SID MEIER'S™
ALPHA CENTAURI™

Chris McCubbin
with David Ladyman

Explore

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THE FUTURE OF MANKIND

PRIMA® GAMES

FIRAXIS

SID MEIER'S ALPHA CENTAURI™

by
Chris McCubbin
with David Ladyman

In association with IMGS, Inc.

CREDITS & LEGAL

CREDITS

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AN INCAN MONKEY GOD STUDIOS PRODUCTION

TABLE OF CONTENTS

TABLE OF CONTENTS

TECHNOLOGIES

TABLE OF CONTENTS

BASE FACILITIES

SECRET PROJECTS

TABLE OF CONTENTS

APPENDICES

Some would ask, How could a perfect God create a universe filled with so much that is evil? They have missed a greater conundrum: why would a perfect God create a universe at all?

Sister Mariam Godwinson
"But for the Grace of God"

HINTS, TIPS, FACTS
& FORMULAS

HINTS & TIPS

BASICS

- These are things every successful player should know and apply, regardless of strategy.

- Upgrade units in the field with Ctrl U. There's no better way to keep a competitive army.

- Build bases quickly. Once you get a good group (4-6 bases) you can start building your infrastructure.

- If you're playing against a faction that likes to use Probe Teams, build them yourself and keep them in your base. If someone tries to move a Probe Team into one of your bases with a Probe Team in it, your Probe Team will stop theirs.

- Be sure to get the Weather Paradigm. It really helps in the long run.

- Get to Secrets of Creation first. Hey, it's a free tech.

- Get to Fusion Power. You get twice the hit points.

- If you have the time, Supply Crawlers are a good way to get additional resources.

- If you can get a ship in the water early in the game, you can pick up all the spare Unity Pods in the water.

- Be sure to use your Formers to improve the land around your bases. This will help them grow faster.

- Be sure to use the best terrain improvement for the square: farms in rainy squares, forests in arid or moist, mines on rocky. You can also use condensers to change the land.

- Using Formers to raise and lower the land is a good way to build land bridges to otherwise unaccessable islands.

- If you can start building satellites, do so. They improve every base.

- Building mag tubes will let you quickly maneuver your units throughout your entire empire. But be careful. Enemies can use them too.

- Bombarding units is a great way to soften them up before you attack.

- Psi combat is a great way to change the odds in combat. It uses a different combat system.

- The Citizen's Defense Force will give you a great defense in every base. This will let you focus more on attack units and infrastructure.

- If you're sharing a landmass with aggressive factions (The Hive, Spartans, Believers), take them out early before they get too powerful. The Gians can become a major threat quickly if they are not controlled, because they use Psi combat a lot.

- Other factions will tend to ask for loans when they're under Vendetta from a rival faction. If you give them money, make sure and support them long enough to recover your investment.

- Build mind worms early. Until the opposition develops their Psi defenses sufficiently, mind worms are very cost-effective fighting units.

- Once the Planetary Council begins meeting, be prepared to rapidly build Pressure Domes to protect your bases when the Council elects to Melt the Polar Caps.

- Learn the habits of other factions. Some can be bullied early on, and others will try to do the same to you.

- Appeasing a strong faction early can buy time to gather your strength. Once a bully has confronted you, wait for the right conditions to stand firm.

- Don't rush into Pact Brotherhoods until you know more about a potential ally. Some will drag you into Vendettas you can't support.

The Centaur Constellation

Alpha Centauri is part of the Centaur constellation — so named by ancient Greek earthhumans about two thousand years ago. In their mythology, the centaur was half man and half horse. The shape of the star patterns (as viewed from Earth) reminded them of this creature.

Alpha Centauri

HINTS & TIPS

ECO-TRICKS

One of the really unique things about Alpha Centauri is your ability to manipulate the ecology to your tactical advantage. Below are some basic tricks you can do with formers to enhance your strategic position.

If you're located on the western side of a long landmass that you share with other factions, you can define the eastern edge of your territory by raising a ridge line. You can settle the green western exposure, while the barren eastern exposure will create a no-man's land that the enemy will be reluctant to expand into.

You can also defend your borders by planting a line of fungus and hiding native life units in it. Make sure and back up this line with sensors, so the enemy can't hide in your own defense. Forest also provides some defensive benefits on your border.

If you want to invade a nearby landmass, consider raising a land bridge rather than (or in addition to) using naval transport. Likewise, you can sometimes isolate an obnoxious neighbor by using a sea former to cut a land bridge (land-based formers can't lower coastal squares below sea level, but sea formers can do it by lowering adjacent offshore squares).

GLOBAL WARMING

Global warming spells usually last for 20 years, and can cause sea levels to rise by as much as 333 feet Planet-wide. Most of your land bases will probably survive the first spell or two of Global Warming, even without Pressure Dome improvements, but coastal sea bases will be vulnerable to destruction by tidal wave.

Global warming is a disaster for highly developed, high-production factions. Although sea squares can be just as productive as land squares, the sudden transition from land to sea can undo years of painstaking development.

If you are a high-production faction, you want to avoid global warming at all costs. However, if you're a leaner, meaner military-oriented faction thinking about invading one of those richer creeps, a nice healthy round of global warming may be just what you need to chop them down to your level. You may even want to dig a handful of boreholes in hope of tipping the balance over to global warming. If enough other factions share your preference, you might get the Council to melt the polar ice-caps and introduce an artificial global warming period.

If global warming starts, you can avoid loss of landmass by getting the Council to launch a solar shade immediately. Expect there to be some resistance to this plan, however … especially if your faction is already richer and more productive than the others.

HOW IS MY STARTING POSITION DETERMINED?

The game picks spots randomly until it finds one that seems eligible. Eligibility is based on a lot of factors, such as proximity to other factions, amount of decent farmland and so forth, amount of total territory available, etc. The more spots it has to pick without finding an "eligible" one, the more tolerant its definition of "eligible" gets.

Once a spot has been picked for every player, the spots are compared and evaluated. Players who are judged to have poor starting locations often get bonuses — an extra colony pod, or some extra supply pods. It will also sometimes give a Foil unit to players who start on very small land masses.
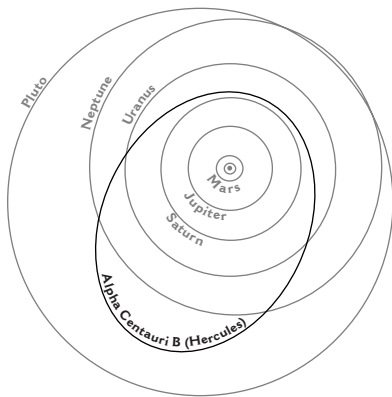
Why Chiron?

Like Earth, Chiron 's orbit is at a distance from its sun (Alpha Centauri A) suitable to the development of life. The diagram above left shows the orbit of Alpha Centauri B — companion star to Alpha Centauri A — superimposed on Earth's solar system. The diagram below this shows the size relationship between the orbits of Alpha Centauri B, Chiron and Eurytion (another planet).

From Earth, Alpha Centauri A and B appear so close together that they were long thought to be a single star.

HINTS & TIPS
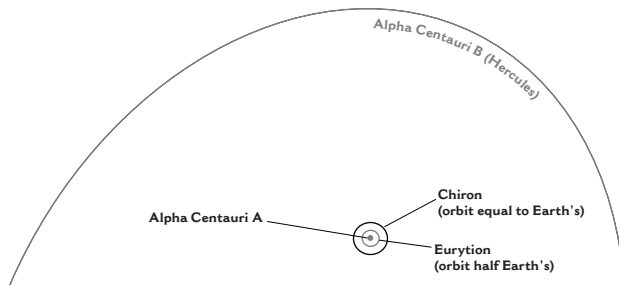
WHY DON'T THE COMPUTER PLAYERS LIKE ME?

The "mood swings" computer players undergo during diplomatic relations is based on a number of factors, including:

They tend to "gang up" on a human player who is way, way ahead of everybody else.

The first place faction and second place faction are natural rivals, and tend to dislike each other.

Third place and lower factions tend to want to ally with one of the first/second place factions against the other.

If you commit an atrocity against a faction or its captured population, it will always hate you.

If you use a Planet Buster, everyone will attack you.

Units in another faction's territory make it progressively angrier.

If you make social engineering choices counter to a faction's agenda, this will annoy it.

If a leader has a much better Commerce rating than you, he'll tend to want to make peace (so he can make money off the trade with you). If your Commerce is much better than his, he'll be harder to convince to sign treaties, etc.

If another faction is much more powerful on the landmass where you share a border, it will be much more likely to try to bully you.

Factions don't like it when you sign treaties/pacts with their enemies.

The more often you betray a leader, the more he/she hates you.

Leaders are aware when you have betrayed other leaders, and will trust you less.

Certain factions … Gaians/Morgans, Hive/Believers, University/Believers, Spartans/Peacekeepers … are paired as "nemesis" factions, and are more likely to dislike each other. If you randomize AI personalities, these pairings are randomized as well.

RANDOM EVENTS

No random events occur before Turn [75 - (DIFF x 10)]. (That is, 75 minus the difficulty level of the game time 10, where Citizen difficulty level is "0", and Transcend difficulty level is "5.") Thus, at Citizen level, random events kick in no earlier than Turn 75, while at Transcend they can show up as early as turn 25.

The truly random events also don't occur if you turn Random Events off. There are some events which players often think of as random events that actually occur because of the nature of Planet … for example, the Perihelion event, which accelerates native life activity 20 years out of every 80. These events can still occur even if Random Events are turned off.

Each turn, the game randomly picks a base. If there are less than 100 bases on the planet, it picks a number from 0-99, and if no base corresponds to that number (for example, if it picked "Base 80" when there are only 20 bases), then there is no random event.

If the picked base is less than Size 4, or if it is the only base of its faction, or if it is already under the effect of an on-going random event (for example, famine), then no event takes place.

After all the above conditions are fulfilled, one of the following events is randomly picked. At the basic level, all events are "equally likely" except as marked, but in practice if you roll a really good event when you're already ahead or a really bad event when you're already behind, it will tend to ignore the event and do nothing instead.

If an event is picked which would have no effect (for example, "Asteroid strikes Nessus Prime" when nobody has a Nessus Mining Station) then there is no event that turn.

EVENTS LIST

Note that some events turn out to have global effects, rather than effects specific to the chosen base, so it doesn't matter which base is selected in those cases.

Asteroid Strikes Base! This never occurs before Turn 75, and only if the base's faction is in first place. It destroys everything nearby, including the base itself, and makes a new "crater" á là Garland Crater.

Biology Lab Event. If there is no Biology Lab at the base, then Planet Blight destroys all farms and forests near the base. If the base has a Biology Lab, then a beneficial bacterium is discovered instead, producing +1 nutrient/turn for 10 turns.

HINTS & TIPS

Events list continued

Bumper Crops. +1 nutrient/square at this base for 10 years

Children's Creche Event. If there is no Creche at the base, protests cause an extra Drone for 5 turns. If there is a Creche, the base experiences massive population surge — it gains as many population points as it would be able to feed with current farming enhancements.

Energy Bank Event. If there is no Energy Bank at the base, then a power surge destroys al nearby mines. If the base has an Energy Bank, then the power surge is absorbed instead (producing +50 energy credits).

Energy Market Boom/Crash. If base's faction has less than 1000 credits, its energy reserves are reduced by 75% (crash). If faction has more than 500 credits and is in fourth place or lower, his energy reserves are doubled (boom). Otherwise there is no effect.

Existing Resource Peters Out. Again, it is randomly determined.

Famine. -1 nutrient/square at this base for 10 years.

Hail Storms. Storms wipe out all solar collectors near base (but no effect before Turn 75).

Haze and Clouds. -1 energy/square at this base for 10 years.

Heat Wave. +1 energy/square at this base for 10 years.

Industrial Boom. +1 mineral/square at this base for 10 years.

Industrial Collapse. -1 mineral/square at this base for 10 years.

Network Node Event. If the base doesn't have a Network Node, then network overload wipes out all of your current research (all credit toward next discovery being lost). If it has a Network Node, your faction gets a free technology.

New Resource Discovered. The new resource may be nutrient, mineral or energy (randomly determined).

Prometheus Virus. If this base has a Research Hospital or Nanohospital, or if its faction has a "medical" secret project (Human Genome, Longevity Vaccine, Clinical Immortality), there is no effect. Otherwise, the base's population is reduced by half, and any base within a number of squares equal to the base's former population is also reduced by half (unless *it* has a Hospital or Nanohospital).

Sea Beetles. Beetles wipe out all kelp farms near the base.

Sunspots. Communications are disrupted for 10-20 turns, but not sooner than Turn 50, and not if sunspots have happened in the last 40 years.

Tidal Wave. A wave wipes out all mining platforms near the base.

Volcano Erupts. If base is near a volcano, the volcano erupts (but no effect before Turn 75). This never happens unless the base's faction is in first or second place. It destroys all terrain enhancements and severely reduces the populations of all bases near the volcano.

20% Chance of Asteroid Striking Nessus Prime. All Nessus Mining Stations are destroyed.

20% Chance of Solar Storm/Flare. Orbital Power Transmitters and Orbital Defense Pods are destroyed. All bases produce triple energy next turn.

UNITY PODS

Pod results are rerolled if various conditions for each event are not met, so not all pod events are equally likely.

POD CONTENTS

Agricultural Pod. Lots of free farms or forests in the area.

Alien Artifact.

Cartographic/Sonar Pod. Shows all land/sea tiles within 5 squares.

Data Pod. Free Tech, but never a Tech higher than level 2.

Dimensional Gate/Tidal Wave. "Teleports" unit elsewhere in same continent/sea.

Discover Resource. In normal, non-fungus, non-sea squares this event is as likely as all of the other events combined (i.e. about 50% of pods will be resources), but a "discover resource" pod has a 50% chance of producing one of the other results as well.

Earthquake (only if pod is on land). New mountain created here.

Fungal Bloom.

Hydrology Pod. Creates new river.

Materials Pod. Completes production of random item at nearest base.

Mind Worms (Isle of the Deep if at sea). This pod is six times more likely than any other pod (except Discover Resource). There is a 1 in 6 chance of a "big mind worms" event (lots of worms all around), otherwise only one worm is discovered. (There is never more than one Isle of the Deep discovered.) This event is ignored when adjacent to a base. If this isn't the "big mind worms" version, then the event is more likely to be ignored the nearer you are to a friendly base — that is, chances of mind worm encounters increase the farther you are from a friendly base.

Mining Pod. Lots of free mines in the area.

Monolith.

Power Pod. Lots of free solar power in the area.

Resupply Pod. 25-200 energy credits (bigger totals more likely at sea and later in game).

Sea Farming Pod. Lots of free kelp in the area.

Supply Pod. Normally you get a *Unity* Rover. You may sometimes get a *Unity* Foil, particularly if your continent is small. If Synthetic Fossil Fuels have been discovered, you have a 1 in 3 chance of finding a *Unity* Chopper.

Also note that Artifacts which are used to explore pods have a 50% chance of vanishing without a trace.

HINTS & TIPS

DIFFICULTY LEVELS

There are six difficulty levels in *Alpha Centauri*. From easiest to hardest, they are Citizen, Specialist, Talent, Librarian, Thinker and Transcend.

When you play a multiplayer game, each player picks a difficulty level, and a difficulty level is selected for the game's AI. In that case, a player's difficulty level might be different from the game's difficulty level. However, in a single-player game, your difficulty level and the game's difficulty level are the same.

It is important to note that the effect of the difficulty level for computer players is inverse to the effect of your own difficulty level. While Citizen is the easiest level for you, it is the hardest level for computer players — costs are low and waiting periods are short for you, while costs are high and waiting periods are long for computer players.

In general, Librarian level is where the two meet — costs, waiting periods and other similar factors tend to be the same for human players and for computer players at that level.

Difficulty levels are a major factor (but not the only factor) for each of the following game elements.

AI COMPUTER-PLAYER EFFECTS

Easier Diplomacy. At lower levels, computer players will be more likely to "go easy" on you in diplomacy, unless you have turned on the "Intense Rivalry" option, in which case they always use maximum ruthlessness.

Delayed Gang Tackles. In particular, the tendency for computer players to "gang up on" the human player is controlled by difficulty level. Computer players will never gang up before Turn 100 - ((5 - DIFF) * 50), where DIFF is the player's difficulty level (but with Intense Rivalry on, DIFF is always 5).

Also computer players will not gang up until the player's overall "dominance bar" is significantly higher than the dominance bar of the second-place player: it need only be 20% higher with Intense Rivalry, but otherwise it needs to be 50% higher at Librarian, Thinker and Transcend levels, *twice* as high at Talent level, and never happens at Citizen and Specialist levels.

No Mind Control. At Citizen, Specialist and Talent levels, computer players will not use Mind Control against human-player bases.

MISCELLANEOUS DIFFICULTY LEVEL EFFECTS AND HANDICAPS

Secret Projects. At Talent and below, the other factions can't start work on a Secret Project until you, the player, have its prerequisite tech, even if they already have the tech in question.

Colony Pod. At Citizen and Specialist levels, building a colony pod at a size 1 base does not eliminate the base.

No Early Research. At Citizen and Specialist levels, all research points accumulated during the first 5 turns are ignored (to avoid presenting a beginner with a tech decision right away).

Command Center Maintenance. The Maintenance cost of the Command Center facility is equal to the best Reactor level you have available (1 through 4), but never more than half your DIFF, rounded up.

