). [-10].

4-6+ – Upright: Column-like.

Creatures with radial symmetry cannot have more than 1 level of Enhanced Move for land movement. If the race gets more levels, it can “trade them in” for a level of the Full Coordination advantage (see p. CI56).

Hands and Feet

Limbs can end in a variety of hand and foot types. Determine which the ur-species possesses by rolling on the *walking limbs* and *handling limbs* tables.

Having *horizontal* posture is a disadvantage (see p. CI102); it limits when you can use your hands, if you have any! Roll for all limbs on the walking limbs table.

Species with *semi-upright* posture roll on the handling limbs table for the front pair of limbs, and on the walking limb table for their other limbs. If the creature has two limbs, it has one limb of each type. If the creature has three limbs, roll 1d: on 1-2 it has a single arm, and a pair of legs, on 3-6 it has a single leg and a pair of arms. If it has five limbs, roll 1d: on 1-2 it is a *centauroid* with three legs and two arms; on 3-6 it has two legs and three arms. Having semi-upright posture is a disadvantage; it limits when you can use your hands (see p. CI102.)

Centauroids have a horizontal main body and an upright “fore-torso.” Six-limbed centaurs have four walking limbs and two handling limbs; eight-limbed centaurs have four of each sort. For centaurs with more than four pairs of limbs, the number of pairs of handling limbs is total pairs divided by two, rounded down. Having Centauroid posture is a zero-point disadvantage (see p. CI101).

Upright species have at least one walking limb and at least one handling limb. For creatures with bilateral symmetry, and radially symmetrical creatures with just one limb per side, divide number of limbs by two and round up to determine the number of handling limbs. For other creatures with radial symmetry, all but one set of the limbs per side are treated as handling limbs.

Invertebrates roll for all limbs on the handling limbs table. Being an Invertebrate is a disadvantage (see p. CI102). Invertebrates may have these advantages: Hard shell (“Hide,” armor plates type, see p. CI57) [56] (3-8), Injury Tolerance (No Neck, see p. CI58) [5] (3-12), Extra Flexibility [10] (see p. CI55) (3-12).

Winged flyers will most likely have one pair (or set, for radially symmetrical creatures) of wings. They follow special rules if they have four or fewer limbs. If the species has just two limbs (or is a radially symmetrical creature with one set of limbs), the wings’ “elbow joint” has a foot-like structure used for walking; roll on the walking limbs table, with a +3 modifier, to determine the type of foot. If the species has *four* limbs, there is a 50% chance that the non-wing pair will be handling limbs while the wing elbows have “feet” (roll on walking limb table), and a 50% chance that the non-wing pair will be walking limbs while the wing joints have manipulatory organs (roll on the handling limb table).

Walking Limbs:

Roll 1d and modify as shown to determine what sort of organ the species’ walking limbs ends in. In some cases, you may be instructed to roll separately for sets or pairs of limbs.

Brachiator: +1.

Swimmer: -1.

Amphibious, Aquatic: -2.

Ground dweller on plains: -1.

0-2 – Move-enhancing limb ending. See below.

3 – Agility-enhancing limb ending. See below.

4-5 – Walking paw.

6 – Grasping paw. Reduced Move, ground movement, 1/2 level [-5].

7+ – Crude hand. Reduced Move, ground movement, 1/2 level [-5].

Move Enhancing Limb Endings

These limb-ends are specialized organs that make the creature faster. Unless noted, species with *only* these organs have the No Fine Manipulators disadvantage (see p. CI103) -30].

Ground-dwellers may have *running hooves* or *jumping feet*.

Running hooves are optimized for speed; add a level of Enhanced Move, land movement only [10]. Running hooves are treated as Claws when determining kicking damage (see *Strikers*, p. CI67) [15].

Jumping feet are optimized for jumping. *Example:* a kangaroo’s rear feet. A pair or set of Jumping feet gives two levels of the Super Jump advantage (see p. CI68) [20]. (Bilaterally symmetrical creatures with an odd number of limbs may have a single jumping foot on their rear limb.) It’s likely that the forelegs (or additional sets of legs on a radially symmetrical creature) of a horizontal or semi-upright creature will have a *different* sort of limb-end; roll on the walking limbs table with a +3 modifier to determine the sort of feet these limbs have.

Burrowers have – on one pair or set of their *handling* limbs (or the front pair of walking limbs if they don’t have handling limbs) – muscular, clumsy hands with massive claws adapted for digging. This gives them 1 level of Enhanced Move, tunneling only [10]. These hands are treated as grasping paws for manipulatory purposes. The claws are treated as Sharp Claws (see *Strikers*, p. CI67) [15]. Roll again, with a +2 modifier, to determine what the walking limbs end in.

Swimmers have *webbed feet* – modified walking paws – that allow 1 level of Enhanced Move, swimming only [10]. All the creature’s walking limbs will have webbed feet.

Amphibious and aquatic creatures have *flukes* designed to increase swimming speed. They may be a pair or set of limbs fused into a massive rear flipper, or separate limbs jointed to allow powerful strokes. (A bilaterally symmetrical creature with an odd number of limbs may have a fluke for its rear limb.) Having a fluke gives one level of Enhanced Move, swimming only [10]. If the creature has additional sets or pairs of walking limbs, they’ll have another sort of limb-ending; roll on the walking limbs table. Another roll of 0-2 results in a set of flippers.

Forest-dwelling climbers, gliders, and brachiators have limbs ending in a hook-like *gripping claw*, such as those found on sloths. They provide a very firm grip and allow Enhanced Move through the trees [10]. It’s likely that the creature’s other walking limbs will have a *different* sort of limb-end; roll on the walking limbs table with a +3 modifier.

Balloon flyers have a pair or set of limbs modified to form a *propulsive vane* that allows them a normal move in the air (see p. 18).

Winged flyers have a pair or set of *extra wings* that give Enhanced Move, flying only [10].

If either sort of flyer has additional pairs or sets of walking limbs, roll on the walking limbs table again to see what kind of feet they have. Treat further results of 0-2 as a set or pair of *winglets* (see next section).

Agility Enhancing Limb Endings

These limb-ends are specialized organs that make the creature more agile. Unless noted, species with *only* these organs have the No Fine Manipulators disadvantage (see p. CI103) [-30].

Ground dwellers and mountain-dwelling climbers may have *cloven hooves*. They give DX +1 per pair or set. Hooves can shove objects about but not grip them. They are difficult to upgrade into hands. Cloven hooves are treated as Claws when determining kicking damage (see *Strikers*, p. CI67) [15].

Aquatic or amphibious creatures have *flippers* that allow deft underwater movement. DX +1 per pair or set.

Forest-dwelling climbers, gliders, and brachiators that get this result have the Extra Flexibility advantage (see p. CI55) [10]. Roll again with a +3 modifier to determine the actual limb ending.

Swimmers have grasping paws with a small amount of webbing between the digits. DX+1 per pair or set.

There is no agility-enhancing limb type for burrowers; they instead have grasping paws (see below).

Flyers of either sort have *winglets* that give either sort of flyer a Flight skill bonus +3 (see p. CI131) per pair or set of limbs.

Walking Paws

Examples: Human feet, dog paws. They can be used to shove objects around, but are worthless for fine manipulation. If a creature with semi-upright posture ends up with walking paws on its forelimbs, its gets Enhanced Move (1/2 level) [5] when walking on all limbs. If this is the best manipulator, the species will have the No Fine Manipulators disadvantage (see p. CI103) [-30].

Handling Limbs

Use this table to determine what sort of organ the species' "arms" end in. Roll separately for each *pair* of handling limbs of a bilaterally symmetrical creature. For radially symmetrical creatures, roll once for each *set*. If a pair of handling limbs ends up with worse hands than its walking limbs, adjust them to match the walking limbs. *Example:* A semi-upright quadruped has grasping paws on its hind legs. The roll on this table indicates that it has walking paws on its arms. These are turned into grasping paws.

Roll 1d and modify as shown:

Brachiator, winged flyer, upright posture, or centauroid posture: +2.

0-2 – Walking paws.

3 – Grasping paws.

4 – Crab-like claw.

5-6 – Crude hands (ordinary tentacle tip for invertebrates).

7+ – Hands (modified tentacle tip for invertebrates).

* – Modified hands.

* – Ordinary mouth.

* – Modified mouth.

Modified hands may be chosen for custom-designed species. They may also be added during uplift.

You may design a species that uses its *mouth* (or mouths!) as its primary manipulatory organs. Unless they have a very long neck (or necks), the species will have the Short Arms advantage. (For all other species, being able to use a mouth to hold or manipulate objects is a special effect, worth no points as an advantage or disadvantage.)

Having more than two limbs with a Grasping Paw or better is an advantage: see *Extra Arms*, p. CI54. Having just one limb with a Grasping Paw or better is a disadvantage: see *One Fine Manipulator*, p. CI103. (Note that special limbs – see below – may be dextrous enough to count as a fine manipulator, reversing this disadvantage.)

For the purpose of computing disadvantages, count the *best* hands the species has. *Example:* A centauroid species has two pairs of arms. One set has grasping paws [-22], the other crude hands [-6]. The centaur will only count the value of the crude hands as a disadvantage. However, the species will be charged for Extra Arms [5 points each], since even the pair with grasping paws can be used to carry items and potentially strike in combat.

Grasping Paws

Example: A raccoon's versatile paws. They lack thumbs, so two are needed to get a good grip on an object. If this is the best manipulator the species has, it has Bad Grip (see p. CI101) [-10] and Reduced Manual Dexterity -4 (see p. 83) [-12].

Crab-Like Claw

Provides an ordinary level of gripping power, but Reduced Manual Dexterity -3 (see p. 83) [-9].

Ordinary Trunk or Tentacle Tip

Mediocre grip and fair manipulative ability. If this is the best manipulator, the species will have Poor Grip (see p. CI101) [-5], Reduced Manual Dexterity -3 (see p. 83) [-9].

Crude Hands

A substandard hand, strong but a bit clumsy. Orangutan and chimpanzee hands have thumbs and long, versatile fingers, but they can't compare to Human hands for fine work. Clamp-like organs, such as a lobster claw, are treated as crude hands. If these are the only manipulators, the species has Reduced Manual Dexterity -2 (see p. 83) [-6].

Hands

Human hands, or an equivalent organ that provides a good grip and ability to do fine manipulation. (No bonus or penalty.)

Modified Trunk or Tentacle Tip

The trunk or tentacle tip has cilia or muscular ridges, allowing fine manipulation and a slightly better grip. (No bonus or penalty.)

Modified Hands

Digits have cilia or suckers to increase grip and tactile sensitivity. Manual Dexterity +2.

Ordinary Mouth

Fairly strong grip, fine tactile sense, but very bad for fine manipulation. A species that uses a mouth on a tentacle or limb as its only manipulator will have Poor Grip (see p. CI101) [-5] and Reduced Manual Dexterity -4 (see p. 83) [-12].

Modified Mouth

Muscular lips, tongue, and/or cilia to allow a good grip and fine manipulation. Manual Dexterity +1.

Special Limbs

Some creatures have organs capable of manipulation, such as a tail, feelers, trunk, lips, tongues, or even genitalia. These are called "special limbs." These are in addition to the "any limbs" generated above. They often have a different ST and DX than the creature as a whole.

Special limbs are treated as Extra Arms (see p. CI54). They may be dexterous enough to overcome a No Fine Manipulators disadvantage, or long enough to overcome a Short Arms disadvantage. A one-armed species with a special limb that has fair strength, fair dexterity, and normal length does not qualify for the One-Armed disadvantage.

Number of Special Limbs

Roll 3d. +5 for bilaterally symmetrical creatures with one or two primary limbs, or radially symmetrical creatures with one set of limbs.

- 3-13 – No special limbs.
- 14-15 – One special limb.
- 16 – Two special limbs, or one per side of a radially symmetrical creature.
- 17 – 1d-1 (min. 3) special limbs, or two per side of a radially symmetrical creature.
- 18+ – 2d special limbs, all with Weak and Flimsy strength.

Strength of Special Limbs

Roll 3d. Applies to all of the special limbs.

- 3-10 – Weak and Flimsy. ST 1.
- 11-13 – Weak. ST 2.
- 14-16 – Fair (e.g., monkey tail). Overall ST-4, minimum ST 3.
- 17-18 – Strong (e.g., elephant trunk). Overall ST.

Dexterity of Special Limbs

Roll 3d. Subtract 3 for Strong limbs. Add 3 for Weak or Weak and Flimsy limbs. Applies to all of the special limbs.

- 0-7 – Crude. Overall DX-4, minimum DX 4.
- 8-13 – Fair. Overall DX-2, minimum DX 6.
- 14+ – Excellent. Overall DX+2.

Length of Special Limbs

Roll 3d. Subtract 3 for Weak & Flimsy and Weak limbs. Applies to all of the special limbs.

- 0-9 – Very short (finger length).
- 10-13 – Short (about one foot).
- 14-15 – Normal Human arm length.
- 16+ – Twice Human arm length.

If the only manipulative limbs the species ends up with are Very Short or Short special limbs, it has the Short Arms disadvantage, p. CI104.

Diet

The basic diet type was determined in the Environment section. This section breaks the description down further, and describes the effects this might have on various creatures.

Carnivores

Carnivores earn their calories by hunting down and eating other creatures. Not all carnivores are meat-eaters: on some worlds, "carnivores" chase down mobile plants! Not all meat-eaters are classified as carnivores; Unresisting prey, such as insects, are collected by "grazing." How they get their prey is more important than what the prey is!

Carnivores come in six varieties. Roll 3d, modify for terrain and special type, and consult the table:

- Forest: -2.
- Burrower: -2.
- Plains: +1.
- Swimmer, amphibian, aquatic: +1.
- Arctic: +2.
- 0-6 – Pouncer/trapper.
- 7-9 – Stalker.
- 10-11 – Carrion scavenger.
- 12-13 – Chaser.
- 14+ – Herder.



Pouncers

Pouncers lie in wait for their prey. When a likely victim comes by, they leap from hiding and tackle the victim. *Examples:* Leopards, some snakes.

Characteristics: ST+1 (3-8), DX+1 (3-8). *Personality traits:* Concentration +1. *Advantages:* Sharpness of Vision table +1 (3-10), Hearing table +1 (3-8), Penetrating Call (3-6). *Skills:* Stealth (3-10).

Trappers are a specialized form of pouncer. Roll 3d: A burrowing pouncer is a trapper on a roll of (3-12); other pouncer types are trappers on a roll of (3-6). Use only the table below to determine advantages and trait changes. Trappers build physical traps to snare prey. Trappers rarely stray far from their lairs, but are very strong and/or venomous, in order to quickly subdue struggling prey.

Characteristics: ST+2 (3-8). *Personality traits:* Concentration +1. *Advantages:* Alertness +1 (3-10) [5], Venom, fangs (3-6) [15], Webbing (3-6) (see p. CI71) [20].

Stalkers

Stalking carnivores stealthily track down a single prey. They are very adaptable, and may use the tactics of a chaser or pouncer. *Examples:* House cats, tigers.

Personality traits: Imagination +1, Concentration +1 (3-12), Empathy +1 (3-10). *Advantages:* Animal Empathy (3-10) [5], Enhanced Move 1/2 (3-12) [5], Penetrating Call (3-6) [5], Very Fit (3-8) [15]. *Skills:* Tracking (3-10), Stealth (3-8).

Chasers

Chasers prowl about looking for prey. When they find a victim, they use a burst of speed to catch it. Chasers occasionally cooperate to bring down game. Example: Cheetahs.

Personality traits: Empathy +1 (3-6). *Advantages:* Enhanced Move 1 (3-12) [10], Animal Empathy (3-6) [5], Extra Fatigue +4 (3-10) [12]. *Skills:* Tracking (3-12), Stealth (3-8).

Herders

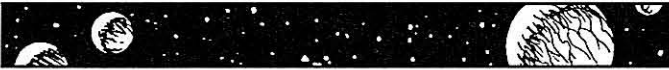
Herders are similar to chasers, but they usually work in groups, *against* groups, using “teamwork” to single out a weak prey animal from its herd. Example: Wolves, dolphins.

Characteristics: IQ+1 (3-8). *Personality traits:* Imagination +1 (6-9), Empathy +1 (3-6). *Advantages:* Animal Empathy (6-9) [5], Penetrating Call (3-8) [5], Enhanced Move 1/2 (6-8) [5]. *Skills:* Tracking, Tactics skill bonus +1.

Carrion Scavengers

Scavengers live off of “found” prey. They may stalk smaller animals to ensure a regular food supply. Groups of scavengers may cooperate to drive a solitary carnivore from its kill.

Personality traits: Suspicion +1 (3-6). *Advantages:* Cast Iron Stomach [15], Sense of Smell table +1 (3-10). *Skills:* Stealth (6-10), Survival (home terrain) skill bonus +1 (6-10).



Omnivores

Omnivores both hunt and gather unresisting food. Roll 3d to determine the type, modified for terrain:

Forest: -3.

Bog, marsh, swamp: -3.

Swimmers, amphibian, aquatic: +3.

0-8 – Gatherer/hunter.

9-12 – Opportunist browser.

13+ – Hunter/browser.

Gatherer/Hunters

Subsist on high-quality food such as grubs, fruit, and seeds, but may occasionally catch and eat a small animal.

Examples: Chimps and proto-Humans.

Personality traits: Curiosity +1 (3-10), Imagination +1 (3-8). *Advantages:* Sense of Taste table+1 (3-8).

Opportunist Browsers

Opportunist browsers forage for middle to high-energy plants, and may eat insects and small animals. *Example:* Pigs.

Personality traits: Curiosity +1 (3-6), Imagination +1 (3-10), Concentration +1 (3-10). *Advantages:* Cast Iron Stomach (3-8) [15], Sense of Taste table +2 (3-8).

Hunter/Browsers

These omnivores hunt prey, but settle for fruit, nuts, insects, and roots much of the time. *Examples:* Raccoons and bears.

Personality traits: Curiosity +1 (3-6), Imagination +1 (3-6). *Advantages:* Enhanced Move 1/2 (3-8) [5], Sense of Taste table +1 (3-8).

Herbivores

Herbivores gather and eat unresisting food. This includes unresisting animals, such as swarms of insects. Roll 3d and modify as shown to determine the exact type of herbivore:

Arctic, plains: -3.

Forest: +2.

Swimmer, amphibian, aquatic: +2.

0-7 – Grazer.

8-12 – Browser.

13 – Saprophyte.

14+ – Gatherer.

Grazers

Spend much of the time eating low-energy food such as grass. Example: Horses, cows, baleen whales.

Personality traits: Curiosity -1 (3-10), Imagination -1, Concentration -1 (6-9), Empathy -1 (3-10). *Disadvantages:* Slow Eater [-10].

Browsers

Consume leaves, shoots, roots, and other mid-energy level food. This takes a moderate amount of time. Example: Goats.

Personality traits: Imagination -1 (6-9), Concentration -1 (6-9), Empathy -1 (6-9). *Advantages:* Cast Iron Stomach (3-6) [15], Sense of Smell table +1 (3-8). *Disadvantages:* Slow Eater [-10] (3-8).

Saprophytes

Creatures that live off of rotting flesh and vegetable matter. Saprophytosis yields little energy, and saprophytes spend a great deal of time squatting in piles of carrion and compost. On the positive side, their “food” need not be of very high quality.

Personality traits: Curiosity -1, Imagination -1, Concentration -1, Empathy -1. *Advantages:* Decreased Life Support [10], Cast Iron Stomach [15], Sense of Smell table +1 (3-10). *Disadvantages:* Slow Eater [-10].

Gatherers

Eat high-energy fruits, nuts, and seeds. Anteaters and baleen whales also fall into this category. Of the herbivores, gatherers spend the least time eating.

Personality traits: Concentration -1 (6-7), Curiosity +1 (3-6), Imagination +1 (3-6). *Advantages:* Sharpness of Vision table +1 (3-6), Sense of Taste table +1 (3-8).

Ergivores

Ergivores live on *primary energy* (as opposed to energy stored in other living or once-living things), usually in the form of sunlight, but occasionally on hard radiation, electricity, or the heat differentials around geothermal vents. *Plants* are the most common sort of ergivore. Roll 3d and modify the result as shown below:

Arctic, ocean, desert: -3.

Swimmer, amphibian, aquatic: +4.

1-7 – Pure.

8-9 – Mixed.

10-14 – Plant.

15+ – Tapper.

Pure Ergivores

Rare creatures that subsist on energy alone, although water and minerals (a few ounces a day) are necessary for them to grow, heal, and reproduce. High frequency EM radiation (X-rays, ultraviolet light) is preferred; red and infrared light isn't energetic enough to be useful. The ergivore must get 6 hours of quality irradiation per day to be at full strength. If it gets 4-5 hours of irradiation, it is treated as being Unfit (see p. CI85). If it gets 1-3 hours of irradiation, it is treated as Very Unfit (see p. CI85). If it doesn't get any irradiation for 24 hours, it loses 1 Fatigue an hour until it lapses into a coma. It can last in a coma state for HT/2 days. It will recover after 6 hours of quality irradiation. Double required irradiation times if only bright light is available.

Personality traits: Imagination -1, Concentration -1, Suspicion -2 (3-6), Suspicion -1 (3-8), Empathy -1 (6-9), Chauvinism -1 (6-9). *Advantages:* Doesn't Breathe [20], Decreased Life Support [10], No Vitals (3-10), No Blood (3-8), Field Sense (3-8) [10]. *Disadvantages:* No Sense of Smell/Taste (3-10) [-5], Dependency (Energy source; uncommon, daily) [-10].

Mixed Ergivores

A plant/animal hybrid that depends on sunlight for only part of its food. In fact, the "plant" part may be a separate, symbiotic organism, supplying nutrition in lean times in exchange for protection and waste products. It may also provide a metabolic boost that reduces fatigue. Roll on the Diet/Feeding Technique table again to see what the creature's main source of food and method of gathering it is. Use *that* type when determining modifiers on the other tables in this chapter. If the mixed ergivore does not receive 6 hours of sunlight per day, it loses its Very Fit advantage and becomes Unfit! Recovery after re-exposure to sunlight takes 24 hours. *Additional Advantages:* Very Fit [15], Decreased Life Support [10], Plant Empathy (3-10) [5]. *Additional Disadvantages:* Dependency (Sunlight; common, daily) [-5].

Plants

A mobile plant. Plants use sunlight to help them process minerals, water, and organic chemicals into food. Example: Kanten, Terran plants. Plants have a dependency on sunlight (need 8 hours exposure a day) and soil (needs to be rooted 4 hours a day). If it misses one of these, the plant is treated as being Very Unfit. If it deprived of both sun and soil for 24 hours, it goes into a coma state. It can survive HT days in this state. Recovery after sun and soil are reintroduced takes 24 hours. Artificial light and hydroponic nutrients are acceptable substitutes.

Personality traits: Imagination -1 (3-8), Concentration -1 (3-8), Empathy -1 (3-8), Chauvinism -1 (6-9), Suspicion -1 (3-8). *Advantages:* Decreased Life Support [10], Doesn't Breathe [20], No Vitals (3-10). *Disadvantages:* Slow Eater [-10], Reduced Move -1 (3-12) [-10], Dependency (Sunlight; common, daily) [-5], Dependency (Nutrient soil; common, daily) [-5].

Tappers

Tappers seek out high-quality energy sources to run their metabolism. The energy source must be intense, and may be rare in nature. Examples: Electrical currents, radioactive minerals, and the high heat differentials in geothermal areas. The tapper also consumes modest amounts of food to obtain minerals and fluids. The ergivore must tap into an energy source for at least 24 hours once per week. If it gets a partial dose, or misses a week, it becomes Very Unfit. If it misses a second week, it goes into a coma. It can survive in this state for HT/2 days. It recovers in 24 hours after getting a dose of the appropriate energy.

Personality traits: Concentration +1, Imagination +1. *Advantages:* Cast Iron Stomach [15], Decreased Life Support [10], Field Sense (3-12) [10], Invulnerability (to specific energy source) [50]. *Disadvantages:* Dependency (Energy source; rare, weekly) [-60]. *Quirks:* Territorial [-1].

Metabolism

Most Galactics are homeothermic; their bodies maintain a constant temperature. This has a high metabolic cost, but homeothermic creatures can live in a wide variety of climates.

Roll 3d, modify as shown and consult the table below.

Hot environments: -1.

Cold environments: +1.

Ergivore: -1.

Aquatic: -1.

Chaser, Pouncer or Herder Carnivore: +1.

Winged flyer: +1.

0 – Slow Metabolism, 1 level (see p. CI104) [-60].

1-5 – Cold-blooded (see p. CI101) [-5].

6-16 – Warm-blooded (like Humans).

17+ – Hyperactive (see p. CI57) [30].

Society

All species have some sort of social behavior, even if it is running away from anything that approaches! Social behavior may affect how the species reacts to other species, sapient or otherwise.

Roll 3d to determine the type of society the creatures have, modified as follows for the way they get their food:

Stalker carnivore: -3.

Pouncer carnivore: -2.

Chaser carnivore: -1.

Herder carnivore: +1.

Carriion scavenger: +1.

Gatherer/hunter: +1.

Opportunist browser: +1.

Hunter/browser: +1.

Saprophyte herbivore: +1.

Grazing herbivore: +3.

Browsing herbivore: +2.

Gathering herbivore: +1.

Pure ergivore: -4.

Plant type ergivore: -3.

Tapper ergivore: -2.



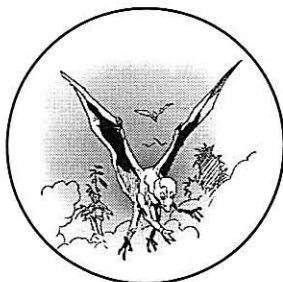
Mixed ergivore: Use modifier for other food-gathering method.

- 0-4 – Solitary.** Empathy -1 (3-10), Egotism +1 (3-10), Gregariousness -1, Suspicion +1.
- 5-8 – Pair-bonding.** Empathy -1 (3-8), Egotism +1 (3-8), Gregariousness -1 (3-10), Suspicion +1 (3-10).
- 9-11 – Family group.** Chauvinism +1 (3-6), Suspicion +1 (3-6).
- 12-14 – Pack/troop.** Chauvinism +1 (3-8), Egotism -1 (3-6), Gregariousness +1 (3-6), Empathy +1 (3-8).
- 15-17 – Herd.** Chauvinism +1 (3-10), Egotism -1 (3-6), Gregariousness +1 (3-8), Empathy +1 (3-10), Suspicion +1 (6-9).
- 18+ – Hive.** Chauvinism +1, Egotism -1, Gregariousness +1, Empathy +1, Suspicion +1. Hive Mentality (3-10) (see p. CI102) [-20]. Not all individuals of the species may have the disadvantage. It may be limited to a caste or castes, or a particular sex.

Size

Most species with Potential are roughly Human size, but some are tiny and a few are *huge*. Roll 3d and consult the table below to determine the basic size and weight of the species, after modifying the roll for terrain and food-gathering style:

- Aquatic: +2.
- Burrower: -3.
- Forest climber: -1.
- Brachiator: -2.
- Glider: -4.
- Flyer: -3.
- Grazing herbivore: +2.
- Gathering herbivore: -2.
- Gatherer/hunter omnivore: -1.
- Pouncer carnivore: -1.
- Ergivore (except mixed type): -2.



The split listing for HT indicates modifications to HT and Hit Points, respectively. See *Extra Hit Points* (p. CI24), *Reduced Hit Points* (p. CI83).

Tiny races have the Inconvenient Size disadvantage [-15] and Decreased Life Support [+10]. They have the Short Arms disadvantage [-10].

Small races have the Short Arms disadvantage [-10].

Roll	Size	Height	Wt.	ST	HT/HP	Weight inc.	Size Inc
0-3	Tiny	3'	45	ST -4	-1/-4	1.5 lb.	1/4"
4-5	Small	4'6"	80	ST -2	-1/-2	2 lbs.	1/2"
6-8	Short	5'6"	135	ST -1	+0/-1	4 lbs.	1"
9-12	Average	5'9"	150	ST +0	+0/+0	5 lbs.	1"
13-15	Tall	6'2"	180	ST +2	+0/+1	6 lbs.	1 1/2"
16	Big	6'8"	300	ST +4	+1/+2	7 lbs.	2"
17	Huge	8'	500	ST +10	+2/+6	13 lbs.	2-1/2"
18+	Giant	12'	1,500	ST +20	+2/+13	30 lbs.	3"

Example of Size and Build

The Birgys are a Tall race with a Light build. Their average weight is 80% of 180, or 144 pounds.

The weight increment is 5 pounds: 6 pounds for being Tall, less 1 pound for being Light.

The Birgys' height increment is 1-1/2". If a muscular specimen had ST of 14 she would weigh 154 pounds and be 6'5" tall.

Huge races have Inconvenient Size [-10] and Increased Life Support [-10].

Giant races have Inconvenient Size [-15] and Increased Life Support [-20].

Height and weight are shown for a creature of ST 10, plus or minus the modifier shown. Increase or decrease the weight by the Build factor determined below. Once the final ST is determined, lower or raise this by the weight and size increments provided. Increments are the pounds of weight and inches of height added/subtracted for each point by which ST is higher/lower than ST 10. The increments are also used to adjust the weight and height of characters whose ST differs from the racial average.

Average and Tall creatures with horizontal posture are two-hex creatures. Big and Huge creatures with horizontal posture are three-hex creatures. Giant creatures with horizontal posture are ten-hex creatures.

Build

Some species have especially slight or heavy builds.

Roll 3d, modify as shown Modifiers are:

- Hot environments: -3.
- Cold environments: +3.
- Glider, winged flyer, brachiator: -5.
- Balloon flyer: -6.
- Amphibian or aquatic: +3.
- Grazing herbivore: +3.
- Hyperactive metabolism: -3.

Roll	Build	Weight	ST	HT	HP	Wt. Inc.
0-5	Slight	-40%	-1	-1	-20%	-1/-3/-7 lbs.
6-8	Light	-20%	-	-	-10%	-5/-1/-3 lbs.
9-12	Average	0	-	-	-	
13-15	Heavy	+20%	+1	-	+10%	+1/+2/+3 lbs.
16+	Bulky	+50%	+2	+1	+20%	+2/+5/+7 lbs.

The weight column shows the percentage change in the species' average weight. *Example:* A short race with a heavy build would have an average weight of 162 lbs. The added weight does not count as encumbrance.

The HP column shows the percentage change in the species' Hit Points. Round the change up. *Example:* Giant races normally start out with 18 HP, 12 due to their HT, plus Extra Hit Points +6. If the race had a

Height, Length, and Diameter

The Height column of the Size table is the height of a creature with upright posture. This is also the height of semi-upright creatures while standing.

A creature with *horizontal* posture has a *length* (not counting any tail) of 4/5 stated height, and a shoulder height of about 1/2 stated height.

Centaurs have a length of about 3/4 the stated height; their height at top of their heads is about 3/4 the stated height.

Horizontal creatures with radial symmetry have somewhat disk-shaped bodies. The diameter of their body is 2/3 the stated height; height is about 1/2 the stated height.

Light build, it would have 10% fewer HP. 10% of 18 is 1.8, rounded up to 2. The species would start with HT 12 and Extra Hit Points + 4.

Build may change the species' weight increment. The triple entry in the Weight Increment column shows the change in the weight increment for Tiny, Small, and Short; Normal and Tall; and Big, Huge, and Giant races. A Big, Light race would have a final weight increment of 6 lbs.

The Food Chain: Natural Enemies

The number of natural enemies a species faces in its home environment influences its behavior. The lower you are on the food chain, the more likely you are to be treated as a snack. Small carnivores may find themselves preyed upon by larger meat-eaters, effectively putting them low on the food chain. Conversely, large, formidable herbivores may have little to worry about even from top carnivores.

Roll 3d, apply the appropriate modifiers, and see the table below.

Carnivore: +6.

Herbivore: -3.

Swimmer: +3.

Tiny or small: -3.

Big: +2.

Huge or Giant: +4.

0-4 – Low. Suspicion +1, Stealth skill (3-8), Chameleon (3-8), Increased Speed one level (3-8) [25].

5-8 – Middle. Suspicion +1, Enhanced Move one level (3-10) [10].

9-12 – Near top. No special effect.

13-14 – Top, shared. Chauvinism +1, Empathy trait +1.

15+ – Top, solitary. Suspicion -1, Empathy trait -1.



Activity Cycle

This determines the daily activity cycle of the race. A Nocturnal creature spends most of its time awake during the hours of darkness, while most other creatures are asleep. Diurnal creatures (Humans, dogs, pigs, etc.) are most active

during daylight hours. Variable creatures are capable of functioning perfectly well at either extreme, and frequently break up their sleeping habits into "catnaps" throughout the day.

Roll 3d and modify as shown.

Low on food chain: -1.

Carnivore: -2.

Burrower: -1.

Cold blooded: +3.

Herbivore: +1.

0-3 – Extreme nocturnal. Has Nocturnal disadvantage (see p. CI103) [-10].

4-6 – Nocturnal. Quirk (dislikes direct sunlight) (3-10); Infravision [15] (3-8). If species doesn't have Infravision, it will have Night Vision (see p. B22). Remove these advantages if the species turns out to have Blindness!

7-10 – Variable. Night Vision (3-9); Light Sleeper (see p. CI82) [-5] (3-10); Compulsive Behavior (catnaps) [-5] (3-10).

11+ – Diurnal. Active during the day.

Special Sleep Effects

Roll 3d:

3 – Sleepy, 75% of the time (see p. CI104) [-25].

4 – Sleepy, 66% of the time (see p. CI104) [-20].

5 – Sleepy, 50% of the time (see p. CI104) [-10].

6-7 – Deep Sleeper (see p. CI23) [5].

8-13 – No special effect.

14-15 – Light Sleeper (see p. CI82) [-5].

16-17 – Reduced Sleep (see p. CI64) [10].

18 – Doesn't Sleep (see p. CI53) [20].

Reproduction

How a species reproduces has a big effect on its behavior and values. Imagine how different Human society would be if – like most other mammals – our females were only "in the mood" one or two times a year. Or if male Humans felt compelled to mark their territory, or eat the young of rival males!

Lifespan

Lifespan falls under this heading because long life is a reproductive strategy! Roll 3d, modify as shown and consult the table below.

Tiny, Small: -3.

Huge, Giant: +3.

Hyperactive metabolism: -1.

0-3 – Very short. Short Lifespan, two levels [-20].

4-7 – Short. Short Lifespan, one level [-10].

8-13 – Normal.

14-16 – Long. Extended Lifespan, one level [5].

17+ – Very long. Extended Lifespan, two levels [10].

Reproductive Strategy

Reproductive strategy is basically a question of quantity versus quality. Some species produce many offspring, hoping a few will survive. Others have few offspring, but invest lots of time and resources in each child to ensure it survives. Roll 3d, modify as shown, and consult the table:

Tiny, small: -1.
 Huge, giant: +1.
 Low on food chain: -3.
 Top of food chain: +3.
 Very short lifespan: -2.
 Very long lifespan: +2.

Number of Offspring/Commitment to Young:

- 0-4 – Hordes/Minimal.** Example: Social insects. Indifferent to Young (3-8).
- 5-7 – Many/Low.** Example: Tandu. Indifferent to Young (3-6).
- 8-13 – Several/Moderate.** Example: Dogs, cats.
- 14-16 – Few/Heavy.** Example: Humans, chimps. Devoted to Young (3-10).
- 17+ – Very Few/Intense.** Example: Hoon. Devoted to Young (3-12).

Indifferent to Young is a quirk [-1]; adults of the species treat youngsters about as well as livestock, or pets.

Devoted to Young is an instinctive Sense of Duty [-5] to youngsters. Adults are *very* protective and nurturing of children. Individuals of species with low Chauvinism may extend this devotion to the young of other races.

Neoteny

Neoteny – the biological term for retention of juvenile characteristics – is a reproductive and evolutionary strategy. It is found in species whose young learn survival skills through parental lessons, games, and experience. Most creatures that are candidates for uplift are neotenic, at least as much as mammals like dogs and monkeys.

Roll 3d, modify as shown, and consult the table below:

Hordes/minimal strategy: -3.
 Many/low strategy: -2.
 Few/heavy strategy: +2.
 Very few/intense strategy: +3.

- 0-8 – Low Neoteny.**
- 9-15 – High Neoteny** – Human norm.
- 16+ – Extreme Neoteny.**

Species with low neoteny tend to be less individualistic and rely more on instinct over learned skills. They become less interested in learning and play on maturity. *Traits:* Curiosity -1. *Advantages:* Early Maturation [5] (3-12). *Disadvantages:* Dour (3-6) [-5]; if not Dour, Businesslike (3-10) [-1].

High neoteny is the Human norm. *Characteristics:* IQ +1.

Creatures with *extreme neoteny* take longer to grow up, have a wider range of personalities, and retain a child's playfulness and eagerness to learn well into adulthood. *Characteristics:* IQ +2. *Traits:* Curiosity +1. *Disadvantages:* Compulsive Play [-5] (3-8), otherwise Playful [-1]; Late Maturation [0] (3-12).

Number of Sexes

Roll 3d and consult the table below.

- 3-4 – Individual's sex changes** from male to female seasonally or with age. Hermaphromorph (3-6) (see p. CI57) [2].
- 5-12 – Two sexes.**

Other Methods

The tables here describe some common reproductive birth methods and "special effects." Custom-designed creatures may have far stranger methods of mating, gestation, and child-rearing. Some examples:

Parents lay eggs in host creature, which is eaten away by the developing young. (Or perhaps the *parents* suffer this fate!)

Parents feel compelled to eat sickly young.

Mating may be fatal to one or all parents.

Young compete among themselves murderously, yet are sapient and grow up remembering how they killed (and ate?) their siblings.

Young are produced when an adult is torn painfully into many pieces, each of which grows up into a different adult with most of the parent's abilities but few or no memories; the adult is gone.

- 13 – Hermaphroditic:** Individual can act as a male or female, but can't fertilize itself!
- 14 – Hermaphroditic:** Self-contained, "do it yourself" style. May create clones of parent, or genes may be exchanged by odd means. Gregariousness -1 (3-6).
- 15-16 – Three sexes.** Might (3-6) include a neuter gender.
- 17-18 – Many sexes.** Roll 2d+2, halve and round up, minimum four. IQ +1 (3-10), Includes neuter gender (3-10), High sexual dimorphism (3-10), Imagination +1 (3-9).

Method of Delivery

Roll 3d, modify as shown, and consult the table below.

Size Average or larger: -2.

- 3-5 – Live birth.** Born very weak/defenseless. Empathy +1 (3-10).
- 6-9 – Live birth.** Kept in pouch for part of childhood. Empathy +1 (3-8).
- 10-13 – Live birth.** Born fairly well developed. Has Early Maturity advantage (3-8) [5].
- 14-16 – Egg laying.**
- 17 – Buds.** Offspring sprout from parent creature. Reduced Move, 1 level (3-8) while budding.
- 18 – Fission.** Creature splits into two or more young. The offspring have a random mix of the parent's skills, at reduced levels. Egotism -1 (3-10).

Special Reproductive Features

Roll 3d *twice* and consult the table below. Ignore duplicate results unless instructed otherwise. Some of these effects call for you to use your imagination.

- 3-7 – Social status determines who reproduces.** Gregariousness +1 (3-10), Egotism +1 (7-9), Social skills group bonus +1 [6]. If rolled twice, individuals are compelled to fight for mating rights: Add ST+1, Bad Temper [-10].
- 8 – Species has a limited, very intense, mating season.** May suffer Lecherousness (3-10) [-15],

have Bad Temper (3-8) [-10], or indulge Compulsive Carousing (3-10) [-5] during this time!

- 9-12 – No special effect.
- 13 – To avoid inbreeding, members of race leave the pack, herd, or tribe to seek mates. Chauvinism -1, Wanderlust [-1] (3-10).
- 14 – Mating or child-rearing behavior is inconvenient and obtrusive. Assign a Compulsive Behavior [-5] level or an Odious Personal Habit [-10].
- 15 – High sexual dimorphism: Males and females are physically different. This is usually a matter of size or build, but senses and behavior may differ as well. If this feature is rolled twice, only one sex has the “potential” to become sapient.
- 16 – Species has genetically determined castes. There are 1d+1 castes, each with a specialized set of skills and behaviors. If rolled twice, only one caste is capable of reproduction, and non-breeders will have an instinctive Sense of Duty to protect breeders [-5].
- 17-18 – Offspring go through a physically helpless larval phase (typically, ST 4, DX 4, HT 6, Move 2) that lasts for half the age of maturity.

Natural Weapons

Many species have natural weapons. Some of these do impaling, crushing, or cutting damage. Others are more exotic.

Teeth That Rend, Claws That Snatch

These natural weapons are described in *Strikers*, p. CI66.

Roll *twice* on the table below to see what the species has in the way of claws, teeth, and similar defenses. Ignore duplicate results.

For each throw, roll 3d and modify as noted.

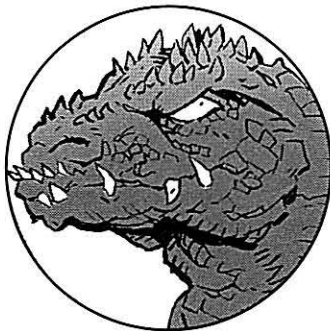
Carnivore: +3.

Aquatic: +3.

Herbivore: -3.

Huge/giant: -2.

- 0-1 – Long tusks.
- 2 – Big horns.
- 3 – Spear, like a narwhal.
- 4 – Smashing tail (generic striker).
- 5-6 – Butting horns.
- 7-8 – Horns.
- 9-12 – For carnivores, sharp teeth.
For others, no special effect from this roll.
- 13 – Sharp teeth.
- 14 – Claws.
- 15 – Fangs.
- 16 – Sharp claws.
- 17 – Constriction attack.
- 18+ – Spear.



All Things Foul and Venomous

Roll 3d and consult the chart below to see if the species is blessed with “chemical” weapons. See p. CI71 for Venom rules and the various enhancements and limitations.

Low on food chain: -3.

Middle of food chain: -1.

Desert: +2.

Aquatic, amphibian, swimmer: +1.

Huge or giant: -1.

- 1 – Roll *twice more* on this table, using only 1d. Reroll results of 1.
- 2-3 – Patch of poison barbs. Opponents entering close combat from the rear must make an easy (DX-2) roll to avoid 1d-2 impaling damage *and* venom. Roll 1d: On a 1 or 2, the poison is a contact agent. (If rolled *twice*, an ordinary DX roll is required to avoid).
- 4 – Venom, sprayed: Roll 1d. 1-5: Irritant, 6: Corrosive. If rolled twice, it's a contact agent.
- 5 – Venom, sweat: Roll 1d: On a 1-5: Irritant, 6: Corrosive. If rolled twice, it's a contact agent.
- 6-13 – No chemical weapon.
- 14-15 – Venom, fangs. Roll 1d for venom type: 1-5: Poisonous, 6: Corrosive.
- 16 – Venom, stinger. On rear of body, or on special limbs such as a tail. Roll 1d for venom type: 1-5: Poisonous, 6: Corrosive.
- 17 – Venom, spit/squirt. Roll 1d: On a 1-3, the poison is a contact agent.
- 18+ – Venom, corrosive, spit/squirt. Roll 1d: On a 1-3, the poison is a contact agent.

The level of the venom – its potency – is equal to HT/4. Water creatures will have fangs instead of spit/squirt venoms, and barbs instead of sprayed venoms.

Special Weapons Division

A very few species have extraordinary defenses. Roll 3d, modify as shown, and consult the table below. See *Natural Attacks*, pp. CI72-73.

Low on food chain: -4.

Ergivore +2.

- 0-1 – Image (see p. CI72).
- 2 – Flash (see p. CI72).
- 3-4 – Deafen (see p. CI72).
- 5-6 – Smoke (or Ink) (see p. CI73).
- 7-14 – None.
- 15 – Webbing (see p. CI71).
- 16 – Sonic Blast (see p. CI73).
- 17 – Bioelectric Shock (see p. CI50).
- 18 – Shock (see p. CI73).
- 19 – Lightning (see p. CI73).
- 20 – Laser (see p. CI73).

Body Covering

Roll 1d on the appropriate table below to determine the creature's outer covering. If “special” is rolled, roll again on the Special Integument table.

Hot Climates (Desert, Jungle, Savannah)

- 1-2 – Very thin fur: see p. CI56.
- 3-4 – Ordinary skin.
- 5 – Scales: see p. CI57.
- 6 – Special.

Temperate Climates (Swamp, Grassland, Forest)

- 1 – Fur. See p. CI56.
- 2 – Feathers.
- 3 – Ordinary skin.
- 4 – Heavy scales: see p. CI57.
- 5 – Thick fur: see p. CI56.
- 6 – Special.

Cold Climates (Arctic, Tundra, Boreal Forest)

- 1 – Fur: see p. CI56.
- 2 – Ordinary skin.
- 3 – Thick hide: see p. CI57.
- 4-5 – Thick fur.
- 6 – Special.

Ocean Creatures

- 1-2 – Thick fur: Especially sleek.
- 3 – Scales.
- 4-5 – Ordinary skin.
- 6 – Coat of slime: see p. 20.

Special Integument Chart (roll 3d)

- 3-8 – Feathers appropriate for habitat.
- 9 – Spiny fur/quills: see p. CI67.
- 10 – Carapace (Insect chitin or crustacean shell): see p. CI52.
- 11 – Armor plates (bone, very heavy chitin, etc.): see p. CI52.
- 12 – Thick hide: see p. CI57.
- 13 – Soft carapace (insect chitin or crustacean shell). DR 1.
- 14 – Cork-like covering (soft but tough!). DR 2.
- 15 – Coat of slime: see p. 20.
- 16 – Covering has chameleon properties; roll again on original table for type.
- 17-18 – Roll *twice* on main chart and combine coverings.

Senses

A species' senses influences the way it thinks and perceives the world. A species identical to Humanity, except with poor eyesight and a wolf's sense of smell, would have a drastically different culture and technology.

With rare exceptions, a race will have a powerful "primary" sense that it uses to guide itself around. Aquatic creatures who already have Sonar Vision will have sound as their primary sense. Roll 3d and modify as shown:

Ergivore: +2.

Aquatic: -2.

1-7 – Sound.

8-13 – Vision.

14-20 – Electrical/magnetic.

Vision

The sense of vision evolved on nearly all worlds.

Sharpness of Vision

Roll 3d, modified as follows:

Primary sense: +4.

Not primary sense: -2.

Burrower, amphibian, aquatic: -2.

Arboreal types (climber, glider, brachiator), flyers: +2.

0-2 – None. Species has Blindness disadvantage (see p. B27) unless a comparable sense (sonar, radar) is rolled.

3-4 – Rudimentary. Blindness, with a Motion Detection Only enhancement (see p. 21).

5-11 – Poor. Bad Sight disadvantage, *nearsighted* for ground and aquatic creatures, *farsighted* for flyers and arboreal types!

12-15 – Good. Human range.

16 – Excellent. Acute Vision +2 [4].

17 – Hawk-like. Acute Vision +2 [4]; Telescopic Vision 2× (see p. CI68) [6].

18+ – Astonishing. Acute Vision +2 [4]; Telescopic Vision 4× [12].

Number of Eyes

If a species has even a rudimentary sense of vision, roll 3d.

Climber, glider, brachiator: +3.

3-7 – One eye.

8-13 – Two eyes for bilaterally symmetrical creatures, one per side for radially symmetrical creatures.

14-16 – Four eyes for bilaterally symmetrical creatures, one per side for radially symmetrical creatures.

17+ – 1d+4, halve and round up to determine the number of *pairs* of eyes for bilaterally symmetrical creatures, number of sides *times two* for radially symmetrical creatures.

Eye Placement

If the creature has one eye, roll 1d:

1-4 – Placed in front. No Depth Perception (see p. CI82) [-10].

5-6 – Eyestalk. No Depth Perception *and* 360-Degree Vision with limitation (see p. CI68) [20].

If the species has two or more eyes, roll 1d and modify as shown:

Low in food chain: +1.

Carnivore: -1.

Three or more eyes: +1.

Six or more eyes: +2.

0-1 – Very Front. Can't buy Peripheral Vision.

2-4 – Front. Human norm.

5 – Wide. Peripheral Vision [15], No Depth Perception [-10].



- 6 – **Eyestalks.** 360-Degree Vision with limitation (see p. CI68) [20].
- 7+ – **Spaced around head.** Species has 360-Degree Vision advantage [25]. If the species has fewer than four eyes, it has No Depth Perception [-10]. On a 1d roll of 1, the species has a *vision strip* instead of eyes. There is only a -7 penalty to hit the strip, but it takes 6 points of damage to effectively blind the creature!

Special Visual Powers

Roll 3d *twice* on the chart below, modifying as shown. Ignore duplicate rolls.

Carnivore: -2.

Ergivore: +2.

- 1 – Spectrum Vision (see p. CI66) [40].
- 2-3 – Infravision (see p. CI58) [15].
- 4-5 – Night Vision (see p. B22) [10].
- 6 – Color Blindness (see p. B28) [-10].
- 7-14 – No special.
- 15 – Nictating Membrane (see p. CI62) [10].
- 16 – Polarized Eyes (see p. CI63) [5].
- 17 – Independently Focusable Eyes (see p. CI58) [15].
- 18+ – Spectrum Vision [40].

Sense of Hearing

Basic Sensitivity

Roll 3d and modify as shown:

Primary sense: +4.

Not primary sense: -1.

Low on food chain: +3.

Forest dweller: +1.

Burrower: -1.

- 0-4 – None. Deafness disadvantage (see p. B28) [-20].
- 5-8 – Poor. Hard of Hearing disadvantage (see p. B28) [-10].
- 9-12 – Average. Human norm.
- 13-15 – Good. Dog or cat level; Acute Hearing +2 [4].
- 16+ – Excellent. Acute Hearing +5 [10].



Primary Sense Type

Only roll on this chart if the species' primary sense is Sound *and* it doesn't already have Sonar Vision. Roll 1d:

Aquatic, amphibian: +1.

1-3 – Faz Sense (see p. CI55) [10].

4+ – Sonar Vision (see p. CI66) [0/25].

Special Auditory/Sonic Powers

Roll 3d *twice* on the table below.

- 3-4 – Sonar Vision (see p. CI66) [0/25]. Ignore if rolled twice or if the species already has Sonar Vision.
- 5 – Multi-range hearing. Add *either* Subsonic Hearing or Ultrahearing . . . or *normal* hearing range if it already hears in a special frequency range! (see p. CI67 and CI69.). Add another range if rolled again.

- 6 – Perfect pitch. 2 levels of Musical Ability (see p. B22) [2]. Add a level if rolled again.
- 7-13 – No special auditory ability.
- 14 – Penetrating Call (see p. CI63) [5].
- 15 – Parabolic Hearing. 1 level (see p. CI62) [4]. Add another level if rolled again.
- 16+ – Faz Sense (see p. CI55) [10]. If rolled twice, upgrade to Sonar Vision [0/25].



Electrical and Magnetic Senses

This is the ability to sense changes in magnetic and electrical fields. Some biologists suspect birds use a magnetic sense explain their navigation skills. Many species of fish have a more active form this ability, and use it to navigate in the unlit depths. At the highest levels, it is a natural radar.

Primary Sense Type

Only roll on this table if the species has Electrical/Magnetic as its primary sense. Roll 1d.

Aquatic: -2.

Flyer (either type): +2.

- 0 – Faz Sense. Electrical enhancement and underwater restriction (see p. 18). If the species already has this sense, remove the underwater restriction.
- 1-3 – Faz Sense. Electrical enhancement (see p. 18).
- 4+ – Radar Sense. 20-hex range [70] (see p. CI63).

Special Electrical/Magnetic Abilities

Roll 3d once for all species.

- 3 – Radar Sense 5-hex range (see p. CI63) [55].
- 4 – Field Sense (see p. CI55) [10]
- 5 – Absolute direction (see p. B19)
- 6-15 – No special electrical/magnetic ability.
- 15 – Absolute direction.
- 16 – Magnetic Sense. 4 levels (see p. CI60) [20].
- 17-18 – Faz Sense. Electrical enhancement (see p. 18).

Sense of Taste

Roll 3d and modify as shown.

Blindness, Motion Detection Only: +3.

Herbivore: +3.

- 0-4 – No Sense of Taste (Only). See p. 21 [-2].
- 5-8 – Poor Sense of Taste. See p. 21 [-1].
- 9-12 – Average. Human.
- 13-15 – Good. Has Acute Taste and Smell +2, Taste only, [1].
- 16+ – Excellent. Has Acute Taste and Smell +3, taste only, [3]; Discriminatory Taste [10] (see p. CI53).

Sense of Smell

Roll 3d and modify as shown.

Blindness: +1.

Stalker carnivore: +2.

Other carnivores: +1.

0-6 – No Sense of Smell (Only). See p. 21. [-2].

7-8 – Poor Sense of Smell. See p. 21 [-1].

9-12 – Average. Human.

13-15 – Good. Has Acute Taste and Smell +2, for smell only [2].

16+ – Excellent. Bloodhound level. Has Acute Taste and Smell +3, for smell only [3]; Discriminatory Smell [15] (see p. CI52).

Tactile Sense

This measures the sensitivity of the species' sense of touch in its handling organs.

Roll 3d:

3-4 – Poor Tactile Sense [-6] (see p. 22).

5-6 – Poor Tactile Sense [-5].

7-13 – Average.

14-15 – Increased Manual Dexterity. +1 [3] (see p. CI27).

16+ – Discriminatory Touch.

Kinesthetic Sense

This is the sense of balance and motion, "surefootedness," and level of perception of internal goings-on (pulse rate, digestion, respiration, healing). Roll 3d and modify as shown below:

Climber, brachiator, glider, winged flyer: +5.

Aquatic: -1.

Tiny, small: +3.

Huge or giant: -3.

0 – None. Creature must use sight and tactile senses to determine position of limbs! DX-2.

1-8 – Poor. DX-1.

9-12 – Average.

13-14 – Good. Cats, monkeys. Perfect Balance advantage [15].

15+ – Excellent. Born acrobats, incredible reflexes. DX+2, Perfect Balance advantage [15].

Special Kinesthetic Abilities

Roll 3d; modify as shown.

Desert or arctic: +2.

Aquatic: -2.

1-4 – Full Coordination advantage [50].

5-14 – No special ability.

15 – Can (or *must*) hibernate under certain conditions. This is Metabolism Control, 2 levels, with a limitation (see p. CI60) [5].

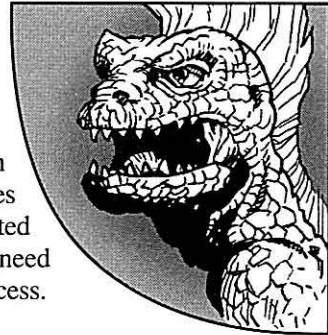
16 – The species has *Metabolism Control*. Level of the power depends on the species' kinesthetic sense: None: 1 Level, Poor: 2 Levels, Average: 3 Levels, Good: 4 Levels, Excellent: 5 Levels (see p. CI60).

17 – Species can guide its healing processes. (Rapid Healing advantage [5]).

18+ – Species has *both* Rapid Healing [5] and Metabolism Control [5].

Communication

Almost every species can communicate – on a basic level sufficient for an animal's social life – through scent, vocalizations, and/or visual signals. Some are gifted with special abilities. An ur-species that starts with a sophisticated communication ability will need less work during the uplift process.



Voice Boxes

Many species have a voice box, a specialized organ for making complex sounds. There are two basic types: *Standard*, which allows production of sounds in one range of frequencies, and *Extraordinary*, a flexible, wide-spectrum sound generator. Humans have standard voice boxes. So do the Pila, but they speak in a frequency range above the normal range of Human hearing. Dolphins have Extraordinary voice boxes, and can speak both Anglic and Pilan without mechanical aids.

Roll 3d and apply the following modifiers:

No sense of hearing: -12.

Aquatic: +2.

Lives in pack/troop, herd, or hive: +2.

Social status determines who reproduces: +2.

Herder carnivore: +3.

Gatherer/hunter: +2.

Ergivore: -3.

0-3 – No voice box. Species will be Mute [-25] unless a voice box or other communication method is added during uplift.

4-14 – Animal voice box. Capable of emotional expressions such as grunts, purrs and howls. The uplifted species will be Mute [-25] unless improved to Standard quality during uplift.

15-17 – Standard voice box.

18+ – Extraordinary voice box. Can produce Subsonic Speech or Ultrasonic Speech in addition to normal vocal range (pp. CI67, C69) [20/25].

Sexual Dimorphism and Caste Differences

A species' sexes or castes may vary in behavior (very common), size, build, or natural defenses (common).

The sexes' and castes' primary sense will probably be the same, but its sensitivity and sensory specials may vary.

It is very unlikely that sexes or castes will have a different symmetry, diet, number of limbs (although one or more pairs or sets may be vestigial), posture, or body covering.

A species' castes and sexes will *usually* have the same social system and reproductive system. However, it is possible that some castes or sexes may live separately. Bull elephants, for example, live in "bachelor herds," only mingling with cows during mating season.

Roll 1d to determine frequency range of Standard and Animal voice boxes:

- 1 – Very Low. Subsonic Speech (Only; see p. CI67) [0].
- 2-4 – Normal. Human voice range.
- 5-6 – Very High. Ultrasonic Speech (Only, see p. CI69) [0].

Roll 3d and modify to see if the species has special vocal ability:

- 3-4 – Singing skill bonus. +2 (p. B48).
- 5-6 – Penetrating Call (see p. CI63) [5].
- 7-14 – No special vocal ability.
- 15-16 – Mimicry (see p. CI60).
- 17-18 – Language Talent. 2 levels (see p. B20).

Other Communication Types

Roll three times on the chart below. If a method is rolled once, it is only useful for sending emotional signals, comparable to an animal's grunts and howls, not speech; it may be improved during uplift. If the same method comes up *twice*, the channel is sophisticated enough to support sophont-level languages. If rolled *three* times, the channel is extraordinary; very subtle and sophisticated languages are possible.

Roll 3d and modify as shown:

No voice box: +3.

Ergivore: +3.

Social system is pack/troupe, herd, or hive: +2.

No sense of hearing: +5.

3-13 – No special communication type.

14-15 – Pheromonal. Includes specialized detector with a range of 20 hexes. (Pheromones are *not* detected by the nose!)

16-17 – Visual. Color patterns, light flashes, or cilia flickers. If the species is blind, or has Rudimentary vision, treat as Radio Speech [25] instead.

18+ – Radio Speech. Including radio hearing (see p. CI64) [25].

Because Pheromone and Visual communication are race-specific and fairly subtle, they are a form of Secret Communication (see p. CI65) [20]. If rolled once, apply the “general concepts and emotions” limitation [-50%]. Pheromone signaling is subtle enough to qualify for the “other races cannot even perceive” enhancement [+40%].

Picky Definition Corner

Most familiar animals are *sentient* – aware of and able to respond to their surroundings. *Sapience* is that property that separates man from beast, or ur-Species from uplifted Galactic. Sapient (or “sophonts”) are self-aware and capable of abstract thought.

Mental Abilities

Most ur-species have fairly high animal intelligence and no unusual powers. A few are especially gifted.

Intelligence and Sapience

The ur-species generated by this system are clever and/or aware enough to be candidates for uplift, although some lack the peculiar set of talents called *potential*. Roll 1d to determine the creatures' cognitive abilities:

- 1 – IQ 5 with potential.
- 2 – IQ 6.
- 3-4 – IQ 6 with potential.
- 5 – IQ 7.
- 6 – IQ 7 with potential.

Add any IQ modifiers earned during generation. Animals can have a fairly high IQ and still not have potential. These clever beasts are not prime uplift material (an extra step is required to make them suitable) but a patron may have to settle for them if nothing else is available.

