

GURPS[®]

Fourth Edition



BIOROID BAZAAR[™]

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About GURPS

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

Rules and statistics in this book are specifically for the **GURPS Basic Set, Fourth Edition**. Page references that begin with B refer to that book, not this one.

INTRODUCTION

“GRA?” The snakehead looked ostentatiously unimpressed, rolling his shoulders to emphasize his artificial muscle mass. “These are international waters. You’ve got no jurisdiction here, Euro . . .”

“I advise you to ask your legal AIs about **hot pursuit**,” the GRA agent interrupted. “The biphibs had you in sight all the way from territorial waters. We have adequate jurisdiction, I assure you.”

“Huh.” The snakehead’s eyes defocused for a moment; he was trying to hide it, but he **had** checked. “That’s another thing. Those are Seawolfs. Since when did your mob use combat ’roids?”

“My associates here are U.S. Navy,” the agent answered with a cold smile, indicating the slick-skinned special operators who were holding PDWs trained on the snakehead and his Xenocop-bootleg bodyguard. “We’re always happy to cooperate with local law enforcement. Now, shall we talk about your unfortunate cargo?”

“Talk all you like,” the snakehead mustered one more sneer. “But don’t tell me that you care about ’roids, Ms. GRA. You of all people know that they ain’t human.”

The agent’s smile slipped. “You’re running **Hecates**,” she snapped. “Believe me, some things can make me care.”

This supplement covers a small but significant gap that had been left in the update of the **Transhuman Space** line to **GURPS Fourth Edition**. It completes the game-mechanical conversion of all the bioroid and parahuman types detailed in Third Edition supplements, along with any uplifted animals that might reasonably be used as player characters in games.

Biosapient templates from the main **Transhuman Space** book were converted in **Transhuman Space: Changing Times**. **Changing Times** also laid down general principles for such conversions, but there wasn’t room for everything there. In effect, **Transhuman Space: Bioroid Bazaar** does for biotech what **Transhuman Space: Shell-Tech** did for robotics.

But that’s not all! **Bioroid Bazaar** adds some *new* templates and variants, along with the new and modified game features required to make all these templates complete. For reasons of space, though, templates for some “tool creatures” not really suitable for use as PCs had to be left out. They may appear in another supplement about biotech in Transhuman Space.

NOMENCLATURE

In this volume, the series of supplements that defines the game world are cited as **Transhuman Space** (in bold italics). The setting itself – the solar system in the year 2100 – is referred to as Transhuman Space, without boldface or italics. However, campaigns exploring that setting are **Transhuman Space** campaigns, because they are based on those supplements.

PUBLICATION HISTORY

As mentioned above, this supplement converts templates from numerous Third Edition **Transhuman Space** books to Fourth Edition; see the individual entries for specific origins. Some of this conversion was performed already in the new

version of **GURPS Bio-Tech** for Fourth Edition; some of the templates first appeared there, albeit sometimes under different names or in variant forms. However, the versions here are designed to remain consistent with the treatments in past **Transhuman Space** books and may include specific features related to the types’ situation in society, such as Reputations.

In addition, some material provided here first appeared in **Transhuman Space: Personnel Files 2: The Meme Team**, **Transhuman Space: Wings of the Rising Sun**, and **GURPS Power-Ups 2: Perks**.

*They could speak,
sing, read, write, work,
love and die; but they
were not covered by
human law, which
simply defined them as
“homunculi” and gave
them a legal status close
to animals or robots.*

– Cordwainer Smith,
“The Ballad
of Lost C’mell”

ABOUT THE AUTHOR

Phil Masters is the **Transhuman Space** Line Editor and the author of several previous supplements for the line, including **Changing Times** and **Shell-Tech**. He is British and has been a roleplaying-game writer for over 30 years. He has worked with Steve Jackson Games for over 20 years, as well as writing for Hero Games, White Wolf, Posthuman Studios, Osprey Publishing, and others. His credits also include the **Discworld Roleplaying Game**, which is something else that he’s been updating recently. His web site is at www.philm.demon.co.uk.

He is not genetically modified, so far as he knows. But how can you tell?

CHAPTER ONE

GAME FEATURES

Some templates in this volume incorporate exotic features. Most work exactly as described in the *Basic Set*. In other cases, the relevant information is in *Changing Times*, pp. 33-47. Some still require a little more explanation.

Although parahumans and bioroids may have some impressive abilities, keep in mind when designing new templates that this is a relatively realistic setting. “Paranormal” advantages and abilities that defy the laws of physics (e.g., conservation of mass or energy) are unavailable.

MONETARY COSTS

The cash prices for all preexisting types that appear in this supplement have been left as in the original material, for consistency. However, these costs were actually determined using methods that related to Third Edition game mechanics. A GM using the current version of *GURPS Bio-Tech* might prefer to rely on the calculation methods given on pp. 65-66 of that book; in these cases, recalculating values should be fairly straightforward.

“RACIAL INTERACTION” TRAITS

Some parahumans and bioroids have difficulties dealing with other sapient beings. Others are designed to be *good* at the task.

GENOTYPE/MODEL APPEARANCE

Some templates have Appearance ratings, positive or negative. A setting-specific rule applies here: The Appearance modifier represents how typical members of the genotype or bioroid design appear to *human beings*, who are still by far the dominant sapient beings in Transhuman Space. Human genetic upgrades count as humans for this and most other purposes. The modifier also applies to many parahumans and bioroids who are built along human lines and think like humans, at the GM’s option. Others of the same genotype or model *may* partly or entirely ignore this “racial” Appearance in their interactions with each other, though, because it resembles what they see in any mirror – unless they have been thoroughly indoctrinated with baseline-human aesthetics. The GM decides for NPCs on a case-by-case basis.

Example: Snow Viper bioroids (p. 20) have Ugly on their templates. Humans see them as weird and slightly sinister, reacting to this at -2. However, typical Snow Vipers see each other as ordinary, and no Appearance modifiers apply in their interactions. They aren’t taught to think like humans in this respect – they’re built as soldiers, and that would be bad for discipline.

A character with such a template also can vary his Appearance from the template standard by paying (or taking back) the difference in points; humans and near-humans then react to the character using the changed rating. This may or may not

affect other characters with the same template, depending how close the GM decides that it comes to the human baseline. It’s usually simplest and fairest to rule that human upgrades, parahumans, and most (but not all) humanoid bioroids react like baseline humans.

Completely nonhuman characters (uplifted animals and nonhumanoid bioroids) likewise can take a *personal* Appearance rating, good or bad, to reflect how they look to others of their own template-defined type. Alternatively, they can have an Appearance that affects *both* humans *and* their own species by applying the *Universal* enhancement (p. B21).

Example 1: By a quirk of the manufacturing process, Corporal White, USMC, is a graceful Snow Viper bioroid with very symmetrical features; other Snow Vipers find him Attractive. Snow Viper looks are just too far off the human norm for this to affect ordinary humans, though. White pays the usual 4 points for Attractive, and his Snow Viper comrades react to him at +1, but humans still react to him at -2.

Example 2: Monkey Plus uplifts (p. 30) don’t have an Appearance rating on their template; to humans, they just look like monkeys. However, one of them, Scruffy, had an accident at one point, and his owners are too mean to pay for the resulting scarring to be corrected. Neither humans nor other Monkey Plus uplifts find him a pleasant sight, and so he has Unattractive (Universal), worth -5 points; everyone reacts to him at -1.

Unnatural Features

see p. B22

A related rule applies to the Unnatural Features disadvantage. For simplicity, assume that for this purpose, “race” for a human upgrade or parahuman always means *human*.

Upgrades and parahumans generally aim to pass in human society as more or less human, so very odd features can inconvenience them, and this disadvantage can appear on their “racial” templates. However, many aspects that would have counted as “unnatural” in earlier eras will just look like interesting cosmetic work in 2100, so it’s rare, and the GM should be cautious about adding this to templates! What counts and what doesn’t is a case-by-case decision; for example, body-covering fur is widely available through nanovirus treatments as

*I know what he says –
he says that his kids will fit
better in the big wide world.
But he’s just trying to please
that Canadian girlfriend of
his. No fur! Naked faces!
It’s disgusting!*

*– Overheard in Nuuk,
Greenland, 2100*

well as being included in some parahuman templates, and is regarded as a sensible lifestyle choice in colder regions, so it doesn’t qualify as Unnatural Features.

Bioroids and uplifted animals, meanwhile, just “look like they look.” Unnatural Features can never be part of their templates, although individuals may acquire peculiarities that qualify.

GENOTYPE/MODEL REPUTATIONS

A very few parahuman or bioroid designs have Reputations applicable to every individual of the type, usually because they’ve become notorious for distinctive behavior arising from design flaws, or because the people who originally created them indoctrinated most of them with peculiar ideas. Where people in general assume things about a type because of their obvious appearance – such as, for example, sinister-looking combat bioroids, which are treated as dangerous killers – treat this as a Social Stigma. When not everyone recognizes the type or automatically responds in the same way, a Reputation may be more appropriate.

In such cases, a low frequency of recognition may indicate that members of the type aren’t always identified; most parahumans and bioroids look much like ordinary humans, after all. The effective frequency may go down if an individual makes a special effort to “act normal,” or up if he insists on making his type obvious in some way. Even then, some people simply may not share the common view of the type, so recognition rarely becomes automatic.

Pheromone Effects

Some bioroid and parahuman types in *Transhuman Space* supplements have the Pheromone Control advantage, which in *GURPS Third Edition* meant that they could voluntarily release clouds of powerful sex pheromones, causing other people nearby to become attracted to the character and subject to the Lecherousness disadvantage. Some also have other advantages, representing a similar ability to release “dominance pheromones.” However, there are realism problems with this.

First, pheromones simply might *not work*. In the real world, experiments with human pheromones suggest that some chemicals *may* trigger sexual attraction or other responses in humans – but the results are debatable, and the effects are weak at best. This is not entirely surprising, because for vertebrate species that *do* respond to pheromones, they seem to work largely through the “vomeronasal organ” (VNO). This organ appears to be atrophied or inactive in humans (as well as apes and birds). Hence, pheromones that achieve these effects probably would have to be specially designed chemicals that modified human neurochemistry by other routes. This might be difficult, even at TL10. Of course, simpler pheromones still might work on other beings – animals, parahumans, or bioroids with a natural or “reactivated” VNO.

Second, if such powerful “mind control” chemicals were available, the fact surely would be widely known. Aside from bioroids and parahumans with innate pheromone powers, anyone could carry them in, say, miniature aerosols. This in turn would cause other people to develop countermeasures, such as custom nanomods, nose filters, or chemical detectors to warn of their release. The character advantage then would be of limited use, although the existence of pheromones might force PCs to take yet more precautions against exotic attacks. If, however, the technology existed but had been kept largely secret, the advantage might need to be accompanied by an Unusual Background – although it would be hard to keep the fact from public knowledge if numerous “pleasure model” bioroids had it.

Hence, given that *Transhuman Space* aims to be logically coherent, a GM may choose to exclude this advantage or downgrade it to something weaker. This in turn means that templates designed with the advantage can have different point values, according to the GM’s decision. See *Meta-Traits* (pp. 8-10) for relevant traits, adjustable to fit different campaign assumptions, and *Pheromone Control Options* (p. 9) for help in deciding how powerful human-influencing pheromones should be.

OTHER CHARACTER TRAITS

Some features relate more to the character's physiology or psychology.

ADVANTAGES AND PERKS

Removing a "template advantage" or "template perk" from an individual character qualifies as taking a disadvantage, which counts against any disadvantage limits for the campaign.

Radiation Tolerance

see p. B79

The number listed with any appearance of this advantage is the divisor applied to the effective dose of radiation received.

New Perks

A few new perks are used in templates in this book.

Extreme Sexual Dimorphism

You have exaggerated male or female sexual attributes. This gives +1 to Sex Appeal – but also +1 to others' attempts to identify you, and -1 to Disguise or Shadowing when trying to remain anonymous. You may purchase this perk up to three times; both the bonuses and the penalties are cumulative (i.e., Extreme Sexual Dimorphism 3 gives +3 to Sex Appeal and attempts at identification, and -3 to Disguise and Shadowing).

Cosmetic surgery might grant this perk, especially given TL10 medical technology. However, opting for such an appearance is widely considered gauche in 2100.

Feathers

You have feathers. These prevent sunburn and help shed water, eliminating up to -2 in penalties for being wet – notably for *Cold* (p. B430).

Parthenogenesis

Prerequisite: Female.

You can become pregnant by inducing voluntary hormonal changes via biofeedback or by taking a pill. The fetus is effectively your clone. This is only a perk if you can also use

sexual reproduction; it's a 0-point feature if you can *only* reproduce this way.

Passing Appearance

Bioroids with this perk can pass very easily as human of some innocuous or even dominant class. Their designers carefully avoided any of the subtle visual cues that might mark them out, including any too-perfect facial symmetry.

Note that a more general version of this perk appears in other supplements.

Scales

You have scales, like a reptile. This prevents sunburn and can also justify purchasing Damage Resistance 1-5 (p. B46) separately.

DISADVANTAGES AND QUIRKS

A wide range of "realistic" disadvantages may appear on parahuman and bioroid templates. A disadvantage should appear on a template only if it applies to *at least* 50% of all characters with that template – and preferably more. Most "template disadvantages" are inherent in the character's genes or basic design, although some, such as Reputations (p. 5), are related to views of the type held more-or-less universally by the public. It is possible to eliminate *some* template disadvantages, at the GM's option, but this usually requires radical and expensive medical treatments, or the acquisition of an extraordinary personal public image.

If the cost of a disadvantage is followed by a *, then the trait requires a self-control number; see pp. B120-121.

Build-Related Disadvantages

see pp. B18-20

Overweight, Skinny, Dwarfism, etc. always are rated *relative to your species' norm*, so none of these disadvantages can appear on "racial" templates; particular genotypes and models are just "built as they're built." Some types have a different Size Modifier, though! Effects on knockback, swimming ability, etc. should be represented by variations in ST and, if necessary, racial skill bonuses, perks, or quirks. See also *Thin Frame*, p. 7.

The Tennen in the original version of *Changing Times* does have Skinny. For consistency, replace Skinny with Thin Frame, increasing the template value by 4 points. The same applies to the Wu Tsao and ZR-5 variants. For alternate versions of the Tennen, see pp. 12-13.

Compulsive Behavior

see pp. B128-129

One new compulsion occasionally shows up in Transhuman Space as a side effect of attempts to "engineer in" mathematical gifts.

The Bioshell Lens

When converting any bioroid template to a *bioshell* type, delete any IQ or Will modifiers and purely mental advantages or disadvantages, and add everything on the standard bioshell template or the intrusion variant (*Changing Times*, p. 59) that isn't already present. Note that Per modifiers may stand; they often reflect good or bad sensory organs rather than brain structures. The exact type of Telecommunication hardware installed varies from case to case.

Some bioshell characters have serious Secrets or high-value Social Stigmas, Enemies, etc. However, the details vary considerably between individuals and locations, and many have no such problems.

Compulsive Counting: You hate approximations when you could have exact numbers. Whenever you encounter a large-but-countable set of similar objects, you must take the time to get an exact count. If the objects number in the hundreds, you may try for a good approximation based on area or volume. For a task like loading a gun's magazine, taking an inventory, or just walking down a path with many evenly placed signposts, a failed-self-control roll means you take double the usual time without receiving the benefits of *Time Spent* (p. B346). If you are *forced* to rush, any roll for the task is at -5, as if you had taken half the necessary time. This wastes a lot of your time in mostly trivial chunks. People who have to work with you but who aren't interested in precision may come to react to you at -1 or worse. -5 *points*.*

Gullibility

see p. B137

Few templates for human variants or bioroids have Gullibility, but that doesn't mean it isn't a problem for some bio-engineered characters. Young bioroids, not yet fully trained and socialized, are often *very* gullible; their brains are designed to be *accepting*. One who is intended to receive a lot of skill and socialization training after "decanting" may come out of the vats with this disadvantage with a self-control number of 6. Responsible trainers and supervisory AIs ensure that the problem is first reduced and then eliminated before the new bioroid has to deal with the world unaided, but Gullibility is almost always a plausible disadvantage for a bioroid character.

Short Arms

-10 points

This "disadvantage" represents the points regained by applying the Short limitation from Extra Arms (p. B53) to the normal two arms possessed by most characters. Creatures with SM -1 or smaller tend to have this disadvantage almost automatically, as they simply cannot have as much reach as a human-sized character.

Short Legs

-2 points

Creatures with the Quadruped meta-trait have no arms but can kick and can use their front legs for very limited manipulation. However, some of them can only do so at Reach C, if only because they are small. Hence, they can have this disadvantage, which is equivalent to applying a Short limitation worth -50% to the Extra Legs advantage that is part of Quadruped.

Creatures without Quadruped but with Horizontal and Shorts Arms should also be assumed to have short legs, but do not get any more points for it.

New Quirks

Two new quirks are required for templates in this supplement.

Cannot Jump

Your leg structures just don't permit any kind of useful jumping action. You are limited to stepping over gaps and obstacles.