At Citizen level, maintenance is always 0. At Specialist and Talent level, it is always 1. At Librarian and Thinker it starts at 1 and rises to 2 with discovery of Fusion Power. At Transcend level it starts at 1, goes to 2 with Fusion Power, and to 3 with Quantum Power.

No Power Overloads. At Citizen and Specialist levels, Base Facilities do not experience power overloads when you run out of energy to pay maintenance.

No Pop Lost to Attack. At Citizen level, your bases never lose population points when they are attacked.

Random Events do not occur before Turn [75 - (DIFF x 10)].

No Prototype Cost. At Citizen and Specialist levels, you do not have to pay for "prototypes" of units.

No Production Penalty. At Citizen and Specialist levels, there is no penalty for switching production "in midstream" at a base.

Cost to Change Society. The cost to change social engineering is affected by your difficulty level:

CHANGE = (the number of areas changed in a turn) + 1.

CHANGE x CHANGE x CHANGE x DIFF = the upheaval cost

HINTS & TIPS

IMPORTANT FORMULAS

UNIT COST

When designing new units, bear in mind that units strong in three areas (weapon, armor, chassis) will be vastly more expensive than units strong in only two areas (or one). The basic cost formula, to which there are several modifiers, is:

Cost = [Weapon x (Armor + Speed) x 10] / (Reactor Base)

Reactor Base: Reactor 1 = 4; Reactor 2 = 8; Reactor 3 = 16; and Reactor 4 = 32.

•Weapon value never less than 1/2 Armor value.

•Non-combat units substitute "Equipment Cost" for Weapon value.

•Cost is halved for units with Speed 1.

•Armor is discounted 50% for sea units, and then total cost is halved.

•Cost is quartered for combat air units.

•Armor cost is doubled for air units.

•Cost +25% for each unit of Special Ability cost.

•Cost +10 minerals if both Weapon and Armor are greater than 1.

•Cost +10 minerals if a Land unit's Weapon, Armor and Speed are all greater than 1.

•Minimum cost with Reactor 1 = 10, with Reactor 2 = 30, with Reactor 3 = 50, and with Reactor 4 = 60.

INEFFICIENCY

The formula used to compute the energy lost to inefficiency by a base is:

ENERGY = Amount of energy produced by base this turn

DISTANCE = Distance from Headquarters base (16 if no HQ)

EFFICIENCY = Social Engineering Efficiency (+2 if the base has a Children's Creche)

Inefficiency = (ENERGY x DISTANCE) / [64 - ((4 - EFFICIENCY) x 8)]

Note that if the denominator reaches zero (that is, EFFICIENCY is -4), *all* energy is lost to inefficiency.

PRODUCTION

Human. You always pay for production in "rows" of 10 minerals each. (This rate can be modified by social engineering so, for instance, +1 INDUSTRY means only 9 minerals in a row, therefore cheaper stuff.

Computer. A computer player pays based on its difficulty level:

Citizen	13 minerals/row	(130% normal cost)
Specialist	12 minerals/row	(120% cost)
Talent	11 minerals/row	(110% cost)
Librarian	10 minerals/row	(100% cost = normal cost)
Thinker	8 minerals/row	(80% cost)
Transcend	7 minerals/row	(70% cost)

Note that the curve is discontinuous between Librarian and Thinker level.

Also note that on the two smallest map sizes (Tiny and Small), mineral costs are discounted to 80% and 90% of cost, respectively, for both human and computer players.

POPULATION GROWTH

Population growth for bases is similarly achieved by filling enough "rows" of nutrients. To achieve a new base size, you have to fill a number of rows equal to the size you're trying to grow to. (To grow from size 1 to size 2, you fill two rows of nutrients.)

Human. As with minerals, you generally pay 10 nutrients/row (subject to social engineering, etc.).

Computer. As with minerals, a computer player pays based on its difficulty level; just substitute "nutrients" for "minerals" in the list above.

HINTS & TIPS

COMMERCE

Commerce is computed base by base between factions with Treaties and Pacts, as follows:

•First, all bases for each faction are ranked from top to bottom by energy output.

•Bases are paired off from top to bottom. If one faction has extra bases, they're ignored.

•For each pair of bases, sum the combined economic (energy) output and divide by 8, rounding up.

•Double this value if a Global Trade Pact is in effect.

•This result = PAIRED BASE VALUE.

Now you can calculate the energy bonus from commerce for each individual base:

BASE COMMERCE = the sum of economic factors for your faction and this base:

Environmental Economics (+1)   Industrial Economics (+1)
Planetary Economics (+1)   Sentient Econometrics (+1)
Hive (-2)   Morgan (+1)
Free Market (+2)   Wealth (+1)
Eudaimonic (+2)
plus any base-specific economic modifiers.

TOTAL COMMERCE = the sum of all economic Technologies currently in the game:

Environmental Economics (+1)
Industrial Economics (+1)
Planetary Economics (+1)
Sentient Econometrics (+1)

Base's Energy Bonus =
(PAIRED BASE VALUE) x (BASE COMMERCE +1) / (TOTAL COMMERCE +1)

Divide the Base's Energy Bonus by 2 if there is only a Treaty (but no Pact).

Add +1 to the Base's Energy Bonus if you are Planetary Governor.

Note that *no* commerce is allowed if sanctions are in effect against either faction.

TECHNOLOGY DISCOVERY RATE

The cost of technology discoveries is determined by a complex formula (to say the least). The following is a simplification of that formula, but it still gives a good approximation of how many research points are required for your next Tech discovery. In particular, it assumes that you have discovered at least half as many Techs as the leading player.

First, assign a value to your difficulty level: 0 = Citizen, 5 = Transcend. Call it DIFF.

TECHS = the number of Techs you've already discovered.

MOSTTECHS = the greatest number of Techs already discovered by any one player.

TURNS = the number of turns that have already passed.

Research Cost = [11 + (DIFF x 4) + ((TECHS x 6)/5) - (TURNS/8) - (MOST-TECHS/5)] x TECHS x WORLDSIZE

WORLDSIZE. If you are playing on a smaller world, multiply the result by .6 (Tiny world) or .8 (Small world). If playing on a larger world, multiply the result by 1.1 (Large world) or 1.6 (Huge world).

If you've created a custom size for your world, use the WORLDSIZE modifiers (listed in the previous paragraph) to estimate your custom WORLDSIZE modifier.

If Tech Stagnation is selected, divide TURNS by 12 (rather than by 8) and multiply the final result by 1.5.

Early in the game, if your faction is weak on Research (e.g., the Believers), the final result can be increased by as much as 15%. Late in the game, this increase is closer to 2%. Similarly, factions that are strong on Research (e.g., the University), can decrease research costs by 15% to 2%.

Your final result is the number of research points required for your next discovery.

The result can range anywhere from about 65 (at Citizen difficulty level, on a Tiny world, at the very beginning of the game, with a research-savvy faction) to about 9000 (at Transcend difficulty level, on a Huge world, after you've discovered more than 70 Techs). If Tech Stagnation is selected, it can take over 13,000 research points to discover your next Tech!

As you might be able to see, the greatest factor is how many Techs you yourself have discovered. In fact, you can quickly estimate your next research cost by squaring the number of your current Techs, and then adding a bit. (Be sure to adjust the result based on World Size and Tech Stagnation.)

HINTS & TIPS

ECOLOGICAL DAMAGE

The formula for Ecological Damage is included in the Datalinks, under Advanced Combat. The following is a simplification and generalization of it.

DIFF = 2 (Citizen), 3 (Specialist – Librarian), or 5 (Thinker, Transcend)

PLANET = Social Engineering PLANET value

LIFE = Native life level (1-3); this is 2 unless you changed it with a Custom Start

MINERALS = minerals produced on Planet this turn (but not from orbit)

TECHS = Number of technologies discovered

PREVIOUS = Number of times your faction has been hit with ecological damage

GOODFACS = 1 + (total number of Centauri Preserves, Temples of Planet and Nanoreplicators you have)

ENHANCEMENTS. For each base, total the number of your ecologically disruptive improvements — Mines, Solar Collectors, Farms, Soil Enrichers, Roads, Mag Tubes, Condensers and Boreholes. Count each working square twice. And then count each Borehole 8 more times, and each Condenser 4 more times. Subtract the number of Forests in that base's control.

Add each base up individually, because you can cut half the value of any base with a Tree Farm, and totally delete the value of any base with both a Tree Farm and a Hybrid Forest.

Once you've calculated a value for each base, add all the base values together = ENHANCEMENTS.

MODIFICATIONS = (ENHANCEMENTS/8) + (MINERALS/GOODFACS) + (Major Atrocities x 5) - 16 - PREVIOUS

The percentage chance for ecological damage = MODIFICATIONS x DIFF x TECHS x (3-PLANET) x LIFE / 300

If Alpha Prime is at perihelion (20 years out of every 80), double this percentage chance.

There are a couple of things worth noting. On the one hand, as long as your PLANET value is at least 3, there is no chance of ecological damage. On the other hand, as you approach the end of the game, it becomes nearly impossible to avoid ecological damage unless you have been careful to stay very Green, indeed.

DRONES

To begin calculating the initial number of drones at a base:

First, assign a value to your difficulty level: 0 = Citizen, 5 = Transcend. Call it DIFF.

POP = the population of the base

BASES = the total number of bases you own

DRONES = (POP + DIFF - 6)

CONQUEST. If the base was founded by another faction, a CONQUEST counter was set to 50 when you conquered it. CONQUEST is lowered by 1 per turn (until it reaches 0 when the base is considered assimilated). You'll know a base has become fully assimilated when its architecture changes to that of your faction.

If the base has not yet been assimilated:

SMALLER = the smaller of [(CONQUEST+9)/10] and [(POP + DIFF - 2)/4]

DRONES = (POP + DIFF - 6) + SMALLER

(If your current DRONES total is larger than POP, reduce it to equal POP.)

Next we must determine if there are any extra drones caused by "bureaucracy" (e.g., having too many bases).

EFFIC = your current social engineering EFFICIENCY rating (+1, +2, etc.), but never less than 0

WORLDSIZE. If you are playing on a smaller world, WORLDSIZE = .6 (Tiny world) or .8 (Small world). If playing on a larger world, WORLDSIZE = 1.1 (Large world) or 1.6 (Huge world).

The maximum number of drones caused by overall faction bureaucracy is:

BUREAUCRACY DRONES = (BASES x 2) / [(8 - DIFF) x (4 + EFFIC) x WORLDSIZE]

For each of your bases, overall faction bureaucracy will produce up to this many more drones (exactly how many is determined randomly within that range), but never less than 0 nor more than POP.

DRONES + BUREAUCRACY DRONES = the maximum number of drones possible at that base (see previous paragraph), but the actual result will never be higher than the base's POP. However, if the number of drones computed *is* higher than the population of the base, it will still take extra Talents to cancel out these "extra drones."

If you've created a custom size for your world, use the WORLDSIZE modifiers (listed above) to estimate your custom WORLDSIZE modifier.

HINTS & TIPS

COMBAT EFFECTS

An important principle is that you *never* receive a disadvantage in combat because of difficulty level. Sometimes you get a special advantage at low difficulty levels against native units, but never a disadvantage.

You are eligible for a combat handicap at Citizen and Specialist levels. You can also get one at Talent level when you are *defending* against Native (alien) Units (but not mind worms controlled by another faction, for instance).

Assuming you are eligible for a handicap, then:

Assign a value to your difficulty level: 0 = Citizen, 1 = Specialist, 2 = Talent. Call it DIFF. (Remember that these effects don't apply to higher levels.)

If you're defending, then reduce the offensive strength of your attacker as follows:

OFFENSE = BASE OFFENSE x (DIFF + 1) / 4

If you're attacking, then increase your offensive strength as follows:

OFFENSE = BASE OFFENSE x (4 - DIFF) / 2

(Again, remember that this doesn't reduce your offensive strength at Transcend difficulty level; this formula doesn't apply at the three higher difficulty levels.)

Note that combat handicaps *never* apply against other Human players in a multiplayer game, regardless of relative player difficulty levels.

HOLOBOOK LIST

It's more than just a bunch of silly puns and goofiness … but not much more. The Holobook list is one of the more unconventional ways the game has of indicating your final score. The better you did, the more books will be shown on the list at the end of the game. Titles at the top of the list given below indicate low performance, while those further down indicate greater accomplishment. Below is the whole list of available books, so you can tell exactly how far along the list you got.

Welcome to the Planetary Archives. Following your retirement, the people collect your most memorable writings into a holobook of wisdom entitled*:*

My Big Book of Recycling Tanks Humor

We Must Consent: My 100 Surefire Pick-up Lines

For I Have Tasted The Fungus (Why I Can't Blink)

The Cat In The Vat: My Sleepchamber Stories

Everything You Ever Wanted To Know About Organic Superlubricant (But Were Afraid To Ask)

I'm OK, You're A Drone

Boreholes I Have Known

The Little Terraformer That Could

Are You There, Planet? It's Me

Recon Rovers: Unsafe At Any Speed

How To Raise A Nerve-Stapled Child

Men Are From Chiron, Women Are From Nessus

All I Ever Wanted To Know I Learned in the Cloning Vats

Mindworms in the Mist

Our Biomachinery, Our Selves

Actualizing Your Sentient Being: My Self-Help Guide for Talents

The Unbearable Lightness of Hovertanks

Sentient Econometrics Made Simple

Lady Deirdre's Lover

Zen and the Art of Missile Rover Maintenance
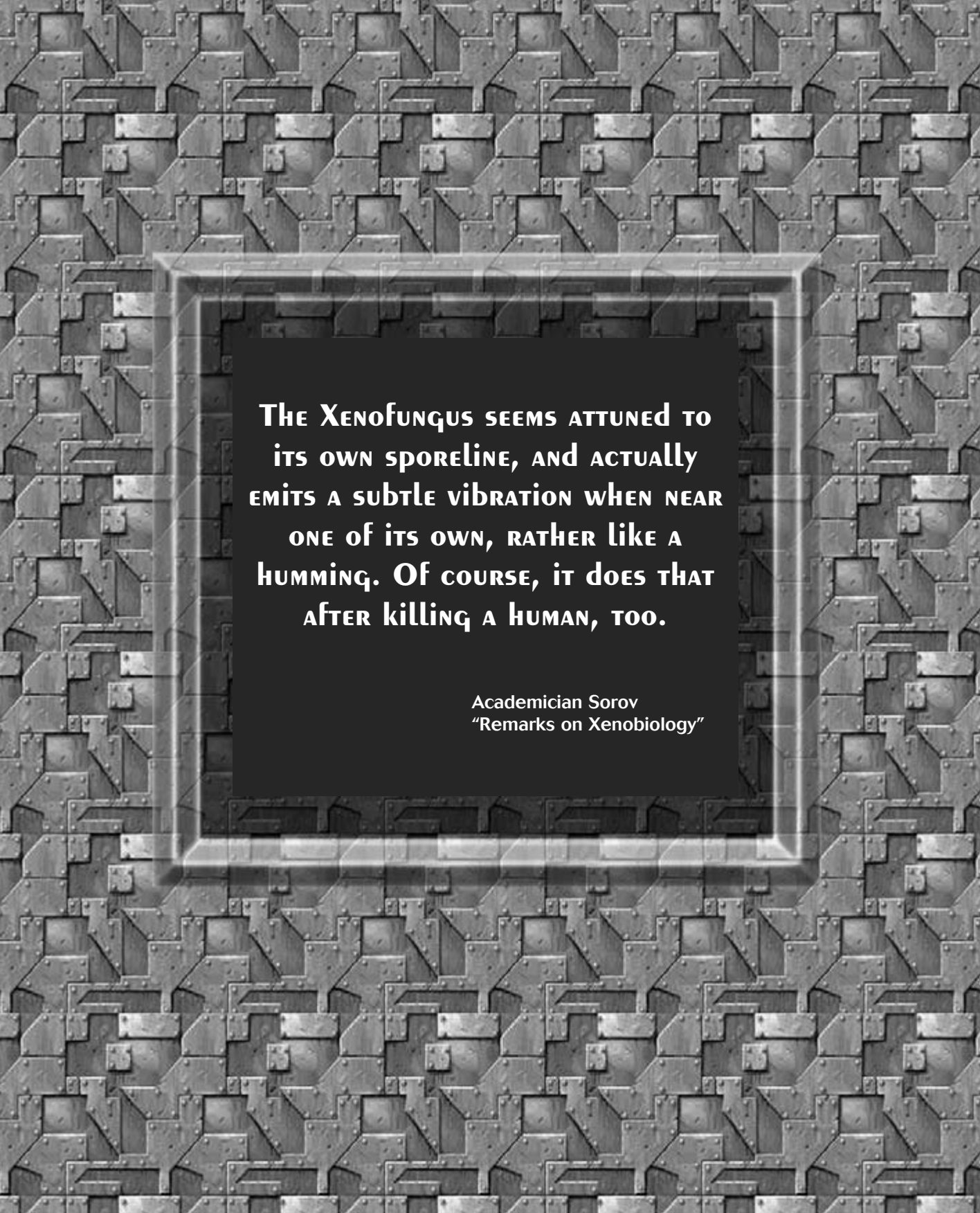
Transcendence for Dummies

The 27 Habits of Highly Effective Talents

My Critique of the Critique of Pure Reason

The Will To Power: A User's Guide

Stairway to Transcendence: The Last Book You'll Ever Read

The Xenofungus seems attuned to its own sporeline, and actually emits a subtle vibration when near one of its own, rather like a humming. Of course, it does that after killing a human, too.