Special Abilities

Roll 3d-8, add IQ, add 3 if the species has Potential, and consult the table below to see if the species has a special mental ability:

- 0-3 – Psionic power. See below.
- 4 – Eidetic Memory [30].
- 5 – Racial Memory [15].
- 6 – Intuition [15].
- 7 – Latent talent. Roll 1d: 1) Lightning Calculator [5], 2) Musical Ability, 5 levels [5], 3) Artistic skills group bonus +1 [6], 4) Craft skills group bonus +1 [6], 5) Athletic skills group bonus +1 [6], 6) Animal skills group bonus +1 [6].
- 8 – Combat Reflexes [15].
- 9+ – No special ability.



Psionic and Mental Talents

Psionic species are rare. Adepts tend to rely on their powers so much that they do not develop generalized high intelligence, much less potential. Creatures that *do* combine smarts and unusual talents are hard to capture, much less deal with in a laboratory!

Use the table below to find the species' psionic talent and power level. Other extraordinary powers are included on the chart. The low end of the table has mostly communication talents; those in the middle are "warning" skills. Those on the high end are weapons, used to aid in the capture of prey.

An animal's skill in its power is 12 or the species' IQ, whichever is greater. When the species becomes sapient it gets a +1 racial skill bonus in its power.

Roll 3d and modify as shown:

Trapper carnivore: +3 (Used to lure prey).

Low on food chain: -3.

High on food chain: +3.

Lives in pack/troop: -2.

Lives in herd: -3.

Roll	Talent	Power
1-2	– Telesend & Telereceive *	6
3	– Telereceive *	8
4-5	– Precognition *	6
6	– Clairvoyance & Clairaudience *	6
7-9	– Emotion Sense	8
10-12	– Danger Sense Advantage	
13	– Psionic Resistance	10
14	– Probability Alteration	–
15	– Psi Static	10
16	– Image	
17	– Telesend	6
18-19	– Sleep *	6
20	– Mental Blow *	10
21+	– Telereceive and Telecontrol *	8

* Creatures with these powers can also erect a Psi Shield.

Shield power is half that of the primary power.

Probability Alteration manifests as Extraordinary Luck (see p. B21) [30] in animals, who use it on an instinctive, subconscious level to "stack the deck" in their favor. When used by a trained sapient adept, this power has other, more spectacular uses. See p. 26.

Telesend and Telereceive manifest as Telepathy until the species is uplifted. The patron must decide between leaving the talent as telepathy (see p. 25), or trying to cultivate full telepathy. (It is far from likely that the Institute for Uplift will grant permission to add this controversial power!)

More on Personality Traits

When the creature is finished, note the total for each personality trait. The resulting scores can help you compare the new species' personality with those of other races. Scores above or below Human average bestow advantages, disadvantages, or quirks.

By modifying the neurological and hormonal basis of the ur-species' personality traits, patrons may shape the clients' character to make them better workers, fiercer soldiers, or more fervent believers in clan dogma.

Chauvinism

This is a measure of the entire *species'* self-identity and self-importance. Unless socialized to include others in its "in group," individuals of highly chauvinistic species tend to be bigoted. Chauvinistic clients may be rebellious and resentful. Chauvinist patrons (such as the Soro) may be oppressive and callous. Individuals from races with below-normal chauvinism are adaptable and friendly when it comes to inter-species relations; at the extreme, they treat members of other species as one of their own. By contrast, individuals from species with low chauvinism overlook racial differences, and may even be intrigued by strangers.

Level	Description	Point Cost	Page Reference
0	Strong Xenophilia	-15	p. CI95
1	Xenophilia	-5	p. CI95
2	Undiscriminating	-1	p. CI94
3	Broad-Minded	-1	p. CI86
4	Human Norm	0	–
5	Chauvinistic	-1	p. CI87
6	Intolerance: Racial	-5	p. B34
7	Xenophobia	-15	p. B36

Concentration

This is a measure of how much the species' individuals can concentrate on a single action, plan ahead, and think "deep thoughts." At high levels, this may result in "savant" abilities. At low levels, habit and instinct take over.

Level	Description	Point Cost	Page Reference
0	Short Attention Span	-10	p. CI94
1	Distractible	-1	p. CI89
2	Human Norm	0	–
3	Attentive	-1	p. CI86
4	Single-Minded	5	p. CI30

Curiosity

This is the tendency for individuals to go out of their way to investigate new things, appreciate art, and yearn for adventure. A low-curiosity creature still *notices* new things; it just doesn't find them worthy of special attention.

Level	Description	Point Cost	Page Reference
0	Obdurate	-10	p. CI92
1	Incurious	-5	p. CI91
2	Staid	-1	p. CI94
3	Human Norm	0	–
4	Nosy	-1	p. CI92
5	Curious	-5	p. CI89
6	Extremely Curious	-10	p. CI89

Egotism

This determines the sense of *individual* importance that the members of the species have. If a race has low egotism,

its members will put the interests of its social group ahead of its own. Highly egotistical creatures tend to have vivid personalities and look out for themselves.

Level	Description	Point Cost	Page Reference
0	Hive Mentality	-20	p. CI102
1	Selfless	-10	p. CI94
2	Humble	-1	p. CI91
3	Human Norm	0	—
4	Proud	-1	p. CI93
5	Selfish	-5	p. CI94
6	Self-Centered	-10	p. CI94
7*	Megalomania	-10	p. B34

Egotism won't progress to Megalomania naturally, but a patron could engineer a client species to have it!



Empathy

This is a measure of how adept the species is at sensing and comprehending the feelings and attitudes of others. It is based on the species' normal senses and is not a psychic ability. Highly empathic creatures tend to *identify* with the plight of others. Individuals who spend time with members of another species will eventually become adept at comprehending their emotional states as well.

Play & Humor: The Ninth Trait?

While not important enough to qualify as a full personality trait, a species' sense of humor (or lack of it), and its need and willingness to play, can have profound effects on its behavior.

The young of many mammalian and some avian species exhibit *playful* behavior, taking the form of practice hunting and practice social behavior. Highly social and intelligent species – dolphins, dogs, and many primates – seem more playful than average. *Humor* seems to arise in species with complex social systems, and is another way of reconciling seemingly conflicting personality traits.

A good default level for this unofficial ninth trait is “Businesslike.” Choose a final level that fits your conception of the species.

Level	Description	Point Cost	Page Reference
0	No Sense of Humor	-10	p. CI92
1	Dour (Intolerance of humor)	-5	p. 22
2	Businesslike	-1	p. 21
3	Human norm	0	—
4	Playful	-1	p. 22
5	Compulsive Play	-5	p. 21
6	Compulsive Play	-10	p. 21
7*	Trickster	-15	p. CI94

Trickster won't occur normally; a species that evolved this trait would have a strike against it in the survival department!

Level	Description	Point Cost	Page Reference
0	Solopsist	-10	p. CI94
1	Callous	-6	p. CI86
2	Oblivious	-3	p. CI92
3	Human Norm	0	—
4	Responsive	-1	p. CI93
5	Sensitive	5	p. CI30
6	Charitable	-15	p. CI86

Gregariousness

This is a measure of the species' need (or dislike) for company. This interacts with Chauvinism in interesting ways. The less chauvinistic a race is, the more its liking for company will extend to other species.

Level	Description	Point Cost	Page Reference
0	Reclusive	-10	p. CI93
1	Loner	-5	p. CI91
2	Uncongenial	-1	p. CI94
3	Human Norm	0	—
4	Congenial	-1	p. CI89
5	Chummy	-5	p. CI87
6	Gregarious	-10	p. CI90

Imagination

A measure of how good individuals of the species are at coming up with new ideas and seeing patterns in seemingly “random” data.

Level	Description	Point Cost	Page Reference
0	Hidebound	-5	p. CI91
1	Dull	-1	p. CI89
2	Human Norm	0	—
3	Dreamer	-1	p. CI89
4	Imaginative	-1	p. CI91
5	Versatile	5	p. CI31

Suspicion

This trait determines how the species reacts toward new things, ranging from pleasure to indifference to fear and distrust.

Level	Description	Point Cost	Page Reference
0	Imperturbable	10	p. CI26
1	Collected	5	p. CI22
2	Cool	1	p. CI23
3	Human Norm	0	—
4	Careful	-1	p. CI86
5	Edgy	-5	p. CI90

Interpreting Personality Traits

These traits can form the basis of dozens of personality types. Humble, Chauvinistic, and Chummy make for a loyal, eager-to-please follower type. Add Suspicion and Single-Minded and you've got a soldier. Sympathy, Chummy, Single-Minded, and Chauvinistic are a good combination for a diplomat who must deal with strange races yet retain a sense of purpose. Imagination and low Concentration might result in a brilliant “flake.” Curiosity and moderate Suspicion could make a great explorer; add Chauvinism and Egotism for a conquistador!

If two traits seem opposed, compensating behaviors – often quite complex – may evolve. For example, Proud matched with Chummy may lead to ritualistic struggles for dominance. Wolves, who are both individualistic and sociable, have just this sort of society.

This is not always true if *uplift changes* or clan indoctrination result in a contradictory combination of traits. High Egotism, low Empathy, and high Gregariousness might lead to a race of individuals compelled to seek out company . . . and constantly getting into fights because they are socially inept. These dichotomies may drive individuals slowly insane! Only the most experienced uplift workers can integrate the opposing

traits, creating instinctive rituals and psychological “pressure valves” to compensate.

Finishing Up

At this point, you should have a good idea of what the ur-species looks like and how it behaves. There will almost certainly be some rough edges and blank spots. You will need to put down the dice and step in to give the design that final polish necessary to create a realistic near-intelligent animal species.

Before describing the *game* rules for uplifting the ur-species, let’s learn about the social ones!

THE POLITICS OF UPLIFT

The Institute for Uplift

While it cannot command battle fleets or stop a world’s economy in its tracks, the Institute for Uplift is one of the most influential Galactic bureaucracies. The Institute issues the “uplift license” patrons need to embark on a new uplift project. The license states the period in which major changes may be made to the client and the types of changes allowed. The Institute, and the client race’s consorts, also oversee uplift work. Powerful or unscrupulous patrons sometimes evade or mislead Institute supervisors.

The rules governing uplift changes are incredibly complex, subject to rulings based on precedent, hair-splitting interpretation, and Institute fiat. A change that would be anathema in one species might be encouraged in another. There are some absolutes: Changes that might lead to suffering or an overspecialized slave species are not allowed, for example, and the final client must be capable of becoming an independent, starfaring patron race itself.

Consort Races

Galactic society recognizes that patrons don’t always have the best interests of their clients in mind. Tradition requires that patrons seek a *consort*, or “Uplift Midwife,” for their clients. The entire consort race becomes “god-parents” to the young species, able to legally intervene to protect the client species’ rights and interests.

Client species are assigned a new consort at each stage of uplift. The process of choosing a consort is often highly political. Ruthless patrons working on a client of dubious legality will arrange for an ally (possibly from the same fanatic alliance) to be the client’s consort. Poor patrons sometimes surprise a wealthy race with the honor; the lucky recipient is then bound to sponsor an expensive Uplift ceremony.

Past Stage Two, clients are supposed to be able to choose their own consort race, but in reality their patrons still have a lot of say in the matter.

Indenture

The standard period of indenture is 100,000 years. The patron has immense power over both the individuals of the client species and the client race as a whole. How this actually plays out depends on the temperament of the patrons. Indenture may amount to a sort of slavery, with life decisions and career choices dictated by a bureaucracy designed to squeeze every bit of economic advantage out of the relationship. For many clients, indenture can be a genuinely nurturing experience, designed by benevolent patrons to teach their charges proper ecological management and Galactic citizenship.

Indenture may be extended if the Institute decides that a promising client requires further modification. A race may be reindentured by the Institute, usually as punishment for a heinous crime. The Nahalli, patrons of the ecocidal Bururalli, were reindentured to the Thenannin for an indefinite period.

Should a patron race be wiped out, the clients’ indenture will be transferred to its Uplift Consorts or a “deserving” foster-patron – sometimes the very ones who destroyed the original patrons!

“Freed” Clients

When a client race is released from its indenture, it is free. The patron race may no longer compel taxes, servitude, and so on. However, the emancipated clients may continue working for the patron clan as part of the “family business.”

Humanity took the unusual step of freeing Chims and dolphins shortly after they were recognized as Stage Two clients. The intent was to protect the Terragens clients in case mankind itself was declared “unfinished” and indentured to an alien race. As free clients, the Chims and dolphins would (theoretically) not be included in the package.

A Stage Two release leaves the patron with many obligations to the client. Humanity is still responsible for monitoring the behavior of dolphins and Chims. Technically, Humanity can no longer control the Uplift of its offspring. But since dolphins and Chims are represented on the Terragens Uplift Board, and accept its authority, the Institute for Uplift permits work to continue under the supervision of their Consort race, the Tymbrimi.

The Stages of Uplift

Galactic society has tried many methods to enforce uplift codes. In some eras, direct Institute supervision of all uplift projects was required. In others, suitability of potential clients and legality of uplift techniques were left to the judgment of the patron. Currently, a system of tests is used to regulate the process of uplift. A race's progress is divided into seven stages:

Potential: Unmodified animals, eligible to be claimed by a Patron. The Uplift Institute protects the existence and integrity of any species it recognizes as having Potential. Any patron in good standing may "claim" any Potential species it discovers on a newly-mapped world or a world within its sphere, subject to Institute approval. Approval is usually a formality.

Fallow: Recognized by the Uplift Institute as having potential, but not available for "assignment" to a client. There are many possible reasons, including politics, species protection, or forbidden psionic powers.

Stage One: Races, almost always sentient, that have been assigned to a patron. As "works in progress," they are officially animals with no individual rights, but the Institute and the Stage Consort defend the race's interests. A Stage One client may not be "freed" – this would constitute abandonment. Typically lasts 1,000-15,000 years.

Stage Two: Reached when the creatures are recognized as full sophonts. The patron species is expected to recognize certain basic civil rights (fairly minimal, by Human standards)

Uplift Ceremonies

A race's advancement to a new stage is often celebrated with an elaborate (and occasionally flamboyant) public ceremony. Representatives of the species are tested by Institute for Uplift proctors to determine if they deserve the new rank. The client species' new Uplift Consort is revealed at the ceremony, and the patron may choose the occasion to present the client with "graduation presents" in the form of its own starships or colony worlds.

and allow the clients access to the Library. Typically lasts 2,000-10,000 years.

Stage Three: Client species reaching this stage are recognized as junior citizens, and can choose their own consort (see below). They may be allowed to own starships and colonies. Galactic custom frowns on patrons freeing clients before Stage Three. Typically lasts 10,000 years.

Stage Four: No major (5 or more points) Uplift changes allowed, although *corrective* changes this drastic are acceptable. The representatives of the client race itself must be consulted on minor changes. Typically lasts 20,000 years.

Stage Five: No further genetic tinkering, other than removal of problems occurring during uplift, is allowed. Must be allowed its own starships and colonies. May be allowed as much political and economic independence as the patron pleases, but the patron is still responsible for the welfare – and crimes – of the client. (Typically 50,000+ years.)

SIMULATING UPLIFT

So, you've rolled up a ur-species and done a little imaginative "polishing" to create a realistic animal species. The next step is to simulate the process of uplift. You can come up with a final, uplifted design on your own, or play the meta-game described in this section to simulate the course of the species uplift. The process can add historical depth to the species' design.

The "metagame" consists of Uplift Cycles, in which you decide what sort of changes (to attributes, personality traits, advantages, and disadvantages) will be made. How effective the patrons' efforts are depends on their *uplift skill*. Success means the client species takes a step toward full sapience, become better tool users, or lose some animalistic emotional baggage. Failure could mean the species acquires Stress Atavism or other inherited problem.

Uplift Skill

This is a measure of the patron's experience and skill at the mix of genetic engineering, psychology, sociology, and empathy necessary to perform uplift. It is not a skill that *characters* can buy or study!

To determine a race's basic Uplift Skill, roll 2d and add half its racial IQ, rounded down.

Barring some massive change in the patron's civilization, basic uplift skill will stay the same throughout its career. There

may be changes from Uplift Cycle to Uplift Cycle. Modify the basic Uplift Skill as shown below:

Patron TL9, -1.

TL12, +1.

TL13-14, +2.

TL15+, +5.

Experience as patron: +1/4 number of clients already uplifted by this patron (round up).

Assistance from clan: +1/4 number of species in the immediate clan (uplifter's patron and fellow clients) rounded up.

Very promising species (GM's discretion): up to +2.

Uplifting the Birgys

The Ynkvyts, a modest clan with access to TL10 techniques, are uplifting their first clients, the Birgys. Their basic aptitude, as determined by a 2d roll, is 6. The would-be patron's racial-average IQ is 10; $10/2 = 5$, for a basic Uplift Skill of 11.

Because this is their first try, the Ynkvyts get no experience bonus. However, their patrons are willing to help. There are a total of 5 races in the clan. $5/4$ rounded up is +2. Finally, the Ynkvyts have good relations with the Uplift Institute, adding 1 for a final Uplift Skill of 14. They can safely spend 14 uplift points per cycle.

Uplifting the Birgys

The Ynkvyts begin work on the hexapodal ur-Birgys. They take the “slow approach” and gain a +2 bonus to Uplift Skill. In the first cycle, they increase the ur-Birgys’ Acute Smell advantage from +1 to +3, at a cost of 4 points. The clients’ posture is changed from horizontal to centauroid, at a cost of 7 points. The crude hands on their forelegs are upgraded to hands at a cost of 1 point. The total of 12 points of changes is less than the Ynkvyts’ modified Uplift Skill of 16.

Client species is biologically related to the patrons: up to +2. (Chimps rate a +2 because they are very close relatives to Humanity; dolphins rate a +1 because they are mammals.)

Patron has Empathy or Animal Empathy advantage: +1.

Uplift consort is especially wealthy or powerful: +1.

Patron is in favor with Library or Uplift Institute: +1.

Uplift Cycles

Uplifting a species is a task that will occupy the patron race for many generations. A few points’ worth of alterations to a client’s DNA is a task that takes hundreds of skilled man-years of Biochemistry, Genetics, Physiology, and Psychology.

The accepted Galactic “work cycle” is 10 generations (300 years for clients with Human-length lifespans). Most patrons observe their work for *another* 10 generations before introducing the next set of changes. Patrons who take this slow approach gain a +2 bonus to their Uplift Skill.

Hurried, irresponsible, or callous patrons may try to hurry the process through risky selective breeding, introduction of untested gene sequences, and making drastic changes without seeing how they play out. The result could be a race of neurotic freaks. (The Galactics consider Humanity’s 300-year uplift development of neo-chimps and neo-dolphins a reckless

Uplift Oversight

The Uplift Institute and a client’s Uplift Consort are supposed to keep a careful watch on a patron’s uplift efforts. Preparing for inspections and creating reports are two of the reasons that Galactic uplift cycles take so long.

Rushing uplift (spending more points per cycle than Uplift Skill), delaying the repair of harmful traits, and making “unnatural” changes (e.g., changing fur color merely for esthetic reasons) may result in minor fines and censure. Creation of slave species, unauthorized improvement of dangerous psionic powers (full telepathy, probability alteration), and changes that would cause suffering or stress (e.g., removing the wings of a flying creature) may result in huge fines and loss of the client! (See the results on the “Facing the Consequences” table for examples of the sort of trouble an offending race may get into.)

If the species gets *Severe* Stress Atavism in the course of its uplift, further development must be halted, by Institute ruling, until the disadvantage is reduced to Moderate level or lower.

crash project. Many flat out *don’t believe* that the job could have been done that quickly!)

There is a point of diminishing returns to uplift work. After four cycles of uplift, there is a cumulative -1 penalty to Uplift Skill. If a species suffers from Stress Atavism or other uplift-induced problem when its patron’s effective Uplift Skill is reduced to 0, the disadvantage is effectively permanent.

It’s up to you to determine how many Uplift Cycles the client has gone through. A very young client species accepted as a Stage One client may have been through three or four rounds of changes. A Stage Two client may have been through a dozen cycles.



Making Changes

The patron expends “uplift points” to make changes. If a species is changed too fast, its mental stability and health may suffer. A number of points equal to Uplift Skill (unmodified by the cumulative penalty) can safely be made within a “cycle” of work. Up to Uplift Skill \times 2 points can be expended, but this increases the chance of Stress Atavism and other problems.

Any change requires work. *Decreasing* an attribute, removing a skill or advantage, or adding a disadvantage, costs an amount equal to the difference in points!

Stress Atavism and Other Problems

At the end of each cycle, roll 3d against Uplift Skill to determine if the cycle’s changes were successful. *Reduce* Uplift Skill by the number of extra points or work done in the cycle. *Increase* Uplift Skill by 1 if half or less of the allowed number of points of work were expended in the cycle.

If the roll is missed, the attempted changes did not work out. The patron gets a +1 bonus to Uplift skill if the *exact* same set of changes is attempted again. (Failure is a good teacher!) However, the failed changes may result in the client species acquiring a racial disadvantage due to inbreeding or poorly designed gene modifications. Use the table below to determine the problem. On a critical failure, roll for *two* problems!

Uplifting the Birgys

The Ynkvyts make another round of changes to the Birgys. 20 points are used to raise the clients to full sapience. This is 4 more points than the Ynkvyts’ modified Uplift Skill of 16 safely allows. Their effective skill for this round is 12. The roll comes up 16, a critical failure! The Birgys roll twice for effects, and get two Stress Atavism results. A 4d roll results in a 15. The next higher level is 16 points: Moderate Stress Atavism, with Common frequency. The Ynkvyts will use the next cycles to reduce the disadvantage.

Uplifting the Birgys

The humbled Ynkvyts decide to make the ur-Birgys sapient over the course of two cycles, expending 10 points per cycle. In the first cycle, they use the remaining 4 points of allowed changes to reduce the ur-Birgys Stress Atavism disadvantage to "Mild, Common." They will need to expend another 12 points to entirely eliminate the disadvantage. They will get a +1 bonus because they attempted the same change before.

Roll 3d and modify as shown:

Making physical changes: -2.

Making behavioral changes: +2.

- 1-3 – Sickly: Weak Immune System (see p. CI85) [-30].
- 4 – Neurological problem: Epilepsy (see p. B28) [-30].
- 5 – Delicate Metabolism [-20] (see p. CI81).
- 6 – Sickly: Unfit (see p. CI85) [-5].
- 7-8 – Stress Atavism (see p. CI105) (see below).
- 9-12 – No notable problems.
- 13-14 – Stress Atavism (pp. CI105) (see below).
- 15 – Confused (see p. CI88) [-10].
- 16 – Neurological problem: Tourette's Syndrome [-15] (see p. CI85).
- 17 – Mild Phobia (see p. B35) [-15].
- 18+ – Compulsive Behavior (see p. B32) [-15].

Phobias, Odious Personal Habits, and Compulsive Behaviors should be based on the species' diet, social instincts, or reproduction. *Examples:* Lecherousness, Gluttony, compulsive scent marking, compulsive stalking.

Stress Atavism (see p. CI105) can be worth from -3 to -20 points, depending on severity and frequency. Roll 2d to determine the point value of the disadvantage; round up to the next level (e.g., 12 points would give Mild, Common stress atavism). Levels of Phobias and points of Stress Atavism are cumulative. Most Galactics pause uplift efforts to buy off stress setbacks before continuing. Cycles spent curing problems are "off the clock," and don't accumulate the usual -1 Uplift skill penalty.

Incremental Changes

Changes too large to safely implement all at once may be spread out over a number of cycles. The change isn't effective until all of the points are paid off. The Uplift Roll for the cycle must be successful as well.

Stress atavism can be bought off a bit at a time, reducing the severity and/or frequency of attacks as uplift point expenditures allow.

Attributes

Attributes may be increased freely, using the same scale that characters use. Raising an IQ of 7 to 10 costs 20 uplift points. Increasing ST from 13 to 14 costs 15 points.

High levels (16+) of ST and DX may be *lost* when making changes to limbs and musculature. Roll vs. Uplift skill for each high attribute when changing posture or improving

hands. On a critical success, no points are lost. On an ordinary success, reduce the attribute by 1. On a failure, reduce the attribute by 2 (3 if the attribute was over 20). On a critical failure, reduce the attribute by 3. Lost ST and DX may be bought back through uplift work.

Advantages and Disadvantages

Inborn physical advantages and skills may be increased (i.e. Toughness 1 increased to Toughness 2; Acute Vision +1 boosted to Acute Vision +3) for an amount equal to the difference between the two normal point costs. *New* physical advantages may be added at *twice normal cost*. These new advantages must be something that would logically be part of the creature's genetic makeup. A trait could be spliced in from a related species for *triple* uplift point cost. Drastic actions such as this risk the disfavor of the Institute for Uplift.

Other Physical Modifications

Most animal species require some tinkering to become efficient tool-users.

Hands

While there are many ways to hold a screwdriver, this section lists changes that might be made to terrestrial creatures. The uplift point cost of each modification is shown:

Running hooves to hands: 20.

Cloven hooves to hands: 15.

Walking paws to hands: 10.

Grasping paws or crab-like claws to hands: 5.

Crude hands to hands: 1.

Hands to modified hands: 2.

Tendrils and/or muscular lips added to mouth: 3.

Tendrils and/or muscular buds on trunk/tentacle tip: 3.

Special limbs may be strengthened, made more dexterous, or lengthened at a cost equal to the difference between the cost of an Extra Arm of the original design and the cost of the desired arm.

Communication

A voice box (or equivalent organ) is required for verbal communication. If the species already has a Standard or better voice box (or its equivalent), no modification is required. However, the patron might add or modify an organ so that the client talks on *their* preferred communications channel!

No voice box to Standard voice box: 15.

Animal voice box to Standard voice box: 5.

Add frequency range (Ultraspeech, Subsonic Speech) to Standard voice box: 5.

Simple Modification (e.g., modify dolphin voice box to allow Human speech): 2.

A species with organic semaphore lights, pheromone generators, radio transceiver organs, and the like may improve their special communication channel. It is very difficult, if not impossible, to add a special method to a species that didn't start out with it.

Improve "animal level" special communication method (pheromone, light, radio) to ordinary level: 5.

Improve ordinary standard-level special communication method to extraordinary level: 10.

Neurological Trade-Offs

Some sensory and skill-related traits can be “traded in” as a shortcut to increased general intelligence. Acute Smell, Acute Hearing, Acute Vision, innate mental Skills, and Skill Bonuses can be reduced a level, or eliminated entirely, to purchase an increase in IQ. *Example:* Neo-chimps started with Acute Smell and Taste +4 and an innate Survival (jungle) skill. During uplift, Humanity was able to change the purpose of some of the gray matter devoted to olfactory senses and the specialized survival instincts. Reducing the sensory bonus to +1 and eliminating the survival instincts freed up 4 points to reduce the cost of raising IQ from 6 to 7 from 10 points to 6!

Posture

The following modifications let quadrupeds stand tall and keep semi-upright creatures from slouching. The costs below reflect change in posture only. A change may *allow* extra arms. The actual limbs must be paid for! (See Extra Arms, p. CI54.)

Horizontal to Semi-Upright: 10 points. Allows creatures who normally walk on all fours (or all sixes) to stand or rear up while at rest, freeing their front limbs for tool use or manipulation. Creature may use one hand while walking at reduced speed (Speed-1, DX-1 for purposes of jumping or dodging).

Semi-Upright to Upright: 5 points. Lets the species use its manipulative limbs at all times. Humans and neo-chimps have fully upright postures.

Horizontal to Centauroid: 7/10 points. This turns a hexapod or octopod with Horizontal posture into a “centaur” with an erect torso and two manipulative limbs. The 10-point version allows an octopod *four* manipulative limbs!

Centauroid to Upright/Quadramanous: 15 points. Turns six-limbed centauroids into upright bipeds with *four* arms.

Centauroid to Upright/Hexamanous: 18 points. Turns eight-limbed centauroids into upright bipeds with *six* arms.

Other Physical Changes

Other physical changes are possible. These can range from cosmetic (a change of skin or fur color might cost 1 point) to major (a change in sexual pattern might cost 10 points). Some changes may be fairly cheap, but create great stress.

Mental Modifications

Changing a nervous system is extremely delicate work. Minor errors can result in autism, catatonia, or violent psychosis. Patient Galactics make physical modifications first, then fine-tune their clients’ new mentalities over dozens of generations. Less scrupulous races, such as the Tandu, make the changes they want, heedless of the consequences, and deal with side effects with conditioning, drugs, and discipline.

Adding Potential

20 points

Prerequisite: Species average IQ of 5 or higher, Patron TL12 or higher.

Animals with an average IQ of 5 have advanced “animal” intelligence. On Earth, this includes many monkeys, some big cats and canines, bears, and possibly raccoons and otters. This modification bestows potential on the species, allowing further changes.

This modification does not raise IQ scores; it adds the brain centers necessary for abstract thought. Animals without potential can have IQ raised as high as 7 through genetic engineering. Species with potential may have their natural average IQ raised to 8.

Sapience

15 points

Prerequisite: Potential, species average IQ 7 or higher, Patron TL10 or higher.

This pushes creatures with potential over the threshold to sapience. It adds or enlarges the prefrontal lobes, speech, and other crucial brain centers, and enhances the “sense of self.” In *GURPS* terms, the species’ Presentient disadvantage is removed. The species-average IQ may still be quite low. Raising IQ is a task in itself.

Skills and Skill Bonuses

Many innate skills are lost during improvements to intelligence. Genetic engineers making brain modifications find these subtle neural patterns hard to “work around.”

When a species is raised to full Sapience, roll against the patron’s uplift skill for each innate skill that wasn’t traded off for IQ. If successful, the skill is retained. On a critical success, increase the skill by 1! If failed, the skill is reduced to a +2 skill bonus. On a critical failure, the skill is lost entirely.

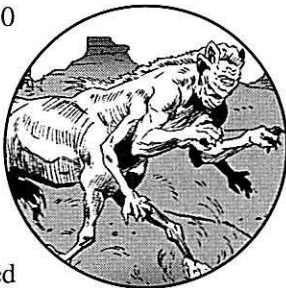
Existing skill bonuses may be increased by one level. Existing innate skills may not be increased.

It’s impossible to add new, innate skills during Uplift. Adding new skill bonuses is possible but difficult. There must be a precedent for the desired skill in the ur-species’ natural behavior. Look through the selections rolled or chosen as the ur-species was created. If a selection includes a chance to get the skill or skill bonus, a new skill bonus of that type may be added. (*Example:* Stalker-type carnivores have a chance of getting the Tracking and Stealth skills. Uplift engineers may add a Tracking skill bonus.) The cost to add a new skill bonus is twice the character point cost of the skill bonus.

Personality Traits

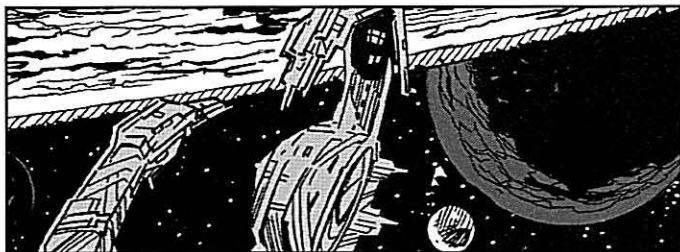
Personality traits may be changed during uplift. Changing a personality trait by 1 level, in either direction, costs 5 uplift points. (In some cases, this may be cheaper than buying off the disadvantage, or adding the advantage, that comes with having a certain level of a trait.)

But caution is called for! Each original value may be changed by 1 level without any special penalty. After that, regardless of how many or how few other changes are being attempted at the same time, each point of change in a particular trait requires a roll versus Uplift Skill to avoid a 1-level increase in Stress Atavism (frequency or severity; see p. CI105).



A patron cannot add an advantage (or buy off a disadvantage) that contradicts an existing advantage or disadvantage indicated by a personality trait. It is necessary to first change the trait.

The final step in creating a new race is to see how it fits into Galactic society. Every species has (or had) a patron with its own social standing, views, values, and culture. Clients inherit these during their uplift and indenture.



FAMILY TIES

Social Standing

When designing a species from scratch, give it a place in the galactic hierarchy as required by your campaign. If you are randomly rolling the race, roll 3d and consult the table below to determine its current standing. See p. 28 for Racial Status descriptions.

3 – Powerful patron race; roll 1d: on a 1-2, Local power, influential in its neighborhood; on a 3-4, Regional power; on a 5, Galactic power on the level of the Tandu, Soro, or Lesh; on a 6, Venerated Elder Race, a very old, once-powerful race that has all but retired from Galactic affairs (Racial Status +1).

4-5 – Notable patron race.

6 – Average patron race.

7-8 – Minor patron race.

9 – Powerful client race.

10-13 – Average client race.

14-16 – Minor client race.

17-18 – New/Weird/Botched client race.

Cultural Influences

Clients tend to adopt the attitudes, prejudices, and “religious” beliefs of patron and clan. When creating a new clan or race’s politics, choose a general alignment from the list on p. 11 and add a number of allies, enemies, interests, obsessions and possibly biologically-induced quirks. Take into account the nature and beliefs of their patrons and the reason they were uplifted.

In *GURPS* terms, these will add Quirks, Senses of Duty, Vows, and other social disadvantages.

If this cultural baggage is at odds with the client species’ natural tendencies, they will feel constrained and unhappy. They may even be rebellious. The ambitious Pila caused their patrons trouble because they disliked their creators’ ideals.

ALIENS AS CHARACTERS

Most of the species created using this chapter will be *technically* suitable for use as player races. However, not all will be fun to play, or make good adventurers. Others might have the right stuff, but come from clans that frown on individual ambition, or that have strict roles for a particular client species.

It is advisable to set up societal ground rules for each race you create. You might require players to buy an Unusual

Special Cases

For each species, roll 3d three times and consult the table below. If one of these effects conflicts with Social Standing (above), modify the Social Standing, rolling again if necessary.

3-4 – Bad Racial Reputation. 1d6-4, minimum -1. See p. 29. If rolled twice, this is a *wolfing* race chafing under adoption by a step-patron.

5 – Member of major pseudo-religious alliance. Influential member if rolled twice!

6 – Influential in a minor institute. (Influential in a major institute if rolled twice.)

7 – Clan is destitute or suffering from fines. (Struggling; Poor if rolled twice.)

8-13 – Nothing notable.

14 – Controls a minor transfer point and enjoys extra wealth. (Comfortable; Wealthy if rolled twice.)

15 – Clan is a local military power. (If rolled twice, race is a regional power. If rolled three times, race is a galaxy-wide power.)

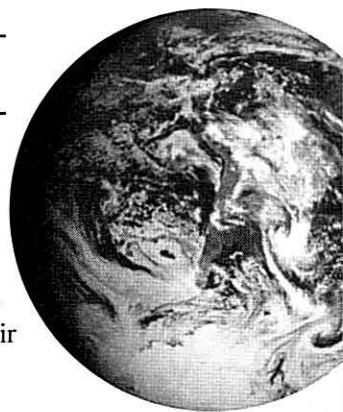
16 – Clan runs a trade cartel and enjoys considerable extra wealth. (Wealthy; Very Wealthy if rolled twice.)

17-18 – Good Racial Reputation. 1d6-3, minimum +1. See p. 29.

A Wealth or Poverty result above means the *clan* as a whole is wealthier or poorer than average. Patron race characters start off with (and pay for) the noted wealth level. Client race characters start off one level poorer than the noted level.

Having ties to an institute, or being a member of an alliance or cartel, lets a member of the race take these organizations as a Patron.

Background (Emancipated) for a character from a client species that normally isn’t allowed much freedom. Characters of another race might acquire a Reputation (untrustworthy shirker) for not submitting to the usual role as their fanatic alliances’ shock-troops.



TECHNOLOGY AND EQUIPMENT

Uthacalthing's corona trembled. "However," he echoed, "it does occur to me that now might be a good time to consult the Branch Library." Uthacalthing picked up some of their disappointment. Astonishing creatures! Tymbrimi skepticism toward modern Galactic culture never went so far as the outright contempt so many Humans felt for the Great Library!



*Wolflings. Uthacalthing sighed to himself. In the space above his head he crafted the glyph called **syullf-tha**, anticipation of a puzzle almost too ornate to solve. The specter revolved in expectancy, invisible to the Humans – although for a moment Megan’s attention seemed to flutter, as if she were just on the edge of noticing something.*

Poor Wolflings. For all of its faults, the Library is where everything begins and ends. Always, somewhere in its treasure trove of Knowledge, can be found some gem of wisdom and solution. Until you learn that, my friends, little inconveniences like ravening enemy battle fleets will go on ruining perfectly good spring mornings like this one!

– David Brin, *The Uplift War*

Galactic technology is *impressive*. The Library is chock-full of information on just about every device a right-thinking patron or humble client species could possibly need or want. There are blueprints for battle cruisers, plans for exotic hand weapons, genetic engineering techniques, terraforming methods, and much, much more.

Research

The Galactics assume, with some justification, that anything worth knowing or building can be obtained from the Library. Few races understand how and why the tools they use work. Most races do indulge in some “tinkering” early in their

careers, to adapt standard technologies to their sensory and ergonomic needs. Once this work is done they accept the results as perfection and pass the designs down from generation to generation.

Some conservative Galactics view research and development as quirky, or even blasphemous, an insult to the Library Institute and the Progenitors. This is countered somewhat by the work of the Institute for Progress, which strives to follow a mandate from the Progenitors to learn and discover.

The wolflings of Earth prefer technology they know inside and out, borrowing the Galactics’ knowledge only when absolutely necessary. Conservatives see this as a deliberately insulting affectation, a slap in the face of their betters. Even sympathetic races are puzzled by the Terragens’ insistence on doing things their own way. Only a few races, themselves considered quirky, privately celebrate Earthclan’s innovations and “Do It Yourself” attitude.



Taboo Technologies

The Galactics regard some technologies as tainted, dishonorable, trouble-making, and even evil. Psionics, probability manipulation, and nanotechnology form the basis of much Galactic technology, but they only use them in carefully delimited roles, using a proven “cookbook” of techniques.

Tech Levels

Primitive (TL9): Transfer Point travel; crude AI (IQ 7); fusion rockets; uplift of high Potential species. This level of technology is the mainstay of the Terran economy. Although laughably crude compared to Galactic tech, it is well understood and entirely under Earthclan’s control.

Low Galactic (TL10): D-level hyperdrives; antimatter drives; reactionless thrusters; artificial gravity; minifacs; “brute force” psionic devices (psi bombs, psi shields, psi detectors). Typical of backward client colonies and poor patron species. Earthclan was close to achieving TL10 in some fields of research before Contact.

Average Galactic (TL11): C-level hyperdrive; crude temporal manipulation (stasis fields); reality anchors; force screens. Most Galactics have easy access to this technology.

High Galactic (TL12): Contragravity; fine temporal science (time compression fields); advanced psionic technology (emotion inducers, psi amplifiers). The ruling clans, such as the Soro, Tandu, Gubru, and Thenannin, have the wealth to buy (or recreate) highly sophisticated devices based on this level of Galactic science. Some devices from this tech level (time compression fields, contragravity) are included in almost all space vessels as a matter of course.

Advanced Galactic (TL13): B-level hyperdrives; reality weapons (disintegrator beams); subtle psionic manipulation (emotion inducer, teleportation gates). Few worlds base their economies on these expensive, potentially dangerous technologies. However, TL13 weaponry and spacecraft systems are widely available. Information on the use and routine

maintenance of these refined devices can be found in most planetary Library branches. Manufacture and major repairs requires an advanced technological infrastructure.

Elder Galactic (TL14): A-level hyperdrives; probability drives; soft-quantum tunneling drives; time-drop communication; reality rippers (probability twisters). Designing and building these devices requires mastery of advanced theoretical sciences that are trusted only to venerable elder races. Institute for Foresight regulations, Library Institute politics, and clan rivalry has made most items of this level virtually unobtainable to anyone else. Only the A-level hyperdrive is widely used, and repairing its unfathomably complex systems requires a TL14 industrial infrastructure.

Progenitor Artifacts (TL15): Reserved for the weapons, tools, and equipment of the Progenitors, and perhaps the beings of the Transcendent Order. Galactics regard them with superstitious awe. Major clans who have inherited these almost-magical devices jealously guard them and use them warily. Fanatics have fought holy wars over such relics; the fleet of moon-sized ships found by the *Streaker* may be the work of the Progenitors.

Includes advanced AI technology (such as Library branches and keys for Galactic-design A.I.) and sophisticated psionic devices. These technologies may use forbidden psionic, probability, or reality sciences. Many incorporate exotic materials, or require astounding amounts of energy to manufacture.

Obtaining Galactic Equipment

Earthclan adventurers could obtain almost any piece of Galactic equipment if they are willing to pay the price and do the necessary footwork. As a rule of thumb, double the cost of an item for each point of tech level difference above TL10. (Example: A TL13 gadget would cost an Earthling eight times the normal price.) If the characters want to obtain a piece of high-tech equipment in the course of an adventure, the GM should make them work for it! Just because the UI'ullop have a surplus of TL12 reality anchors doesn't mean they'll willingly sell one to a crew of uncouth wolflings. The adventurers will have to bow, scrape, and abase themselves just to get through the dealer's door. They may have to do some detective work to discover what the Galactics want in addition to credits. The deal-maker might be a few minutes of whale song, an original 20th-century pulp sci-fi paperback novel, or something that should raise the PCs' suspicions, such as the DNA of a coyote, or a botanical survey of 21st-century Earth's ecosystem.

(This attitude is similar to a typical 21st-century American's feelings about nuclear technology; he might tolerate radioactive material in smoke detectors, therapy machines, and university labs, but be less enthusiastic about it in nuclear power plants or in weapons.)

The elite military forces of some races take advantage of bionic augmentation and neurological enhancements. However, everyday use of these techniques is considered unseemly, and an insult to one's patrons.

Availability

In theory, any race (or even individual) can build any device described in the Library. In practice, limits are imposed by the quality of the local branch Library, environmental regulations, the Rules of War, clan politics, and simple economics. It takes a lot time and money (for rare materials, special machine tools, and processing plants) to reproduce even the most carefully explained high-tech device. Lowly clients, politically isolated patrons, and poor clans make do with hand-me-downs, rebuilt hulks (sometimes millions of years old!), and easily recreated third-rate machinery.

Most worlds have economies based on TL10 and TL11 techniques and equipment. Wealthy or influential clans may have economies based on TL12 or even TL13 technologies. The actual devices used by the bulk of their populations may be several levels lower than this. Even on Earth it would not be considered unusual for a TL10 factory to churn out TL7 consumer goods.

Spacecraft typically have equipment from several tech levels. There is no reason, other than cost and availability, not to "pick and choose" when building a ship or equipping an army. Terragens Council space vessels are routinely equipped with B-level hyperdrives, time compressors, stasis fields, and gravity compensators.

POWER CELLS

All Galactic gadgets use power cells. Power cells come in a variety of handy sizes and are largely interchangeable – TL differences have more to do with local resources and cost than lack of technical knowledge.

Unless noted, the weights listed for any equipment using power cells *include* the power cell. All cells are rechargeable unless otherwise noted.

AA cell: 0.000125 lbs., \$2. Stores 0.9 kW × (TL-6).

A cell: 0.0025 lbs., \$10. Stores 9 kW × (TL-6).

B cell: 0.05 lbs., \$30. Stores 90 kW × (TL-6).

C cell: 0.5 lbs., \$100. Stores 900 kW × (TL-6).

D cell: 5 lbs., \$500. Stores 9,000 kW × (TL-6).

E cell: 20 lbs., \$2,000. Stores 90,000 kW × (TL-6).

Non-Rechargeable Cells

Non-rechargeable power cells store twice as much energy. Once drained, they cannot be recharged, but may be worth a few GalCoins to salvage collectors.

COMPUTERS

All computers are based on Library specifications, use standardized protocols, and have roughly similar methods of processing information. There has been very little variation or tinkering with these specifications; there are plans for thousands of templates that can be tailored for local resources and capability.

TL12 computer technology has become the Galactic standard. Even the Terragens can import enough TL12 computers to make interfacing with the Library a simple task (these high-tech systems are used as routers and bridges for TL9 and TL10 local computers).

Complexity

Processing power is rated in *Complexity*, an abstract measure of performance, with each level representing a roughly tenfold increase in overall capability over the previous level. A system's Complexity determines what programs it can run, and how many; e.g., a program of Complexity 2 can run on a computer system of Complexity 2 or above, but not on a Complexity 1 system.

The number of programs that can run simultaneously is calculated as follows: a computer can run two programs of its own Complexity level, 20 programs of one Complexity level less, 200 programs of two Complexity levels less, and so on.

For instance, a Complexity 2 computer can run two Complexity 2 programs, or 20 Complexity 1 programs, or one Complexity 2 program and 10 Complexity 1 programs. A computer with the *high-capacity* option can run three programs of its own Complexity level.

Uplift computers can run programs of a higher TL than their own, one of the primary benefits of standardization and stagnation.

Data Storage

Computers are also rated for their data-storage capacity in terabytes (TB). One TB is roughly 1,000 gigabytes (GB) or 1 million megabytes (MB). *Uplift* computers have roughly Complexity \times 100 TB of built-in data storage as standard. Multiply by 1.5 if they have the high capacity option (p. 92).

Operation

All computers are assumed to have voice-instruction capability. Computer Programming rolls are not required for most purposes; Computer Operation rolls are made at +3.

Computer Hardware

Translator

A Galactic translator necklace is a TL12 tiny Complexity 6 computer with the genius, compact, and dedicated options. It typically runs a translation and interpreter program (p. 93) tied to a language database. Runs for a month on a standard AA cell. 0.07 lb.; \$800 + software. Models that simulate unusual forms of communication (body language, wafts of pheromones, eye blinks, radio waves) cost extra; add \$50 and 0.01 lb. per communication channel added.

Datawell

A personal computer that fits into a pocket. A Terragens "slate" datawell is a sturdy TL9 Complexity 3 small computer. They have a color display with stylus-input, datacube interface, voice translator, and a 10-mile-range radio modem. Output can be routed to a HUD or other display. Runs for one week on a standard B cell. 1 lb.; \$600. Datawells can run interpreter software, but equipment to handle nonverbal languages costs \$100 and 0.1 lb. per channel added.

A Galactic datawell is a TL12 Complexity 6 high capacity small computer with holographic display. The integral radio modem has a range of 500 miles. Runs for one month on a standard B cell. 0.5 lbs.; \$400.

Copyright Datarecorder

This is a specialized datawell with a camera, microphone, and sophisticated recording/encrypting gear. It is used to record works of art (whale songs, for example) and other information that the recorder does not want indiscriminately copied and distributed. Datacubes created by the recorder cannot be accurately duplicated *without the permission of the person who made the recording*. When the recording is first made, the user inputs a lengthy encryption key. The key and data itself are hashed together to create a decryption key. Without this key, machine-to-machine recordings will not

work; the target datacube will contain nothing but a lengthy piracy warning. Although relatively simple to bypass, there are dire consequences for being caught; the Library takes a very dim view of intellectual piracy.

Some datacorders have a "trusted witness" option. They have the equivalent of a GPS unit and secure communication module. When a recording is made, the location and date are incorporated into the recording and an encrypted copy is registered with local authorities. The registration system is compatible with and vetted by the Library. Any local branch will accept a registration request, even one owned by a dire enemy.

A recording has legal protection for one (1) subjective year from the date of recording; after this time the work must have been registered with the Earth Confederacy or colonial authorities (costs \$1,000) to be legally copyrighted. Once the year-long "filing period" is over, the Terragens (and similar Galactic bureaus) requires that the key-codes of unregistered cubes be provided to anyone who requests them. Filing after the fact costs \$5,000, and a Law or Administration skill roll may be required to register if someone has requested the key-code!

Copyright Datarecorders are TL10. 3.5 lbs.; \$2,000. Trusted Witness versions are 4 lbs.; \$3,000.

Artificial Intelligence

AI in the *Uplift* universe is intrinsically tied to hardware. The concept of free-roaming digital intelligences such as those found in *Transhuman Space* would be seen in much the same light as a very complex and virulent disease – interesting for the novelty, but also extremely dangerous and needing to be destroyed before it can spread.

The Galactic Institute of Foresight tightly controls the manufacture of sapient computers and the technologies related to any sort of artificial intelligence. Without special permission, Library-template AIs are only about as imaginative as a bright ur-species, although they are savants at their assigned tasks.

Permission comes in the form of a "key," which is only issued after a background check and much weaving of red tape. The key device completes vital circuits in the AI's host computer, and boosts IQ to the normal levels. The same system also prevents the machines from repairing or reproducing themselves.

It is possible for a race to design its own sapient computers, avoiding the Institute for Foresight's key-distribution intrigues. This is a long and difficult task, and invites unfriendly attention by conservative races. The Tymbrimi build their own AIs: brilliant, quirky machines as mischievous as their makers.

All AIs are based on plans that have been in the Library for thousands of millennia, and do not have any greater understanding of mathematics than the average Galactic. They are "brute-force" designs that replicate the discrete processes of intelligence, which is partly why they are so difficult to create and teach. Even the maverick Tymbrimi have not strayed far from this methodology.

Computer Options

Some systems may have the following options:

Dedicated: The computer can run a single hardwired program that cannot be changed.

Hardened: The computer is immune to electromagnetic pulse and eavesdropping that relies on electromagnetic emissions.

High Capacity: The capacity of a system is enhanced by 50% (to three programs of its own Complexity level).

Neural Net: The computer can roughly simulate the functionality of a sapient brain. A neural-net system is not "self aware" and has no interest beyond following orders. It can learn skills as if it had Eidetic Memory 2 and an effective IQ equal to Complexity (Complexity +4 with AI key) – but no DX. The vast majority of Galactic AIs are neural nets, and not sapient. Unless they are "keyed," most neural nets use preexisting templates that are already trained but have extreme difficulty learning new skills. These AIs will have

the Rote Learning disadvantage. Some conservative clans are even harsher, and their AIs will have Cannot Learn. All Galactic AIs will have Reprogrammable Duty, with at least one of their "masters" being the Institute of Foresight.

Robot Brain: This is a vehicular operation expert system. It can operate built-in equipment, process information from its sensors, and understand basic orders. The vehicle has an effective DX of (Complexity/2) +8 and IQ of Complexity -1 (Complexity +3 with AI key) – but is not capable of learning. Can be combined with the neural net option to give the usual DX. In any case it halves the number of programs the robot can run.

Sentient: Limited to TL14 Library designs, or homebrew devices by mavericks such as the Tymbrimi, this is a fully intelligent computer. It has the same capabilities as a neural net but with an IQ equal to Complexity +5. The robot brain option is still required to give DX.

Dataplayer

This is a very simple, portable, output-only datacube reader. It can reproduce hi-fidelity, wide-frequency stereo sound, project color holograms, and show text. Common TL10 dataplayers cost \$100 and weigh 0.5 lbs. Shoddy "toy" units go for as little as \$50.

A *trade dataplayer* is a compact, durable, tamper-proof unit designed to be sold along with a valuable datacube. When whale songs, translations of novels, folk dances, and the like are sold to Galactics, they are sold sealed in a trade dataplayer. Trade dataplayers are TL9 and cost \$50, less if bought in quantity with a datacube built in. With a datacube they weigh 0.25 lb.

Datastation

This is a TL12 Complexity 9 mainframe designed to aid research and study. They are installed in a comfortable cubicle equipped with a chair, holographic displays, sound synthesizers, keyboard, and voice pickup – the system is designed to be as immersive as possible. They are almost always located near a Library branch. The computer typically runs a high-level expert-system Research and Teaching programs. They are still relatively rare on Terragens colonies.

Datacubes

The standard Galactic method of storing data. They are fat, oblong slabs of tough plastic measuring about 1 × 2 × 1.5 inches and weighing 0.01 lb. Datacubes can hold up to 10 TB of data, including voluminous indices, translation programs, and Library interface protocol data. Virtually all computers will accept datacubes, from TL14 megacomputers to TL7 systems produced from Library archives. Ordinary blank datacubes cost \$10. Copyright datacubes cost \$50.

While the Galactics would like to see Humanity become more dependent on the Library, they don't want to make it too easy for them to catch up. 200 lbs., 125 cf, \$52,500. Requires 2 kW.

Human-made datastations (nicknamed "Xanadus" for obscure reasons) are much more primitive, but are more readily available. They have a Complexity 6 mainframe. 300 lbs., 125 cf, \$200,000. Requires 2 kW.

Computer Software

All computer software is introduced at TL8 unless otherwise noted. The cost listed is for an original copy of the program. If a program has a skill level, or gives bonuses on a skill, more complex versions of a program give increased bonuses. For each +1 to program skill desired, double the cost and add +1 Complexity. Unless otherwise specified, a program has a base skill of 12, or gives a user a +2 bonus (whichever is higher), when it is introduced.

Note that bonuses to the same skill from multiple programs are not cumulative. Additional software is listed on pp. S66-67 and pp. VE62-63.

Common Software

Astrogation: A separate program is required for each specialty. A Complexity 3 program will either provide a +1 bonus to the appropriate Astrogation specialty or function at an effective skill of 12. Astrogation programs for advanced FTL types (such as Probability Drives or Soft Quantum Tunneling drives) are very difficult to obtain. Cost is \$5,000.

Database (TL7): A collection of information in computer-readable form. The database itself has its own search and indexing programs. Accessing a database (remotely or locally) is considered a Complexity 1 task. The database itself is a Complexity 1 program. Cost varies depending on the size of the database (measured in TB) and the value of the information.

Damage Control: Requires a complete technical database for the ship (assume 1 TB per space). Any damage control rolls are made at +2 if the program is running, can monitor the ship status, and is in communication with the damage-control teams. Complexity 2; \$2,000.

Datalink: This program enables a computer to link (through a communicator) with another electronic device, such as a computer, scanner, etc. This program is only required for sophisticated tasks requiring high-quality or encrypted data. Complexity 1; \$400.

Expert System: Programmed knowledge of a specific skill. They are available for all Professional and Scientific skills, Diagnosis, Intelligence Analysis, and Survival. More advanced expert systems may have a wider range of available skills. Effective skill is 12 for Mental/Average skills, 11 for Mental/Hard skills, and 10 for Mental/Very Hard skills. They are used in place of the user's own skill, but the time to perform a skill with the assistance of an expert system is doubled. Complexity 3. Cost is \$10,000 for Average Skills, \$20,000 for Hard, and \$50,000 for Very Hard.

Interpreter: This program translates from any language to any other, as long as the right databases are available (see *Languages*, p. 26). Typical language skill is 14, though this is heavily dependent on the quality of the database. Translation errors can range from the humorous to insulting – in status-conscious Galactic society this could be a serious problem.

Translation (TL11): Analyzes a new language and compares it with a Library database of known examples. Unless the language is completely unlike any known before, the translation matrix will provide a skill of 5 after 10 minutes of exposure to the language, adding +1 for every 30 minutes, up to a maximum of 11. This has to be fairly varied speech; a single small sample looped over and over is not good enough. Nonverbal languages can be handled if the appropriate sensors are hooked up. Complexity 6. Cost depends on the maximum difficulty of the languages that can be translated: \$5,000 for Easy only, \$7,500 for Average, \$10,000 for Hard, and \$25,000 for Very Hard languages.



Library Branches

The Library Institute leases branches to all Galactic races. The capacity and quality of the branches vary greatly. Libraries do more than store information; they dispense it and interpret it for the users, tailoring visual displays and language to the individual user. The Library also tailors its output based on the user's political reliability. The branches provided to Humanity conveniently forget or obfuscate information that might prove embarrassing or dangerous to the elder clans.

Library branches may also *record* information. Shipboard branches are often positioned to overlook the ship's bridge. The sounds and images the branch witnesses are written to a "WOM" (write only memory). The records are encrypted and stored; after a period of millions of years, the Library is allowed to add them to its records. The more paranoid suspect that the branches aren't as discreet as advertised and actively spy for their masters. The Library also supposedly maintains special keys that can unlock the branch AIs, allow playback of the WOM, and selectively add and disable "political reliability" safeguards.

Library computers are sturdy solid-state devices. Some are small enough to be installed in a scoutship; others are the size of buildings. All have the hardened, high-capacity, neural net, and robot brain options. All Library computers supplied to *trusted* clans have keyed AI systems; the Terragens have not been provided with a keyed library branch. Branch AIs are typically trained with Research and Teaching at Complexity+4. Branches are designed to be extremely difficult to physically hack, and shipboard units are designed to survive destruction of their host vessel. All ship branches have DR 200 of TL12 expensive metal armor, other branches have DR 500. If all else fails, some are equipped with self-destruct devices . . .

Shipboard Branch (Class P)

This compact Complexity 10 macroframe can store just about all of the written and visual material ever produced by Humanity. Physically, it is a cube of ceramic-like material about a yard on a side. 2,000 lbs.; 30 cf; \$15 million.

Large Ship Branch (Class N)

This is a Complexity 10 macroframe. Storage capacity of this model is about five times that of a Class P branch; it is also much more convenient and *friendly* than the standard shipboard unit. Class N branches have rarely been seen, much less used, by Humans; however, the *Streaker* retrieved a class N branch from a Thennanin battleship during its travels. 3,800 lbs.; 60 cf; \$7.5 million.

Installation Branch (Class M)

This model, based around a Complexity 9 mainframe, can be found at many of Earthclan's universities, outposts, and research stations. They are not very friendly, and certain data may not be available from them. The AI has a bad attitude. 855 lbs.; 7.5 cf; \$750,000.

Translation Problems

Galactic technology is very good at translating known languages – at the very least there has been millions of years of software revision and very little linguistic development with the major clans. New dialects and wolfing languages are different matters; a translation matrix that can handle hundreds of thousands of Galactic languages in realtime could stutter and fail trying to translate even the simplest Anglic sentence. New translation programs that can handle Anglic and other new languages are usually developed by small research groups of librarians and programmers.

Data Networks

Information Network Access: All clans operate extensive data networks and make them available to citizens – usually with restrictions based on culture and politics. These data networks are typically limited to individual planets, but hyperspace radio links or message torpedoes may allow information to migrate between colonies. Access to these networks may be restricted to visitors or even be impossible if they use incompatible protocols (Terragens wireless links will not work with Galactic networks and vice versa). Only new colony worlds will lack some sort of data network; even the Terragens colony on Garth had a functional (albeit limited) capability.

Library Access: Library branches are accessed either remotely (via a datawell or ship's data terminal) or by a datastation. Remote users usually download the information they want and examine it at their leisure. A free hour per day of remote access is available to anyone with a datawell. Additional access can be purchased for \$1/hour. Access to the Library facility itself is always free and cannot be blocked, even in wartime.

Civic Branch (Class K)

Class K branches resemble a ceramic monolith, about 5 yards high, mounted on a cube about a yard across. They can be found on every Terragens colony, and in most of Earth's

large cities. Class K branches are staffed by three Institute-trained librarians, and employ five or more assistants. This is actually ten Complexity 10 macroframes working in parallel to create a single Complexity 11 system. 40,000 lbs.; 600 cf; \$75 million.

The Class L branch is a smarter, more conscientious variant of this model. It is only provided to reliable clans. It is Complexity 12, \$1.5 billion.

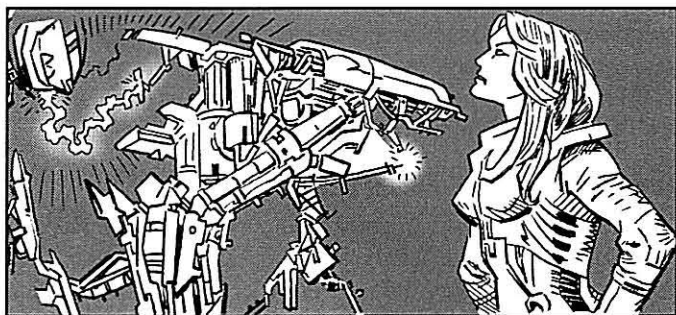
Planetary Branch (Class E)

The Library has leased Humanity one Class E branch. It is based on Earth. Its capacity is vast, and unlike some of the shipboard and colonial units it is fairly smart and responsive. Five Institute-trained librarians and dozens of assistants are required to run such a large branch. Earth's Library's staff still includes three Pila. Unconfirmed reports from Garth claim that the Gubru invaders installed a Class E branch before they were routed. This is actually one hundred TL14 genius Complexity 14 macroframes working in parallel to create a Complexity 16 system. The system is sentient. 340,000 lbs.; 6,000 cf; \$22.5 billion.