Bioroid IQ

Transhuman Space biotechnology permits a certain amount of intelligence enhancement, through genetic engineering, nanotech neural modification, and even gross surgical augmentation. However, few bioroid models have IQ levels much above the human average. Even given that *GURPS* "IQ" isn't quite the same thing as real-world "intelligence," this may seem odd, but there are good reasons, some technological and some legal.

One obvious factor is that politicians – or rather the public who they have to keep appeased – don't particularly want to be superseded mentally or physically by vat-grown artificial people. Thus, a lot of bioroid industry regulation incorporates subtle but pervasive limitations on intelligence enhancement, mostly in the fine print. In this respect at least, public opinion may have some strong moral arguments behind it.

High intelligence is all very well, but tinkering with brain structures – particularly the structures of fast-grown bioroid brains – is prone to unforeseen consequences. Piling on neural tissue and *in vitro* conditioning for mental focus without restraint eventually produces bioroids (or whatever) who are *crazy* – and crazy in a creepy way, not in a cuddly, geeky way. Engineers who try to construct high-intelligence bioroids don't create lines of well-balanced manager-intellectuals or bright-eyed researchers; they produce rooms full of drool-flecked *idiots savants* and hyper-neurotic human computers. At best, these beings are very bad for the "bioroids are your friendly, happily subservient meat robot buddies" memetic campaigns; at worst, some of them have pursued deranged obsessions, subverted computer systems, and more than once, crashed organizations they were supposed to be empowering by attempting to transform them into posthuman think tanks that speak to God.

However, some managers will be tempted by the chimerical vision of a (real-world) IQ 165 willing serf and chafe at those rules, and criminal groups such as the Martian Triads are willing to service such demands. By some assessments, illegal attempts to produce "super-brights" have been worse for the image of the bioroid industry than all the sex toys put together; InVid footage of macrocephalic midgets with bloodshot eyes and a tendency to talk in numbers really do play very badly with the public. The legitimate industry has largely given up fighting those regulations.

Nevertheless, a bioroid character could have raised IQ. Some individuals enjoy serendipitous combinations of brain structure, training, and real-world experience, and turn out impressively bright. But not many are *built* that way.

Thin Frame

Your species/genotype has a build that would count as Skinny if you were a baseline human. Your weight is around 2/3 that of a typical human of your ST, and you have -2 to ST when you resist knockback.

I had worked hard for nearly two years, for the sole purpose of infusing life into an inanimate body. For this I had deprived myself of rest and health. I had desired it with an ardor that far exceeded moderation; but now that I had finished, the beauty of the dream vanished, and breathless horror and disgust filled my heart.

– Mary Shelley, *Frankenstein*

FEATURES

A few zero-point features used in the templates merit discussion.

Reflective Eyes: Sight organs resembling those of a cat have been engineered into some parahumans and bioroids, usually as part of the process of giving them good night vision. (Uplifted cats have them, too!) Very occasionally, these eyes might give away someone who is trying to be stealthy, but mostly, they just look striking or startling. Humans can get something similar as a biomod (Fisheyes; see *Changing Times*, p. 65). With humans, this trait counts as a minor Unnatural Feature, but it's not unnatural for a parahuman or bioroid where it's part of the standard design.

Taboo Traits (Aggressiveness): The character cannot have Bad Temper, Berserk, Bloodlust, Bully, or Stubbornness. The optional rule in *Changing Times*, p. 43, permitting such mental disadvantages with a self-control number of 15 can apply here, although Berserk is *highly* unlikely.

Taboo Trait (Fixed IQ): Normally, this is found on uplifted animal templates (and is already included in the Domestic Animal meta-trait on p. B263). This feature indicates a species whose brains and minds lack the degree of variability found in humans, with the result that they cannot justify a personal *GURPS IQ* score that differs from the racial average by as much as a full level. Hence, their IQ *cannot* be bought up from the level defined by the species template, and is likely to fall below that level only in the case of young or brain-damaged specimens. Optionally, in cinematic games, a few members of the species can buy their IQ up by +1, to represent amazingly bright animal companions or frighteningly capable individual predators.

Taboo Trait (Unattractiveness): The character cannot have an Appearance rating of less than Average, *unless* this can be explained as the result of accident or disease, and there is a very good reason why this damage hasn't been corrected medically.

Unaffected by SAD: Many genotypes and bioroids intended for use in radically unusual environments have the human

tendency to suffer Seasonal Affective Disorder (see *Transhuman Space: Under Pressure*, p. 54) edited out of their brains. Those for which this is a well-known design feature may have this noted.

In addition, some templates have other features – such as peculiarities of their reproductive functions or very distinctive visible attributes – listed for ease of reference or casual interest.

META-TRAITS

Some features that may be engineered into genotypes or bioroids are represented by bundles of advantages, disadvantages, etc. that are treated as meta-traits.

Active VNO

-4 points

You have a functioning vomeronasal organ (see *Pheromone Effects*, p. 5), with direct connections to your nervous system. This renders you highly susceptible to pheromonal influence. In game terms, it gives Susceptible 4 (Pheromones) [-4] and a feature, “Responds strongly to dominance pheromones,” which means that, for example, an NPC with this trait reacts at an additional +3 to anyone using such pheromones. A PC with the trait should roleplay being very *impressed* in the same situation, at the very least.

In addition to responding strongly to large doses of pheromones, you may react more subtly but still positively to chemicals released naturally by other people, reinforcing social bonds. Hence, this meta-trait is often accompanied by the Congenial quirk or the disadvantages Chummy or Gregarious, but this is not mandatory.

This trait is unavailable in a campaign with the “No Pheromones” option (p. 9) applied. Even if it is available, it usually will be found only in parahumans or bioroids designed as servants or as part of some large-scale social engineering project. Because the relevant genes have to come from a nonhuman species, or be entirely artificial, the result is always a parahuman or bioroid, not simply a human upgrade.

The meta-trait *might* also be given to anyone as a nanomod or even by the use of a proteus nanovirus, but this would be rare at best, as few people are likely to voluntarily render themselves (or their children) more vulnerable to chemical control. Still, it might be promoted as part of a radical idealist “community reinforcement” project.

Perfume Glands

6 points

You have special glands that enable you to switch at will between natural body odor; an effective personal deodorant; and a perfume that is powerfully but subtly appealing to the widest possible range of humans and near-humans (possibly the nearest thing to “sex pheromones” in some games – see *Pheromone Control Options*, below). By switching scents, you can mask yourself to a limited extent against beings or devices that could identify or track you by scent. This gives you Obscure 1 (Smell) [2] and a +2 “racial” bonus to Sex Appeal skill (Scent-Based, -20%) [4]. However, any choice lingers for several minutes.

Incidentally, it is possible to achieve a similar bonus to Sex Appeal, temporarily, by careful choice and use of expensive perfumes; that is covered by generic rules for extra time for skill use, high-quality equipment, and so on. Likewise, it’s possible to emulate the Obscure effect by careful use of high-tech deodorants. If you rely on this meta-trait, you can’t claim a double bonus by also using purchased scents, although other preparation (such as good choice of clothes when using Sex Appeal) continues to provide bonuses. The benefit of the

meta-trait is that it allows the character to create these effects at will, with no preparation time or cash expense.

Note: No templates in this supplement have this meta-trait. However, it would certainly be within the capabilities of biotechnology in 2100, as either an engineered feature or a biomod. It also makes a good replacement for Pheromone Control (below) if the GM decides that is unavailable.

Pheromone Control

Varies

These meta-traits represent the ability to voluntarily release synthetic pseudo-pheromones to influence the behavior of people who inhale them (see *Pheromone Effects*, p. 5). These chemicals probably are related to or stimulate the production of the hormone oxytocin (as that is involved in the process of sexual pair-bonding and is associated with enhanced levels of trust and emotional receptiveness) or axillary steroids (which, among other effects, trigger low-level sexual arousal). Possible types of pheromone include *Dominance* (which works through the target’s pleasure/reward responses and parts of the brain that deal with social interactions, increasing his desire to interact with and defer to the user), *Sex* (for seduction effects), and *Trust* (which creates an amplified version of the effects of oxytocin, increasing willingness to believe anything the victim hears). Hence, multiple meta-traits may be available, and the power of each is determined by the game’s *Pheromone Control Options* (below) and their related game mechanics (p. 10).

Pheromone Control Options

As explained in *Pheromone Effects* (p. 5), the GM can decide how powerful human-influencing pheromones are in any *Transhuman Space* campaign, which in turn determines the nature and point cost of various meta-traits. There are several options.

No Pheromones: Despite the best efforts of biotechnologists, it has proven impossible to control human psychology this way. Stories to the contrary are paranoid myths. At best, bioroid designs or biomods may produce pleasant perfumes. Delete the Active VNO and Pheromone Control meta-traits from all templates that have them, and adjust costs accordingly. (The latter might be replaced with Perfume Glands, above.) Any types whose intended function depends on these features are mythical.

Susceptible Targets Only: The only beings susceptible to pheromone effects are those with an Active VNO (pp. 8-9), although *they* are usually highly susceptible. Both Active VNO and Pheromone Control (above) are LC1, as are any pheromone-based technologies that affect characters with the former meta-trait.

Limited Pheromones: Pheromones (often synthetic chemicals closely based on natural human chemistry) have significant-but-mild effects on normal humans, and most parahumans and bioroids, if enough gets into their lungs.

Targets with an Active VNO are highly susceptible. Pheromone Control and human-pheromone-based technologies are LC3; Active VNO is LC1.

Moderate Pheromones: Synthetic pheromones work quite well on contact with the olfactory system, and an Active VNO makes characters *very* susceptible. Business negotiators and diplomats often wear discrete nose-plugs, and most conference rooms have automated chemsniffers installed. Use of pheromones without the target’s consent may be classed as assault. Active VNO, Pheromone Control, and pheromone-based technologies are LC2, or LC1 in societies with high regard for privacy or a tendency to moral panics.

Strong Pheromones: As “Moderate Pheromones,” but the effects can seem tantamount to mind control. People get paranoid on the subject, and there probably have been some dramatic abuses that justify this. Active VNO, Pheromone Control, and pheromone-based technologies are at best LC1, and incidents may lead to them being declared LC0.

The templates in this supplement are evaluated assuming the “Moderate Pheromones” option. However, a weaker option may be more plausible, while “Strong Pheromones” are more cinematic. See the notes in the relevant templates.

Some of the abilities below have the *Scent-Based* modifier, and some have *Respiratory Agent*. The difference is that Scent-Based effects work with just a little contact with the target's palate; extensive filtering is needed to stop them, and holding your breath typically won't work. Respiratory Agents have to get into the target's lungs, in reasonable quantities; holding your breath may defeat them for at least a couple of seconds, and Lung Cleaner nanosymbionts usually stop them completely.

No Pheromones

No Pheromone Control is available. Perfume Glands (p. 9) may replace the meta-traits on individual templates.

Susceptible Targets Only

Pheromone Control (Dominance): Charisma 2 (Accessibility, Only on those with Active VNO, -70%; Scent-Based, -20%) [2]. 2 points.

Pheromone Control (Sex): Affliction 1 (HT; Accessibility, Only on those with Active VNO, -70%; Area Effect 1, +50%; Disadvantage, Lecherousness (9), +22%; Emanation, -20%; Scent-Based, +150%) [24]. 24 points.

Pheromone Control (Trust): Affliction 1 (HT; Accessibility, Only on those with Active VNO, -70%; Area Effect 1, +50%; Disadvantage, Gullibility (9), +15%; Emanation, -20%; Scent-Based, +150%) [23]. 23 points.

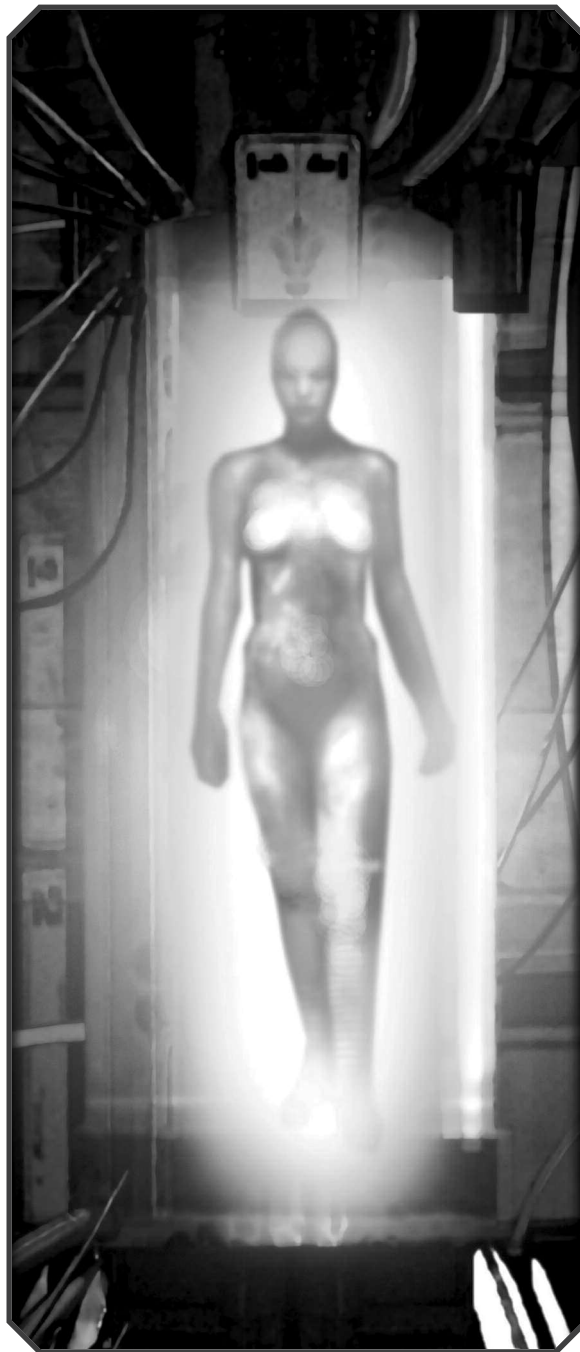
Limited Pheromones

Pheromone Control (Dominance): Charisma 1 (Accessibility, Only on those with near-human biochemistry, -5%; Scent-Based, -20%) [4] + Charisma 2 (Accessibility, Only on those with Active VNO, -70%; Scent-Based, -20%) [2]. 6 points.

Pheromone Control (Sex): Affliction 1 (HT; Accessibility, Only on those attracted to your gender, -20%; Accessibility, Only on those with near-human biochemistry, -5%; Area Effect 1, +50%; Disadvantage, Lecherousness (15), +7%; Emanation, -20%; Respiratory Agent, +50%) [17], and +3 "racial" bonus to Sex Appeal skill (Accessibility, Only on those with Active VNO, -70%; Scent-Based, -20%) [2]. 19 points.

Pheromone Control (Trust): Affliction 1 (HT; Accessibility, Only on those with near-human biochemistry, -5%; Area Effect 1, +50%; Disadvantage, Gullibility (15), +5%; Emanation, -20%;

Respiratory Agent, +50%) [18] + Charisma 2 (Accessibility, Only on those with Active VNO, -70%; Scent-Based, -20%) [2]. 20 points.



As a special effect, if Sex or Trust pheromones are successfully used on someone who already has the relevant disadvantage with self-control 12 or 15, reduce the self-control number one level (i.e., to 9 or 12 respectively).

Moderate Pheromones

Pheromone Control (Dominance): Charisma 2 (Accessibility, Only on those with near-human biochemistry, -5%; Scent-Based, -20%) [8]. 8 points.

Pheromone Control (Sex): Affliction 1 (HT; Accessibility, Only on those attracted to your gender, -20%; Accessibility, Only on those with near-human biochemistry, -5%; Area Effect 1, +50%; Disadvantage, Lecherousness (12), +15%; Emanation, -20%; Scent-Based, +150%) [27]. 27 points.

Pheromone Control (Trust): Affliction 1 (HT; Accessibility, Only on those with near-human biochemistry, -5%; Area Effect 1, +50%; Disadvantage, Gullibility (12), +10%; Emanation, -20%; Scent-Based, +150%) [29]. 29 points.

As a special effect, if Sex or Trust pheromones are successfully used on someone who already has the relevant disadvantage with self-control 9 or 12, reduce the self-control number one level (i.e., to 6 or 9 respectively).

Strong Pheromones

Pheromone Control (Dominance): Charisma 4 (Accessibility, Only on those with near-human biochemistry, -5%; Scent-Based, -20%) [15]. 15 points.

Pheromone Control (Sex): Affliction 4 (HT-3; Accessibility, Only on those with near-human biochemistry, -5%; Area Effect 2, +100%; Disadvantage, Lecherousness (9), +22%; Emanation, -20%; Scent-Based, +150%) [139]. 139 points.

Pheromone Control (Trust): Affliction 4 (HT-3; Accessibility, Only on those with near-human biochemistry, -5%; Area Effect 2, +100%; Disadvantage, Gullibility (9), +15%; Emanation, -20%; Scent-Based, +150%) [136]. 136 points.

As a special effect, if Sex or Trust pheromones are successfully used on someone who already has the relevant disadvantage with self-control 9, reduce the self-control number to 6.