Academician Sorov
"Remarks on Xenobiology"

STRATEGIES &

SCENARIOS

STRATEGIES

While there are infinite ways to win *Alpha Centauri*, there are several proven general strategies, and most successful games will follow the basic principles of one or more of the models detailed below.

QUICK-KILL CONQUEST

This hard-core, damn-the-torpedoes option appeals to wargamers and action fans. The goal is to smash through the other factions as quickly and brutally as possible, achieving victory by conquest in a couple of hundred turns or less. The appeal of this game, in addition to an exciting night's gaming that you can finish in a single sitting, is to squeeze out the very highest score possible. Blasting your way to a quick victory on the highest difficulty level will give you a score that no development game can even approach.

Special Thanks to Martin Leuschen, for devising and relating this strategy.

PRE-GAME

The smaller the world, the easier it is to achieve this victory. Remember, your goal is to conquer everybody quickly, and that means low travel time.

Customize your planet for a dry world (low cloud cover) — the lack of resources will handicap your opponents more than it handicaps you.

Large land masses are good, since they allow you to concentrate your forces for a ground war, without worrying as much about a navy.

Play at the very highest skill level you can manage, for high-score and bragging rights.

Santiago or Miriam are the best choices for a game of this type. Yang also works well. Play Morgan, Lal or Zakharov at your own risk. Dierdre has the tools to conquer the world quickly, but not with this strategy — see **Green Conquest** (p. 36) for guidelines on conquering the world with the Gaians.

CUSTOM RULES

Make sure you have Victory by Conquest enabled (duh).

Since speed is a major factor, Don't Restart Eliminated Players is recommended.

Unity Survey will help you plan offensives, and will also give you an early warning if you're in a bad position for this strategy (a small island isolated from major landmasses).

Self-directed research is good, since you won't have to wait for a useful tech to come up.

Spoils of War is very important.

Intense Rivalry is a surprisingly good option for this kind of game. After all, you'll be fighting everybody almost as soon as you meet them anyway. Choosing to have aggressive opponents makes your opponents more eager to fight each other, keeping their power down and preventing them from ganging up on you. It does, however, create the possibility that one of the other factions will actually win a lot of early conflicts, making it a stronger opponent when it faces you.

STRATEGIES

GETTING STARTED

At the very start of the game your first goals are to explore and expand your territory as quickly as possible. Your goal in exploring is to find out who and where your neighbors are, and your goal in expansion is to get as many new bases as possible.

Pack your bases close together — right on the borders of each others' production radii (about two squares between bases). You want the average population of your bases to be no more than four, so a base doesn't need all that much land.

Once you get formers, start them building roads and planting forests. Roads make it easy to maneuver your forces once the action starts, and forests allow your bases to survive on virtually any terrain type.

If you start out on a small island, you'll need to make foils a research and construction priority, to ferry units to the mainland. If you're more than a couple of squares from a major land mass, you're going to face a challenge. If you're looking for a true quick kill, you may want to re-start.

Early on you'll want to build a few farms in any wet, clear squares you have (there shouldn't be many, if you followed the customization suggestions above). This will allow your early bases to repopulate fast enough to keep cranking out colony pods. Later, you'll want no more than one farm in any given base's production territory. Don't bother building even one farm if one of your squares has a nutrient bonus (again, early colony-pod producing bases may be an exception).

Find a monolith close to the center of your territory, build a road to it and defend it with bases. This will become your first "basic training camp."

Police are your friends; love the police. At such a low level of population, with limited production capacity, you'll want everybody in the base working, so you can't afford to assign specialists to control drones. Your best bet for social order, therefore, is police units. You'll want one good defensive unit in each base, but beyond that use cheap scout units for your police duties (including fighting off wild mind worms). If you're doing the strategy right, there's not much chance of your central bases seeing an actual attack from a rival faction.

Your first tech priority is Centauri Ecology (for formers), then make a beeline for Nonlinear Mathematics (for Particle Impactors). Once you get these techs, you're ready to start mobilizing your forces.

Once you have Particle Impactors, you want the following techs (in roughly this order): Doctrine: Mobility (Speeders and Command Centers), Social Psych (Rec Commons, to help out your police), any armor improvements, and Biogenetics (Recycling Tanks, for the resource bonus). By the time you get to this point, you should be getting most of your techs from conquered enemy bases.

STRATEGIES

BLITZKRIEG

Once you have the particle impactor weapon, you should start creating your invasion force. Have each base produce as many units as it can afford.

Try to build Command Centers and Recycling Tanks in each base early on. Use your minerals to build units, but if your cash flow is decent, consider investing energy in hurrying facilities (facilities are cheaper to hurry than units).

If you have plenty of bases, you may want to commit one of the higher producing ones to creating the Command Nexus, which gives you a free Command Center in each base. Other than this one possible exception, don't worry about Secret Projects (except with respect to capturing them).

Perimeter Defenses are nice and all, but don't worry about making them a priority. The idea is to hit the enemy so hard that they can't mount any effective counter-attack.

Build mostly impact infantry. Mix up units with and without armor, and stack armored units with unarmored. The armored units will defend the stack, and the unarmored can attack the enemy. Also keep some impact speeders around for scouting and commando work. Garrison units are good in the stack. They're cheap and hard to kill, so they can be designated as defenders. If they survive, they can be used to garrison captured bases. Don't stack units more than three or four high — otherwise collateral damage can be a killer.

Cut the support costs at your core bases by transferring control of invading units to new bases as they're conquered. If you have a decent Support rating, you can assign several units to a new base at no cost.

Run each new attack unit through a monolith before sending it into battle, whenever possible. (In some cases it will be more important to get a new unit to the front than to upgrade its morale.)

Don't send your units out one at a time as they're created. You want to destroy the enemy, not harass him. Gather your forces and swarm enemy defenses. Try never to attack except at a decisive advantage. Once an offensive is well under way, you can send out unescorted reinforcements to join the forces at the front.

Try to attack the more peaceful factions (Peacekeepers, Gaians,

Morgans, University), before going after the more warlike (Spartans, Believers, Hive). The warlike factions will be much harder to defeat, and you want to go after them with a financial and technical advantage, in addition to just being able to focus your efforts on them.

If you conquer a large base — say, five or more — or build a base that just won't stop growing, build a Rec Commons. Police alone won't get the job done.

Switch to Fundamentalism as soon as possible. Green (for the increased efficiency and better maneuverability through fungus) is a good economic choice, but don't go Green until your program of conquest is well under way, because of the loss of Growth. Power is, of course, your preferred value, although if you're really clicking you might not get that far. (The game will probably be won long before Future Thought becomes a factor.)

Artillery, jets and probe teams are all extremely useful additions to your arsenal. However, if you're really getting this strategy right, by the time they come along the game will be so close to over it doesn't matter.

Try not to attack Yang too early. His souped-up free defense will lead to unacceptably heavy casualties. Try not to attack Zakharov too late. If left alone too long, he'll gain an unacceptable technological edge.

If any faction starts to build the Citizens' Defense Force, make it a priority (if possible) to take that base down before they finish. The Citizens' Defense Force can make any faction just as defensively annoying as the Hive.

Most of the time, you'll find at least one faction adopting a strategy similar to your own — high growth, high aggression. It's important that you identify this faction and save them for last. Try to conquer the less-aggressive factions at a faster rate than your rival, until you have a clear numerical superiority.

If you're playing Yang, expect research to be a major pain. You need to get your offensive operation in swing early, before the other factions can fully defend themselves. Make nicey-nice at the very start of the game, and offer to trade money for techs. If you're growing fast enough (and you should be) you can even consider trading *bases* for key techs. The above also applies if you're playing Miriam, though to a lesser extent.

STRATEGIES

GREEN CONQUEST

This is a unique strategy tailored to the nature of Planet. If you're going to try a green conquest game, you definitely want to play the Gaians … other factions can use this strategy (or elements of it), but it takes much longer and isn't nearly as efficient.

Green conquest can form the cornerstone of a very effective quick-kill game, but its advantage is that, unlike the quick-kill strategy detailed above, it doesn't necessarily retard tech development, and it leaves bases free for facility and secret project construction. When used with full efficiency, you can raise a formidable force of mind worms early on, hold them in your bases *without maintenance costs* until you're ready to make your move, then use them as the spearhead for your offensive thrust.

PRE-GAME

As previously noted, you'll normally want to start as the Gaians.

Make sure native life is set to abundant.

Large landmasses are definitely good.

You don't want the world too large, for all the tactical reasons noted under the "Quick Kill" game, but you don't want it too tiny either. Your long-term success depends on having access to a large expanse of undisturbed fungus.

Other settings and rules can be according to your personal preferences, although you may find that keeping worldwide resource levels low works more to the disadvantage of the other factions than to you.

GREEN CONQUEST

THE BASIC IDEA

Green Conquest is based on two central concepts of *Alpha Centauri*.

First of all, there's the ability of factions with positive Planet Ratings to capture "wild" native life units and bring them under their control.

Second, there's the fact that units that are acquired a sufficient distance from your bases are uncontrolled — they're not under the wing of any specific base, and therefore your faction pays no maintenance on them.

When these two principles are properly applied, it allows you create a formidable force of "free" mind worms without significantly tying up your bases' production capacity.

This strategy is so powerful that Firaxis has coded in a couple of restraints, to keep it from becoming a "sure thing."

First of all, there's a diminishing returns factor in mind worm "recruit-ment." Basically, this means that the more mind worms you already have, the less likely you are to successfully recruit a new one.

The second limitation is that it's significantly harder for one of your mind worms to recruit another mind worm than for your other units to recruit mind worms. In a strategy that relies on most of your units being mind worms, the limiting effect here should be obvious.
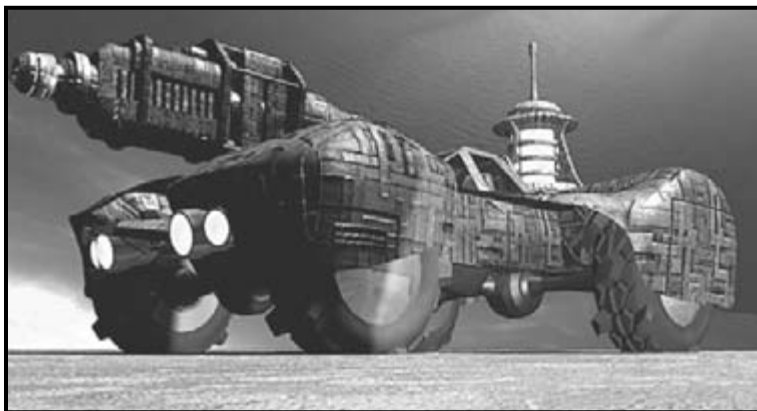
STRATEGIES

GETTING STARTED

The most important thing in the early game, by far, is exploration. You want to get out as quickly as possible, find out where your neighbors are and, most importantly, find your "hunting grounds" — a large patch of fungus-heavy terrain not too close to any rival faction. You also don't want it too close to your own faction, either now or in the future. Try to keep it outside your faction boundary, so that units captured there will be uncontrolled.

Don't forget the oceans. A medium-sized island with plenty of fungus is just about perfect as a hunting ground. (You may find *Unity* Survey useful in spotlighting likely candidates for such landmasses early on.)

You want to expand your bases, of course, but you can do so at a more natural rate than under the basic quick-kill game. There's no need to crowd them together too tightly either, unless you just happen to like working with limited populations.

 Once you find a likely hunting ground, send two or three units out to start "combing" it for mind worms. Try to move a unit into the fungus square, and if a mind worm appears, attack it. If your playing the Gaians, you start out with +1 Planet, which gives you a 25% chance to "tame" a wild mind worm. When you can go to Green economics, that chance improves to 75% (for the Gaians) or 50% (for other factions). Remember, this chance will decrease as your forces grow.

If you're using self-directed tech, go for Centauri Ecology first (for formers), then on to Centauri Empathy (for Green economics). Pause here to get Doctrine: Mobility, Nonlinear Mathematics and High-Energy Chemistry (for better worm hunters), then make a run for Centauri Meditation (for the Xenoempathy Dome). Once you get there, do whatever you please (though you should keep an eye out for those techs that increase resource production in fungus). If you're hunting ground is on an island, Doctrine: Flexibility is a very high priority, of course.

If you're not directing your own research, keep your priority set firmly on Explore until you get Green economics.

Once you gain the ability to plant fungus, consider sending some formers out to expand your hunting ground.

Also, remember you can use the fungus to defend your territory (don't forget sensors, so the enemy can't hide in your own fungus line).

Once you capture a mind worm, put it to work recruiting more mind worms. (They won't recruit as well as your mechanical units, but as long as you're gaining more than you're losing, you're ahead of the game).

If you try to capture a mind worm and fail, great! If you win the upcoming fight, there's a good chance your unit morale will go up, plus you get Planet pearls for your treasury. (Another advantage of this strategy is that the combination of Planet pearl income and your regular development income can often give you a clear economic advantage over the other factions, in addition to your military assets.) Sometimes you'll lose a fight, of course, but again, as long as you gain more worms than you lose, you're ahead of the game.

If a unit gets seriously damaged in the hunting grounds, use Shift L to repair it back to 90%. Better yet, run it through a monolith, if possible.

Speaking of monoliths, make sure to run every new unit (organic or mechanical) through a monolith for the morale upgrade, before sending it into battle. This strategy is based entirely on Psi combat, where morale is literally everything.

Scout speeders make excellent hunters. You don't need a lot of high-power weapons or armor, but good morale is essential. Remember that prototype units get a morale bonus, so they're also good hunters.

If your worm-farm isn't quite far enough away to ensure independent mind worms, remember to transfer ownership of some of the owned units to faraway bases, so your one or two closest bases don't end up supporting everybody.

Send out a few ships to comb the seas for Isles of the Deep. They make good warships and excellent transports.

Once you have a half dozen or so (depending on the size of your hunting grounds) hunters working — both organic and mechanical units — start to channel your units back to your territory (or wherever you choose as a staging area), and start to send them out against the enemy. If it's still early in the game, use the same tactics described above, under **Quick-Kill Conquest** (p. 30).

Or, if you prefer, you can use your military dominance to create an impregnable *defensive* force of free mind worms stationed in your key defensive bases. Parley your clear military superiority into Council leadership, and go on to a development-based game (see below) starting from an impressive position of strength.

STRATEGIES

THE DEVELOPMENT-
BASED GAME

It's probably too strong to say that the Development Game is the way *Alpha Centauri* was *intended* to be played, but this is certainly the option that takes advantage of everything the game has to offer.

Somewhat paradoxically, scores will be significantly lower in even the most successful development game than in any quick-kill game. This is because of the huge point bonuses for getting to victory quickly, and for playing at the highest skill levels. In a development game, it's not really the score that matters, it's seeing everything come together.

The priorities in a development game are, in rough order:

•Technological Advances

•High Resource Production

•Base Facilities

•Secret Projects

•*Defensive* Military Strength

Everything else follows directly from these priorities.

PRE-GAME

Don't be ashamed to play at a lower skill level. The highest levels are keyed towards increased conflict, and it's difficult to get a successful defensive/growth strategy going unless the other guys occasionally give you some breathing room. In "real world" terms, if the other factions were as aggressive as they are at highest difficulty levels, *of course* you'd use a "quick kill" strategy. You'd be forced to, to survive.

Playing at Thinker/Librarian level is plenty high for a development game.

This doesn't mean that development games can't be won at higher difficulty levels, just that they'll be a lot harder (which may or may not be more fun for you).

The Peacekeepers and the Gaians are the king and queen of the development strategy. Morgan's tough, due to his population restrictions (but may be the best choice if you want to go all-out for economic victory). It's harder to win with the University than you might expect, easier with the Spartans. Miriam and Yang are right out.

Use a big — preferably huge — Planet. You need elbow room.

Customize your Planet to emphasize high production — high cloud cover, strong erosive forces.

Ocean coverage should be low, unless you have a personal affinity for naval tactics and sea bases.

Use abundant life forms if you plan on using elements of the **Green Conquest** strategy (see p. 36), or if you want to pump your final score.

CUSTOM RULES

Enable all the victory types, or choose one and go for it. (And by the way, victory by conquest *is* possible in a development-based game. See p. 55 for more.)

Consider co-operative victory.

Make sure Spoils of War is off. You want to establish tech superiority early, so your rivals stand to gain more from this than you do.

Things will be a bit easier if Blind Research is off, but if it's on you can still win. The important thing is not so much when you get each tech, as how quickly you can get all the techs.

STRATEGIES

GETTING STARTED

As in any game, you start out by exploring and expanding. Find your neighbors, but more importantly get the lay of the land. Try to visualize how far your faction can expand before it will have to jump to another continent or go on the offensive.

As soon as your technologies permit, build one defensive unit, one former and one colony pod for each new base.

Place your bases close together, to exploit all available resources, but avoid crowding. You'll need room for each base to grow.

There are two basic strategies for placing your bases in a development-based game. The first emphasizes total usage. You place the bases overlapping just enough so that every land square is within someone's production radius. This produces a grid of bases anywhere from two to four squares apart. The second emphasizes individual growth. You place the bases so that there is no overlap at all, which will require letting some land "go to seed." Bases will be four to five squares apart. The first option produces bases which are individually smaller, but produce a greater overall faction population. It's harder on the ecology, and maintenance charges are greater. The second produces maximum-sized bases, but overall population is lower. Faction-wide ecological damage is less, but might be greater on a base-by-base basis, due to increased production.