District Branch (Class B)

District and sector branch libraries have a vast amount of information. Besides acting as a data distribution point, these branches are responsible for *collecting* information and updating official records. A district branch is located on Tanith. Each district branch can consist of several *thousand* computers working in tandem on various projects.

EQUIPMENT



The following provides a sampling of the equipment available in Galactic society. Equipment is assumed to be usable by most races, or easily modified to be usable. Some equipment (notably life support, clothes, and armor) will not be usable across races if they vary significantly.

Improvement

Tools and other equipment improve as technology advances. Unless specified otherwise, all devices – *except* toolkits, air tanks, weapons, or armor – weigh half as much one TL after being introduced and one quarter as much two or more TLs after being introduced. Operating time per power cell increases by 50% for each TL of improvement.

Communications

Unless otherwise noted all communication ranges are $\times 10$ at TL9 or $\times 50$ at TL10+. Radios can boost their effective range by +100% with a successful Electronics Operation (Communications) roll, -1 per extra 10%.

Implant Communicator (TL8): This is a small surgically implanted radio with a 1-mile range. The microphone is implanted in the throat and the speakers are placed in the jawbone. With practice, users can subvocalize, communicating without moving their lips or other obvious gestures (IQ-4 to notice someone else doing this). Costs \$500, plus \$500 for the surgery; negligible weight, AA cell (10 years).

Short-range Communicator (TL8): Small two-way radio. Has an effective range of 10 miles. Can be built into wristwatches, jewelry, or helmets for +10% cost. \$50, negligible weight, A cell (1 year).

Medium-range Communicator (TL8): A palm-sized radio with a 100-mile range. \$200, 1 lb., B cell (1 year).

Long-range Communicator (TL8): A small backpack-sized radio with a 1,000 mile range. \$600, 10 lbs., B cell (3 months).

Voder (TL8): Voders are artificial voice boxes. Most are used to give races with no (or rudimentary) vocal cords a voice. (Voders with keyboard input were used by early

Chims, who had difficulty talking.) Other models render high-frequency alien speech (such as the ultrasonic utterances of the Pila) into audible sounds. A few specialized models have video cameras and/or body sensors to turn gesture, fur ripples, and other bizarre forms of communication into speech. Any computer running the interpreter or translation software (p. 93) can function as a voder. Cost and size of dedicated voders vary. A keyboard-and-speaker model is \$150 and 4 lbs. A frequency converter pendant (giving the user the abilities of Ultrasonic Hearing and Subsonic Hearing) is \$500 but negligible weight. A speaker system costs \$200 and weighs 1 lb., giving Ultrasonic Speech and Subsonic Speech. Models with camera/sensors for bizarre languages are \$750 and weigh 1.5 lbs. Weight of voders is halved at TL11.

Survival and Expedition Gear

Air Mask (TL7): Used on worlds with harmless but unbreathable atmospheres (nitrogen, CO₂, etc.). If the atmosphere lacks enough oxygen (or has too much!) air tanks are required. Includes a small communicator (p. 94). \$100, 2 lbs., A cell powers radio.

Rebreather (TL8): A combination air tank and closed-circuit rebreathing apparatus. A 20-hour tank costs \$100 and weighs 10 lbs.

Filter (TL7): Used to filter contaminated or tainted atmospheres that are otherwise breathable. 1 lb. Cost ranges from \$100 (only filters pollution or pollen) to \$1,000 (filters airborne nanites or chemical agents). Filters must be periodically replaced.

Filtration Canteen (TL7): Generic name for a number of water containers with built-in water filtration and purification systems. Most can hold up to a quart of water. Takes 5 minutes to fill. \$175, 1 lb. empty (+2 lbs. full).

Multiview Goggles (TL8): Gives the wearer the same advantages as Infravision (p. CI58), Night Vision (p. B22) and Polarized Eyes (p. CI63). \$1,200, 1.5 lbs., A cell (3 months). Up to four levels of Telescopic Vision (p. CI68) can be added: add 25% to weight and cost per level.

Nav Watch (TL8): A wristwatch that tells time and can receive signals from any orbiting navigation satellites. On a planet with an active network the wearer effectively has Absolute Direction. Recharges by shaking, which spins up a small flywheel. \$20, negligible weight.

Rations (TL7): A self-heating meal in a box. Provides 1 Human-scale meal. Three meals are required per day. \$5, 1 lb.

Respirator (TL9): Makes thin or low-oxygen atmospheres breathable by concentrating the oxygen. Includes protective goggles and a short-range communicator (p. 94). \$300, 3 lbs., B cell (1 month).

Reducing Respirator (TL9): As above, but makes dense or very dense oxygen atmospheres safely breathable. Requires a monthly chemical recharge (\$40). Includes goggles and a short range communicator. \$500, 5 lbs., B cell (1 month).

Smart Compass (TL8): Gives +3 to Navigation and Orienteering skill rolls. \$250, 1 lb., A cell (6 months).

Medical Technology

Because medicine and medical techniques must be adapted individually to a particular species, there are no universal "magic bullets" or "healing machines." A Pilan wonder drug would likely kill a Human. Much of the research still done by Galactics involves adapting medical techniques from race to race. Panimmunity and chrysalis machines are not available, and drugs will usually not work as intended across species lines.

Mechanical-biological "crossover" technologies, such as braintaping and personality emulation, have not been widely developed among the races of the Five Galaxies. In addition, Kanten agents have confided suspicions that more than one of the conservative Elder Clans are actively suppressing these technologies, fearing they could disrupt the Galactic status quo.

Immortality through cloning is therefore currently impossible ... and the ethical guidelines of Earthclan and the Galactics mean that it may *never* become available. Body parts are freely cloned, however, and some races (including the Earthclan) use implants and bionic augmentation to give their warriors an edge in combat.

Medical Equipment

Automedic (TL9): Coffin-like computer-controlled treatment system. The onboard AI has First Aid-14, and 13 in Diagnosis, Physician, and Surgery. Add +1 to all skills per TL over 9. \$50,000. Weight and volume varies by TL: 600 lbs. and 100 cf at TL9, 500 lbs. and 75 cf at TL10, 400 lbs. and 50 cf at TL11+. Drug pack refills are required after 25 treatments: \$5,000 and 25 lbs. Automedics are usually calibrated for one race (see medical treatment penalties on p. 25).

Concentration (TL8): This is an esoteric endorphin designed to improve the user's ability to enter and maintain a hypnotic state. It gives a +3 bonus to Autohypnosis rolls. Neodolphins may use it to enhance their use of Keneenk Logic (p. 25). Cost is \$20/dose.

Flesh foam (TL8): A one-use aerosol spray of protein-polymer colloid, pain killers, and disinfectant found in any modern first-aid kit. When used on a wound, it forms a living bandage which covers the wound and stops minor bleeding and further trauma. Application of flesh foam takes 5 seconds and counts as bandaging (p. B127). \$15, 1 lb. per can.

Paramedic Medkit (TL7): Gives +2 to First Aid skill, and allows Diagnosis, Physician, and Surgery skills to be used at no penalty. \$750, 7.5 lbs. Only the contents improve at higher TLs; a physician can only function at the TL of the medkit if that is the only set of tools available.

Revive (TL8): A "wake-up" chemical contained in small, breakable capsules. If held next to the breathing orifice of a stunned or unconscious victim and snapped open, the vapor will wake him completely (roll against HT+5 to regain consciousness). No HT is regained. Different revive chemicals are required for all but the most closely related species. Cost is \$5/dose.

NEO-DOLPHIN GEAR

Breathing and Swimming Gear

Breather (TL9)

A large artificial gill designed for neo-dolphins. The cetacean diving reflex prevents it from being used at depths of over 10 yards (a dolphin's lungs collapse as part of its Oxygen Storage advantage) but it greatly extends the time neo-dolphins can spend underwater at normal working depths. Useless in fluids other than water. \$2,000, 20 lbs., two C cells (24 hours).

Breathers for Humans and neo-chimps cost twice as much.

Impeller (TL9)

A cetacean "jet pack" that allows fast travel in water. It is a harness-mounted vehicle with a 50-kW hydrojet and a 0.2 cf modular socket. Payload assumes a 500 lb. dolphin and a 10 lb. module. Speed is 35 mph when worn by a dolphin, 14 mph if pulling a Human. \$3,650, 100 lbs., D cell (7.5 hours). It can only be used for straight-line travel by Humans, but dolphins can steer it with their flukes.

Impellers are usually operated by a neural socket interface, but as a backup each unit has a tongue-operated control pack.

Oxywater Rebreather (TL10)

This system uses oxywater (see p. 113) and modifications that allow it to interface with a typical breather. The system collects waste oxygen from respiration and can inject new oxygen into the perflubron as necessary. Endurance is extended indefinitely by the attachment of a breather (as long as the power holds out!) and there is a 20-minute emergency reservoir. This system does not interfere with the dolphin's natural diving adaptations and allows arbitrarily deep dives and fast ascents. \$10,000, 10 lbs., B cell (24 hours). Versions usable by Humans are rarely available, but they cost and weigh twice as much (they are more compact).

Wetsuit (TL7)

A one-piece body stocking designed to keep a dolphin moist and warm. Once wetted down in water it will keep the dolphin comfortable for about 2 hours. DR 1. \$50, 5 lbs.

Dolphin Handlers

Handlers are frames with manipulator arms, worn by neo-dolphins for work in the water. On dry land, they use walkers (see below). Handlers are operated by neural jacks, which nearly all neo-dolphins have implanted in adolescence. Relevant skill is Exoskeleton (M/A, see CI161).

Civilian Handler (TL9)

This harness contains a medium communicator, a small C3 computer, a neural interface socket, and two ST10 arms. Each arm can take a 0.2 cf tool module and the harness can take an 0.5 cf module like a small impeller or a breather. All systems are powered for 15 hours by a pair of C cells. The handler has PD 3, DR 5 for attacks against the arms (HP 4) or harness (HP 3) – this does not protect the user. 15 lbs., \$8,900.

Dolphin Walkers

Walkers are multi-legged vehicles with a cushioned hammock for a single dolphin rider. They have two or more manipulator arms, plus sockets for additional specialized tools. Walkers are required for neo-dolphins to operate in the dry environments of a technological society. In the water, they use handlers (see above). Like handlers, walkers are operated by neural jacks. Relevant skill is Exoskeleton (M/A, see p. CI161), or the Battlesuit skill (see p. CI161) if the walker is armed.

Civilian Walker

This is one of the civilian walkers used by the crew of the *Streaker*. Similar models can be found in many dolphin communities. The walker cannot swim – it needs stairs or ramps to get out of the water.

The walker has four legs and two arms with small tool sockets. It has a battlesuit crew station for a dolphin up to 480 lbs.

Subassemblies: Body +1, two arms -3, four legs -2.

P&P: 0.45 kW four-legged drivetrain [legs]. Two rechargeable D cells with 15 kWh total capacity [body].

Fuel: The power cells power all systems for 4 hours of operation.

Occupancy: Special. **Cargo:** Special.

Armor All faces

All: 3/10 open frame

Equipment:

Body: 5,000-mile radio; 0.1 mile searchlight [F]; transponder; small Complexity 3 computer; socket interface, environmental controls.

Arms: Two cheap ST 20 motors; two 0.2 cf modular sockets.

Statistics:

Size: 9'x2'x3'	Payload: 0.25 tons	Lwt: 0.4 tons
Volume: 14.64 cf	Maint: 151 hours	Price: \$17,608

HT: 11

HP: 23 [Body] 5 [Legs] 5 [Arms]

gSpeed: 12 **gAccel:** 4 **gDecel:** 20 **gMR:** 1.5 **gSR:** 3
Very low GP. Full off-road speed.

Design Notes:

The walker has 10 cf body, 1 cf legs and 0.32 cf arms. Structure is light, cheap. Armor is expensive metal. The environmental controls represent a moisturizing system. The seal protects the components, not the dolphin. The listed payload includes the operator and two 10-lb. equipment modules. The civilian walker is built with TL9 Terragens technology, without expensive imports.

Military Walker

This is one of the military walkers used by the crew of the *Streaker*. It is used for underwater work and amphibious combat operations. Similar walkers can be found in colonial militias. Dolphins in the Terragens Marines have even better designs . . .

The walker has four legs and two arms with larger tool/weapon sockets. It has a battlesuit crew station for a dolphin up to 480 lbs.

Subassemblies: Body +1, two arms -1, four legs -2.

P&P: 3 kW four-legged drivetrain [legs] and two 2.25 kW hydrojets [rear legs]. Two rechargeable E cells with 200 kWh total capacity [front legs].

Fuel: The power cells power all systems for 25 hours of operation.

Occupancy: Special. **Cargo:** Special.

Armor All faces

All: 4/30L

Equipment:

Body: Scrambled 5,000-mile radio; scrambled 50-mile sonar communicator; scrambled 500-mile blue-green laser communicator; 0.4 mile searchlight [F]; 0.8 mile active/passive sonar [F]; 1.5 mile PESA [F]; 0.8 mile radscanner; IFF; inertial navigation system; small hardened Complexity 4 robot brain; socket interface; NBC kit; limited life system (12 dolphin-hours). **Arms:** Two ST 60 motors; two 0.4 cf modular sockets.

Statistics:

Size: 9'x2'x3' **Payload:** 0.26 tons **Lwt:** 0.61 tons
Volume: 22.04 cf **Maint:** 62 hours **Price:** \$105,637.50

HT: 12

HP: 60 [Body] 12 [Legs] 12 [Arms]

gSpeed: 25 **gAccel:** 8 **gDecel:** 20 **gMR:** 1.5 **gSR:** 3

wSpeed: 6 **wAccel:** 1 **wDecel:** 10 **wMR:** 1 **wSR:** 5

uSpeed: 5 **uAccel:** 1 **uDecel:** 10 **uMR:** 1 **uSR:** 5

Very low GP. Full off-road speed.

Flotation: 1,377.5 lbs. Draft: 0.7'. Crush Depth: 240 yards.

Design Notes:

The walker has 15 cf body, 1.5 cf legs and 0.52 cf arms. Structure is expensive, robotic and submersible. Armor is advanced laminate. The listed payload includes the operator and two 20-lb. equipment or weapon modules.

The military walker is built with imported TL10 technology.

Walker and Handler Modules

Small 0.2 cf modules can be used by the civilian walker or handler or – with spacers – by the military walker. Larger 0.4 cf modules fit only into the military walker.

Mechanical or Engineering Toolkits: A collection of tools from wrenches and screwdrivers to drills and welders. A pair of them counts as a basic mechanic's tool kit; 10 lbs., 0.2 cf, \$240 each.

Searchlight: The beam has an effective range of a mile on the surface (less underwater, depending on local conditions). It draws 1 kW from the walker or handler; 10 lbs., 0.2 cf, \$600.

Radscanner: Used mostly for electronic warfare. Nominal range 16 miles, scan rating 18; 20 lbs., 0.4 cf, \$24,000.

IMPLANTS AND BODY WORK

Simple implanted devices are common in Terragens society, but they do not get much more advanced than neural jacks (below) and prosthetic eyes and ears. The Terragens Marines (and the elite forces of a few other Galactic races) are heavily augmented with implants and sensory enhancements.

Cloned Organ and Limb Replacement

It takes 15-TL weeks to force-grow cultured tissue. Typical cost to grow a single limb, eye, or organ is \$5,000. The actual transplant might cost another \$10,000 per part replaced. With limb transplants, full functionality is not attained for 6 weeks following the operation.

Biomods

Sophisticated organic enhancement techniques are rare, except for a few notable exceptions such as the Terragens Marines. They provide the user with an advantage (point cost in brackets), but must be grown in advance. Biomod procedures do not get any better at higher TLs, but *may* become cheaper. A few of the more common biomods in use by high-level agents are:

Auxiliary Heart (TL9): A small secondary heart that starts when the main heart stops. Adds Extra Hit Points +2 [10] and Hard to Kill +3 [15]. \$75,000 (6 weeks to grow, 8 weeks recovery).

Cat's Eyes (TL8): Cultured eye replacements. Gives Night Vision [10]. Until TL10 most will have distinctive feline features that may count as an Unnatural Feature [-5].

\$10,000 (6 weeks to grow, 8 weeks to recover). After a week the patient can see, but suffers from temporary Bad Sight.

Eye Upgrade (TL8): Modifications to make eyesight more efficient or add enhanced capability. Can be used to buy off vision-related disadvantages or add Acute Vision up to +(TL-6), to a maximum of +5 [2/level]. \$2,000 per character point it costs, with a minimum of \$5,000 (6 weeks to grow, 2 weeks to recover).

Hyper-Lungs (TL9): Modified lungs with increased gas-exchange efficiency. Adds Breath Holding 1 [2], Extra Fatigue +2 [6], and Filter Lungs [5]. \$26,000 (6 weeks to grow, 8 weeks to recover).

Hypervision (TL11): A layer of specialized cells is implanted in the eyes that can translate unusual spectra into neural signals that can be interpreted. Gives Acute Vision +1 [2], Night Vision [10], Infravision [15], and Polarized Eyes [5]. \$80,000 (3 weeks to grow, 4 weeks to recover).

Jointwork (TL8): Modifications to the joints and strengthened connective tissue. Gives one or more of the following: Catfall [10], Double-Jointed [5], or Manual Dexterity +1 [3]. \$20,000 (1 day to grow, 2 weeks to recover) per advantage.

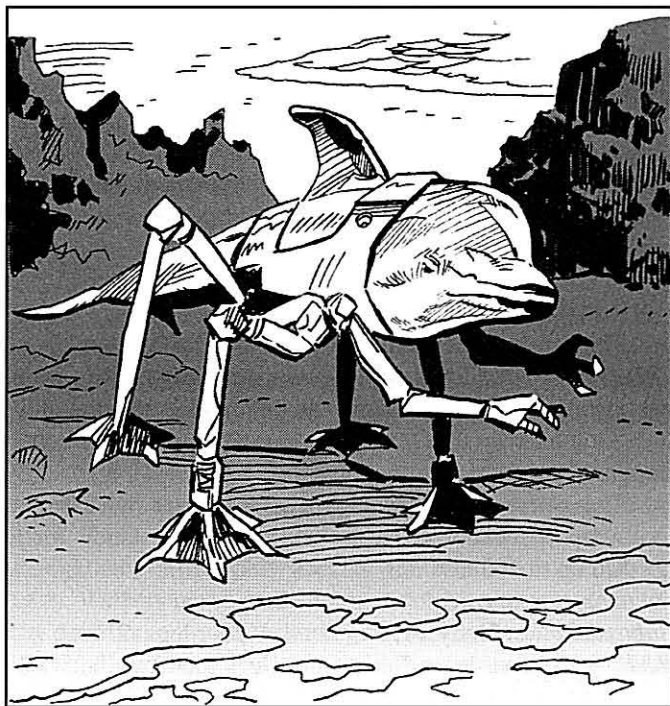
No-Shock Gland (TL9): Gives the user High Pain Threshold (Limited use, 4 per day, -20%; Nuisance effect: -1 DX and IQ when activated and for 1 hour afterwards, -20%) [6]. \$12,000 (2 weeks to grow, 1 week to recover).

Pro-Balance (TL9): Modifications to the inner ear with cultured structures similar to those in a cat. Gives Perfect Balance [15]. \$30,000 (1 week to grow, 2 weeks to recover).

Bionics

Bionic enhancement is reasonably common, even with many Galactics. However, visible enhancement is frowned upon, and requires that the user take the Unnatural Feature disadvantage. It may also require some level of Social Stigma with the individual's clan, depending on their views of individual augmentation.

Bionics can be used to simulate a number of advantages (or disadvantages) difficult or impossible to do with biomods. These implants cost roughly \$2,000 per character point. A few of the most common include:



Implant computer: A tiny genius Complexity (TL-6) computer is installed somewhere in the body. Usually combined with an Interface Jack (see below). Gives Absolute Timing [5]; Lightning Calculator [5]; Mathematical Ability [10]. \$40,000.

Implant radio: This is a more advanced version of the simple implant communicator (p. 94). This version can be activated and used at thought. It has a base range of 25 miles (x5 at TL10+). Gives Radio Speech [25]. \$50,000. Antenna leads may be taped to the skin to allow boosted range (requiring an Electronics Operation (Communications) roll as for normal radios; see p. 23).

Interface jack: This socket of biologically inert plastic allows the user's brain to interface directly with computers and sensors. Gives Interface Jack [10]. \$20,000.

Voxbox: This is a bionic voicebox (see *Voder*, p. 94). It can produce either Ultrasonic Speech [25] or Subsonic Speech [20]. Takes 2 seconds to switch between speech modes. \$50,000 for each, or \$90,000 for both. Cheap models that give Disturbing Voice [-10] in all modes are \$10,000 less.

PSIONIC DEVICES

Psionic powers are rooted in the "observer effect," the influence a conscious mind has on reality. The Galactics long ago discovered how to artificially duplicate psionic powers. Indeed, most forms of FTL travel, probability weapons, and time-manipulation technology are related to psi.

Most psychotronic technology is available 2 TLs after it is introduced in *GURPS Psionics*.

Psionic Amplifiers

Psi amplifiers temporarily increase the Power of the user's psionic talents. They need to be tuned to a specific user

— requiring a Will roll at -4 — before they can be used. If this roll fails, then settings must be readjusted, which takes at least an hour and a successful roll against Electronic Operations (Psychotronics). Failure wastes an hour; critical failure damages the amplifier.

Note that psionic amplifiers in *GURPS Uplift* do not cause feedback, are not limited to active psionic abilities, and cannot be used by unattuned individuals; these are changes from *GURPS Psionics* (see p. P61). Unless noted, psychotronic devices do not get smaller or cheaper at higher TLs.

Amplifier Helmet

This is a low-powered psionic amplifier. It can add up to 4 levels to the user's Power. If the user adds 1 or 2 levels there is no penalty to skill. If he increases his power by 3 levels he is at -2 to skill. If he adds 4 levels he is at -4 to skill. Amplifiers have a built-in ability to augment the Mind Shield or Psi Sense power; additional capability requires upgraded electronics. The amplifier must be readjusted before it can augment another power (requiring a Will roll at -1; failure results in the amplifier no longer being attuned to the user), which takes 1 minute.

Amplifier Helmet (TL12): A basic amplifier helmet is \$25,000 and 4 lbs. Add 1 lb. and \$10,000 for every additional ability it can affect. At TL14+ the device is no larger than a headband. It is 1 lb., \$6,250, plus 0.5 lb. and \$2,500 per extra power. Both run for 3 months off a C cell.

Telepathic Range Modifier

Modified Skill	Range Multiplier	Description
10+	×1,000 miles	World-wide range
15+	×1 million miles	System-wide range
20+	×1 parsec	Interstellar range
25+	×1,000 parsecs	Galaxy-wide range
30+	×1 million parsecs	Intergalactic range

Augmenter Web

An augmenter web is an extremely powerful, but rather specialized, psionic amplifier that is sometimes built into ships, orbital forts, and large planetary installations. The adept lies in a coffin-like box or is suspended in a sensory web. They can only boost Telepathy powers, and each augmenter web can only handle a single skill. The only known exception are the amplifiers built by the Tandu for their Episiarch clients – which can boost any one Teleportation skill. Using an augmenter web costs 1 Fatigue per minute.

Telepathy Augmenters (TL12): The web will boost the effective Power of the user by 6 (+1 per TL past TL12) for one power. However, it reduces the skill level for that power by -4 and no telepathic techniques (see pp. P35-42) are available (such as two-way communication, p. B169). The focus of the amplifier somewhat limits “area effect” telepathic powers; boost effective Power by 2 when calculating the range or effect of such abilities. Range is significantly boosted: make the range in miles the range in *parsecs*.

For example, an individual with a base Power of 15 in Telesend and a skill of 14 is using a TL13 augmenter web. His Power would be boosted by +7 to a total of 21, but his skill would become 10. His range is measured in parsecs, so instead of 125 miles he can use his Telesend ability out to 125 parsecs! He could use a telepathic Shout at an effective Power of 17 to a range of 8 million miles . . . access to augmenter webs is *never* given lightly.

Teleportation Augmenters (TL13): Only produced by the Tandu for their Episiarch clients, these unusual devices do not boost any one specific power; instead they provide raw Power

Psionic Communication

The most reliable type of interstellar communication is by artificially enhanced telepathy. It is instantaneous and almost unlimited in range. Unfortunately, psionic “casts” can be intercepted and are almost useless for transmission of complex data (graphics, long lists of numbers).

Psi adepts can eavesdrop on an active use of Telesend by succeeding at a Psi Sense roll by 7 or more if they are between a sender and receiver. Count the range to the sender or receiver, whichever is nearest (augmenter webs are usually required to boost detection range). Mind Shields have no effect, and there is no chance of either party realizing the message is being intercepted (unless they have Psi Sense as well . . .).

Make a normal roll against Telereceive skill, but the “subject” is the message itself. A success by 0-2 means that a rough idea of the message content is provided, together with any emotional associations: even if sent in code or an unknown language it may be possible to recognize it as (for instance) an emergency message of some sort. A success by 3 or more enables the psi to perceive the entire content of the message (although they may not necessarily understand it).

for the Probability Alteration ability that can be used with any skill. They add +2 to Power for Probability Alteration skills, +1 per TL past TL13. They do not affect skill levels.

Either type of system weighs 2,000 lbs., occupies 500 cf, and costs \$1 million. Augmenter webs can have multiple “nodes” to allow several individuals to attune to a single machine. Each additional node is \$10,000. Only one user can occupy the augmenter at a time!

I Mental Stab Him from Galaxy Two!

The Galactics normally build Telepathy augmenter webs for Emotion Sense, Telempathy (p. 25), Telereceive, and Telesend. It is certainly possible to build an augmenter web that could boost the Mindword skill or other combat-oriented abilities, but they would be practically useless as it is not possible to establish a sufficiently strong telepathic contact to use another sapient as a “forward observer” for the power. GMs who are comfortable with the prospect of “intergalactic psionic artillery” could allow the usual telepathic techniques for some, or all, abilities.

Note that this only applies to targets the psi himself cannot see. An attacker traveling on a mobile platform with a Mental Stab amplifier and a clear line of sight can use the power normally.

Under the Hood: Larger Psi Detectors

Psi detectors are built with the same range, Scan, weight, cost, volume, and power consumption as a radar at the same TL (see *Radar and Ladar*, pp VE51-52), but multiply final weight, volume and cost by 100, power by 5. Scan is the Power of the Psi Sense ability. Range is limited to $(TL \times 2)$ miles.

For example, a TL11+ psi detector with a Power of 15 (4.5 mile range) would cost \$56,250, weigh 112.5 lbs., and require 5.625 kW.

Psi Detectors

Psi detectors use a psychotronic version of the Psi Sense power to detect the active use of psionic powers. A psi detector has an effective Power of 5 (+1 per TL past TL10) with the Psi Sense skill. All skill rolls are made using the Electronics Operation (Psychotronics) skill.

Detector Band (TL10): A basic psi detector is \$2,500 and 5.5 lbs., C cell (45 minutes).

Biomonitor

This is an unusual variant of the psi detector that uses a disembodied animal (or sapient!) brain as a "sniffer." The brain is encased in a life support system and psychotronic amplifier that encourages the production of a single psionic effect. By triggering a neural stimulator the effect can be turned on or off.

Biomonitors are living creatures. They can be detected psionically, and even mentally attacked, though they have no emotions or thoughts as such, making them invulnerable to

some abilities. A biomonitor can be remotely dominated by Telecontrol, but not Suggestion. Biomonitor has IQ, but all other attributes are meaningless. For purposes of using psi abilities and being stunned by mental attacks, they have 10 Fatigue.

Biomonitors cost 1% of purchase price per week to maintain. Failure means it will die in 1d days. They require a brain with at least some latent psionic potential (able to develop Power 1).

Watchdog (TL10): The watchdog uses a simple brain (such as that of a rat) with IQ 4. The braincase and life support system is about the size of a large suitcase (0.4 cf). Attached to this is a monitor which shows the level of psionic Power. The brain is super-sensitive to psionic impressions, and becomes painfully agitated if anyone uses telepathic ability on a subject within $100 \times (TL-8)$ yards of it. On a successful Electronics Operation (Psychotronics) skill roll, an observer can analyze the data readout to determine the Power level and Telepathic skill in use. 20 lbs., \$8,000, D cell (1 week).

Psi Bombs

Psi bombs ("mind bleemers" in TAASF slang) violently disturb the level of reality where psi powers operate. They are used as both weapons and signaling devices. Note that the psi bombs listed here are different from those in *GURPS Psionics*.

Ordnance Psi Bombs

A psi-bomb causes confusion, nausea, headaches, and feelings of despair. The effect is similar to a Mental Blow (p. B169) of equivalent Power and a skill level equal to its TL. Someone with a mind shield or telepathic shield adds the shield's strength to his HT to resist the bomb's effect. However, psi bombs are especially effective against unprepared adepts. Add 1 to the bomb's effective Power for every 5 points of the victim's highest psi power. This bonus does not count against a shielded psi, or one who was expecting the bomb.

In addition to stunning victims and causing fatigue damage (physical damage for critical hits), psi bombs can deliver one simple emotional message: hate, fear, disgust, joviality, or even lust! Characters who fail a Will roll *act out* the emotion on those around them for as many turns as they failed the roll!

Some common warheads at TL10:

Thimble (10mm): Affects a 1-yard (1 yard) radius. Power 4. \$8, 0.008 lb.

Grenade (50mm): Affects a 19-yard (4 mile) radius. Power 9. \$1,000, 1 lb.

Satchel (100mm): Affects a 75-yard (251.7 mile) radius. Power 13. \$8,000, 8 lbs.

Bomb (500mm): Affects a 1.2-mile (0.06 AU) radius. Power 25. \$1 million, 1,000 lbs.

City Bleemer (1,100mm): Affects a 9.5-mile (30.3 AU) radius. Power 25. \$10.648 million, 10,648 lbs.

Buster (2,000mm): Affects a 44.3-mile (3,044 AU) radius. Power 25. \$64 million, 64,000 lbs.

Area in parenthesis is the area of effect for message psi bombs.

Under the Hood: Building Psi Bombs

A psi bomb warhead can be built in *GURPS Vehicles, Second Edition*. Standard psi bombs use *normal* warhead sizes.

Area of Effect: $0.00375 \times B \times B \times T$. Cube the area of effect if a message psi bomb.

Power: Square root of B. Round to the nearest whole number. For every point of Power above 25 increase the area of effect by 5% and then reduce final Power to 25.

CPS: $\times 100$

T is 1 if TL10, 1.1 if TL12, 1.2 if TL14+.

Multiply the effective radius as for a CHEM round when calculating the area of effect, and as a shaped charge when determining Power.

If built as a self-destruct charge (p. VE70) do not halve weight or cost.

Message Psi Bombs

These bombs carry a specific psychic message, which works over a much larger radius of effect compared to Mental Blow bombs. Every creature in the area is "attacked" by the message. If the attack is successful, the message is received. Those acquainted with the sender have a +1 to +4 to receive the message. A critical hit lets a recipient *read between the lines* and learn something about the sender!

The message may be one word in length per TL of the bomb and it will be broadcast for 10 seconds. Anyone within

the radius of effect is attacked individually each turn. Roll at the start of the subject's turn to resist the bomb's effect. The GM makes a secret Electronics Operation (Psychotronics) roll for the person loading the message bomb. Increase the word total by 1 for each point the loader makes his roll by. Double word total on a critical success. Failure decreases the message length by 1 for each point failed. Critical failure results in a misleading message, but the loader thinks he succeeded normally. Only one roll may be made per bomb.

Otherwise identical to a conventional psi-bomb.

WEAPONS



The weapons listed here are examples of what is available; additional weapons can be found in *GURPS Space* and *GURPS Ultra-Tech 2*.

Weapon Effects

Blaster (TL8): Blasters fire a tightly collimated particle beam. The beam does impaling damage but is treated as a projectile for blow-through purposes. Extra damage from impaling also applies to electronic components and robots due to secondary electromagnetic effects.

Disintegrator (TL15): There is no beam emitted from these weapons – matter is simply destroyed at the target point. With an observer it is possible to use the weapon indirectly, firing through hills, into ships, etc. Use the normal indirect fire rules in this case. Force fields protect at 1/100 DR; armor and deflectors provide *no* protection at all (this is a change from *GURPS Vehicles, Second Edition*). However, the beam cannot cross a nuclear damper field and may be negated by reality anchors (p. 114). Energy released at the target point can affect nearby objects; this explosion is equal to the weapon's normal damage but without an armor divisor and is treated as a conventional concussion explosion. This damage will also affect the original target! The listed TL is for disruptors under 1,000-kJ.

Disruptors (TL8): These are microwave lasers (masers). Damage versus living beings is *tripled* after DR (the same applies to brick or wood). Against electronics, *double* damage after DR. However, targets with metal or laminate armor always get PD 8 versus masers.

Neural Blaster (TL10): DR, shock, knockback, knock-down, and stunning apply normally, but damage taken is applied to fatigue, not hit points. As usual, fatigue cannot fall below zero. If fatigue damage exceeds HT/2 (HT/3 on a brain hit) the target is automatically physically stunned. These weapons can either be tight-beam (as for normal *Uplift* blasters) or standard (no armor divisor but normal damage).

Nerve Guns (TL10): These weapons cause excruciating pain. Roll against HT (+/- Will, +3 for High Pain Threshold, double penalties for Low Pain Threshold). On a success the target is at -2 to all actions for 15-Will seconds (minimum 1) but can still function. A failure means he can do nothing at all; a critical failure means he passes out for 20-HT minutes. Reflex or DR2+ solid armor protects completely.

Under the Hood: Weapon Design

GMs and players may wish to build weapons using the technologies introduced here.

Beam Weapon Contact Range: This option is most commonly applied to neural weapons. Damage becomes Spcl., range becomes zero, and *R* is 0.4 for weight calculations. The skill used will vary with the exact form of the weapon; Shortsword (for batons), Whip, and Brawling (gloves, rings) are common for hand versions. The weight and cost of the beam system is added to that of the melee weapon. The weapon will do its normal damage *separately* from that of the beam.

Tight-Beam Blaster: Multiply damage by (1/3) and give an armor divisor of (4). All *Uplift* blasters are tight-beam.

Neural Blaster: Build as a standard blaster but there is no recoil and damage becomes Spcl.

Nerve Gun Damage: B is 0.5 if nerve gun and 0.35 if Type-II nerve gun. Neural weapon 'damage' is actually a penalty to the HT roll to resist.

Nerve Gun 1/2D Range: B is 1 if nerve gun and 0.7 if Type-II nerve gun.

Nerve Gun Maximum Range: Twice 1/2D range.

Nerve Gun Weight: B is 100 if nerve gun and 180 if Type-II nerve gun.

For all others, use the paralysis gun formula.

Weapon Table

Weapon	Type	Damage	SS	Acc	1/2D	Max	Wt.	RoF	Shots	ST	Rcl.	Cost	TL
Guns (Pistol)													
Light Pistol	Cr.	3d	9	4	250	2,100	1.5	3~	50	8	-1	\$560	9
Guns (Light Automatic)													
Assault Rifle	Cr.	5d+1	12	10	690	3,800	6	15*	100	8	-1	\$900	9
Beam Weapons (Laser)													
Blaster Rifle	Imp.	15d (4)	12	13	400	800	8	10*	12/2rCs	—	-1	\$8,000	13
Disintegrator Pistol	Spcl.	11d	9	6	—	500	2.4	1	8	—	0	\$58,100	15
Laser Rifle, Hunting	Imp.	3d	12	15	2,800	5,600	7	4*	10/rC	7	0	\$770	10
Laser Rifle, Walker	Imp.	3d	12	19	2,800	5,600	20	8*	300/3rD	—	—	\$6,360	10
Maser Rifle	Spcl.	9d	12	15	800	1,600	5.5	3~	27/rC	—	0	\$1,700	12
Phase Burner Rifle	Imp.	7d(4)	12	15	1,200	2,400	13	4*	56/rD	10	-1	\$5,675	10
Saser Rifle, Walker	Spcl.	22d	12	12	310	930	20	4*	180/3rD	—	—	\$4,800	10
Weapon Whip													
Instructor	Spcl.	Sw-2	2		\$570	4.4	10		10				

The weapon table uses the same format as pp. B206-208, except as follows:

Type: "Spcl." means the weapon uses special damage rules; see the description under *Weapon Effects* (p. 101).

Nerve Guns, Type II (TL10): These beams produce the same effects as nerve guns, but also inflict 1d of real damage.

Screamer (TL9): Also called sasers, these weapons generate a beam of concentrated sound, the vibrations of which can shatter solids and cause horrible damage to organic beings. If damage from a screamer attack is more than double that listed for any limb, it is completely torn off. Completely sealed armor provides complete invulnerability unless its DR is exceeded by the damage, in which case it does not protect at all! They are useless in the absence of air or water to conduct the sound.

Projectile and Beam Weapons

Light Pistol: A caseless 4mm pistol firing solid slugs.

Assault Rifle: An older weapon widely used by the Terragens. Similar examples are found with other poor clans. It has the benefit of being extremely cheap to manufacture, especially if minifac technology is available. It fires a 6mm caseless round.

Blaster Rifle: This weapon is typical of the small arms deployed by the major clans. It cannot be used effectively in a vacuum. It is a compact 500-kJ charged particle beam rifle.

Disintegrator Pistol: Capable of disrupting the nuclear forces that bind atoms together and not requiring mounting on

a starship, disintegrator pistols are a good example of why the Galactics fear and control advanced reality-warping technologies. These devices may not appear to be a weapon at all — they do not require a barrel and do not project a beam when fired. The weapon has an integral TL15 energy bank (about the size of a standard C-cell) and there is no obvious way of connecting other power sources. A tiny power plant draws power from surrounding space by some indecipherable means, recharging one shot every 42 minutes.

Laser Rifle, Hunting: Weapons like this are commonly used by ERS workers. On Garth, locally produced models could be tracked by the Gubru. It is a 160-kJ rainbow laser with a C cell loaded into the stock.

Laser Rifle, Walker Model: A 0.4 cf combat walker (p. 97) module with a 160 kJ rainbow laser and three rD cells.

Maser Rifle: This is a brutal antipersonnel weapon that literally cooks the target with focused microwaves. It is a 100-kJ disruptor rifle.

Phase Burner Rifle: A rugged, adaptable weapon that has become the Terragens Marines' standard small arm. For guerrilla campaigns, it is fitted with the best low-signature coating Earthclan could develop or copy. At a flick of a switch it functions in vacuum. A 320-kJ neutral particle beam rifle, integral HUD sights, and radical emission cloaking (-12 to detect with most passive sensors).

Saser Rifle, Walker Model: A light weapon often mounted on underwater combat vehicles. This version is designed to fit the 0.4 cf module on a combat walker (p. 97). It is a 240-kJ screamer.

Ammunition Table

Weapon	Shots	Cost	Weight
Light Pistol, 4mm	50	\$0.80	0.28 lb.
Assault Rifle, 6mm	100	\$5.40	1 lb.

Cost and weight is per loaded magazine of solid ammo.

Melee Weapons

Instructor: This is a whip (p. B207) with a contact-range Type-II nerve gun built into the hilt. They are widely used by the Soro clan's warrior clients. The type listed here has a -2 HT penalty when resisting the effects of the nerve gun. Each hit drains 600 kW; the nerve gun effect can be switched off before an attack.

Weapon Accessories and Options

HUD Sight (TL8): Consists of a ballistics computer and camera on the gun and an interface to display the data on a heads-up display or hologram projector. Reduce the SS of the weapon by 5. Negligible weight, \$250, runs one year on an A cell.

Laser Sight: Standard on all weapons. This projects an aiming dot using an infrared, visible light, or ultraviolet laser. This gives +2 to Acc and reduces the snap-shot penalty to -1 at up to 50 yards and -2 at up to 100 yards (it remains -4 past 100 yards).

Flicker-Swivver

These ingenious weapons were developed by the Earthclan to deal with heavily shielded Galactic starships, but have also been deployed on planetary surfaces. The missile itself is relatively small (1' in diameter with a sleek body 7' in length) and is built to be both easy to construct and maintain; the design makes ample allowances for maintenance and modification – up to 4 cf of specialized equipment can be installed with an appropriate workshop.

When deployed on a planetary surface it is launched from a composite closed-breech launch tube. The missile can be broken into three segments (engine, 70 lbs.; warhead, 60 lbs., primary frame, 70 lbs.) and reassembled within 10 minutes. The missile takes 2 seconds to clear the launch tube, doing 4d fire damage to anyone within 10 yards, but will be moving at its maximum speed. Wary Galactics will be on the lookout for the IR signature of a launching flicker-swivver!

The missile can acquire and track its own targets with the built-in 1-mile AESA (Scan 11), but this is rarely adequate. Instead, it can be fed targeting data over a laser communicator link by the firing vessel, or acquire a target illuminated by a laser designator. It will then seek the target, moving evasively if programmed to do so, at 3,260 mph for 10 seconds. In space

Phase Distorter (TL9)

The phase distorter is the product of an otherwise failed attempt to produce a cheap, low-tech probability weapon. Earthclan researchers did develop a novel use for the technology however – it was found that the phase distorter system could completely bypass Galactic force fields!

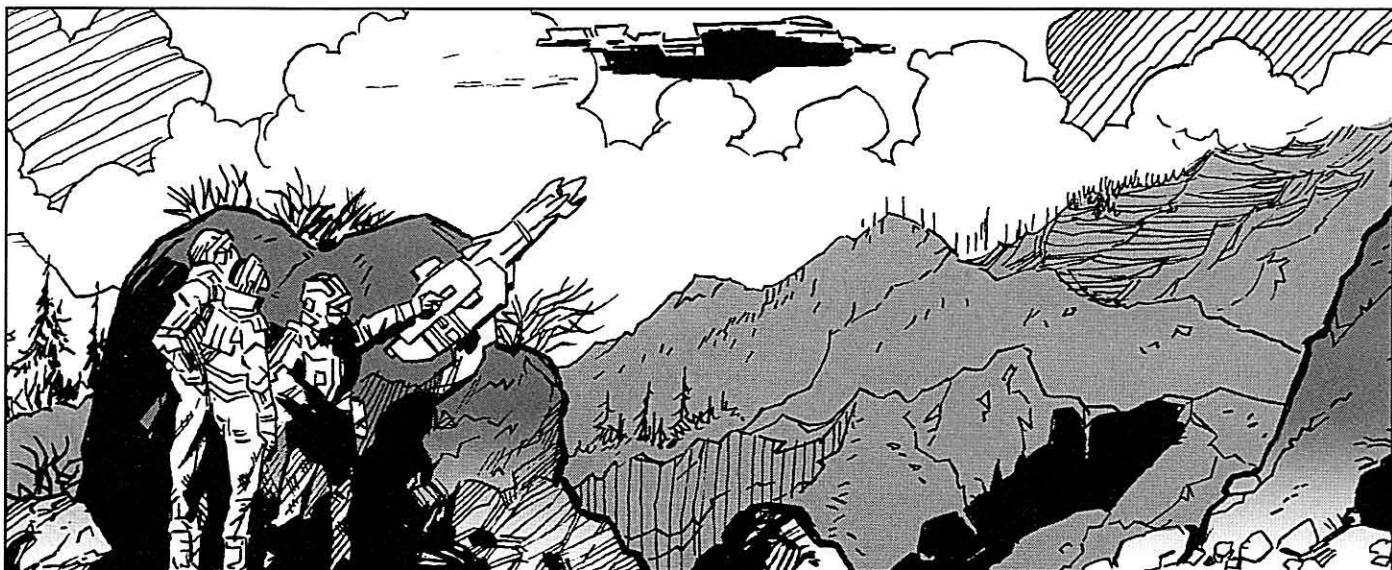
When a missile or other vehicle with a phase distorter strikes a vessel protected by a standard Library force field, roll as if it had been hit with a probability weapon at the distorter's TL +2. If successful, the vehicle will *completely* bypass the field and strike the target. A failure means it slams into the force field, doing normal kinetic or explosive damage.

A phase distorter takes up no appreciable volume but weighs 0.25 lbs., costs \$500, and requires 0.5 kW times the total surface area in sf.

it has an acceleration of 8.5 G. The missile has IQ 6, DX 9, with a Skill of 14.

The phase distorter system (see box) allows the missile to completely bypass Galactic force fields. It does damage both through kinetic (ramming) damage and a high explosive charge that detonates inside the target. The flicker-swivver does 6d × 50 (2) crushing damage on impact in the atmosphere, with the APEX warhead inflicting 6d × 890 [12d] explosive damage. The missile is armored with DR 20 composite armor and equipped with basic emission cloaking and stealth (-5 to detection by all sensors except visual).

The missile's sensor and stealth systems are Earthclan designs that are not found in the Library. These nonstandard components mean that Galactic jamming and sensor systems have a difficult time detecting or distracting a flicker-swivver (stealth has *full* effect against higher-TL sensors if they are of Galactic design, and the AESA is effectively TL 11 against electronic warfare). A flicker-swivver costs \$72,300 and weighs 200 lbs. An empty launch tube is 100 lbs and costs \$3,750. They are only available to Earthclan and their closest allies. It is built using TL9 equipment.



"T AASF scoutship *Bonobo* calling scoutship *Proconsul* . . . Fiben, you're out of alignment again. Come on, old chim, try to straighten her out, will you?"

Fiben wrestled with the controls of his ancient, alien-built spacecraft. Only the open mike kept him from expressing his frustration in rich profanity. Finally, in desperation, he kicked the makeshift control panel the technicians had installed back on Garth.

That did it! A red light went out as the antigravity verniers suddenly unfroze. Fiben sighed. At last!



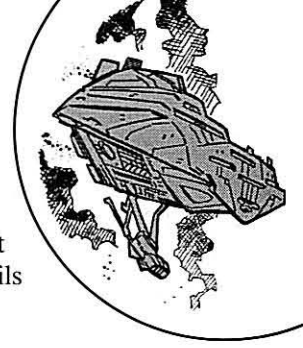
Of course, in all the exertion his faceplate had steamed up. "You'd think they'd come up with a decent ape-suit after all this time," he grumbled as he turned up the defogger. It was more than a minute before the stars reappeared.

"What was that, Fiben? What'd you say?"

"I said I'll have this old crate lined up in time!" he snapped. "The Eatees won't be disappointed."

— David Brin, *The Uplift War*

The races of the Civilization of the Five Galaxies use a bewildering array of space travel technologies. The Library lists dozens of variations on FTL technology, some using principles not understood by even the best Galactic scientists. This chapter details common spacefaring technology.



BENEATH THE SEA OF STARS

Observable reality is but one of a vast realm of overlapping universes, each ruled by its own laws. Most FTL technology enables travel through one or more of these strange realms as a shortcut between widely separated points in our own universe.

In the *Uplift* universe, most FTL drives are based around one of three principles: transfer points, hyperspace tunneling, or probability alteration.



Transfer Points

Many solar systems contain *transfer points*, the endpoints of highly stressed channels of space-time. Points always lead to one or more destinations, rarely change, and are two-way. They are the cheapest and safest form of interstellar travel, but not always the most convenient: it is difficult to find a point that goes exactly where you want! Some transfer points connect to multiple destinations – these valuable locations are known as *nexuses*.

What makes transfer point travel so attractive is that it does not require any special equipment, as long as the ship's velocity and heading can be adjusted to fall within the very narrow critical range to enter the point. The required parameters are affected by a number of factors, including stellar drift, angular momentum of the transfer point, local density of matter, and even the gravitational attraction of the ship. All of these factors mean that each transfer is unique and requires careful calculation.

The transfer itself subjectively takes only a few seconds – if somehow measured from the point of origin it could take seconds or hours, but this is rarely important. When a ship hits the point, the stars smear into blurry streaks, then vanish; a violent shudder rocks the ship; and the ship is at its destination. The transfer is sometimes so rough that it will damage the ship or injure crews who are not safely restrained (see p. 109).

The transfer point network resembles a circulatory system, with a complex branching structure that is apparent on both a large scale (the major arteries that link a galaxy's regions) and on a small scale (the "capillaries" linking the

stars within a sector). Ships traveling long distances use inter-sector points to jump to a long-distance point, take arterial lines to reach the destination sector, then switch to local jumps until they arrive in the general vicinity of their destination system. The last few parsecs are crossed via a trip through one of the layers of hyperspace.

Just a Little Jaunt . . .

Velocities of ships are usually measured relative to a local landmark, such as a star. A ship can thus be said to moving at 100 miles per second within a stellar system. However, the star itself is moving through space, orbiting the center of the galaxy, which is in turn moving relative to other galaxies. So if that ship were to somehow instantly translate itself to another star system or galaxy without changing its velocity vector, it could find itself moving dangerously fast or very slowly relative to its new surroundings.

Luckily for FTL travelers, in *Uplift* this is not a problem. Transfer points compensate for any differences between the two locations (exactly *how* is a subject the Galactics don't care to investigate) and ships in hyperspace have their local relative speed maintained by their reality anchors. When a vessel arrives at its destination by either means, its velocity matches that of its new surroundings. All FTL travel in *Uplift* generates *pseudoveLOCITY* rather than any real change in momentum or kinetic energy (p. 113).

Under the laws of special relativity, the passage of time varies for observers in different frames of reference. Since star systems are moving relative to one another, the passage of time in each system is different. Subjective times on board a moving ship also do not match the times experienced in any system. For these reasons, determining the amount of time it takes (in a given star system) to reach a location is difficult.

The most common method is to use pseudospeeds – average values taken from hundreds of thousands of trips through various hyperspace levels in a number of situations, and stored in a database. It's not perfect, but pseudospeed measurements are a useful rule of thumb. In Earthclan usage, distances are usually measured in parsecs, and pseudospeeds in parsecs per day. Distances in a star system are often measured in AU, and velocities in AU/day.

Galactic law, enforced by the Institute for Navigation, requires that transfer points remain available to all travelers, even races hostile to the controlling race. However, owners are allowed to collect fees for the use of a point. Institute rules limit these fees; however, wily Galactics may twist the letter of the law and impose massive surcharges, imposing a stranglehold on important routes.

The Library contains all of the known transfer points and their destinations, and is occasionally updated. A reliable

method of predicting where a transfer point will be located or where it will connect has never been discovered. Advanced survey sensors and the sheer amount of space that has already been surveyed makes it a low priority for even those interested in the exercise.

The crisis that resulted in the loss of contact with Galaxy Four and the disruption of large sections of the transfer point network has made these route maps less useful – much to the distress of the Institute for Navigation.

Thread Running

There is a more exciting and flexible, but more dangerous, method of using transfer points. Known as *thread running*, this involves entering a transfer point at an even more precise velocity and heading (far more precise than is normal for using a transfer point). The ship will then find itself in the bizarre hyperspace where the connections between transfer points are tangible. These connections are perceived by most sapient beings as a dense network of threads, like a massively complex and interwoven quilt or spiderweb. The Galactics assume that these are actually “shadows” of higher-dimension creases in space-time or cosmic strings.

What follows is a wild rollercoaster ride where the pilot must actively guide the vessel through this treacherous skein, using skill and instinct to judge when to unclamp from one thread to grip another – it is impossible to “stop” on a thread. Oddly enough, there is a sense of inertia while traveling in this dimension, but there is no reference to determine the actual velocity of a vessel. Conventional navigation systems are completely useless; travel is as much a matter of intuition as technical ability – it is almost certainly psionic to some degree.

The advantage of thread running is that a skilled pilot does not necessarily have to follow the transfer points connecting threads – instead he can jump to an unconnected thread if he approaches close enough. This is usually only possible when traveling to or from a nexus, and the new destination must have a transfer point to exit from.

Bungling a thread transfer can have a number of consequences, including being dropped at a transfer point that is far too unstable to reenter! This is usually the result of missing a thread or accidentally jumping onto a thread that is too weak or unstable to form normal transfer points. This can be an advantage, as it may lead to locations difficult to reach in other situations. But being stuck between the Galaxies can mean a long trip, even with advanced hyperdrives.

It is not possible to get stuck in the transfer point dimension (sooner or later a ship that missed its target thread would hit another one and continue), but the dimension is so poorly understood that almost anything is within the realm of possibility. One option is that all transfer points are connected in this realm, and that with enough luck one could travel to far-off galaxies by jumping to the right threads. Some threads may even connect to alternate universes.

Although all vessels travel on these threads when they use a transfer point, there has never been a recorded instance of a ship sighting another vessel while thread running. A conventional transfer point trip simply “rides” passively on the connecting threads – the vessel travels along the most stable

Plotting Transfer Points

When mapping out your campaign setting, create transfer point routes that make for an interesting strategic situation. Roll 3d-14 to determine a system’s transfer points. If the resulting number is positive, there are that many transfer points in the system – each with one connecting thread. If the result is a 4, then there is only one transfer point – but it is a nexus with 3d connecting threads!

For each thread, roll 3d and consult the table below to determine where you end up, the distance traveled, and how useful the terminus is:

- 3 – Intergalactic space. The middle of nowhere. You’ve traveled $4d-3 \times 1,000,000$ pc, and it is most likely millions of pc to the nearest star system!*
- 4 – Galactic halo: Not quite the middle of nowhere, but you can see it from here . . . You’ve traveled $3d-2 \times 10,000$ pc, and it is most likely thousands to tens of thousands of pc to the nearest star system.*
- 5 – Empty space: Not much in this corner of the universe. You’ve gone $2d-1 \times 10$ pc, and it is 1d pc to the nearest star system.
- 6-10 – Empty space: Same as above, but you’ve only gone 2d-1 pc.
- 11-15 – Nearby star system: You’ve traveled 2d-1 pc, and it is less than a parsec to the nearest star system.
- 16 – Distant star system: Same as above, but you’ve traveled $2d-1 \times 10$ pc.
- 17 – Very distant star system: Same as above, but you’ve traveled $2d-1 \times 100$ pc.
- 18 – System across the galaxy: Same as above, but you’ve traveled $2d-1 \times 1,000$ pc!

pc = parsec, 3.26 light years. Alpha Centauri is 1.3 parsecs from Sol. The Milky Way galaxy is about 15,000 parsecs across.

* These seemingly useless points *might* end near some stars. Roll 3d: Points ending in the galactic halo instead lead to a globular cluster on a roll of 3-6. Points ending in intergalactic space instead lead to another of the Five Linked Galaxies on a roll of 3-4. If this doesn’t pan out, you can always just go back the way you came . . . providing the terminus is stable enough at this end! See *Transfer Point Classes*, p. 109.

route to its destination. It is guessed that these vessels are in a slightly different orientation than one that is thread running, and thus not visible.

Thread running is not universally used (the Galactics dislike the uncertainty), but in some areas it is more common than standard transfer point travel, particularly if there are relatively few connections in an area, or they are too unstable to be used any other way. It could be the only way to reach Galaxy Four after the disruption of transfer point travel – and even then it might not be possible if the threads themselves were altered.

See p. 109 for rules.

Transfer Point Classes

Thread running is a sensitive task that has only a small margin of error – fluctuations in the transfer point that are small enough to be ignored in normal use have a large impact on the success of the trip. For this purpose each transfer point should be assigned one of four classifications:

Active: The transfer point is very stable; it almost certainly has been around for hundreds of thousands of years.

Weak: The transfer point is young or located in an area that has experienced significant damage to reality (such as large-scale use of probability weapons). Individual threads are hard to follow and may have frayed into hundreds of short lengths that lead nowhere.

Difficult: The transfer point is unusually difficult to enter and navigate. Transfer points that see a lot of traffic using the normal method tend to “calcify,” and thread running has a difficult time working against the ingrained bias.

Unstable: These transfer points are incredibly dangerous, usually newly formed or located in areas with severe gravitational disturbance. Some transfer points lead nowhere – their connecting threads have not yet grown or connected to a terminus, or they simply are too disrupted to form any. Some unstable transit points are stable for periods, or even rotate between various states over time. After the Great Sundering, the transit points that once connected Galaxy Four with the other galaxies will *all* be unstable.

Hyperspace

“Hyperspace” refers to the infinite number of individual universes that exist outside of conventional space-time. Those that can be contacted are “parallel” and “beneath” that of the *Uplift* universe: *parallel* in the sense that the universes share many of the same physical laws, *beneath* in the sense that objects in real space sometimes have a “shadow” that exists in these universes. For example, volumes of hyperspace which correspond to regions of real space that contain gas, dust, or stellar remnants (particularly massive objects such as neutron stars and black holes), have noticeable effects on travel in hyperspace. It is even possible to conduct research on real space objects by studying their effect on the other dimensions. Other interactions are less predictable; fluctuating gravity wells and use of probability-altering technology or powerful psionic devices often have effects that reverberate across these closely-connected realms, creating unstable



regions of hyperspace that can damage ships, force them out of hyperspace, or slow them to a crawl.

It is this connection that allows them to be reached without stupendous amounts of energy, and makes them understandable to some degree. “Higher” dimensions exist in theory, but cannot be tunneled to by normal means. Only mathematical models and the circumspect evidence that their hyperspace shadows extend down into real space shows their existence. Even if they could be reached, it is possible that they may be alien realms so strange that the sanity-blasting vistas of E-level hyperspace would seem tame.

A few of the lower hyperspace dimensions are relatively safe to enter: There are realms that consist of nothing but ravaging elemental particles or where matter cannot exist. Of these, an even smaller number have useful geometries which do not directly correspond one-to-one with our own: a ship which travels in such a space for one mile, and then transfers back to real space, may find itself thousands of miles away from its starting point. To an objective observer, the ship has apparently traveled faster than light. Those with the most useful properties and that are relatively safe to enter are the five “layers” of hyperspace labeled A through E. They are labeled in the reverse order of the energy required to “tunnel down” into them. It is almost trivially easy to reach E- and D-level hyperspace, but A-level requires very advanced drives and a large amount of power. The deeper the hyperspace level, the faster the ship can travel.

E-Level Hyperspace

E-Level hyperspace lies just below normal space-time. It is a place where the separation of objective and subjective reality is tenuous. Most oxygen breathers perceive it as a mad realm full of allophors – metaphorical interpretations of landscapes, creatures, and objects – whose true nature is unknowable. Observation by sapient minds can actually change local space-time and alter the appearance and behavior of the allophors. Multiple observers can cause even more severe changes, potentially proving dangerous to themselves and anyone else moving through the area.

Vessels have been known to *change* in E Space; in fact it is almost unheard of for at least the appearance of the vessel to not be altered in some way. Navigators can also use this to their advantage, altering the allophor of the ship to better deal with unusual situations (and every situation is unusual in E Space). Occasionally a ship finds itself trapped in a section of E Space with no easy way of escape; in these cases, sometimes it's best to close the view shutters and hope that sooner or later the local space shifts metaphors to something easier to deal with.

One feature of E Level remains constant: A complex web of translucent-walled tubes in which the stars and galaxies of our own Euclidean space can be seen glimmering. The tunnels can be easily penetrated, returning the vessel to the real universe. A region of E Level corresponds to a vast area in real space; this makes it relatively easy to keep an eye on any E-Space traffic. The difficulties of staying at E Level for extended periods of times make this unfeasible except where it is suspected others may be using it to get around normal travel restrictions.

Navigating in E Level's crazed space-time takes incredible skill, ingenuity, and mental flexibility. The pilot/navigator must decipher the allophors and avoid those that may represent dangerous warps and eddies in local space-time. E-Level pilots are routinely trained in psychology, to better understand the images around them. Navigation computers can give suggestions, but the only sensor that can be used in E Space is a sapient mind to make sense of the chaos outside. Allophors can be described to the computers, who then compare it to a vast database of samples collected by the Library over millions of years – subjectivity being what it is, this is often of no use.