CHAPTER TWO

HUMAN UPGRADES AND PARAHUMANS

The exact definition of “parahuman” is occasionally disputed in Transhuman Space, but the usual working definition is a new human-derived being not naturally interfertile with normal unmodified humans. This usually implies the presence of completely new genetic sequences, or configurations that result in an automatic mismatch when such a couple tries to have children. This makes parahumans members of a different species from *Homo sapiens* by most biologists’ definitions. “Upgrades,” meanwhile, are simply “tweaked” humans, fully interfertile with unmodified humanity.

Even so, borderline cases exist. Some genetic templates using unusual but not completely synthetic sequences merely make interfertility highly unlikely, or lead to technically viable but somehow disabled offspring. For that matter, some unmodified human couples find that they have problems having children together due to some kind of genetic incompatibility. Definitions of “species” are debatable, too.

*Once out of nature I shall
never take
My bodily form from any
natural thing . . .
– W.B. Yeats, “Sailing to
Byzantium”*

ARCTIC AQUAMORPH

see *Under Pressure*, p. 94; 58 points

A cold-adapted version of the Aquamorph (*Changing Times*, p. 48, and *Transhuman Space*, p. 116), uncomfortable outside the Arctic or Antarctic; the upper limit of their temperature comfort zone is always 80° F.

Attribute Modifiers: ST+1 [10]; HT+2 [20].

Secondary Characteristic Modifiers: Basic Move-1 [-5]; Basic Move-1 (Ground Only, -60%) [-2].

Advantages: Amphibious [10]; Doesn’t Breathe (Oxygen Storage ×50, -40%) [12]; Nictitating Membrane 1 [1]; Pressure Support 1 [5]; Resistant to Disease (+8) [5]; Temperature Tolerance 2 [2].

Features: Aquatic Adaptations (very thick mottled or black skin; webbed fingers and toes).

Date: 2078.

Cost: \$176,000.

ARIADNE

see *Fifth Wave*, p. 116; 52 points

A female-only parahuman design, created by a radical feminist group as a first step toward removing the need for men entirely.

Attribute Modifiers: IQ+1 [20]; HT+1 [10].

Advantages: Attractive [4]; Combat Reflexes [15]; Longevity [2]; Resistant to Disease (+8) [5].

Perks: Reproductive Control; Sanitized Metabolism. [2]

Disadvantages: Overconfidence (12) [-5]; Reputation -1 (Weird man-hating genetic oddity; Almost Everyone; 7 or less) [-1].

Features: Female-only births; No Appendix; Strong predisposition toward homosexuality; Taboo Traits (Genetic Defects).

Date: 2066.

Cost: \$97,000.

Variations

Ariadne II: Add Early Maturation 1 [0], Extended Lifespan 1 [2], Parthenogenesis (p. 6) [1], and Versatile [5]. 60 points. (2086, \$112,000.)

AVATARS

see *Fifth Wave*, p. 117

A parahuman design intended to resolve conflicts between the sexes by *emphasizing* the perceived differences, ensuring that members of each sex are well-adapted for their “natural” roles.

Avatar (Female)

64 points

Attribute Modifiers: DX+1 [20]; HT+2 [20].

Advantages: Beautiful [12]; Resistant to Disease (+8) [5]; Voice [10].

Perks: Extreme Sexual Dimorphism 2 (p. 6). [2]

Disadvantages: Shyness (Mild) [-5].

Features: Taboo Traits (Aggressiveness, p. 8; Genetic Defects; Mental Instability).

Date: 2061.

Cost: \$127,000.

Avatar (Male)

73 points

Attribute Modifiers: ST+2 [20]; HT+2 [20].

Secondary Characteristic Modifiers: Per +2 [10].

Advantages: Handsome [12]; High Pain Threshold [10]; Resistant to Disease (+8) [5].

Perks: Extreme Sexual Dimorphism 2 (p. 6). [2]

Disadvantages: Overconfidence (12) [-5].

Quirks: Proud. [-1]

Features: Taboo Traits (Genetic Defects; Mental Instability).

Date: 2061.

Cost: \$127,000.

BROWNIE

see *Fifth Wave*, p. 115; 15 points

An early type, optimized for health and durability by redesigning the gross structure of the human body at the cost of an odd appearance.

Attribute Modifiers: ST-1 [-10]; HT+2 [20].

Secondary Characteristic Modifiers: Basic Move-1 [-5].

Advantages: Acute Hearing 2 [4]; Acute Vision 1 [2]; Catfall [10]; Resistant to Disease +8 [5]; Longevity [2].

Perks: No Degeneration in Zero-G. [1]

Disadvantages: Disturbing Voice [-10]; Unattractive [-4].

Features: Taboo Traits (Genetic Defects; Mental Instability).

Date: 2055.

Cost: \$44,000.

CHIROPTIAN

see *High Frontier*, p. 78; 67 points

A type originally created in response to wildly optimistic projections regarding Martian terraforming. Bat genes give them a number of radically nonhuman features, including wing membranes that enable them to fly given a combination of low gravity and an Earth-like atmosphere. Some now live in domed communities on Titan or in larger space colonies, but many remain in the “Flying Dome” in Luna City.

Attribute Modifiers: ST-1 [-10]; DX+1 [20].

Advantages: 3D Spatial Sense [10]; Acute Hearing 2 [4]; Acute Taste and Smell 1 [2]; Doesn't Breathe (Oxygen Storage ×25, -50%) [10]; Extended Lifespan 1 [2]; Extra Arms 2 (Foot Manipulators, -30%) [14]; Flight (Requires Low Gravity, 0.35 G, -30%; Temporary Disadvantage, No Fine Manipulators, -30%; Winged, -25%) [8]; Immunity to Disease [10]; Longevity [2]; Radiation Tolerance 2 (p. 6) [5]; Scanning

Sense (Sonar; Reduced Range 1/2, -10%) [18]; Sharp Claws [5]; Sharp Teeth [1]; Ultrahearing [5].

Perks: Fur; No Degeneration in Zero-G. [2]

Disadvantages: Unnatural Features 5 (Bat-like face and wings) [-5]; Unusual Biochemistry [-5]; Vulnerability (Crushing ×2) [-30].

Quirks: Thin Frame (p. 7). [-1]

Features: Early Maturation 1; Taboo Traits (Genetic Defects).

Date: 2077.

Cost: \$167,000.

Notes and Variations

Chiroptians are physically light, with hollow bones; one will weigh about half as much as a typical human of the same height.

Camazotz: An earlier, experimental “bat-parahuman,” primarily intended as proof of concept for a being that could live on some possible extrasolar planets; much material from the Camazotz program was reused in the Chiroptian. Few of this type were ever born, and fewer achieved adulthood, but some are still around. Delete Doesn't Breathe, Extended Lifespan, Extra Arms, Immunity to Disease, Longevity, Radiation Tolerance, No Degeneration in Zero-G, and both Features from the Chiroptian. The Camazotz was slightly less strong on average, and needed slightly lower gravity to fly (actually 0.3 G, a -35% limitation), but neither makes a point cost difference. 23 points. (2071, \$123,000.)

DRYLANDER

see *Fifth Wave*, p. 114; 34 points

A parahuman specifically adapted to life in arid regions of Earth.

Attribute Modifiers: ST-1 [-10]; DX+1 [20].

Advantages: Filter Lungs [5]; Nictitating Membrane 1 [1]; Night Vision 5 [5]; Reduced Consumption 1 [2]; Resistant to Poison (+3) [5]; Temperature Tolerance 5 [5].

Perks: Scales (p. 6). [1]

Features: Reflective Eyes (p. 8); Taboo Traits (Genetic Defects; Mental Instability).

Date: 2077.

Cost: \$85,000.

FREEFALL DESIGNS

The Tennin (*Changing Times*, p. 49) represents the current standard for zero-G-oriented parahumanity. That and a few other, effectively indistinguishable designs are good enough for many spacer parents. However, some variants and more ambitious designs do exist.

Kumo

see *Deep Beyond*, p. 113; 19 points

A radical development of Tennin anatomy, replacing legs entirely with arms.

Attribute Modifiers: ST-2 [-20].

Secondary Characteristic Modifiers: Basic Move-2 [-10].

Advantages: 3D Spatial Sense [10]; Attractive [4]; Extra Arms 2 (Foot Manipulators, -30%) [14]; Longevity [2]; Radiation Tolerance 5 (p. 6) [10]; Resistant to Disease (+8) [5].

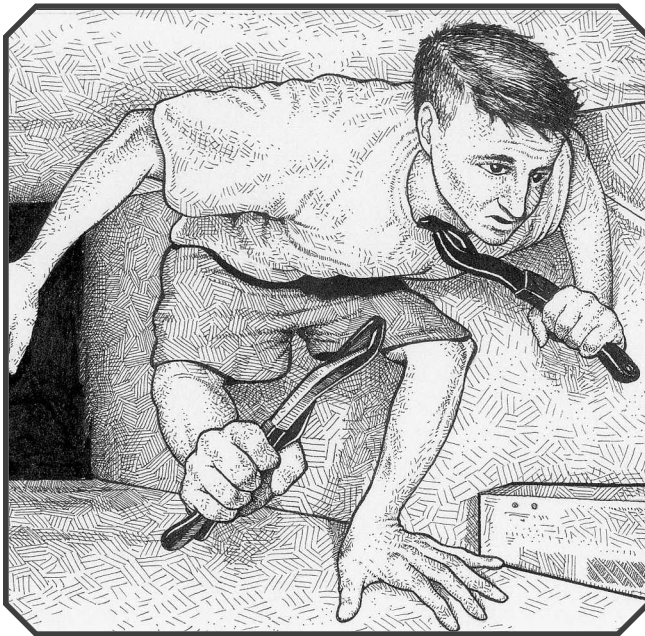
Perks: No Degeneration in Zero-G. [1]
Quirks: Thin Frame (p. 7). [-1]
Features: Home gravity of 0 G; Taboo Traits (Genetic Defects).
Racial Skills: Free Fall (A) DX+1 [4].
Date: 2082.
Cost: \$70,000.

Proto-Tennin

see *Deep Beyond*, p. 112; 4 points

The earliest attempt at a microgravity-adapted design, without some of the Tennin's advanced features.

Attribute Modifiers: ST-1 [-10]; HT-1 [-10].
Advantages: 3D Spatial Sense [10]; Radiation Tolerance 2 (p. 6) [5]; Resistant to Disease (+8) [5].
Perks: No Degeneration in Zero-G. [1]
Quirks: Thin Frame (p. 7). [-1]
Features: Home gravity of 0 G.
Racial Skills: Free Fall (A) DX+1 [4].
Date: 2050.
Cost: \$54,000.



Tennin II (“Anu”)

see *Deep Beyond*, p. 113; 72 points

A “next generation” Tennin with “ideal parahuman” features.

Attribute Modifiers: ST-1 [-10]; IQ+1 [20]; HT+1 [10].
Advantages: 3D Spatial Sense [10]; Attractive [4]; Extra Arms 2 (Foot Manipulators, -30%; Short, -50%) [4]; Immunity to Disease [10]; Less Sleep 1 [2]; Longevity [2]; Radiation Tolerance 5 (p. 6) [10]; Rapid Healing [5].
Perks: No Degeneration in Zero-G; Reproductive Control. [2]
Quirks: Thin Frame (p. 7). [-1]
Features: Home gravity of 0 G; No Appendix; Taboo Traits (Genetic Defects; Mental Instability).
Racial Skills: Free Fall (A) DX+1 [4].
Date: 2079.
Cost: \$114,000.

Tennin III

see *Deep Beyond*, p. 115; 72 points

An advanced Tennin development with modifications for creative intelligence, but with some health problems.

Attribute Modifiers: ST-1 [-10]; IQ+2 [40]; HT-1 [-10].
Advantages: 3D Spatial Sense [10]; Attractive [4]; Extra Arms 2 (Foot Manipulators, -30%; Short, -50%) [4]; Immunity to Disease [10]; Less Sleep 1 [2]; Longevity [2]; Radiation Tolerance 5 (p. 6) [10]; Versatile [5].
Perks: No Degeneration in Zero-G; Reproductive Control. [2]
Quirks: Thin Frame (p. 7). [-1]
Features: Home gravity of 0 G; No Appendix; Taboo Traits (Genetic Defects).
Racial Skills: Free Fall (A) DX+1 [4].
Date: 2085.
Cost: \$109,000.

Variations

Untreated Tennin III: If for some reason a Tennin III hasn't received appropriate nanotherapy, preferably in childhood, add Epilepsy [-30], reducing the template value to 42 points.

HAN ALPHA VARIANT

see *In the Well*, p. 85; 21 points

A common upgrade among ethnic Han Chinese anywhere, and by far the single most common type among the Chinese population on Mars. It is so widespread that it is considered totally unremarkable in that population, and it is the basis for many bioroid and parahuman designs on that planet.

Attribute Modifiers: HT+1 [10].
Advantages: Attractive [4]; Longevity [2]; Resistant to Disease (+8) [5].
Features: Traits (Genetic Defects, Mental Instability); Women have light menses and easy childbirth.
Date: 2055.
Cost: \$40,000.

Notes

Many Martian Han Alphas have an Andraste biomod (*Transhuman Space*, p. 161, and *Changing Times*, p. 64). However, the Mars-Adapted meta-trait (*Transhuman Space*, p. 131, and *Changing Times*, p. 43) isn't included in the genotype.

HERAKLES

see *Fifth Wave*, p. 116; 192 points

A recent *Homo superior* design, pushing the limits of available genetic technology, possibly too far.

Attribute Modifiers: ST+3 [30]; DX+4 [80]; IQ+2 [40]; HT+4 [40].
Advantages: Attractive [4]; Extended Lifespan 1 [2]; Less Sleep 4 [8]; Longevity [2]; Rapid Healing [5]; Resistant to Disease (+8) [5]; Resistant to Poison (+3) [5].
Perks: Reproductive Control; Sanitized Metabolism. [2]
Disadvantages: Bad Temper (12) [-10]; Increased Consumption 1 [-10]; Overconfidence (12) [-5]; Unusual Biochemistry [-5].
Quirks: Proud. [-1]

Features: Early Maturation 1; No Appendix; Taboo Traits (Genetic Defects; Mental Instability).

Date: 2086.

Cost: \$221,000.

Notes

The *GURPS Third Edition* version of the Herakles had complete Immunity to Disease and Poison. This has been downgraded to Resistant here because that seems more plausible – the template is beyond the limits that *GURPS Bio-Tech* considers reasonable for TL10 as it is. However, a GM who prefers full consistency between editions is welcome to restore these advantages to higher levels. Conversely, one who wishes to emphasize that this design really pushes the limits of what Transhuman Space science can accomplish can simply delete the Taboo Traits – and then take full advantage of what this permits, producing 14-year-old near-superhumans who are also a mass of psychological problems and subtle genetic malfunctions.

Designs this radical are usually treated as at least LC3. Only carefully regulated clinics and doctors can offer them.

KOUROS

see *Fifth Wave*, p. 118; 40 points

A radical hermaphrodite design, intended as an escape from archaic conflicts over gender roles.

Attribute Modifiers: IQ+1 [20]; HT+1 [10].

Advantages: Hermaphromorph (Preparation Required, 1 minute, -20%) [4]; Language Talent [10]; Longevity [2]; Resistant to Disease (+8) [5]; Versatile [5].

Perks: Reproductive Control; Sanitized Metabolism. [2]

Disadvantages: Combat Paralysis [-15]; Unnatural Features 2 (Highly distinctive asexual appearance) [-2].

Quirks: Attentive. [-1]

Features: No Appendix; Taboo Traits (Aggressiveness, p. 8; Genetic Defects; Mental Instability).

Date: 2082.

Cost: \$82,000.

MACLARREN CLONE

see *High Frontier*, p. 109; 103 points

Hiroshi MacLarren is a billionaire whose parents had a parahuman design custom-made for their child. He has since had himself cloned thousands of times.

No wealth-related advantages have been included in this template, because wealth isn't *actually* part of the type's genetics. Nonetheless, virtually all MacLarren clones have the Wealth advantage (usually at the Wealthy level), with several levels of Independent Income.

Attribute Modifiers: ST-1 [-10]; DX+2 [40]; IQ+3 [60]; HT+1 [10].

Advantages: Attractive [4]; Eidetic Memory [5]; Extended Lifespan 1 [2]; Lightning Calculator [2]; Longevity [2]; Mathematical Ability 1 [10]; Rapid Healing [5]; Resistant to Disease (+8) [5]; Versatile [5].

Disadvantages: Compulsive Counting (12) (p. 7) [-5]; Insomniac (Mild) [-10]; Low Pain Threshold [-10]; Unusual Biochemistry [-5]; Weakness (Airborne pollen; 1d/5 minutes; Fatigue Only, -50%) [-5].

Quirks: Alcohol Intolerance; Attentive. [-2]

Features: Early Maturation 1; Strong tendency to homosexuality; Taboo Traits (Genetic Defects).

Date: 2075.

Cost: N/A.

*Cheap editions of great books
may be delightful, but cheap editions
of great men are absolutely detestable.*

– Oscar Wilde,
*“The True Function
and Value of Criticism”*

MAHATMA

see *Fifth Wave*, p. 119; 42 points

An early radical upgrade design, with an intentional penchant for religious experiences.

Attribute Modifiers: DX+1 [20]; HT+1 [10].