Both base placement strategies have defensive assets and drawbacks. Using a high-density placement, the bases themselves defend one another. The very density of your territory makes it harder for the enemy to push into it (you might lose more bases, but you'll be in excellent position to take them back). With low-density placement you can do all kinds of neat things with defensive lines of forest or fungus, fortifications and sensors in the "null space" between bases. In the end, the choice comes down to whichever is more fun for you.

Set your formers to building farms, collectors and roads in each square of your base's radius. Some alternate production strategies are explained on p. 50, but the important thing is that your bases produce enough to keep their populations growing, their building programs vigorous and your energy reserves flush.

Try to grab Secrets of the Human Brain first. If you're not the University, this will require significant luck, but make the effort anyway.

Grab early techs in this order (or as close as you can get): Biogenetics, Social Psych, (Secrets of the Human Brain), Centauri Ecology, Industrial Base, Information Networks.

There are five secret projects available from level 1 and 2 techs — Human Genome Project, Weather Paradigm, Merchant Exchange, Command Nexus and The Virtual World. These projects are *essential* to your success in a development game (well, the Merchant Exchange isn't really essential, but it is handy). Do whatever it takes to get *all* of these early projects (you can let Merchant Exchange go, if you have to). At this early point in the game, with limited resources, this may require insane sacrifice and risk. So be it. These projects are that important.

Any base not building secret projects should get to work on the following "core" improvements, in this order (as technology permits): Network Node (if you have or expect to finish the Virtual World secret project), Children's Creche, Recycling Center, Rec Commons, Hab Complex, Energy Bank and Biology Lab.

Unless you're actually under attack by another faction, good social engineering choices for development are Democracy, Planned or Green economics, and Knowledge. If more military readiness is called for, consider Police State (but avoid Fundamentalist), and possibly Power for the duration of the emergency.

Try to make sure every base spawns at least one more base before it starts to build facilities or secret projects. If you lose some colony pods or young bases, make sure you replace them. Ideally you want at least 3 to 4 bases at all times either working on their starting units (defensive/former/colony pod) or with a colony pod actually out and on the move.

If a base loses its defensive unit or former, replace it as soon as possible. Otherwise, keep your bases producing facilities and secret projects.

Don't over-defend your bases. Place one defender, or two at very high difficulty levels. Your defenses are your faction's size and production capacity. If an enemy threatens to take a base, he probably can, but odds are you can get an effective counter-offensive started from scratch before he gets too many more. (Historians can take the mobilization of American forces in WWII after Pearl Harbor as the model for emergency counter-offensives.)

STRATEGIES

HOLDING YOUR GROUND

Even in the middle of an all-out war with a neighbor, keep your development going. Alternate facilities and military units, or just let every base produce one good offensive unit and gather them into a counter-offensive force against the aggressor.

If the enemy is on your landmass, keep the peace if you can, but if he starts to harass you, try to push him off your continent entirely, even if that means wiping him out. Controlling your entire central landmass will pay off big in the long run.

Trade tech whenever it's offered. Accept treaties whenever they're offered. Pact Brotherhoods are nice, but make sure that you're not hooking up with somebody who'll expect more than you're willing to give.

Give away tech freely (it's okay to ask for money, but if they refuse, just give them what they ask). Do not give up money or bases unless survival depends on it.

If an enemy starts a war, the quickest way to end it is to take a couple of his bases. This will probably cause him to back down. If the bases aren't some-where you can effectively defend, feel free to give them back to him if he demands it, or just to make him a bit more likely to stay off your back.

You definitely want to be Planetary Governor. Solid growth and research (plus the vote-enhancing Empath Guild project) should give you all the juice you need to win the election. Pass the Global Trade Pact if you can. Salvage *Unity* Fusion Core is nice, but watch out for other factions that may use the windfall to finance military action against you, or snatch away an important project.

Just build. Build every facility and secret project you can get your hands on (with the lone exception of the Punishment Sphere — avoid that puppy like the plague).

Try to keep your energy allocation at 50% Labs, 50% Economy. With aggres-sive growth, drones *will* be an ongoing problem. Try to suppress them with social engineering and drone-reducing facilities and secret projects, rather than diverting money to Psych. Don't hesitate to commit two or three citizens as specialists, to calm a particularly fractious base until you can get a drone-con-trolling improvement up.

A high-growth, high-production strategy is vulnerable to ecological damage, particularly in the middle game. Any time you see any of your bases start to show visible ecological damage, take steps to curtail it by building a Tree Farm or Centauri Preserve. If you've been playing with Planned Economics, the onset of ecological damage is a good time to switch to Green.

I'VE GOT A SECRET

Secret projects (why are they called secret projects when everybody knows you're building them?) are the cornerstone of a development-based strategy. Having the really useful secret projects firmly in your grasp is your ace in the hole. They will rocket you ahead of the other factions.

There are no bad projects. They're all well worth the time and resources required to obtain them. Some are nearly essential, while others are merely handy. Some require a very specific strategy to fully exploit their potential, others are close to universally useful. Even if your personal strategy won't gain much from a given secret, it may be worth acquiring simply to keep it out of another faction's hands.

Secret Projects (beginning on p. 194) gives a detailed rundown of each and every secret project, its uses and relative value.

Below, therefore, are tips on acquiring absolutely as many projects as humanly possible. If you're really hard-core, you can use these principles to acquire *all* the projects for yourself.

Skill level is extremely important to your secret projects strategy, specifically whether you prefer to play at or below Talent level, or at or above Librarian. The difference is that through Talent level, no AI faction can start work on a project that you can't yet start on, even if they have the prerequisite tech. At Librarian and above, any faction can start a project as soon as they get the prerequisite tech.

This means that at Talent (for the rest of this section, assume that Talent means "Talent and below," and Librarian means "Librarian and above") you have a great deal of power in controlling when the computer players will start work on a given project. By controlling your own technological progress, you can significantly delay (but not postpone indefinitely) the other factions' ability to begin work on any projects. This assumes, of course, that you use self-directed research (and are not in a multiplayer game, but you knew that).

Your main tools in an aggressive secret projects strategy are high-mineral-production bases, so you can build projects faster than the enemy, and a high energy cash flow, to allow you to hurry projects when the enemy is almost finished with them.

STRATEGIES

Although loaning money is good for both your long-term cash flow and your diplomatic relations, avoid giving cash loans if you're serious about grabbing projects. When you need to hurry a project, you have to have the money available immediately, not 75 turns from now. The only thing that matters is having the largest possible energy reserve right this instant.

At Talent level, your main tool for grabbing projects is "clustering" them. When you get a tech that allows you to start a project, don't just start one base working on it. As quickly as possible, get several of your higher-production bases working on the project. Each "cluster" should include about four to eight bases (if you have a technological advantage over the other factions, or a very high energy reserve, you can cluster more projects together — it also depends on how many high-production bases you have). "High production," of course, changes as the game goes on. For very early projects, you're doing good to find a base producing more than five minerals each turn, but by the time you get to the very last projects, you shouldn't even think about using a base producing less than 20 minerals per turn. For most of the game, bases producing 12 to 15 minerals per turn are excellent candidates for projects.

Once the first project in your cluster is available to you, concentrate exclusively on techs that will give you other projects to build. As those projects become available, assign them to other bases in your cluster. Keep this up until you have all your bases in your cluster working on different projects (you may want to keep one base in the cluster working on a redundant project, just in case you stumble on a tech that gives you access to a project you didn't expect). Once your cluster is full, concentrate only on techs that *don't* lead to new projects. Ideally, once a cluster is full, you don't want to gain access to any new techs until the projects in your current cluster are all complete (or, more accurately, until no other faction is competing with you for any of the projects you have in production).

You may complete a couple of projects in your cluster free and clear, but it's likely that before you complete the entire cluster, one of your rivals is going to come close to completing a project before you. Sometimes the computer will tell you a rival project is nearing a "major breakthrough."

That means you have one turn to hurry that project to completion, or you'll lose it to another faction. Other times the enemy will just surprise you with a finished project. When this happens, you can cheat your way to success by restoring the game to the previous turn and hurrying your project. If you scorn such crude methods, you'll have to rely on intelligence, experience and deduction to figure out when your opponent is ready for a breakthrough. You won't be right 100% of the time.

Unfortunately, when you hurry a project to completion just ahead of your rival, he probably won't just call you a rude name and give up. He's more likely to switch his base to a new project, and if the new one is the same price or less as the one you just completed, you'll now have one turn to beat him to *that* project. It's entirely possible that you may have to hurry every project in the cluster on consecutive turns, one after another. This can get very expensive, and that's why you want a healthy cash reserve. If you're not sure if your funds are adequate, consider switching a few bases to Stockpile Energy for a few turns, to accelerate your income.

Once you complete a cluster, entirely avoid techs with projects attached for several turns. This allows you to restock your cash reserves, your high-production bases can work on important facilities and replace necessary units, and it also gives you a chance to get to a place on the tech tree where you have several techs in place to create a new cluster.
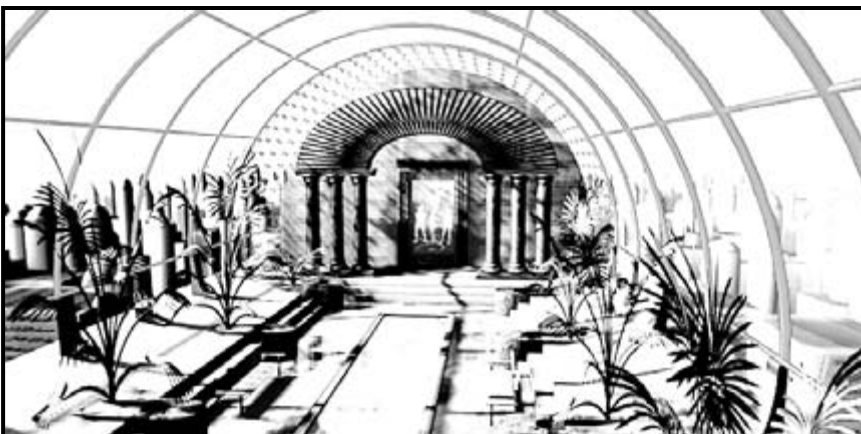
STRATEGIES

GETTING STARTED

Your first cluster should always be the three projects that come with level 1 techs — Human Genome Project, Weather Paradigm and Merchant Exchange. Because you are starting this cluster without a cash reserve or an advantage in technologies, these three techs will always be the hardest to control. While your computer opponents will be quite happy to grab a single project for themselves, you want to come away with all three.

It's important that you start working on projects before the other factions. Expand your faction to no more than four bases. When a base has a former working and a synthmetal garrison in place (and has produced a colony pod if you haven't yet got to four bases), start it working on a project. Preferably, you should show 100 turns or less to completion. Once you have three bases working on the three starting techs, the fourth can produce colony pods and scout units so your expansion doesn't completely halt.

Get money wherever you can. This is why it's important to keep exploring. *Unity* pods will yield energy resources, wild mind worms will supply Planetpearls. If your fourth base has a former, a defensive garrison, and has reproduced itself with a colony pod, consider having it Stockpile Energy.

At this phase of the game, it's important to pursue techs aggressively, but be careful. If you end up with a level two or three tech with a project attached, you are in an extremely vulnerable position. When you complete a project in your cluster, your rivals can jump to the new tech, and you won't have a base free to take up the slack. Refuse to trade for these techs, and hope for the best with *Unity* pods and alien artifacts.

If you have to give up an early-game project, try to let it be the Merchant Exchange.

DEVELOPMENT-BASED

BLIND RESEARCH

If you like the challenge of Blind Research, you can still take steps to insure overall secret project superiority. The key word here is redundancy. Any time a secret project becomes available, assign a base to it as soon as possible, then assign a couple more. Make sure that however many projects you're actually working on, you always have a couple bases working on redundant projects, so they can be switched over to any new project that comes along with a production head start.

Sometimes a rival will get so close to a project that there's no way to stop him completing something. Sometimes you'll run out of projects entirely, and have to burn some serious minerals switching production to a facility. Overall, however, redundancy and consistency should put you ahead of the pack in terms of projects, and that's the most important thing.

HIGH SKILL LEVELS

If you're playing at Librarian skill level (and up), you lose your ability to cluster to prevent rivals from researching new projects. As with Blind Research, your best defense here is redundancy — always keep a couple bases on redundant projects. If you see another faction start a project that you don't have the tech for, you can make a beeline for that tech, and when you reach it your redundancy should (with luck), allow you to pick up on the new project with it already significantly paid for.

Obviously, at high skill levels you really, really want to have a tech advantage over all the other factions, so you'll be working on techs nobody else is even ready to try for. If somebody does get the jump on you, a fast research pace will allow you to catch up to the needed tech in time to grab the project.

STRATEGIES

ALTERNATE PRODUCTION STRATEGIES

As previously mentioned, an aggressive, development-based production strategy that seeks to put a farm plus a mine or collector in every square leaves your faction very susceptible to ecological damage. Below are a couple of more eco-friendly options. They're not quite as production-heavy as the basic technological development strategy outlined above, but they can keep your bases well in the production black.

Special Thanks to Martin Leuschen for these concepts.

SHERWOOD FOREST

This one is designed to use eco-safe forest squares to their fullest potential.

The key here is the Tree Farm and Hybrid Forest improvements. Try to get them as quickly as possible. With a Tree Farm each square is producing two nutrients and five resources total (each square is self-supporting). With a Tree Farm and Hybrid Forest each square is producing three nutrients (allowing lots of growth) and seven resources total. Each square is producing nutrients, minerals and energy.

For this strategy to work, you'll want fairly wide-spaced bases. Try to overlap as little as possible, and (assuming you have plenty of expansion room) a bit of wilderness space between bases is fine.

The main problem you face is what to do until you get the Tree Farm. Early on, you'll want to technologically develop several of your richer squares (but not every square), until you get your base on a positive growth footing. When you get your Tree Farm, tear down all but a couple of the base's farms and condensers, and plant forests instead. When you get the Hybrid Forest, tear down all of your technological improvements.

Since your forest squares will be producing minerals, you don't need to build mines at all. Use your formers to level your rocky squares so they can support forests.

Your forests will come in handy if you come under attack by an aggressive foe. Just destroy the roads on your borders, and use the defensive bonus from the forest to your advantage. Remember that sensors can be planted in forest squares without disrupting the forests themselves, so build a line of defensive sensors on your frontier.

DEVELOPMENT-BASED

Your formers will have less to do in this game than in a technological-production game. Use the extra former time to drill to aquifer, to create rivers for the extra energy.

Although it sort of goes against the paradigm, the ability of forests to suppress eco-damage makes it possible to build a few (not very many) boreholes, to hype the production output at key bases (good for creating quick secret projects).

MOUNTAIN MEN

What can you do with those pesky east-side exposures of ridges and mountain ranges? You can build bases there and use a Sherwood Forest strategy to make them productive. There is a drawback to this, however … if left undeveloped, those wastelands provide a useful natural barrier protecting your faction's territory. But you want to get something out of that "useless" space.

The solution is the "mountain man." Like frontiersmen throughout history, these hearty types don't gather into cities. Instead they go out into the wilderness, harvest its bounty and haul it back to civilization.

How this works for you is that you send out formers to key squares on the barren side of the elevations. Develop *one* resource in each square (and you don't have to develop every square). High elevation squares are excellent sources of energy (up to four energy per turn with a solar collector), while low, rocky squares are perfect for minerals. You'll also want to construct strategically located roads. Your "mountain men" are supply crawlers, which go out from your base, gather the resources, and convoy them back to civilization.

Also, have your formers start forests in the squares you're not harvesting. They could come in handy if you need a place to expand to.

Supply crawlers are vulnerable by nature, so you might want to build a few fortifications near the roads, and station some patrol units there for defense. Watch out for other factions (including allies) whose borders may creep up and take over your wilderness territory. Sensors might be handy along the frontier (particularly near concentrations of fungus) but remember that if borders change to put your sensor in another faction's territory, that makes it *their* sensor.

STRATEGIES

ENDGAMES

The end of the development-based game will vary depending on what victory you are trying for. Below are notes on each of the four victory types.

TRANSCENDENCE

Victory by Transcendence is the climax of a "pure" development-based game. It's basically a race up the tech tree. Once you get to the top, you want to have high mineral production (for the base that's going to build the 2000-point Ascent to Transcendence). You also want a formidable cash reserve (in case you have to hurry the Ascent — perhaps because of another faction, perhaps because the game's time limit is approaching). Of course, this is a blatant oversimplification. All of these factors (tech, production, cash flow) work together in a multitude of more subtle ways.

Stick to basic principles. Grab secret projects, watch ecological damage, and don't let your drones get out of hand. That's the recipe for a Transcendence victory.

ECONOMIC

An economic victory requires an element of obsession. Cash flow is everything. Basically, you have to put yourself in a situation where you have a large, productive territory that you can defend, so that you'll never, ever have to take offensive military action. Wars cost too much money.

Yes, you can win a game with Free Market economics. This is it. Once you get your territory established, you can set your social engineering at Democratic/Free Market/Wealth/Eudaimonic and watch the money roll in. At these settings, however, don't expect to be able to send any units out into the world without throwing their home base into chaos. Instead, build clean units and keep them on alert in your bases, so they'll activate themselves if an enemy gets close.

DEVELOPMENT-BASED

Resist the temptation to pump your Economy rating at the expense of Labs. Build facilities that enhance your economy and stability, ignore facilities that don't. Instead of building a bunch of vanity facilities that don't do anything significant to help you reach your goal, set bases that already have everything they need to work stockpiling energy. The Orbital Power Transmitter is the holy grail of economic victory. Once you get a few dozen of these babies flying overhead, your troubles are over.