Spotting other vessels isn't hard – at the very least there will be a shift in the surrounding region as observers on the other ship imprint their perceptions. Although they will not appear quite as they would in real space, their reality anchors make their appearance far more static – and thus out of place. Experts can often identify a type and class of a vessel by its appearance in E Space, and its movements can give an idea of its possible destination. At a minimum, it is possible to identify the Sapient Order that the vessel belongs to. By far the most common users of E Level belong to the Hydrogen Order; they seem to go out of their way to make trips in E Space, even if it does not seem efficient. The Machine and Quantum Orders are the rarest sights in E Space; machine races have a difficult time perceiving this realm, and quantum beings are in danger of simply *ceasing to exist* if their own reality anchors fail. Information on the activities of the other sapient Orders in E Space is *highly* prized by the Library.

INTERSTELLAR TRAVEL

Although there are several forms of FTL drive in the *Uplift* universe, they are all operated using two skills: Piloting (Starship) and Astrogation.

Reliability: With few exceptions, all commonly used FTL drives are extremely robust and reliable. They require little maintenance, and often have self-repairing components. Some drives have been around for literally millions of years and still look like the day they were manufactured. The Galactics don't care to tinker with success and rarely attempt to alter the drive cores themselves; they are content to build appropriate interface subsystems around the original. Curious Terragens who have looked inside these drives have encountered script written by aliens long extinct or Retired, and even the occasional bit of ancient graffiti written when mammals were still fighting for scraps at the feet of the dinosaurs.

Sapient Orders: Most sapient orders use drives based on the same basic principles, in most cases only differing in the devices used to interface with the drive. Some drive types are more common with the other orders of life. Hydrogen Order vessels very rarely use hyperdrives at anything but E- and D-level. Quantum Order vessels use what are effectively probability drives in most cases. Members of the Mechanical Order use a bit of everything, and are sometimes contracted to build new drives. Memoids don't leave E-level. The Retired and

Transcendent usually don't travel much, but are capable of using the standard drive types – often with a number of improvements and special qualities.

Detection: All FTL drives use some type of reality-distorting techniques in order to function. Their simple existence is enough for local space time to flex and warp as it contacts other dimensions. These eddies and “waves” of distortion can be picked up quite easily and analyzed to detect the size of the vessel, what hyperspace level it emerged from, and its pseudomomentum. The faster the pseudospeed of the drive, the larger the distortion and the faster it propagates.

Detecting a ship still *in* hyperspace is far more difficult. However, a vessel in hyperspace is still connected to real space, albeit a tiny amount, through its reality anchor. Real space sensors look for the tiny waves of distortion from the “top” of the anchor – the principle is the same as detecting a vessel emerging from hyperspace but the technique is akin to looking for a submersible sneaking along underwater. Other vessels in the same hyperspace level have an easier time detecting intruders but the principle is somewhat reversed – they're looking for the reality distortions in hyperspace caused by the anomalous real space matter that is interacting with the local space.

Using Transfer Points

No special equipment is required to use a transfer point, but the ship's speed and heading must fall within a very narrow critical range in order to enter the point and align itself with the appropriate destination thread.

Navigation and Piloting

The critical velocity must be computed for each transfer. This requires two skill rolls: Piloting (Starship) to make the actual entry, and an Astrogation (Transfer Point) roll to calculate the correct vector. Except in unusual situations these tasks are routine (+4 to effective task) – but takes at least four hours of planning and computation.

Pseudospeed: The subjective time taken by a standard transit point trip is effectively zero. As best as can be determined, the time required to appear at the destination as measured from the point of origin is a matter of a few minutes.

Failure: Missing a transit point entry is annoying but not dangerous; the ship can turn around and try again. If the roll was a critical failure the calculations were flawed and must be recalculated from scratch.

Transit Damage: Reentering normal space from a standard or thread running trip through the point will jostle the ship, sometimes violently enough to cause damage. Roll 3d, adding +1 if the jump was made without proper planning and +2 if it lacks stasis shields. If this exceeds the HT of the ship, it will sustain 1d cHP of damage and improperly restrained crew will suffer 1d-2 points of collision damage.

Thread Running

Heaven's Reach introduced the concept of thread running – actively navigating transfer points connecting threads rather than passively riding them to the normal destination. See p. 106.

Entering a transit point to thread run is made in the same manner as normal, except that it is never so routine as to get a task bonus. There is also a required number of thread transfers to be made to get from one terminus to the other. A local jump of less than 20 parsecs may require just a single thread transfer (attaching to the primary thread and riding it to the end) while an intergalactic jump might require a dozen transfers! As a general rule of thumb, one transfer will be required for every 50 parsecs that the point covers.

Each transfer requires a Piloting (Starship) roll, with a +2 for Intuition. Individuals with Hidebound, Indecisive, or other mental disadvantages that affect quick thinking and judgment will result in *automatic* failures at each transfer. This may be acceptable with short trips. Transitions between threads in a "difficult" point are made at -2; transitions on "unstable" points are made at -4!

Keep track of the number of failures. When determining transit damage (see above) there is an additional -1 to the roll for each failure. If the roll would be reduced to 0 or below, multiply the transit damage to the ship and crew by 10.

Thread Drop: This is a very rare occurrence and is the result of poor piloting or very bad luck. If two critical failures are made in a row, the ship returns to real space at a random location and suffers a roll on the *Major Damage Table* (p. S144).

Thread Jumping: If the transfer point is a nexus, an especially skilled pilot may jump to a nearby thread connecting two completely different transfer points. If the nexus transfer point is at the terminus of the thread, then the usual number of transfers must be made to reach the terminus. Making the jump requires a transfer made at an additional -6; failure requires the ship to continue to the original destination. Most jumps are to threads connecting transfer points with a terminus located within 1,000 pc of the nexus – and it is usually impossible for the thread jumper to determine which end of the transfer point he is now traveling to. Jumping to another thread without being at a nexus is possible, but foolhardy. The pilot needs a critical success to complete the jump.



Hyperspace Travel

In order to enter hyperspace, a ship must have a hyperdrive. Drives are limited to the levels of hyperspace they can access; a ship with a C-Level drive could not enter levels A or B. Drives made to enter a higher hyperspace can also be used at a lower level. There are no E-Level drives; any hyperdrive allows a ship to enter that mad realm.

Hyperspace Conditions

The conditions of a sector's corresponding hyperspaces varies over time. Roll 2d to determine current conditions each month. Modify as shown below:

Galactic core: +2

Dense cluster: +1

Between galactic arms: -1

Galactic halo: -2

Large black hole or neutron star/pulsar in sector: +2

0-1 – Increased hyperspace tension doubles speed.

2-3 – Currents! Roll 1d to determine direction (1: coreward, 2: rimward, 3: spinward, 4: anti-spinward, 5: galactic north, 6: galactic south).

Travel speed is doubled when traveling with the current, quartered when traveling against it, halved otherwise.

4-5 – All hyperspaces may be traveled. No penalty or bonus.

6-7 – No A-Level travel.

8 – Turbulence: All travel is at reduced speed. Roll 2d, *divide* travel speeds by result.

9 – A- and B-Level travel prohibited.

10 – D- and E-Level travel only.

11-13 – "Hyperspace storm." Make two Piloting checks to avoid, each failure results in a major damage result (p. S144).

14+ – E-Level travel only.

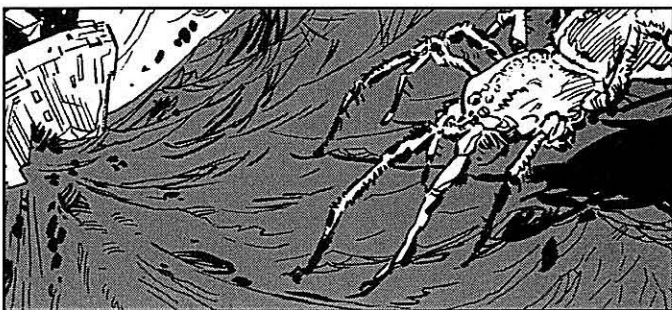
Navigation and Piloting

Navigating hyperspace requires Piloting (Starship) and an appropriate Astrogation specialization. The exception is E-Level, travel through which is quite unlike other hyperspaces (see below).

Pseudospeed: The “speed” of the ship depends on the tension of the hyperspace – that is, the current relationship between distances in the alternate dimension compared to real space. Some levels (B and D) have *variable* tension, so effective speeds in them may vary greatly. E-Level hyperspace is just plain *weird*; entering it poses great risks to health and sanity.

Hyperspace Tension: D-Level and B-Level hyperspace have variable tension. Make an Astrogation (Hyperspace) roll; add a +2 bonus for B-Level travel. If the roll is failed, then the ship moves at only half of its rated speed. On a critical failure the ship travels at an actual pseudovelocity that is a fraction of lightspeed (0.0001 pc/day or so) if in D Level, or 1 pc/day in B Level. On a critical success the ship actually travels 50% faster than normal!

The GM may wish to split a long voyage into multiple subjective time segments and have the relative pseudovelocity checked at each stage. Smart travelers plan relatively short jumps through hyperspace so a single jump doesn't take centuries of objective time.



E-Level Travel

Travel through E Level more resembles a tedious overland (or undersea) quest than conventional space flight. Each voyage should feature interesting “special effects” and require the travelers to overcome a customized set of obstacles and puzzles that incorporate the adventurers' memories, phobias, and hidden desires.

Navigation and Piloting

Navigating in E Space relies very little on skill in piloting or working on hyperspace trajectories. Instead of Piloting or Astrogation, the primary skill of navigating in this hyperspace is luck!

Travel can be treated in a manner similar to that of vehicles or people moving off-road (p. B187) with the vessel having an effective travel rate equal to the navigator's IQ + (Psychology skill level/3) and the distances measured in parsecs. The terrain can change from one kind to another at any moment. Areas of E Level that are well traveled are sometimes described well enough that travel in these areas is like moving

on a road – the terrain may be different but you have a good idea where you're going and can avoid the most troublesome spots.

This navigation requires just as much effort as driving a car – lack of sleep or boredom can be dangerous, or fatal, in some situations. Make a Will roll to stay alert or to spot trouble; on a failure the ship is in some kind of trouble – it finds itself in a patch of banana skins, giant memoid spiders capture it in a web, it encounters a massive brick wall, etc. On a critical failure something has gone very wrong, the bananas are corrosive and the reality anchor starts to fail, the spiders start wrapping the ship in a cocoon, the brick wall falls on the ship . . .

Of even more danger to a navigator who likes to work long shifts is the inevitable appearance of some memoid or reality twist that is part of his worst nightmare. The ship carefully monitors the navigators and will close the viewing shutters at the first sign of trouble, but it may be too late. The viewer should make periodic Fright Checks, at significant penalties if under stress (being chased, in a very dangerous situation). Navigators can, and do, go mad in E Space from things that cannot be seen even by other observers. This is where advantages like Luck and Fearlessness come in.

Note that those with the Non-Iconographic disadvantage (p. C192) see *nothing* in E-Space! Depending on the individual, it appears as a space of pure white or pure black without any depth or change. On the plus side, they are immune to most of the negative effects of E Level and memoids will avoid them like the plague.

Psychological Effects: Even the best reality anchor isn't perfect, and E Space is insidious, spreading through the tiniest unprotected area and seeking out areas of consciousness – the crew. Usually this is more of an annoyance than a danger; dreams are extremely vivid, there may be small auditory and visual hallucinations, it seems easier to convince people of your ideas and vice versa, thought exercises seem more *real*. This translates into at least one level of temporary Weak Will, Distractible, Dreamer, and Imaginative. If the person already had one or more of those disadvantages, they are amplified. Individuals who are Dull, Staid, Hidebound, or Incurious become uncomfortable and suffer a -1 penalty on all tasks.

Prolonged exposure to E Space, especially for individuals who already possess the disadvantages listed above, can cause mental disturbance. At first this is minor, but as time goes on it manifests as Flashbacks, Obsessions, and Paranoia (the GM can assign 1 point to a mental disadvantage each day if the character fail a Will -4 roll). What happens after that is rarely pretty – the individual is effectively under the possession of a memoid until they leave E-Level. In a manner of speaking, they are host to a newly born parasitical thought-creature.

Non-Iconographic characters will simply wonder why their crewmates suddenly start going insane. Presentients are similarly unaffected.

Probability Drive

Probability drives bend reality by performing existential gymnastics – forcing the universe to think that ship isn't

here, it was actually *there* all along – instantly leaping through space. Probability drives are incredibly dangerous; a misaligned coil or transposed digit may result in the ship turning into neutrinos, appearing at the far ends of the universe, or killing the crew. It may even *cease to have ever been*, disappearing forever from existence and memory.

The advantage is that they are *very* fast – depending on the risks taken they are the fastest form of FTL next to transfer points. Their side effects include distortion of reality at both their point of origin and destination; stressing the ship's reality anchors for extended periods of time as reality tries to correct the ship's location; and the catastrophic consequences of appearing in a volume of space occupied by a significant amount of mass.

Navigation and Piloting

Plotting a probability jaunt requires the Astrogation (Probability Drive) skill. When the ship activates the probability drive, a Piloting (Starships) roll is required. Apply the following modifiers:

- Jump under 10 AU: +2
- Jump under 100 AU: +1
- Jump under 10 pc: No modifier
- Jump 10-100 pc: -1
- Each additional 100 pc: -1
- Each 24 man-hours of Astrogation work done prior to jump (maximum +4): +1
- Hasty jump (less than an hour of Astrogation work; i.e., combat situation): -1
- No Astrogation Work (emergency jump): -6, at a minimum!

Success: On a successful jump the ship instantly disappears from its starting point and appears at the destination. The navigator can set the pseudomomentum the ship will have when it reappears. However, the ship will suffer *stressed timelines* for 1d × 2 hours. While in this state the ship suffers a -2 penalty on additional probability jumps and a +1 on all rolls for probability weapon effects.

Failure: If the roll is missed by 1-2, the ship arrives elsewhere; amount missed is 3d × 10% of intended jump distance. Roll for a random direction. The ship's timelines will be stressed for 2d × 4 hours.

If the roll was missed by 3-4, the ship doesn't jump at all, and loses 10% of its original CHP (this could destroy an already damaged ship). The crew and ship will suffer odd but largely cosmetic alterations. (the font used in displays and signage mysteriously changes, for example, or the carpeting changes color.) The timeline is not stressed (reality has had its revenge).

If the roll was missed by 5-6, the ship jumps to the destination, takes 1d major damage rolls (p. S144), and undergoes several peculiar, inconvenient, and/or obnoxious alterations. (For example, part of the ship's hull turns into skin; a major component becomes a mound of chocolate ice cream; the galley is overrun by miniature versions of the crew with evil personalities.)

On a critical failure, the ship *may* jump, stay where it was, or jump randomly. In any case, the vessel either explodes

spectacularly or undergoes an extremely bizarre change that takes it out of action. (Treat as though hit with a probability weapon, see p. 115.)

Pseudospeed: The jump is usually instantaneous unless there was a failure. Ships occasionally reappear several millennia after they botched a probability drive trip, though to the crew only a second has passed.

Soft Quantum Tunneling

Three weeks ago, a Fonnir-registered ship slid into our star system, trailing five ghostly alternate-probability versions of itself. One of which had pink . . . well, no, I think I'll save that for our next meeting over strong drinks.

– David Brin, *Contacting Aliens*

Sometimes called the “Anderson Drive” by witty Terragens, *soft quantum tunneling* is a very subtle sort of probability drive. Rather than grossly violating reality with a jump of thousands of parsecs, the ship's drive creates a probability field that essentially convinces all the elementary particles in its range to jump a uniform distance in one direction, rather than randomly quivering about. Thus, instead of appearing to remain located at the point of maximum probability, the entire mass translates a tiny distance . . . typically just a few atom-widths. However, it can do this millions of times a second. If done accurately enough, the ship effectively moves in a particular direction in real space at speeds significantly faster than even zero-level hyperdrive (p. 113)! Translating ships have a full view of real-space conditions, and can even interact with other ships by timing actions between jumps.

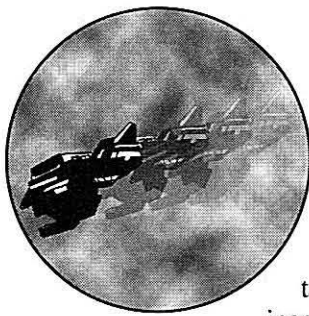
Radiation

Roll versus Astrogation (Realspace), modified as shown, each day to determine matter impingement effects:

- Intergalactic Space: +3
- Galactic Halo: +2
- Galactic Inter-Arm: +1
- Galactic Arm: 0
- Within Star System, 10-40 A.U. from star: -1
- Within Star System: 5-9 A.U. from star: -2
- Within Star System: 0-4 A.U. from star: -3
- Dense gas or dust concentration: -6

On a failure, there has been a significant amount of radiation exposure. Each crew member and unshielded system is exposed to 100 rads × the amount the roll was failed by. Each time the ship suffers a cumulative exposure of 4,000 rads roll a 1d for each module. On a 1, the system is disabled.

Because of this effect, soft quantum tunneling drives are rarely used in combat situations. A ship that ran into even a pea-sized fragment of shrapnel would be almost certainly crippled or destroyed.



The process is not without its side effects. Annoying, but occasionally useful, are “probability ghosts.” These ghostly images spread out around the vessel’s future, present, and past locations, and show other possible courses that the ship could have taken. On long voyages, or trips that increase the jump distance or cyclic rate, these ghosts become more numerous and begin to display increasingly improbable characteristics.

Soft quantum tunneling has one significant danger. When a nano-jump results in one of the ship’s atoms impinging on the personal space of a dust or gas atom, a minute fusion explosion results. This gives a tunneling ship and its ghosts a distinctive appearance, sparkling with thousands of tiny lights as they glide through space. The resulting radiation flux is minor in interstellar space, but in the bounds of a solar system, or other region with higher-than-average concentrations of dust or gas, this effect may significantly raise the radiation levels in the ship, endangering health and degrading vital systems.

Navigation and Piloting

Because travel under soft quantum tunneling drive takes place almost entirely in real space, use Astrogation (Soft Quantum Tunneling) for navigation, and Piloting (Starship) for maneuvering.

Pseudospeed: Although the vessel appears to be moving very fast while tunneling, its actual velocity is usually quite low. The ability to adjust pseudomomentum using this technique is quite limited; a ship may have to use its reaction drives or thrusters to adjust its relative vector to an amount convenient for its destination.

Tacking: By observing the actions of the ship’s probability ghosts, a skilled astrogator can spot and take advantage of “reality tendencies” that increase the size of the nano-jumps along a certain path. Rather than boring along in a straight line, a skillfully operated ship “tacks” along high probability routes that tend toward the eventual destination. This requires an Astrogation (Realspace) and Piloting (Starship) roll at -2; if successful, the pseudospeed of the vessel is increased by 20% for a number of hours equal to the amount the roll was successful.

STARSHIP CONSTRUCTION

Ships may be designed using the rules given in *GURPS Space*. New drives, weapons, and accessories are listed below. Note that new Galactic ships are a rarity; they are passed down from generation to generation. If a patron becomes wealthy enough to afford new ships, the old ones are sold to a poor clan, or perhaps given to a client as end-of-indenture presents. Some Terragens patrol ships have hulls salvaged from relics up to 100,000 years old!

The following notes cover the basic technology from *GURPS Space* that is available, followed by new modules and design options specific to *GURPS Uplift*.

Galactic Design Philosophy

Most Galactic species don’t approve of freebooters and adventurers. As a result, small scout and trading vessels are relatively rare. Indeed, the older clans seem to favor large vessels that can provide the comforts of home, and that have lots of redundant systems, workshops, and spare part stores. Established designs include bunkroom-style accommodations for client-class crewbeings, larger (if not necessarily luxurious) cabins for patron-class officers, and large recreation areas.

The largest spacecraft are so huge that a crewbeing could spend his entire life on the same ship and only see a small part of it. Besides wielding formidable weaponry, companies of robot warriors, and many auxiliary craft (including small starships), these “campaign ships” are designed to be as self-sufficient as possible, and include fabricators that allow even major systems to be recreated. The Jophur battleship *Polkjhy* included a substantial garden, and even a brood-deck capable of creating enough new rings to replace the entire crew.

Hull Design

Galactic ships range in size from one-being scouts to miles-long battleships. However, typical ships in the *Uplift* setting run large. Few Galactic vessels displace under 100,000 tons. Hull shape can vary wildly, but a clan capable of building its own vessels tends to adopt a related set of designs from the Library, giving their navies a fairly consistent look.

Most Oxygen Order and Machine Order ships make heavy use of geometric shapes – wedges, cylinders, and flattened rectangles are the most common. Many are vaguely streamlined in appearance; very few ships have much in the way of external subassemblies. These shapes are designed to work well in hyperspace, or have proven to be simpler to translate through a transfer point. Hydrogen Order vessels vary in size, color, and surface features but are distinctive for their rounded, almost blimp-like hulls. There have been reports of Zang ships that are the size of small planetoids. It is assumed they are either battleships or mobile colonies; no oxygen breather has ever found out. Quantum Order craft are bizarre fractal shapes, sometimes described as resembling crystal growths. On occasion, parts of these vessels will phase in and out of real space, or not be visible from specific orientations.

Suggested Sizes: The chart on p. S108 is a good start, but quadruple the suggested volumes for all ship classes above passenger liner.

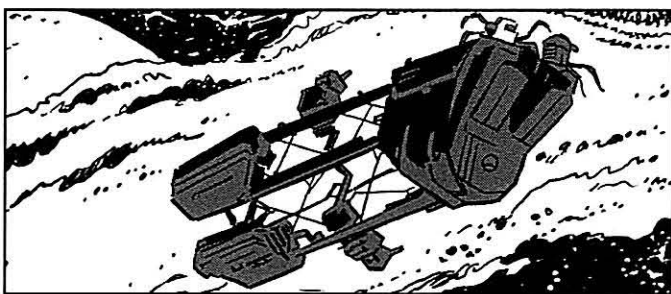
Streamlining: Large spacecraft usually have smooth, enclosed hulls, but are almost never streamlined – with contragravity and time-compression technology a ship can take off and land vertically from a gravity well without wings or control surfaces.

Armor and Compartmentalization: Galactics build for the ages, and don't consider a starship complete without layering it with several courses of armor. Total compartmentalization should be standard on all spacecraft.

Biomechanical Hull: All known Hydrogen Order ships seem to have this option, but it may not be universal. A few Oxygen Order clans employ living ships, but use of this technology is considered distasteful, and flagrant use would be outright scandalous.

Living Metal: This option is very common in ships of the Mechanical Order, and vessels of advanced clans of the Oxygen-Breathing and Retired Orders. It requires one ton of raw materials (at M\$0.001 each) for every 20 cHP that are repaired. If the situation is desperate, ship modules can be cannibalized.

Robotic: Use of this option is *extremely* rare outside of the Mechanical Order. In some regions, Galactics will attack robotic ships without warning.



Screens

Force Screens: This technology is somewhat antiquated by Galactic standards; use the "cheap" option.

Sensor Masking

This is relatively uncommon. Those few ships that are stealthed are known as *sneakships*. They are small, avoid using high-profile FTL drives, and have both radical stealth and emission cloaking.

Sensors

All TL9+ sensors should be purchased with the FTL option.

FTL Drives

Use the drive types from this book instead (p. 114). FTL drives from other game worlds could work in the *Uplift* universe, but without a reality anchor they are going to be extremely dangerous and unpredictable!

Maneuver Drives

All reaction drive types are available.

All TL10+ reactionless drives require a reality anchor in order to operate (otherwise use the stats for TL9 standard thrusters) and are referred to as *zero-level hyperdrives*. These zero-level hyperdrives do not function in a gravity well stronger than 0.01 G; their use on planets usually requires the activation of a time-compression field. TL9 reactionless drives suffer no restrictions.

Pseudovelocit

Also called *pseudomomentum* in *Uplift*, this describes motion produced without accumulation of real momentum or kinetic energy. A pseudovelocit drive does not produce acceleration effects on the ship or anything inside it.

If the pseudovelocit drive is turned off, fails, or is disabled, a ship using it instantly loses all speed gained as a result of acceleration while under pseudovelocit. In a collision, do not count speed reached while under the pseudovelocit drive.

All reactionless drives create pseudovelocit (see above) and can accelerate to the speed of light in 8,300 hours divided by sAccel in G.

Weapons

Disintegrators become available two TLs early.

Statistics

AProbSig: This is the ship's signature when it emerges from a transfer point, hyperspace, or a probability jump. It is also the signature of a vessel with an active soft quantum tunneling or zero-level hyperspace system. It is equal to cSM + 1% (rounded up to 1 if less than 1) of the power requirement of the FTL system.

PProbSig: This is the passive signature of the vessel in real space when the vessel is still in hyperspace or only using a TL9 reactionless drive. It is equal to the number of spaces of the drive.

If in hyperspace the vessel's signature is its normal ASig and PSig.

Neo-Dolphin Accommodations

Neo-dolphins are large creatures, and they require a lot of room to maneuver properly.

Workstations and Seats: Double the volume of seats or crew stations designed for neo-dolphin use.

Accommodations: Living spaces designed for dolphins hold only half the number of individuals. Alternately, double the volume of all dolphin crew spaces (but not weight or cost).

Oxywater is an advanced version of the oxygen-rich, breathable fluorocarbons developed in the late 20th century. It can be breathed directly.

Ships that use oxywater or oxywater/water mixes for their neo-dolphin crews rarely flood their spaces entirely with the liquid for logistic and sanitary reasons. Oxywater is twice as dense as water and does not mix with it. Each space that is flooded with oxywater weighs 5 tons, assuming about 30-50% of the volume is filled. A fully flooded space weighs an additional 15 tons.

Neo-dolphins require 150% the life-support capacity of a Human. The added cost and mass includes a oxywater subsystem to recharge and clean the liquid for as long as life support holds out, and in the case of failure each ton of liquid will hold enough oxygen for 90 man-minutes of oxygen (60 or so minutes for a dolphin). Oxywater costs \$20,000 per ton.

DESIGN OPTIONS

In addition to the equipment described in *GURPS Space*, Galactic ships may have the following gear. Terragens ships freely borrow Galactic technology where appropriate and pay the appropriate price.

FTL Drives

All FTL drives require a reality anchor.

Required Spaces: For hyperdrives and soft quantum tunneling drives, divide the ship's volume by the drive rating, rounding up to the nearest whole number. Probability drives require only 1 space.

Pseudospeed: This is the distance in real space, measured in parsecs, that the ship will travel per day of subjective time aboard the ship. The time that passes outside of hyperspace is usually at a 1:1 ratio, but can be as high as 20:1 (every day in hyperspace equals 20 days outside).

FTL Drive Table

System	Rating	Pseudospeed	Pow.	Mass	Cost
Hyperdrives					
D/10+	400	1	4	4	0.01
C/11+	800	5	8	4	0.1
B/13+	1,000	40	16	4	1
A/14+	2,000	120	32	4	10

Reality Manipulation

Probability					
Drive/14+	—	Spcl.	*	100	1,000
Soft Quantum					
Tunneling/14+	2,000	20#	15#	4	0.2

Entering hyperspace does not require any additional energy. There are no E-Level drives; any FTL drive allows a ship to enter that mad realm.

* The power requirement for a probability drive jump is 500 MW × LMass.

This is for a typical safe operating speed. For each -1 penalty to the Astrogation (Realspace) roll to determine matter impingement, the pseudospeed and power requirements are increased by 10%. A maximum penalty of -5 can be taken, for a 50% boost in speed.

Reality Anchor

Reality anchors give ships and battle stations a “firmer grasp” on space-time. They take the form of rakish-looking flanges that run the length of the ship. Anchors are a standard part of a ship's hyperdrive; they allow the vessel to reenter normal space when the journey is over. More robust versions are installed as protection against probability weapons. They appear at TL11.

Required Spaces: A ship requires a number of spaces of reality anchors equal to its volume (in cf) divided by 10,000 for basic anchors, and 1,000 for combat anchors.

Reality Shielding: If an equipped ship is hit with any sort of reality-warping weapon, roll 3d. If the total is under the TL of the anchor, all effects of the hit are avoided. Subtract 6 from this roll for basic anchors, and the TL difference between the anchor and the probability weapon.

Reality Anchor Table

System	Spc	Mass	Cost	Power
Reality Anchor/11	1	1	0	20.05
Reality Anchor/12	1	5	0.1	0.025
Reality Anchor/13	1	10	0.1	0.025
Reality Anchor/14	1	15	0.05	0.01

Stasis Field

Stasis fields are first developed at TL11. They can *stop time* in selected parts of the ship's hull. Powerful computers activate the fields when they sense incoming fire.

Double hull cost.

Armor Doubling: Stasis fields may double armor cDR against an attack a number of times per hour equal to TL.

Time Compression Field

Compression fields, also called “time-dilation fields,” slow the subjective passage of time for everything within their area of effect. They can only be used in conjunction with an active stasis field. They become available at TL12.

The mass, size, and power requirements are equal to that of a cDR 5 force screen generator of the same tech level (see p. S111) multiplied by the maximum time compression factor (divide passage of time on board the ship by this figure). This factor cannot exceed TL.

Damage: Compression fields may be used to reduce damage of incoming weapons; divide incoming damage by compression factor. *Outgoing* damage is similarly reduced.

Planetary Landings: Time-dilation fields allow large, even unstreamlined ships to make soft planetary landings with small atmospheric drives. Divide the gravity of the planet being landed on by the compression factor to determine the effective local gravity.

Neutronium: Landings under time compression fields have an interesting and profitable side effect. They create small quantities of commercial-grade neutronium! The number of milligrams of the super-dense matter produced in a landing is equal to [(LMass × actual local gravity × compression factor) / 1,000].

A collection and storage system is included with every time compression system; it can store about 5 grams. Excess (or uncollected) neutronium dribbles off the landing ship's time compression field and falls through the crust of the planet below, eventually coming to rest in the core. Neutronium is worth about \$1 a milligram on TL10+ industrialized planets.

Neutronium is only used for a few applications, so it is generally not economical to mass produce and local demand will be quite low – the GM should make it worthless if the players attempt to flood the market by constantly landing and taking off on the same planet.



Weapons

The Galactics use an impressive array of space weaponry, from lasers to reality-warping probability mines. There are few regulations on the sorts of weapons a clan may equip fleets with, but should “unfair or dangerous” weapons be used in actual battle, the Institute for Civilized Warfare may call for sanctions against the offender. What an “unfair or dangerous” weapon is depends on the situation; psi and probability weapons usually upset the Institutes’ reviewers. Use of anti-matter bombs near a habitable planet’s surface is begging for trouble.

Space Mines

Space mines are small drone spaceships armed with missile warheads. They are laid in clusters near transfer points or in orbits around besieged planets. They may also be used in hyperspace. The mines are equipped with stealth suites and low-emission power sources. If a ship comes within range, the mine activates its engines and zooms in for the kill.

Build mines as small robotic spacecraft armed with one or more missile bays (p. S127). They may or may not be equipped with their own FTL drives – if they are dropped in hyperspace without a drive of their own, they still require a reality anchor.

Probability Warheads: These are area-effect probability weapons, introduced at TL13. Such a warhead doesn’t do physical damage to the target, but subjects it to a roll on the *Probability Weapon Damage Table*, below. Reality anchors are at half effectiveness versus such mines, because they affect all of nearby space as well as the target. Nearby ships may also be affected by a probability-mine blast; radius of the “blast” is 10,000 miles. Probability warheads add M\$0.15 per light missile or M\$0.2 per heavy missile. Halve this cost at TL14+.

Probability Twister

These are TL14 weapons that distort the fabric of reality. Only a few senior races have the ability to make them, and new units are rarely sold outside of the clan. Still, almost any race can buy an ancient unit from a scrap dealer.

A probability twister does not deal physical damage. Instead, on a successful attack, roll 3d on the Probability Weapon Damage Table, with the following modifiers: -2 if light, -1 if medium, +0 if heavy, +1 if super-heavy, and +2 if ultra-heavy.

Probability twisters have the same area requirement, volume and mass as an APAW (p. S126). Cost is $\times 5$ and Power is $\times 100$.

Probability Weapon Damage Table

- 3 – Whimsical benign event. *Example:* A horde of meerkats dressed as Harpo Marx run through the ship’s corridors, honking their horns. Small, mustached, cigar-smoking Orcas follow on their heels, twitching eyebrows and humming tunelessly.
- 4 – Something strange, but not immediately harmful, happens; a piece of hull might change composition or all of the ship’s crew might change from right to left handedness or vice versa.
- 5 – Sensors and computer equipment boggled. Roll a 1d for each sensor and cockpit or bridge. On 5-6 it is disabled for 1 hour.
- 6 – Living crew must make a Will roll or suffer mental confusion. Failure by 1 point means stunning for one round. Failure by more points means a roll on the Fright Check table (p. B93) with a penalty of -3.
- 7 – Ship must roll on the Major Damage Table at -1.
- 8 – No effect on *this* vessel. Another random ship *firing* probability weapons is affected. Roll again to see what happens.
- 9-10 – Ship loses 10% of its current cHP and must roll on the Major damage Table at +2.
- 11-12 – No noticeable effect . . . yet. Sometime in the future the effect will make itself evident – days, months, years . . . even centuries later.
- 13-15 – Ship is *instantly* disabled, reduced to 0 cHP and starting to break up, sometimes accompanied by bizarre special effects.
- 15-16 – Ship is destroyed, collapsing into a singularity, slingshotted into another dimension, rotated out of phase with the rest of the universe, etc. *Au revoir!*
- 17 – Probability skew erases from reality the very fact that the target ever existed. The ship may still be present, but no one will know where it came from, or who they are! The chain of causality that led to the situation will make fantastically strange twists to “explain” the changed events and prevent a paradox. Local space-time is permanently stressed.
- 18 – Bizarre inter-reality vortex forms. The target ship goes *elsewhere*, perhaps permanently. Hope you packed a lunch.

Clearing Mines

Mines can be recalled or caused to self-destruct by transmitting the proper coded signal. The race that laid the mines will have the code, of course. So will the race that *made* the mines (a “back door!”), and in many cases the Institute for Civilized Warfare can provide an override code.

CAMPAIGNS

“Thirty-one months? My son is getting married next year, and I have an arcology to build!”

Amil, the purser, started to reply, but the captain cleared his throat and stood to give the irate administrator a good stare. “I’m as anxious to get home as you are, Mr. Lanier,” he said, “but unless you know of a way of reestablishing the fast route through Galaxy Four we have to go the long, slow, cheap way, within a budget that barely allows for repairs.”



Eivor Benia, the neo-chim who tended the *Oberth's* hydroponics, gingerly lifted his hand. "Go ahead, Specialist."

"Sir, I helped Ensign Amil and Specialist Pratt with a tradables inventory, and although we were plenty thorough and even confiscated Mrs. Renner's collection of *Lensman* disks, it occurs to me that there's a trade good of another sort we neglected to take into account. I'm not saying we could pay for prime point access all the way home the way we might if we had some Fins on board but . . ."

"Specialist!" shouted the captain.

"Uh, sorry, sir. Me and Pratt and Ensign Huygen, we have musical instruments, of a sort, and the Protocol Team has been practicing the sword dance for their meeting with the Dutt, and Mr. Teshier works with neo-dogs, so perhaps together . . ."

FLAVOR

Most science-fiction RPG settings make a number of bold assumptions: *Homo sapiens* is usually the first species to the stars, the race responsible for the exploration and colonization of the galaxy. If there are any ancient races, they are safely dead and mysterious. Humanity is a major player in galactic politics, if not the dominant power. Aside from loosely enforced Imperial Laws (or Federation directives), there is no *civilization* to dictate what people should and shouldn't do. Merchants, mercenaries, and miscellaneous rogues have free rein. The galaxy seems tailor-made for power-hungry Humans, with just enough small-scale danger and short-term mysteries to make things interesting.

The *Uplift* universe is a civilized but paradoxically *dangerous* place. Powerful clans clash in an endless struggle for political advantage, using subversion, blackmail, extortion, and intrigue in the halls of the Institutes. Rivalry between the fanatic alliances, usually limited to heated exchanges of dogma, sometimes lead to skirmishes in deep space and raids on colonies.

Thanks to environmental regulations, the right to settle choice habitable worlds is hard to come by. The more territorial Galactics will look for ways to wrest control of a promising world from unwary tenants. Desperate settlers may even try to sneak onto worlds declared fallow. Patrons are even more grasping when it comes to obtaining clients. Races desperate for species with potential may resort to "gene raiding" on fallow worlds, or simply coerce a lesser patron to put its clients up for "adoption."

Humanity's standing in this Byzantine realm is very low. Until the startling events of the last few years, Earth was considered a quaint backwater, visited by curious tourists and xenologists. Humanity's technology is laughably crude compared to the wondrous hand-me-downs that clients get from their patrons. Ancient laws and the charity of a few sympathetic allies are all that keep the smug, arrogant senior patron lines from squashing the Terragens forces and bending Humanity and its clients into loyal servant species. Representatives of the Galactic Institutes, including the Library, can't be counted on to deliver justice, or to foil attempts by clans like

The captain held up a hand. "In short, Mr. Roche, you're saying we could buy a faster way home by **putting on a show?**"

A few of the assembled passengers and crew giggled, but the captain looked thoughtful.

"Mr. Amil," he said at last, "put together a sign-up sheet. Specialist Roche, hit the Library and see if you can use our life support system to make paint. Director Lanier, I've seen your work on Calafia. You're our set builder."

We may not earn enough for a single point fee, he thought, but if the supercargo can keep themselves busy I won't have to put up with them asking me if we're there yet.

The players have created a motley crew of Humans, Chims, and Fen adventurers. They've bought their equipment. They've gotten berths in a Terragens exploration ship loaded with recreated Galactic technology. Now what?



the Soro to undermine Humanity's confidence and independence. Indeed, some Institute officials conspire to "tame" the Terragens through developmental aid and subtle propaganda.

What can the player characters – representatives of the youngest, poorest, and most despised patron line in the Five Galaxies – do in a situation like this?

They can – and must – be *heroes*. If the powerful fanatic clans have their way, Humanity and its clients will suffer a hundred millennia of servitude . . . or possibly extinction. The resourcefulness, daring, cunning, and self-sacrifice of heroes are all that stand in the way of such a fate. Colonists *must* defend their homes from Galactic domination. Astronauts, piloting the ships that provide a vital link between Earth, her colonies, and allied races, *must* complete their missions, though it means facing Tandu raiders and the perils of turbulent hyperspace regions. Terragens diplomats *must* sway the Institutes and moderate races to the cause.

With this duty comes the responsibility to do it *right*. You *can* nuke your enemies till they glow and shoot them in the dark, but the authorities – led by genocidal enforcers like the Tandu – might do the same thing to you . . . and then do it to your entire *race*.

ROLEPLAYING

Roleplaying Humans ... and the Role of Humanity

25th-century Humans are better educated, healthier, and saner than those of any past age. Internecine war and state tyranny are unthinkable, as archaic, illogical, and repulsive as witch burning or trial by ordeal seem to us today. Violent crime has all but disappeared, along with most psychotic, antisocial behavior. (Note that schemes, stings, and an occasional scrap in a bar are not considered all that much of a "crime.") This does *not* keep Humans from being interesting people, with problems and obsessions that drive them to excellence or ruin. The hunger for adventure and the desire to see new horizons are as powerful as ever.

Players should understand the mindset of 25th-century Humanity. The race has never quite gotten over the shock of Contact. Earth and its colonies were enjoying a golden age before the *Vesarius* came home with an escort of Tymbrimi

diplomats. War and poverty had been abolished, the ecological damage of past centuries largely repaired. Sharing these heady times were two new races, the neo-chimps and neo-dolphins. After Contact, only Humanity's uplift efforts counted for anything. All of Human culture's achievements and technological accomplishments were seen by Galactics as the quaint, awkward strivings of a race of mad, misguided orphans. Humanity adapted. Some individuals sought to shed their earthly heritage, and turned to weird distortions of Galactic beliefs for comfort. Others became Terran chauvinists. In order to preserve Humanity body *and* soul, the Terragens Council walks a careful line between the extremes. And yet...

Humans and their clients seem to be living under some sort of charm. Wolfing races have appeared before, only to be adopted, assimilated, or extinguished. Humanity has managed to maintain its independence for 300 years. Great events are underway in the Galaxies, events that promise to change all civilization, and Humanity seems to be some sort of catalyst. Humanity's ultimate destiny isn't clear, but it promises to be grand.

CAMPAIGN VARIANTS

Uplift campaigns can take place in a number of time periods, and can center on the exploits of various types of adventurers. The GM should tailor the campaign to give the players an opportunity for the kind of adventures they prefer.

Historic Period

You may set *GURPS Uplift* campaigns in a number of time periods:

Post-Contact

The Post-Contact campaign is set during the first century after First Contact with the Civilization of Five Galaxies. The events of *Sundiver* take place during this time. Earth is an obscure backwater world, wolfling Humanity a novelty, and its clients barely sapient. The newly formed Terragens Council seeks to establish trade connections, lobby for colony worlds, and resist assimilation by the overwhelming power and knowledge of the Galactics. This is a good setting for campaigns involving the adventures of trade pioneers, diplomatic missions, and colonists exploring raw new worlds.

Earthclan Beseiged

The "classic" *GURPS Uplift* campaign is set before and just after the events of *Startide Rising* and *The Uplift War*. Earthclan has settled a dozen colony worlds, made a few friends, and is beginning to impress the haughty Galactics with its unique talents. But troubles greater than it has ever experienced lie around the corner, when the dolphin-crewed starship *Streaker* makes a discovery that sends political shock

waves through the Five Galaxies. Within weeks, the Solar System will be under siege and its colonies threatened by the invasion forces of enraged fanatic clans. This period offers more opportunities for combat, both in space and on colony worlds. Characters could take on the roles of colonists fighting a guerrilla war, diplomats sent out to contact potential allies, and Terragens Marines conducting commando raids.

Post-Sundering

Thanks to developments revealed in *Heaven's Reach*, there's the Post-Sundering setting. A rupture in the fabric of space-time has shattered the Transfer Point network and altered the topography of hyperspace. Trade routes have been disrupted, the political balance of power thrown out of whack, and – most dramatically – the Five Galaxies have become the Four Galaxies! As if this weren't enough of a challenge to Galactic civilization, the *Streaker* has returned with a cargo of strange refugees, scandals, and ancient secrets.

While the terrified Great Clans have abandoned their blockade of Terra, Earthclan is by no means safe; lesser races whose ambitions were once thwarted by the elder clans, quasi-religious alliances, and Galactic institutes have begun jockeying for a place in the New Galactic Order. Piracy, claim-jumping, gene-raiding, and outright conquest are rife. The abandoned homeworlds of transcended races, once protected by Institute patrols, are open for looting. Adventurers will have plenty of opportunity for exploration, combat, and intrigue.

Roleplaying Human Clients

Neo-chimps and neo-dolphins are in an unusual position. Their culture is virtually the same as Humankind's, but their instincts and mentalities are different. They are far easier to roleplay *properly* than true aliens. They also make *fun* characters. Brave, foolish, wise, or scoundrels, Humanity's clients are all in the same boat: Humans seem hell-bent on making life interesting and dangerous for their junior partners. But while Chims and Fen occasionally regret having such crazy patrons, they are also grateful. Under any other master, they would be little better than slaves, and subject to arbitrary "reengineering."

Because they live in close proximity to Humans on a day-to-day basis, Chims often adopt their patrons' lifestyles. They get a kick out of owning dogs, having nice homes, and playing the games of commerce and politics. However, Chims are slowly developing their own unique culture. They cherish Thunderdancing, and are evolving mores and rituals to fit their biological habits. Some neo-chimps, curious about how their culture would develop on its own, dream about settling their own colony world.

Neo-dolphins get along very well with their patrons, but are less attached to Human culture and values than their simian clan-cousins. Though dolphin hostels and travel facilities can be found in every large town, they find it hard to participate in the hustle and bustle of "land life." Neo-dolphins instead concentrate on integrating their ancestors' strange myths and non-causal thought patterns with life as tool-building sapients.

Roleplaying Aliens

Players wishing to take on the roles of "eatees" should understand the Galactic mindset. While each race has unique psychological, biological, and cultural baggage, all will have a few things in common:

They all grew up knowing their place, high or low, in Galactic society.

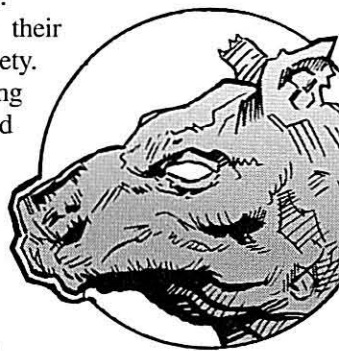
They learned almost everything they know from the Library, and most assume everything worth learning has already been learned.

They revere the Progenitors, either as religious figures or lawgivers.

They see nothing wrong with judging others by their race. Races are ranked by their wealth, power, ancestry, and number of clients.

How this common background is interpreted depends on the species' biology, and their clan's cultural heritage. Some see the great codes as a means to an end – the preservation and enrichment of life and civilization. Others interpret the Progenitors' teachings as religious dogma. But everyone respects the laws, and few seem to have any serious problem with the basic tenets of the system.

Some Galactic races produce individuals who are not free to choose lives of adventure. Some species were bred to be selfless drones with little power over their own destiny. Others, including the strongly individualistic Soro, see no *reason* not to do their duty and toe the clan party line.



TRAVELERS' TRAVAILS

Journeys among the stars of Central Galaxy are not like travel in current-day North America, or even like sea travel in the 18th century. They have more of the flavor of 17th-century ocean voyages, or caravan journeys across Asia. Travel is slow, dangerous, and uncertain; the "roads" may be washed out, bad weather (in the form of hyperspace storms and currents) is a deadly menace, and the travelers may be taxed or imprisoned by the arrogant, greedy inhabitants of the lands they pass through. Some cultures are insular, even xenophobic; only pressure from the Institute for Trade keeps their ports open to outsiders. Despite these hazards, many beings seek a life among the stars. Some travel for wealth, some for knowledge, others on missions for their clan or species.

Some hardy sapients travel alone. These are a special breed, quick on their feet, able to adapt to strange cultures and surroundings, and satisfied with a minimum of comforts. On some worlds, the outworlder hostel might be a bleak, pressurized dome on the edge of the starport field. The only edible food could be a bowl of tasteless, quivering protein colloid.

Other creatures, particularly those with little individual personality, travel in groups of trained and well-equipped specialists. Most Terrans travel together for protection; they are

simply not experienced enough in the ways of the galaxy to go it alone.

Meeting and Greeting

When Galactics meet, they greet each other with bows, gestures, and salutations dictated by their relative levels of Racial Status. In any first encounter between Galactics and members of Earthclan, each participant should make a *Savoir-Faire* (Galactic) skill roll to determine if he conducted this ritual successfully. The results will determine the NPC Reaction Roll modifiers for the encounter.

Both make roll

The participants correctly executed the greetings and – satisfied that each has received due respect – size each other up with a minimum of prejudice.

Higher status NPC reacts to lower status character at -1.
Lower status NPC reacts to higher status character at +1.
An equal status NPC has no reaction modifier.

Higher status being (only) fails roll

The “superior” being muffs the ritual! Embarrassed, he makes up for his gaffe by trying to curry favor with his inferior. The lower status creature is somewhat put off, but controls his indignation.

Higher status NPC reacts to lower status character at +2.

Lower status NPC reacts to higher status character at -1.

Lower status being (only) fails roll

After disgracing himself with a lapse in protocol, the lesser creature desperately tries to curry favor in the face of his superior’s wrath.

Higher status NPC reacts to lower status character with a penalty equal to difference in Racial Status.

Lower status NPC reacts to higher status character at +4.

Example: The new Human governor of Calafia pays a courtesy call to the Tymbrimi ambassador. They exchange greetings in front of the consulate. The ambassador (Racial Status 2) makes his Savoir Faire (Galactic) roll; the governor (Racial Status 1) fails hers! The ambassador is taken aback and reacts to the governor at -1.

One equal status being fails roll

Even though a greeting between equals is not usually a high-pressure situation, one of the participants stumbles anyway. The embarrassed offender tries to make things right, while the other can enjoy a moment of smug superiority.

The NPC that failed his roll reacts to the other at +1.

The NPC that made his roll reacts to the other at -1.

Both sides fail roll

Mutually bungled greetings give the lower status being leave to show his resentment and the higher status being to show his indignation.

The NPCs react to each other with a penalty equal to the difference between their Racial Status.

An equal status NPC reacts to the other at -1.

Example: A novice neo-chimpanzee spacer (Racial Status -2) encounters a Tandu soldier (Racial Status 4) in the corridors of a Library branch. They exchange hasty greetings . . . too hasty. The Chim’s placating gestures come off as insulting, and the Tandu uses a phrase that equates to “toleration of the soon-to-be-sapient” instead of the more correct “grudging acknowledgment of a Second Stage citizen.” Both react at -6, the difference between their respective Racial Status.

Patron and Client

An NPC from an indentured client race reacts to a member of its own patron race with an additional +2 reaction roll bonus; a NPC from a freed client race has a +1 reaction bonus to a member of its own patron race.

Passenger Service

The best way to travel between stars is in one’s own ship, or on a ship provided by one’s clan. Some Galactics run dedicated passenger lines, but these usually service only the clan’s own colonies, and perhaps those of close neighbors and allies. Quality of service, speed of the ships, and cost of passage varies wildly. In a few cosmopolitan areas of the galaxy,

professional and timely service can be expected, with consideration given to the needs of any life forms. Some races, untroubled by the prospect of never seeing loved ones again or suffering culture shock (their societies don’t change!), are satisfied to make long trips through D-level hyperspace.

Footloose travelers crossing large distances must make do by buying passage on whatever commercial transport is headed roughly in the right direction. Unless the traveler is an important diplomat or Institute member (who can produce writs to ensure safe and speedy passage), this is not the surest way to travel. The Institute for Trade “recommends” considerate treatment of travelers, but unless the *voyageur* has lots of cash, or the influence to cow the captain, he can expect indifferent or even abominable treatment.

Travelers do have a few perks. Major Library branches (Class K or higher) will provide them with food and lodging. A few organizations, such as the *Many Worlds* “travel agency,” exist to arrange flights and aid travelers in distress. Some species welcome strangers on their worlds and ships, giving hospitality in exchange for tales and souvenirs.

Trade

High tech automation, “Santa Claus” machines, and the technological resources of the *Library* have shaped the nature of interstellar trade. It is not economical to transport foodstuffs, common minerals, and simple manufactured items (clothing, tools, vehicles). Items valuable enough to be shipped between stars include rare minerals and organic compounds, single-use CAD templates for new machines, exotic art items, and recordings of unusual events.

Eatee collectors especially prize the products of Earth-clan’s wolfling culture. Whale songs, neo-dolphin poetry (especially limericks), old movies, and certain types of literature are highly sought after. The Tymbrimi, Synthians, and a few other races (including, remarkably enough, the Soro) are ravenous readers of trashy, romantic adventure, science fiction, and fantasy stories.

Biochemistry

Many Galactic species have a different biochemical base than Humanity. They may eat food that is poisonous to Humans, and vice versa. Others, such as the Thennanin, can subsist on Human foods as long as dietary supplements and anti-allergens are supplied. Some Galactics are biochemically close enough to Terrans to be *edible* by Humans. (If you believe Galactic “urban myths,” wolflings regularly take advantage of this.)

All but the simplest Galactic life support systems can synthesize nutrients for any race known to the Library. TL9 Terran-made life support systems must be upgraded (increase cost, size, and mass by 50%) to handle alien biochemistries. If an adventurer eats food that is outright poisonous, he must roll vs. HT-2. He takes 1 Fatigue point of damage per point the roll is missed by; critical failure causes 1d of HT damage. Semi-compatible food can be eaten safely (roll vs. HT to avoid 1 point of Fatigue due to indigestion), but a character subsisting on it without vitamin supplements will become Unfit (see p. CI85).

Adventurers

Agents

The Terragens Council relies on a cadre of special agents to carry out diplomacy and espionage missions. The Earthclan's elite agents must have the combat skills of a Terragens Marine, extensive scientific training, vast knowledge of Earth history and culture, and – perhaps most important – unsurpassed diplomatic skills. PCs can have adventures as full-fledged agents or as agents in training.

Astronauts

Navigating the galaxy's network of transfer points and the levels of hyperspace is not an easy job. Matters are often complicated by greedy toll collectors, Tandu raiders, balky equipment, and interference from Galactic Institutes. Players who take on the roles of starship crewfolk must be multitasked, resourceful, and ready for trouble. Thanks to the time-dilation effect of hyperspace, they see history unfold quickly; friends and relatives left behind may never be seen again. Some astronauts have been traveling for a *long* time, and remember Earth before the Bureaucracy, the Overturn, and Contact.

Astronaut PCs won't be explorers *per se*; almost every world in the galaxy is known and charted. But far-ranging Terragens ships can go where no Earthling has gone before. Members of the Earthclan are sent on expeditions to gain experience in dealing with the Galactics, to learn the ropes of commerce, diplomacy, and battle. These training flights usually have a cover mission, such as the delivery of whale songs to an elder race's distant home world or, as was the case with the *Streaker*, checking Library records by surveying select worlds.

Citizens of Terra

Players who wish to explore the darker sides of Terragens society might consider playing citizens of the home planet. Many of modern-day Earth's cities retain the cosmopolitan, decadent, somewhat dangerous flavor of their 20th- and 21st-century counterparts. The streets are full of Probationary Personalities, gawking tourists (Terran or otherwise), carousing ERS laborers, surly red-card Chims, religious fanatics, and eatee sympathizers. The adventurers can be riffraff themselves (lowlives rarely get to leave Earth, lest they embarrass the clan), tourists, Uplift Bureau inspectors, or police of various sorts.

Blockade Runners

Many of Earthclan's colonies are besieged by fleets of hostile fanatics. Getting news, supplies, and Marine cadres to these outposts may keep a whole world from falling hostage. Delivering these is the job of blockade runners. Runners may thread their way through the lower regions of hyperspace, or enter the crazy-quilt of secondary jump routes, hoping to find a "back door" to the besieged system. Those who dare to do this job must deal with the treacherous realm of E-level hyperspace, mines, inaccurate maps (unimportant transfer points are not checked very often), and fallow regions prowled by hydrogen-breathers, paranoid sooners, and gene raiders. Blockade runners could be Terragens Council ships or hastily organized, privately funded expeditions. This is an excellent scenario for players who like space combat and cat-and-mouse games.

Colonists

The hydrogen-breathers are in the last stages of evacuating the Horpie Arm in Galaxy Three. When the region opens up, Earthclan will be leased new colonies. A whole campaign can be set on one of these new worlds. PCs may be employed as surveyors, geologists, biologists, or just plain pioneers.

Besides facing the dangers of a new world, the adventurers must cope with jealous Galactics eager to find fault with the Terran stewardship of their new lands! Help from Earth will be hard to count on; travel to Galaxy Three requires use of transfer points controlled by the J'8lek and Soro clients.

Though the colony worlds leased to Humanity have so far been pretty shabby, there is always the chance of finding that most prized treasure, a presapient species ready for uplift!

The Marines

PC groups who want to see some action should take on roles either as Terragens Marines or specialists attached to a Marine contingent. Orders often come from secretive agencies of the Terragens Council. Marine missions may be tedious – training a colonial militia, for example – or deadly, such as turning a last-ditch, hopeless defense of a colony against invading eatees into a "show" of bravery, so the Institute for Civilized Warfare will recognize the invasion as worthy of their attention.

On the positive side, Marines may be assigned a ship, and can select their equipment from their headquarters' armory and stores. Marines *can* go rogue and try to accomplish missions their way . . . but even if they succeed, they are liable to censure and court-martial when they return.

Merchant-Diplomats

Even after two centuries, Humanity and its clients are not "savvy" in the ways of interstellar commerce. Earthclan traders are regularly bilked, getting trinkets and third-hand equipment in return for what the Galactics consider fabulous treasures: whale songs, samples of organic chemicals, computer software, and even obscure Library references. Terran merchant ships are considered fair game by raiders. Still, trade with Galactics is becoming more and more profitable. Most commerce with Galactics is conducted by Terragens ships or colonial governments. Recently, a few private companies and cooperatives of wealthy individuals have gotten into the act; a few private vessels make regular runs to "nearby" Tymbrimi and Synthian colonies. This activity has made some Terragens Council conservatives nervous, but as long as the independent traders behave properly they are allowed to go about their business.

Players may take on the roles of crewmen or even (if they are Filthy Rich and have several friends likewise blessed) an owner. Merchants must be fluent in several Galactic tongues, and know how to deal with eatees of all shapes and psyches. They must also deal with Terragens inspectors and agents, who are terrified that a trader may let loose some secret or unintentionally insult an ally. The authorities forbid traders from dealing with many races (the Tandu, Brothers of the Night, and Soro, for example), and keep close tabs on the goods they buy and sell.

Biochemical differences can make foraging or even basic survival on alien worlds a challenge. Allergens, voracious fungi, or heavy metal toxemia may make life difficult even for castaways who avoid eating poisonous food. Apply a -2

penalty to Survival rolls in ecosystems whose biochemistry is semi-compatible; apply a -4 roll if the ecosphere has a poisonous biochemistry. (*Example:* Kithrup, whose lifeforms incorporate heavy metals.)

ADVENTURE SEEDS

Fifth Column

Many Earthclan citizens belong to pseudo-religious Von Danikenite cults that yearn to find Humanity's lost patrons. Others have adopted the dogma of the fanatic alliances, such as the Transcendors and Obeyers. Most cultists are harmless, if maladjusted, dilettantes. A few are more serious . . . and occasionally dangerous.

Adventurers both high and low could find themselves facing Quislings. Junior Terragens Agents are regularly assigned to infiltrate Von Danikenite cults. Most of these turn out to have no "eatee" contacts or pose any danger to Earthclan. If a cell turns out to have an affiliation with inimical Galactics, however, a routine investigation could turn into a dangerous assignment.

Fringie and "Probie" characters may find themselves targeted by a Von Danikenite evangelist. Such a "leader" could simply be a charismatic charlatan, offering glamour and hope to members of Earthclan's underclass in exchange for donations and a bit of acclaim. But some of them are recruiters for hostile or exploitative Galactics trying to establish cells of loyal followers in advance of an invasion.

Sooners

PCs who wish to tackle the dangers of a new world and avoid the strictures of either Terragens laws or Galactic Codes may become *sooners*. These are illegal colonists, daring and desperate types who sneak through hydrogen-breather regions to find fallow, Earthlike worlds to settle and exploit. Though officially opposed to such efforts, and prepared to conduct show trials to punish Earthclan sooners stupid enough to get caught, the Council does not take extraordinary pains to prevent its citizens from going rogue in this way. A secret colony might someday make the difference between life and death for the whole race.

It is difficult, but not impossible, for a private group to acquire a hyperdrive-equipped starship, and *any* ship can *try* to navigate a Transfer Point. Once away from Sol system, sooners are on their own; Terragens patrols cannot be called upon for protection. The journey will be fraught with peril, both from suspicious Galactics and from hydrogen-breathers. Even if they find and reach a suitable world, colonists must still face the natural dangers of their new home. And remember that each fallow world will eventually be officially colonized, be it in a hundred years or a thousand millennia. The Migration Institute also checks on fallow worlds now and then, to update Library records and eradicate interlopers. Sooners must keep a low profile!

Heroes' Journey

Calafia, Humanity's finest colony world, is under siege. Tandu raiders have smashed half its defenses, and invasion fleets are reported to be on the way. Reinforcements from Terra and the colonies may be years coming. *Who can help?*

The adventurers (who could be native Calafians or off-worlders trapped by the siege) are called to go on a special mission to convince some eatee moderates to help Calafia. The team should ideally include all three Terran species. The government provides a heavily shielded ship equipped with the best in Terran and borrowed Galactic technology; the rest is up to the PCs. This adventure would be an epic of great danger, suited to a "mini-series" rather than a continuing campaign. The adventurers could face greedy transfer-point guardians who can only be bought off by a fortune in dolphin songs; rogue hydrogen-breathers (see p. 12); Brothers of the Night looking for trouble; and reclusive elders willing to help Calafia . . . if the PCs first go on a quest for *them*.