Advantages: Attractive [4]; Fearlessness 2 [4]; Resistant to Disease (+8) [5].

Perks: Auto trance. [1]

Quirks: Attentive; Rarely Shows Excitement. [-2]

Features: Taboo Traits (Genetic Defects).

Date: 2057.

Cost: \$64,000.

MARS ADAPT (“RED BEAR”)

see *In the Well*, p. 85; 38 points

A parahuman optimized to survive on the surface of Mars with minimal technological support.

Attribute Modifiers: HT+1 [10].

Secondary Characteristic Modifiers: HP+1 [2]; FP+2 [6]; Basic Move-1 [-5].

Advantages: Damage Resistance 2 (Flexible, -20%) [8]; Mars-Adapted [9]; Nictitating Membrane 1 [1]; Reduced Consumption 2 (Water Only, -50%) [2]; Temperature Tolerance 4 [4].

Perks: Fur. [1]

Features: Home gravity of 0.38 G; Taboo Traits (Genetic Defects).

Date: 2082.

Cost: \$156,000.

MISHA

see *Fifth Wave*, p. 115; 25 points

An “econiche” parahuman design adapted to arctic conditions, borrowing ursid genetics.

Attribute Modifiers: ST+1 [10]; HT+1 [10].

Secondary Characteristic Modifiers: Basic Move-1 [-5].

Advantages: Damage Resistance 1 (Flexible, -20%) [4]; Metabolism Control 2 (Hibernation, Triggered by Extreme Cold, -60%) [4]; Resistant to Disease (+8) [5]; Resistant to Poison (+3) [5]; Temperature Tolerance 10 [10].

Perks: Fur. [1]

Disadvantages: Bad Temper (12) [-10]; Sleepy (1/2 the time) [-8].

Quirks: Staid. [-1]

Features: No Appendix; Taboo Traits (Genetic Defects).

Date: 2055.

Cost: \$69,000.

Notes

Some Mishas use drugs to control their hibernation trigger. One dose costs \$250 and suppresses the problem for 1d-1 days, with a minimum of 1. However, for as long as the benefits last, the Misha loses all ability to hibernate and gains additional temporary disadvantages worth 1d × -10 points. The GM chooses the actual disadvantages involved at whim. Possibilities include reduced DX, HT, and Will; reduced self-control on their Bad Temper; or Flashbacks, Impulsiveness, Paranoia, or Phantom Voices.

PANDORA

see *Fifth Wave*, p. 119; 64 points

A parahuman design with a brain intended to match artificial intelligences for speed of thought, and hence to be capable of close communion with AIs. Unfortunately, Pandoras talk as fast as they think.

Attribute Modifiers: IQ+2 [40]; HT-1 [-10].

Advantages: Enhanced Time Sense [45].

Disadvantages: Overconfidence (15) [-2]; Stuttering (Accessibility, No penalty if talking to someone with Enhanced Time Sense, -10%) [-9].

Features: Taboo Traits (Genetic Defects).

Date: 2073.

Cost: \$114,000.

Variations

Sigma: An extension of the Pandora design with even more neural improvements. Unfortunately, not only was the brain/speech center interface problem not resolved, the changes led to borderline mental instability. Change Overconfidence to (9) [-7], and add DX+1 [20], Less Sleep 5 [10], Lightning Calculator [2], Mathematical Ability 1 [10], and Attentive [-1]. 100 points. (2079, \$120,000.)

PROBLEMATIC EARLY DESIGNS

These human upgrades date back to the early days of mass-market human germline engineering. They not only show their age by being inferior to later templates, but also have real *problems*, sometimes very serious. They slipped onto the market before these were identified, causing catastrophes for individuals and corporations. However, people with these templates may still occasionally be encountered. Aside from members of the original generations, unscrupulous fly-by-night genetic consultants occasionally employ copies of the relevant gene sequences, especially if the symptoms will take years to emerge.

Germline Improvement Modification (“Pre-Alpha”)

see *Broken Dreams*, p. 120; 7 points

An early, supposedly straightforward “human upgrade” with a tendency to develop extreme pain sensitivity in adulthood. *Children* with this upgrade do not suffer from the Low Pain Threshold disadvantage, effectively raising the value of the template by 10 points until puberty.

Attribute Modifiers: HT+1 [10].

Advantages: Longevity [2]; Resistant to Disease (+8) [5].

Disadvantages: Low Pain Threshold [-10].

Features: No Appendix; Taboo Traits (Genetic Defects; Mental Instability).

Date: 2048.

Cost: \$20,000.

J7-S53

-56 points

The main objective of the J7-S53 gene sequence design program of the late 2040s, along with a modest increase in average dexterity, was to improve resistance to disease, as was accomplished successfully by later types. However, at that time, the engineers’ ambitions far exceeded the knowledge available and the capacity of their computer models to handle complex interactions in the immune system. Worse, some sales executives, desperate to recover the runaway expense of the project, insisted on pushing the design onto the market much too soon.

The result was a number of children in several countries with severe autoimmune conditions. Precise symptoms vary, but victims are generally *unhealthy*, making them vulnerable to numerous environmental problems. Chronic pain is usual, although that at least can be controlled by standard drug treatments. Many victims suffer from conditions that lead to reduced Appearance, and many have developed completely debilitating neurological problems later in life. Improved night vision seems to be a near-universal minor side effect.

As the “upgrade” had mostly been sold to parents who were looking for a low-cost option, few could afford the complex treatments that their offspring needed. Some of the children spent years in the care of medical services that were understandably keen to recover the cost from the responsible parties. Others just died young.

Some companies involved in the project were driven out of business by a tsunami of lawsuits; the others took years to recover from the public relations catastrophe. In fact, the whole biotech industry suffered badly from this incident, and multiple companies ended up contributing to the cost of looking after the child-victims, simply to protect the whole idea of genetic upgrading. There are about 2,300 J7-S53 subjects left alive, many in long-term medical care but some surviving in the community. About 650 have undergone radical and experimental medical treatments that effectively remove the whole template except for the reduced HT and Basic Speed, and usually help cure some of the secondary effects. A further 83 have undergone digital uploading. The companies and trusts responsible for long-term care of victims are quietly encouraging these radical options, hoping to replace long-term cash drains with one-off expenditures, and that the public can be helped to forget this disaster.

Obviously, the J7-S53 sequences are no longer used in medicine anywhere in the world, except as a warning in ethics lectures. This template represents the basic problems inherent in the design; most individuals add a lot more disadvantages.

Attribute Modifiers: ST-1 [-10]; HT-3 [-30].

Secondary Characteristic Modifiers: HP-2 [-4]; FP-1 [-3]; Basic Speed-1.00 [-20].

Advantages: High Manual Dexterity 2 [10]; Night Vision 2 [2]; Resistant to Disease (+3) [3].

Disadvantages: Chronic Pain (Mild; 2 hour interval; 12 or less; Mitigator, daily drug regime, -60%) [-4].

Date: 2049.

Cost: N/A.

Methuselah

see *Broken Dreams*, p. 120; 20 points

An early upgrade design, aiming for a substantially increased lifespan, with some success but also with disastrous neurological side effects.

Attribute Modifiers: ST+1 [10]; HT+3 [30].

Advantages: Extended Lifespan 1 [2]; Longevity [2]; Resistant to Disease (+8) [5]; Resistant to Poison (+3) [5].

Disadvantages: Epilepsy [-30]; Extra Sleep 2 [-4].

Features: No Appendix.

Date: 2045.

Cost: \$20,000.

Notes

If researchers do produce a treatment capable of suppressing this type's Epilepsy, it probably will be a nanodrug initially, requiring periodic treatment; apply a Mitigator limitation to the disadvantage, increasing the template cost accordingly. A permanent solution would of course simply remove the disadvantage, although it might produce side effects such as further levels of Extra Sleep.



PURUSHAGOR

see *Under Pressure*, p. 95; 79 points

An ultra-radical TSA design, mostly found in Bangladeshi underwater habitats, adapted to aquatic life to the extent of having a fishlike tail rather than legs.

Advantages: Amphibious [10]; Doesn't Breathe (Oxygen Storage $\times 50$, -40%) [12]; Enhanced Move 1.5 (Water) [30]; Immunity to Disease [10]; Nictitating Membrane 1 [1]; Night Vision 5 [5]; Pressure Support 2 [10]; Temperature Tolerance 1 [1].

Disadvantages: No Legs (Semi-Aquatic) [0].

Features: Taboo Traits (Genetic Defects); Unaffected by SAD (p. 8).

Date: 2087.

Cost: \$176,000.

RANGER

see *Fifth Wave*, p. 115; 67 points

A wilderness-oriented design, with sensory and digestive modifications and a self-reliant attitude.

Attribute Modifiers: ST+1 [10]; DX+1 [20]; HT+1 [10].

Advantages: Absolute Direction [5]; Acute Hearing 2 [4]; Acute Taste and Smell 3 [6]; Discriminatory Smell [15]; Reduced Consumption 2 (Cast-Iron Stomach, -50%) [2]; Resistant to Disease (+8) [5]; Resistant to Poison (+3) [5].

Disadvantages: Bad Temper (15) [-5]; Light Sleeper [-5]; Overconfidence (12) [-5].

Features: No Appendix; Taboo Traits (Genetic Defects; Mental Instability).

Date: 2079.

Cost: \$110,000.

SALUD

see *Broken Dreams*, p. 121; 62 points

A TSA upgrade project, optimized for survival in hostile, toxic environments, with radical changes that must have pushed it close to parahuman status. It is unclear whether any products of this program survived the Pacific War.

Attribute Modifiers: HT+3 [30].

Advantages: Immunity to Disease [10]; Immunity to Poison [15]; Longevity [2]; Radiation Tolerance 5 (p. 6) [10]; Rapid Healing [5].

Disadvantages: Increased Consumption 1 [-10].

Features: Taboo Traits (Genetic Defects).

Date: 2082.

Cost: \$150,000.

SOCIAL ENGINEERING PROJECTS

The idea of modifying the human baseline, not for the good of the individual but for the benefit of society, is a potent meme in 2100 – a dream for a few, a nightmare for many. It has actually been attempted in only a few cases, by authoritarian leaders or fanatical factions. In fact, far more governments and other groups have been *accused* of working on such projects than have actually expended serious effort on the idea. Apart from anything else, many elite groups recognize, when they really think about this, that an overly uniform population, or some subtler error in the design, could lead to disaster. Also, it's likely to make existing populations dangerously unhappy.

However, it's worth noting that most upgrade and parahuman types *are* designed with a place in society in mind – and sometimes, one person's sociable, sensitive, efficient team leader is someone else's sinister, conformist hive manager. At the extreme, neurological work intended to increase ambition, competitiveness, intelligence, and focus could produce smart sociopaths. Genetic consultants deny that this is ever their aim, and few parents would admit to hoping for any such thing – but some “survivalist” factions would willingly edit a lot of socialization out of their children in the name of “self-reliance.” Some fairly popular types such as the Ishtar (*Changing Times*, p. 48) have been accused of veering too far in this direction.

Guardian

see *Fifth Wave*, p. 117; 137 points

The possibly nonexistent “leader” parahuman design from an alleged TSA project to create an optimal, orderly posthuman society.

Attribute Modifiers: DX+1 [20]; IQ+1 [20]; HT+2 [20].

Advantages: Attractive [4]; Combat Reflexes [15]; Extended Lifespan 1 [2]; Fit [5]; Hard to Kill 2 [4]; Longevity [2]; Pheromone Control (Dominance) [8]; Pheromone Control (Sex) [27]; Resistant to Disease (+8) [5]; Voice [10].

Disadvantages: Overconfidence (12) [-5].

Features: Early Maturation 1; Taboo Traits (Genetic Defects; Mental Instability; Unattractiveness, p. 8).

Date: 2081 (?).

Cost: \$185,000.

Notes

Remember to adjust the cost of this template according to the GM's decision about the effectiveness of pheromones in the campaign (see pp. 5 and 9-10).

The Guardian concept is strongly dependent on the use of pheromones to ensure its ability to dominate others, especially Helot IIs (p. 18). Hence, if the GM decides that pheromones don't work *at all* (the “No Pheromones” setting), the type will be less effective, though far from useless for its supposed purpose given its IQ and Voice. Conversely, in cinematic campaigns with the “Strong Pheromones” option, Guardians can make excellent villainous masterminds – although the oldest of them is still only age 19 in 2100. Nonetheless, a *group* of precocious, scheming Guardians with a small army of fanatically loyal Helots could make quite a threat.

Even if pheromones are effective in the campaign, the type's control of sex pheromones might be considered superfluous – leader figures really shouldn't need to seduce their followers very often – so that advantage could be deleted at the GM's option.

Hamas (Beta)

see *Broken Dreams*, p. 120; 47 points

The experimental product of a Caliphate program, still in progress, to produce zealous defenders of Islam.

Attribute Modifiers: IQ+1 [20]; HT+1 [10].

Secondary Characteristic Modifiers: Per+1 [5].

Advantages: Combat Reflexes [15]; Longevity [2]; Resistant to Disease (+8) [5]; Single-Minded [5].

The Feasibility of the Guardian Project

The TSA “Guardian Project” is defined by the Guardian (above) and Helot II (p. 18) parahuman templates, and is discussed in *Broken Dreams*, p. 49. The *idea* that it might have existed is certainly a factor in international politics in 2100, and plenty of people believe that something on those lines was being attempted before the Pacific War. But could it ever have worked?

Strictly in terms of the germline modifications supposedly involved, the answer is “maybe.” Much depends on how effective pheromone control could be. If pheromones don't work on anyone vaguely human, the project may have wasted some effort, and would have a harder task making the Helots adequately compliant, whereas a “Strong Pheromones” option (p. 9) would make it frighteningly plausible. However, a society's leaders can't always expect to deal with their minions face to face, so the Guardians would really need to wring every ounce of advantage from their Appearance and Voice, along with training in rhetoric and access to memetic science. They'd also need plenty of computer support; the Project concept implies a hierarchical, highly controlled society. Even with the Guardians' superior IQ and economic planning tools developed by the TSA, this might not work too well. After all, there are reasons why current TSA societies are diverse and decentralized.

In terms of actually reconfiguring society to fit the new pattern supposedly envisaged, things become more complicated. Implementing the Project's ideas would be both a massive effort and a hard sell to current populations, even with advanced memetic science. Many leaders in TSA nations are sincere democratic socialists, or at least populists, who would find the idea of turning the mass of the population into “willing slaves” loathsome. According to the supposed leaked documents, the Project was based in Peru; however, many people think it looks more like the product of prewar Thai “mad science” thinking, although no evidence for this has emerged from any Thai records in the country's post-nanosocialist era. The TSA rulers who would most likely approve are the governors of the handful of military dictatorships within the Alliance – provided that *their* children could be the ones to receive the Guardian enhancements. Some more idealistic TSA factions might go along with the idea, as a route to some ideal of society determined by ideologically sound leaders, but they'd have a debate on their hands.

Incidentally, very similar considerations would apply to the Caliphate's “Istislaam” project (see p. 18 and *Broken Dreams*, p. 120), which definitely does exist. However, the people responsible for that are subtler and are piggybacking their ideas on some traditional Islamic social memes.

Disadvantages: Impulsiveness (12) [-10]; Overconfidence (12) [-5].

Features: Taboo Traits (Genetic Defects).

Date: 2090.

Cost: \$100,000.

Helot

see *Fifth Wave*, p. 118; 12 points

A “social man” upgrade genotype, designed to function comfortably in crowded urban societies – and possibly to produce a docile, conformist citizen population.

Attribute Modifiers: HT+1 [10].

Advantages: Resistant to Disease (+8) [5].

Quirks: Broad-Minded; Humble; Staid. [-3]

Features: Taboo Traits (Aggressiveness, p. 8; Genetic Defects; Mental Instability; Unattractiveness, p. 8).

Date: 2080.

Cost: \$37,000.

Variations

Helot II: A possibly imaginary parahuman extension of the Helot design, which would have represented the “citizen caste” in the TSA project that also (supposedly) produced the Guardian (p. 17). Add DX+1 [20] and Active VNO (p. 8) [-4] (assuming the “Moderate Pheromones” option, pp. 9-10), so the template value becomes 28 points. (Possibly 2081, \$39,000.)

Long Live the New Flesh!

– David Cronenberg,
Videodrome

Istislaam (Beta)

see *Broken Dreams*, p. 120; 43 points

Another experiment still in progress in the Caliphate, the Istislaam program is intended to produce devoted and obedient but very competent citizens.

Attribute Modifiers: IQ+2 [40].

Advantages: Fearlessness 3 [6]; Longevity [2]; Single-Minded [5].

Perks: Deep Sleeper. [1]

Disadvantages: Slave Mentality (Only in the presence of an *Alim*, -75%) [-10].

Quirks: Mild Overconfidence. [-1]

Features: Taboo Traits (Genetic Defects).

Date: 2090.

Cost: \$100,000.

UTOPIA

see *Toxic Memes*, p. 64; 320 points

A (probably!) hypothetical “next generation ultimate” parahuman. The design is almost certainly well beyond what

bioengineering can accomplish in 2100, if only because the life-extension techniques involved are still highly experimental, if they have even been conceived yet.