Pack your bases tight enough to exploit all available resources, but not so tight that their growth is restricted. Build solar collectors and echelon mirrors. Build improvements to suppress drones, because you won't get much help from your social engineering. Secret projects aren't the priority here that they are with other strategies, but be ruthless in grabbing anything that will boost your energy production. Also make sure you get the Hunter-Seeker Algorithm, to keep enemy probe teams out of your bank account.

Do make loans. You should be able to afford it, it will come out in your favor in the long run, and it helps keep other factions friendly. Likewise, give tech away freely if it helps keep other factions off your back. Do become Planetary Governor, and work to pass the Global Trade Pact.

The absolute bane of your existence is going to be the Global Energy Crash special event. This unavoidable catastrophe will come along at the absolute worst moment and send 75% of your cash reserves right down the hole. This is why the secret to an economic victory is not a large cash reserve per se, but good constant cash flow. Cash flow will allow you to recover quickly when financial disaster strikes. Also because of Global Energy Crash, once you do get into position where you can go ahead and try to corner the energy market, it's a good idea to do it right then. Don't wait around for a few more turns, because in a few more turns your cash might not be there any more.
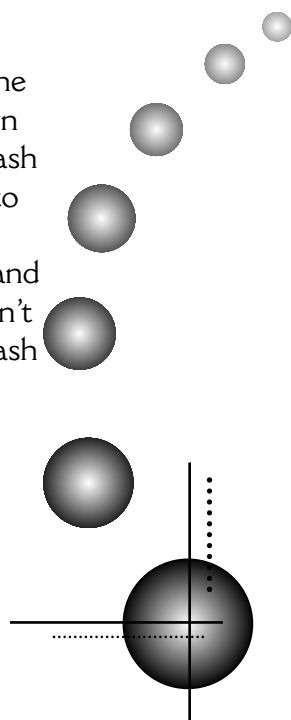
STRATEGIES

DIPLOMATIC

It would be nice if you could win a diplomatic victory by being a nice guy — so enlightened and wise that the other factions acclaim you leader totally of their own free will. Unfortunately, it doesn't work like that. The way to win a diplomatic victory is to be really, really big. *Much* bigger than anybody else. Try to have at least two or three times as many bases as the next largest faction.

Ideally, you'll have enough votes for Supreme Leader to elect yourself unilaterally (that's three times the votes of all the other factions combined). This means it definitely helps to play the Peacekeepers. You'll also need the Empath Guild and Clinical Immortality secret projects, which multiply your votes for Supreme Leader.

Don't go starting fights (you want to keep your reputation sterling), but if somebody starts something with you, hit back hard. You don't want to wipe them out, though. You want to pound them until they agree to submit and swear a pact to serve you. Take their bases until they agree to submission, then give the bases back once they're on your side (unless their bases happen to fall neatly into your contiguous territory). If you've got all the secret projects and your cash flow is good enough, don't be afraid to make large bribes for votes. Give away tech freely, make loans (again, as long as those loans don't deprive you of needed projects), and maybe even give away a base, if doing so doesn't compromise the tactical integrity of your territory.

There's a catch-22 to the diplomatic victory. You need to be much bigger than everyone else to get them to unite behind you, but the bigger you are, the less likely they are to trust you. The solution — don't just get big, get really, *really* big.

DEVELOPMENT-BASED

CONQUEST

There's nothing contradictory in winning a development-based game by conquest. In a quick-kill game the idea is to mobilize quickly and over-whelm the enemy before they can organize an effective defense. In a development conquest, the idea is to exhaustively build up an insur-mountable edge in technology, economy and production, then simply roll over the rest of the Planet.

Since this is a development game, be sure not to make your move until you're ready. Most of the game should play out just like a Transcendence victory, because both victories require you have high production and be the first faction to the top of the tech tree.

Once you get all the techs, you're ready to begin. Learn to love orbital insertions. The drop singularity marine unit can drop instantly, anywhere on Planet. Land a half-dozen just outside an enemy capital, take it, and expand out from there. Once you've established a beachhead on an enemy landmass, you can drop directly into the city, and avoid drop-damage.

Take on the strongest enemy faction first, and work your way down. The one thing drop singularity marines can't do is take out water bases that aren't adjacent to land on any side. For these bases, you can either ter-raform a land bridge to them, or simply build a good old-fashioned trans-port fleet. (Use helicopters or jets to destroy the base defenses before sending in the transports.)

If you have co-operative victory on, you don't have to annihilate the enemy, just pound them until they swear a pact to serve you. (This is another way to avoid having to take those pesky water bases.)
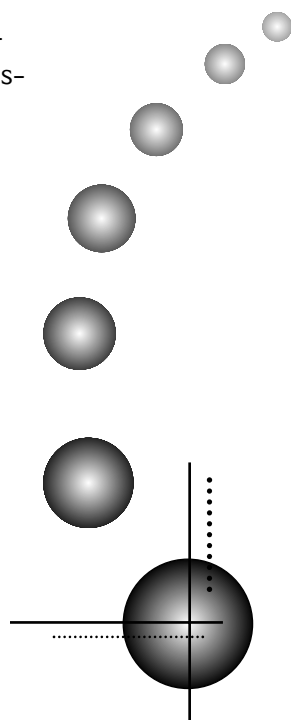
SCENARIOS

Sid Meier's Alpha Centauri comes with 10 pre-designed scenarios. Three are tutorials for new players, and are not covered here. The other seven are very challenging special situations. These pages tell you what to expect and how to win.

Although most of the scenarios are designed for multiplayer use, it's entirely possible to play them single player, against the computer.

DOGPILE ON THE HIVE

MP — 2 PLAYER A
SPARTANS VS. BELIEVERS
50 YEARS

OBJECTIVE   *CONTROL AS MANY OBJECTIVE BASES AS POSSIBLE BY M.Y. 2300.*
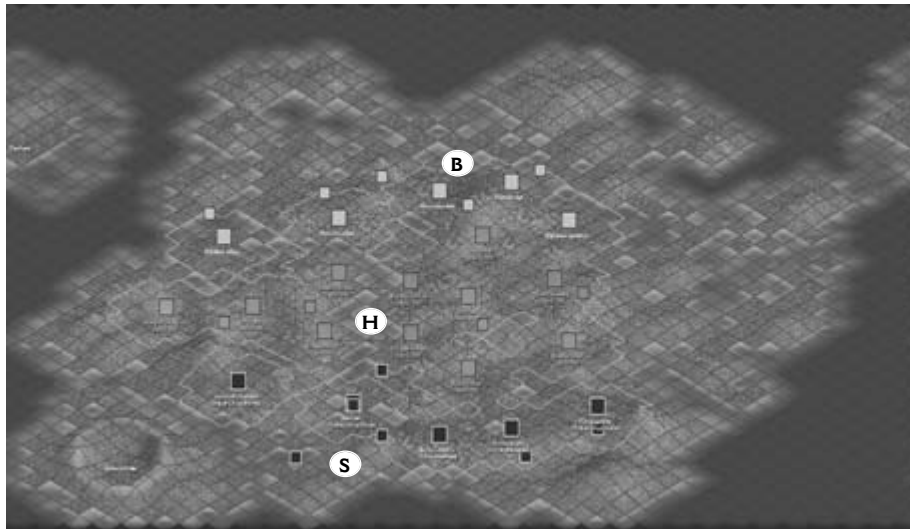
INTRODUCTION

M.Y.: 2251. The remnants of the once-proud Hive Empire occupy a strong central location, bordered by the weaker Believers to the north and the Spartans to the south. Your goal is to control as many of the central bases as possible by the year M.Y. 2300. These bases initially belong to the Hive, and are marked as Objective bases.

ANALYSIS

You can play either the Spartans or the Believers. The tricky thing about this one is that in order to get a foothold against the Hive, you're going to have to start out cooperating with the other side (whichever that happens to be). To win, however, you're going to have to turn on the other player at some point. Basically, this scenario is a poker game, and you have to know when to call your opponent's bluff.

The Spartans and the Believers are similar factions in military situations, and the strategy for both factions is the same.

In the early phases of the game, you want to divide and conquer the Hive bases. The best way to do that is to use your air and naval power to cut the roads that link the four central bases.

There's no point in trying to expand your territory other than by taking Hive bases, and you don't have time to do anything tricky with technologies or secret projects. Just crank out those units and put them to good use. Try to come out on top at the end.

SCENARIOS

HUCKLE BUCKLE WORM STALK

MP — 4 PLAYER A

GAIANS, PEACEKEEPERS, MORGANS, UNIVERSITY

45 YEARS

OBJECTIVE *FIND AS MANY ALIEN ARTIFACTS AS POSSIBLE AND ESCORT THEM TO YOUR HEADQUARTERS BASE (DESIGNATED ARTIFACT HOLDING AREA) BY M.Y. 2185.*
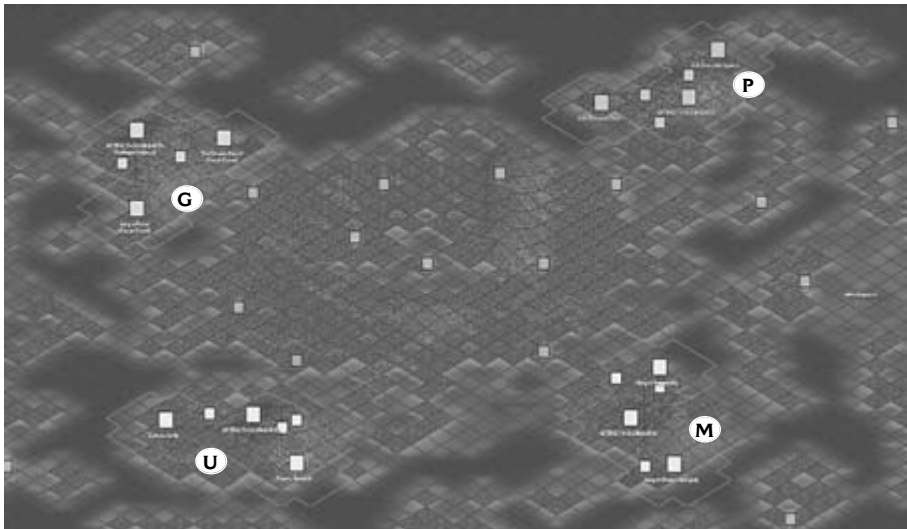
HUCKLE BUCKLE

INTRODUCTION

Planet contains many more alien artifacts than previously thought. These strange relics are scattered throughout the main central continent and the surrounding oceans, and hold invaluable secrets and powers.

You must ensure that your faction obtains its fair share of these artifacts. Your goal is to search out these artifacts and escort them safely back to your Headquarters, designated as Artifact Holding Area. You have 45 years to clear the area of artifacts. Any faction in possession of 7 artifacts in the Artifact Holding Area is considered to have a commanding lead, and automatically wins!

ANALYSIS

This is an exploration scenario that has a distinct capture-the-flag air about it. There are basically three ways to win.

First, you can just explore. Try to be the first one to get to as many artifacts as possible. Artifacts can be found both out in the open and in Unity pods, so don't forget to explore the ocean.

Second is the more aggressive "highwayman" option. The map has certain natural choke points to it. Find the choke points most convenient to your territory and lurk there (don't forget to use the fungus to hide). When an unsuspecting explorer stumbles by with an artifact, jump him and take it for your own.

Third is the really aggressive "all the marbles" option. Build an army, take an enemy's capital (aka "Artifact Holding Area"). His artifacts are now your artifacts. Repeat until you win. Unfortunately it's not as easy as it sounds, due to the short time limit. (More peaceful factions are advised to take some steps to defend their capitals against late-game attacks.)

If nobody gets seven artifacts, the faction with the most at the end of the game wins. Yes, it's entirely possible to tie.

SCENARIOS

THE GREAT LAND RUSH OF 2150!

MP — 4 PLAYER B
GAIANS, MORGAN, SPARTANS, UNIVERSITY
30 YEARS

OBJECTIVE   *CONTROL AS MANY BASES AS POSSIBLE BEFORE M.Y 2180*
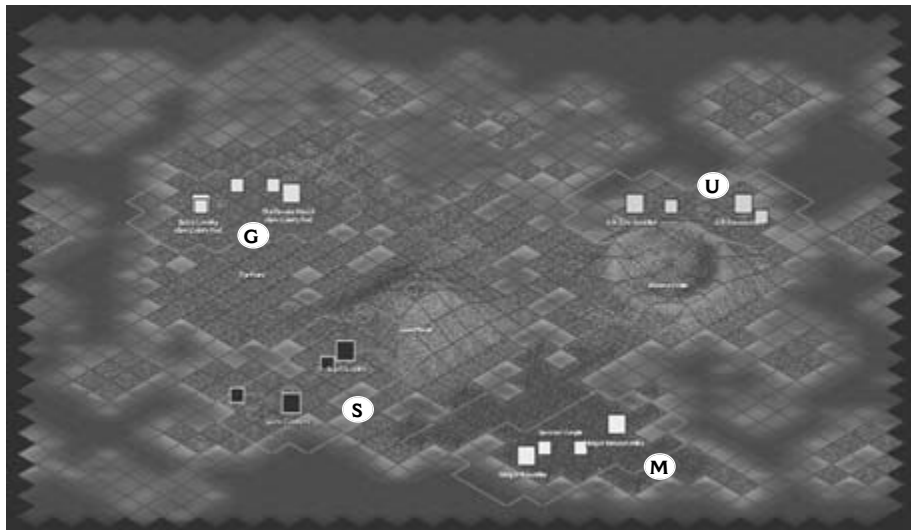
INTRODUCTION

Planet turned out to be a good deal smaller and less hospitable than you had hoped. You now share a small central continent with the three other faction leaders who survived Planetfall.

Your faction must stake its claim to the future, and so your objective is simple: control as many bases as possible in 30 years.

ANALYSIS

You can either build or conquer your new bases. You'll probably want to do a little of both.

When you build bases, keep them packed closely together. Growth potential isn't a factor — only the raw number of bases in your control counts for anything.

Consider the islands on the outskirts of the map as good places for nice, safely isolated bases. You're going to have to work fast if you're going to find and settle any good island in a 30-year game.

The map here is interesting. Each faction occupies a corner of a small, rectangular continent, and each faction is located next to a major landmark. These landmarks each give their faction a significant bonus, and should be used in their strategy.

The Gains are near the Ruins. The Ruins provide excellent early resources to nearby bases, and the monoliths can be used to give units an important morale edge. The fungus may yield some mind worm recruits as well.

The University gets Garland Crater, whose internal squares yield a bonus to minerals. This should be used to create a formidable fighting force.

Morgan landed in the middle of the Monsoon Jungle, with its bonus to nutrients. Because of these extra nutrients, colony pods won't deplete Morgan's population as much as the other factions', so get lots of new bases early.

Finally the Spartans get Mount Planet, which carries an impressive bonus to both minerals and energy. Unfortunately, while the other factions have landmarks behind natural defensive choke points, the Spartans have to hold Mount Planet in very exposed territory. This suggests that the Spartan strategy should be more offensive than defensive — take out the enemy before he can come after those exposed high-production bases.

SCENARIOS

THIS WHEEL'S ON FIRE

MP — 7 PLAYER A
ALL 7 FACTIONS
100 YEARS

OBJECTIVE   *CONTROL AS MUCH TERRITORY AS POSSIBLE BY M.Y. 2250*
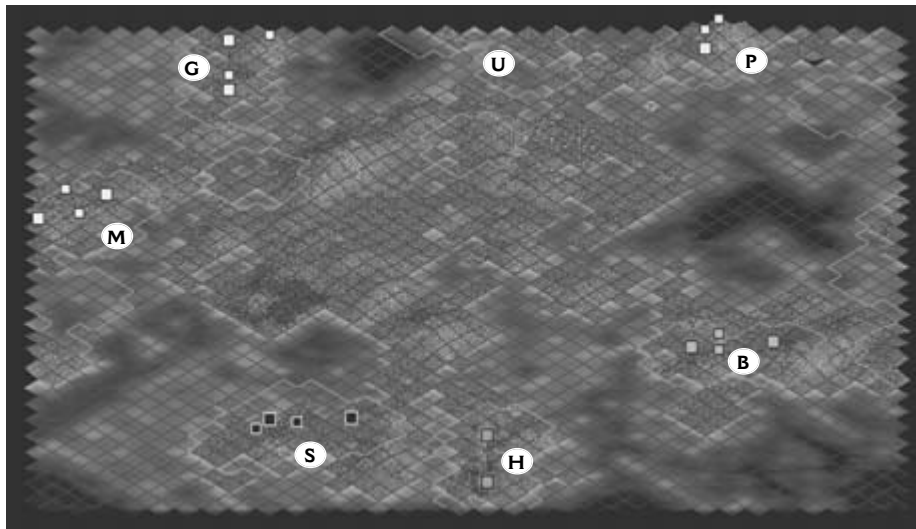
INTRODUCTION

All seven leaders survived Planetfall and have expanded tentatively past their initial landing site. You have heard rumors of a central continent rich in resources and arable land, and are ready to begin the expansion necessary to cement your dominance. Control the most territory by M.Y. 2250 to establish yourself as the dominant faction on Planet.

Start date: M.Y. 2150

End date: M.Y. 2250

ANALYSIS

Your continent takes the form of a three-spoked pinwheel, with two factions per spoke. Miriam is contrary as usual, getting her own island to start on. The central continent is quite rich in resources, if you can hold on to them.

Your first question (unless you're Miriam) is what to do with your immediate neighbor. You can't just ignore him, so you have to either ally yourself with him or take him down quickly.