Sanctuary

The players have the misfortune to be visiting a remote world owned by an unremarkable neutral patron race, the Weyyhone . . . when the Brothers of the Night invade. Their target: any Terragens personnel on the planet. The Weyyhone quickly give up the dozen Terrans on the world – except for the PCs, who have the good fortune to be in the august halls of the great Library. By law, the invaders cannot harm those inside. The PCs are safe . . . as long as they remain inside. Even the Brothers of the Night don't want to give offense to the Library Institute!

With the adventurers are Pila librarians, Thennanin scholars doing research, Tandu spies, and many, many other beings. Food (the equivalent of snacks and microwave meals) and water are adequate, but almost everything else is in short supply. Within hours, the schemes and intrigue begin. Will the Pila administrators find some loophole that allows the Earthlings to be turned over to the Brothers as a peace offering? Is the Lesh who claims he knows a "back door" out of the Library serious? Who is stealing clothing from everybody? And why does the Tymbrimi representative always *smile* whenever someone mentions calling for help?

FACING THE CONSEQUENCES

No Human – or neo-chimp, or Pring, or Klick-Klick – is an island. This is especially true in Galactic civilization, where responsibility and duty are prime virtues. If the adventurers do something big and important (or even something minor that affects important people), their actions may affect their clan's position in Galactic society. If some heroic (or infamous) deed becomes known, Galactic society (in the form of public opinion, Institute favor/disfavor) will judge the act. Roll four dice, modify as shown, and consult the table below:

Modifiers

The Perpetrators

Perpetrators were Humans: -1.

Perpetrators were Human clients (clients have an excuse to be careless): +1.

Perpetrators have any link to an Institute: +1.

Perpetrators were acting in best interest of their clan or race: +1.

Aided/Injured Parties

Action embarrassed or thwarted interests of a powerful elder clan (e.g., Lesh, Soro, Gubru): -4.

Above, but victim was a clan or race of moderate power (i.e., Pila, J'8lek): -2.

Action hurt a notable member of a powerful clan: -1.

Action helped a notable member of a powerful clan: +2.

Action helped a clan of moderate power: +6.

Action helped a powerful clan: +8.

The Institutes

The Institutes are highly respected, and almost all Galactics faithfully obey their rules.

Action was in gross violation of major (Library, Uplift, Migration, Civilized Warfare) Institute rules: -4.

Action violated rules of minor Institute (Institute for Trade, Institute for Progress): -2.

Action resulted in preventing/apprehending perpetrator of minor violation: +4.

Action resulted in preventing/apprehending perpetrator of major violation: +6.

The Environment

Endangering the environment of a world isn't popular among the Galactics!

Action severely damaged global ecosystem: -10.

Action resulted in extinction of species with Potential: -8.

Action damaged ecosystem or large region: -6.

Action caused local (city-sized) damage: -4.

Action violated Institute of Migration restrictions (illegal colonization, gene raiding): -4.

Action saved a region from environmental disaster: +2.

Action thwarted gene raiders or sooners: +4.

Action saved a species with Potential from extinction: +6.

Action saved a world's ecosphere from damage or destruction: +8.

Friends and Enemies

If the characters have time to gather support for their cause (and if they *know* they are being judged!), the GM should consider applying these penalties and bonuses. Each positive modifier should be sought after and *fought* for; dramatic roleplaying is called for here. The actions of individuals don't count for much unless they are applied in just the right way!

PC(s) have powerful, personal Galactic Enemy: -1.

PC(s) have powerful, personal Galactic Friend: +1.

PC or advocate has a chance to use Diplomacy: +1 for every full 4 points Diplomacy roll is made by.

PC(s) *quietly* supported by Terragens Council: +1.

PC(s) publicly supported by Council: Make Diplomacy rolls (Skill 14) for three diplomats: +1 for every four points rolls are made by.

PC(s) case supported by average clan/race: +1.

PC(s) case supported by powerful clan/race: +2.

3 – Moderate sanctions against adventurer's clan (vast fines).

4 – Minor sanctions against adventurer's clan (fines).

5 – Clan censured (All races in clan gain bad reputation, 1d-2 penalty).

6 – Adventurer's race censured (Race gains -1 racial Reputation).

7 – Institutes refuse/delay requests for services.

8 – Institutes issue mild reprimand.

9 – Institutes issue private reprimand.

10 – Individual(s) responsible fined and censured (drop one income level; gain -2 Reputation among Galactics and clan's own diplomats).

11 – Individual(s) responsible censured (-1 Reputation).

12-18 – Nothing of any consequence.

19-20 – Institutes praise Individual(s) responsible (+1 Reputation).

21-22 – Individual(s) praised, rewarded (+2 Reputation among Galactics and clan members in the know; get 1d × 1,000 GalCoins).

23 – Institutes expedite clan's requests for service.

24 – Institutes praise adventurer's clan (+1 to racial Reputation).

25 – Vast rewards to adventurer's clan (+1 to racial Reputation, increase racial wealth by a level for 10 years).

26 – New colony awarded to adventurer's clan, or +2 to racial Reputation.

27 – Orphan client awarded to adventurer's clan, or +2 to racial Reputation.

If the PCs' whole race or clan suffers, the adventurers will be put on trial . . . if they are lucky. Sparking a War of Enslavement, or causing the clan to lose a colony or client, may result in a lynching and will certainly give the whole party an *extremely* bad reputation. Of course, if the act that spurred the penalty was an act of extreme heroism done on behalf of the clan, the PCs may be forgiven, or even rewarded, regardless of repercussions.

If the PCs manage to bring blessings on their entire race or clan, they might win honors, medals or increased status. If the case becomes known, they might gain a new Reputation. *Clients* may receive a better reproductive rating.

Results

-3 or less – Institutes declare War of Extermination against adventurer's entire clan (begin a "fight for your life" style campaign).

-2 – War of Extermination against adventurer's race.

-1 – War of Enslavement against adventurer's clan.

0 – War of Enslavement against adventurer's race.

1 – Institutes declare major sanctions against adventurer's clan (clients & colonies lost).

2 – Major sanctions against adventurer's clan (colonies lost).

WORLDS & ADVENTURES

CHAPTER 8



There are tens of thousands of habitable worlds in the Five Linked Galaxies. This chapter describes some of them, and the abyss they swim in. A map of the Ehbu'chi'u Sector, Sol's neck of the galaxy, is also included.

GALACTIC GEOGRAPHY

The Milky Way ("Central Galaxy") is more than a pretty pinwheel of colored lights. Around the dense core are the spiral arms – pressure fronts in a cloud whose particles are stars. In the densest part of the arms, supernova explosions enrich the interstellar medium with heavy elements and create compression waves that trigger star formation. Beyond the galaxy's bright disk is the halo, sparsely populated with globular clusters of dim red suns.

The regions of hyperspace corresponding to the galaxies are not dull places either; the movement of mass on our level of reality affects the laws of motion in these realms. Gravity waves from neutron stars and black holes create currents and deadly turbulence. Transfer threads – flaws in space-time left over from the beginnings of the universe – link distant regions.

Mapping

Habitable worlds are scattered thinly through the galaxies. Average distance from one habitable world to the next is about 500 light-years (150 parsecs). There are a handful of densely populated clusters, however, where dozens of habitable worlds lie within a few parsecs of each other. Ownership of worlds in these clusters is hotly contested.

Don't even bother trying to map an entire galaxy. Galaxy Two, with a radius of about 15 kiloparsecs, contains over *seven hundred* sectors! Start off with one sector, perhaps centered on a Human colony, and base your adventures there. If you need to send characters to the other side of the galaxy, don't feel obligated to map out the way; ships traveling that far use transfer points.

Mapping is best done on graph paper, with a scale of 33 pc (parsecs) per square. A *sector* is 1,000 pc (1 kiloparsec) on a side and 600 pc deep (the average thickness of the galactic disk). This translates into a square of 30 × 30 graph-paper squares. When plotting worlds, be sure to take the vertical axis into account; worlds can be as much as 300 pc above or below the galactic plane. (Interesting aside: high-mass stars become rarer as one moves from the plane of the galactic disk. We do not live in a simple universe!)

The map only shows star systems with habitable worlds or important transfer point nexuses (see p. 105). On this scale, each map cube will contain *tens of thousands* of star systems. Most of these are useless red dwarfs, stars with no planets, or mere belts of rubble.

World Classification

The Library's atlas section classifies each world, based on suitability for habitation, delicacy of ecological balance, presence of presapient life forms, and proximity to regions occupied by hydrogen breathers. A world's class can change with time; the Institute for Migration regularly surveys (in galactic terms; millions of years may pass between check-ups!) known planets and updates records.

Fallow/Interdicted

Fallow/Interdicted worlds are in zones declared off-limits by the Institute for Migration. They vary greatly in quality; some are blighted wastelands, others are healthy worlds ripe with potential. The Library records on these worlds may be out of date because Institute for Migration survey ships don't like intruding on hydrogen breather territory!

Fallow/Local

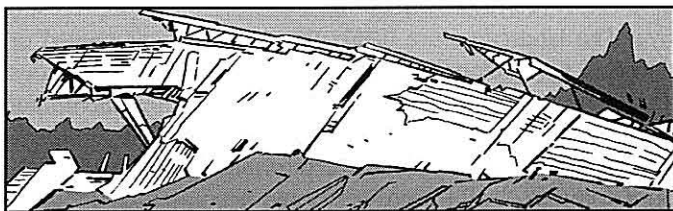
Fallow/Local worlds are in regions of the galaxy currently accessible to Galactic civilizations. They are off-limits to colonization, mining, and searches for potential client species, and are regularly patrolled and inspected by the Institute for Migration. These worlds range from worn-out colonies to rich, ecologically sound worlds almost ready for resettlement. With proper authorization, scientific expeditions (such as Institute for Uplift teams keeping tabs on a promising species) may visit such worlds, but permission is very hard to come by.

Preserve

Preserves are the home worlds of ancient races waiting for devolution, extinction, or transcendence. These elders find the antics and energy of young, rambunctious races upsetting, or even painful. (Conversely, young species are often appalled by the degeneration and senescence of elder races.) Preserve status is also given to worlds granted to neurotic clients who have been badly mistreated or subjected to cruel uplift practices. Kithrup was a Preserve of this type.

Galactics respect the privacy of Preserve inhabitants, although they are occasionally surveyed by Uplift Institute and Migration Institute personnel. Systems with preserve worlds may be traveled through, but the Preserve worlds themselves may not be approached; the Institute for Navigation maintains warning buoys around preserve worlds.

Preserves can be dangerous. Elder races may *seem* harmless and feeble, but have access to ultra-tech devices and psychic powers. The Elder's descendants may also resent intrusion; the Tandu once exterminated a young race that intruded on a clan-ancestors' home world.



Open

Open worlds are those available for colonization. Potential client species native to them are fair game for adoption and uplift. Unless they are ecological basket cases, open worlds are quickly assigned to territory-hungry patrons. Claims on open worlds are registered with and approved by the Institute for Migration.

Major Worlds

System	World	Ownership	Comments
Mayhim	Deemi	Terragens	Earthclan colony
Sol	Earth	Terragens	Earthclan homeworld
Vanner	Horst	Terragens	Earthclan colony
Doimil	K7kakk	Fonnir	Fonnir homeworld
E10-191	Kauyoon	Gubru	Minor outpost; terraformed
E10-10	Tindiri	Gello	Terraformed
Vahna	Tyfi	Tymbrimi	Minor outpost

Colony

Colonies are worlds currently inhabited by Galactics. They are leased, not owned. Length of a lease varies from a few thousand to millions of years. The well-being of the world is monitored by the Institutes. The reputation and influence of the leasing clan determines how *closely* it is scrutinized. The worlds leased to the Terragens are mostly of poor quality; the Institute for Migration does not yet trust the wolflings with breakable goods. To the settlers' credit, and the chagrin of Earthclan's enemies, these colonies have been well cared for.

Homeworld

A homeworld is a species' native world. They may be occupied until the race becomes extinct, retires, or transcends. Worlds with homeworld status are actually rather rare. Many patrons remove new ur-clients from their native world, so they can settle it themselves! Sometimes, shifting borders cause a homeworld to end up in a region due to be ceded to Hydrogen-breathers. The inhabitants are given the chance to relocate, or a free-passage corridor is established between the homeworld and Galactic space.

Earth is classed as a homeworld, as is Tymbrim.

Terraformed

This is a barren planet recently turned habitable through planetary engineering. They are subject to few environmental regulations, and may be occupied as long as they are in Galactic territory. Terraformed worlds are rarely pleasant places to live. The landscapes are bleak, their atmospheres tainted or thin, and the work of establishing a stable ecosystem tedious and dangerous. They are usually given to junior clients not ready to be trusted with a delicate ecosystem.

With time, a successfully terraformed planet may develop a complex, "wild" ecosystem and become indistinguishable from a natural world. Many Galactic races are native to worlds that began as bleak rocks billions of years ago.

Other Spaces

Beneath and through real space are the layers of hyperspace and the complex net of transfer points. These strange realms are described in Chapter 6.

Political Control

The galaxies are politically divided. The most obvious division is between Galactic (oxygen-breather) and hydrogen-breather territories. The ragged borders between these domains slowly shift as territories are swapped, and corridors of travel to isolated worlds are negotiated in and out of existence. Within the oxygen-breather region, powerful patron lines claim large, diffuse territories defined by control of transfer points and volumes of easy hyperspace travel. Though not every star and planet in the volume may be under the control of such a hegemony, use of the region's transfer points is often taxed, prohibited, or limited in some way. Other systems may be controlled by a poor patron or unimportant client race. These gatekeepers may depend on transfer point taxes for their entire racial income! Volumes between major races' turfs may be monitored by institute-sponsored patrols. The borders of hydrogen-breather regions are patrolled by the Institute for Migration to keep gene raiders and sooners from encroaching on fallow worlds.

The GM should set up a region's political situation with an eye toward creating adventure opportunities for the players. To randomly determine local restrictions, use the table below. Roll 2d and modify as follows:

Galactic fringes or Halo: -2.

Near Hydrogen-Breather region: -3.

Within 1,000 pc of major power home world (Tandu, Soro): +2.

Within 100 pc of minor power home world (Kanten, Tymbrimi): +1.

Between two major powers: -1.

Transfer point(s) in system lead over 100 pc distant: +1.

Transfer point(s) in system lead over 1,000 pc distance: +3.

Transfer point(s) in system lead to another galaxy: +5.

A- or B-level hyperspace travel impossible in region: +1.

1 or less – Institute patrol looking for gene raiders or "sooners" questions travelers nearing hydrogen-breather region (-2).

2-5 – No restriction.

6-8 – Questioned by Institute patrol (+2).

9-10 – Local race questions travelers (-1).

11 – Local race detains and taxes travelers (-2).

12-14 – Minor/Major galactic clan taxes use of point (+1).

15+ – Minor/Major galactic clan restricts use of point (-3).

The number in parenthesis is a reaction modifier, used when rolling to determine the attitude of the patrol force.

Transfer point fees are typically $2d+3 \times \$10$ per ton of ship. Make a reaction roll, apply the modifier given above, and consult the appropriate *Commercial Transaction* section of the Reaction table (p. B205) to determine the exact toll. Local races – minor patrons or clients – may charge more, and may go out of their way to harass and delay travelers. Major or minor galactic clans are more businesslike about collecting tolls, but insist on proper procedure and etiquette.

THE EHBU'CHI'U SECTOR

This is a sample sector design. You may use it in your own campaign, or create your own, perhaps centered around another Earthclan colony.

The Ehbu'chi'u sector, named after the A-class star near its center, is considered a backwater. It is not well-connected to neighboring sectors, has many "ash" worlds ruined in ancient conflicts, and much of it is Hydrogen-Breather territory.

Ehbu'chi'u is home to the Solar System, two Terragens colony worlds, and several Galactic settlements. These include K7kakk (the ancient homeworld of the Fonnir), Kauyoon, and Earth. Tymbrimi space is located to the south and southwest of Ehbu'chi'u sector. A Tandu enclave is located just north of the sector.

Transfer Points

In addition to hundreds of local points and two dozen intra-sector points, three important transfer point lines end in the sector.

The *Perseid Dendrite Access* leads from E10-10 to the vast transfer-point web of the same name; it is the major "highway" into the region and is controlled by the Gello of Tindirri.

The *Keevee Line*, which originates in the hydrogen-breather zone at star E10-A20, leads to the Keevee spur on the other side of Galaxy Two. The line has seen much unauthorized use lately, when fleets of the Obeyer alliance swarmed through to lay siege to Sol.

The *K9!oooh Access* (also terminating in the hydrogen-breather zone, at E10-A67) leads to the populous Naurishion sector. Abdicator fleets recently used this point to intercept the Obeyer forces heading for Earth.

A free-travel corridor links Galactic space to Doimil, K7kakk's sun. Institute for Migration ships patrol the systems (E10-37, E10-988 and E10-19) along the route to Doimil. Sightings of hydrogen-breather ships in the corridor are common (roll 5 or less on 3d per day spent in the corridor), but they usually respect the neutrality of the corridor.

Hyperspace Conditions

Hyperspace travel on the upper half of the map is affected by a current leading to the right; travel against the current is at half speed, travel with the current at 50% greater than normal speeds. Hyperspace travel in the rest of the sector, including Sol's neighborhood, is at half speed.

DEEMI

Deemi is the fourth planet of Mayhim (pronounced May-HEEM), a F6v main sequence star. The world was settled 220 years ago.

Deemi started out with a thin methane/CO2 atmosphere. An unknown race began terraforming it several million years ago, when it was located deep in a hydrogen-breather region. Its discovery sparked a major scandal. The world was adopted, further terraformed, and abandoned three times before the Migration Institute leased it to Humanity.

The current atmosphere is thin but quite breathable, with an oxygen partial pressure about the same as Earth's. Deemi lacks a decent ozone layer; fortunately Mayhim's UV output is reduced by the almost constant cloud cover in the temperate regions. The atmosphere is quite turbulent, thanks to greater-than-average insolation, rapid rotation, and a drastic axial tilt.

Only about 16% of Deemi's surface is covered with liquid water, found in numerous circular seas (craters) and rift valleys. Seawater evaporated by the warm climate and winds falls as rain on the flood-scoured badlands and plains.

The Migration Institute considers Deemi a "hardcase" world. The ultraviolet bombardment, harsh weather, and flood-depleted hardpan soil have defeated its past tenants. Barring a visit by the miracle-working Linten gardeners, creation of a stable, comfortable ecosystem will require thousands of years of toil.

Life

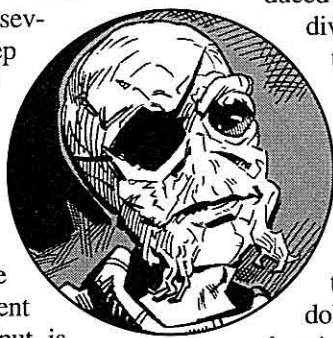
Deemi's sparse land life is descended from species introduced by the world's four former tenants. It is extremely diverse, tough, and fecund. Plants are black in color, to protect themselves against UV damage. Animals tend to be nocturnal, burrowing, or both.

Deemi's many landlocked seas are home to varied and dynamic ecosystems. The worlds of origin and biochemical bases of sea life vary from sea to sea. The UV-drenched photic zones of the seas are the sites of some of the most spectacular "ecological battlefields" in the galaxy; neodolphin explorers must don armor before entering them!

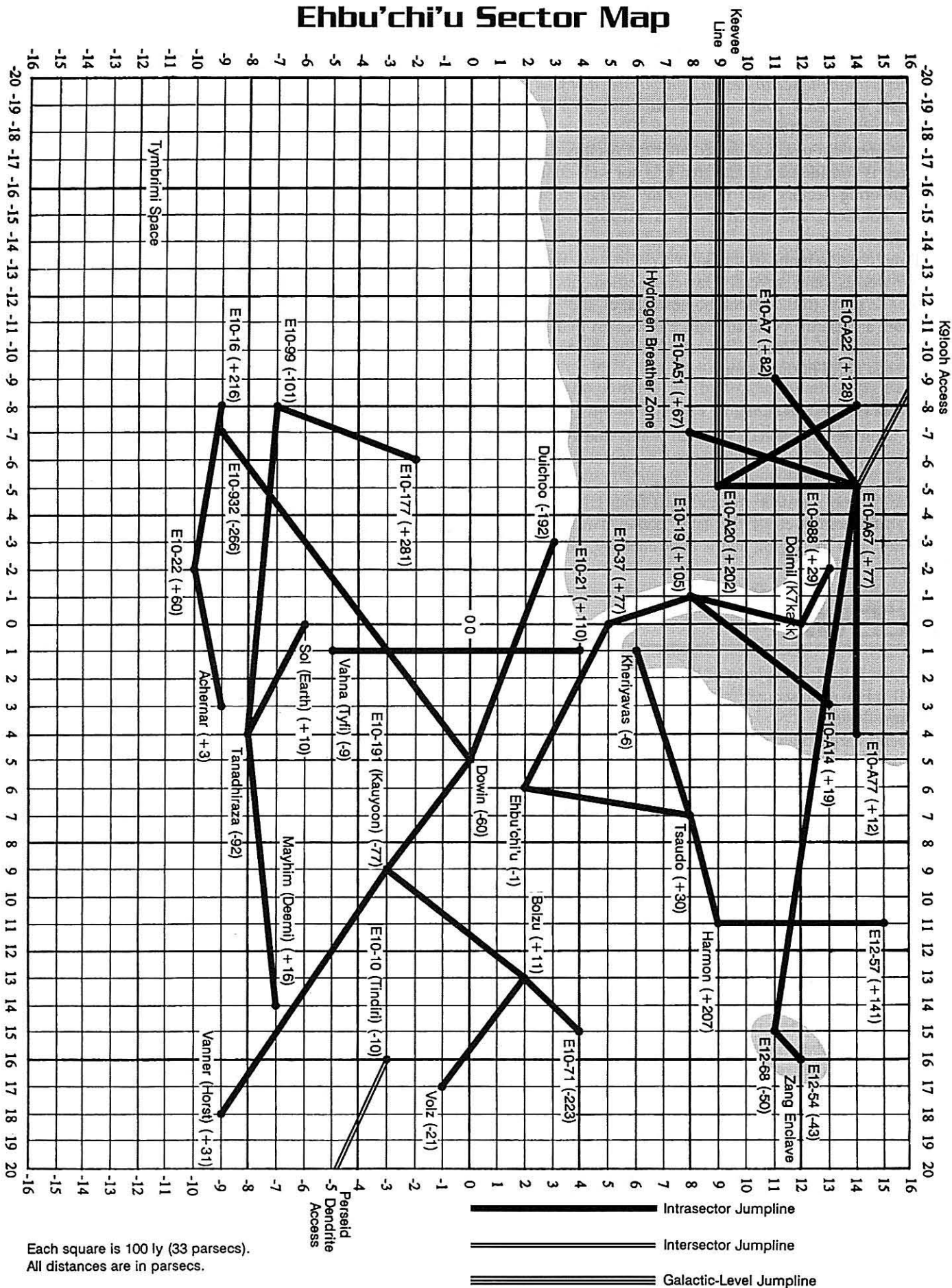
The Earthling colonists have found a few native plant species that are edible, but most food comes from the seas and carefully tended crops of Terran origin.

Society

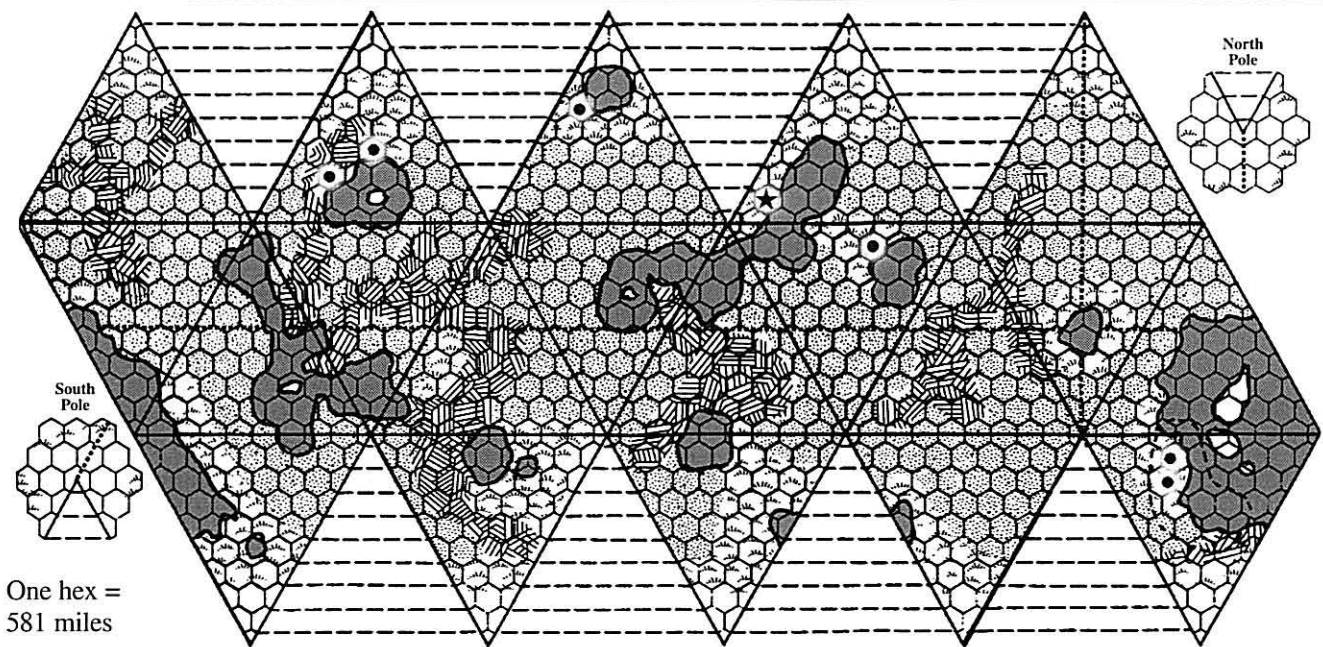
Half of Deemi's six million inhabitants are Human. Chim make up 45% of the total, Fen 4%. The remaining 1% live in the Voohuaja District, a dumping ground for the exiles and outcasts of Galactic society. These range from heretics and hard-bitten criminals to wretched "mistakes" from genetic engineering labs. The terms of Humanity's lease on Deemi requires that it administer the District.



Ehbu'chi'u Sector Map



PLANETARY RECORD: Deemi (Mayhim IV)



Planet Type: Earthlike **Diameter:** 8,300 mi. **Gravity:** 0.93 G **Density:** 4.9 **Composition:** Medium-Iron
Axial Tilt: 42° **Seasonal Variation:** Major **Length of Day:** 18.7 hours **Length of Year:** 639.9 days / 1.75 Earth years
Atmosphere Pressure: 0.61 (Thin) **Type and Composition:** Nitrogen 71%, Oxygen 26%, Other 3%
Climate: Warm **Temperatures at 30° Latitude Low:** 70° **Average:** 90° **High:** 110°
Surface Water: 16% **Humidity:** 71% **Primary Terrain:** Desert/Veldt
Mineral Resources: Gems/Crystals: Absent **Rare Minerals:** Scarce **Radioactives:** Scarce
Heavy Metals: Ample **Industrial Metals:** Ample **Light Metals:** Plentiful **Organics:** Ample
Moons: None

Biosphere:

Dominant life form: Humans, chimps, neo-dolphins.
Other significant life forms: Some native plants, insects.

Civilization:

Population(s): 6,000,000 (PR 7) **Tech Level(s):** 7/9 **Control Rating:** 2
Society: Representative democracy with ties to the Confederacy and the Council.
Starports: Class III at Hendrix.
Installations: ERS stations, Colonial office, research station, penal colony.
Economic/Production: No notable exports; small agricultural surplus. Most manufactured goods of TL9 are imported.

Other Notes:

Map Key: Capital, Hendrix. The dashed line indicates the border of the Voohuaja District penal colony. Deemi's damaged ecosphere is being reconstructed by the colonists.

System Information:

Star Name: Mayhim **Type:** F6 V **Location:** Ehbu'chi'u 14/-7/16
Biozone: 1.6-2.4 **Inner Limit:** 0 **Number of Planets:** 6

Planet	Orbit	Distance	Type	Diameter	Density	Gravity	Atmosphere	Notes
Anvil	1	0.2	Hostile greenhouse	3,100	3.1	.22	CO ₂ , Sulfides	Geologically active
Hammer	2	0.3	Hot rockball	1,600	3.5	.12	None	Eccentric orbit
Lencina	3	1.0	Hot rockball	6,100	4.2	.54	None	Retrograde rotation
Deemi	4	1.8	Earthlike	8,300	4.9	.93	Nitrogen-oxygen	See above
Zauner	5	3.4	Gas giant	47,000	.6	—	Methane	—
Ev	6	6.6	Terrestrial	5,200	2.7	.32	Thin methane	—

Deemi has a mixed economy, but its industries and farms produce almost nothing worth exporting. Most high-tech goods must be imported. Earthclan has found values in its seas (which produce a bumper crop of exotic life) and in the world's almost intractable ecological problems. The ERS trains its ecologists and tries out new techniques on Deemi's hardpan and bleak veldt. A major administrative center of the Terragens Council's Colonial Service (fully capable of running the affairs of Earth's colonies should the homeworld fall) is located on Deemi.

Another much-needed source of foreign exchange comes from the operation of the Voohuaja District; it is run almost entirely by Human and Chim administrators.

Terragens settlements are scattered along the western coasts of several seas in the northern hemisphere. (The prevailing winds make the east coasts of the northern seas into swamps or rain-ravaged badlands.) The Voohuaja District is on the west coast of the landlocked Solarian Sea. The Terragens colonists' standard of living is physically austere, but the education level is higher than average. Thanks to heavy (albeit low-tech) automation, most citizens work in administrative positions, service industries, and ecological research. The Fen populace is employed as fish-wranglers and aquatic pioneers. Deemi's seas are an exciting and dangerous realm just beginning to be explored.

Because Deemi's major business is research, its culture has a distinct academic flavor. Ordinary people seem peculiarly well-informed, and eagerly follow news of discoveries in the seas and triumphs out on the hardpan. Local humor depends on the debacles and flops committed by the ERS or Council bureaucrats. Deemi still imports its "high culture" and mass entertainment from Earth.

Voohuaja District

The Voohuaja District receives few visitors. The administrators don't want their charges – no matter how freakish – to feel like zoo animals. There's also not much to see. Other than the utilitarian central command post and transport depot, Voohuaja has little more than scattered clusters of tents and prefab housing. The 61,000 inmates tend small farms (growing crops from several dozen worlds!), run the desalinization plant, or keep up the irrigation system. The most technically skilled transportees run the camp's nutrient plant, which synthesizes nutritional supplements tailored for the 58 inmate species.

The transportees live in squalor or barbaric luxury, depending on how industrious or ruthless they are. Sources of diversion include fights (several dozen occur a week), a few small Library branches, and productions by Earthclan entertainers who can't make it *anywhere* else. (Playing at Voohuaja is the equivalent of doing dinner theater at an officer's club at the South Pole.)

Some transportees chose to remain on Deemi when their sentences end. These exiles usually move to the settled regions to labor in mines or fields. Some of the more scholarly ex-cons contribute their knowledge of Galactic technology or science to the ERS terraforming teams.

Adventure Seeds

Whistle a Profitable Tune

A Human journalist from Luna colony has "discovered" major new talents on Deemi. A pod of Fen explorers has – purely for fun – been composing an epic poem about their discoveries in the turbid crater-seas. The charmed journalist has recorded several dozen hours worth of Trinary and Anglic storytelling and is convinced the works are of export quality. Alas, she neglected to *tell* the neo-dolphins that she was recording them. The shifty impresario plans to sell the tunes to eatees and return home wealthy.

Fortunately for the Fen, a local Chim (a musician himself, and a friend of one of the PCs) has gotten wind of the journalist's plan. He lent the woman his copyright datarecorder for several days. She neglected to clear the machine's copyright register before returning it, leaving clear indications of who and what she recorded. The Chim tells the adventurers about the situation and asks them to help track down the journalist and retrieve the data cubes before she can sell them.

A little detective work reveals that the woman is already on her way to Horst. If the PCs have interstellar transport available to them, they can go after her. If they are stuck on Deemi, they can at least see that the journalist is brought to task for her crimes. Taking proper legal action against her requires the party to visit the exploited Fen's research base, in a sea in the southern hemisphere. They will need the Chim's datarecorder, another recording of the epic, and testimony from the Chim and the dolphins.

Volunteers, Please

A Terragens Colonial Service researcher makes the group an attractive offer. The Service has developed a new desert survival pack, and needs four or five novice volunteers to test it in the field. If they accept, the PCs will be equipped with packs, instructions, and rating forms, and dropped off in the desert, three days from the nearest settlement. When they arrive at the settlement, or call for an emergency pick-up, they will be paid a \$10,000 honorarium and gain friends in the Colonial Service (two points of Contacts).

The test area, located in the foothills of a mountain range just east of a major sea, has some vegetation and pools of muddy, alkaline water. The packs have canned water, first-aid gear, osmotic filters, shelters, emergency radios, signal flares, and a variety of rations. Printed circuitry and miniature piezoelectric speakers built into each component give them *voices* that provide instructions and survival tips. They even have the ability to respond to simple questions! The packs add +4 to Survival (desert) rolls.

The first day of the journey goes smoothly. Besides brisk winds, the weather and way are clear. Several animals will be spotted, but they are all small and scamper off after inspecting the party. The following day is more of a problem. The cooling winds die down and a thick fog settles over the desert. Hungry animals gather around the camp, darting in to steal food and attractive artifacts whenever someone's back is turned. In the

afternoon of the second day, there is thunder in the mountains. Anyone even vaguely familiar with Deemi weather and terrain realize that flash floods could come at any time.

Unfortunately, the packs pick this time to start failing. The instructional voices develop strange accents, and botch the answers to even simple questions. If the instructions are followed, the relatively simple-to-erect shelters end up looking like pieces of abstract art. The chip-voice's recipes turn the food concentrates into soupy, slimy wastes. Some of the equipment is faulty as well; the osmotic water filter's frame will soften and dissolve when exposed to the desert's alkaline water. The radios, built into the fabric of the pack's carrying straps, play obnoxious marching music. No one answers calls

for help. The characters' well-being depends on their innate survival skills and fleetness of foot. They must find high ground and dig in as best they can.

If the party fails to show up after three and a half days, search parties will be sent out; unless they are deliberately hiding, the PCs will be spotted in a day and brought home.

Should the party survive to reach the settlement, they are given a chance to recuperate and are then thoroughly debriefed. Knowledgeable characters who can write a detailed critique of the packs will receive a \$2,500 bonus to their fee (requires Survival (desert) skill 10+ and a successful Writing roll). Losing a pack, which must be examined to determine what caused the failure, results in a \$1,000 penalty.

EARTH

Earthclan's home planet is wealthy, unpolluted, and home to a prosperous and civilized people. By the standards of earlier times, 25th-century Earth is close to being a Utopia. The evidence of the past's abuses and present shortcomings are kept well hidden from visiting Galactics.

Earth is less crowded than it was at the dawn of man's space age. Population is about 2.5 billion; Fen and chim account for about a tenth of this figure. Another half-billion live on Luna and nearby space cities. Earth's cities, particularly those in ecologically delicate regions, are mere shadows of their former selves. The teeming, horribly polluted megapolises that blighted the Third World in the 21st century are gone; some have been reclaimed by forests. A few of the ancient cities are still the bustling, exciting places they were in the 21st century. But these function more as museums and recreational facilities than centers of civilization. They are surrounded by low-density arcologies, parks, and "recreational wildernesses." Truly wild land is off limits except to ecological workers and licensed hikers.

Economy

The standard of living ranges from adequate to opulent. Almost everybody gets a college-level education, superior health care, bountiful food, and secure shelter. True poverty is almost unknown, and the average person has access to comforts and tools that most 21st-century Americans would consider unaffordable luxuries. On the other hand, outrageous levels of wealth are rarely achieved. Entrepreneurship, innovation, and "doing well" are respected, but becoming wealthy at the expense of fellow citizens, society, or (especially!) the environment is considered disgraceful. "Feudal" arrangements (keeping of servants and creating mock-aristocracies) are frowned upon; the richest people on Earth may own space-ships, but they are still expected to sort and take out their own garbage.

There are still plenty of dirty, tiring tasks to be done in even the wealthiest parts of Earth, but the worst and most degrading jobs are done by robots. Computer networks, advanced medicine, and a "post-industrial" economy have eliminated many career types. Lawyers and surgeons are

rarely-seen specialists, and Human dentists are anachronisms. On the other hand, thousands of new job categories have sprung from genetic screening programs, the needs of environmental maintenance, contact with eatees, and space travel.

Culture

Much of Earth's cultural diversity was ground down during the long reign of the old Bureaucracy. Electronic media also played a role in creating a global culture. Perhaps as a reaction to Galactic hegemony, 25th-century Earthlings are relearning old languages and folkways. Historical recreations and roleplaying games are a burgeoning industry. Other Terrans have gleefully adopted Galactic lifestyles . . . or what they *believe* to be Galactic lifestyles.

Most of the old religions still exist. All but a few have come to terms with evolution and the idea that Humanity is not a unique or favored race. Their influence on politics and policy is almost non-existent.

Some members of the Earthclan have adopted and adapted the quasi-religious beliefs of the eatees.

Government

Earth was politically unified, in some cases rather brutally, by the Bureaucracy. The old regime's central control gave way to the Confederacy. (The settlements on Luna, Mars, and Venus are also part of this body.) There are no longer nation states *per se*; countries and many ethnic regions have self-government about as powerful as the states of the USA, circa the early 19th century. Civil and social (food, shelter, education and medical care) rights are ensured by influential advocacy groups.

Government would probably play even less of a role in day-to-day life were it not for the Galactics. Contact with the sophisticated, alien, and often dangerous starfaring culture forced the creation of the Terragens Council, a parallel government whose authority stretches from classrooms and genetic counselors' offices on Earth to colonial lumbering operations and eatee hostels.

Adventure Seeds

The Ugly Galactic

The realization that Earth was the Galactic equivalent of a Third World backwater came as a great shock to Humanity. Most Earthlings put their best face forward for visiting Galactics, but a few resent the presence of eatees. Some xenophobes see aliens as a threat to their religious beliefs; others are Terran (or Human) chauvinists who would like to see the homeworld purified of offworlder contamination.

The Council and Earth's governing Confederacy officially condemn xenophobia (any other stance would hurt Terragens foreign affairs), but the measures necessary to stamp it out for good would warp Human culture terribly. (Also, the Council recognizes the value of politicians and military personnel who are mildly suspicious of eatee

motives.) Threats against Galactics are handled on a case-by-case basis. PCs playing Terragens agents (or trainees) may be assigned to escort eatee tourists. Adventurers could also be asked to infiltrate organized groups.

Xenophobes make great villains in any situation, but those encountered on Earth are likely to be crazier, less inhibited, and harder to track down than those found elsewhere. Some groups may have connections with chauvinist factions of the Confederacy, or perhaps even sympathizers on the Terragens Council!

Slumming It

Earth is one of the few places where adventurers will find an thriving underground and bohemian "drop out" subculture. Those with a taste for danger, illicit pleasures, and interesting company will find them in the hearts of the older cities. Earth's dark, forgotten corners are also home to people with useful – if not socially approved – talents.

MERCURY

Mercury, Sol's innermost world, is a small terrestrial planet composed of rock and nickel-iron. Though it is less dense than Earth (whose greater mass compresses its core material more), Mercury is richer in metals. The planet rotates quite slowly; a day is about 56 T-days long. Daytime surface temperatures are hot enough to melt lead; Mercury's negligible atmosphere consists of scant atoms knocked loose by intense insolation and captured solar wind particles.

Settlements

Mining, refining, antimatter manufacture, and high-heat industrial processing thrive in Mercury's four settlements. Three of these are spaced around the equator; a fourth sits at the north pole. Each has a spaceport, but only the polar settlement – Hermes Base, underneath the crater Goethe – has repair and refit capabilities. Hermes is also the home base of the ongoing Sundiver project, which sends ships into Sol's chromosphere. The settlements are comfortable but far from luxurious. Air, water, and nutrients are recycled, but fresh foods are a popular import.

About three million Humans and chimis live on Mercury; most are temporary residents, working under contract. There

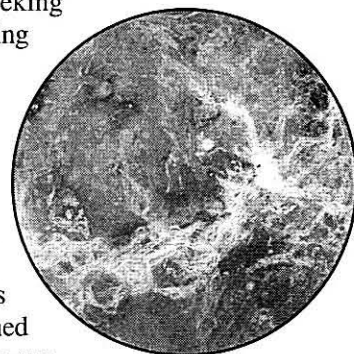
is a small tourist industry. Oddly, many of Mercury's visitors are curious eatees, come to research scandalous rumors and perhaps to catch a glimpse of the mysterious Sun Ghosts.

Mercury's civic and government services are provided by a variety of syndicates and communes. Mercury sends representatives to the Confederacy.

Adventure Seed: Sundiving

Project Sundiver continues, under the watchful eye of eatee observers and Terragens diplomats. Sunships (which look like mirror-finished Christmas-tree ornaments) leave for Sol's chromosphere every month. Cadging a ride on a ship, or getting permission to see taped coverage of Sun Ghost contact efforts, is extremely difficult. Only the most reliable personnel are allowed aboard the ships, and then only after swearing nondisclosure oaths under truthscanners.

Still, journalists, cultists seeking enlightenment, and spies working for the Galactics keep trying.

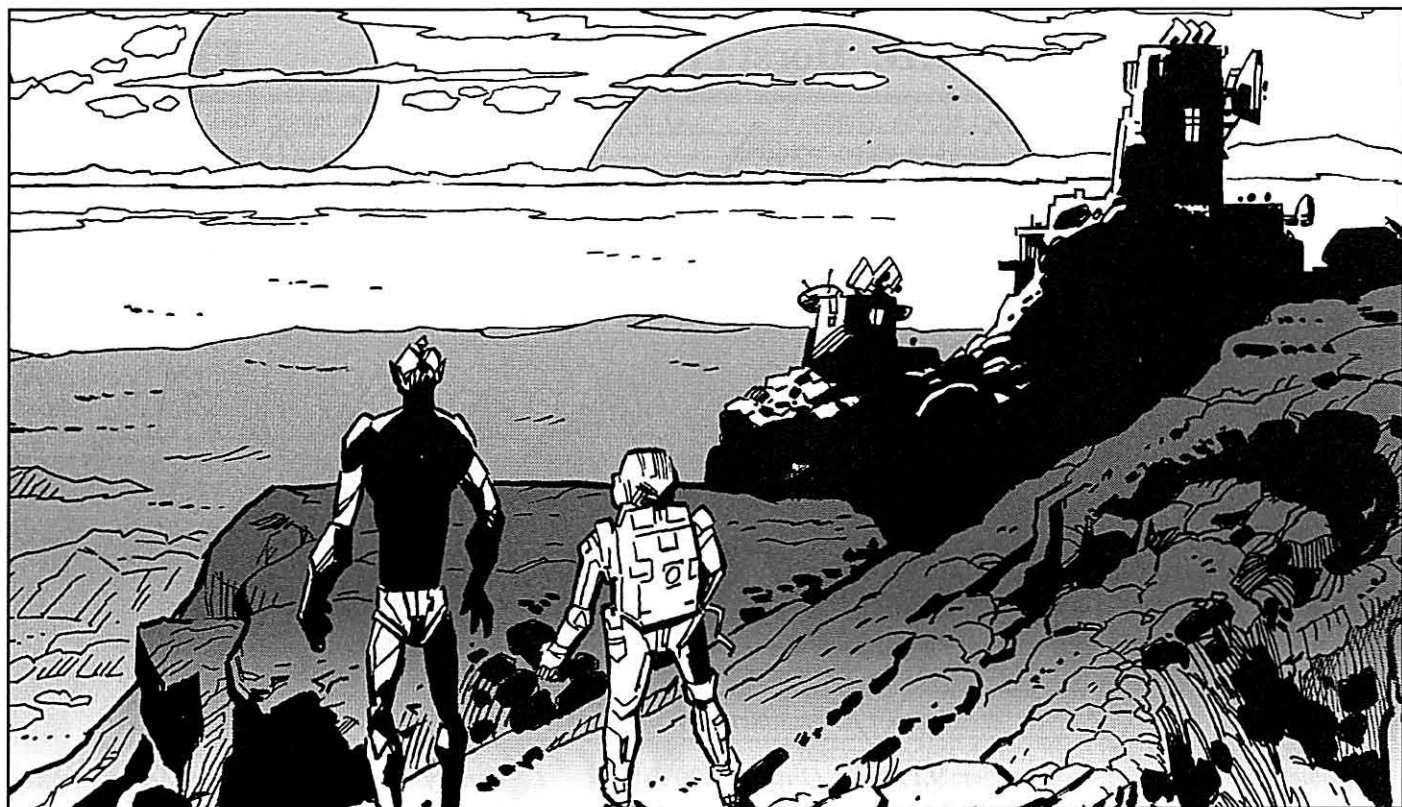


VENUS

Though the Galactics have picked some pretty awful worlds for the Terragens to colonize, none can compare to one world Earthlings chose to settle on their own.

Known in the dark ages as "Earth's twin," Venus is a searing-hot greenhouse world with a dense atmosphere of carbon dioxide, sulfuric acid vapor and other gaseous goodies. Despite nearly 300 years of terraforming, walking on Venus' surface still requires bulky armor. An unprotected person will die instantly in the 600-degree heat and 80 atmospheres of pressure.

Venus has a gravity of .88g. It rotates about its axis every 243 days; this, combined with the planet's orbit about the sun, give Venus a "day" of 117 T-days. A given point on the surface receives 58 T-days of light and 58 T-days of darkness in turn. Tectonic activity and surface features are similar to Earth's. Venus is covered with terrain similar to Terra's ocean basins; it has one large continent and chains of mountains which might someday form an archipelago.



History

Venus was settled about 300 years ago by groups disaffected with the oppressive old Bureaucracy. Vietnamese, Israelis, Minnesotans, and other independent-minded folk found freedom at the cost of constant struggle and peril. Carefully planned towns were set up under domes and in caverns. After becoming self-sufficient, they began terraforming their home. Hardy microbes are periodically seeded in the upper atmosphere, turning CO₂ and sulfur into an inert mineral dust. One hemisphere was set aside as a target zone for comets that are regularly “dropped” onto Venus to introduce water and other volatiles. Giant conversion plants on the surface “cracked” crust materials to release nitrogen and absorb harmful gases. Recently, Galactic technology has accelerated the speed of the conversion; meteorologists predict rainfall in “only” a thousand years or so.

Settlements

Venus’s population is about 75 million; over 99% are Human. Chims live in some settlements; Fen are seen only in starport hostels and universities. Galactics rarely visit Venus; not only is it unpleasant, but the Terragens Council quietly discourages eatee tourism.

There are 15 major settlements on Venus, plus thousands of lesser outposts. The latter range from cracking stations to miners’ huts. All buildings are heavily armored and sealed, to keep from being crushed by Venus’s dense atmosphere or shaken apart by the shocks of comet-impacts.

All of Venus’ settlements are in the “eastern hemisphere.” The far side, where comets fall almost yearly, is supposed to be uninhabited, but some hardy types rush in after an impact

to collect exposed mineral wealth and interesting crystals spawned by the impacts. It is rumored that outlaws and exiles live there, too.

Food is grown on hydroponic farms; except for fish, meat is an imported luxury. To prevent claustrophobia and maintain a connection with Humanity’s home environment, the corridors and chambers are decorated with hologram panels; the “streets” of Venus’s settlements lie under reproductions of clear blue skies or rain-forest canopies. Many areas have planters and miniature gardens; some public squares are carpeted with tough, genetically altered grass.

Though much surface work could be done by robots, Venusians take a perverse pride in doing their own work. Children are taught surface survival as a matter of course; drills and tests are held regularly. Workers typically spend half of their time outside or in cramped vehicles and outposts.

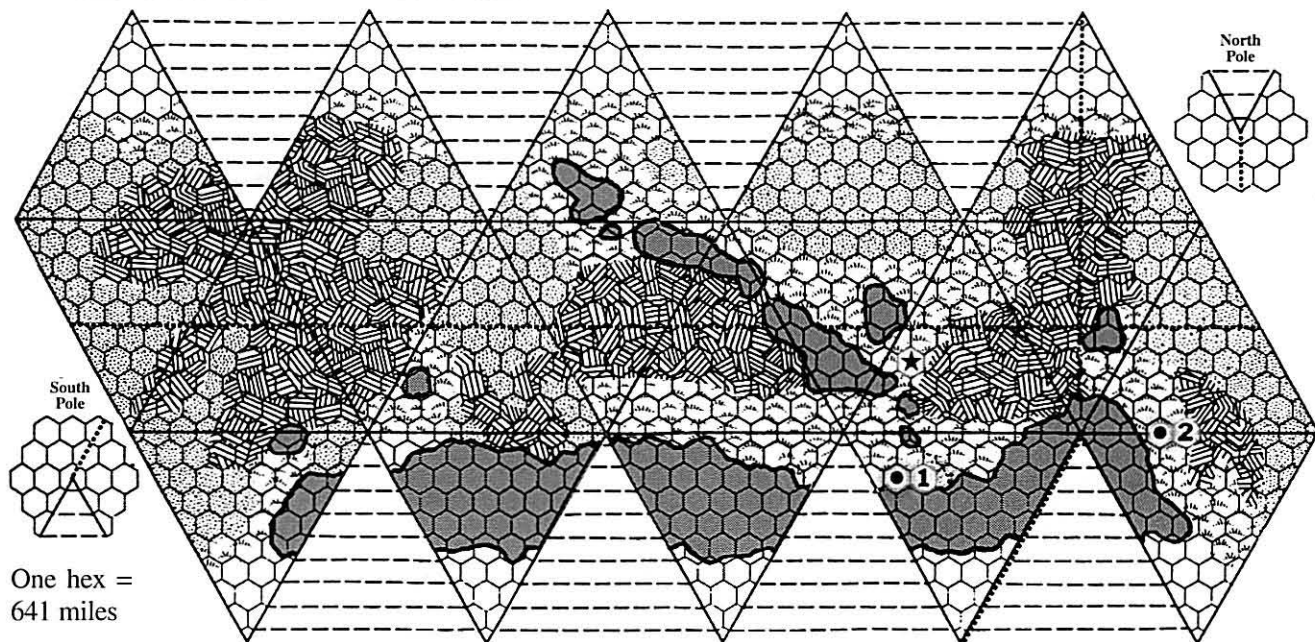
Government

Venus’s settlements are officially part of the Confederacy. They send a handful of representatives to Earth. Their ancestors’ outcast status and harsh lifestyle has turned the Venusians into a tough, suspicious, and self-reliant people. They disapprove of centralized governments, and distrust Confederacy officials. While most Venusians approve of the Terragens’ ideals, the world breeds troublemakers and rogues. It also produces some of the Earthclan’s best warriors and adventurers.

Economy

Venus’s largest employer is the terraforming project; a variety of corporations, syndicates, and kibbutzim provide support industries. A few separatist settlements produce metals and chemicals for export.

PLANETARY RECORD: Horst (Vanner III)



Planet Type: Earthlike Diameter: 9,178mi. Gravity: 1.20 G Density: 5.7 Composition: Medium-Iron
 Axial Tilt: 11° Seasonal Variation: Minor Length of Day: 35.2 hours Length of Year: 421.37 days / 1.15 Earth years
 Atmosphere Pressure: 1.12 (Standard) Type and Composition: Nitrogen 78%, Oxygen 19%, Other 3%
 Climate: Warm Temperatures at 30° Latitude: Low: 70° Average: 90° High: 110°
 Surface Water: 12% Humidity: 41% Primary Terrain: Desert/Badlands
 Mineral Resources: Gems/Crystals: Absent Rare Minerals: Absent Radioactives: Scarce
 Heavy Metals: Scarce Industrial Metals: Ample Light Metals: Ample Organics: Plentiful
 Moons: Three asteroidal moons – Fagin, LaRogue, Sarmis.

Biosphere:

Dominant life form: Humans.
 Other significant life forms: Chims, Fen, native plants and animals.

Civilization:

Population(s): 19,000,000 (PR 8) Tech Level(s): 4/9 Control Rating: 3
 Society: Multiple governments, including Terragens colony and anarchic communities.
 Starports: Class III at Fannis.
 Installations: Several ERS stations.
 Economic/Production: Mixed mining and agricultural.

Other Notes:

Map Key: Capital, Fannis. 1 – Jonestown. 2 – Gova. Horst was colonized by voluntary outcasts from Earth and the Solar colonies, including Probationers.

System Information:

Star Name: Vanner Type: G1 V Location: Ehbu'chi'u -9/18/31
 Biozone: 0.8-1.2 Inner Limit: 0 Number of Planets: 5

Planet	Orbit	Distance	Type	Diameter	Density	Gravity	Atmosphere	Notes
Devil's Advocate	1	0.3	Hostile greenhouse	4,700	3.5	.38	Dense CO ₂	–
Kiellor	2	0.7	Hot rockball	5,950	3.9	.53	Trace	–
Horst	3	1.1	Earthlike	9,178	5.7	1.20	Nitrogen-oxygen	See above
Adirondak	4	1.9	Terrestrial	6,870	4.9	.77	Nitrogen-oxygen	Fallow
–	5	–	Empty orbit	–	–	–	–	–
Baja	6	13.1	Gas giant	38,000	.6	–	–	–
–	7	25.9	Asteroid belt	–	–	–	–	–

HORST

Horst is the third planet of Vanner, a main-sequence G class star.

Horst's low axial tilt results in distinct climate bands. The equatorial zone is covered with deserts, badlands and sparsely inhabited grasslands. The northern temperate zone, which has little water, has cool deserts and – where rainfall allows it – veldt. The southern temperate zone has extensive veldt and prairie lands, and a few isolated patches of dying forest. The arctic zones have thick icecaps. Most of Horst's seas are in the southern hemisphere.



History

Horst was the ancient homeworld of the now-extinct Taroönix. They were killed off by the Fututhoon, an aggressive warrior race whose campaign of conquest wiped out a dozen species and blasted many habitable planets. After great effort, the Fututhoon hold on Central Galaxy was broken. Every member of the species was sterilized and sold into ignominious slavery.

Compared to some, Horst had it easy. Only about 80% of its species were wiped out by the chemicals and bombs dropped by the Fututhoon. The world was declared Fallow and ignored for 50 million years. Even then, the Migration Institute found that the planet's ecosystem had still not recovered. When it was determined that the ecosphere would collapse without intervention, the Institute decided to turn Horst over to a new tenant. The next race in line was Humanity, which wasn't in a position to look a gift horse in the mouth.

Horst was settled 300 years ago. Unlike the other Terragens colonies, the settlers were not Earthclan's best and brightest. It is a dumping ground for voluntary exiles and outcasts from Earth and the Solar System colonies. Colonists included cultural dissidents, die-hard officials from the old Bureaucracy, nationalists seeking to revive the glory of their homelands, and people with probationary personalities. These groups melted into the wilderness to set up societies based on their own views and beliefs.

Recently, people from the mainstream of Terragens society have come to Horst to study the first colonists' strange, regressed societies.

Life

Despite the holocaust, Horst is still home to a fair number of native plant and animal species. The life is biochemically compatible with Earth organisms, so very few Terran species had to be imported for agricultural purposes. The Fututhoon bombardment left many niches unfilled, however, and Terran species are being introduced to fill them. Fortunately, the seas fared a little better than the land and are home to many interesting species.

Society

The Terragens researchers maintain a comfortable, modern lifestyle in fenced enclaves. They refer to the traditional colonists as "outlanders."

Most outlanders do not have much truck with reason and objectivity. Shamanistic magic, world-denying meditation, animism, drug cults, and more are actively practiced in various corners of the great veldt. Each chieftain, shaman, medium, and strongman considers his beliefs to be the One True Way. Intertribal warfare was once common; intervention by Council diplomats and police reduced the fighting to an occasional skirmish or ritual duel. Most of the tribes are aware of the worlds outside, and the wealth and comfort made possible by government and technology . . . but they are not impressed. The researchers are tolerated as long as they are content to observe. In return, the tribes' idiosyncrasies are tolerated as long as they cooperate with the ERS and limit their population growth.

The majority of the 16 million outlanders are Human; neochimps account for about 4%. The average standard of living is quite low, with medieval levels of technology. Organized education is rare outside of the civilized areas.

The enclaves are home to about a half-million people, including 50,000 neo-dolphins. Many of the inhabitants are transients, on Horst to do research or complete a stint with the ERS. Facilities on Horst are austere but complete; there is even a small university. The enclaves have some manufacturing capacity; they trade muscle-powered appliances, hybrid seeds, and medicines for food and minerals. Outlanders are rarely invited into the enclaves, as the staffers fear that culture shock would destroy their way of life, reducing them to apathetic, addiction-prone wretches. The need for a militia has introduced a quaint quirk to this arrangement. Cadres from the enclaves regularly visit the outside to train tribal youths as reserve troops. This training is oddly limited, as the primitives cannot be taught skills or given equipment that they might use against each other. But the illiterate, war-painted tribesmen can be found, during maneuvers, flying space-fighters assisted by battle computers and their medicine bundles.

Adventure Seed: Stranger from a Strange Land

The PCs, laid over on Horst, are accosted in the hotel lounge by a tall, muscular man. Unless body paint and feathers count as clothing, he is stark naked. His possessions – a leather bag and a copper ax – hang from a wooden collar fastened around his neck. “I am Roy,” he announces, “You will take me to the stars so I may claim my totem.” Unless they shoo him away immediately, Roy will amaze the adventurers with the story of his journey – on foot – from the lands of his people (the Energy Balancing One-Hood) on the shores of Crater Lake, halfway across the planet! Roy was charged by

the tribe’s Orange Beam Seer to return to Earth and slay a raccoon.

Roy is earnest, self-effacing, and utterly dedicated to his quest; a true mystic warrior type. He is also a “hunk” who uses his looks and sex appeal to sway female characters. The PCs quickly realize that Roy is none too smart. Careful questioning will reveal that Roy is the victim of a scam; the Orange Beam Seer wanted the great dolt out of way so he could get Roy’s betrothed. The adventurers could solve Roy’s problem by taking him home and confronting the Seer . . . but this crude approach could break the warrior’s spirit. If they actually take Roy to Earth, they will have a dedicated, selfless ally who will do his best to protect them from danger, real or imagined. If Roy confronts the Seer with a Terran raccoon pelt, he will become the One-Hood’s leader and an important asset in the Council’s modernization effort!

K7kakk

K7kakk is the homeworld of the Fonnir, an ancient race nearing the end of its existence in the Oxygen-Breathing Order. Though not yet officially classified as a Preserve world, the Institute for Migration discourages visitors. Vessels entering orbit are escorted to an inspection station by patrol ships crewed by the Fonnir’s clients, the Norruhk.

Environment

Until recently, K7kakk was a sleek, well-groomed garden world, with fabulous cities surrounded by recreational parkland. Now, with the population dropping, the parks are reverting to wilderness and many once-bustling arcologies are crumbling ruins inhabited by wild animals.

K7kakk is also entering a greenhouse epoch. Though the Fonnir and Norruhk stewardship of the world has been exemplary, CO₂, methane, and other pollutants have slowly built up to dangerous levels. Despite receiving slightly less sunlight than Earth, worldwide temperatures now average 90 degrees. Winters are short and mild, even in the high temperate zones. The Institute for Migration is not concerned about the heat wave, as they are confident that the Fonnir will soon die off and leave the world to heal on its own.

Besides causing the oceans to rise, the warming is causing violent weather. The equatorial zones regularly spin off fierce hurricanes, which batter the coastal areas and send tornadoes and thunderstorms into the interior.