Attribute Modifiers: ST+2 [20]; DX+4 [80]; IQ+4 [80]; HT+4 [40].

Secondary Characteristic Modifiers: HP+2 [4].

Advantages: Combat Reflexes [15]; Handsome/Beautiful [12];

Hard to Kill 2 [4]; Immunity to Disease [10]; Immunity to Poison [15]; Language Talent [10]; Rapid Healing [5]; Unaging [15]; Versatile [5]; Voice [10].

Perks: Sanitized Metabolism. [1]

Disadvantages: Unusual Biochemistry [-5].

Quirks: Imaginative. [-1]

Features: No Appendix; Taboo Traits (Genetic Defects; Mental Instability).

Date: 2095-2100+?

Cost: \$1,265,000.

Notes

If this type exists but some less fantastical rumors are true, then the template should lose the Taboo Traits, and any individual would likely have -20 to -50 or so points in problems such as Absent-Mindedness, Bad Temper, Chronic Depression, Curious, Impulsiveness, Low Self-Image, Manic-Depressive, Odious Personal Habits (Hyperactivity), On the Edge, or Short Attention Span. GenTech Pacifica would probably be able to develop drugs or nanotech that could act as Mitigators for these disadvantages, but might then control access to them as a way of keeping the test subjects under their control. The Immunities to Disease and Poison on this template are certainly challenging, even for Transhuman Space’s genetic engineering, and test products might also be prone to autoimmune conditions such as pernicious anemia, lupus, or rheumatoid arthritis.

The *GURPS Third Edition* version of the template included Early Maturation 2, but it is unclear how this was intended to interact with Unaging. It seems unlikely that even a radical parahuman design like this one would be designed to reach physical maturity in four to five years; even if genetic engineers could safely induce that level of accelerated cellular growth, there would be huge issues regarding the individual’s intellectual, emotional, and social development. Nor is it certain that many parents would actually want offspring who effectively bypass almost all of childhood. In any case, the “more plausible” version of the template replaces Unaging with Extended Lifespan 3 [6], Longevity [2], and Early Maturation 3, giving a template cost of 313 points.

ZHIMINDE

see *In the Well*, p. 85; 16 points

The earliest Mars-optimized parahuman type, now superseded by more advanced designs.

Attribute Modifiers: ST-1 [-10]; HT+1 [10].

Secondary Characteristic Modifiers: HP+1 [2].

Advantages: Mars-Adapted [9]; Resistant to Disease (+8) [5].

Features: Altered Sex Ratio (2:1 female-male births); Home gravity of 0.38 G; Taboo Traits (Genetic Defects; Mental Instability; Unattractiveness, p. 8).

Date: 2058.

Cost: \$50,000.

CHAPTER THREE

BIOROIDS

See *Changing Times*, p. 43, for notes on appropriate Social Stigmas and Wealth levels for bioroid characters in different areas. Furthermore, because they are mandatory, these may not have to count against campaign disadvantage limits, at the GM's discretion.

AQUATIC DESIGNS

Subaqua operations are one area where bioroid workers can be very useful. However, the fundamental problems involved in creating actual water-breathers remain largely unsolved.

Gillmorph

see *Under Pressure*, p. 94; 333 points

A nonhumanoid design based on killer-whale morphology, but smaller and with added work arms and tentacles, and multiple eyes. Despite the name, this is an air-breathing creature, albeit with highly optimized lungs. Disturbing Voice here represents a mixture of weird nonhuman pitches and cetacean staccato whistling.

Attribute Modifiers: ST+17 (Size, -20%) [136]; DX+1 [20]; IQ-1 [-20]; HT+3 [30].

Secondary Characteristic Modifiers: SM +2; Per+2 [10].

Advantages: 360° Vision [25]; Acute Hearing 2 [4]; Damage Resistance 1 (Tough Skin, -40%) [3]; Doesn't Breathe (Oxygen Storage x200, -20%) [16]; Enhanced Move 1 (Water; Temporary Disadvantage, No Manipulators, -50%) [10]; Enhanced Tracking 3 [15]; Extra Arms 6 (Extra-Flexible, +50%; No Physical Attack, -50%; Temporary Disadvantage,

Bad Grip 2, -10%) [54]; Immunity to Disease [10]; Injury Tolerance (No Neck) [5]; Nictitating Membrane 1 [1]; Pressure Support 2 [10]; Scanning Sense (Sonar; Reduced Range 1/5, -20%) [16]; Sharp Teeth [1]; Temperature Tolerance 1 [1]; Ultrasonic Speech [10].

Disadvantages: Bioroid Body [-4]; Disturbing Voice [-10]; Increased Life Support (Massive) [-10]; No Legs (Aquatic) [0].

Features: Sexless.

Date: 2098.

Cost: \$1,750,000.

Notes and Variations

The original template gave this creature the equivalent of Enhanced Tracking 5, but as it has only four pairs of eyes (and they do operate in pairs), three levels is more appropriate.

Gillmorph Bioshell: For the bioshell version of this design, "Immunity to Disease" increases to "Immunity to Metabolic Hazards" for skull hit location only; applying the -70% limitation for this to the 20 points for the increase makes the cost of this [6]. Also, delete the IQ penalty, change the Per modifier to +1 [5], and add Absolute Direction (Requires Signal, -20%) [4], Telecommunication (Cable Jack; Sensie, +80%) [9], Telecommunication (Radio; Sensie, +80%) [18], Accessory (Small Computer) [1], and Electrical (Partial, Skull hit location only, -70%) [-6]. This makes the template cost 380 points. Given the number of arms and eyes included in the Gillmorph design, it would be reasonable to require that any AI installed in such a bioshell should have to be specially designed to manage it.

Nemo

see *Under Pressure*, p. 94; 76 points

An advanced humanoid bioroid capable of extended dives and deep-water operations. The modifications designed to grant this model partial tolerance of extreme pressures and changes of pressure have the beneficial side effect of making it resistant to various other problems.

Attribute Modifiers: ST+1 [10]; HT+2 [20].

Secondary Characteristic Modifiers: HP+1 [2].

Advantages: Amphibious [10]; Doesn't Breathe (Oxygen Storage x50, -40%) [12]; Enhanced Move 1/2 (Water) [10]; Nictitating Membrane 1 [1]; Pressure Support 1 [5]; Resistant to Disease (+8) [5]; Resistant to Gaseous/Inhaled Poisons (+3) [3]; Temperature Tolerance 1 [1].

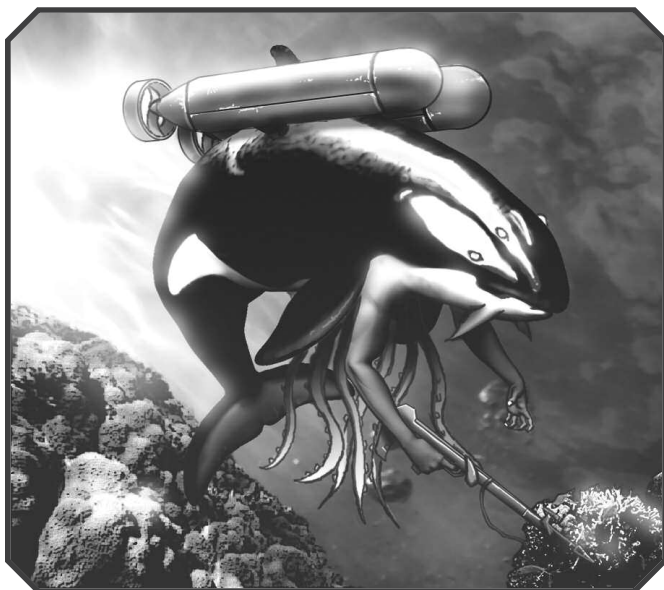
Perks: Immunity to Gas Narcosis. [1]

Disadvantages: Bioroid Body [-4].

Features: Aquatic Adaptations (Smooth mottled gray or black skin; webbed fingers and toes); Unaffected by SAD (p. 8).

Date: 2082.

Cost: \$135,000.



Purushmachh

see *Under Pressure*, p. 42; -75 points

An extremely experimental design (only six individuals exist) with gill-like structures capable of extracting oxygen from seawater for limited periods before it has to switch to breathing air for at least five minutes. Being designed to operate in *warm* seas, and suffering heat loss problems at the best of times, a Purushmachh really needs a temperature range of 72° to 90° when in water. Having to work in cooler conditions can reduce its gill-function time and increase its subsequent recovery period at the GM's whim, as well as inflicting fatigue at an accelerated rate. Purushmachh also are designed to operate in a specific level of salinity, and find immersion in fresh or too-salty water very distressing.

As an experiment, pushing the limits of current technology on a tight budget, the current-generation Purushmachh suffers from other compromises, making for less-than-formidable individual specimens. Its creators are working hard to improve the design. At present, any Purushmachh encountered away from the lab or test areas is either on some kind of test run or a hunted escapee.

Attribute Modifiers: ST-1 [-10]; DX-1 [-20]; IQ-2 [-40].

Advantages: Amphibious [10]; Doesn't Breathe (Gills, -50%; Maximum Duration, 20 minutes, -25%) [5]; Nictitating Membrane 1 [1]; Pressure Support 1 [5].

Disadvantages: Bioroid Body [-4]; Weakness (Immersion in water of "wrong" salinity, Common; 1d per 5 minutes) [-20].

Quirks: Staid; Very temperature-sensitive when in water. [-2]

Features: Aquatic Adaptations (Smooth gray skin, webbed fingers and toes).

Date: 2098.

Cost: N/A.

Seawolf

see *Under Pressure*, p. 95; 127 points

A U.S. Navy combat model. Not available to civilian groups, so effectively LC2 or 1.

Attribute Modifiers: ST+1 [10]; DX+2 [40]; HT+1 [10].

Advantages: Acute Taste and Smell 2 [4]; Acute Vision 1 [2]; Amphibious [10]; Combat Reflexes [15]; Doesn't Breathe (Oxygen Storage x50, -40%) [12]; Enhanced Move 1/2 (Water) [5]; Fit [5]; Night Vision 5 [5]; Pressure Support 2 [10]; Resistant to Disease (+8) [5]; Temperature Tolerance 2 [2]; Versatile [5].

Disadvantages: Bioroid Body [-4]; Unattractive [-4]; Workaholic [-5].

Features: Aquatic Adaptations (Rubbery black skin; very light fur; webbed fingers); Unaffected by SAD (p. 8).

Date: 2085.

Cost: \$200,000.

Snow Viper

see *Under Pressure*, p. 94; 83 points

Another military model. It has extensive adaptations for arctic conditions analogous to those found on the Arctic Aquamorph

(p. 11), making it similarly uncomfortable in warmer conditions. Effectively LC2 or 1.

Attribute Modifiers: ST+1 [10]; HT+2 [20].

Secondary Characteristic Modifiers: Basic Speed+2.00 (Costs Fatigue, 1 FP per second, -10%) [36]; Basic Move-1 [-5]; Basic Move-1 (Ground Only, -60%) [-2].

Advantages: Amphibious [10]; Combat Reflexes [15]; Doesn't Breathe (Oxygen Storage x50, -40%) [12]; Nictitating Membrane 1 [1]; Pressure Support 1 [5]; Resistant to Disease (+8) [5]; Temperature Tolerance 3 [3].

Disadvantages: Bioroid Body [-4]; Overconfidence (12) [-5]; Short Arms (p. 7) [-10]; Ugly [-8].

Features: Arctic/Aquatic Modifications (Very thick black skin; webbed fingers and toes).

Date: 2097.

Cost: \$216,000.

As an experiment, pushing the limits of current technology on a tight budget, the current-generation Purushmachh suffers from other compromises, making for less-than-formidable individual specimens.

BUSR

see *Broken Dreams*, p. 121; 9 points

A worker design found only in the Islamic Caliphate, often used for hazardous, life-shortening tasks. LC2 there, and effectively LC1 or 0 in most other areas.

Attribute Modifiers: ST+2 [20]; IQ-2 [-40] HT+2 [20].

Advantages: Breath-Holding 2 [4]; Damage Resistance 2 (Tough Skin, -40%) [6]; Discriminatory Smell [15]; Filter Lungs [5]; Lifting ST 3 [9]; Nictitating Membrane 1 [1]; Resistant to Disease (+8) [5]; Resistant to Poison (+3) [5].

Disadvantages: Bad Smell [-10]; Bioroid Body [-4]; Monstrous [-20]; Selfless (9) [-7].

Features: Radical Transgenic Features (Green skin derived from rhinoceros hide; head set deep into the frame of the body; very large unblinking eyes); Sexless.

Date: 2087.

Cost: \$75,000.

CHRONOS

62 points

The Chronos is a distinctly military bioroid model, designed for unsupported patrol and counterinsurgency operations – and, few doubt, to serve as a terror weapon. Chronos-series bioroids are optimized for tracking and spotting the enemy, and react to ambushes by shifting into biological overdrive.

They are lean and muscular, with canine muzzles and sharp teeth, but large mouse-like ears and eyes. Their bodies are covered with short gray fur. Their tissues include transgenic material from human, canine, rodent, and shark sources. They possess modified stomachs so they can live off the land, and bone marrow and adrenal gland upgrades to improve emergency response and health.

Simply making all this work together is a masterpiece of bioengineering. The compromises that give the Chronos a short functional lifespan aren't considered a serious problem in a military design, and indeed may have been left in deliberately. However, many people involved in bioroid manufacture regard the mere existence of the design as one of the worst memetic problems they face – any hostile discussion of their business as “making monsters” ends up referring to the Chronos eventually. The design is effectively LC1.

It was created by a previously unknown company, originally registered in Argentina, with no other known products to its name; the rights have subsequently changed hands several times, almost always to short-lived shell companies. Actual production is licensed to local operations around the world. So far as investigators can tell, this shell-game operation represents a one-off collaboration between several mid-sized biotech companies, all of whom are carefully protective of their public images and object to any public suggestion that they are responsible for the Chronos. Curiously, although information regarding the design has shown up occasionally on the TSA Web, very few Chronos troops have

ever appeared in nanosocialist forces. Apparently, the Directorates of Defense and of Theory and Praxis have reached a calculated position that *not* using the Chronos garners propaganda advantages that outweigh any military benefits from deploying it.

Attribute Modifiers: ST+2 [20]; DX+1 [20]; IQ-1 [-20]; HT+1 [10].

Secondary Characteristic Modifiers: Per+2 [10]; FP+3 [9]; Basic Speed+1.00 (Costs Fatigue, 2 FP, -10%) [18].

Advantages: Acute Hearing 2 [4]; Combat Reflexes [15]; Discriminatory Smell [15]; Fangs [2]; High Pain Threshold [10]; Single-Minded [5]; Reduced Consumption 2 (Cast-Iron Stomach, -50%) [2]; Very Rapid Healing [15].

Perks: Fur. [1]

Disadvantages: Bioroid Body [-4]; Bloodlust (12) [-10]; Disturbing Voice [-10]; Low Empathy [-20]; Self-Destruct [-10]; Short Lifespan 2 [-20].

Features: Multiple transgenic features (see description).

Date: 2087.

Cost: \$112,000.

CLARKE-1 VAC

see *High Frontier*, p. 92; 15 points

A bioroid model designed as a space worker, adapted to freefall and able to tolerate short periods of exposure to vacuum. All Vacs are fitted with implant communicators.

Bioroids and Gender

From some points of view, there is no reason why most bioroids should have human-style gender or sexual characteristics or impulses. They're mostly based on a human-like body-plan, certainly, but in some ways, it's *easier* to build them with minimal gender-specific features. Indeed, some bioroids are designed and built as sexless beings – but most are not.

This strikes some people as odd. Some bioroids are designed as sex toys or companions, certainly, but most aren't, and the sex-toy function is widely regarded as the least reputable aspect of the industry. Giving bioroids who don't need it identifiable gender may remind observers of the subject, causing memetic problems. This is in fact one reason why some bioroids are built with no active gender.

The reasons why most are nonetheless made “male” or “female” are varied and complex, including a lot of historical accident. The main one is that many are designed to fit into human society as comfortably as possible, and total sexlessness can strike humans as “uncanny” or “creepy.” Even if bioroids are never going to form sexual relationships, with humans or each other, humans seem to accept and value them more if they can refer to them as “he” or “she,” rather than “it.” Also, quite a few basic bioroid architectures were created to permit a *wide* range of options; even if one design has no use for gender, a related model from the same manufacturer may be a sex toy. For that matter, many early designs were based more closely on

human genetics than the industry would like to admit. Some bioroids that work in groups, including *some* military designs, are even encouraged to form limited in-group sexual relationships as a way of boosting cohesion and loyalty – although that can lead to complications and has to be monitored carefully by supervisors.

Few bioroids other than sex toys have very strong sex drives, as their hormonal systems tend to be set “quiet” – a worker-model bioroid with full-on Lecherousness would be considered *odd*. Nonetheless, the complexities of psychological development, and the well-trained bioroid tendency to go along with anything a human suggests, can lead to an extended range of relationship-related behaviors.