Size does matter — in this case, the size of your territory at the end of the scenario. Keep those bases well spaced out and well defended. Don't let your expansion be confined by the size of the continent — build sea bases (they're easy to defend) or terraform new land up.

For what it's worth, the natural features on this map are named after various bigwigs and staffers at Firaxis and Origin Systems. Check the credits in the manual for more details.

SCENARIOS

The final three scenarios are two-player faction vs. faction games, found in the FACTION V. FACTION subdirectory of your SCENARIOS directory. Each of these matches two ideologically opposed factions in a situation that allows both to play to their respective strengths. (Yang isn't matched up with anyone, mostly because everybody hates him equally).

One difference with these three scenarios … they're all played on a flat map, that doesn't wrap at the edges.

SCIENTISTS IN THE HANDS OF AN ANGRY GOD …

BELIEVERS VS. UNIVERSITY
45 YEARS
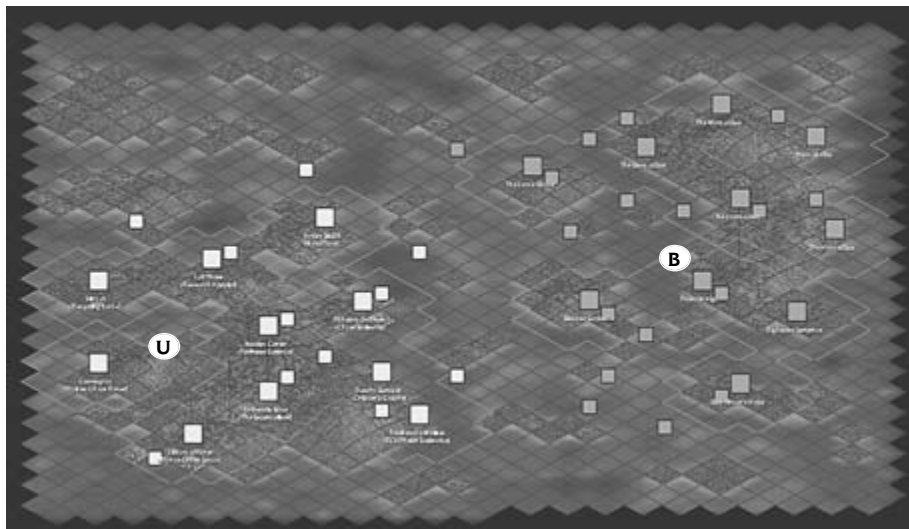
OBJECTIVE ***CONTROL THE LARGEST POPULATION BY M.Y. 2300. IF EITHER FACTION CONTROLS MORE THAN 100 POPULATION AT ANY TIME, IT IS CONSIDERED THE UNCONTESTED VICTOR.***

INTRODUCTION

M.Y. 2256: In the west, The University has gloried in its ivory towers since Planetfall, content to pursue scientific advances unrestrained by moral concerns. To the east, the Believers have prepared a crusade to cleanse Planet of the perceived blasphemy of the University and bring more souls into the fold.

For both factions, population equals power. The faction controlling the most population in M.Y. 2300 shall control the future. If either faction at any time controls more than 100 population, that faction will dominate the future of Planet and is considered the victor.

ANALYSIS

A classic match-up. The Believers have lots of forces, but inferior technology, while the University has a strong tech edge, but far fewer units. University also has a higher population to start, suggesting that they're well advised to emphasize the defensive and hold on to what they've got. The Believers can either try to grow their own population, steal it by taking over University bases, or both.

The Believers start out with a large percentage of their forces aboard transports. If the University can sink these transports with the troops still aboard, they'll have a much easier time of it early on. The Believers have a large navy, while the University's is much smaller, leaving the University to make the call whether to mass or split their forces.

The odds of either side actually getting to population 100 are pretty slim, so expect this one to go right down to the wire.

SCENARIOS

GAIA'S REVENGE

GAIANS VS. MORGANS

75 YEARS

OBJECTIVE   **CONTROL THE SIX OBJECTIVE BASES TO ACHIEVE VICTORY — FIVE MORGAN POLLUTERS AND THE GAIAN CAPITAL.**
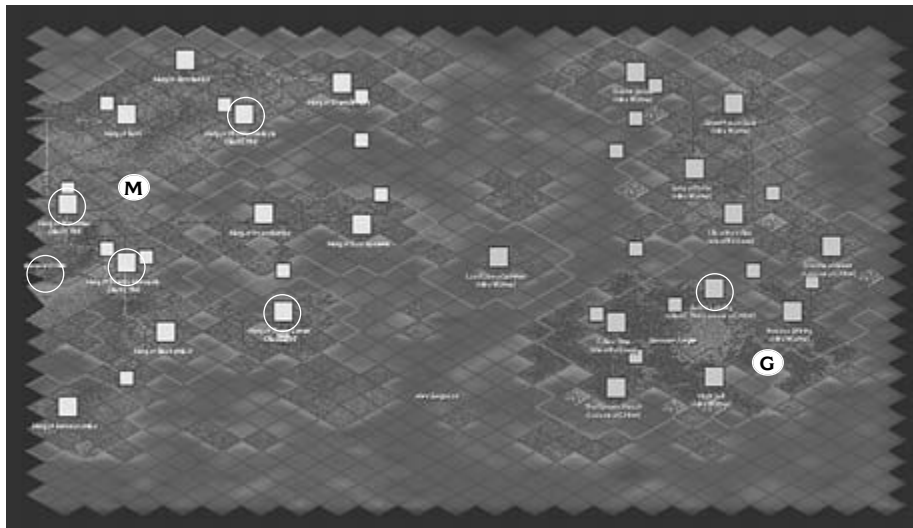
INTRODUCTION

It is now M.Y. 2326, and Planet is poised on the brink of a final Armageddon. The Morgans control the west, wantonly befouling their continent with vast tracts of Thermal Boreholes in the center of their empire. The Gaians control the east, and have been slowly building an armada of native units bent on restoring ecological harmony to their world.

The Gaians intend to take over the most polluted Morgan bases, while the Morgans seek to retain these jewels of their industrial crown and put an end to the wasteful struggle by conquering the Gaian capital. Victory will go to the leader who controls all six objective bases — five Morgan bases plus the Gaian capital.

ANALYSIS

The Gaians start out with lots of big bad mind worms on isles of the deep. To survive the early game, the Morgans are well advised to take out the isles before they land. Expect a lot of sea action in this one.

The main choice for the Gaians is whether to mass their forces for an all-or-nothing invasion, or split them up for a riskier, but harder to stop, multi-pronged attack.

The Morgans need to use their industrial power to crank lots of units. Remember, you'll be taking on the mind worms in Psi combat. That means your best buy is cheap, high morale units with anti-Psi abilities. Use naval power to try to surround and blockade isles of the deep, and use air power for scouting. (Remember, you have to fly directly over a fungus square to see what's hiding in it.)

In addition to the Gaian forces, the Morganites also need to be ready for explosions of wild mind worms caused by their ecological disruption.

This scenario lasts up to 75 years, so there's lots of time for reversals of fortune. In general, delay benefits the Morgans, who can then use their industrial superiority to build up an unstoppable force. The Gaians' military advantage comes at the start of the game, and that's when they'd better be ready to use it.

Remember, you have to have *all* the objective bases to win. Morgans can't just take the Gaian capital while giving up a couple of bases along the way, and the Gaians can't go all out to shut down the Morgans and leave their capital vulnerable.

SCENARIOS

BY HOOK OR
BY CROOK ...

SPARTANS VS. PEACEKEEPERS

40 YEARS

OBJECTIVE *THE FACTION CONTROLLING THE MOST SECRET PROJECTS IN M.Y. 2240 ACHIEVES VICTORY! CONTROL ANY SEVEN PROJECTS FOR AN INSTANT WIN.*
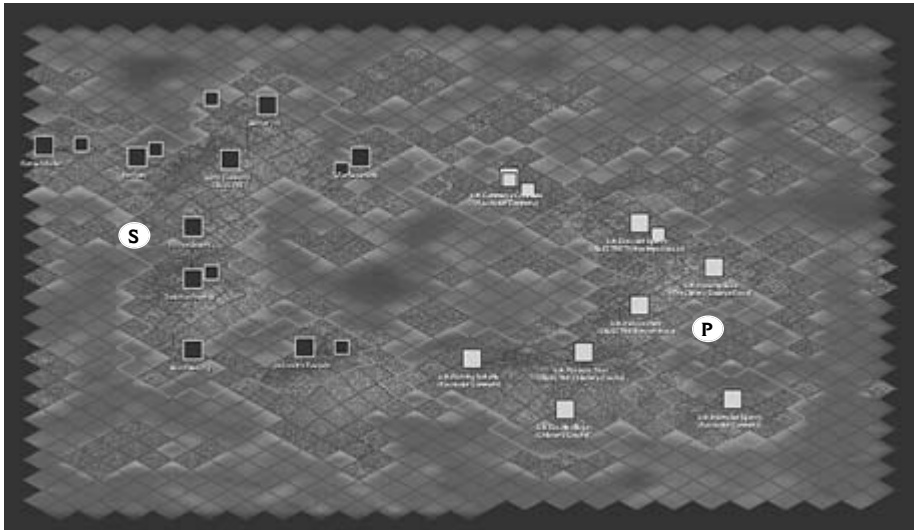
HOOK OR CROOK

INTRODUCTION

M.Y. 2201: The Spartans have spent the years since Planetfall building advanced weapon systems instead of tending to their infrastructure. By contrast, the Peacekeepers have spent their resources on several grand Secret Projects, neglecting their frontier's defense. The Spartan High Command now realizes that unless its military might is immediately utilized, the Peacekeepers will establish an unsurpassable lead.

You must control more Secret Projects than your opponent by 2240. If either faction at any time controls seven Projects, that faction is considered to have a commanding lead and automatically wins control of Planet!

ANALYSIS

Projects — the Peacekeepers have 'em, and the Spartans want 'em. Spartans are the offense, Peacekeepers are the defense.

The Spartans want to take some projects away from the Peacekeepers, plus maybe build a few themselves. The Peacekeepers should stop messing around with new projects and concentrate their resources on building defenses for the ones they've got.

There's neither much time nor much space for a great deal of sea action in this scenario.

Because this is such a short scenario, the Peacekeepers should be looking for ways to trade land for time. The Peacekeepers don't want to hold on to their outlying bases at all costs — instead, they want to use them to hold off the Spartans as long as possible from the real objectives.

Here's an undocumented feature for you — if at any time the Peacekeepers can succeed in taking the Spartan HQ, the scenario ends with a Peacekeeping victory.

THE MAP OF PLANET

By Chris Pine, Firaxis Designer & Creator of the Map of Planet

I'm going to talk about the Huge Map of Planet. The other one is simply a scaled down version of the same thing.

My first and foremost concern in designing the Map of Planet was to make Planet look … like a real planet. The deep trench on the sides of the map shows the tectonic action of Planet as the continents are pushed apart. Another area of geothermal tension is near the South Pole, in the center. There are volcanic islands poking up, including the active Mount Planet, and the Geothermal Shallows just to the North. Craterous lakes and seas also pop up from place to place.

Another concern was that my Planet match Brian's story of what Planet must be. Planet "thinks" with a gigantic neural net consisting of the fungus. In order for this to work, however, the fungus had to be connected, even across continents. I also assumed that fungus would not grow on the Uranium Flats, and that it would be surrounding the Ruins. The fungus, which seems to originate from the Ruins, has severely scarred the terrain nearby, tearing up the coastline and denting the plains with small lakes.

For some reason, however, the fungus has stayed out of the very center of the Ruins, which, if you can get there, is an excellent place to build a city. The surrounding terrain is unusually rich in minerals, nutrients and energy. Surrounded by monoliths, all of your units will get upgrades and repairs whenever you want. And who's going to go in and get you? For those interested in mind worm hunting (whether for the money or for the military benefits), it is advised that you keep your bases to the south, however, and avoid building sensors. Only the fiercest of mind worms will roam near bases.

Further south on this long battlefield of a continent is Pholus Ridge. Produced by the clashing of two separate tectonic plates (one heading east from the Great Marine Rift and another almost stationary under the Sea of Pholus), it is a wealth of mineral resources. There is a particularly choice spot in the center, with energy and nutrient resources located nearby.
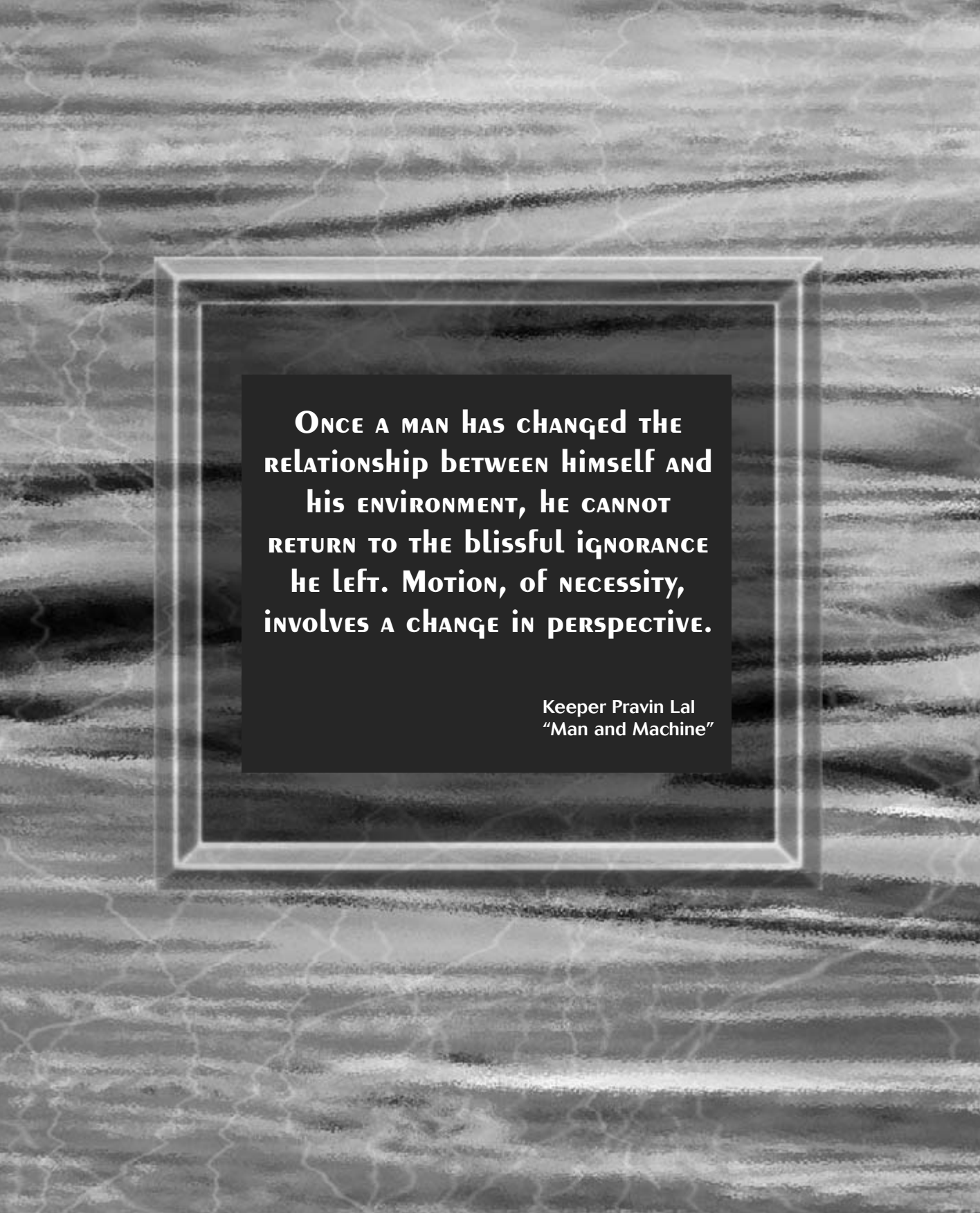
The Freshwater Sea is has the cleanest, most nourishing (and fungus-free) water on Planet. It's excellent for hydroponics and experimental sea colonization. There are also some nice spots to build port bases along the northeast side of the sea. These serve as canals from the Freshwater Sea to the much larger Sea of Pholus and are conveniently located near mineral, nutrient and energy resources.

Upon seeding Planet with *Unity* pods, there was a small area of ocean that was accidentally seeded three times. The abundance of foreign material caused the sea fungus in the area to proliferate. (The fungus and mind worms have been called "Planet's Immune System.") This New Sargasso is a dangerous place to navigate, but the rewards are great as well. Planet-friendly factions will find this a nice place for sea bases: secluded and full of fungus.

Because of the fungal network, mind worms can move rapidly. For factions who use this to their advantage, it's a small world after all.

There are several other places with excellent resource abundance. Morgan or other energy-conscious factions will want to build on the Sunny Mesa and in the Uranium Flats. Garland Crater is another great place to settle, especially as most of the fungus in the nearby area was destroyed by the blast. For fast growth, try the Monsoon Jungle — the rainiest part of the rainiest continent, food is never a scarcity. However, very little rain ever makes it over the ranges to the east. Most goes into the jungle or into the big river dividing the continent, resulting in a desert to the east. It's not a great place to be, but at least the fungus and the mind worms think so, too.
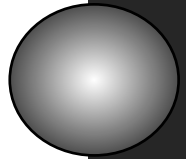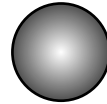
For peace and quiet, try the Isle of Deianira, the island in the northern center of the map. Incidentally, I did not name any of the landmarks of Planet. Brian, who has a much better knowledge of mythology than I do, named them after Centaurs and a few other things from myths about Centaurs.