Ecosystem

K7kakk was terraformed by the Tarseuh some 550 million years ago. It has been colonized and lain fallow six times since then. Each occupant in turn introduced and left behind new, biochemically compatible species. A brachiating carnivore left by a former tenant evolved into the presentient Fonnir. The world now has a rich ecosystem and many life forms with Potential; many Galactics look forward to the day, millions of years in the future, when K7kakk will again be declared ready for colonization.

Inhabitants

K7kakk is home to about 17 million Fonnir and 50 million Norruhk. Fonnir are brachiating bipeds, vaguely resembling six-limbed tree sloths. Though the species evolved as carnivores, they now derive much of their sustenance from photosynthetic symbiotes living in their fur. A program of genetic engineering and eugenics has made the last Fonnir extremely intelligent and powerfully telepathic. Most members of this elder race avoid contact with lesser beings, but Earthclan visitors who have had dealings with the creatures have described them as light-hearted, mysterious, and unnervingly enthusiastic about a cryptic “final task.”

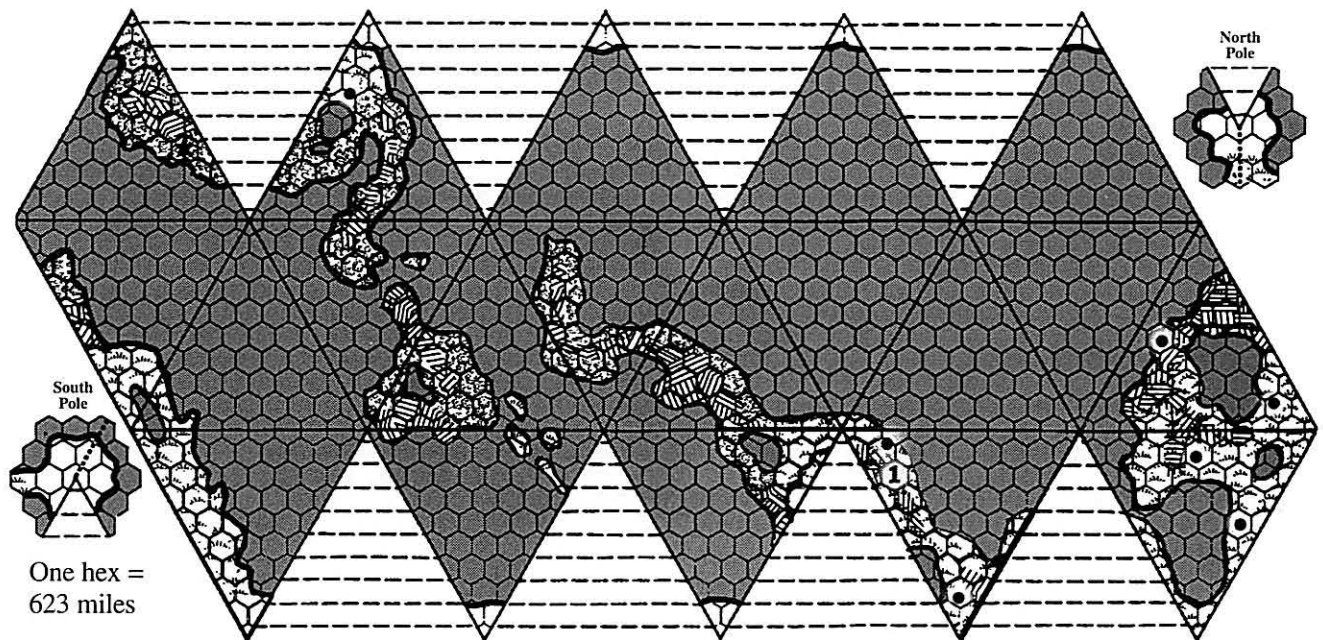
The Norruhk are huge, graceful quadrupeds; their forelimbs double as serviceable arms. The creatures are highly intelligent and have psionic talents. Norruhk, who leave K7kakk on occasion to conduct business on behalf of their reclusive masters, are a fey, eerie folk. It is rumored that the Norruhk were uplifted “too late” in the history of their patrons, and are doomed to follow the Fonnir to their next stage of existence. Earthclan visitors nicknamed them “tar elks” because their sleek black pelts have an oily sheen.



Society

K7kakk’s inhabitants lead sedate, contemplative lives, tended by Norruhk clients and servant machines. Most Fonnir live in a few inland cities, huddling in the least-worn arcologies. Urban Fonnir organize themselves into *buir’8iuu* (“concentration societies”). *Buir’8iuu* members meditate, socialize, and work together. A typical group contains 50 to 100 Fonnir. Contact between *buir’8iuus* is becoming less and less frequent. Often a group will take over an entire floor of an arcology, with a whole suite and an army of serving robots dedicated to the comfort of a single individual.

PLANETARY RECORD: K7kakk (Doimil I)



Planet Type: Earthlike **Diameter:** 8,900 mi. **Gravity:** 1.20 G **Density:** 5.9 **Composition:** Medium-Iron
Axial Tilt: 27° **Seasonal Variation:** Moderate **Length of Day:** 31.5 hours **Length of Year:** 170 days / 0.46 Earth years
Atmosphere Pressure: 0.75 (Thin) **Type and Composition:** Nitrogen 87%, Oxygen 21%, Other 1%
Climate: Warm, very stormy **Temperatures at 30° Latitude:** Low: 70° Average: 90° High: 110°
Surface Water: 81% **Humidity:** 82% **Primary Terrain:** Forest/Jungle, many hills, old mountains
Mineral Resources: Gems/Crystals: Scarce **Rare Minerals:** Scarce **Radioactives:** Absent
Heavy Metals: Absent **Industrial Metals:** Scarce **Light Metals:** Scarce **Organics:** Plentiful
Moons: None

Biosphere:

Dominant life form: Fonnir, plus Norruhk clients.
Other significant life forms: Rich ecosphere including presentient plants, fish.

Civilization:

Population(s): 17,000,000/50,000,000 (PR 8) **Tech Level(s):** 11-15 **Control Rating:** 4
Society: "Utopia." Fonnir seem to have evolved beyond government. Norruhk have a bureaucracy.
Starports: Class I at Pbeege'q'fu (crumbling at edges); Class I naval starport at T'tsoork.
Installations: Nature preserve, ruined/abandoned cities, administrative center for Institute for Migration.
Economic/Production: Industrial. Produces A-level hyperdrives, strange artwork; imports novelties.

Other Notes:

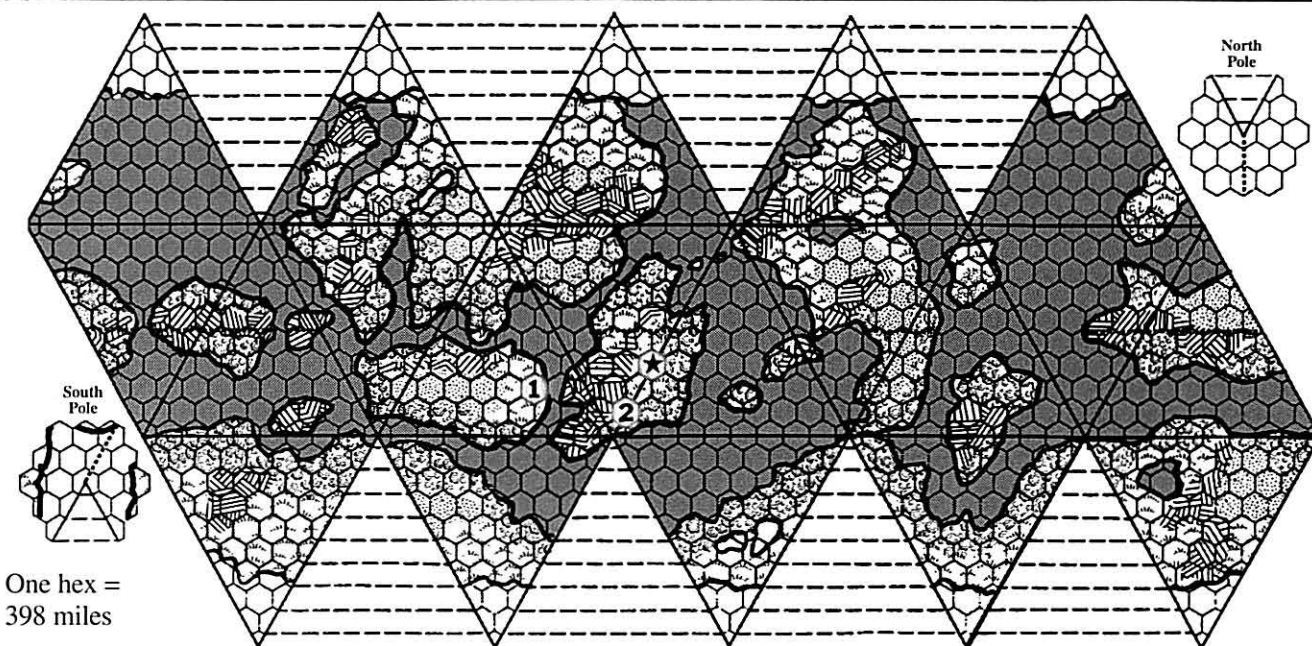
Map Key: Capital, Pbeege'q'fu. 1 – T'tsoork. Many large cities seem deserted. K7kakk will soon be classified a Preserve for the Fonnir, an Elder Race about to Pass On.

System Information:

Star Name: Doimil **Type:** K V **Location:** Ehbu'chi'u 0/12/-118
Biozone: 0.5-0.6 **Inner Limit:** 0 **Number of Planets:** 4

Planet	Orbit	Distance	Type	Diameter	Density	Gravity	Atmosphere	Notes
—	1	0.3	Asteroid belt	—	—	—	—	—
K7kakk	2	0.6	Earthlike	8,900	5.9	1.20	Nitrogen-oxygen	See above
Ulsu-Dor	3	0.9	Hostile greenhouse	4,950	5.8	.66	Dense CO ₂	—
—	4	—	Empty orbit	—	—	—	—	—
Ulsu-A-Serr	5	2.7	Gas giant	56,000	.9	—	Hydrogen	—
—	6	—	Empty orbit	—	—	—	—	—
—	7	—	Empty orbit	—	—	—	—	—
Ulsu-Tarseuh	8	19.5	Gas giant	92,000	1.7	—	Hydrogen	—

PLANETARY RECORD: Kauyoon (E10-191 I)



Planet Type: Earthlike Diameter: 5,680 mi. Gravity: 0.874 G Density: 6.7 Composition: High-Iron
 Axial Tilt: 24° Seasonal Variation: Earthlike Length of Day: 2.9 hours Length of Year: 422.8 days / 1.15 Earth years
 Atmosphere Pressure: 0.95 (Standard) Type and Composition: Nitrogen 77%, Oxygen 17%, Other 6%
 Climate: Chilly, stormy Temperatures at 30° Latitude: Low: 20° Average: 40° High: 60°
 Surface Water: 57% Humidity: 42% Primary Terrain: Plains/Steppes; some mud flats and deserts
 Mineral Resources: Gems/Crystals: Plentiful Rare Minerals: Extremely plentiful Radioactives: Absent
 Heavy Metals: Plentiful Industrial Metals: Ample Light Metals: Extremely plentiful Organics: Scarce
 Moons: One – Hsoo-k, orbital radius 217,000 mi.

Biosphere:

Dominant life form: Gubru and Kwackoo colonists.
 Other significant life forms: Laborers of many species, “terraforming” lifeforms.

Civilization:

Population(s): 135,000 (PR 6) Tech Level(s): 12 Control Rating: 5
 Society: Oligarchy led by troikas of high-caste Gubru.
 Starports: Class III at Ookuku; class III (naval) at Voozoon.
 Installations: Small farming communities; numerous environmental test stations scattered over the planet.
 Economic/Production: Mixed. Mining and agriculture are both very limited; dependent on trade for many items.

Other Notes:

Map Key: Capital, Ookuku. 1 – Voozoon. 2 – T’tkoo.

Most colonists are involved in establishing the planetary ecosphere. World was previously terraformed and then nearly destroyed.

System Information:

Star Name: E10-191 Type: G V Location: Ehbu’chi’a 9/-3/77
 Biozone: 0.8-1.2 Inner Limit: 0 Number of Planets: 3

Planet	Orbit	Distance	Type	Diameter	Density	Gravity	Atmosphere	Notes
–	1	–	Empty orbit	–	–	–	–	–
Kauyoon	2	1.1	Earthlike	5,680	6.7	.87	Nitrogen-oxygen	See above
Hizoon	3	1.3	Terrestrial	9,200	5.8	1.23	Methane/Nitrogen	–
Gri-Grick-Haw	4	2.3	Terrestrial	4,300	4.1	.4	Trace CO ₂	Ruins
–	5	3.9	Asteroid belt	–	–	–	–	–

K7kakk's factories are highly automated. Most of what they produce is for local consumption, but they do manufacture psionic gear for Institute use, and export a few dozen prized A-level hyperspace drives each year. A few loners and dissident buir'8iuis dedicate their lives to gardening, farming, or silviculture. These rustics produce most of the few children born to the Fonnir in their waning days.

The Fonnir rarely talk to offworlders. Their patterns of thought and way of life are so strange that they find it difficult, even painful, to converse with even the Norruhk. Individuals met on the street (actually, Fonnir use monkey-gym-like swing-ways) will exchange enthusiastic but bleary greetings, and occasionally answer simple questions. Norruhk, who can sense their masters' distress, will politely dissuade Offworlders who try to engage Fonnir in small talk.

Adventure Seed: Collector's Item

Like all good Galactics, the Fonnir built their metropolises along tectonic rifts, where subduction will eventually suck them down into the crust. Until then, K7kakk's cities

are tempting targets for looters. Most of the artifacts heaped in the halls and chambers of the abandoned cities are ordinary household or personal objects, but some are items of great power.

The Fonnir don't seem to care who picks through this dross, but the reverent Norruhk have placed the empty cities off limits. They claim that the empty arcologies are still inhabited by Fonnir who have "passed on." A few of the cities – storm-lashed coastal arcologies whose inhabitants fled rather than staying to die – are open to tourism. The Norruhk are more than glad to guide outsiders around these brine-stained ruins, answering questions and selling a few trinkets.

The PCs, who have managed to lose their Norruhk guide while exploring one of the ruins, come across an abandoned but still working subway line. The system leads to one of the forbidden cities far inland. If they travel there, they will see something intriguing: small bands of Norruhk methodically stripping the arcology of its valuables. The looters appear carefree, even elated – an odd attitude for clients in a place supposedly reserved for the spirits of their revered patrons. And why is a *Soro* inspecting the piles of loot? Curious, to say the least!

KAUYOON

Kauyoon was terraformed 1.3 billion years ago. It developed a complex ecosystem, was settled many times, and was even homeworld to a client species (now long extinct). The world became a frozen, ecologically depleted wasteland after a cataclysmic battle (part of the Tarsueh conflict, some 600 million years ago) disrupted its ecosystem. Kauyoon is now a minor Gubru outpost. It was obtained as part of a "package deal" from the Institute for Migration; the Gubru got a richer world elsewhere in exchange for salvaging Kauyoon.

The Gubru used a number of methods to revitalize Kauyoon. They added carbon dioxide and other greenhouse gases to the atmosphere, and (with the help of nanotech devices leased at great expense from the then-vital Fonnir) dusted the surface with flakes of black fertilizer.

While its atmosphere is breathable, its oceans liquid, and its climate tolerable, Kauyoon has a long way to go before it could be called a pleasure spot. Except for a few fertile valleys, the world surface is an endless waste of barren deserts, mud flats, and stormy seas crusted with algae.

Ecosystem

Except for some hardy, utilitarian terraforming creatures (algae, rock-busting grass, and mineral-reducing microbes), the only species are the Gubru, their carefully tended crops, and a few domestic animals.

Society

Kauyoon's tiny population includes Gubru, their Kwackoo clients, and other client species imported to do the

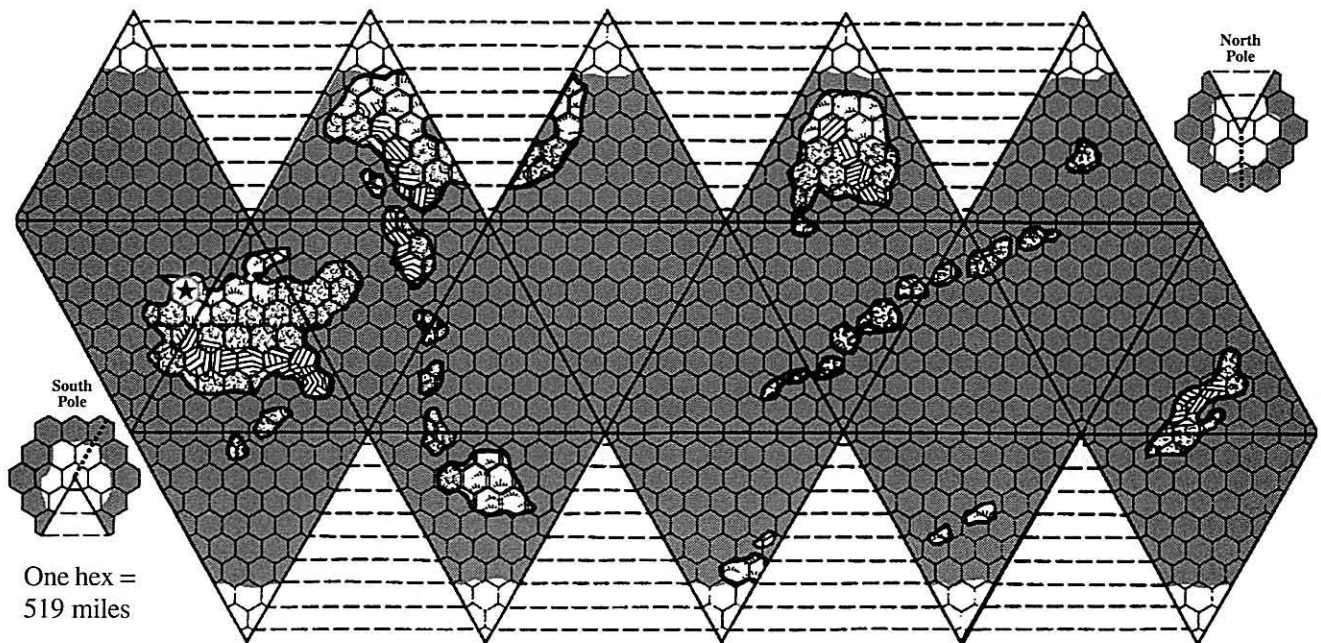
dirty work of farming, draining swamps, and seeding deserts. The terraforming industry is the main employer, although some are employed by a small agricultural sector and Kauyoon's small starport and military base.

Despite having been settled for nearly 14,000 years, Kauyoon has developed little in the way of local culture. All but the bare necessities are imported from other Gubru worlds. Life on the outpost is deadly dull. Housing ranges from the contract laborers' bleak dormitories to the shabby mansion of the ruling Triumvirate's quarters. Workers with spare time indulge in intoxicants or carefully monitored athletic events. Gubru soldiers and administrators occasionally make forays into the mountains to hunt for gems, mineral deposits, and valuable fossils from Kauyoon's previous life-ages.

Adventure Seed: Old Bones

A Gubru consular official quietly informs the Terragens Council of an extraordinary discovery on Kauyoon – the remains of an ancient, unrecorded civilization, apparently an illicit "sooner" colony. Because the culprit species are often extinct themselves, such discoveries usually spawn a minor scandal and are quickly forgotten. But this site contains several sets of early-Human remains! The fossilized bones of at least three other sapient species, none identifiable, are also present. The implication is obvious: Humanity's long-lost patrons have been found.

PLANETARY RECORD: Calafia (Undine I)



Planet Type: Earthlike **Diameter:** 7,420 mi. **Gravity:** 0.88 G **Density:** 5.2 **Composition:** Medium-Iron
Axial Tilt: 29° **Seasonal Variation:** Moderate **Length of Day:** 31.2 hours **Length of Year:** 165.68 days / 0.45 Earth years
Atmosphere Pressure: 0.91 (Standard) **Type and Composition:** Nitrogen 78%, Oxygen 19%, Other 3%
Climate: Warm **Temperatures at 30° Latitude:** Low: 70° **Average:** 90° **High:** 110°
Surface Water: 90% **Humidity:** 70% **Primary Terrain:** Forest/Jungle
Mineral Resources: Gems/Crystals: Ample **Rare Minerals:** Scarce **Radioactives:** Ample
Heavy Metals: Ample **Industrial Metals:** Plentiful **Light Metals:** Extremely plentiful **Organics:** Plentiful
Moons: One – Bobber, orbital radius 150,000 mi.

Biosphere:

Dominant life form: Humans, neo-chimpanzees, neo-dolphins.
Other significant life forms: Plentiful plant and animal life on land and in the ocean.

Civilization:

Population(s): 27,000,000 (PR 7) **Tech Level(s):** 8/9 **Control Rating:** 3
Society: Representative democracy with ties to the Confederacy and the Council.
Starports: Class III at Port Anderson.
Installations: Naval base, university, research station.
Economic/Production: Agricultural, with sufficient industry for its own needs. Potential for genetic-data trade.

Other Notes:

Map Key: Capital, Port Anderson. The asteroid belt in orbit 3 contains the remains of a terrestrial world, long since destroyed.

System Information:

Star Name: Undine **Type:** K1 V **Location:** Tiaroo -41/12/6
Biozone: 0.5-0.6 **Inner Limit:** 0 **Number of Planets:** 2

Planet	Orbit	Distance	Type	Diameter	Density	Gravity	Atmosphere	Notes
—	1	0.1	Asteroid belt	—	—	—	—	—
Calafia	2	0.5	Earthlike	7,430	5.3	.88	Nitrogen-oxygen	See above
—	3	0.9	Asteroid belt	—	—	—	—	Planetary debris
Poseidon	4	1.7	Gas giant	42,000	1.8	—	Methane	—
—	5	3.3	Asteroid belt	—	—	—	—	—

The Gubru consul, a mid-status neuter representing Gubru interests on Terra, politely requests that Earthclan assist the Kauyoon archaeologists to positively identify the remains and supervise further digging. The Council assigns a team of low-level scientists and agents (the PCs) to investigate the matter. The matter is not publicized by either Council or the Gubru, and the official agrees to travel along with the party to smooth their way through red tape and custom on the colony. The journey to Kauyoon is uneventful (unless the GM chooses to throw in some surprises, of course). The consul turns out to be a stuffy but not altogether bad chap. While the assignment of such a minor functionary as consul was intended as a subtle insult to Earthclan, the neuter itself is not a blatant chauvinist. It even seems to enjoy their company, and will teach them a few tricks of Galactic etiquette; each PC may apply a half-point toward purchase or improvement of Savoir-Faire (Galactic).

The Kauyoon authorities will treat the group with suspicion, even after they reveal the nature of their mission. The governing troika – time-serving bureaucrats long past their

egg-laying years – are cranky and a bit paranoid. The trio was assigned to the colony as punishment for some bungled political intrigue. They are anxious to redeem themselves and earn an easier retirement. They will also take a dislike to the agents' Gubru traveling companion, pegging it as a trouble-making upstart whose overfamiliarity with wolflings is a disgrace to the clan. After squabbling with the consul, the Troika will arrange for transportation to the dig site, near Kauyoon's arctic circle. There, the PCs meet a rather amateurish team of native Gubru and Kwackoo archaeologists. They produce what indeed seem to be genuine Human remains. Simple tests and the geological structure of the dig site dates the bones (and settlement) back about 100,000 years. The consul suggests the PCs prepare some sort of announcement to break the news that Humanity's long-lost patrons have been found . . . and that they were criminal sooners and gene-raiders!

But are the bones genuine, or constructs artificially aged through some sort of probability-manipulation technology? Are the other remains genuine? What is the true nature of the sooner colony, and who were its owners? And is the consul who it claims to be?

CALAFIA

Calafia is Earthclan's largest extrasolar settlement, and the first colony to have a sizable Fen population. It lies outside Terra's home sector.

Calafia is an ocean world; only about 10% of its surface is covered with land. Calafia is on the average warmer than Terra; this, combined with the world's rapid (18 hours, 17 minutes) rotation, makes for lots of interesting weather. The west coast of Farley, the large equatorial continent, is wracked by violent storms. Maria and Tildy, located near the arctic circle, are covered with steppeland and forests of "disktrees."



Ecosystem

Calafia's land life is sparse and unspecialized. The world was smashed by a comet several million years ago, and many ecological niches are only now becoming refilled. Farley was particularly hard hit by the extinction event; large areas remain barren, eroded deserts. Human and Fen ERS workers have had some luck establishing vegetation and fauna from Tildy on Farley's southern coasts; compatible life purchased from gene traders has been seeded around highland mining settlements as well.

Some Calafian plant species have been exported to Earth and other colonies. Particularly popular is the dwarf disktree. Disktrees grow in eerily precise staggered rows, and have flat, densely packed leaf canopies. They provide almost total shade, can drain overly soggy soil, and produce a highly flammable sap usable as a lamp or heating oil.

Ocean life is abundant and tremendously varied; Fen explorers surveying distant reefs and archipelagoes discover new species weekly.

Society

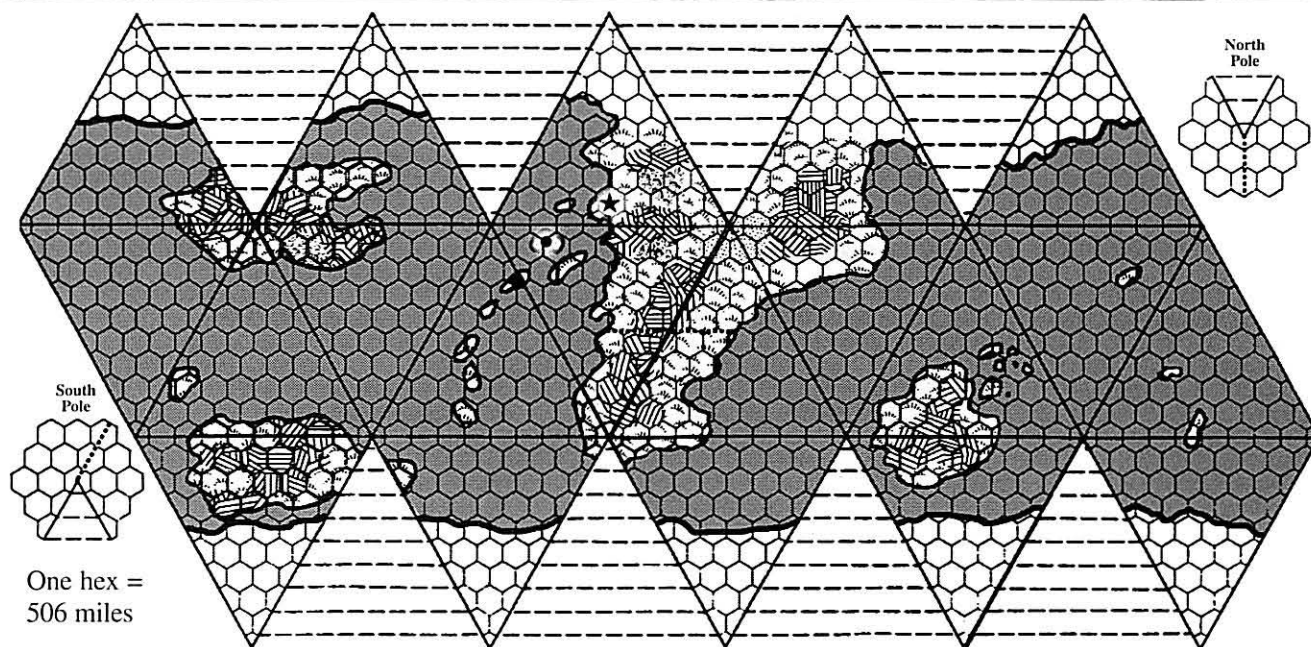
Calafia has a population of about 70 million. 43% of the inhabitants are Human, 10% are Chims, and the remainder Fen. Most settlements are in and around the Carlson Chain, a mountainous archipelago in the southern hemisphere. Three small, largely automated mining stations are located in Farley's Bacon's Wrist range.

Calafia is a model colony world. Its small but bustling cities were designed to be convenient for members of all Earthclan races. Rural and aquatic settlements are more relaxed but just as cosmopolitan as the cities, thanks to a sophisticated communication network. Standards of living and education are high, and Calafians pride themselves on being more in touch with Galactic culture and politics than the average Terran.

Adventure Seed: Invasion

Shortly before the Great Sundering, placid and prosperous Calafia was invaded by the dreadful Brothers of the Night. Analysts agree this was a desperation move – a high-risk gambit to claim Terragens territory and thus be able get in on the wheeling and dealing over the treasures discovered by the *Streaker*. The Brothers' strategic resources were already stretched by their pursuit of the dolphin ship; they were only able to get an invasion force to Calafia with the help of warships reluctantly lent by members of the Awaiter alliance. The initial assaults were successful; the starport and the major settlements of the Carlson archipelago were quickly seized and garrisoned with warrior robots. The Brothers' methods bordered on the illegal, and resulted in many casualties and property damage. With Calafia's high-value assets

PLANETARY RECORD: Garth (Gimelhai II)



Planet Type: Earthlike **Diameter:** 7,320 mi. **Gravity:** 0.94 G **Density:** 5.6 **Composition:** Medium-Iron
Axial Tilt: 21° **Seasonal Variation:** Moderate **Length of Day:** 22.5 hours **Length of Year:** 480 days / 1.31 Earth years
Atmosphere Pressure: 0.96 (Standard) **Type and Composition:** Nitrogen 70%, Oxygen 22%, Other 8%
Climate: Warm **Temperatures at 30° Latitude:** Low: 40° Average: 60° High: 80°
Surface Water: 62% **Humidity:** 51% **Primary Terrain:** Plains/steppes
Mineral Resources: Gems/Crystals: Scarce **Rare Minerals:** Scarce **Radioactives:** Ample
Heavy Metals: Ample **Industrial Metals:** Plentiful **Light Metals:** Ample **Organics:** Plentiful
Moons: One – Bobber, orbital radius 150,000 mi.

Biosphere:

Dominant life form: Humans, neo-chimpanzees. Ocean is toxic to Earth aquatic life.
Other significant life forms: Numerous plant and small animal species (depleted ecology).

Civilization:

Population(s): 12,000,000 (PR 8) **Tech Level(s):** 9 **Control Rating:** 3
Society: Representative democracy with ties to the Confederacy and the Council.
Starports: Class III at Port Helenia.
Installations: ERS station, class library, hyperwave shunt.
Economic/Production: Agricultural/mining, with some surplus in food. Exports minerals, exotics for foreign exchange. Only light industry.

Other Notes:

Map Key: Capital, Port Helenia. Until recently, Garth was occupied by Gubru forces. The economy was damaged but is recovering quickly. Garth's ecology was badly damaged by the Bururalli Holocaust; an ice age may be imminent.

System Information:

Star Name: Gimelhai Type: G1 V **Location:** Sefak 7/23/-9
Biozone: 0.8-1.2 **Inner Limit:** 0 **Number of Planets:** 3

Planet	Orbit	Distance	Type	Diameter	Density	Gravity	Atmosphere	Notes
Bonobo	1	0.4	Hostile greenhouse	3,800	5.2	.45	Dense CO ₂	—
—	2	0.8	Empty orbit	—	—	—	—	—
Garth	3	1.2	Earthlike	7,320	5.6	.94	Nitrogen-oxygen	See above
—	4	2.4	Asteroid belt	—	—	—	—	—
Carson	5	3.6	Gas giant	65,000	2.1	—	Hydrogen	—

under their control, the invaders sought control of the seas by dispatching free-ranging bands of Brothers.

Fortunately, the militia had prepared in advance for just this sort of war. Numerous caches of supplies and weapons were secreted under reefs and islets. The Human and Chim populations were all equipped with gill suits and survival packs, and told to flee at the first sign of approaching hostiles.

GARTH

Garth is the second planet of Gimelhai, a G1 star located by the Spoon Nebula, thousands of parsecs from Sol. Garth is an Earthlike world. It has three small and one large continent, plus several large archipelagos. The planet is overall slightly cooler than Terra, and could soon become much cooler: there are indications that Garth is on the verge of an ice age.

Ecosystem

Garth once had a rich, healthy ecosystem, comparable to Earth's in its diversity. The previous tenants, the Bururalli, changed all that. The carnivorous clients hunted down virtually every land animal larger than a rabbit. The Bururalli were expunged for their misdeed, their Nahalli patrons reindentured, and Garth left fallow for 50,000 years. When it became apparent that the world's ecosphere was still declining, Garth was written off and leased to the Terragens.

The Earthlings found the three island continents beyond help; they were stripped of topsoil and supported only a few species of insects, weeds, and lichen. Conditions on the large continent, Daniel, were more encouraging. Life there had evolved many interesting adaptations to the ecological catastrophe, including a species of vine that acts as a transport system, transferring needed minerals from region to region. Evolution's ingenuity doesn't seem to be enough, however; ecological reconstruction teams have their hands full keeping Daniel from turning into a desert. Carefully selected terrestrial species have been imported to fill empty ecological niches.

Society

Garth was resettled 174 years ago. Its population is 45% Chim and 55% Human; the number of neo-dolphins on the world is negligible, thanks to irritating salts in its oceans. Most of the population lives on the Climaris Archipelago. The first settlements were founded there, away from Daniel's delicate ecology. In recent decades, cautious settlement of the mainland has taken place. Several dozen small outposts and ERS research stations dot the outback. The colony's capital and chief starport, Port Helenia, is located on the coast of Daniel. Though relatively small, Port Helenia has a powerful hyperspace shunt and a class E Library branch, both "gifts" of the enemy Gubru!

The Invasion

Shortly after the *Streaker* fled Kithrup, Garth was invaded by a Gubru army seeking to extort the secret of the mystery

The players can take on a variety of roles: Fen guerrillas actively fighting the Brothers, civilians caught behind the lines and trying to find their way to safety on a remote isle, or even TAASF Marines sneaking onto Calafia to stiffen the resistance and take out vital enemy assets.



fleet from the Earthclan. The world's rapid invasion and conquest was a demonstration of Galactic technology and tactics. After Garth's patrol fleet and tiny militia were destroyed by shock troops, the towns were bombarded by "hostage gas," a slow poison specific to Humans. The gas could only be neutralized by antidotes supplied by the Gubru; the entire Human population was herded into camps on the archipelago where they could be carefully watched. Gubru soldiers and administrators took control of Port Helenia and the surrounding farmland, and began indocrinating the Chim colonists.

Unfortunately for the fanatical Gubru, the chimps were not as cooperative as they had hoped. Guerrilla forces, led by a few free Humans, harried the occupying troops and their collaborators. Plagued by divided leadership and hampered by the Rules of War, the Galactics bungled an attempt to force the neo-chimpanzees to choose the Gubru as uplift consorts. After the assassination of one of the Gubru Suzerains by an outraged officer, the occupation effort fell apart; the Gubru withdrew in disgrace and are arranging compensation for the colonists' trouble.

Adventure Seeds

Invasion Surplus

The people of Garth are still cleaning up the mess left by the Gubru invasion force. On the other hand, some of the litter left behind has proven valuable. Besides a gigantic Library branch and hyperspace shunt, the Gubru left behind caches of weapons, gear, and robotics. Earthling techs are even now examining the loot.

Because civil control has not been fully reestablished, some of the Gubru's devastating saber rifles, neural whips, and even psychic weapons are falling into unauthorized hands. Some salvaged weapons have appeared on Horst; sources report Gubru weapons for sale in the warrens of Venus.

Depending on the players' taste in adventure, the adventurers could take advantage of this trade, or help to suppress it.

Demon Seed

Another sort of damage was done to the psyches of Garth's Chim inhabitants. The Gubru conducted a number of experimental conditioning campaigns during their short reign. Recently, disturbing rumors have reached the Council: Several cadres of "rogue" chimps pledging allegiance to the Gubru still exist on Garth. The bands, based in wilderness communities far from public scrutiny, reportedly include red-

and yellow-card neo-chimps who have undergone operations to reverse their sterility. If the tales are to be believed, the probies have already produced offspring, part of a program to breed chimps into a vicious warrior race.

The adventurers are contacted by a scientist from the Uplift Board. The genegeneer is an eloquent, charismatic fellow with a talent for ingratiating himself with members of Humanity's client species . . . especially, for some perplexing reason, chimps. He mentions that the powers-that-be on the

Council are not impressed enough by the rumors to waste the valuable time of full-fledged agents . . . but he is quite concerned and asks the adventurers to help him investigate the matter.

Is the scientist on the level? Will he lead the PCs through the dregs of Port Helenia and into the wilderness on a wild goose chase? Or could he be a fanatic "gene hacker" who wishes to see how the freakish, Gubru-modified chimps turn out, despite the social consequences?

TANITH

Tanith, third planet of Tweevi, is home to one of the 200 or so District Branches of the Library Institute. The location is well chosen; Tweevi is located at the nexus of three long-distance transfer point lines. In addition, the Perseid Dendrite Access and the Galaxy Two/Fringe Secondary transfer points are two transfers away. Ships of hundreds of races call yearly at Tweevi.

This is the closest District Branch to Sol; the Ehbu'chi'u Sector is not important enough to rate a Branch of its own.

Ecosystem

Tanith is a genetically depleted world. Its last tenants, the opportunistic Phoolchu, interpreted environmental guidelines rather liberally and replaced the indigenous life with efficient, utilitarian species. The planet would normally have been left fallow to recover, but the Galactics decided it would make a good object lesson. Visitors who come to use the Library see what bad stewardship can do to a world.

Much of Tanith's land surface is choked with thick forests of a single (albeit highly adaptable) species of tree. The plants are designed to grow quickly and produce a highly durable, decorative wood. Attempts to eradicate the trees leave sandy wastes carpeted with weeds. The oceans are similarly clogged with mats of mineral-harvesting algae. Only a few animal species survive on land; sea life is more varied. The Galactics hope to study the evolution of the few remaining species to see how they adapt to fill Tanith's unfilled ecological niches.

Society

Tanith's native population exists solely to support the District Branch of the Library and serve its visitors. Several dozen species are represented on the staff, including Klick-Klick farmers ("donated" by the Synthians), Pila administrators, and Kanten research assistants. The government is a hierarchical but enlightened bureaucracy. In some ways it resembles a university campus; in others, a monastery. Rules and custom require staff and visitors to put their prejudices and politics aside. This official politeness seems strained at times, but public conflicts are rare. Behind the scenes, intrigue is rampant.

The Library complex is located in a rugged, picturesque badlands area. Several once-barren valleys near the complex

have been revitalized and gardened to produce retreat areas for Institute personnel. One of the valleys has been seeded with Tymbrim life. Humans are petitioning to lease a retreat of their own. Other valleys contain life from the Pilan, Thennanin, Jophur, Linten, Lesh, and Pargi homeworlds.

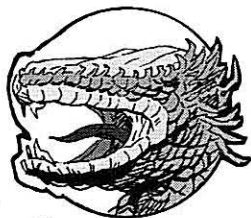
Adventure Seed: Green Valley

The residential valleys are a source of great pride to the races who landscape them. Applications to seed and settle new valleys are rarely granted; the authorities don't want to risk unplanned contamination of Tanith's ecology. After decades of trying, the Terragens Council finally gets permission to start its own retreat, a project they hope will demonstrate Earthclan's skill at ecological engineering. The PCs (who could be archaeologists, ecologists, xenologists, or even ERS workers) are chosen to help. They are offered free transport, double pay, and dislocation bonuses (\$50,000 per objective year away, upon return home).

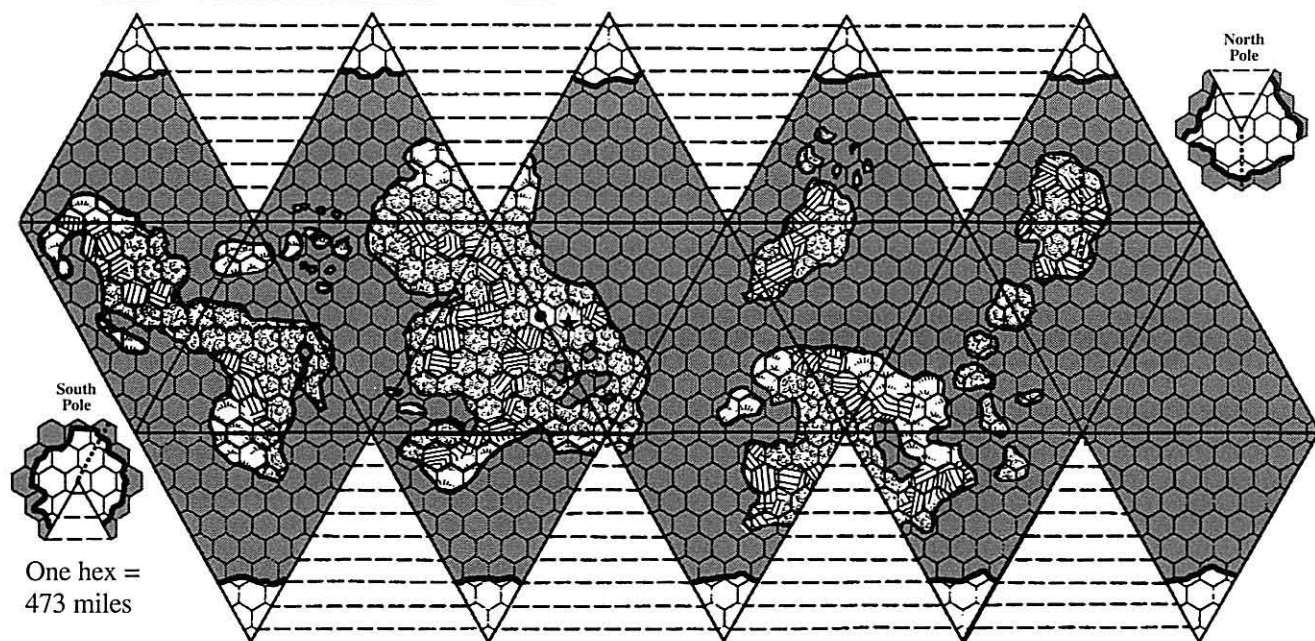
At first, the work is easy and progress swift. The amenities are sparse but adequate; Tanith's spectacular night sky and access to the vast Library are additional rewards. A few weeks into the project, however, the troubles start. Young trees and plants die; half-finished buildings topple and pipes corrode and burst. The cause of the damage is obscure; all signs point to carelessness and the inadequacy of Terragens technology. The Earthlings are sure it is sabotage, of course.

Stakeouts fail miserably at first; sentries fall asleep moments into their shifts, and sensors and cameras show nothing untoward. Medical tests show that the sleep is induced chemically by some sort of gas. If respirator-equipped sentries are posted, the culprits will be revealed: a squad of specially assembled Jophur soldiers equipped with chemosynthesis rings and sensor jammers. The creatures gain access to the valley by a stream leading through a series of caves. Once in, the warriors use custom-tailored chemicals to ruin plantings and weaken building materials.

Confronting the Jophur without violating Tanith's carefully maintained neutrality will itself prove difficult. If handled correctly, the incident could lead to the Jophur paying reparations. If bungled, the authorities could politely ask the Humans to leave the valley to "avoid further friction with established residents."



PLANETARY RECORD: Tanith (Tweevi II)



Planet Type: Earthlike Diameter: 6,788 mi. Gravity: 0.98 G Density: 6.3 Composition: High-Iron
 Axial Tilt: 16° Seasonal Variation: Moderate Length of Day: 23.3 hours Length of Year: 311.84 days / 0.85 Earth years
 Atmosphere Pressure: 1.07 (Thick) Type and Composition: Nitrogen 80%, Oxygen 13%, Other 7%
 Climate: Cool Temperatures at 30° Latitude: Low: 40° Average: 60° High: 80°
 Surface Water: 74% Humidity: 77% Primary Terrain: Forest; algae-clogged seas
 Mineral Resources: Gems/Crystals: Rare Rare Minerals: Absent Radioactives: Sparse
 Heavy Metals: Sparse Industrial Metals: Ample Light Metals: Ample Organics: Sparse
 Moons: One – Odlichi, orbiting at 762,000 miles.

Biosphere:

Dominant life form: Many sentient races.

Other significant life forms: Industrial lifeforms; very few animal and plant species.

Civilization:

Population(s): 50-100,000 (PR 6) Tech Level(s): 11 Control Rating: 4

Society: Bureaucracy with religious overtones.

Starports: Class III with an extremely large field and hangers.

Installations: Class B library facility; several alien enclaves; sanctuary; hyperwave shunt.

Economic/Production: Service economy. Enclaves are self-sufficient in food. Large market for luxuries. Visitor enclaves require many imports.

Other Notes:

Map Key: Capital, Library Facility. 1 – New Terran enclave. This system contains three jump points: one to an unimportant star, with a transfer to the Perseid Dendrite Access; one to a minor Lesh homeworld, with a transfer to Galaxy II Fringe Secondary; and one to a Gubru-controlled system.

System Information:

Star Name: E-17-12 ("Tweevi") Type: G6 V Location: S4P-pp 18/-2/16

Biozone: 0.8-1.2 Inner Limit: 0 Number of Planets: 7

Planet	Orbit	Distance	Type	Diameter	Density	Gravity	Atmosphere	Notes
Ku-Ulsu	1	0.3	Hot rockball	3,700	7.1	.6	None	—
—	2	0.6	Empty orbit	—	—	—	—	—
Tanith	3	0.9	Earthlike	6,788	6.3	.98	Nitrogen-oxygen	See above
—	4	1.5	Asteroid belt	—	—	—	—	—
Psillrem	5	2.7	Gas giant	38,000	.6	—	Methane	—
Joltoth	6	5.1	Terrestrial	6,800	3.4	.53	None	—
—	7	9.9	Empty orbit	—	—	—	—	—
M'8trgh	8	19.5	Gas giant	52,000	.9	—	Methane	—
Hoo-ing	9	38.7	Gas giant	97,000	1.3	—	Hydrogen	—
K8gfoon	10	77.1	Terrestrial	4,800	2.1	.23	None	Naval base
—	11	153.9	Asteroid belt	—	—	—	—	—

APPENDIX A: JIJO

The *Uplift Storm* trilogy introduced readers to a richly detailed new world: Jijo. This remote colony, illegally settled by over a half-dozen fugitive races, is ripe for adventure. It could be the setting of a low-tech campaign, set in the world's historical past. Players could also take on the roles of the

modern-day sooners and ex-*Streaker* crewfen, and help determine the course of the war against the Jophur expeditionary force. A campaign could even take place in Jijo's future, when its inhabitants set out to create a new interstellar civilization in the isolated, nearly empty reaches of Galaxy Four.

THE GANJOO SYSTEM

Jijo is the second planet of Ganjoo, a G1 type star located in a remote sector of Galaxy Four. Ganjoo is also circled by three gas giants (Phwan-no, Gon, and Banquoo) and two other terrestrial planets: Ur-Fireel, a small stony furnace-world, and Chaggit, a dense metal-rich globe enveloped in a thick, cold carbon dioxide atmosphere.

Even before the Great Sundering, only one navigable transfer point is convenient to Jijo, offering passage to the main nexus routes of Galaxy Four. This T-point orbits Izmunuti, the brightest star in Jijo's sky, a huge red giant lying just over a light year away. But this route was little used even in Buyur times thanks to Izmunuti's heavy flux of carbon

sleet, which tends to coat or damage passing star vessels. The carbon storms have surged even more since the Buyur departed, causing the Navigation Institute to list Jijo as "effectively inaccessible."

The Great Sundering

The cosmic catastrophe that readers witnessed at the climax of *Heaven's Reach* disrupted every transfer point in Galaxy Four, including all the links that connected it with the rest of Galactic civilization. The disaster also stripped away nearly all the layers of hyperspace from this galaxy's spatial neighborhood. Most starships will be stranded where they are, be it close to home or interstellar space.

A campaign set after the Great Sundering must take the disaster into account. Jijo will be totally isolated from the main body of Galactic civilization. Migration Institute patrol ships and Zang globes will no longer threaten Jijo's secret. Only beings of the Retired Order with access to probability or soft-quantum-tunneling drives will have freedom of movement, albeit at considerable risk!

Galaxy Four's short-range transfer points will begin to stabilize within a few years of the Sundering. There's no guarantee, however, that any points will lead to their old destinations, and links to the other galaxies will probably never recover. After several decades, new hyperspace strata will condense out of Galaxy Four's shattered spacetime. All hyperspace layers will be stormy and subject to strong currents for many centuries. For these reasons, any scenario set after the Great Sundering will be quite different than campaigns set in the traditional *Uplift* setting.



JIJO

Jijo is slightly smaller than Earth, but appreciably denser. Its gravity is slightly higher (1.06g), as is its atmospheric density (786 mm/hg). While it receives about 5% less sunlight than Earth, its surface temperature is comparable thanks to a greater amount of internal heat.

Jijo's day is about 18 hours, 51 minutes long (15.93 miduras) long; its year consists of 372.13 local days (292.2 Earth days).

Jijo has three moons. The closest, Loocen, appears a bit larger than Luna, is reddish in color, and is dotted on one side with the gleaming domes of abandoned Buyur cities. It circles Jijo every (5.2) days. Silvery Torgen is about a third of the

apparent size of Luna, but is nearly as bright. It circles the world every 11.6 local days. Pale, yellow Passen circles Jijo every 38 days. Prominent in Jijo's southern sky is the Dandelion cluster, a spectacular collection of thousands of stars that occupies a quarter of the sky.

Climate and Geography

Jijo is geologically more active than Earth. Volcanoes and earthquakes are more common. Metals, including valuable metals, are plentiful.

Because of its lesser axial tilt, Jijo's seasons are less distinct than Earth's, and its climactic zones more sharply defined. The effects of decreased insolation and faster rotation seem to cancel each other out, resulting in weather that overall is a bit stormier, but more predictable, than on Earth's.

Jijo has three continents – Reshlushk, Moleka, and Aermor – and several large archipelagos.

The Wet Parts

Jijo is an ocean world. Its seas are vast, stormy, and virtually uncharted. They will present a brand-new frontier to the world's new neo-dolphin inhabitants.

Although members of the Six Races rarely travel more than a few dozen leagues from the Slope, scholars working from ancient maps have divided Jijo's waters into three oceans. *Hi-kakuh-kih* (Galactic Three for "Southern Darkness") stretches from the large, floating icecap surrounding the south pole to the southern shores of Moleka, Aermor, and the Farga islands.

Keeping Time

Jijo's month is based on the conjunction of Loocen and Torgen, which occurs every 22 days, less a few hours. The sooner calendar has 16 or 17 months a year. A leap day is added to the year every eight years.

Most of the Slope's inhabitants are rural types who rise with the sun and go to bed soon after sundown, and don't worry much about tracking the miduras. If they need to make an appointment they'll employ a clock-teet (see p. 156).

Mechanical clocks are plentiful in the Slope's large towns and cities. They take several different forms. Some break the day down into 6, or 36, equal units. Others break the day into 16 miduras. More sophisticated versions track fractional miduras, *thunking* backwards a midura every 14 days or so. The most intricate and accurate clocks are part of Urrish-made mechanical computers used to track the tides.

A small but persistent clique of conservative, scroll-faithful Jijoans protest the modernization of the Slope by stealing calendars and destroying clocks whenever they can.

Galaxy Four

Jijo's home galaxy was all but abandoned by oxygen-breathers a half-million years ago. At the time of the Great Sundering, only a few spartan Institute bases and soon-to-be-deserted Preserve worlds were left under Galactic control. Evidence of the former tenants abounds, however, in the form of decaying ruins, mothballed deep-space facilities, and automated navigation and interdiction buoys.

Although abandoned by the oxygen-breathing Civilization of Five Galaxies, the vast spiral is far from uninhabited. It is home to tens of trillions of hydrogen-breathers, of several thousand species. Spending most of their time on Jupiter-type worlds, most hydrogen-breathers won't care about the presence of a few oxygen-breathers, though some may insist that they now "own" the whole galaxy.

Galaxy Four's halo contains several hundred Criswell structures, where beings of the Retired Order live lives of contemplation. Some of these elders may opt to continue their spiritual development by seeking "transcendence" near Black Holes. Others may decide to come out of retirement and try to spread and settle through the star lanes of Galaxy Four, challenging the dominance of the hydrogen-breathers.

Paurdir is bordered by Reshor to the north, Moleka to the south, Luschack's Hurum peninsula to the west, and the Ziddah Islands on the east. A major subduction zone off the coast of Hurum was used as a dumping zone by the Buyur.

Cheriman stretches from the Zalankalla archipelago and the northeast coast of Aermor to the Slope. Besides the famous Midden off the Slope, another refuse-rich trench lies off the icy northeast coast of Reshor.

Other named bodies of water include the Sea of Yar, southeast of the Slope; the shallow, circular Bay of Moleka, and the Sea of Sulum, between the Ziddah Isles and Zalankalla Archipelago.

Ecosystem

Jijo's ecosystem was moderately depleted by the Buyur's ten million years of tenancy. Many environmental niches remain empty, and much of the world's biomass is still tied up in what until a half a million years ago were domestic species. Still, Jijo has many more species than a typical Galactic world, and it is well suited to colonization.

As with many former Galactic colonies, much of Jijo's flora and fauna originated on other worlds. The rich mix of anatomical styles makes the study of native life quite a challenge. It makes *foraging* a difficult chore: Many of Jijo's plants and animals will be poisonous to a given sapient. (Survival skill rolls are made at -2 for Jijo natives; -4 for outsiders.)

Humans have a particularly limited choice of native foods to choose from. Fortunately, tracki-supplied enzyme treatments allow Humans to consume some common grains and vegetation.

HISTORY

Jijo was terraformed over two and a half billion years ago by an unknown party. The Progenitors themselves put some final touches on the ecosystem. An ancient compilation of case studies on the art of terraforming has an account of the creation of the island continent of Moleka.

Jijo has been through dozens of cycles of settlement and abandonment. While the buildings and artifacts created by past inhabitants were responsibly disposed of in accordance with Galactic law and custom, each wave of settlers made a permanent contribution in the form of the new plants and animals.

The Buyur were the world's last legal inhabitants, before it was declared fallow half a million years ago. Their tenancy began 20 million years ago, inheriting the world from the legendary Kelman, to whom Jijo was assigned as a retirement world. The Buyur developed Jijo extensively, and added many new species to its ecosystem. The Buyur were responsible tenants, and did a creditable job of cleaning up after themselves. The failure rate of deconstructors and mulc spiders is no greater than normal. Sooner folklore claims that active, vital Buyur machines exist to this day, haunting lonely places and ocean depths.



The First Sooners

For about 500,000 years, Jijo was a carefully patrolled preserve, home only to flora, fauna, and deconstructor robots. Then the world became a "sooner magnet," luring race after

race of desperate settlers. Part of the attraction was an eruption of carbon grains from the giant star Izmunuti. This sleet of particles made it easy for illegal colony ships to evade patrols. Still, the improbability of so many races showing up at more or less the same time (as compared to the length of time the world has been and will be fallow) has led to theories suggesting that someone or something arranged for these immigrants to be *invited*.

While they weren't recognized as sooners until very recently, the first illegal settlers were the Tytlal. Their Tymbrimi patrons seeded the world with several thousand presapient proto-Tytlal and a few hundred undersized specimens of the uplifted client species.

The first open settlers were g'Kek refugees. Upon arrival they abandoned their computers and sophisticated tools and dumped their ships into the nearby Midden, where they would remain hidden among debris disposed of by the Buyur. Although life on a roadless planet was hard for the wheeled g'Kek, they were desperately fleeing genocide by the Jophur.

Thus, the g'Kek were shocked when beings almost identical to their tormentors arrived on Jijo. To their relief, the newcomers were soon revealed to be gentle Traekis, fleeing from their Jophur cousins in order to experience life free from the egotistical tyranny of Oailie's master rings. In addition to making homes of their own in Jijo's wetlands, the non-confrontational ring-stacks found themselves welcome in other species' settlements. Their ability to analyze and create organic compounds made them natural pharmacists.

The Glavers arrived next. Their contribution to the culture of the Slope was minimal, because they immediately dedicated themselves to the business of devolving into innocent presapients. The speed with which they progressed down the Path of Redemption gives hope to those who follow the teachings of the Scrolls.

Qheuen grays, chafing under the egalitarian values of the Awaiter alliance, arrived several centuries later, along with representatives of the blue and red servant castes. Based in the Caves of Shood (and later the fortress town of Tarek), gray matriarchs set up a powerful dynasty that dominated the Slope for many centuries.

Hoon settlers arrived a few decades after the Qheuen, and immediately settled into a niche as sailors and fishermen. The placid Hoon got along well with all of the sooner races. *Too* well in the opinion of the gray Qheuens, whose red and blue servant castes began setting up colonies of their own.

After several centuries of relative stability, the Urs arrived, looking for a place where they could roam open places and establish dynasties without the hateful restrictions of Galactic population control bureaus. These swift centauroid creatures challenged the domination of the Gray Queens, especially on the Slope's central plains. The Urs were clever as well as puissant, soon re-inventing metal tools, and with weapons cast in mountain forges they broke the grays' monopoly on manufactured goods.

The Buyur

Native Jijoans know surprisingly little about their world's former tenants. Texts on the Buyur, and other Galactic species, were wiped out in the great fire of 1731. They were known to be large creatures, with a passing resemblance to bullfrogs, although with large, elephantine limbs.

The Galactics' Library has more details: The Buyur were skilled life-shapers, uplifted responsible clients, and took good care of their colonies. When active in affairs of the Oxygen Breather order, they followed Institute laws and made a show of proper reverence to the Progenitors. Normally this is a recipe for becoming an unremarkable cog in Galactic affairs, but the Buyur appeared to be masters at manipulating the system. It appears that they also took great delight in elaborate, long-running practical jokes designed to baffle the self-assured and discomfort the comfortable. The current whereabouts of the Buyur, who reportedly joined the Retired Order several millennia ago, are difficult to determine.

The *Tabernacle* Arrives

Just when a new balance had been achieved, a seventh sooner race arrived and changed all the rules. Humanity had contacted the Galactics just a few decades earlier. Aware of the sad history of other “wolfling” races, Earthlings anxiously sought out ways to safeguard some hope for a posterity, in case the worst happened. So Earth dispatched the sneakship *Tabernacle* with a well-equipped population of Humans and neo-chimpanzees to what promised to be a safe refuge . . . a place for a few to hide quietly, avoiding contact with the stars.

One of the newcomers’ first acts, after carving a mountain redoubt using the *Tabernacle*’s drives, was to print tens of thousands of *books*, using the astonishing technology of paper . . . a data storage medium that used no electronics or other high-tech, and therefore was safe from detection from outer space. The effect on the previous sooner races was enormous. Coming from both Galactic and Terran sources, these widely-distributed volumes gradually, inexorably overwhelmed the traditional culture of the Slope.

For many years Humanity’s hold on Jijo was tenuous. Many Urs, especially, hated the newcomers. Decades of skirmishes, raids, and outright war followed. But technological savvy and diplomatic skill eventually gave Humanity the upper hand, and an uneasy truce was established. One of the casualties of this strife was *horses*. Humanity agreed to exterminate the swift creatures to secure peace at the end of the bitter second Urs-Human war.

Although Humans and neo-chimps were well established a century after Landing Day, the Qheuens were still the greatest power on the Slope. This would not last. Under influence by g’Keks, Urs, and Humans, the last of their blue and red thralls fled the Queens’ service and went their own way. The grays’ dominance was finally broken at the Siege of Tarek.

The Coming of the Egg

Over the following decades, the beginnings of a cosmopolitan society took shape in the Slope’s larger towns and

cities. Populations grew, roads and bridges were built – though always in a fashion that hid them from view from above – and guilds were founded to promote and regulate various professions. But all was not well. Bandits of one sept might raid a settlement of another, then slip back to their own demesnes, confident that their own leaders would mete out little if any punishment. Growing cultural differences between city-bred innovators and rural traditionalists even threatened the unity of individual septs.

Jijo itself seemed to join in the unrest, as seismic and volcanic activity increased dramatically.