In game terms, some bioroids have “Sexless” on their character sheets. If they are intended to be integrated fully into human society, this can rate as a quirk (p. B165), as some humans will regard it as an oddity. On models where it is commonplace or standard, it is a 0-point feature, being considered normal in those cases. Some templates have been given this as standard, because they seem highly unlikely to be gendered by design. Other types, especially military or worker models, could certainly have it added if the GM thinks that this is more plausible. Many common models can be built sexless, either as a “catalog option” for no extra charge or as a special order with nominal cost. Some purchasers like the idea, but most are too used to thinking in gendered terms.

Attribute Modifiers: ST-2 [-20].

Advantages: +1 to Breath Control [2]; +1 to Free Fall [2]; 3D Spatial Sense [10]; Damage Resistance 1 (Tough Skin, -40%) [3]; Doesn't Breathe (Oxygen Storage $\times 25$, -50%) [10]; Extra Arms 2 (Foot Manipulators, -30%; Short, -50%) [4]; Lifting ST 1 [3]; Nictitating Membrane 1 [1]; Radiation Tolerance 5 (p. 6) [10]; Resistant to Disease (+8) [5]; Telecommunication (Radio; Reduced Range 1/10, -30%; Temporary Disadvantage, Electrical, -20%) [5]; Temperature Tolerance 10 [10]; Vacuum Support [5].

Disadvantages: Bioroid Body [-4]; Restricted Diet (Special/unusual nutrients; Occasional) [-30].

Quirks: Thin Frame (p. 7). [-1]

Features: Home gravity of 0 G; Slick, hairless skin that changes color in different lighting levels.

Date: 2073.

Cost: \$81,000.

Notes

The above stats represent more or less universal features of the Vac population. Clarke-1 Vacs are extremely tall and thin by most human standards – around 1' taller than a typical human with their ST, but 50% lighter than a normal human of that height. In addition, other features are common among Vacs, though not genetically determined: A Vow to donate a large proportion of their income (usually 2/3) to Clarke-1 is virtually universal. Disciplines of Faith (Mysticism) and Humble or Selfless are common, and Fanaticism (Christian Hyperevolutionism *or* Sapient Rights) is not unusual.



EUROPAN

see *Deep Beyond*, p. 112; 10 points

A humanoid being designed as an inhabitant of Europa by Avatar Klusterkorp. Its standard temperature comfort range is from -10° to 55° , and it is designed to live in pressures far greater than are ever encountered in Earth's oceans. This radical biological design in turn requires a rather exotic synthetic diet.

Secondary Characteristic Modifiers: FP+3 [9]; Basic Move-1 (Ground Only, -60%) [-2].

Advantages: Enhanced Move 1/2 (Water) [10]; Fit [5]; Longevity [2]; Nictitating Membrane 1 [1]; Night Vision 7 [7]; Temperature Tolerance 1 [1]; Vibration Sense (Water) [10].

Perks: Sanitized Metabolism. [1]

Disadvantages: Bioroid Body [-4]; Increased Life Support (Pressurized) [-10]; No Legs (Aquatic) [0]; Restricted Diet (Common) [-20].

Features: Doesn't Breathe (Gills, Water Only); Radically exotic design, including bioluminescent skin.

Date: 2090.

Cost: \$69,000.

HAMLIN

see *Broken Dreams*, p. 121; 124 points

A memetic warfare weapon (supposedly) created for Britain's MI-5 and trained to infiltrate and disrupt hostile groups and movements.

Attribute Modifiers: IQ+1 [20]; HT+1 [10].

Advantages: Combat Reflexes [15]; Fearlessness 2 [4]; Handsome/Beautiful [12]; Pheromone Control (Sex) [27]; Pheromone Control (Trust) [29]; Voice [10].

Perks: Passing Appearance (p. 6). [1]

Disadvantages: Bioroid Body [-4].

Features: Taboo Traits (Mental Instability).

Date: 2085.

Cost: \$375,000.

Notes

Remember to adjust the cost of this template according to the GM's decision about the effectiveness of pheromones in his campaign (see pp. 5 and 9-10).

A crucial improvement for any Hamlin infiltrating more sophisticated groups would be to change Bioroid Body to Concealed Bioroid Body (*Changing Times*, p. 43).

The *GURPS Third Edition* treatment of this type had "built-in" Charisma 2. The problem with this is that Charisma is something of an intangible, and is probably highly dependent on experience interacting with other people; designing it into a newly decanted bioroid would be very difficult. Hence, it has been replaced here with Pheromone Control (Trust), which will help the Hamlin gain access to organizations, leaving its Appearance and Voice to ensure it a leadership position. The GM is welcome to rearrange the template to fit his own concept of the design, possibly including Pheromone Control (Dominance) or even simple Charisma, presumably granted by very clever VR training.

The Hamlin may be more of a paranoid myth than a plausible bioroid design. Even if pheromone engineering is up to this task, educating a new bioroid to pass as a convincing, experienced political radical could be very difficult. A GM who doesn't want his game to feature such memetic super-weapons can still use the *idea* in play, though – as a dangerous rumor. The idea that governments might have access to such technologies will itself generate distrust within radical and subversive movements, directed especially at impressive or attractive leaders. Stories about the Hamlin may be spread – very carefully and subtly – as a memetic weapon in their own right.

Alternatively, this might just be a new incarnation of the ever-popular "evil state double agent" memeplex. Technological challenges aside, given the cost of developing such a bioroid, the problems if the plot was exposed, the danger involved in *giving* subversive movements charismatic leaders, and the difficulties inherent in maintaining a Hamlin's cover story (not to mention the tendency of radical movements to splinter without any outside encouragement), it hardly seems worth the effort. Or perhaps *they* just want people to think that.

As another possibility, the Hamlin may exist, but be nothing this good. Delete the IQ bonus and Pheromone Control, and give its Appearance the Off-the-Shelf Looks limitation, making the template cost 42 points. Assume that the bioroid is carefully briefed and closely managed by skilled handlers. These alterations put it within reach of the setting's technology, while still yielding a potentially effective infiltration agent.

HECATE

see *Fifth Wave*, p. 119; 51 points

A hazardous-materials cleanup-worker design, prone to short lives and widely considered a moral abomination, hence LC2 at best, and LC0 in many places.

Attribute Modifiers: ST+2 [20]; HT+2 [20].

Advantages: Breath-Holding 2 [4]; Discriminatory Smell [15]; Filter Lungs [5]; Immunity to Poison [15]; Lifting ST 2 [6]; Nictitating Membrane 1 [1].

Disadvantages: Bioroid Body [-4]; Selfless (9) [-7]; Short Lifespan 2 [-20]; Unattractive [-4].

Features: Highly distinctive appearance (hairless; bright lemon-yellow skin; eyes with nictitating membrane; thick muscles around the mouth and nose); Sexless.

Date: 2093.

Cost: \$69,000.

HOURI

see *Broken Dreams*, p. 122; 61 points

An always-female pleasure model, widespread in the Islamic Caliphate even though local society disapproves of the idea.

Attribute Modifiers: DX+1 [20], IQ-1 [-20], HT+2 [20].

Secondary Characteristic Modifiers: Will-1 [-5].

Advantages: +3 to Erotic Art [6]; Beautiful (Off-the-Shelf Looks, -50%) [6]; Breath-Holding 1 [2]; Fit [5]; Flexibility [5]; High Pain Threshold [10]; Immunity to Disease [10]; Sensitive [5].

Perks: Deep Sleeper; Sanitized Metabolism. [2]

Disadvantages: Bioroid Body [-4].

Quirks: Attentive. [-1]

Features: Taboo Traits (Mental Instability).

Date: 2078.

Cost: \$100,000.

Notes

In their normal situation in the Caliphate, Houris always have Social Stigma (Subjugated) and a Wealth level of Dead Broke (see *Changing Times*, p. 43). Many also have Secrets, because if the hidden establishments where they are held are exposed, they are likely to be killed. One that goes on the run usually gains some dangerous combination of Secret and Enemies. Even one that breaks the rules to a lesser extent, especially if she has raised IQ or Will, almost always ends up with significant extra problems.

Variations

Scheherazade: A more sophisticated variant, made as a personal luxury for the very wealthy. Remove the IQ penalty, change Appearance to Very Beautiful [16], and add Eidetic Memory [5] and Voice [10]. Most also have Public Speaking at

13+, and quite a few have the Passing Appearance perk (p. 6). The notes above on Houris social problems apply just as much to this type. *106 points.* (2082; \$300,000.)

MAY-I

see *In the Well*, p. 86; 24 points

Actually the Xiao Chu ZR-12, designed for service work and human interactions. Hidebound is an unintended feature, absent in about 25% of examples; a May-I known to lack this disadvantage costs an extra \$5,000.

Attribute Modifiers: HT+1 [10].

Secondary Characteristic Modifiers: Per+1 [5].

Advantages: Attractive [4]; Fearlessness 1 [2]; Language Talent [10]; Lightning Calculator [2].

Disadvantages: Bioroid Body [-4]; Hidebound [-5].

Date: 2074.

Cost: \$97,000.

OMOKAGE LABS SLAVE DESIGNS

As *Deep Beyond* explains on p. 107, Omokage Laboratories is (as of 2100) a biotech design consultancy, based in Liang Mountain in the Belt. The company creates a range of technologies, including bioroids, for others to construct. However, Omokage are noted for their complete lack of conventional ethics, and their engineers seem to regard the creation of extreme or perverse bioroids as the sort of challenge that makes their jobs interesting. Their designs are often distinctive for this reason, whoever may conduct the actual manufacture.

Algonaut

see *Deep Beyond*, p. 112; 104 points

A pleasure bioroid specifically designed for sadistic owners – LC0 in most jurisdictions.

Attribute Modifiers: ST-2 [-20]; HT+3 [30].

Secondary Characteristic Modifiers: Will-1 [-5].

Advantages: +2 to Artist (Slink Creation) [4]; Breath-Holding 4 [8]; Flexibility [5]; Handsome/Beautiful [12]; Hard to Kill 2 [4]; Immunity to Disease [10]; Less Sleep 3 [6]; Lifting ST 2 [6]; Recovery [10]; Regrowth (Minor, -50%) [20]; Resistant to Acceleration (+3) [1]; Temperature Tolerance 2 [2]; Very Fit [15]; Very Rapid Healing [15].

Perks: Sanitized Metabolism. [1]

Disadvantages: Bioroid Body [-4]; Low Pain Threshold [-10]; Lecherousness (9; Only if afraid or helpless, -70%) [-6].

Date: 2095.

Cost: \$186,000.

Variations

Algonaut Bioshell: A common option, as persuading an organic brain to act the way that some owners want is difficult, while other owners are actually ethical enough not to want their toy to be self-aware. Rumors say that other bioshell Algonauts are used as assassins. For such bioshells, “Immunity to Disease” increases to “Immunity to Metabolic Hazards” for the skull hit location only; applying the -70% limitation for this to the 20 points for the increase makes the cost of this [6].

Also, delete the Will modifier, Artist skill bonus, Less Sleep, Low Pain Threshold, and Lecherousness. Then add Absolute Direction (Requires Signal, -20%) [4], Telecommunication (Cable Jack; Sense, +80%) [9], Telecommunication (Radio; Sense, +80%) [18], Accessory (Small Computer) [1], and Electrical (Partial, Skull hit location only, -70%) [-6]. This makes the template cost 147 points.

Free Algonaut: A very few Algonauts have been rescued from their creators before their psychological conditioning could become too well-embedded. They are provided with psychological and medical therapy that makes them socially functional in places where bioroids have legal rights. They still need special nanodrug treatments; these represent a Mitigator (weekly, needs special prescription), worth -60%, to their Low Pain Threshold and Lecherousness disadvantages. This changes the values of these to -4 points each, thus making the total template worth 112 points. Most free Algonauts withdraw from their mitigator drugs for short periods from time to time, in situations when they feel they can trust everyone around them absolutely; their design and conditioning run deep, and they dislike denying their fundamental natures as much as they hate the people who made them like this. *All* of them are now working against the people who designed or built them.

Bīngmǎyǒng

43 points

Not all security/bodyguard bioroids have to be stylish fashion accessories who can double as courtesans. Some pragmatic customers, including quite a few successful Triad bosses, just want squads of solidly reliable goons who do as they're told and handle both melee weapons and guns effectively. Omokage have a design to meet this specification.

Bīngmǎyǒng (“terracotta warriors”) are solidly built bioroids with plain features. They usually have a little head hair but no facial hair, and they never smile. They are made unimaginative and sexless, precluding many commonplace subversion methods. Their standard conditioning gives them no sense of others' pain, but they like making their “masters” happy and gain an almost ecstatic pleasure from obedience to authority. The only problem is that the conditioning that makes them so loyal makes it hard to reassign them once they have been given a leader, but few owners worry about that.

Bīngmǎyǒng have various minor features that make them good soldiers. Some receive biomods or nanomods to enhance them further or to fit them for specific conditions such as high radiation or the Martian environment. They need leadership, though; Bīngmǎyǒng teams are usually coordinated by networked specialist AI systems, which provide any tactical ingenuity they may require.

Attribute Modifiers: ST+2 [20]; DX+1 [20]; IQ-2 [-40]; HT+2 [20].

Secondary Characteristic Modifiers: Will+2 [10]; Per+3 [15].

Advantages: Combat Reflexes [15]; Fearlessness 2 [4]; High Pain Threshold [10]; Less Sleep 2 [4].

Perks: Deep Sleeper; Sanitized Metabolism. [2]

Disadvantages: Bioroid Body [-4]; Callous [-5]; Fanaticism (assigned “commander”) [-15]; Hidebound [-5]; Truthfulness (15) [-2]; Unattractive [-4].

Quirks: Humble; Staid. [-2]

Features: Closely resembles others of the same “model”; Sexless.

Date: 2093.

Cost: \$95,000.

Variations

Early Bīngmǎyǒng were often overengineered to their psychological specification; the Slave Mentality disadvantage was not unusual in the first production run, replacing Hidebound (reduce the template cost to 8 points). Some current customers actually still ask for this, although it makes the bioroid dangerously easy for anyone to influence. Cash cost for those early “flawed” models was reduced to \$60,000, but any built with Slave Mentality as a deliberate feature tend to go at near the normal price for the type – the customer can't expect to pay *less* to get something they say they want.

Omokage are currently working on a “zero-G” Bīngmǎyǒng variant, with a second pair of arms replacing their legs and intensive preparation for free fall operations. Add Extra Arms 2 (Foot Manipulators, -30%) [14], and Free Fall (A) DX [2] as a racial skill, increasing template cost to 59 points and price to \$165,000. However, market demand isn't quite high enough yet; the predicted price tag may simply be too much.

Elf Kitten

see *Deep Beyond*, p. 112; -6 points

A cat-girl bed-warmer. Confusing these with Felicias is a great way to annoy a Felicia.

Attribute Modifiers: ST-2 [-20]; DX+1 [20]; IQ-1 [-20]; HT+2 [20].

Advantages: Longevity [2]; Radiation Tolerance 5 (p. 6) [10]; Versatile [5]; Very Handsome/Beautiful (Off-the-Shelf Looks, -50%) [8].

Perks: Sanitized Metabolism. [1]

Disadvantages: Bioroid Body [-4]; Cannot Speak [-15]; Lecherousness (12) [-15].

Features: Feline Style (Purr, pointy ears, etc.); Reflective Eyes (p. 8).

Racial Skills: Free Fall (A) DX [2].

Date: 2091.

Cost: \$50,000.

Leonardo

-17 points

For various reasons (see *Bioroid IQ*, p. 7), many regulatory systems limit the degree to which bioroid intelligence can be augmented. Omokage designers happily ignore such restrictions when money is on the table (or when conducting long-term research or for technical interest). The “Leonardo” is their most widely licensed general-purpose “high intelligence” bioroid design, advertised as providing levels of intuition, empathy, and imaginative flexibility that digital AIs cannot match. The standard training process for the type is highly specialized, but flexible and “modular.” The result is a niche product, but one sometimes found in various roles around the Belt or on Mars. As the design is generally illegal, Leonardo assignments are often criminal.

Ethics aside, whether the Leonardo lives up to the advertising is a matter for debate. Educating one in specific areas where high human-style intelligence is useful can be very tricky, and preventing it from developing inconvenient interests and foibles is even harder. The Leonardo training and conditioning system is designed to make these bioroids too compliant and focused to consider revolt. It usually works, but the results often look weird by normal human standards, at the very least.

There is simply no way to make this model immune to mental instability; the old line about genius being close to insanity is too nearly true.

Physically, a Leonardo resembles a slightly built human with long, delicate fingers. (“Brain work” sometimes requires fine physical manipulations.) The type always has a bald, bulging cranium. The bulge isn’t *very* pronounced but is noticeable. This may be deliberate – something intended as much to make the bioroid *look* intelligent to potential buyers as anything else. That enhanced brain has definite energy requirements, and the type’s exotic neurochemistry has some minor side effects, although neither is a major issue. Its speech centers have some difficulty synchronizing with its thoughts, leading to distinctive, repetitive speech patterns, and its teeming brain has trouble sleeping properly.

Attribute Modifiers: ST-3 [-30]; DX-1 [-20]; IQ+3 [60].

Secondary Characteristic Modifiers: Will-1 [-5]; Basic Speed-0.50 [-10].

Advantages: Eidetic Memory [5]; High Manual Dexterity 3 [15]; Lightning Calculator [2]; Single-Minded [5]; Versatile [5].