Once a man has changed the
relationship between himself and
his environment, he cannot
return to the blissful ignorance
he left. Motion, of necessity,
involves a change in perspective.

Keeper Pravin Lal
"Man and Machine"

TECHNOLOGIES
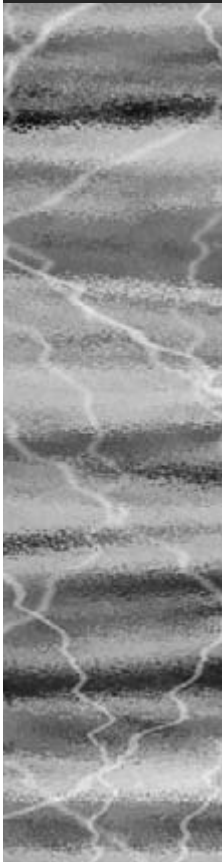
TECHNOLOGIES

The following pages compile all the useful information about each technology on the tech tree. This chapter is designed to be a useful quick reference to technology advancement. Each technology's write-up includes all relevant game stats for the tech (its level, prerequisites and the benefits its discovery carries), plus a "real world" explanation of what such a breakthrough would really mean to a future society.

Each technology lists one to four of the following categories: Explore, Discover, Build and Conquer, followed by one or more icons. These values are used by the game's AI when determining research priority. If you have your research priority set to Explore, for example, the game is most likely to research the available tech with the highest Explore value. Note that these ratings are different from the tech's level (for example, Build 7).

Other information on each tech includes:

Name

Level

Icon

One-Line Definition

Quote (the quotation that the game gives when the tech is achieved)

Explore/Discover/Build/Conquer Rating

Prerequisite Techs

Following Techs

Benefits

"Real World" Definition

ADVANCED ECOLOGICAL ENGINEERING (BUILD 7)

"The last word in Terraforming"

You are the children of a dead planet, earthdeirdre, and this death we do not comprehend. We shall take you in, but may we ask this question — will we too catch the planetdeath disease?

> **Lady Deirdre Skye,**
> **"Conversations with Planet"**

Explore	⊕ ⊕
Build	🏭 🏭 🏭 🏭
Prerequisites	Environmental Economics (Build 5)
	Fusion Power (Discover 6)
Leads to	Centauri Psi (Explore 8)
Unit Chassis	Super Former Ability
Terraforming Ability	Formers can construct Soil Enrichers

The discovery of Fusion Power opened up staggering possibilities in a number of endeavors, including the field of Environmental Economics. Based on the cumulative experience from thousands of construction projects undertaken since Planetfall, Advanced Ecological Engineering marks a new milestone in man's ability to manipulate his environment.

TECHNOLOGIES

ADVANCED MILITARY ALGORITHMS (CONQUER 4)

"Apply new tools to new kinds of warfare"

Man has killed man from the beginning of time, and each new frontier has brought new ways and new places to die. Why should the future be different?

Col. Corazon Santiago,
"Planet: A Survivalist's Guide"

Explore	⊕ ⊕
Build	⏚
Conquer	⚡ ⚡ ⚡
Prerequisites	Doctrine: Flexibility (Explore 2)
	Optical Computers (Discover 3)
Leads to	Pre-Sentient Algorithms (Discover 5)
	Retroviral Engineering (Conquer 6)
Social Engineering	Power
Base Facility	Punishment Sphere
Unit Special Abilities	Deep Radar Ability
	Tracking Lasers Ability
Terraforming Ability	Formers may construct Bunkers

Military requirements have historically pushed technology forward, and no better example can be found than sophisticated software development. From the first computers, designed to calculate artillery shell trajectories, to Advanced Military Algorithms developed from Polymorphic Software and Doctrine: Flexibility, mankind has worked to extend warfare into the digital world.

ADVANCED SPACEFLIGHT (DISCOVER 8)

"Explore the reaches of space"

And so we return again to the holy void. Some say this is simply our destiny, but I would have you remember always that the void exists, just as surely as you or I. Is nothingness any less a miracle than substance?

> **Sister Miriam Godwinson,**
> **"We Must Dissent"**
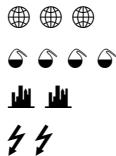
Explore	⊕ ⊕ ⊕
Discover	◔ ◔ ◔ ◔
Build	⛫ ⛫
Conquer	⚡ ⚡
Prerequisites	Orbital Spaceflight (Discover 6)
	Organic Superlubricant (Conquer 7)
Leads to	Super Tensile Solids (Build 10)
	Self-Aware Machines (Build 11)
Secret Project	Living Refinery
Base Facility	Orbital Power Transmitter
Unit Weapon	Plasma Shard (A13)

Resumption of Advanced Spaceflight begins shortly after mankind begins Orbital Spaceflight. With this technology, spacecraft can once again reach the moons orbiting Planet and, eventually, the stars themselves.

TECHNOLOGIES

ADVANCED SUBATOMIC THEORY (DISCOVER 3)

"The search for the smallest particles of matter"

The substructure of the universe regresses infinitely towards smaller and smaller components. Behind atoms we find electrons, and behind electrons quarks. Each layer unraveled reveals new secrets, but also new mysteries.

> *Academician Prokhor Zakharov,*
> *"For I Have Tasted The Fruit"*

Discover	◔ ◔ ◔
Build	🏭 🏭
Conquer	⚡ ⚡
Prerequisites	High Energy Chemistry (Conquer 2)
	Polymorphic Software (Discover 2)
Leads to	Silksteel Alloys (Build 4)
	Applied Relativity (Discover 5)
Base Facility	Skunkworks
Unit Special Ability	Comm Jammer Ability

Discoveries in High Energy Chemistry point the way to a new Advanced Subatomic Theory that tries to detect and quantify the smallest possible underlying particles of matter. Using self-modifying Polymorphic Software, the physicists developing this theory give mankind a window on the infinitesimal building blocks of the universe.

APPLIED GRAVITONICS (EXPLORE 14)

"Control the forces of gravity"

"What goes up … better doggone well stay up!"

> *Morgan Gravitonics,*
> *Company Slogan*

Explore	⊕ ⊕ ⊕ ⊕
Discover	◖
Conquer	⚡ ⚡ ⚡
Prerequisites	Digital Sentience (Discover 10)
	Graviton Theory (Explore 13)
Leads to	Controlled Singularity (Conquer 15)
Unit Weapon	Graviton Gun (A20)

Once physicists discover Graviton Theory, they turn their attention to Applied Gravitonics — the control of gravity itself. By controlling and manipulating the graviton strings that carry gravitational force, mankind can levitate objects regardless of mass or proximity to other objects.
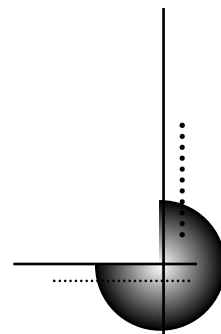
TECHNOLOGIES

APPLIED PHYSICS (CONQUER 1)

"Powerful, versatile modern lasers"

Scientific theories are judged by the coherence they lend to our natural experience and the simplicity with which they do so. The grand principle of the heavens balances on the razor's edge of truth.

> *Commissioner Pravin Lal,*
> *"A History of Science"*

Discover	◔ ◔
Build	🏭
Conquer	⚡ ⚡ ⚡
Prerequisites	None
Leads to	High Energy Chemistry (Conquer 2)
	Nonlinear Mathematics (Conquer 2)
	Optical Computers (Discover 3)
Unit Weapon	Laser (A2)

The colonists must create new tools from the wreckage of the Unity to survive and expand. Early inquiries into Applied Physics emphasize this adaptation of existing technology for the new environment.

APPLIED RELATIVITY (DISCOVER 5)

"Updating Einstein's theories"

You ivory tower intellectuals must not lose touch with the world of industrial growth and hard currency. It is all very well and good to pursue these high-minded scientific theories, but research grants are expensive and you must justify your existence by providing not only knowledge, but concrete and profitable applications as well.

> CEO Nwabudike Morgan,
> *"The Ethics of Greed"*

Discover	☁ ☁ ☁
Build	⛭ ⛭
Conquer	⚡
Prerequisites	Advanced Subatomic Theory (Discover 3)
	Superconductor (Conquer 4)
Leads to	Photon/Wave Mechanics (Conquer 6)
	Unified Field Theory (Conquer 7)
Secret Project	Supercollider

Albert Einstein developed his theories of relativity between 1905 and 1916; complete explanations of his work may be found in a number of sources. Later research into Advanced Subatomic Theory and Superconductors demonstrated that his postulates, though innovative for his time, were incomplete. Applied Relativity takes Einstein's basic theories and updates them to encompass an understanding of newly-discovered phenomena.

TECHNOLOGIES

BIO-ENGINEERING (BUILD 5)

"Unlock the last secrets of human genetics"

Why do you insist that the human genetic code is "sacred" or "taboo"? It is a chemical process and nothing more. For that matter we *are chemical processes and nothing more. If you deny yourself a useful tool simply because it reminds you uncomfortably of your mortality, you have uselessly and pointlessly crippled yourself.*

> *Chairman Sheng-ji Yang,*
> *"Looking God in the Eye"*

Explore	⊕ ⊕
Discover	◔ ◔
Build	🏭 🏭 🏭
Prerequisites	Gene Splicing (Build 3)
	Neural Grafting (Conquer 4)
Leads to	Retroviral Engineering (Conquer 6)
Secret Project	Longevity Vaccine
Unit Special Ability	Clean Reactor Ability
Other Notes	Increases intrinsic defense against gene warfare

Gene Splicing and Neural Grafting exemplify crude and invasive techniques for modifying an organism. The more refined Bio-Engineering method arranges a desired genetic code directly from the component compounds, enabling widespread and economical cellular transplants for an entire population.

BIOGENETICS (DISCOVER 1)

"Understanding the human genetic code"

We hold life to be sacred, but we also know the foundation of life consists in a stream of codes not so different from the successive frames of a watchvid. Why then cannot we cut one code short here, and start another there? Is life so fragile that it can withstand no tampering? Does the sacred brook no improvement?

Chairman Sheng-ji Yang,
"Dynamics of Mind"

Explore	⊕ ⊕
Discover	◔ ◔ ◔
Build	🏭 🏭
Prerequisites	None
Leads to	Secrets of the Human Brain (Discover 2)
	Gene Splicing (Build 3)
Secret Project	Human Genome Project
Base Facility	Recycling Tanks
Other Notes	Increases intrinsic defense against gene warfare

The alien environment on Planet brought a host of unforeseen health problems for the colonists. Early inquiries into Biogenetics center on the prevention and treatment of these problems. Researchers in this discipline seek an understanding of the entire human genetic code.

TECHNOLOGIES

BIOMACHINERY (BUILD 7)

"Machinery integrated on a cellular level"

I loved my chosen. How then to face the day when she left me? So I took from her body a single cell, perhaps to love her again.

> *Commissioner Pravin Lal,*
> *"Time of Bereavement"*

Explore	⊕
Discover	◓
Build	⛭ ⛭ ⛭ ⛭
Conquer	⚡ ⚡ ⚡
Prerequisites	Mind/Machine Interface (Conquer 6)
	Retroviral Engineering (Conquer 6)
Leads to	Homo Superior (Explore 8)
Secret Project	Cloning Vats
Other Notes	Increases intrinsic defense against gene warfare

Early experiments in Retroviral Engineering and the Mind\Machine Interface paved the way for true Biomachinery — the full integration of man and machine at the cellular level.

CENTAURI ECOLOGY (EXPLORE 1)

"By studying the Xenofungus we can learn how to survive"

Planet's atmosphere, though a gasping death to humans and most animals, is paradise for Earth plants. The high nitrate content of the soil and the rich yellow sunlight bring an abundant harvest wherever adjustments can be made for the unusual soil conditions.

Lady Deirdre Skye,
"A Comparative Biology of Planet"

Explore	⊕ ⊕ ⊕
Discover	◗
Build	⛫ ⛫
Prerequisites	None
Leads to	Centauri Empathy (Explore 3)
	Ecological Engineering (Explore 4)
Secret Project	Weather Paradigm
Unit Chassis	Former unit
Terraform Ability	Formers can execute basic functions
Other Notes	Increases nutrient production in fungus

Finding adequate sources of nutrients, energy, and minerals is the most immediate problem facing the colonists after Planetfall. An understanding of the basics of Centauri Ecology provides humans with the tools they need to begin shaping the world around them — how plants grow, what geological structures exist, and how natural energy sources may be exploited on Planet.

TECHNOLOGIES

CENTAURI EMPATHY (EXPLORE 3)

"We must learn Planet's ways"

Observe the Razorbeak as it tends so carefully to the fungal blooms; just the right bit from the yellow, then a swatch from the pink. Follow the Glow Mites as they gather and organize the fallen spores. What higher order guides their work? Mark my words: someone or something is managing *the ecology of this planet.*

> *Lady Deirdre Skye,*
> *"Planet Dreams"*

Explore	⊕ ⊕ ⊕ ⊕ ⊕ ⊕
Discover	◖
Prerequisites	Centauri Ecology (Explore 1)
	Secrets of the Human Brain (Discover 2)
Leads to	Centauri Meditation (Explore 5)
Secret Project	Empath Guild
Base Facility	Biology Lab
Unit Chassis	Mind Worms
Unit Special Ability	Empath Song Ability
Social Engineering	Green

Based on Secrets of the Human Brain and Centauri Ecology, Centauri Empathy espouses a philosophy of environmental harmony, emphasizing the search for mankind's proper niche in the global ecosystem.

CENTAURI GENETICS (EXPLORE 7)

"Decipher Planet's genetic code"

Remember, genes are not *blueprints. This means you can't, for example, insert "the genes for an elephant's trunk" into a giraffe and get a giraffe with a trunk. There* are *no genes for trunks. What you* can *do with genes is chemistry, since DNA codes for chemicals. For instance, we can in theory splice the native plants' talent for nitrogen fixation into a terran plant.*

> ***Academician Prokhor Zakharov,***
> ***"Nonlinear Genetics"***

Explore	⊕ ⊕ ⊕ ⊕ ⊕
Discover	☽ ☽
Prerequisites	Centauri Meditation (Explore 5)
	Retroviral Engineering (Conquer 6)
Leads to	Centauri Psi (Explore 8)
Secret Project	Pholus Mutagen
Unit Chassis	Locusts of Chiron
Other Notes	Increases minerals production in fungus

The first contacts with Planetary sentience during research on Centauri Meditation caused widespread excitement among the scientific community. They propose using new Retroviral Engineering techniques to unravel Centauri Genetics — the structural blueprint of native organisms.

TECHNOLOGIES

CENTAURI MEDITATION (EXPLORE 5)

"Planet will speak to us … if we will listen"

The Isle of the Deep is really not a single creature but a colony of thousands of individual tubules, an aquatic vector of the Mind Worm which terrorizes Planet's continents. Over its lifetime certain tubules secrete a tough, gluelike substance which hardens to form the characteristic shell that floats the colony and creates the appearance of a rogue island.

> *Lady Deirdre Skye,*
> *"A Comparative Biology of Planet"*

Explore	⊕ ⊕ ⊕ ⊕
Build	🏯 🏯
Prerequisites	Centauri Empathy (Explore 3)
	Ecological Engineering (Explore 4)
Leads to	Centauri Genetics (Explore 7)
Secret Project	Xenoempathy Dome
Base Facility	Centauri Preserve
Citizen	Empath
Unit Chassis	Isle of the Deep
Other Notes	Increases energy production in fungus

Centauri Empathy and Ecological Engineering reveal the vastness and complexity of the ecosystem on Planet. Research into Centauri Meditation illuminates the next, almost terrifying step — the attempt to communicate directly with Planet itself.

CENTAURI PSI (EXPLORE 8)

"Harness the Psi powers of the Mind Worm"

The Mind Worms are the natural defenses of the living Planet — the white blood cells, if you will. In a world in which unassimilated thought represents danger, the Mind Worm seeks out concentrations of sentient mental energy and destroys them, ruthlessly and efficiently.

> *Commissioner Pravin Lal,*
> *"Mind Worm, Mind Worm"*

Explore	⊕ ⊕ ⊕ ⊕ ⊕ ⊕
Discover	☝
Build	🏭
Prerequisites	Advanced Ecological Engineering (Build 7)
	Centauri Genetics (Explore 7)
Leads to	The Will to Power (Explore 9)
	Secrets of Alpha Centauri (Discover 12)
Unit Special Ability	Psi Attack (A-Psi)
Productivity Increase	Various fungus restrictions eased
Other Notes	Increases nutrient production in fungus

Centauri Genetics and Advanced Ecological Engineering revealed the physical composition of native life forms, but did not explain the mysterious and terrifying psionic attacks these creatures employ. Unlocking the mechanics of this directed, psychic assault requires intense investigation of Centauri Psi — the method used by the Mind Worms to communicate and co-ordinate their assaults.

TECHNOLOGIES

CONTROLLED SINGULARITY (CONQUER 15)

"Control the power of black holes"

Some would ask, how could a perfect God create a universe filled with so much that is evil. They have missed a greater conundrum: why would a perfect God create a universe at all?