Things came to a head when a massive eruption shook the Rimmer range. Rather than flee the cataclysm, two old rivals – the Human warrior Drake the Younger and the respected Aunty Ur-Chown – marched into the mountains. They returned, covered with ashes and minor burns, bearing wondrous news: A holy object, The Egg, had emerged from the bowels of Jijo. Under this new influence, a new scroll was written, laying down the spiritual foundations of a new compact between the septs and a new relationship with Jijo. While the Path of Redemption was still the ultimate goal, the new rules cherished literacy and allowed for limited, respectful, and regulated use of old technologies.

Remarkably, the Commons envisioned by Ur-Chown and Drake not only came to be, but prospered and endured. It was helped by the discovery of *rewqs*, symbiotic life-forms that allowed a member of one sept to better understand and communicate with a member of another.

The Great Peace was to last for a hundred years . . . and might have lasted longer, if not for the Forayers.



A Year to Remember

The sooners long feared, and well prepared for, discovery of their illegal colony by Galactic inspection ships or Zang patrols. Entire towns were covered with camouflage netting, or designed to blend in with the surrounding landscape. Every major building, dam, and bridge was rigged with explosives, should the need arise to erase signs of settlement . . . either to avoid detection or to “clean up” the world as a sign of penance and cooperation to Migration Institute enforcers.

Jijo Year 1930 saw the arrival of *three* starships, none of which represented the long-expected return of Galactic authority, but nonetheless posed terrible dangers. The avaricious and deceitful Rothen were gene raiders. They and their Human “Danik” quislings offered trinkets and medical aid in return for help in cataloging Jijo’s wildlife. The Daniks also asked pointed questions about *other* visitors, to the consternation of the sooners. Despite their isolation and technological backwardness, the sages of the Six Races knew that no good could come of the visit. To prevent word of their crime from reaching Galactic authorities, even if it be delayed tens of thousands of years, the Rothen would have to wipe out the sooners! Soon enough, artificial plagues and ancient hatreds wracked the Slope.

Jijo Native Characters

All of the “septs” – g’Kek, Hoon, Humans, Qheuen, Traeki, and Urs – are available as player characters. The race templates in Chapter 4 are appropriate for individuals from Galactic society. To make a template for a Jijo native:

Remove the Racial Status (e.g., Humanity’s Minor Patron advantage).

Remove any Racial Reputation.

Remove any Advanced advantage.

Add the Primitive (TL6) disadvantage.

A daring scheme to kidnap Rothen hostages and create a cache of photographic blackmail material looked ready to succeed when worse trouble arrived, in the form of the gigantic Jophur starship *Polkjhy*. The Obeyor fanatics were out for a bigger prize than an illegal adopted client species. They had tracked the missing Earth vessel, *Streaker*, to Jijo's vicinity and were hot on the trail, hoping to win the prize she carried . . . a secret that had already spun five galaxies into turmoil!

The Jophur did not even pretend friendship. They had a grudge against Earthclan, and wanted to finish off a job they had begun millenia earlier: the extermination of the gentle g'Kek. They were also appalled to find Traeki present, reminders of the way they used to be, before the Oallie provided the "gift" of master rings, transforming Traeki into Jophur.

These arrogant creatures could turn the sooners over to authorities, or use the isolated world for their own purposes. In the harrowing weeks that followed, tens of thousands of Jijoans died. Entire settlements were blown apart; the g'Kek city of Dooden Mesa was immured in a wad of time-retardant toporgic. Still, the Six Races fought back. One of the *Polkjhy's* scout vessels was destroyed by rockets cobbled together from 'boo tree trunks. Another was ripped apart, reportedly by an erratic mulc spider.

Timeline

- 2.5 billion (?) – Initial terraforming.
- 1.9 billion – Progenitors create Moleka.
- 29 million – Kelman abandon Jijo.
- 20.5 million – Buyur take occupancy.
- 502,000 – Buyur leave Jijo.
- 50 – Tymbrimi establish Noor/Tytlal colony.
- Jijo Year 0 – g'Kek refugees arrive on Jijo.
- 299 – The Traekis come to Jijo.
- 452 – The Glavers arrive.
- 831 – Qheuen separatists come to Jijo.
- 897 – The Hoon arrive.
- 1001 – Caves of Shood abandoned.
- 1198 – The Urs come to Jijo.
- 1250-1400 – Battles between Urs and gray Qheuens.
- 1650 – Humans, neo-chimpanzees arrive; Biblos created.
- 1652 – Beginning of the Great Printing.
- 1668 – First Human-Urs War.
- 1680 – Drake the Elder is born.
- 1720 – Second Human-Urs War. Drake the Elder destroys the Urunthai, a Human-hating Urrish clan.
- 1722 – Sacrifice of the horses buys peace with the Urs.
- 1731 – Fire at Biblos; about 1/3 of the books are lost.
- 1738 – Dolo Dam founded; Drake the Younger is born.
- 1761 – Siege of Tarek: the Gray Qheuens are defeated.
- 1830 – The Holy Egg appears; Beginning of the Great Peace.
- 1839 – Rewqs in widespread use.
- Jijo Year 1930 – The Rothen come to Jijo.

– Timeline compiled by Alberto Monteiro

The Commons' best efforts weren't enough to prevent the seizure of Biblos by the Jophur, the leveling of Ovooom Town, and the subversion of war-weary settlements.

Just when things were looking grimmest, the *Polkjhy* left, pursuing a fleet of revived ancient starships that erupted from the ocean-floor trench off the coast of the Slope. Hiding amidst the mystery fleet was the prey the *Polkjhy* sought: the *Streaker*, which had lain in hiding since before the Rothen arrived!



The Great War

The departure of the Galactic ships did little to reassure the Jijoans. More ships would surely follow: Migration Institute enforcers if they were lucky, Obeyor alliance forces if not. Of more immediate concern: An expeditionary force of Jophur and combat robots had been left behind by the *Polkjhy*. Despite their limited numbers, the ingenious, resolute, and well-armed ring-stacks looked to be more than an even match for the militias of the Slope.

The *Streaker* left behind tools, weapons, and a few new allies: several dozen neo-dolphins and the presapient Kiqui. These helpers might be especially potent allies at sea.

The Future

There's a tantalizing hint near the end of *Heaven's Reach* that the sooners had defeated the Jophur . . . or at least gained an important strategic advantage. The clever Six Races were beginning the path back to the stars in crude but effective rocket ships. Fueled with volatile sap created by Traeki pharmacist-rings, using casings of super strong boo-tree trunks, the ships' ingenuity would please Jules Verne. Perhaps their destination would be the long-abandoned Buyur cities, still gleaming on the surface of Loocen.

Even with the *Polkjhy's* expeditionary force out of the way, Jijo faces a final dose of Galactic interference, in the form of a ragged fleet of shuttles, lifeboats, and scout ships that managed to slip out of hyperspace just before the Great Rupture. Some of these are from Jophur vessels; most of the rest are allies from the Obeyor alliance.

A single friendly Galactic ship made its way to Jijo: an E-Space scout crewed by a strangely altered modern-genome neo-chimp, several Humans, and a Synthian.

What comes next is up to the game master and players!

THE SLOPE

Each of the Sooner races came to the same conclusion after arriving at Jijo. The only responsible place to settle was the Slope.

Perched between the still-growing Rimmer range and the Cheriman Ocean, the Slope is a doomed land. Areas not liable to being covered with lava are due to be sucked into the Midden, a tectonic subduction zone just off shore. By the time that Jijo was scheduled to be reopened to official settlement nine million years in the future, any trace of the Six Races and their settlements should be long since destroyed. It didn't hurt that the land was fertile, with plentiful mineral deposits.

Geography

The Hinterlands

The Slope is located on the western edge of the Resh-lushk supercontinent. It is bordered on the north by the boreal forests, mountains, and glaciers of northwestern Reshor. Particularly adventurous hikers sometimes travel here to see the spectacular glacier-fed falls that tumble into Lake Desolation.

To the east is the Rimmer Range, a young mountain range with several active volcanoes. The western foothills are heavily forested. A few passes allow access to the Venom Plain, but for the most part the Rimmers are grim, barren, and impenetrable.

The southern boundary of the Slope is defined by the Rift, a gash in the planet's crust that extends from the Midden to the Great Cliff that divides Reshor and Luschack. Just south of the Rift is an area of scrublands that has from time to time been settled by Sooners looking for a little extra room. Each time such invaders have been discovered, parties have set forth from the Slope to bring them back, because projections show that area could survive almost intact until the next legal settlement.

The Cheriman Ocean is simply called "The Sea" by the inhabitants of the Slope. It is well stocked with fish. The sea is also used as a dump site. Carefully prepared, weighted bundles are brought to the waters over the Midden before being tossed overboard to mix with the huge mass of Buyur debris that lies there, slowly being sucked underground. Many leagues offshore is Hawph Island, the storm-swept, lightly inhabited land where the Hoon first settled.

The North Slope

The northern Slope is a relatively level plain cut with several mighty rivers: The Roney, Bibur, and Gentt. Most of the Slopes' settlements, from tiny single-species hamlets to thriving trade centers, are found here.

To the north of the Roney is a hilly region of forests, swamps, and meadows. Just west of the foothills of the Rimmers is Dolo Village. This small but cosmopolitan settlement has representatives of all septs and many small industries. To

the southwest of Dolo is the Eternal Swamp, an artificially created wetlands covering the ruins of a gigantic Buyur city.

After it wanders out of the swamp, the Roney enters a region of hills and canyons before reaching the confluence of the Bibur. Here is Tarek Town, the most sophisticated city on the Slope. Built on a Buyur ruin which evaded deconstruction, Tarek is home to schools, hospitals, and the headquarters to many professional guilds. Large populations of each of the septs live there, not always amicably but well enough to create a center for trade and culture.

The banks of the Bibur are the heartland of the northern Slope. It is home to many small, conservative villages of tree farmers, fishermen, and simla-herders. In the mountains overlooking the river is Biblos, the great library fortress.

The arid grazelands of the Warril Plain, between the Bibur and the Gentt, occupies the middle of the Slope. The great struggles between the gray Qheuen and Urrish warriors took place here, on the fertile Znunir plain. Most of the inhabitants are Urs, many of them die-hard simla-herders.

In places the plain is almost desert-like, and the eastern portions, by the foothills of the Rimmers, are broken, treacherous badlands. Far from being deserted, the region is crossed by trade routes, dotted by oases, and is home to hardscrabble Urrish clans involved in mining, hunting . . . and banditry.

Nestled in the Rimmers east of the plain is a pleasant highland valley, The Glade of Gathering. Reached by the Path of Long Umbras, the glade is where delegates from across the Slope come together to debate and deliberate. To the north and east of the Glade, along a winding but well-worn mountain track, is a mostly-quiescent volcanic caldera: the Nest, home of the Egg.

The Egg

The eruption of the Egg – a giant, ovoid mass of smooth brown stone – from the volcanic depths of the Rimmer Range signaled the beginning of an age of progress and cooperation on the Slope. Even the most rational, doubting members of the Six Races admit that the Egg is more than a symbol, and its effect on the mentality of pilgrims more than a placebo. Its emanations register on ancient Buyur psi-detectors.

Thousands of pilgrims visit the Egg every year. Most go during the annual Gathering, to take advantage of organized devotions and the opportunity to meet acquaintances from across the Slope. The pilgrims find themselves a little less likely to lose their tempers, or treat a member of another sept with intolerance.

In game terms: An NPC who has been on pilgrimage within six months has a general +1 reaction modifier, and reduces the penalty for interracial encounters by -1. Player characters who have visited the Egg should roleplay a slightly mellow, tolerant attitude.

Xi

The Illia of Xi, a fertile valley hidden in the middle of the Spectral Flow, are an all-female society of Humans and Urs. It was founded near the end of the Second Human-Urs War. The founding mothers preserved a herd of *horses*, the last specimens on Jijo. Every Human daughter of Illia learns to ride. In times of danger they can field a company of skilled light cavalry.

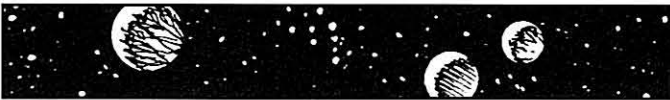
Xi can be reached overland through the Spectral Flow; the comparatively inviting Plain of Sharp Sands lies 20 miles to the northeast, through a treacherous labyrinth of arroyos and rock-strewn canyons. An easier route is available through a hundreds-miles long tunnel that dates from the time of the Buyur; it runs from north of the Great Marsh to a valley five miles from Xi valley. The tunnel and both of its entrances are patrolled by Illia's best warriors.

Before the Great War against the Jophur, the secret of Xi was known to only a few outsiders. Even later, the exact location of the colony will be unknown except to a few high-level military personnel and the High Sages.

The Spectral Flow

The Spectral Flow is the most dangerous and inhospitable part of the Slope. Besides being a forbidding desert – lashed by fierce storms when it isn't parched – the rocks and sand pose a *mental* hazard. Formed from extrusions of psi-active volcanic stone, the terrain is hard for sapient eyes to lock onto. Dunes and rock outcroppings seem to change shape from minute to minute, as though being rotated through extra dimensions. Flat areas generate tempting mirages or nightmare images. Mountains may look like fairy-tale cities or monstrous citadels of darkness.

Successfully walking through, much less surviving in, the Spectral Flow requires a special Area Knowledge skill. This skill can only be learned by the Illia of Xi or by the highest ranks of the Commons' rangers. The skill defaults to Survival (Desert) -4. Wearing a rewq allows a +2 skill bonus. Every traveler, or guide leading a closely supervised group of travelers, must make a roll against this skill every half-hour. Success means the traveler or group advances through the Flow at half-normal Desert travel rates; a critical success allows travel at full speed. Failure means the individual or party becomes *entranced* for 1d6 × 15 minutes. Critical failure means entrancement and something worse. An individual or entire group could become very lost, blunder over a steep slope, or simply become lost in contemplation of a entrancing vista.



The Midlands

To the southeast of Warril Plain is the enormous morass of the Great Marsh, the source of the Gentt. It is the center of Traeki settlement, although a small population of Human

crustacean gatherers can be found here as well. The most treacherous regions of the swamp are wandered by desperadoes and dangerous animals.

The Gentt flows through the largest city of the Slope, Ovoom Town. Like Tarek Town, it was a former Buyur settlement that partially escaped destruction. It serves as trade center between the southern and northern Slope, and the fertile farmlands of the Gentt's coastal delta.

To the south of the Gentt's valley, the land rises and becomes drier. Here lies barren Blaze Mountain, home to a clan of conservative Urrish metalworkers. To the south and southeast of the volcano is the hot, barren, shifting dunes of the Plain of Sharp Sands. It is desert, aside from a few hardy animals and nomads. The plain stretches to the southeast as far as the Rift. Bordering it to the southwest are the unimaginably hostile badlands of the Spectral Flow.

The South

Running along the southwestern coast of the Slope is a narrow strip of fertile land, running from Far Wet Sanctuary to Terminus Rock, the southernmost point of the Slope. Paralleling the coast is the Southern Range. The northernmost peak of the range, Mount Guenn, overlooks the Spectral Flow. The Slope's busiest port, Wuphon, lies just southeast of the volcano. A tramway links Wuphon with the smithies and laboratories of Mount Guenn.

Nestled between the Plain of Sharp Sand and the southern peaks of the Rimmers is The Vale, the most remote part of the Slope. The sparsely settled plateau is good grazing land, and supports a small population of nomadic Human herding-clans. The Vale also attracts eccentrics, Scroll-fundamentalists, and outcasts fleeing their pasts. These often-colorful folk live in small villages in the foothills. The Commons' rangers keep a discreet but careful eye on the region; it has produced more than its share of illegal settlers. Anyone sailing the Rift or traveling the foothills will be met by a friendly ranger to let them know that the Slope's borders are sacrosanct.

Getting Along

The following reaction modifiers reflect *typical* attitudes of members of the Six Races, based on historical conflicts. Sages, cosmopolitan city dwellers, and traveling merchants tend to be more tolerant. Rural folk, especially devout Scroll-following conservatives, may have exaggerated attitudes towards strangers of other septs. However, most residents of the Slope are friendly folk who consider visits by strangers as a welcome diversion.

Human NPCs react to Urs at -1.

Urrish NPCs react to Humans at -2, and to gray Qheuens at a -1.

Traeki NPCs react to any other sept at +1. NPCs of other septs react to Traeki characters at +2.

g'Kek NPCs don't have any strong likes or dislikes, but NPCs of other races react to g'Kek at +1. They are well liked creatures . . . although their repeated requests for help getting their wheels out of ruts can be tiresome.

Red and blue Qheuen NPCs react to Hoon at +1.

Society & Economy

The cultures of the Slope are as varied as its people, but the laws of the Commons demand that everyone follow certain rules and traditions. Populations must be kept in check, lest the Slope become overcrowded. Everything that is made must be unmade, or sent to the Midden. Traders, travelers, and pilgrims must be protected and provided for. And every action should take into consideration *The Path* . . . the way of humbly preparing for a day when Judgment may come down from the skies.

Humans

Humans and neo-chimps occupy many of the Slope's economic niches. Like the other septs, the majority of the population works in agriculture. Humans, and their neo-chimp clients, have proven to be especially skilled tree-farmers.

While any sept is free to make paper and print books, Humans have a practical monopoly on these trades. They also tend to dominate the teaching profession; there are as many Human scholars as in all the other races combined.

Urs

Urs are a flexible, hardworking, and ingenious people, and individuals can be found in almost any profession that doesn't involve working near water. However, most Urs follow one of two occupations: nomadic herder and metalworker.

Urrish herders live in traditional clan organizations. They are at best impatient with outsiders, but can usually be counted on to act lawfully. Most herding clans assign some of their sisters to act as wandering traders, and send others to be educated or work for the Commons.

Independent Urrish smiths can be found in many villages. They work metals, ceramics, glass, and composite materials. Some smiths are outcasts from herding clans, trying to earn their fortune and start a dynasty of their own. Others are Urrish "nerds" who simply like work more than family life.

Of special note are the smiths of Blaze Mountain and Mount Guenn. They take advantage of these volcanoes' natural heat, gas flows, and mineral deposits. While the Blaze Mountain clan is rather conservative, the Guenn smiths are radicals. Their forge supports laboratories and workshops where a remarkable assortment of sages and craftsmen toil on projects that have little to do with metalworking!

Qheuen

Gray Qheuen prefer to live in damp caves and caverns. While they are able to tolerate both salt and fresh water, and some do toil in aquaculture farms, grays simply don't seem to tolerate or excel at farming. They are excellent craftsmen and builders, however, and have no trouble earning a living in town or country. Grays are more adept at scholarly work than reds or blues, and many can be found working for the Commons or in Biblos.

Red Qheuen are saltwater creatures. Their ideal homes are ocean-side grottos and caves, although they will happily live in wharf-like structures built in busy harbors. Reds excel at marine "farming," raising penned fish, cultured crustaceans, and seaweed in coastal shallows.

Blue Qheuen prefer fresh water. Civilized blues live in and behind dams on slow-moving rivers. The placid waters behind the dam are extensively "farmed," producing enough shellfish, water plants, and fish to feed an entire dam's worth of Blues.

Hoon

These large, phlegmatic creatures are every bit as able and mentally flexible as Humans. Hoon sages have made important contributions to the lore of the Six Races, especially on spiritual matters. Hoon traders visit villages from the Vale to Dolo Village. But given the choice, Hoon gravitate to the sea. Nearly every ship, whether river-runner or dross transport, is owned and run by Hoon. Jijo's ports are run by Hoon trying to earn enough to buy a ship.

Traeki

A majority of the Slope's Traeki seem content to live simple lives in humble swamp-side villages, engaged in the Traeki equivalent of subsistence agriculture: gathering piles of high-grade mulch. Some villages earn money for trade by brewing alcohol, or producing chemicals used to process dross.

Because of their unique talents, one or two Traeki may be found in almost every village on the Slope. These serve as pharmacists, or suppliers of the special chemicals and compounds that craftsmen need to do their work. One highly-paid Traeki in Tarek Town is kept a virtual prisoner by a hive of gray Qheuen cabinet makers; it has a secret formula for a shellac-like substance used to give the Qheuens' furniture a unique finish.

g'Kek

Because their wheels limit them to fairly flat territory, g'Kek are most often employed in town and city jobs. The few who do work in agriculture do so in tree-farms equipped with mazes of ramp ways.

g'Keks' keen eyesight allows them to do fine detail work. They are skilled craftsmen, and are considered the best weavers on the Slope. The wheeled creatures also seem drawn to the professions, and can be found serving as surgeons, lawyers, bookkeepers, and researchers.



Government

The Slope's many settlements are free to govern themselves as they see fit, as long as their citizens are guaranteed their rights and the community fulfills its duties. Some towns elect a governor; others are administered by a council of clan chieftains. Traeki make decisions based on something they call a "pheromone consensus" . . . a process that takes a long time and smells awful.

The affairs of the Slope as a whole are administered by a confederacy known as The Commons. The local governments choose representatives to the annual Gathering, where the business of the Slope is hashed out amidst religious ceremonies, games, and festivities.

While the concerns and views of the delegates are given due consideration, final decisions are made in the Council of the Sages. While they come from every sept and every region, the sages represent the values, duties, and traditions of the Commons, rather than the folks back home. As the name suggests, the sages are educated, scholarly types. The Junior Sages, who have advisory powers but rarely contribute to the final consensus, include scientists, lawyers, and theologians. When not at the gathering, they may engage in research, serve in courts, or act as aides and experts to local governments. Each sept is represented by one High Sage. These worthies usually start out as specialized Junior Sages, but they are not considered for elevation without having had plenty of “real world” experience.

Military

Almost every community on the Slope can field a small militia unit. These are funded by the Commons, and must meet standards of training and equipment set by a committee of military-minded sages. A corps of skilled officers tours the Slope, inspecting the militias and conducting drills.

A militia’s composition and equipment varies from community to community. Some are racially homogeneous; others take a “combined arms” approach, assigning members

weapons and roles that fit their physiology and talents. Humans and g’Kek prefer light infantry units, fielding fast-moving teams of archers and spearmen.

Hoon, ordinarily retiring and easy-going, become implacable foes when angered; Hoon soldiers prefer heavy weapons such as battle axes and mattocks. Fast moving, fierce, and quick-witted, Urs excel at light cavalry tactics. They are competent archers, but prefer spears and thrown darts.

Qheuen, especially gray Qheuen, were considered the best warriors on the Slope before the arrival of the Urs. At close quarters, where strength and toughness are more important than speed and maneuverability, the shelled creatures still outrank the Urs. On land, Qheuen wield clubs, heavy picks, and stout pikes. They are not skilled at ranged weapons, but do use crossbows from time to time and have been known to use thrown nets in battles against Urs. Underwater, red and blue Qheuen use nets and punch daggers.

Traeki are not especially skilled at soldiering. Besides being difficult to rally to battle, they are relatively slow-moving and make obvious targets. When they must fight, Traeki arm themselves with slings and light clubs. They may also spit noxious substances at short ranges. Despite these handicaps, a Traeki or two will be attached to almost every militia unit, as pharmacists.

THE WILDERNESS

Most of Jijo’s surface – land and sea – is off limits to the citizens of the Commons. Most sooners are content with their own lands, and tell their children that the forbidden regions are roamed by capricious Buyur machines and deadly beasts. A small corps of trained, disciplined rangers do patrol nearer regions of Lushack and Reshor, and the scrublands south of the Slope, but their chief job is to hunt for illegal settlers.

The *Tabernacle* created very detailed orbital maps of Jijo before it was scuttled. Simplified versions of these are widely distributed. More detailed topographic maps are only available to certified rangers. (The Sages don’t want to make things easier for illegal settlers.)

Reshor

Massive Reshlushk was actually two separate continents – Reshor and Lushack – when the Buyur began their tenancy. The two regions are joined at a massive linear escarpment, the Great Cliff, which runs east and west for thousands of miles.

Reshor, north and “above” the cliff, straddles two tectonic plates. The western plate – home of the fertile, volcanically active Slope – is slowly being pushed into an off-shore subduction zone.

Most of Reshor is on a plate that is moving rapidly east. Just over the Rimmer Range from the Slope are the Venom Plains, whose spiky vegetation is literally toxic. South and east of the plains are the Gray Hills, inhospitable badlands dotted with sulfur springs. The vast region to the east and north of the Venom Plains is cool and arid, with vast steppes, sparse boreal forests, and large expanses of tundra. Of note is

a ruin of the ancient Kelman. Once buried, the ancient city’s tumble-down walls and pillars are being unearthed by erosion.

Lushack

Lushack, to the south and below the Cliff, is on a tectonic plate pressing north against Reshor. Most of the subcontinent is hot and dry. The rugged Huras peninsula paralleling the east coast is thick with volcanoes and geothermal areas.

Thanks to favorable ocean currents, the southwestern coast is warm and well watered, and is home to the trackless Jungles of Yar and the great, serpentine Ka River. West of the Ka delta is the Farga Archipelago, a chain of barren, storm-wracked volcanic islands.

An expedition from the Commons once traveled along the Great Cliff to the fabled Sunrise Desert, in far southwestern Lushack. The account of their 2,000-league trek between active volcanoes and across burning sands is popular reading among the Slope’s younger citizens. An apocryphal but entertaining “lost chapter” of this account tells of the expeditions’ adventures in a half-buried Buyur city.

Moleka

Circular Moleka, the remains of an asteroidal impact basin, is comprised of five rugged islands. During Jijo’s ice ages much of Moleka’s shallow central basin drains, revealing a fertile plateau.

Reefs between the islands support a flourishing marine ecosystem.

Moleka is the subject of tall tales, legends, and most recently a series of fantastic novels written by the Hoon phenomenon Rauphoon-Woor. These stories play on the common misconception that Moleka's central island lies exactly opposite the Egg.



Aermor

The equatorial continent of Aermor is generally warm and arid, although its mountainous eastern half supports many "microclimates" that nurture dense swamps, forests, and jungles. One valley has a cave complex containing ruins dating back to the Kelman tenancy, 27 million year ago.

The mineral-rich deserts of western Aermor were once home to numerous Buyur industrial sites. A few inadequately deconstructed ruins remain.

The Zalankalla Archipelago extends Northwest from Aermor's northern tip. Many of the chain's islands are not only fertile, pleasant, and well watered, but rich in mineral wealth. A few Buyur sites can be found offshore.

The Ziddah Islands, extending west of Aermor, are sandy, arid, and inhospitable, although the surrounding waters teem with life.

FLORA & FAUNA

Clients

Several septs brought early or even presapient versions of their client species into exile with them.

Proto-Chims

The *Tabernacle* fled Earth when neo-chimpanzees were first-stage clients. For convenience's sake, they are referred to as *proto-chims*. They are all Mute [-25] and much less mentally proficient (IQ -2 [-15]) than Second Stage neo-chimps. They are New Clients [-15].

Proto-chims are generally "attached" to a Human guardian who is responsible for their behavior, upkeep, and welfare. While they have many civil rights, they are definitely second-class citizens.

The civilization on Jijo does not have the ability to support an Uplift project, but they do selectively breed proto-chims. While there is no "color card" system, proto-Chim characters can choose between being the equivalent of a Blue Card or Yellow Card.

It costs -35 points to be a proto-Chim.

Lornik

These loyal proto-clients of the Qheuen are four-limbed, finely-scaled creatures with massive, wedge-shaped heads.

Wild Creatures

The total number of animal species on the Slope and its environs is relatively small, but because they come from many worlds the variety is great. Large carnivores are relatively rare, thanks to Jijo's still recovering ecosystem.

Ligger

These fearsome and feared creatures fill the same ecological niche as mountain lions. They are found throughout the Rimmer Range, its foothills, and nearby forests. They won't hesitate to take on sapient pray carelessly enough to travel alone.

ST 24, DX 14, IQ 4, HT 14/14-28. Speed 6. Liggers weigh 300-500 lbs., and are 2 hex creatures. They have six legs and can scramble up and down 45-degree slopes with ease. They bite and claw for 2d-2 cutting damage.

Gallaiter

These shaggy, long-toed ungulates can be found throughout Reshor, from the chilly valleys north of the Slope to the Gray Hills. They travel in small herds, and are ill-tempered and dangerous if annoyed. Their untreated flesh can be eaten by Hoon and g'Kek. ST 14-18, DX 14, IQ 4, HT 12/10-14. Speed 7, with bursts to 9 on level terrain. Their dense wool gives them DR 2.

Gallaiters can trample for 1d+1 crushing damage.

Lorniks will only serve Qheuens, barely tolerating other races. They are relatively rare, and are generally assigned to highly-ranked individuals. Once bonded, a Lornik will be a Qheuen's constant companion, providing its master with an additional pair of highly dexterous hands. A Qheuen with a trained Lornik companion can use its DX for tasks that involve manipulation, but don't require split-second timing. (The Qheuen could repair watches, but not perform Sleight of Hand.)

Lorniks are Small, with a weight/height increment of 2 lbs. and 1/2". They have DX +1 [+10], IQ -2 [-15], ST -3 [-20], HT -1 [-10] and Reduced Hit Points -3 [-15]. An average specimen weighs 74 lbs. and is 3' tall. Lorniks have Semi-Upright posture [-5]. They are Presapient [-20] and Mute [-25].

Lorniks are Humble [-1], Chauvinistic [-1], Responsive [-1], Dull [-1], and Staid [-1].

Being a Lornik costs -105 points.

Zookirs

The arboreal zookirs accompanied the g'Kek to Jijo. They are not technically clients; the g'Kek were about to petition the Uplift Institute for permission to uplift the creatures when they were forced into their illegal exile. Able to manage terrain that their masters cannot enter, they have made life on the rugged Slope tolerable for their wheeled masters.

Zookirs have two arms, two legs, and a spherical head with a small mouth and a large, moist nose. They have black skin covered with spirals of white torg, a soft fibrous body covering. Their eyesight is surprisingly poor for arboreal creatures, but they have excellent balance, good tactile abilities, and a superb sense of smell. Zookirs are good judges of character and have an uncanny attraction to smart people . . . scholars and sages. Mild-mannered, easily trained, and hard-working, they excel at running simple errands.

A typical zookir has ST 5, DX 12, HT 6 and IQ 6. Speed: 6, or 3 while brachiating. Zookirs generally avoid combat, but if they or their masters are endangered they can bite for 1d-4 damage.

A trained zookir costs at least \$500.

Noors

Noors are smart, otter-like creatures that can be found along the coast of the Slope, and along its major rivers. Noors are mischievous, thieving, and can be terribly destructive. They cannot be tamed, trained, or bred in captivity. Despite this, it is difficult to find a Hoon-crewed vessel that does not have at least one noorish "sailor." Noors are skilled and dedicated deckhands and riggers, able to scramble up masts even better than neo-chimps. Hoon pay off the creatures with sour candy and soothing umbles. A newcomer might even mistake noors for Hoonish clients!

Although it is not widely known, Noors are the pre-uplift form of Tytlal, the Tymbrimi's bright, capricious clients. They, and a discreet population of undersized sapient Tytlal, were the first sooners.

GLAVERS

Once a Galactic race of moderate accomplishments, Glavers arrived on Jijo as settlers. While current-day Glavers can still talk, and occasionally display glimmers of higher mental faculties, the race is fast approaching the "blessed" goal of becoming innocent creatures of nature.

Glavers are vaguely reptilian quadrupeds with dully gleaming opalescent skin and bulging eyes mounted on short stalks. Their most sensitive manipulatory organ is a long, forked tail. They stand about a yard high at the shoulder, and have a somewhat comical roly-poly build. The creatures are browsing omnivores, spending much of their time hunting for tubers, grubs, and berries. Their biochemistry is similar to that of Terran life, and they sometimes feast on Human settlements' compost heaps.

The Commons protects these devolved creatures from hunters and the occasional sadistic glaver-baiter. Specimens which become a nuisance may be rounded up and transported to an uninhabited area. The Commons' rangers occasionally have to track down and retrieve glavers which cross the Rimmers into the forbidden lands of Reshor.

ST 10, DX 8, IQ 7, HT 12/8-14. Speed 5.

A typical Noor has ST 5-7, DX 13, IQ 7, HT 12/5-8, and Speed 6. They can swim as fast as they walk, and can move through trees at speed 2. Noors have the Luck advantage. A Hoon lucky enough to be adopted by a noor *might* share in this good fortune.

Gimmick Creatures

While not Luddites, the Buyur never used machines when a specially tailored life form could do the job. They created, or imported, hundreds of appliance-species. Many of these died off when the Buyur abandoned Jijo. Others lost the peculiar instincts that made them useful. A few dozen of these species remain, to the delight or consternation of modern sooners.

Rewqs

Humans can sense the emotional state of other Humans by observing their facial expressions and "body English." This ability, partially learned and partially inherited, doesn't work across species without years of training and experience. Rewq symbionts provide a shortcut around this handicap, providing much the same level of insight with a minimum of training.

Rewqs – cave-dwelling creatures of no familiar biological kingdom – resemble a moist pad of translucent, filmy tissue. While they must have been on Jijo all along, they were only discovered a hundred years ago, shortly after the Great Egg erupted into its mountain nest. Rewqs are symbionts; in exchange for a small amount of blood, they provide the wearer with a peculiar sort of Empathy. When stretched over the eyes (or vision strip) of the wearer, the rewq superimposes flickering color-cues and distortions over any living creatures in the wearer's visual field.

The symbionts are race-specific, although Human Rewqs can be used by Chims with no penalty. Rewqs are not rare or expensive, but it is not possible to walk into a shop and pick one up. Rewq-breeders must meet the future owner and get a "feeling" for his personality, then spend a day or two sorting through the specimens on hand for a match. A hastily chosen or salvaged rewq operates at a -2 penalty for 2d weeks, until the creature adjust to its new owner's thoughts. A *stolen* rewq operates with a -4 penalty and may give the user Migraines (roll vs. IQ each day to avoid, allowing a +2 bonus for the Empathy advantage). After a week with a stolen rewq, roll vs. the character's HT; if successful, the rewq will adapt in 2d weeks. If the roll fails, the rewq dies!

A rewq weighs about 6 oz. and cost \$100. They have a HT of 3. They live off of their host's blood supply; a detached rewq not kept in a special moss-lined case with blood substitutes can only survive a day or so. A successful strike on the host's eyes will strike the rewq first.

Tobar Seeds and Clock Teets

These seemingly unremarkable creatures were modified by the Buyur to act as natural alarm clocks. When split open, tobar seeds (.1 oz, found all through the Slope's temperate forests or available in markets for \$.05) emit an intense,

pungent aroma. This scent quickly summons any clock teets in the area. (A teet arrives in 2d × 5 minutes in forested areas; caged specimens are available in shops for \$5.) The teet – a squat, gray, birdlike creature – takes exactly one midura (about 70 minutes) to finish off an unopened seed. After it devours the last of the seeds laid out for it, the teet emits an ear-piercing screech and flies off.

Mulc-Spider

Variants of these destructive but useful creatures are found on many fallow worlds. They were adapted from a plant-like species that lived on a dying world that had lost most of its air and water. By day they basked in the sunlight; at night, they used their phenomenally tough tentacles to crush and crack rocks, releasing the precious volatiles within. A long-extinct Galactic race adapted the creatures to live in a standard environment, made them even tougher, and gave them a suite of instinctive behaviors that turned them into biological demolition teams.

The mulc-spiders of today are a totally co-opted species, treated more like machines than living creatures. The Migration Institute manufactures ecosystem-specific spider “seeds,” and distributes them to races preparing a world for fallow status. While mulc-spiders can grow to cover hundreds of acres, and may live for millions of years, they are sterile and incapable of further evolution.

Mulc-spiders resemble a tangled web of pulpy, tentacle-like vines arranged in a roughly radial pattern, usually centered in a pond or marshy area. (Spiders work best and last longer in well-watered areas.) They can cover an area as large as several football fields. When a world is abandoned, mulc-spiders are planted in the deserted settlements, where they proceed to crack, crush, abrade and dissolve every artifact they can reach. They work slowly, spending perhaps a decade to entangle and pull down a house-sized stone or concrete structure. Another hundred years might be spent dragging the rubble to the central bog, where the tentacles’ crushing action is supplemented with acidic excretions.

Most mulc-spiders are innocuous creatures. Someone unwise enough to take a nap on a tangle of spider vines might find themselves entwined, but even then a few minutes of patient struggle is enough to win one’s freedom. Rumors persist, however, of rogue mulc-spiders with high intelligence. Bored and lonely, they may arrange rubble in aesthetically pleasing piles, “collect” objects, or even waylay visitors.

Mulc-spider vines have a DX of 8, and ST of 14. A given hex worth of vines can try to grapple intruders once per turn, or can “firm up” and prevent entry into their hex. Spider acid is treated the same as caustic tar (p. B132). Some spider variants can emit toporgic from their tentacles. Mulc-spiders have no vulnerable body or core; totally destroying one would require high explosives, inflammables, and lots of machetes. Chopping away a hex’s worth of vines requires 20 points of damage with a swung weapon.

Polisher Bees

Another product of Buyur bioengineering. The original purpose of these fuzzy, flying insects is unknown. They are

currently considered a minor pest; travelers often wake to find the bees rubbing their fuzzy abdomens along straps, shoes, and other leather articles. Disturbing them too briskly can result in a painful sting. The librarians of Biblos particularly detest polisher bees. The creatures are drawn irresistibly to leather-bound books, which they compulsively burnish, often erasing the cover’s engraved title

Parrot Ticks

Once upon a time, parrot ticks may have been good for something. To modern-day Humans, Hoon, and Urs, they are a profound nuisance. Parrot ticks repeat the words of their hosts. Their tiny voices are generally too faint to be heard, but if one lodges in an ear canal, the effect is quite disconcerting.

A character infested with parrot ticks suffers a -2 penalty to any skill that requires him to converse, or even listen. The cure – a Traeki salve – costs \$10 and is available in most medium to large towns.

Messenger ticks, a larger domesticated version of parrot ticks, have been harnessed by the radical smiths and scientists of Mount Guenn. When enticed with a pheromone-laced bait, the insects will listen to and memorize a short phrase. They will seek out and repeat the phrase to a recipient tagged with a complementary bait.

Skeeter

Skeeters, considered a pest in most places on the Slope, have been tamed by the Illias. The insects fill the same role as carrier pigeons, with an interesting twist. Skeeters are raised in small, scent-marked nests. If released within a mile of the nest, they will fly back and make a series of emphatic gestures that indicate the directions back to the release point.

Privacy Wasps

Jijoan homeowners consider a minor privacy wasp infestation a sign of good luck. No one can explain the origin of the myth.

The otherwise innocuous insects will reveal their worth and purpose when miniaturized spycams or microphones come into their vicinity; acting on subtle instincts engineered into them millions of years back, the wasps swarm the sensor, rendering it useless.

Kindling Beetles

A camper with the right set of scent cues (gathered from plants or produced by a Traeki apothecary) can use the sturdy kindling beetle as a living tinderbox. The insects can ignite even damp kindling in 2d minutes. Unfortunately, the insects are also dangerous pests. The scholars of Biblos must be on constant watch for them; some types of bookbinders’ glue have a scent that encourages the beetles to “flame on.”

A pocket-cage of kindling beetles weighs 2 oz. and costs \$1.50; the creatures live on crumbs and slices of fruit. A year’s supply of scent-salves weighs 1 oz. and costs \$1. Treating a set of outdoor clothes or a small tent with beetle repellent costs \$2.

Toorgid Characters

Toorgid are genuine natives of Jijo, descendants of simple life forms seeded on the world when it was first terraformed. They are "upright centauroids," with four closely spaced legs, a vertically oriented torso, and four slender limbs. Their thick hides are covered with thick, dense, feather-like integument. Toorgids have cross-shaped heads, with a large eye set near the ends of the vertically oriented long bar and smaller eyes set on the ends of the shorter horizontal crossbar. An iris-like mouth is set in the middle of the "cross." A ring of conical ears with feathery tips sprout from the joint between the neck and head.

Toorgids are not true presapients. They are animals with fantastically complex instincts. A young toorgid might be tamed and trained about as well as a performing bear, but will become increasingly impatient and unmanageable with age. It will flee to the tundras of Reshor given the chance.

An average adult toorgid weighs 150 lbs. and is 5'4" tall. It costs 94 points to be a toorgid.

Attributes: ST 12 [20]; DX 10 [0]; IQ 6 [-30]; HT 10/4-12 [0]*.

* Toorgid hit points vary by age; they should have Extra Hit Points or Reduced Hit Points as appropriate.

Advantages: Extra Arms (Long, 1 hex reach) [20]; Extra Legs [5]; Full Coordination 1 [50]*; Hide (PD 1, DR 2) [31]; Peripheral Vision [15].

* Legs, two attacks for 1d-1 thrusting damage.

Disadvantages: Cannot Learn [-30]; Presentient [-20].

Skills: Broadsword-12 [8]; Riding (Cherbee)-10 [2]; Spear-12 [8]; Spear Throwing-10 [1]; Tracking-12 [14].

Flutter-Fly

Flutter-flies are chunky flying insects with cylindrical bodies and large, filmy wings. They can blend, chameleon-like, onto almost any surface they land on. Like the privacy wasps, the value of flutter-flies was not realized until after

Jijo's isolation was broken. A crash research program revealed that the insects were organic spy-bugs! When peered at through a rewwq, the flutter-fly's wings act as a sort of video screen, revealing what the insect sees! When used in conjunction with a telescope, the combination can be used to stare around corners and through high windows.

Flutter-flies can be lured to duty by using an attractant paste. After the Great War, Traeki chemists will reluctantly supply a five-dose vial (4 oz.) for \$3.

The Toorgid

On the Reshor steppes, above the Great Cliff, roam the toorgid . . . evolutionarily "locked" creatures who make and use tools, and even have a language, but who lack even a trace of potential. They cannot be uplifted, and are considered valueless by Galactic society.

Toorgid clans wander the tundra in huge caravans, hunting, gathering, and waging fierce, endless wars over choice territory. The tribal warriors ride horse-like cherbee, and wield clubs and spears. The young and elderly ride on crude carts or sledges whose design has not changed in 12 million years.

The toorgids' language is "instinctual," bound into the structures of their inflexible brains. It is almost useless for any activity beyond coordinating hunting, gathering, and fighting . . . but each night, the current hetman of each tribe chants a changeless tale about a bountiful land that lies below the cliffs.

Toorgid are known to the Commons' corps of wilderness rangers. They have confirmed that the creatures have not changed form or habit in the half-million years since the Buyur departed. Toorgid figure in some of the Slope's native literature. Most conservatives disapprove of adventure stories in general, but one sort of tale – encounters between a physically and spiritually lost sooner and the exalted-savage toorgid – delights Scroll-fundamentalists. One devout g'Kek author claims to have regular meetings with a toorgid shaman, and has transcribed the primitive's aphorisms in a volume titled "Messages Beckoning Us Down the Path of Redemption."

ADVENTURE SEEDS

Infestation

This adventure would most likely take place during the Great Peace, before the arrival of the Rothen.

A team of Hoon sailors and red Qheuen junior sages has just returned from a sea voyage along the coast of Lushack. Besides surveying the wildlife of the Hiram peninsula, the team investigated Buyur ruins in the nearby Sunrise Desert. They finished ahead of schedule and explored the salt marshes of Lushack's east coast. There, on a barrier island, they discovered something disturbing: a decades-old shipwreck.

The vessel was of Hoon manufacture, but adapted to the needs of a Human crew. Investigation showed no bodies or graves. Indeed, the vessel had been stripped of useful items . . . almost everything. Behind a panel in the captain's cabin was a chart book. It contained maps based on the *Tabernacle's*

orbital survey. Several islands on the northwestern tip of the Zalankalla archipelago were marked. Pinned to the rear pages of the chart book were hand-drawn maps, apparently of these islands, showing routes through reefs and diagrams of what looked very much like settlements!

The obvious implication: An illegal settlement of Human settlers had been established on the other side of Jijo! While the probable motivation of the settlers was understandable – the survival of Humanity – the colony could not be allowed to remain. The archipelago is geologically stable, and the surrounding seas shallow. The Human High Sage in particular will insist on a speedy and decisive end of the settlement. Even if it died out in a century, enough evidence of the colony would remain to implicate Humanity in Jijo's illegal tenancy.

The Commons quickly requisitions three sailing ships and begins looking for a crew. The adventurers – mostly likely

Hoon, Humans, and Qheuens – are deputized to investigate the infestation, and if possible take steps to convince them to return to the Slope. The expedition is well armed, should persuasion fail!



Gray Haven

South-southeast of Terminus Rock are the bleak, volcanically active islands of the Farga Archipelago. Like the Slope, Farga is doomed to end up in a sea-bottom subduction zone.

Unknown to all but a tiny clique of mainland gray matriarchs, a colony of Qheuens lives on the western shore of the largest island in the chain. They are strict Scroll-thumping traditionalists, rejecting the egalitarian structure of modern Qheuen society and the innovations of the arrogant Humans. The colony's red and blue Qheuens are serfs, utterly under the thrall of gray soldiers and persuasive gray matriarchs. The farms, fisheries, and crude workshops support five small villages. These send tribute to a fortified keep where the grays study the Scrolls and mete out harsh justice.

The Farga colony was founded by fanatics who would have been proud to have their tribe die out or devolve, as long as it did so in a state of moral purity . . . but with time, the Farga matriarchs became comfortable. Tantalized by stories brought by a rare visitor from the mainland, a group of gray "princesses" have arranged to make a raid on Wuphon Port and kidnap a Traeki pharmacist!

The princesses' sloop is crewed by loyal, or at least cowed, red Qheuen. A single mainland Qheuen male, seduced by the possibility of becoming a consort to a future Farga queen, has agreed to act as a guide. The quisling has a particular Traeki in mind, a talented junior sage visiting from the Great Marsh. The pharmacist was in town to take delivery of a shipment of newly printed books on Qheuen physiology.

The player characters can be of any sept, profession, and creed. They could even include neo-dolphins, should the adventure be played out after the departure of the *Streaker*. The only thing they have in common is being in Wuphon at the time of the abduction!

The Great War

The Great War between the Six Races and the Jophur expeditionary force presents many opportunities for adventure, including combat missions, espionage (on both the Jophur and on quislings among the Six Races), and quests for ancient Buyur technology.

There were eight Jophur outposts left when the *Polkjhy* fled. The most troublesome of these was located in the library-fortress, Biblos. Others were located on offshore islands, bluffs overlooking strategic fords, and mesas. The redoubts are protected by sensor fields, guardian robots, and in a few cases nearly impenetrable force bubbles.

The Jophur forces, still confident they will be relieved by reinforcements, divide their time between building up defensive positions, undermining support for the Commons, and dealing with two especially despised foes: The g'Kek and the Traeki. These unfortunates are being rounded up into concentration camps, either by force, or by coercing or subverting other septs to do their work for them. The g'Kek are forced to do hard labor, or simply imprisoned. The Traeki are questioned, sprayed with coercive pheromone sprays, and in some cases *converted*.

The Arms Race

A cadre of sages and Urrish smiths working in the laboratories of Mount Guenn have equipped the militias of the Commons with a number of low-tech, high-concept assets. At the beginning of the war, these included sensor-transparent hot air balloons, hang gliders, and unguided rockets.

Back at the beginning of the insurrection, when militia units first laid siege to the invader encampment, warnings used to come by semaphore – dots and dashes flashing from mountain tops and spindly wooden towers – lacing the Slope with a web of telegraphic light. Coded bulletins told commanders to send troops underground before missiles abruptly rained from the sky, striking the forest or nearby river with thunderous force. Some warheads even hit their target, vexing the alien base, sending Jophur intruders and their robots scurrying like insects from a disturbed nest.

Those were the early days, when it seemed simple enough for the Six Races to crush a dozen or so stranded garrisons that the great battleship had left behind. Using home-made rockets and other crude-clever innovations to supplement their strength in numbers, militia units hoped to overcome the star gods' awesome technological advantage. In fact, two of the smallest outposts soon fell to determined native attacks.

Then the enemy began to adapt.

Scanners which at first failed to note rockets made of wood and traeki paste were retuned to detect the heat of chemical combustion. Sophisticated little interceptor missiles raced skyward from the alien compound, catching the coarse native projectiles while flames still burned from hand-carved tails. Robot warriors then sallied forth, tracing the rocket trajectories to retaliate against hidden launching sites.

The vengeful war machines found little to annihilate. Amid the vast forest, each secret position was used one time, then left charred and empty by absconding crews.

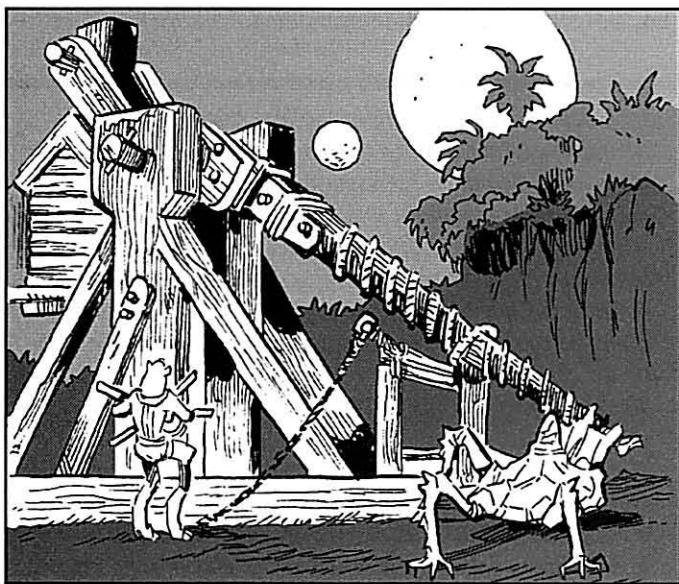
Sometimes the robots tripped clever ambush mines, succumbing to hails of wooden splinters, or avalanching stones – unconventional weapons contrived by Jijoan explorers – crude, by the standards of the Civilization of Five Galaxies, but effective . . . once.

Unfortunately, nothing ever worked a second time.

*– David Brin, notes for *Jijo Ascendant**

The Jophur's ability to learn from their mistakes threatens further progress of the war. In order to give Jijo's local militias a temporary advantage, the sages have come up with a new secret weapon: the trebuchet. These and other combat engines were once used to cement the Gray Queens' hegemony over the Slope. Military historians are convinced that the rocks or explosive charges flung by the mechanical engines would be invisible to the Jophur's thermal sensors. Unfortunately, construction of the siege engines is now a lost art.

The characters (who could be militia members, rangers, or savvy merchants familiar with the area) are assigned, to locate an eccentric gray Qheuen male who has – apparently for the sheer fun of it – built a trebuchet. Should they find him, the adventurers are empowered to deputize the craftsman . . . or, at the very least, convince him to draw up some plans.



The Qheuen lives in a rocky island in the southern portion of the Great Marsh. He has several assistants: two Urrish smiths, a Hoon woodworker, and a Traeki employed to create lubricants and wood preservatives. This motley crew are all history buffs, cynical about the modern age and enraptured by tales of the olden days, when the septs dealt with each other with honest chivalric warfare. While they regularly hurl ancient, racist epithets at each other, the team has become fast friends.

The adventurers must first locate and get to the island. This will almost certainly require them to get directions, and possibly guides, from Traeki villages. While there are no Jophur bases near by, there is a possibility of interference from Traeki quislings outfitted with master rings. A more direct threat: bands of Human Scroll-traditionalists who have begun raiding villages of the Marsh.

The adventurers will find the trebuchet-builders to be hospitable but *annoying* hosts. Upon approaching the island, they will greet the adventurers "honorably" by dropping several heavy stones near their boat in a salvo "salute" that could easily be misinterpreted as an attack! They speak in archaic dialects, use exaggerated gestures, and serve unpalatable traditional foods. They will be flattered by the characters' interest in their weapon, and quite happy to demonstrate it.

Unfortunately, they will refuse to merely turn over a set of plans. They will insist on their entire team *and the prototype trebuchet* being escorted back to the sages! The impractical romantics will have to be protected from radical groups who don't want the mission to succeed – both the Jophur and locals who think that resisting Galactic power is "blasphemy."

The observers stood beneath a blur-cloth tent on a hilltop overlooking the site of a former Hoonish fishing village. Only scattered splinters remained of the graceful wooden sailboats and camouflaged khutas that once nestled here amid forest giants. A wide bend of the river – at least 50 hectares – had been flattened and cut off from the mainland by a shimmering force field. Robot sentries kept watch at intervals along the perimeter.

Inside the palisade, dome-like structures sheltered some of the aliens' prisoners against a sleeting afternoon drizzle. Shadowy Human, Urrish and g'Kek forms could be seen moving dejectedly beyond the semi-translucent walls. Meanwhile, Hoon and Qheuen captives labored outside, digging trenches and hauling bundles of vegetation. A handful of Jophur soldiers watched, their rings gleaming with rich waxy secretions as they perched on hovering float-platforms.

Controversy raged over what to do about this isolated Jophur detachment, and seven or eight others that lay scattered across the Slope. Rocket attacks ceased when the invaders' counter-measures improved enough to routinely shoot the missiles out of the sky. Anyway, each encampment was now filled with native hostages – some laboring for the Jophur, while others were clearly destined for other, crueller fates.

Blade rocked from claw to claw, pitying those poor Traeki captives who must wait passively for a fate most of them thought worse than death.

The ancestors of our Traeki fled far across space, risking everything in order to escape what is being done to them here by their adamant star-cousins.

Miduras earlier he had watched through a telescope as one quivering ring stack was surrounded by robots, subdued with gusts of noxious fumes, then led shambling unsteadily to a restraint enclosure. There, observed by ranks of those impassive relatives, the victim hissed and quivered as mechanical arms made surgical incisions – machine precise – in order to insert a squirming thing, like a giant black doughnut, glistening and featureless except for a wreath of wriggling tendrils that began at once probing and penetrating the other rings of the stack. Horrified, Blade saw the new master torus set to work transforming a gentle, philosophical neighbor into another ruthless, decisive Jophur.

"They won't stof til every Traeki is transformed," an Urrish captain murmured. "Just as they want every g'Kek rounded up and shifted out for rites of wrath. Then there won't ve six races on Jijo any longer. Just four. And our turn will come. We will ve next."

– David Brin, notes for Jijo Ascendant

Toorgid Tropisms

Shortly after the Rothen gene-raiders arrived on Jijo, the High Sages began assembling teams of skilled survivalists. Their mission: cross the Rimmers and find a place to hide. This would ensure the survival of the Jijo branch of Humanity should the forayers decide to cover their crimes by laying waste to the Slope. Many of these teams began trickling back to civilization after the *Polkjhy* fled in pursuit of the *Streaker*. With the threat of extinction lifted, the Commons needed their skills to fight the Jophur.



One far-ranging team was late in receiving the recall order, and had made good progress along the top of the Great Cliff toward their eventual destination, a fertile valley in northeastern Reshor. As expected, they encountered clans of toorgid following herds of migrating gallaiters. What was unexpected was the primitives' behavior. One clans' scouts appeared to be using skeeters to send messages back to their caravans. Rather than flee or threaten the unfamiliar Humans, the scouts *talked* to the strangers. One ranger, familiar with toorgid lore, recognized the chatter as a variant of the plaintive chant their shamans repeat every night. The traditional form of the chant is a hopelessly vague and useless "direction-order," used by scouts to alert the clan to good foraging land. The new variant is much more specific, and refers to a "way over obstacle." The clan in question was not following a gallaiter herd, but was heading east, sticking close to the Great Cliff.

When the ranger and her survival-team finally reported back to the Commons, the news of their discovery greatly disturbed and excited the High Sages, who were poring over Buyur inscriptions. They had just deciphered the hidden meaning behind a series of humorous nonsense-poems. The messages, while still cryptic, referred to "items of great utility in the toorgid promised land." The same language is used to refer to the Egg!

The Sages decide to send a mixed group of adventurers – preferably with representatives of each sept – along the base of the Great Cliff, while another team rushes to the last known position of the mysterious toorgid band. Each team would be equipped with a heliograph, to allow signaling across the cliff. The Reshor team would be equipped with several gliders, while the Lushack team would be given a portable hot air balloon.

The goal: Find out where the toorgid are headed, and if possible retrieve – or *contact* – the objects referred to in the inscriptions.

Chorsh swayed, rocking its moist rings. Purple steam curled from vents atop the tapered stack. Undulating tendrils stretched toward the crowd. Wrathful stench frothed as the Traeki High Sage shrieked a piercing accusation in Galactic Two.

"THAT/THOSE CREATURE(S) . . . THE ACCRETION/COMMUNITY/ENTITY WITH A FOURTH RING THAT IS JET BLACK AND FEATURELESS . . . I/WE ACCUSE IT/THEM OF BEING AN ENEMY SPY!"

One seldom saw an angry Traeki, or forgot the experience.

The crowd edged away from a single tall Traeki stack. Its shabby rings showed clear signs of service and hard work. Blade thought he recognized some of the ring patterns – a respected lesser pharmacist he had seen over the years, at various festivals.

The accused Traeki began backing away. Across its luminous flanks there passed fleeting patterns of light and shadow – protestations of innocence.

But a nimbus of light now surrounded Chorsh, who flickered with colors of wrath. To his amazement, Blade saw the glow extend all the way to the great bulk of the Egg itself! In fact, all five of the High Sages present were crowned this way, with a halo of crackling energy.

Snarling cries escaped the suspect Traeki. A split opened along the boundary between two greasy rings. Blade glimpsed something start emerging from within . . . a flash of metal.

But the spy never finished. From all five sages the glimmering light converged, forming a single focused spark that hurtled forward like a bounding predator, engulfing its victim, igniting the creature in a roaring ball of flame.

– David Brin, notes for Jijo Ascendant

Past Terminus Rock

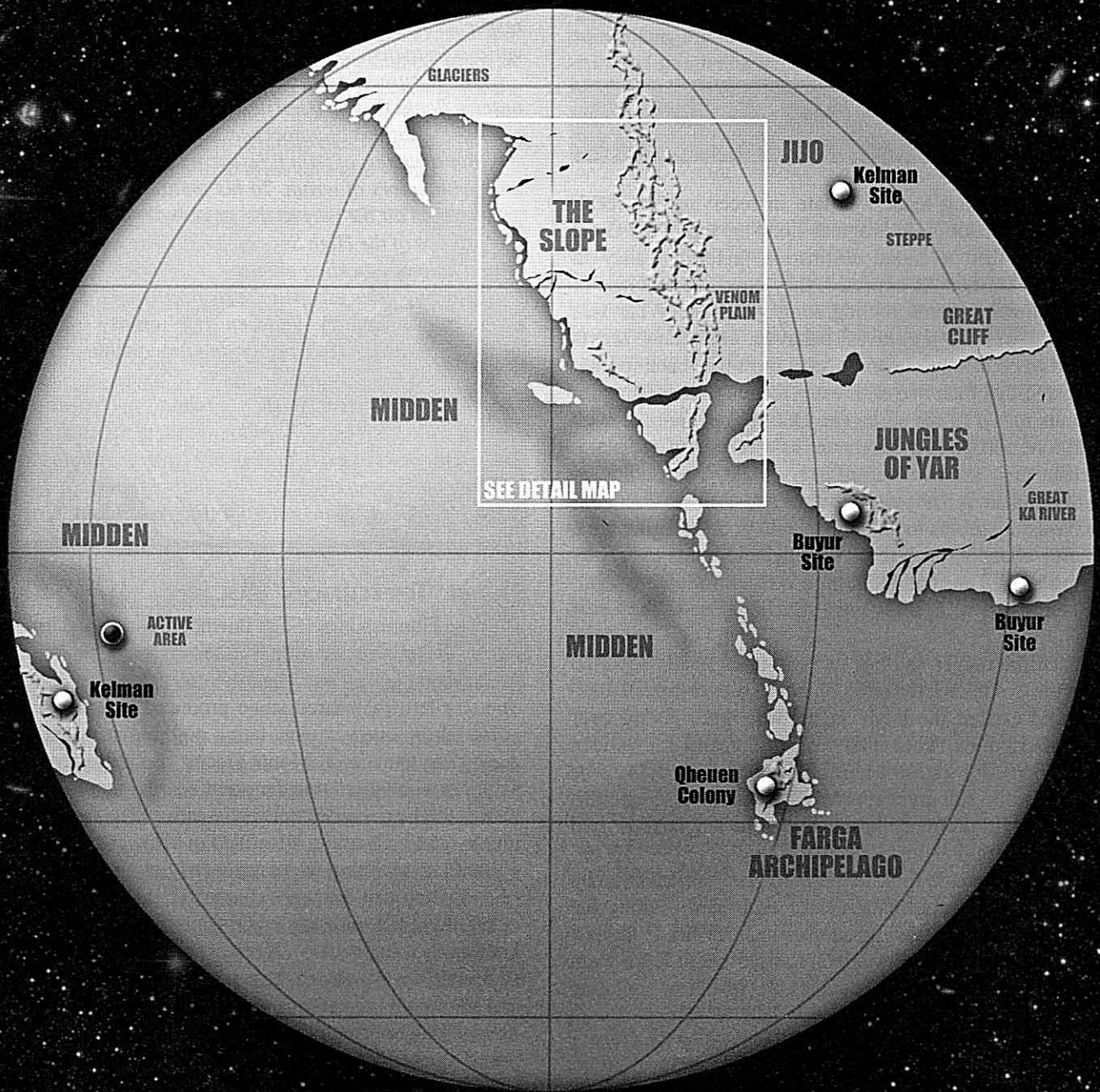
The Hoonish High Sage Phwhoon-dau was alarmed. Not just by the presence of ruthless alien invaders, but by a change in the behavior of the Egg. Shortly after the *Polkjhy* and *Streaker* left, the sacred stone produced a powerful psionic pulse felt by every sapient being on the planet, and beyond. According to sages at Mount Guenn, the pulse seemed to be aimed at a collapsed transfer point near Izmunuti. Even afterwards, the Egg seemed unusually active. The feeling of community and high spirits it instilled in believers became deeper . . . with an alarming undercurrent of *fanaticism*.