Perks: Sanitized Metabolism. [1]

Disadvantages: Bioroid Body [-4]; Callous [-5]; Easy to Kill 2 [-4]; Impulsiveness (12) [-10]; Insomniac (Mild; Mitigator, Weekly nanodrug treatment, special prescription, -60%) [-4]; Light Sleeper [-5]; Unattractive [-4]; Unfit [-5].

Quirks: Acceleration Weakness; Broad-Minded; Distinctive speech patterns; Slightly unusual dietary requirements. [-4]

Features: Closely resembles others of the same “model”; Sexless.

Date: 2096.

Cost: \$25,000.

Notes

The template defines a *baseline* for the Leonardo; almost all individuals receive further specialist training and conditioning before they even emerge from the growth tanks. In game terms, some have a significantly higher **GURPS** IQ than the relatively modest template level, but most end up with multiple levels of some Talent, plus training in appropriate skills. Add \$1,000 to the cost for every point spent on extra IQ or Talents, and \$100 for every point spent on skills. A Leonardo has the equivalent of extensive neural grafts included in the construction process; it *cannot* have its IQ increased further by standard brain-tissue graft biomods.

Leonardos frequently end up with additional psychological disadvantages, as attempts to ensure that they focus intently on some specific task generate unintended consequences, or attempts to ensure their loyalty work all too well. Chummy, Clueless, Curious, Delusions (usually something really weird concerning an assigned field of operation), Fanaticism (an assigned “master”), worse Impulsiveness, Obsession (assigned role in life), Odious Personal Habits,

Truthfulness, or Workaholic are common results. Notably, although some Leonardos are trained as social manipulators, with a good (if theoretical) grasp of human motivations, most of the rest are Oblivious, and some of them have Low Empathy. Low Pain Threshold is a common result of an upbringing with no exposure to physical discomfort. Psychological Addiction to cognition-enhancing drugs or nano is also possible, as determined Leonardos may pursue the goal of higher and higher intelligence past any safe limits.

Many Leonardos have extensive digital implant systems, complete with Ally AIs. One frequent assignment for the type is as a “living interface” between high-end networked computer systems and groups of organic humans. Those Leonardos usually have Computer Wizard Talent and multiple computer-related skills.

Nonhumanoid Bioroids

A very high proportion of bioroid types are humanoid, and in fact resemble humans – despite the fact that it is perfectly possible to give them completely different shapes (and sizes), subject only to broad engineering constraints. There are several reasons for this.

To begin with, bioroid technology originally derived from work in human medicine, which made this the simplest option a lot of the time in early days. Much more importantly, though, bioroids are usually intended to be low-maintenance servant/workers who can fit into human societies. A human-shaped, human-sized bioroid can use tools or weapons designed for humans most efficiently. Bioroids intended as sex toys mostly *have* to be even more human-like.

However, a few nonhumanoid bioroid models do exist, either based on other animals (or genetically modified animals) that fit well in specific situations or environments, or in roles where a very different shape is most useful (such as the Gillmorph, p. 19). Some radical designers consider the humanoid form a restrictive habit more than anything else, and many corporate memeticists note that inconvenient bioroid-rights campaigns gain strength because “sentimental” campaigners and their sympathizers so often “mistake the products for people.” Hence, more nonhumanoid bioroids may come on the market in the early years of the 22nd century.

Industry memeticists are trying to keep designers’ enthusiasm under control, though. Humanoid bioroids are fairly easy to sell as basically harmless, even if people have to be persuaded not to think of them as *too* human. Worker bioroids with “robust outer casings” (scaly skins) and “multiple flexible work arms” (masses of tentacles) could be a nightmare to sell – almost literally.

RODOSHA

51 points

The Rodosha is a Japanese model designed to help compensate for that country’s perennial shortage of human workers. Hence, it is often seen as less “exotic” than many bioroid types, despite some interesting features. Most Rodosha certainly are employed in and psychologically conditioned for very routine tasks, and tend to be psychologically dependent on their managers and implant AIs. They often suffer from the Low Self-Image disadvantage, which is permitted as an exception to their Taboo Traits. Even so, Rodosha who lead more interesting lives often develop fairly interesting personalities.

Rodosha look like husky humans with bland expressions and nonthreatening body language, except that they are all bald and their skin has a strong blue tinge; they are designed never to be confused with humanity. Their fingers are long and almost delicate, but not freakishly so, and their movements are usually slow and steady. Most are male, with Asian-style features.

Rodosha are intended to be robust, deft, alert, and good team members (and not too expensive). Their exceptional low-frequency hearing was almost accidental, but turned out to have uses in industrial environments. They are also designed to be methodical and highly sociable. The areas of their brains that process social interaction are deliberately “cross-wired” to the pleasure/reward centers.

The vast majority of Rodosha are found in Japan, but a few have been exported, mostly to other PRA nations. Low-volume licensed production of the type takes place in Australia and India. The TSA’s Acquisitions Directorate has an interest in studying and reverse-engineering the design, or at least some of its features.

Attribute Modifiers: DX+1 [20]; HT+1 [10].
Secondary Characteristic Modifiers: HP+2 [4]; Per+2 [10]; FP+2 [6]; Basic Speed-0.25 [-5].
Advantages: High Manual Dexterity 2 [10]; Lifting ST 2 [6]; Night Vision 2 [2]; Resistant to Disease (+3) [3]; Subsonic Hearing [5].
Perks: Deep Sleeper. [1]
Disadvantages: Bioroid Body [-4]; Gregarious [-10]; Workaholic [-5].
Quirks: Attentive; Humble. [-2]
Features: Bald with blue-tinged skin; Closely resembles others of the same “model”; Taboo Traits (Mental Instability).
Date: 2075.
Cost: \$100,000.



SPARTAN

see *Fifth Wave*, p. 120; 56 points

A combat model intended to carry (and fire) heavy weapons. The Short Lifespan disadvantage reflects a design optimized for fast-growth manufacturing and the fact that there’s little perceived point in building heavy-duty combat

units to last *too* long. Additionally, high strength puts more stress on the bioroid’s metabolism.

Attribute Modifiers: ST+3 [30]; HT+1 [10].
Advantages: Combat Reflexes [15]; High Pain Threshold [10]; Lifting ST 3 [9].
Disadvantages: Bioroid Body [-4]; Short Lifespan 1 [-10]; Unattractive [-4].
Date: 2084.
Cost: \$160,000.

TIAOQI

see *In the Well*, p. 87; 41 points

An enforcer/bouncer model, mostly produced by the Martian Triads.

Attribute Modifiers: ST+3 (Size, -10%) [27]; HT+2 [20].
Secondary Characteristic Modifiers: SM +1.
Advantages: Damage Resistance 2 (Tough Skin, -40%) [6]; Hard to Kill 1 [2]; Rapid Healing [5]; Striking ST 1 (Size, -10%) [5]; Unfazeable [15].
Perks: Alcohol Tolerance. [1]
Disadvantages: Bioroid Body [-4]; Callous [-5]; Disturbing Voice [-10]; Hidebound [-5]; Hideous [-16].
Date: 2086.
Cost: \$141,000.

TITAN WRESTLER

see *Deep Beyond*, p. 115; 88 points

A huge, freakish bioshell type created for a publicity stunt/sport in the Deep Beyond. It is only physically functional in low gravities. Remember to add an infomorph (usually an LAI) to control each wrestler; this will usually be trained in a flamboyant fighting style – see *GURPS Martial Arts* for ideas.

Attribute Modifiers: ST+6 (Size, -20%) [48].
Secondary Characteristic Modifiers: SM +2; HP+9 (Size, -20%) [15].
Advantages: Absolute Direction (Requires Signal, -20%) [4]; Damage Resistance 2 (Tough Skin, -40%) [6]; Immunity to Metabolic Hazards (Partial, Skull hit location only, -70%) [9]; Striking ST 4 (Size, -20%) [16]; Telecommunication (Cable Jack; Sensie, +80%) [9].
Perks: Accessory (Small Computer). [1]
Disadvantages: Bioroid Body [-4]; Electrical (Partial, Skull hit location only, -70%) [-6]; Weakness (0.5 G or higher gravity; 1d per 30 minutes; Common) [-10].
Features: Home gravity of 0.14 G (totally nonfunctional in gravity greater than 0.5 G); Sexless.
Date: 2085.
Cost: \$275,000.

Variations

The following are some active Titan Wrestlers.

Bigger Daddy: Change SM to +3 (reflecting bulk rather than height), ST to +9 (Size, -30%) [63], HP to +15 (Size, -30%) [21], and Striking ST to 4 (Size, -30%) [14]. *107 points.* (\$295,000.)

Thunder Lizard: Change Damage Resistance to 3 (Flexible, -20%) [12], and add Fangs [2], Sharp Claws [5], Striker (Crushing) [5], and Scales (p. 6) [1]. *107 points.* (\$295,000.)

Whiplash Warrior: Delete the extra HP, change Striking ST to 5 (Size, -20%) [20], and add Constriction Attack [15], Enhanced Parry 1 (Bare Hands) [5], Flexibility [5], and Sharp Claws [5]. 107 points. (\$295,000.)



TRIAD PLEASURE MODELS

see *In the Well*, pp. 87-88

Products of one of the Martian Triads' most profitable lines of work: black-market or merely dubious companions and sex toys. As the products of criminal activity, these are all effectively at least LC3.

Budget Model

-20 points

Very much what the name implies.

Attribute Modifiers: ST-1 [-10].

Advantages: Handsome/Beautiful [12]; Resistant to Disease (+8) [5].

Perks: Extreme Sexual Dimorphism 2 (p. 6). [2]

Disadvantages: Bioroid Body [-4]; Impulsiveness (12) [-10]; Lecherousness (12) [-15].

Date: 2082.

Cost: \$55,000.

Eros

20 points

The mainstay of the Triad bioroid business.

Attribute Modifiers: ST-1 [-10]; HT+1 [10].

Advantages: Pheromone Control (Sex) [27]; Resistant to Disease (+8) [5]; Very Handsome/Beautiful [16].

Perks: Deep Sleeper; Extreme Sexual Dimorphism 3 (p. 6); No Hangover; Sanitized Metabolism. [6]

Disadvantages: Bioroid Body [-4]; Impulsiveness (9) [-15]; Lecherousness (12) [-15].

Date: 2082.

Cost: \$112,000.

Notes

Remember to adjust the cost of this template according to the GM's decision about the effectiveness of pheromones in his campaign (see pp. 5 and 9-10).

Girl/Boy Next Door

6 points

A design for people looking for a more "normal" companion.

Attribute Modifiers: ST-1 [-10]; HT+1 [10].

Advantages: Handsome/Beautiful [12]; Resistant to Disease (+8) [5].

Perks: Deep Sleeper; No Hangover; Sanitized Metabolism. [3]

Disadvantages: Bioroid Body [-4]; Impulsiveness (12) [-10].

Date: 2083.

Cost: \$94,000.

Huli

56 points

A "furry" fox-girl/boy.

Attribute Modifiers: ST-1 [-10]; DX+1 [20]; HT+1 [10].

Advantages: Acute Hearing 1 [2]; Flexibility [5]; Handsome/Beautiful [12]; Perfect Balance [15]; Pheromone Control (Sex) [27]; Resistant to Disease (+8) [5]; Temperature Tolerance 1 [1].

Perks: Deep Sleeper; Fur; Sanitized Metabolism. [3]

Disadvantages: Bioroid Body [-4]; Impulsiveness (9) [-15]; Lecherousness (12) [-15].

Date: 2087.

Cost: \$138,000.

Notes

Remember to adjust the cost of this template according to the GM's decision about the effectiveness of pheromones in his campaign (see pp. 5 and 9-10).

Nyame

52 points

An exotic hermaphromorph model. Most Nyames have a very androgynous appearance. However, some subtypes remove Androgynous from their Appearance.

Attribute Modifiers: HT+2 [20].

Advantages: Handsome/Beautiful (Androgynous) [12]; Hermaphromorph [5]; Pheromone Control (Sex) [27]; Resistant to Disease (+8) [5].

Perks: Deep Sleeper; Sanitized Metabolism. [2]

Disadvantages: Bioroid Body [-4]; Lecherousness (12) [-15].

Date: 2090.

Cost: \$152,000.

Notes

Remember to adjust the cost of this template according to the GM's decision about the effectiveness of pheromones in his campaign (see pp. 5 and 9-10).

Submissa

49 points

A robust toy for those who want to play rough.

Attribute Modifiers: HT+3 [30].

Secondary Characteristic Modifiers: Will-1 [-5].

Advantages: Damage Resistance 1 (Tough Skin, -40%) [3]; Resistant to Disease (+8) [5]; Very Handsome/Beautiful [16]; Very Rapid Healing [15].

Perks: Extreme Sexual Dimorphism 3 (p. 6); Sanitized Metabolism. [4]

Disadvantages: Bioroid Body [-4]; Lecherousness (12) [-15].

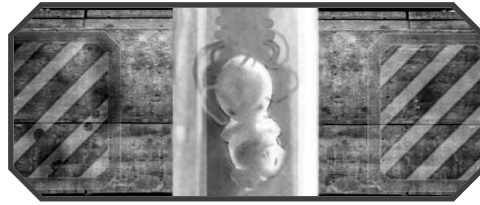
Date: 2085.

Cost: \$137,000.

VALKYRIE

see *In the Well*,
p. 87; 114 points

A Triad-designed combined pleasure/combat model.



Attribute Modifiers: ST+1 [10]; DX+2 [40]; HT+2 [20].

Advantages: Beautiful [12]; Breath-Holding 1 [2]; Combat Reflexes [15]; High Pain Threshold [10]; Less Sleep 2 [4]; Pheromone Control (Dominance) [8]; Pheromone Control (Sex) [27]; Resistant to Disease (+8) [5]; Resistant to Poison (+3) [5].

Disadvantages: Bad Temper (12) [-10]; Bioroid Body [-4]; Gluttony (12) [-5]; Impulsiveness (12) [-10]; Lecherousness (12) [-15].

Date: 2088.

Cost: \$173,000.

Notes

Remember to adjust the cost of this template according to the GM's decision about the effectiveness of pheromones in his campaign (see pp. 5 and 9-10).

The standard template makes for a rather unstable protector. Some Valkyries – especially those intended as bodyguards first, attractive companions second – may not have Lecherousness or use of sex pheromones (or for that matter the Dominance type). Some purchasers may prefer them not to have Impulsiveness. Perfume Glands (p. 9) could make a good replacement for the Pheromone Control; a bodyguard can smell nice and still do her job.

VOID FLYER

see *Deep Beyond*, p. 116; 35 points

An exotic design from Kosmozavot Tenno Tanjo, able to survive unprotected in space for an hour or more.

Attribute Modifiers: ST-1 [-10].

Secondary Characteristic Modifiers: HP-1 [-2].

Advantages: 3D Spatial Sense [10]; Damage Resistance 1 (Tough Skin, -40%) [3]; Doesn't Breathe (Oxygen Storage x50, -40%) [12]; Extra Arms 2 (Foot Manipulators, -30%; Short, -50%) [4]; Handsome/Beautiful (Off-the-Shelf Looks, -50%) [6]; Nictitating Membrane 1 [1]; Radiation Tolerance 5 (p. 6) [10]; Resistant to Disease (+8) [5]; Temperature Tolerance 10 [10]; Vacuum Support [5].

Perks: Sanitized Metabolism. [1]

Disadvantages: Bioroid Body [-4]; G-Intolerance (0.05 G increment) [-20].

Features: Home gravity of 0 G; Taboo Traits (Mental Instability); Vacuum-adapted physiology (Smooth, jet black skin; long hair that acts as a heat radiator).

Racial Skills: Free Fall (A) DX+1 [4].

Date: 2092.

Cost: \$100,000.

Variations

Void Dancer: KTT's long-term intention is to produce a parahuman who can pass on these abilities to offspring. However, that is infeasible at current levels of biotechnological development. Anything approaching this goal would have to include multiple design compromises, some of them with significant ethical implications.

Void Soldier: The military version of the Void Flyer. Add Combat Reflexes [15] and High Pain Threshold [10]; the template value becomes 60 points, and the cost \$125,000.

ZR-23: Another military model, similar to the Void Soldier, still under development by Xiao Chu. The company has attempted to incorporate more combat-useful features while mixing original design and features copied from KTT (*probably* without industrial espionage). To represent current prototypes, use the Void Flyer template but delete the Appearance, add Combat Reflexes [15], and change the G-Intolerance disadvantage to (0.1 G increment) [-10]. However, problems with the neurological and physiological design mean that it also adds DX-1 [-20] and HT-1 [-10], and changes the HP to -3 [-6]; the template value thus becomes 20 points. Production units will probably be significantly improved from this.

XENOCOP

see *Fifth Wave*, p. 120; 107 points

A U.S. design, intended for use in law-enforcement and security work. It is built to be fast and capable, and to inspire trust among humans.

Attribute Modifiers: DX+1 [20]; IQ+1 [20].

Secondary Characteristic Modifiers: Per+2 [10]; FP+3 [9]; Basic Speed+1.00 [20].

Advantages: Attractive [4]; Combat Reflexes [15]; Fit [5]; Hard to Kill 2 [4]; Voice [10].

Disadvantages: Bioroid Body [-4]; Selfless (12) [-5].

Quirks: Attentive. [-1]

Features: Taboo Traits (Mental Instability; Unattractiveness, p. 8).

Date: 2089.

Cost: \$138,000.

Notes

The original template for this type included Short Lifespan, but there is no obvious reason for that to be present, so it has been excluded here. (Strictly speaking, the cost should be increased by \$10,000 to reflect this.) A GM who wants to retain consistency, or to emphasize the nature of bioroids as manufactured products, can simply put Short Lifespan 1 back into the template, reducing the total value by 10 points.

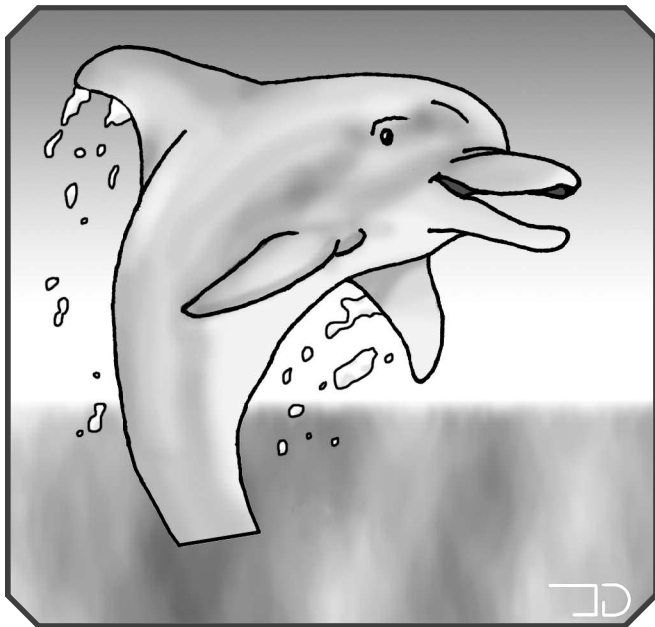
CHAPTER FOUR

UPLIFTED

ANIMALS

The templates given here cover various sorts of uplifted or modified animals that may make appropriate player characters in some campaigns. Genetically engineering animals for near-human intelligence has proven strictly a niche activity in economic terms. They are often regarded as a rather vulgar bit of showing off by academics in the field of applied genetic engineering. Still, some types have proven moderately useful in limited roles.

These templates generally include Social Stigma (Valuable Property), as that is pretty much the universal situation for such creatures, and Dead Broke, because something that is regarded as property cannot itself own anything. Some uplifted animals might be able to make a case for greater civil rights in some broad-minded jurisdictions. In such situations, the creatures could have a different Social Stigma (or even none at all) and some higher Wealth level.



DOOLITTLE DOLPHIN

see *Under Pressure*, p. 101; 14 points

A dolphin raised to near-human intelligence by genetic engineering, at the expense of mental stability, alertness, and instinct. Note that a Doolittle's "native" language is always a

human tongue; their brains have been changed too much for them to process natural dolphin speech. They need external hardware (and a computer of some kind) to produce comprehensible speech.

Attribute Modifiers: ST+4 (No Fine Manipulators, -40%; Size, -10%) [20]; DX+3 (No Fine Manipulators, -40%) [36]; IQ-2 [-40]; HT+1 [10].

Secondary Characteristic Modifiers: SM +1; Will+2 [10]; Per+2 [10].

Advantages: Acute Hearing 4 [8]; Doesn't Breathe (Oxygen Storage $\times 100$, -30%) [14]; Enhanced Move 1 (Water) [20]; Enhanced Tracking 1 [5]; Injury Tolerance (No Neck) [5]; Nictitating Membrane 1 [1]; Peripheral Vision [15]; Pressure Support 2 [10]; Scanning Sense (Sonar; Reduced Range 1/5, -20%) [16]; Temperature Tolerance 1 [1]; Ultrasonic Speech [10].

Disadvantages: Cannot Speak (Mitigator, Vulnerable, External loudspeakers with computer connections, -60%) [-6]; Dead Broke [-25]; Hidebound [-5]; Innumerate [-5]; Native Language reduced to Spoken (Accented)/Written (Broken) [-3]; No Legs (Aquatic) [0]; No Manipulators [-50]; No Sense of Smell/Taste (Can taste, -50%) [-2]; Short Lifespan 1 [-10]; Social Stigma (Valuable Property) [-10]; Stress Atavism (12; Severe) [-20].

Quirks: Distractible. [-1]

Date: 2059.

Cost: \$80,000.

Notes and Variations

Some larger specimens may be SM +2. For these, change ST to +7 (No Fine Manipulators, -40%; Size, -20%) [28], increasing the template value to 22 points.

A substantial minority of Doolittles experience severe personality disorders shortly after reaching maturity. In game terms, the most common symptoms are various combinations of Bestial, Bully, Incurious, Low Empathy, Manic-Depressive, Paranoia, and Slave Mentality. These often first develop after an episode of Stress Atavism. In some cases, they manifest only during such episodes – see the rules for Stress Atavism (pp. B156-157). These need not count against campaign disadvantage limits, at the GM's option.

The Doolittle germline has recently been developed further:

Delphis: Change IQ to -1 [-20], Per to +1 [5], and Will to +1 [5]. Remove Hidebound, Innumerate, and the limitations on Native Language. Change Stress Atavism to (Moderate) (15) [-7].

Delphis can suffer the same sort of personality disorders as Doolittles, but this is rare. They are one species with a very good chance of acquiring substantial civil rights in many areas. 50 points. (\$122,000; 2084.)

*Not to go on all-fours; that
is the Law. Are we not Men?
– H.G. Wells, The Island
of Doctor Moreau*

GANESH

see *Fifth Wave*, p. 120; 150 points

An uplifted elephant, most often encountered as a worker animal – but smarter than that implies.

Attribute Modifiers: ST+35 (Size, -30%) [245]; DX+2 [40]; IQ-2 [-40]; HT+2 [20].

Secondary Characteristic Modifiers: SM +3; Will+2 [10]; Per+1 [5]; Basic Speed-2.00 [-40].

Advantages: Acute Hearing 1 [2]; Extra-Flexible Arm* [5]; Long Arm (+1 SM)* [10]; Damage Resistance 4 (Tough Skin, -40%) [12]; Extra Legs (Four Legs) [5]; Less Sleep 4 [8]; Peripheral Vision [15]; Subsonic Speech [10].

Perks: Penetrating Voice. [1]

Disadvantages: Bad Grip 3 [-15]; Cannot Speak [-15]; Chummy [-5]; Dead Broke [-25]; Horizontal [-10]; Increased Consumption 1 [-10]; Increased Life Support (Massive) [-10]; Innumerate [-5]; No Depth Perception [-15]; One Arm [-20]; Social Stigma (Valuable property) [-10]; Stress Atavism (12; Mild) [-10]; Weak Arm (1/4 ST)* [-5].

Quirks: Cannot Jump (p. 7); Dull; Staid. [-3]

Features: Taboo Trait (Fixed IQ, p. 8).

Date: 2081.

Cost: \$351,000.

* Apply the modifiers Extra-Flexible (+50%), Long, +1 SM (+100%), and Weak, 1/4 ST (-50%) for Extra Arms to a single “arm” (the elephant’s trunk).

MONKEY PLUS

see *Fifth Wave*, p. 120; -65 points

An uplifted monkey, intended as a pet/companion. Being based on a tropical species, it has a preferred temperature range of 55°-123°.

Attribute Modifiers: ST-6 [-60]; DX+3 [60]; IQ-3 [-60]; HT+3 [30].

Secondary Characteristic Modifiers: SM -4; Will+3 [15]; Per+3 [15]; Basic Speed+0.50 [10].

Advantages: Acute Hearing 2 [4]; Brachiator [5]; Extra Arm 1 (No Physical Attack, -50%; Short, -50%) [2]; Temperature Tolerance 1 [1].

Perks: Fur. [1]

Disadvantages: Chummy [-5]; Dead Broke [-25]; Innumerate [-5]; Semi-Upright [-5]; Short Arms (p. 7) [-10]; Short

Lifespan 1 [-10]; Sleepy (1/2 the time) [-8]; Social Stigma (Valuable Property) [-10]; Stuttering [-10].

Features: Taboo Trait (Fixed IQ, p. 8; Genetic Defects).

Date: 2082.

Cost: \$50,000.

NEO-PINNIPED

see *Fifth Wave*, p. 121; -6 points

An uplifted sea lion, employed by both military and civilian organizations for shallow-water work.

Attribute Modifiers: ST+3 (No Fine Manipulators, -40%; Size, -10%) [15]; DX+2 (No Fine Manipulators, -40%) [24]; IQ-2 [-40]; HT+2 [20].

Secondary Characteristic Modifiers: SM +1; Will+2 [10]; Per+2 [10]; Basic Move-3 (Ground Only, -60%) [-6].

Advantages: 3D Spatial Sense [10]; Acute Taste and Smell 2 [4]; Amphibious [10]; Combat Reflexes [15]; Damage Resistance 1 (Flexible, -20%) [4]; Doesn’t Breathe (Oxygen Storage ×100, -30%) [14]; Enhanced Move 1 (Water) [20]; Pressure Support 1 [5]; Sharp Teeth [1]; Temperature Tolerance 1 [1]; Vibration Sense (Water) [10].

Perks: Fur. [1]

Disadvantages: Chummy [-5]; Colorblindness [-10]; Dead Broke [-25]; Increased Life Support (Massive) [-10]; Innumerate [-5]; Quadruped [-35]; Short Legs (p. 7) [-2]; Short Lifespan 1 [-10]; Social Stigma (Valuable Property) [-10]; Stress Atavism (12; Mild) [-10]; Stuttering [-10].

Quirks: Distractible; Dull. [-2]

Features: Early Maturation 1; Taboo Trait (Fixed IQ, p. 8).

Date: 2079.

Cost: \$50,000.

RAT KING

see *Deep Beyond*, p. 114; 0 points

Rat kings are groups of uplifted and cybernetically enhanced rats, capable of functioning as a gestalt intelligence. The template represents one member of a pack of 11 or more individuals.

Attribute Modifiers: ST-8 [-80]; DX+3 [60]; IQ-1 [-20]; HT+3 [30].

Secondary Characteristic Modifiers: Per+4 [20].

Advantages: Acute Taste and Smell 4 [8]; Enhanced Time Sense [45]; Mind Reading (Racial, -20%; Sensory, +20%; Telecommunication, -20%) [24]; Mindlink (To Allies; 10-99 beings; Racial, -20%; Sensory, +20%; Telecommunication, -20%) [16]; Night Vision 5 [5]; Peripheral Vision [15]; Reduced Consumption 4 (Cast-Iron Stomach, -50%) [4]; Resistant to Disease (+8) [5]; Sharp Teeth [1]; Telecommunication (Infrared; Reduced Range 1/2, -10%) [9]; Telecommunication (Radio; Reduced Range 1/5, -20%) [8]; Temperature Tolerance 1 [1]; Vibration Sense (Air; Only works within 4 yards, -20%) [8].

Perks: Fur; No Degeneration in Zero-G. [2]

Disadvantages: Bad Grip 1 [-5]; Cannot Speak [-15]; Colorblindness [-10]; Dead Broke [-25]; Electrical [-20]; Gregarious [-10]; Horizontal [-10]; No Depth Perception [-15]; Short Arms (p. 7) [-10]; Short Lifespan 2 [-20]; Sleepy (1/2 the time) [-8]; Ugly [-8]; Unusual Biochemistry [-5].

Quirks: Phobic response to loss of contact with its pack. [-1]

Racial Skills: Urban Survival (A) Per-1 [1].

Features: Sterile.

Date: 2097.

Cost: N/A.

Notes

See *Deep Beyond* for typical skills. Smaller packs are possible; in a group of 10 or less, the Mindlink advantage costs just 8 points.

Because of their history, rat kings are generally regarded less as property than as the dangerous products of mad (or at least highly *unwise*) science. Thus, their social disadvantages vary with their current base of operations. A pack that has fallen into the hands of EDI would have Social Stigma (Subjugated) if it was *lucky*, while one on the loose in Vesta would have EDI as a major Enemy. One that escaped into the wider outer system could have anything from Second-Class Citizen up to Monster, depending on how it interacts with other beings – but it would surely still have Enemies.

Most rat kings are Dead Broke, having no access to physical resources. However, one that, say, formed part of an activist group might have some functional assets, allowing this disadvantage to be reduced or eliminated.

The Electrical disadvantage here represents the rat's effectively total dependence on its digital implants. Shut those down, and the loss of accustomed cognitive, communication, and sensory ability will leave the creature helpless.

Gregarious represents its need to remain in telecommunication contact as a group, and hence works in a slightly variant way: So long as contact persists, each member of the pack can operate without penalty, even if out of sight of other beings. Conversely, if the rat king loses contact with the others, it immediately takes the penalties for being alone, which in this case represent loss of gestalt intellectual capacity as much as emotional trauma – even if it has other friendly beings in sight. Sudden loss of contact would justify a Fright Check at +4 – or unmodified or at a penalty, if the rat has reason to believe that the pack is taking casualties.

Although this template doesn't include the Fixed IQ feature (p. 8), it would be very hard for a rat king to display an IQ much above 9. There's only so much intelligence that can be crammed into a rat-size brain, even with bleeding-edge microelectronic enhancements. However, a rat king might buy a point or two of extra IQ with a -40% limitation, "Group Assisted," meaning that it requires at least a half dozen other rats to be in contact with the character and doing *nothing* but standing motionless as they lend their brains and processing capacity to assist with some task.

Rat King PCs

To design a rat king as a player character, create the other members of the pack using the above template and add an appropriate Social Stigma, any other relevant disadvantages, and a reasonable number of minor advantages, skills, etc. Pack members will be worth around 10-60 points, depending on circumstances. Then, take *one* member of the pack as the PC and give it the rest as Allies (Constantly). The Allies' point totals typically will be 25% or 50% of the PC's final value, and there will be 11-20 individuals, so the group will cost 32 or 64 points. This allows a rat-king PC to be a 50- to 150-point character without much trouble.

WAR-DOP "D-MODEL"

see *Under Pressure*, p. 102; 54 points

A modified harbor porpoise with extensive neurological and cybernetic enhancements. It was one of the first successful animal-intelligence upgrades, albeit using electronics as much as genetic enhancement. As a military design with a puppet implant integrated with its implant computer, a war-dop will virtually always have a substantial Duty, probably Involuntary – unless it is an escaped renegade, in which case its Enemies will be formidable. The built-in weaponry makes such designs LC2.

Attribute Modifiers: ST+3 (No Fine Manipulators, -40%) [18]; DX+2 (No Fine Manipulators, -40%) [24]; IQ-2 [-40]; HT+1 [10].

Secondary Characteristic Modifiers: Will+2 [10]; Per+2 [10].

Advantages: 3D Spatial Sense [10]; Acute Hearing 4 [8]; Burning Attack 1d (Costs Fatigue, 2 FP, -10%; Melee Attack, Reach C, Cannot Parry, -35%; No Signature, +20%; Surge, +20%; Temporary Disadvantage, Electrical, -20%) [4]; Detect (Electrical and magnetic fields) [20]; Doesn't Breathe (Oxygen Storage ×100, -30%) [14]; Enhanced Move 1.5 (Water) [30]; Enhanced Tracking 1 [5]; Injury Tolerance (No Neck) [5]; Nictitating Membrane 1 [1]; Peripheral Vision [15]; Pressure Support 2 [10]; Protected Sense (Sonar) [5]; Scanning Sense (Sonar) [20]; Temperature Tolerance 1 [1]; Ultrasonic Speech [10].

Perks: Accessory (Tiny Computer). [1]

Disadvantages: Cannot Speak (Mitigator, Vulnerable, External loudspeakers with computer connections, -60%) [-6]; Chummy [-5]; Dead Broke [-25]; No Legs (Aquatic) [0]; No Manipulators [-50]; No Sense of Smell/Taste (Can taste, -50%) [-2]; Short Lifespan 2 [-20]; Social Stigma (Valuable Property) [-10]; Stress Atavism (9; Mild) [-15].

Quirks: Cannot handle human language *at all* if implant computer isn't operating; Counts as "Electrical" for purposes of attempts to locate it using EM field detectors; Distractible; Dull. [-4]

Date: 2055.

Cost: \$170,000.

"Here's what I suggest," he said. "You pretend that rats can think, and I'll promise to pretend that humans can think, too."

– Terry Pratchett,

*The Amazing Maurice
and His Educated Rodents*

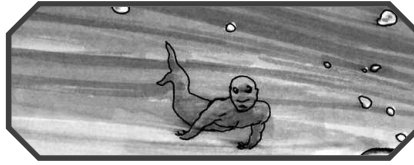
Notes and Variations

E-Model: A more recent, more advanced dolphin-based U.S. military uplift. The E-model is still fairly rare and is regarded as not fully proven; one renegade, "Coak," has become a dangerous terrorist. Increase ST to +5 (No Fine Manipulators, -40%; Size, -10%) [25] and SM to +1. Remove the IQ penalty, the Per and Will bonuses, and Dull. Reduce Short Lifespan to 1 [-10]. 92 points. (\$320,000, 2085.)

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