Phwhoon-dau became convinced that the Buyur were either involved with the emergence of the Egg, or at least knew something about it. A research paper from a junior sage suggested a way to learn these secrets. While the Buyur spoke and wrote in conventional Galactic languages, some of their inscriptions had yet to be deciphered. The new research proposed a new way of interpreting the ancient writings.

The characters are assigned to escort the Sage and two assistants from the Common's military headquarters near the Glade of Gathering to the scrublands south of the Rift. The way will be long and dangerous, through territory troubled by Jophur subversion.

The dangers will not end once the party reaches the scrublands. The Jophur themselves have established a watchpost on the bluffs looking south from the Rift.

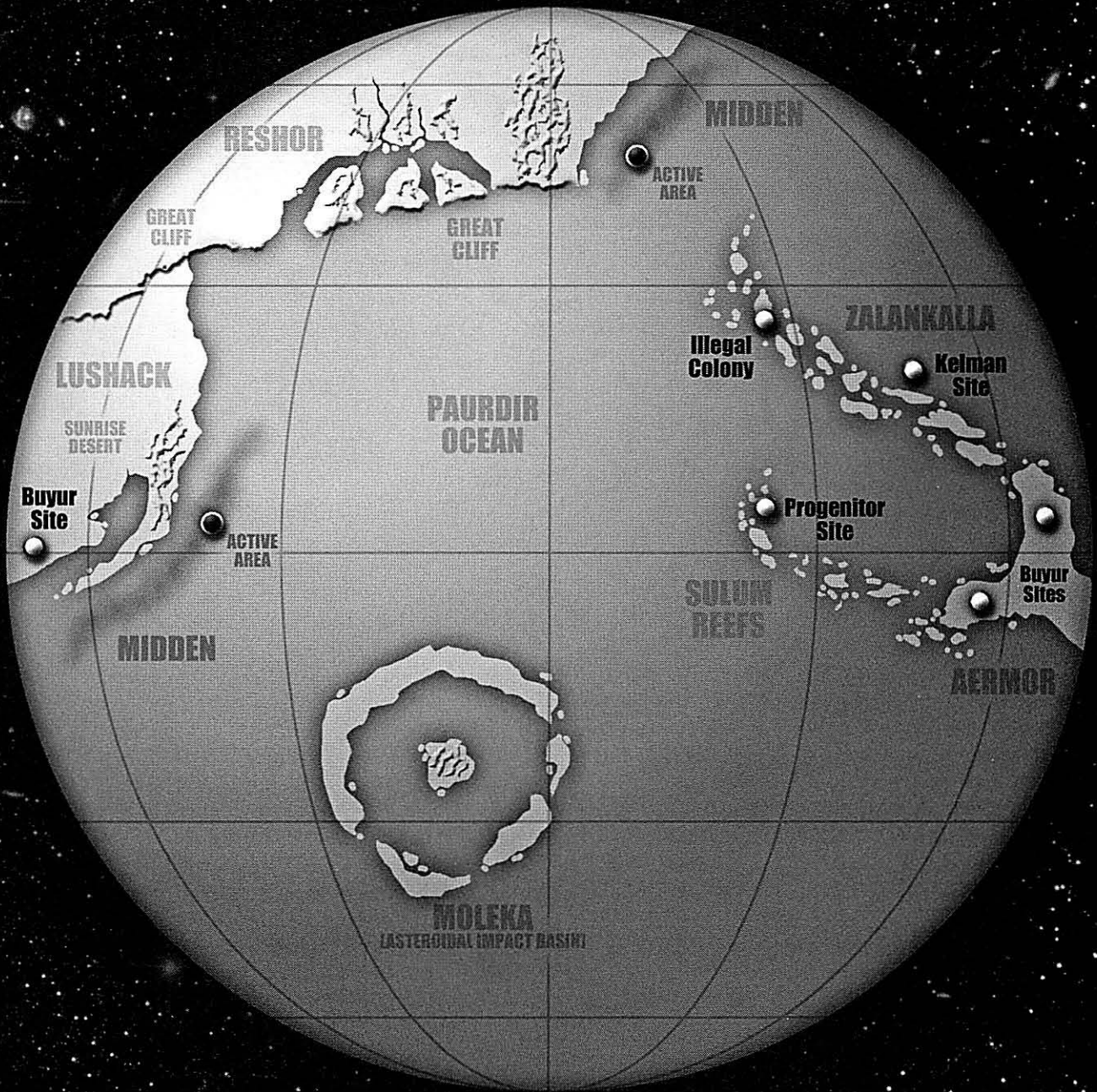
JJO



EASTERN HEMISPHERE



JJO



WESTERN HEMISPHERE

APPENDIX B: STRANGE ENCOUNTERS

MEMOIDS

Memoids are *embodied ideas* that wander the eerie thoughtscapes of E-level hyperspace. Most represent utterly harmless thoughts happy to be and let be. Others, called critiques, prey on other memes. A few memoids are rapacious thoughts eager to empower themselves at the expense of creatures from the other Orders of Sapience. Some try to insinuate themselves into a mind, changing the creature's behavior and perhaps propagating itself further. The most dangerous memoids make physical attacks on visitors to E-level, trying to absorb valuable physical matter into their own quasi-material forms.

This section is designed to create those memoids likely to harass or attack real-space visitors.

The thing seemed so absorbed with . . . absorption that it hardly noticed Lemule and Eiseley enter the galley. As they watched, the slug-like form's blind squirming caused it to bump up against a condiment tray. Its pale colors became more vivid as it engulfed bottles of spices and hot sauce.

"How did it get in here?" wailed the midshipman. "There are no breaches, and the shields are intact. Could this overpriced hand-me-down hull have been rigged?"

The captain shook his head. "New ideas pop up all the time. Maybe the mind that conceived this one just happened to be in the bit of realspace corresponding to this part of E-Level."

Eiseley hardly seemed comforted. Lemule had never seen a chim so close to the edge before. He gave the ensign a pat on the shoulder. "You've got to keep it together if you're going to help me with this thing," he said. "If you don't feel up to it . . ."

"I'm OK. Besides, where would I, Whoa! Look at it suck up those table napkins!"

As the memoid emptied the dispenser, the filmy ectoplasm that defined its surface became firmer, more translucent. That seemed to satisfy its physical hunger. Captain and ensign both took a step back as it reared up on newly manifested legs. The compact body unfolded, revealing two disks of brilliant red light swarming with black alien pictographs.

"Well!" said Lemule. "You scored pretty high on the Modified Rhine test, Mr. Eiseley. Care to guess what this thing means?"

Creating Memoids

Attributes

Some memoids will have physical mass and familiar attributes such as ST and HT. All will have a set of special "ideological" attributes that will be used in mental battles:

Tenacity: The ideological equivalent to HT. Roll 2d.

Puissance: The meme's ability to attack, analogous to ST. Roll 2d; if the throw comes up "doubles," note the total and roll again. Keep rolling and totaling the results as long as you throw doubles.

Sophistication: How "deep" the idea is. The memoid equivalent to DR. A shallow idea can be easily dismissed. An intricate one is able to resist doubt. Roll 1d-3 to determine Sophistication (minimum roll is 0).

Heft: This is a measure of how much actual matter the memoid contains. Roll 3d-11 for the number of ounces of matter the creature has scavenged. A roll of 0 or less means the memoid has no mass. If it's lucky enough to have scavenged some real-space atoms, it can "buy" a physical body and perhaps some embellishments, as noted in the box.

Appearance

Memoids are perceived as having an appearance "appropriate" to either their content or their intent. A Human viewing a memoid embodying a pleasant, carefree feeling may see a living, fluorescent kite. An aggressive memoid – even one containing an admirable thought, such as *indignation over unjust oppression of innocents* – may resemble a nightmarish beast with gleaming barb-like claws.

Psychological Profile and Content

Psychological Profile: Roll 2d-4 for each of the Personality Traits (pp. CI180). If a roll comes up "off the scale," adjust it to the highest or lowest value, as appropriate.

These rolls determine the mental profile of the creature which originally thought the memoid, and gives a clue to the nature of the thought the memoid embodies. Based on the profile and the memoid's sophistication, come up with a thought. Sophistication 0 ideas tend to be rather elemental, pure, and primitive (hunger, freedom). Sophistication 3 ideas are complex and philosophical.

Meme Bodies

The costs of the physical parts that a memoid can buy with its Heft points are shown below.

Body

All memes with heft must buy a body.

1 oz. for a shambling, limbless body with DX 10, ST 5, HT 4 and Speed 2. Butts for 1d-5 damage.

3 oz. for a roughly humanoid body with DX 12, ST 12, HT 6 and Speed 4; Puissance is increased by 1. Can punch or use a "weapon" made from additional mass, as noted below.

5 oz. for a *giant* Human body with DX 10, ST 14, HT 10 and Speed 4; puissance is increased by 2.

Loom

The memoid has a looming, ominous, fearsome, or awe-inspiring appearance. Increases puissance during *psychic assaults only* by 2. 1 oz.

Hide

DR 1 against physical attack. Requires 1 oz.

Fearsome Claws

Long, sabre-like claws. sw+1 damage. Costs 2 oz.

Drill

The memoid has a sharp, tough drill attached to its body. In combat it can do basic swing damage. It can chew through a spacesuit if the memoid can make two consecutive strikes (swing attack, DX-1). It can drill through a spacecraft hull in a number of combat turns equal to hull cDR + 1. Costs 1 oz.

Snare

A cluster of long, detachable tentacles. Equivalent to a Melee Net, skill DX-1. Requires 2 oz.

Great Long Legs

Or perhaps wheels! Adds 2 to the memoid's speed. Costs 1 oz.

Blinding Goo

The memoid can spray a cloud of noisome stuff that obscures sight and sensors. Reduces vision, radar, sonar, and other ranged senses to 3 hexes. Range 4 hexes; covers two hexes. Lasts for the duration of the combat unless wiped off (takes an action and roll versus DX+2 to remove from exposed eyes or faceplate). Can be used twice in any one combat situation. Requires 1 oz.

Mites

Cost 1/4 oz. each. Mites are small, mouse-sized (ST 2, HT 2, Speed 2) creatures which act as "agents" on the memoid's behalf. They cannot attack physically, but can seek out prey and make a psychological assault at a skill equal to the memoid's Puissance -2.

Memoid Encounters

Memoids are *attracted* to minds with a similar set of personality traits, and will try to propagate itself through them with an insinuation attack. Creatures with very different personality profiles *irritate* the memoid and may be attacked by it – either physically, or through a psychic assault.

Memoids with no heft move at Speed 5.



Physical Attacks

Memoids use physical attacks as a means to an end: positioning themselves to administer a pungent psychic assault or insinuation attack.

A memoid cannot physically attack at all unless it has absorbed some real-space matter and "purchased" a body with its store of mass. Because they weigh at most a few ounces, memoids are easy to shove around and can be knocked flying with a solid punch. They make up for their lack of mass by grappling or snaring their prey.

If a memoid manages to stun or immobilize physical prey, it will continue attacking to snip off bits of matter. Every 10 points of damage adds an ounce to the memoid's heft.

A victim that has been stunned, grappled, or knocked unconscious by a memoid is vulnerable to insinuation attacks, and especially subject to psychic assault (+6 to the memoid's skill).

Insinuation Attacks

The memoid tries to slip itself into the victim's mind. These attacks can only occur when the victim is caught by surprise, or is grappled, stunned, hypnotized, or unconscious. The victim (whose subconscious mind fights on his behalf) must make a quick contest of skill to ward off the idea. The memoid's skill is equal to its puissance. The living victim may choose to defend using Will, or Philosophy, Law, or Theology skill if they are higher.

If the meme has two or three of the same personality traits as the victim, it gets a +1 bonus to its skill. If it has four or more of the same personality traits as the victim, it gets a +3 bonus to its skill.

A successful defense means the memoid is rebuffed. If it makes a Tenacity+4 roll it will try once more before slinking away. On a critical success, the victim's hearty subconscious blows the meme away.

A failed defense means the victim temporarily gains a new belief. This could be a quirk, a delusion, or in the worst case a *Sense of Duty* that requires the character to promote or fulfill the idea. Each day, the character may make a Will roll, with a penalty equal to the memoid's Sophistication, to shake off the belief. On a *critical* failure, he decides that the idea is right and natural and refuses further attempts to remove it! Others may try to talk him out of this fix (treat as a Contest of Wills; one roll daily).

Psychic Assault

This is an attack on the victim's ego, morale, and beliefs. It takes the form of an exchange of mental blows that may last several rounds. A memoid can initiate an assault by moving within three hexes of the victim.

A memoid's psychic assault skill is 10 plus its Sophistication. A living being's psychic assault skill is equal to its Will, or Philosophy skill if he wishes.

To compute the mental damage dealt by a psychic blow, consult the Basic Weapon Damage table for Thrust weapons. The mental ST of a memoid's attack is equal to its Puissance. The ST-equivalent of a living being's mental blow is equal to Will, or Philosophy skill if he wishes.

The damage of a psychic attack decreases with range. Use full damage if the attacker is in the same hex as the victim. Reduce damage by 1 at range of 1 hex. Damage is reduced by 3 at a range of 2 or 3 hexes.

Damage from a living combatant's blows are reduced by the memoid's Sophistication, then applied against Tenacity.

When the memoid's Tenacity is reduced to 1, it will try to flee. If reduced to 0 or below, the memoid is destroyed.

Damage dealt by a memoid is applied against the victim's IQ. Strong Will acts as one point of "armor" against psychic blows. Characters with Megalomania get an extra point of mental "armor."

Will and Philosophy levels will decrease along with IQ. If psychic damage reduces IQ to 1 or 2, the victim swoons from fear or despair and becomes unconscious for 2d rounds. If IQ is reduced to 0 or less, the victim goes into a coma that lasts 1d hours. Unconscious or comatose victims are immediately subject to an Insinuation Attack defending with full Will or skill levels.

A meme with a physical body may choose to tear up and absorb a defenseless victim. If the meme and victim's personalities are a close match, it may instead try further insinuation attacks . . . one per hour until the victim recovers.

Lost IQ is regained at a rate of two points an hour. Halve this if the victim is unconscious or asleep; double the recovery rate if he is among supportive friends or allies.

THE ZANG

The Zang are one of the Five Galaxies' hydrogen-breather alliances. Galactic experts surmise they are an extremely widespread and ancient clan.

The Institute for Co-Existence cautions Galactics against projecting their own values and social structure on the mysterious hydrogen-breathers. Zang communicate and act upon the outside world by creating *deputies* out of pieces of their own flesh. These specialized organic robots can move about, "represent" their creators in meetings, and mimic most simple machines. Some deputies communicate with their masters by radio (the normal Zang method of communication). Others appear to use chemical signals. Some re-merge with their creators, integrating the memory of their experiences into those of the master. In any case, Zang view their deputies as disposable instruments; they have no personal affection for them.

Designing new deputies is evidently hard work; Zangs must absorb and examine a model or "template" of a new deputy before attempting construction of a new type. The first Zang were confined to their homeworld until the Progenitors provided them with the templates for deputies who could build and work spaceships. In return, the Zang have on occasion provided wisdom (gathered from their bizarre simulations – see below) to the descendants of their oxygen-breathing benefactors.

Biology

The Zang (like most hydrogen-breathers) seem to be descended from balloon creatures that evolved in the atmospheres of gas giant worlds. There are many types, but all have an almost religious love-fear reaction to descending convection currents. Some Zang are filter-feeders, similar in habits to baleen whales. Others are swift and deadly carnivores, like Terra's giant squid.

All are blessed with a mental outlook that greatly puzzles oxygen-breathers. These creatures consider manipulation (examination of found objects, or the creation of deputies, for example) as an activity that takes place *within themselves*. This outlook probably began as a reaction to their environment; even the best tentacles and senses are of little use to creatures who spend their lives floating in vast clouds and being bounced about by high winds and convection currents.

Zang Civilization

The exact nature of Zang culture and society is difficult to fathom. It is a varied and multi-racial society, and while Zang diplomats hint that they dedicate much time to introspection and philosophy, Zang settlements produce a considerable flux of neutrinos, coherent light, gravity waves, and other byproducts of heavy industry and probability manipulation.

The Zang's worldview led them long ago to try many peculiar experiments. Some created small but intricate models of the world inside themselves, complete with miniature creatures and convection currents. This allowed them to simulate and experience possible realities palpably and intimately. When the Zang acquired computers, they became masters of modeling and simulation building.

Zang readily colonize any suitable gas giants they can find. They seem to prefer large (Saturn to Jupiter-sized) hydrogen-rich worlds. Zang outposts are occasionally spotted on small, icy worlds with atmospheres; both Titan and Triton in the Sol system once had Zang settlements. It is believed that these dense worlds are used for mining projects and construction of their strange, bulbous starships.

The Zang (and most other hydrogen-breathers) don't seem to like hyperspace or transfer points. They prefer traveling at sublight speeds or through the lower levels of hyperspace. Interstellar space is rife with ships of the Zang and other hydrogen-breathers.

Dealing with Hydrogen Breathers

Hydrogen-breathers live much more slowly than oxygen-breathing races. They see even cold-blooded Galactics as horrifying “flame creatures” of molten rock (liquid water) that move at blurring speeds. The creatures also have a different way of perceiving the universe, making logical connections and drawing conclusions from data that utterly baffle Galactics. These differences make contact between oxygen-breathers and hydrogen-breathers difficult and dangerous. The Galactics suspect the incredibly numerous, deep-thinking hydrogen breathers of nefarious plots, while the gas-giant dwellers are irritated by the antics of the rock-dwelling, lava-blooded oxygen-breathers.

The Oxygen-Breathing and Hydrogen-Breathing Orders have come to a basic understanding; they stay out of each other's way. Ships of one civilization intruding on the other's turf are fair game; indeed, each side encourages the other to hunt down and destroy unannounced visitors, who can safely be assumed to be gene raiders or sooners.

Unlike most hydrogen-breather races, the Zang have some regular contacts with Galactics. Some Zang settlements are even willing to engage in commerce, exchanging organic compounds and sophisticated pseudo-organic computers for metal alloys and high-heat circuitry. Standard procedure upon meeting a H2 ship is to transmit a specially prepared message (included in all Library Branches) in the Zang language. If the hydrogen-breathers respond, cautious contact may be attempted. If there is no response, the party is advised to leave . . . *quickly*. Non-Zang hydrogen-breathers react completely unpredictably. Only the most skilled Galactic diplomats attempt contact with the like of the Fah'fah'n*fah.

Very rarely, the Zang will parley “in person” with Galactics. Such meetings take place in specially prepared chambers, either in ships or on the moons of gas giant worlds. The chambers are always septagonal, upholstered in flat black

fabrics, and lit with dim orange light. Zang diplomats (whom they call their “feelers of minds without”) stay in transparent domes. They insist that Galactics present either stay in one position during the parley, or wear enveloping black garments or makeup. (Galactic xenologists believe this makes oxygen-breathers invisible to the Zang, who are irritated and alarmed by rapid motion.)

Conversations with Zang are simultaneously harrowing and boring. Zang to . . . Galactic . . . translator . . . devices . . . work . . . very . . . slowly . . . but sometimes they speed . . . up and become almost unintelligible . . . and seem . . . very . . . probabilistically prone . . . and capable . . . to . . . make . . . odd . . . inward-feeling objects lessons from feelings . . . which does not . . . please Galactics . . . spherically indeed. The Zang are almost certainly receiving distorted and puzzling messages from *their* translators. Slips of the translated tongue have started wars on more than one occasion!

Zang

Varies

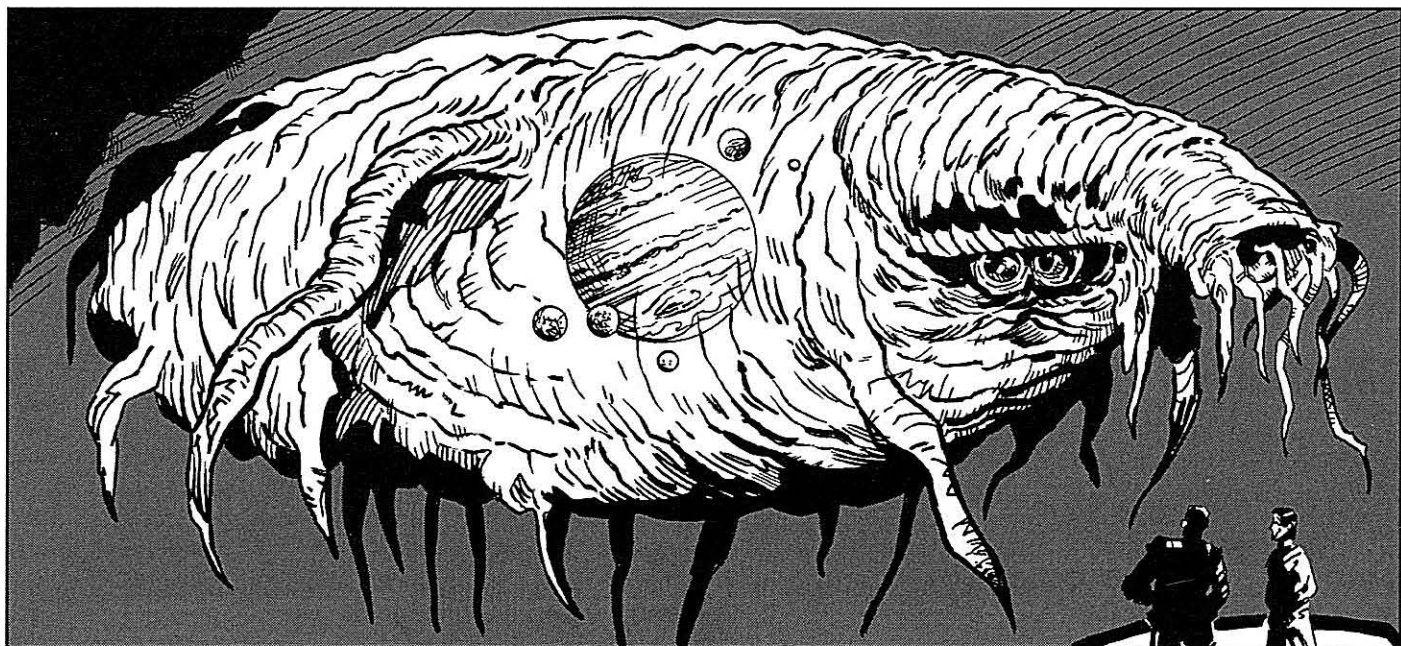
There aren't any typical Zang, any more than there are typical Galactics. The most common type encountered is a bloated, squid-like creature with translucent flesh, multiple eyes, and many long tentacles. Other species (or deputies) include a wobbling, featureless balloon-like creature, and what has been described as a mass of floating angel-hair pasta laced with faintly glowing orbs.

All hydrogen-breathing species have a few things in common. By Human standards, they are delicate creatures; their native gravity is nominally .2g. Exposure to oxygen-nitrogen atmospheres will quickly kill them.

Attributes: ST 4; DX 12; IQ 10; HT 10.

Advantages: Extra Arms (varies); Flight (balloon type) [25]; Full Coordination [50]; Infravision [15]; Secret Communication [28].

Disadvantages: Altered Time Rate [-100]; Anerobic [-30]; Reduced Hit Points -6 [-30]; G-Intolerance [-20].



THE RETIRED ORDER

When an oxygen-breather race feels like it has done all it set out to do, and begins to tire of the game of Galactic politics, it is faced with some stark choices: Should it simply become extinct? Should it allow itself to devolve into a pre-sapient form, leaving its history behind, perhaps to someday be uplifted again for a fresh round of accomplishments? Or should it join the Retired Order . . . ?

By law and custom, the Retired Order lives apart from Galactics. A few, recently retired races may live on planets in fallow areas of the galaxy, or in special habitats around deserted stars. But most head for a Galactic Halo to seek out other beings of their order living in titanic artificial biospheres. Among the Earthclan, these are called “Criswell Structures,” named after the 20th-century philosopher who foresaw their construction. Like the simpler Dyson Sphere, they surround a star, catching every last ray of light. Unlike the simple sphere, their inner and outer surfaces have a complex “fractal” shape – an endlessly convoluted surface designed to maximize the surface that receives sunlight. In addition to simple solar collectors, these surfaces contain *windows* . . . uncounted trillions of them, allowing sunlight into living quarters, gardens, and recreated wilderness areas.

The walls and supporting framework of a Criswell Structure are made from immensely strong but lightweight lattices of artificially stabilized hydrogen. In many cases, the matter for the structure is “mined” from its host star, a process that incidentally extends the star’s life. The habitable parts of the structure are suspended inside the superstructure with insulating force fields. The body heat of inhabitants could literally melt exposed portions of the icy lattice.

The Library contains a few sketchy accounts of life in the Retirement habitats. They describe an existence where any physical want can be fulfilled, either in reality or via convincing “dreamscapes.” Retirees can live alone in the pristine ecosphere of a subcontinent-sized wilderness retreat, or enjoy the company of a huge variety of beings – real, synthetic, or illusory – in cosmopolitan splendor. Despite these temptations, individuals of the Retired Order seem compelled to pursue simple meditation in microgravity chambers where they can feel the caress of tidal forces. The few retirees who have chosen to speak with their oxygen-breather kin have a hard time explaining this strange attraction.



Encounters

Retirees are protective of their privacy, and seem to want as little to do with Galactic concerns as possible. Tenuous lines of communication are maintained by the Institutes and the Transcendor Alliance. On the retirees’ request, the Galactics appraise the elders of changes in galactic tenancy and contacts with other Orders. They also have standing orders to

report certain phenomena in E-level and D-level hyperspace. Most messages are spare, one-way communiqués sent via time drop capsules. Acknowledgment of the messages, or requests for more information, are rare.

Requests for actual physical audiences between Galactics and retirees are almost never granted. The Library contains complete, annotated records of every audience that the Retired Order has granted to Galactics in the last 50,000 years . . . all eight of them.

Beings of lesser orders who approach a retirement habitat without advance notice and permission will be ordered away before they can explain their presence or present a petition. Since they are beyond petty Galactic politics, retirees won’t hesitate to blast those who persist in nosing about. In addition to patrol craft with TL14 weaponry, the habitats have banks of energy weapons for zapping asteroids and comets that threaten the structure.

Galactics and Earthclan characters who are granted an audience with Retired Order beings will be greeted and briefed by the retirees’ servant machines. (See below.) When they finally meet their hosts, they discover them to be still physical, flesh-and-blood beings, of any of a thousand species. The retirees will expect to be greeted properly, with accurate patronymics. (Because Library records on retired races are often incomplete, apply a -2 penalty to Xenology or Savoir-Faire (Galactic) rolls; servant robots will happily supply their masters’ patronymics if the characters think to ask!) Retirees meeting lesser beings will come across as distracted, uncomfortable, and condescending. They will try to finish the business on hand as quickly as possible, often hurrying off abruptly and letting their servant machines handle the formal goodbyes.

We Exist to Serve

Retirees are served and guarded by TL14 robots. These refined machines have carefully tailored artificial intelligences. On their home turf – the halls and habitats of a Criswell structure – they are essentially unbeatable, able to draw on energy reserves and information sources built into the very walls.

Servant robots come in many shapes, sizes, and designs. Some are reported to be partially organic. They are solicitous, polite, fluent in all Galactic languages, and able to provide visitors with any reasonable comfort. They will happily answer any questions their guests may have, including about their hosts, as long as the queries aren’t embarrassing or insulting. Within limits, they can provide any information that might reasonably be found in a high-end Library branch.

Records describe the guardian robots as floating flat black spheres, no bigger than a golf ball but able to direct energy fields capable of stunning, crushing, or disintegrating opponents.

GLOSSARY

Abdicator: One of the quasi-religious alliances.

Acceptor: Insectoid Tandu client species; peaceful psychic adepts with powerful clairvoyant abilities.

Affirmer: Another quasi-religious alliance. Its followers believe that the Progenitors, and the Progenitors alone, self-evolved without outside assistance.

ancestral: The species that started a clan; a race's "great-great to the *n*th grand-patron." Usually extinct or near-forgotten; held in great reverence by their descendants.

Anglic: The most widely spoken Earthclan language. Descended from English, but with an even larger vocabulary. Over the last centuries it has absorbed some Galactic loan words.

ash: Worlds ruined by interstellar war or overexploitation.

Atlant: A Terragens colony.

Awaiter: One of the pseudo-religious fanatic alliances.

B'8koo: J'8lek clients; nervous saurian centauroids still early in their uplift.

Bhatwin: Psionically adept creatures originally uplifted by the Gello; now foster-clients of the Soro.

Bi-Gle: A Galactic patron race, looking like large snakes with two large and two small arms.

Brothers of the Night: A race of amphibious carnivores; the holy warriors of the Awaiter fanatic alliance. A minor power, but not to be trifled with.

Bureaucracy: The oppressive world government instituted after the chaos of the mid-21st century threatened to destroy Human civilization.

Bururalli: Clients of the Nahalli. Wiped out after they regressed and nearly destroyed the ecosphere of Garth.

Buyur: A powerful and accomplished race, now believed extinct or at least Retired. They were known as moderates, with reformist tendencies. The Library records on the Buyur are suspiciously scant.

Calafia: A Terragens colony; an ocean-world with a large neo-dolphin population.

Caltmour: The Tymbrimi's patron race, now extinct.

Canaan colonies: Horst and Deemi, Human worlds near the Tymbrimi sphere of influence.

Central Galaxy: Colloquial name for Galaxy Two, currently the most populous of the Five Galaxies.

chen: Anglic term for a male neo-chimp.

Chim: Anglic term for a member (of either gender) of the neo-chimp race.

chimmie: Anglic term for a female neo-chimp.

Civilization of the Five Galaxies: The ancient multigalactic society composed of thousands of species. Most are of the Oxygen-Breathing life-order. Its name will likely change after the Great Sundering.

clan: A patron species plus its clients (and the clients' clients, if they have any). Depending on how strict the patrons are, the clan could be a loose association of related races (like the British Commonwealth) or a powerful "feudal" entity demanding loyalty and support from all clan members (such as the Soro). The clan is not always dominated by the senior member. For instance, both the Soro and the Gubru have living patrons who do not contest their clan leadership.

client: A race which was uplifted (q.v.) by another race, its *patron*.

Code of Uplift: A set of rules, enforced by tradition and the Uplift Institute, that regulates the kind of creatures that can be uplifted . . . and the kind of creatures that *result* from uplifting. Psychic adepts, ambitionless servant species, psychotic warrior races, and other threats to stability and dignity are discouraged by the code. Client races are guaranteed a few "sapient rights" by the Code.

The Commons: The loose central administration of The Slope, Jijo's illegal, multi-species colony.

Confederacy: Earth's world government.

Consort: A race formally selected by a client race as its "godparent." A consort race has certain specific rights and responsibilities. In extreme cases it can overrule a patron's decisions about client rights! The Tymbrimi are the consorts of both neo-chimps and neo-dolphins; the neo-dolphins, in turn, were chosen as consorts by the Tytlal, who are the Tymbrimi's clients. Humans and neo-chimps are the joint consorts of the "Garthlings," or uplifted gorillas, who are the Thennanin's newest clients.

Contact: Humanity's first contact with Galactics (specifically, Tymbrimi colonists); took place about 280 years ago.

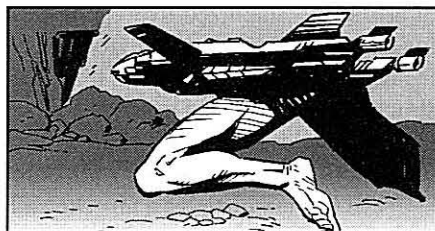
Criswell structure: A modified Dyson sphere whose surfaces are intricately convoluted to maximize surface area. Many of these artificial habitats, which are built and populated by members of the Retired Order, can be found in the halos of the Five Galaxies. Also known as "fractal worlds."

D-level: A level of hyperspace in which travel is *very* slow (but usually faster than light).

Datawell: Sophisticated descendant of today's PDAs and laptop computers. A powerful computer in its own right, and capable of tapping information networks.

Deemi: Desolate Terragens colony world. The Terragens Colonial Office administrative and research center is located here. There is a small population of Galactic exiles and contract transportees.

Derelict Fleet: A huge flotilla of ancient ships, found adrift in a distant globular cluster by the dolphin-crewed Terragens cruiser *Streaker*.



Dorrvi: A Jophur client race.

Dura: Jijoan unit of time. About 20 seconds.

E-level: A chaotic, dangerous level of hyperspace. Sapients interpret E-level's non-Euclidian nature as a surreal, changing landscape. It sparks hallucinations and insanity in inflexible minds. Roamed by *memoids*.

Earthclan: The Human race's young clan, consisting of Humanity itself, neo-chimpanzees, and neo-dolphins.

eatee: Irreverent Anglic term for a Galactic. Suspicious Galactics see it as evidence of Humanity's rumored habit of eating sapients.

Ecological Reconstruction Service: Originally an agency of the Bureaucracy, the duties of the ERS include preserving (and restoring) Earth's wilderness areas, performing bioassays on newly assigned worlds, and rebuilding the ecosystems of "ruined" colony worlds.

Ehbu'chi'u: The Galactic sector in which Terra is located.

elder race: A Galactic race of advanced age and experience. Usually very powerful and technologically competent. They are held in great reverence by other Galactics. Some keep contact with their young clan-descendants; others choose to die off or move on to the *Retired Order*.

Episiarch: A Tandu client species; insane psychic adepts with the ability to change reality by denying it. Physically they are Human-sized, large-headed, round and shaggy.

Fah'fah'n*fah: Hydrogen-breather race occupying an area near the Terran "Canaan colonies." Not as approachable as the Zang, but they can be negotiated with.

fallow (species): Creatures with the potential to be uplifted may be declared "fallow" to let them develop further or (as is the case with the Terran orangutan) for political reasons. It is a high crime to tamper with a fallow species.

fallow (world): When a world becomes untenanted (e.g., through the expiration of a lease or the extinction of its residents) it may be declared "fallow" to allow the ecosystem to recover and new animal species to evolve. With luck, some of the species will have "potential." Occasionally, whole spiral arms, or even entire galaxies, are declared fallow, and *all* oxygen-breathing Galactics are required to move out.

fem: Anglic term for a female.

Fin: Vernacular for a neo-dolphin. Plural *Fen*.

Fonnir: An elder Galactic race native to K7kakk, in the Ehbu'chi'u sector. The reclusive Fonnir are six-limbed, slothlike brachiators. They are psionic and highly intelligent, and may be on the verge of Passing On to a noncorporeal stage of existence.

Forski: Perky, pliable avian clients of the Soro. Sapient but highly specialized and ambitionless, the Forski are doomed to serve as domestics and entertainers.

F'ruthian: A crustacean-like Galactic patron race.

Galactic: An inhabitant of the Civilization of Five Galaxies.

Galactic Institutes: Huge, galaxy-spanning multiracial bureaucracies that enforce the customs and promote and preserve the values of galactic civilization.

Galaxy Four: Spiral galaxy, largely abandoned by the Oxygen-Breathing Order. Inaccessible after the Great Sundering.

Galaxy Two: The Milky Way, also known as the Central Galaxy.

Galaxy Two Core Tertiary: Important transfer point in the core of Central Galaxy; provides easy access to Galaxy Five.

GalCoin: A token that allows priority or extended access to a branch of the great

Galactic Library. The coins have become the *de facto* everyday currency of many races.

Garth: A Terragens colony. A Gubru invasion force was recently routed from Garth. This is also the home of the Garthlings.

Garthlings: Thennanin clients; descended from Terran gorillas illegally uplifted by renegade Earthclan scientists.

Gello: A one-time Soro client race, now free but still loyal.

gene raiders: Unscrupulous Galactics who seek out fallow worlds (often in hydrogen-breather regions) and steal presapient species for illicit uplift projects.

gheer reaction: Physiological change experienced by Tymbrimi when under stress or surprised. This causes muscular structure, metabolism, posture, and body shape to adapt to current needs.

g'Kek: Exotic wheeled sapients, created for a life in deep-space colonies. Believed to have become extinct during a feud with the Jophur. One of the septs of Jijo's slope.

glyph: A Tymbrimi telepathic "sending" with a complex emotional content. Glyph-making is both an art form and a useful skill.

Gooksyu: The patrons of the Gubru, now retiring and unambitious.

Great Ghosts: In Abdicator and Obeyer belief, racial "avatars" that appear in time of great need, reincarnating as righteous species to fight for propriety.

Great Sundering: A galaxy-spanning cataclysm that disrupted the transfer point network and warped the layers of hyperspace so badly that all contact was lost with Galaxy Four.

Gubru: Bipedal, pseudo-avian trisexual sapients; head of a powerful fanatic clan.

GYU: Galactic Year Unit, equivalent to about 14 months.

Heebi: Former clients of the J'8lek; they broke indenture with the help of their clan mates, the Stoorts. Meek, gullible creatures, currently looked after by their second-stage uplift consorts, the Lesh.

Hoon: Tall, powerfully built bipeds. They have a vaguely reptilian appearance, but are warm-blooded and have fur on their legs. Many Hoon serve as Institute bureaucrats.

Horpie Arm: A hydrogen-breather region in Galaxy Three soon to be opened to colonization by oxygen-breathing Galactics. The arm is currently prowled by gene raiders, sooners, and resentful hydrogen-breathers.

Horst: A desolate Terragens colony world. It is inhabited by retrograde Human societies, which are studied by researchers who live in Council Enclaves.

Hydrogen-Breathers: One of the Orders of Sapience; a parallel civilization of very alien species who live on gas giants and cold terrestrial worlds with exotic atmospheres.

Hul: Gentle, inquisitive patrons of the Soro. The Hul are of moderate power and political leanings, but the powerful Soro have forced them into an isolationist stance.

Humans: Head of the Earthclan.

Hypothetical Order: One of the Orders of Sapience.

Ifni: Infinity or "Lady Luck." Many spacers and colonists subscribe to the Cult of Ifni; believers swear by Infinity, the Creator's meddlesome younger sister. The cult has helped Humans on the "front lines" of space travel and diplomacy maintain their sense of humor. Also a common Anglic swear-word.

Incrementor: The Tandu's first client species. They are believed to be powerful psionic adepts; details of their talent are kept secret by their patrons.

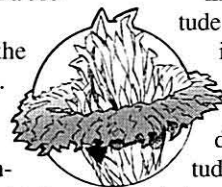
indenture: The period of servitude a client species owes its patron in exchange for the favor of uplift. Indenture traditionally lasts about 100,000 years; duties may entail degrading servitude, second-class citizenship, or being the cherished "pets" of over-indulgent patrons. Indenture can be ended at any time by the patron race, terminated by Institute ruling, or broken by the clients themselves if they are powerful enough to defeat their masters in battle. With good luck and loyal service to their patrons, clients can look forward to uplifting and oppressing clients of their own.

Inheritor: A fanatical, quasi-religious alliance that includes the genocidal Tandu.

institutes: Ancient orders that preserve the status quo in Galactic civilization. Institute members dedicate their lives to the service, forsaking past loyalties.

Institute for Civilized Warfare: Galactic institute that enforces the *Rules of War*. It maintains a small but formidable fleet of patrol and inspection ships, but most of its power comes from its authority to call up "posses" and declare wars of enforcement.

Institute for Foresight: A relatively small Institute that monitors and controls the development of self-replicating machines, nanotechnology, and artificial intelligences, all of which could pose a serious threat to Galactic culture.



Institute for Migration: This powerful organization determines what worlds and areas will go fallow (q.v.) and when. It also grants leaseholds (never outright ownership) of untenanted colony worlds. See *Migration*.

Institute for Progress: This minor institute is devoted to encouraging original research and technological innovation. This runs counter to Galactic conservatism, but the Earthclan finds rare appreciation here.

Institute for Trade: A middle-sized Institute which acts to promote commerce and to map routes through space.

Institute for Uplift: The galaxy-spanning organization which regulates uplift and indenture. When not presiding at the elaborate confirmation rituals proud patrons hold to introduce their clients to the galaxy, the Institute tries to prevent the creation of overly powerful psionic adepts, overspecialized warrior or servant species, and so on. Powerful, unscrupulous clan heads like the Tandu and Soro ignore or bend the rules of the Institute.

interdict: The prohibition of an area to Galactic species, so that hydrogen-breathers can use it.

J'8lek: Eight-limbed, centauroid Galactic species. Once a formidable commercial power, they were reduced to poverty after a client rebellion. They control the Szawgae transfer point.

jadura: Jijoan unit of time. About 43 hours.

Jijo: Fallow world in Galaxy Four.

Jophur: A powerful fanatic race; one of the Galaxy's rare vegetable intelligences. Each Jophur individual is created from nonsapient sapling creatures.

K7kakk: Homeworld of the Fonnir, an elder race.

Kanten: Another of the galaxy's rare "vegetable" sapients. They are decorous, inquisitive creatures, on good terms with Humanity.

Karrank%: A race modified from mole-like creatures to become living mining machines; an example of genetic modification taken past the allowed limits. They have found sanctuary on Kithrup.

Kaschan: Former clients of the J8'lek. Freed by their Stoort clan-mates, they were put under the care of the Pargi.

Kauyoon: A Gubru outpost.

Keevee Spur: A densely populated region of the Central Galaxy.

Keneenk: A mental discipline practiced by neo-dolphins; allows individuals to tap into the mysterious, intuitive thought-

patterns of the Whale Dream and use them in a logical fashion.

kidura: Unit of time used on Jijo. About a half-second.

Kiqui: A pre-sapient species native to the planet Kithrup, discovered by the crew of *Streaker*.

Kisa: Adult clients of the Soro. Isolationistic and clientless since their own Pila clients won early release by clever political maneuvering.

Kithrup: A world set aside as a reservation for the *Karrank%* race. Home to the presapient Kiqui.

Klick-Klick: Clients of the Synthians. Skilled farmers.

Kwackoo: Gubru clients; quadrupedal avians.

Lesh: Leading race of a powerful, tight-knit clan with moderate political tendencies.

Library, Library Institute: One of the proudest achievements of the Civilization of Five Galaxies is the Library, a collection of technical, scientific, cultural, and historical knowledge dating back hundreds of millions of years. Branch libraries are distributed to all races, clients and patrons alike; free access to a branch is one of the few rights granted to all intelligent creatures. Intrigue and corruption often tarnish the ideal, however; branch libraries given to races out of favor with the Library Institute are small and limited in scope.

Linten: An elder race, patrons of the Kanten. Known as the "Gardeners" due to their skill at terraforming and construction of new ecosystems.

Luber: Grandpatrons of the Soro.

Machine: One of the Orders of Sapience; sapient, self-reproducing machines. Considered a danger by both the Galactics and Hydrogen-Breathers.

man: Anglic term referring to a Human of either gender.

mel: Anglic term for a male.

Memetic: One of the Orders of Sapience; literally, living ideas and thoughts. They have a quasi-physical existence in E-level hyperspace, and can dwell as parasites in sapient minds.

mictaar: Unit of Galactic measurement; about one-tenth of a light year (600 billion miles).

midura: Unit of time on Jijo. About 70 minutes.

migration: The Five Galaxies' oxygen-breathing races are slowly but constantly on the move; as worlds are left fallow, whole spiral arms are abandoned

for millions of years. A parallel civilization of hydrogen breathers moves into interdicted areas and protects them from intrusion.

Mrgh'4luargi: A powerful Galactic patron species.

Mulc-spider: An exotic lifeform, created in the age of the Progenitors, for the purpose of erasing signs of civilization from fallow worlds. They use their immense strength and caustic secretions to break apart and dissolve buildings and artifacts. Mulc-spiders are rumored to have a limited, specialized sort of sapience.

Nahalli: Disgraced patrons of the infamous, ecocidal Bururalli (q.v.). The hapless Nahalli were indentured to the Thennanin as punishment for their negligence; now considered reformed, the species will soon graduate to patronhood again.

Naurishon Sector: A sector in Galaxy Two, containing the Soro and Lesh homeworlds.

neo-chimps: Sapient species derived from the Terran chimpanzee. Humanity's first client species.

neo-dog: Partially uplifted domestic canines. They are barely presapient; the Institute for Uplift has banned further improvements to their mental abilities. They continue to do the same sort of jobs that dogs have always performed.

neo-dolphins: Humanity's second client species, derived primarily from the bottlenosed dolphin of Earth's oceans, with admixtures of other cetacean stock.

neo-elephants: Partially uplifted Asian elephants. The Institute for Uplift has banned further development of the species.

Nihanic: 25th-century language, incorporating elements of Japanese and Mandarin.

Nish: Clients of the Kanten.

Niss machine: A highly sophisticated AI computer built by the Tymbrimi. The existence of the Niss is known to only a few Tymbrimi and highly-placed Terragens.

Noor: Small, presapient Tytlal, found only on Jijo.

Norruhk: These large, lanky, black-furred quadrupeds are clients of the Forrin (q.v.). Norruhk, who live on K7kakk and a few of their own colonies, are believed to have psionic talents.

NuDawn: Early Human colony, settled before Contact in violation of Galactic laws. Colonists were removed and indicted by Institute for Migration enforcers. (See *Sequestration of Muddaun*.)

Oailie: Fearsome members of the Obeyer alliance.

Obeyer: A fanatic alliance. Despite having similar theology, they are arch-enemies of the Abdicators.



Overturn: The overthrow of the Terran Bureaucracy and its replacement with the liberal, enlightened Confederacy.

Oxygen-Breather: One of the Orders of Sapience; the Galactics.

Paha: There are at least two races called 'paha.' One is a sturdy reptilian client of the Sniktt, the other a minor client of the Soro clan.

paktaar: A standard Galactic time unit, equivalent to 2.75 GYU (3.21 Earth years). For other time units, see p. 11.

Pargi: Powerful moderate patron race.

Passing On: Generic term for an elder race's disappearance from Galactic society. May join the *Retired Order*, become extinct, or directly find *transcendence* and join the Transcendent Order.

patron: A race which has uplifted one or more species to intelligence and clienthood. This is the chief measure of Galactic status. Generally, patrons must have finished their indenture to *their* patrons in order to raise clients. Patrons can be good and considerate or exploitative and manipulative, powerful empire builders or benchwarmers; in any case, members of a patron species receive respect from other patrons and clients alike. Occasionally, a powerful Galactic race can be declared the patrons of a race they did not uplift themselves.

patron-line: Another term for a "clan" (see above).

Pee'oot: The ancient great-grandpatrons of the Synthians. They outlived their Chelbi clients but are nearing extinction themselves.

Phasheni: Clients of the Jophur.

pidura: Jijoan unit of time. About four days.

Pila: Ex-clients of the Kisa; loyal to the Soro. Many Pila are members of Galactic Institutes, especially the Library.

"pink": A female neo-chimpanzee's estrus period. Impolite Anglic slang.

Poa: Extinct patrons of the Jophur.

potential: A species which can be uplifted to full sapience with a minimum of disruptive changes is said to have *potential*.

presapient, presentient: A species which is not yet intelligent, but could be after some uplift changes; a species with significant potential.

Primal: The natural, "instinctive" language of dolphins and neo-dolphins. Virtually useless for communication of things related to causality, technology, or rationality. Extremely difficult for non-dolphins to fathom.

probationer: Anglic term for a person (client or Human) with a potentially sociopathic personality. May be violent, lecherous, or an unrepentant kleptomaniac. Client Probies are rarely given permission to

reproduce; probies of any sort are generally prohibited from leaving their homeworlds or associating with Galactics. Slang terms include "PP" or "Probie." Horst colony was settled in part by 23rd-century probationers.

Proto-chimp: Early, mute neo-chimpanzees found on Jijo.

Protocols: Code of behavior for patrons and clients, as specified by the Terragens Council. Includes rules of etiquette for dealing with other members of Earth-clan and with Galactics. Few Humans actually expect servile behavior from their clients when aliens aren't around to watch; the Protocols are practiced to impress Galactics.

Pthaca: A Galactic patron species, fanatic but not as extremist as the Soro or Tandus.

Puber: Ancient great-grandpatrons of the Soro.

Qheuens: Sturdy, five-legged race from a moderate clan of modest accomplishment. They have three genetically determined castes: red, blue, and gray.

Quantum Order: One of the Orders of Sapience; life-forms arising from probability fluctuations in the quantum foam.

race: For the purposes of this book, *race* is synonymous with species. In the political sense, it can also refer to a tightly-knit clan.

reality anchor: Complex device that returns a ship in hyperspace to normal reality. Also lessens the effect of reality-distortion weapons.

Retired Order: One of the Orders of Sapience; ancient Galactic races which have left clan and colonies behind to dwell in giant artificial settlements. Some retired races are believed to eventually join the Transcended Order.

Rossic: 25th-century version of Russian, enriched with many loan words.

Rules of War: Guidelines, enforced by custom and the *Institute for Civilized Warfare* for the conduct of space battles, invasions, occupations and police actions. The rules are designed to prevent "unintentional" conflict, escalation, genocide, and damage to ecospheres. To a lesser extent, they are intended to protect noncombatants.

Sarrphor: A Jophur client race.

Se'een: These burrowing hexapods are a Synthian client species. They suffer from narcolepsy.

sept: One of the six races of The Slope, Jijo's illegal colony.

Sequestration of Mudaun: The forceful evacuation and internment of the

inhabitants of NuDawn, an early Human colony. Perpetrated with brutal efficiency by Jophur soldiers and Hoon bureaucrats on behalf of the Institute for Migration.

ser: Anglic term of respect used toward a senior of any gender and species.

Serentini: A powerful patron race, somewhat spiderlike, but with a hard, chitinous carapace. They have faceted eyes, four legs, four arms and four smaller "feelers." All Serentini are female.

Seven Spin Clans: A patron-line of sapient machines; has good relations with Galactic civilization.

Skiano: A moderate patron race. Legendary traders.

The Slope: The region of Jijo inhabited by an illegal colony. See *sept*, *sooners*, *The Commons*.

Solarians: Mysterious energy creatures, possibly sapient, that live in Sol's chromosphere.

sooners: Colonists who illegally settle fallow worlds. Often preyed upon by hydrogen breathers, and subject to harsh justice by the Institute for Migration.

Soro: An aggressive, manipulative reptilian senior patron species; also refers to the powerful conservative clan which they lead.

Stoorts: Rebellious former clients of the J'8lek. They are a proud but poor race, with few colonies and no clients.

Synthians: Nocturnal quasi-mammalian sapients of moderate standing and power; known for their great caution in politics and battle. Friendly to the Terragens.

Szawgae: An important transfer point nexus, connecting the Magellanic-Galaxy One Core Tertiary point with the populous Naurishon sector. Controlled by the J8'lek.

TAASE: Terran and Allied Space Force. Combines the duties of Merchant Marine, Navy, and Survey services. An elite force of carefully screened and highly educated volunteers.

Tandus: Fierce, cunning insectoids who head a formidable fanatic clan. They find an outlet for their martial tendencies by participating in Institute-sponsored Wars of Enforcement. The Tandus are suspected of indulging in forbidden uplift practices and filing misleading reports to the Institute for Civilized Warfare.

Tanith: Library Institute branch nearest Terra.

Tarseuh: A heroic patron race which saved Galactic civilization from a rapacious hegemony some six hundred million years ago.



Terragens: Another name for the races of the Earthclan.

Terragens Council: The Earthclan's interstellar government. Also referred to as the Council.

Terragens Marines: Corps of highly trained, adaptable warriors under the command of the Council. They act as strike troops and commandos.

Tharners: The race that uplifted the Synthians. They were clients of the now-extinct Chelbi.

Tindiri: A colony in the Ehbu'chi'u sector; owned by the Paha, inhabited mainly by their Nayha clients.

tingers and tumb: A neo-chimp's finger-like toes.

Thennanin: Bipedal reptiloids of impressive stature; self-righteous and formidable conservatives with many clients and considerable power. Formerly foes of Earthclan, the Thennanin are now reluctant allies of the Terragens.

Toporgic: A transparent, golden-hued ichor that hardens into a tough substance similar to amber. Objects immersed in toporgic are placed in a form of temporal statis.

Transcended Order: One of the Orders of Sapience; beings of immense power and knowledge.

Transcendors: A fanatical alliance which believes that senior patronhood is just the beginning of the road to racial power and glory.

Traeki: The original form of the Jophur. Gentle and accepting compared to their fanatic cousins.

Trinary: An artificial language used by neo-dolphins communicating with each other. Much more versatile than Primal, but still not perfect for use by engineers and scientists. Difficult for non-dolphins to duplicate; uses a three-valued logic.

Tymbrimi: An astonishingly adaptable and cunning humanoid race with an outrageous sense of humor. The mildly empathic Tymbrimi are the Terragens' most loyal Galactic allies.

Tytal: An otter-like species. Clever, playful, and mischievous. The Tymbrimi's only clients.

uplift: The process of creating an intelligent species from animal stock.

ur-species: The animal species from which a client race is derived.

Voamvoam: A Jophur client race. The Voamvoam are unusual even by Galactic standards: an intelligent colony-creature

including separate animal, vegetable and fungus life-forms.

Urs: A short-lived centauroid race that has found a niche as starship crewbeings and contract technicians. Politically moderate and ideologically neutral, their prickly personalities, determination, and avarice can make them difficult to deal with.

von Neumann machine: A machine, sometimes sapient, capable of self-repair and reproduction. Their use and "breeding" is strictly controlled by the Institute of Foresight.

wolfing: Translation of a Galactic term for a race that reached the stars without the help of a patron.

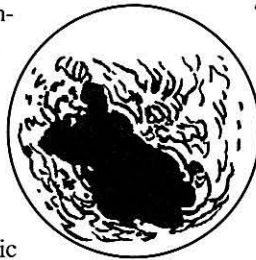
Xap: Clients of the Xatinni.

Xatinni: A powerful fanatic clan; part of the Transcendor alliance.

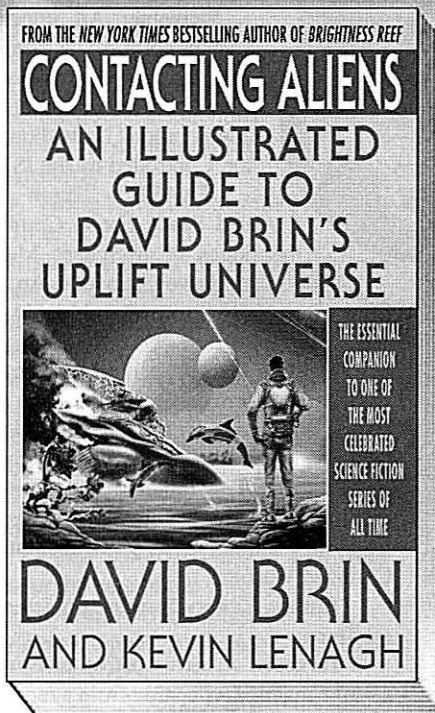
Ynnin: Clients of the Thennanin: a species looking somewhat like armored kangaroos.

Zang: One of the hydrogen-breather "races."

Z'tang: A respected patron race, active in the Migration Institute. Physically they are tall, gangling, and warm-blooded. They have a reputation as being reserved, precise, and intellectual.



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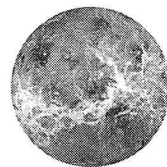
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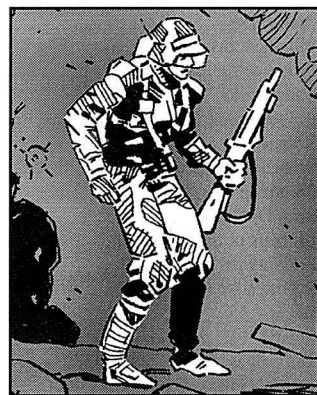
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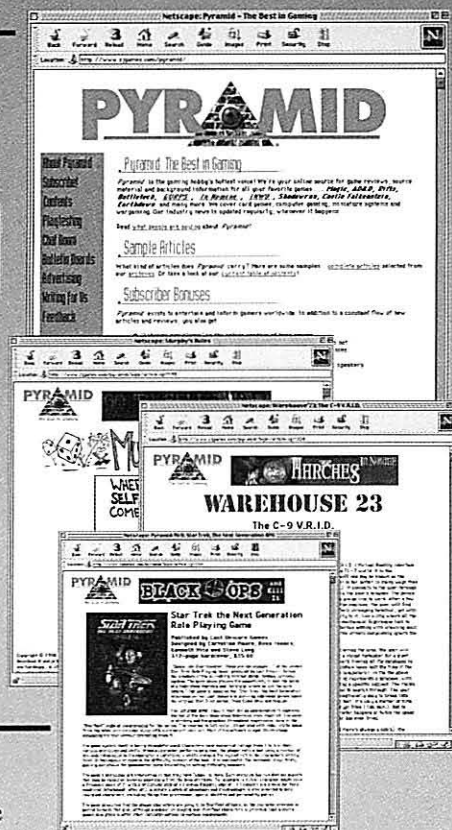
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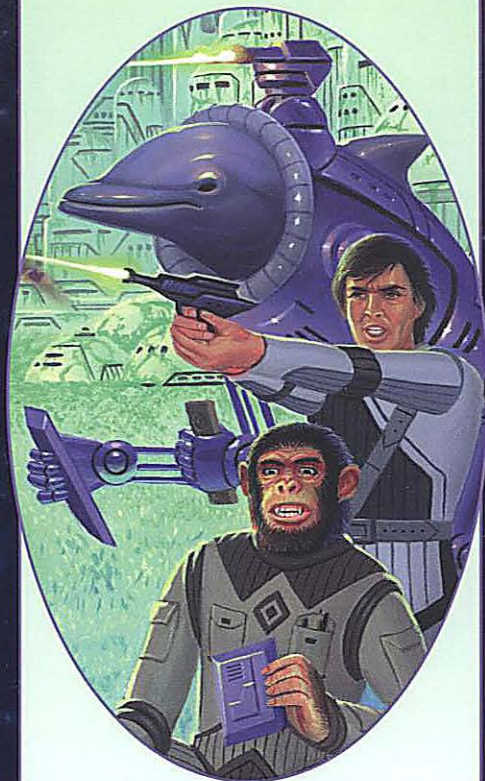
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