> **Sister Miriam Godwinson,**
> **"But for the Grace of God"**

Discover	◔
Build	🏭 🏭
Conquer	⚡ ⚡ ⚡
Prerequisites	Applied Gravitonics (Explore 14)
	Singularity Mechanics (Discover 12)
Leads to	Transcendent Thought (Discover 16)
Secret Project	Singularity Inductor
Unit Weapon	Singularity Laser (A24)

As engineers quickly discovered, it's one thing to understand Singularity Mechanics and another thing entirely to attempt Controlled Singularity — harnessing and directing the powers of a black hole. Breakthroughs in Applied Gravitronics finally make this technology possible, with a host of amazing and potent applications, from radical new types of weaponry to global power sources.

CYBERETHICS (BUILD 4)

"Defining the role of computers in society"

The wicked have told me of things that delight them, but not such things as your law has to tell.

Saint Augustine,
"Confessions," Datalinks

Discover	◔ ◔ ◔
Build	🏭 🏭 🏭 🏭
Conquer	⚡
Prerequisites	Intellectual Integrity (Explore 3)
	Planetary Networks (Discover 2)
Leads to	Pre-Sentient Algorithms (Discover 5)
	Superstring Theory (Conquer 5)
Secret Project	Planetary Datalinks
Social Engineering	Knowledge

Widespread adoption of Planetary Networks and the philosophy of Intellectual Integrity allows for a coherent system of Cyberethics, outlining the proper relationship of computers to society.

TECHNOLOGIES

DIGITAL SENTIENCE (DISCOVER 10)

"Computers with personality"

We are no longer particularly in the business of writing software to perform specific tasks. We now teach the software how to learn, and in the primary bonding process it molds itself around the task to be performed. The feedback loop never really ends, so a tenth year polysentience can be a priceless jewel or a psychotic wreck, but it is the primary bonding — the childhood, if you will — that has the most far-reaching repercussions.

> **Bad'l Ron, Wakener,**
> **Morgan Polysoft**

Explore	⊕ ⊕
Discover	◔ ◔ ◔ ◔
Build	🏭 🏭 🏭
Prerequisites	Industrial Nanorobotics (Build 9)
	Mind/Machine Interface (Conquer 6)
Leads to	Self-Aware Machines (Discover 11)
	Sentient Econometrics (Explore 11)
	Applied Gravitonics (Explore 14)
Secret Project	Network Backbone
Social Engineering	Cybernetic
Other Notes	Improves Probe Team success rate

When utilized as part of Industrial Nanorobotics, the Mind\Machine Interface provides the key spark needed by computers to at last achieve Digital Sentience. These new artificial intelligences have all the hallmarks of an individual organism: they respond to their environment, adapt to stimuli, and even exhibit advanced 'personalities' based on their respective abilities and preferences.

DOCTRINE: AIR POWER (EXPLORE 5)

"Let us return to the air"

Air Power rests at the apex of the first triad of victory, for it combines Mobility, Flexibility, and Initiative.

Spartan Battle Manual

Explore	⊕ ⊕ ⊕ ⊕
Build	🏭 🏭 🏭
Conquer	⚡ ⚡ ⚡
Prerequisites	Doctrine: Flexibility (Explore 2)
	Synthetic Fossil Fuels (Explore 4)
Leads to	Mind/Machine Interface (Conquer 6)
	Orbital Spaceflight (Discover 6)
Base Facility	Aerospace Complex
Unit Chassis	Needlejet (M8)
Unit Special Ability	Air Superiority Ability
Terraform Ability	Formers may construct Airbase

Mankind had brought the knowledge of atmospheric flight to Planet, but not the materials to build and maintain large quantities of aircraft in Planet's harsh conditions. With the discovery of Synthetic Fossil Fuels for materials and a renewed emphasis on Doctrine: Flexibility, humans can again make the leap into the clouds.

TECHNOLOGIES

DOCTRINE: FLEXIBILITY (EXPLORE 2)

"Control of Planet requires naval power"

He held his arm too stiffly, and so was thrown back repeatedly, until at last I seized his forearm and snapped it back against itself. His training suffered while the arm healed, of course, but I felt this was a lesson he must learn early, and well.

Spartan Kel,
"Honing the Ki"

Explore	⊕ ⊕ ⊕ ⊕
Build	🏛
Conquer	⚡ ⚡
Prerequisite	Doctrine: Mobility (Explore 1)
Leads to	Advanced Military Algorithms (Conquer 4)
	Doctrine: Initiative (Explore 4)
	Doctrine: Air Power (Explore 5)
Base Facility	Pressure Dome
Unit Chassis	Foil (M4)
Unit Equipment	Troop Transport

Many radical young military officers felt that Doctrine: Mobility did not go far enough in the development of fast attacks and quick reconnaissance, because Mobility only takes land forces into account. These leaders work to create the first navies on Planet, based on Doctrine: Flexibility — co-ordination and co-operation between forces made possible by control of the sea.

DOCTRINE: INITIATIVE (EXPLORE 4)

"Complete naval supremacy requires new equipment and tactics"

A ship at sea is its own world. To be the captain of a ship is to be the unquestioned ruler of that world and requires all of the leadership skills of a prince or minister.

Col. Corazon Santiago,
"Leadership and the Sea"

Explore	⊕ ⊕ ⊕ ⊕
Conquer	⚡ ⚡
Prerequisites	Doctrine: Flexibility (Explore 2)
	Industrial Automation (Build 3)
Leads to	Homo Superior (Explore 8)
	Nanometallurgy (Explore 8)
Secret Project	Maritime Control Center
Base Facility	Naval Yard
Unit Chassis	Cruiser (M6)
Unit Special Ability	Amphibious Pods Ability

The slow moving foils and transports developed under Doctrine: Flexibility provided an adequate early naval force. However, materials and manufacturing advances resulting from Industrial Automation make possible new classes of powerful ships developed as part of Doctrine: Initiative, which stresses the importance of global naval superiority.

TECHNOLOGIES

DOCTRINE: LOYALTY (CONQUER 2)

"Loyalty is the engine that drives armies"

Therefore a wise prince will seek means by which his subjects will always and in every possible condition of things have need of his government, and then they will always be faithful to him.

> *Niccolo Machiavelli,*
> *"The Prince," Datalinks*

Explore	⊕ ⊕
Build	🏛 🏛
Conquer	⚡ ⚡ ⚡
Prerequisites	Doctrine: Mobility (Explore 1)
	Social Psych (Build 1)
Leads to	Intellectual Integrity (Explore 3)
Secret Project	Command Nexus
Base Facility	Perimeter Defense
Social Engineering	Police State

Doctrine: Mobility proved a sound dogma for the early years on Planet. However, as the struggle for survival against native Mind Worms and rival factions intensifies, many younger officers repudiate the old guard's emphasis on Mobility as the dominant military policy. Based also on the revelations of Social Psych, the new Doctrine: Loyalty stresses extensive training, defensive facilities, and zealous dedication to faction leaders as the foundation for survival and success in combat. Doctrine: Loyalty emphasizes a two-way fealty — soldiers are expected to lay down their lives without question, but in return they receive respect, power, and positions of authority in the new social hierarchy.

DOCTRINE: MOBILITY (EXPLORE 1)

"Fast attacks and disciplined troops succeed on Planet as on Earth"

Once a man has changed the relationship between himself and his environment, he cannot return to the blissful ignorance he left. Motion, of necessity, involves a change in perspective.

> **Commissioner Pravin Lal,**
> **"A Social History of Planet"**

Explore	⊕ ⊕ ⊕
Conquer	⚡ ⚡
Prerequisites	None
Leads to	Doctrine: Flexibility (Explore 2)
	Doctrine: Loyalty (Conquer 2)
Base Facility	Command Center
Unit Chassis	Speeder (M2)

The early colonists quickly learned the importance of reconnaissance and self-defense in this most alien of environments. Doctrine: Mobility formalizes these cornerstones of military might, representing the first attempts at an organized defense policy on Planet.

TECHNOLOGIES

ECOLOGICAL ENGINEERING (EXPLORE 4)

"We can reshape this world"

The prevalence of anoxic environments rich in organic material, combined with the presence of nitrated compounds has led to an astonishing variety of underground organisms which live in the absence of oxygen and "breathe" nitrate. Likewise, the scarcity of carbon in the environment has forced plants to economize on its use. Thus, all our efforts to return carbon to the biosphere will encourage the native life to proliferate. Conversely, the huge quantities of nitrate in the soil will be heaven to human farmers.

Lady Deirdre Skye,
"The Early Years"

Explore	⊕ ⊕ ⊕ ⊕
Build	🏭 🏭 🏭
Prerequisites	Centauri Ecology (Explore 1)
	Gene Splicing (Build 3)
Leads to	Centauri Meditation (Explore 5)
	Environmental Economics (Build 5)
Productivity Increase	Mineral restrictions lifted
Terraform Ability	Formers can execute advanced functions

Humans have always shown remarkable skill at innovation and ingenuity in the face of environmental hurdles. Expansion on a new Planet highlights these traits once again in the form of Ecological Engineering. Based on the discoveries of Centauri Ecology and Gene Splicing, this research leads to new ways of thriving within the existing ecosystem, rather than competing with it.

ENVIRONMENTAL ECONOMICS (BUILD 5)

"An economy both lucrative and green"

We sit together,
the mountain and I,
until only the mountain remains

Li Po,
From the Yang Collection

Explore	⊕ ⊕ ⊕
Build	⛟ ⛟ ⛟ ⛟
Prerequisites	Ecological Engineering (Explore 4)
	Industrial Economics (Build 2)
Leads to	Planetary Economics (Build 6)
	Advanced Ecological Engineering (Build 7)
Base Facility	Tree Farm
Productivity Increase	Energy restrictions lifted
Terraform Ability	Formers can raise\lower terrain
Other Notes	Increases commerce income

Industrial expansion often comes at the cost of ecological stability. The business practice of Environmental Economics addresses this problem by finding and exploiting areas where environmental and industrial concerns overlap, such as sustainable resource use, eco-tourism, and organic product development. By combining the principles of Industrial Economics and Ecological Engineering in this new business model, ecological stability becomes a profitable endeavor.

ETHICAL CALCULUS (EXPLORE 2)

"A new system of morality to encompass our future"

Some vices miss what is right because they are deficient, others because they are excessive, in feelings or in actions, while virtue finds and chooses the mean.

> **Aristotle,**
> **"Nichomachean Ethics," Datalinks**

Explore	⊕ ⊕ ⊕
Discover	◓
Build	⛪ ⛪ ⛪
Prerequisite	Social Psych (Build 1)
Leads to	Gene Splicing (Build 3)
	Intellectual Integrity (Explore 3)
Base Facility	Children's Creche
Social Engineering	Democratic

Throughout the history of mankind, philosophers have grappled with the question: 'How shall we then live?' Ethical Calculus lays down mathematical principles uncovered by Social Psych to address this question, essentially providing calculations and functions that determine appropriate human behavior.

EUDAIMONIA (EXPLORE 12)

"True and complete happiness"

The happy life is thought to be one of excellence; now an excellent life requires exertion, and does not consist in amusement. If Eudaimonia, or happiness, is activity in accordance with excellence, it is reasonable that it should be in accordance with the highest excellence; and this will be that of the best thing in us.

> *Aristotle,*
> *"Nichomachean Ethics," Datalinks*

Explore	⊕ ⊕ ⊕ ⊕
Build	🏛 🏛 🏛
Prerequisites	Sentient Econometrics (Explore 11)
	The Will to Power (Explore 9)
Leads to	Temporal Mechanics (Build 14)
Secret Project	Telepathic Matrix
Unit Armor	Psi Defense (D-Psi)
Social Engineering	Eudaimonic

Eudaimonia is a philosophical system that takes its name from an ancient Greek word for fulfillment and happiness. Based on economic equity made possible by Sentient Econometrics and rooted in opposition to the excesses of The Will to Power, Eudaimonia encourages each citizen to achieve happiness through striving to fulfill completely his or her potential; freedom, creativity, and individuality flourish in governments that adopt this philosophy.
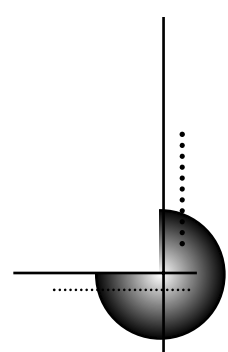
TECHNOLOGIES

FRICTIONLESS SURFACES (DISCOVER 10)

"Materials not subject to friction"

As I stepped onto the Magtube, a thought struck me: Can there be friction where there is no substance? And can substance be tricked into hiding from itself?

> **Dr. Gayle Nambala,**
> **Morgan Industries Researcher**

Discover	☺ ☺ ☺
Build	🏭 🏭
Conquer	⚡
Prerequisites	Industrial Nanorobotics (Build 9)
	Unified Field Theory (Conquer 7)
Leads to	Quantum Power (Discover 11)
Unit Special Ability	Cloaking Device Ability

Discovery of the Unified Field Theory allowed scientists to alter the fundamental properties of matter itself. The discovery of Frictionless Surfaces proves the most useful application of these techniques. As the name implies, Frictionless Surfaces consist of materials that remain unaffected by friction, a force that slows down motion by changing kinetic energy into heat energy. Moving objects made of these materials do not slow down as they come into contact with other matter.

FUSION POWER (DISCOVER 6)

"A cheap, clean power source"

Our ancestors harnessed the power of a sun, and so again shall we.

Commissioner Pravin Lal,

"The Science of Our Fathers"

Explore	⊕
Discover	◓ ◓ ◓ ◓
Build	🏭 🏭 🏭
Conquer	⚡ ⚡ ⚡
Prerequisites	Pre-Sentient Algorithms (Discover 5)
	Superconductor (Conquer 4)
Leads to	Advanced Ecological Engineering (Build 7)
	Organic Superlubricant (Conquer 7)
Base Facility	Fusion Lab
Unit Power Plant	Fusion Reactor x2
Citizen	Engineer

An extremely clean, powerful, and efficient source of energy, Fusion Power was known on Earth for decades as the reaction that powered the stars. However, scientists could not control the huge magnitude of released energy, so the only practical application for Fusion Power was in bombs of enormous destructive power. With the advent of Superconductors, and by using Pre-Sentient Algorithms to monitor and control the released energy, humanity finally has access to cheap, abundant, and reusable power.

TECHNOLOGIES

GENE SPLICING (BUILD 3)

"Enhancing plant and animal DNA"

The genetic code does not, and cannot, specify the nature and position of every capillary in the body or every neuron in the brain. What it can *do is describe the underlying fractal pattern which creates them.*

**Academician Prokhor Zakharov,
"Nonlinear Genetics"**

Explore	⊕ ⊕ ⊕
Discover	◔ ◔
Build	⊪ ⊪ ⊪ ⊪
Prerequisites	Biogenetics (Discover 1)
	Ethical Calculus (Explore 2)
Leads to	Ecological Engineering (Explore 4)
	Synthetic Fossil Fuels (Explore 4)
	Bio-Engineering (Build 5)
Base Facility	Research Hospital
Productivity Increase	Nutrient restrictions lifted
Other Notes	Increases intrinsic defense against gene warfare

Widespread adoption of the philosophy of Ethical Calculus removes opposition to genetic experimentation in plant and animal DNA, while advances in Biogenetics provide techniques for the incipient field of Gene Splicing. This technology allows researchers to insert new DNA coding into existing genetic material so that entire traits, from disease resistance to a stable personality, can be copied from one organism and transferred to any number of others.

GRAVITON THEORY (EXPLORE 13)

"Unlock the mechanisms of gravity"

This unusual specimen is not so much a classic particle as a connector — a kind of string attaching two particles. As distance increases the connective power becomes attenuated, but if it is cut the power vanishes: forever.

> **Academician Prokhor Zakharov,**
> **"For I Have Tasted The Fruit"**

Explore	⊕ ⊕ ⊕
Discover	◗
Conquer	⚡ ⚡ ⚡
Prerequisites	Mind/Machine Interface (Conquer 6)
	Quantum Machinery (Build 12)
Leads to	Applied Gravitonics (Explore 14)
Unit Chassis	Gravship (M8)
Unit Special Ability	Antigrav Struts Ability
Other Notes	Orbital insertions possible (with Drop Pods)

Quantum Machinery and Mind/Machine Interface pave the way for an understanding of gravity — the weakest fundamental force in the universe, but one that acts at infinite distances. With Graviton Theory, physicists can detect and measure the long-predicted gravitons — particle strings that 'carry' gravitational force.
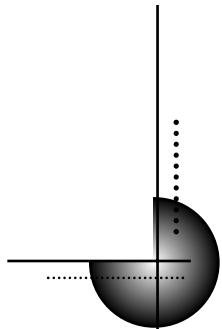
TECHNOLOGIES

HIGH ENERGY CHEMISTRY (CONQUER 2)

"Better defenses through Chemistry"

At atrociously high energy states, the properties of matter change subtly and new miracles become possible. The Plasma Accretion process is now dangerous and difficult to control, but its products will soon become commonplace in our society.

> *Sister Miriam Godwinson,*
> *"The Lord Works"*

Discover	◔
Build	🏭 🏭
Conquer	⚡ ⚡ ⚡
Prerequisites	Applied Physics (Conquer 1)
	Industrial Base (Build 1)
Leads to	Advanced Subatomic Theory (Discover 3)
	Synthetic Fossil Fuels (Explore 4)
Unit Armor	Plasma Steel Armor (D3)
Unit Special Ability	Nerve Gas Pods

Breakthroughs in Applied Physics and Industrial Base lead to an understanding of High Energy Chemistry. This discipline seeks to understand the properties and behavior of matter at very high temperatures, and results in new types of materials that remain in a stable plasma state even when superheated by intense laser stimulation.

HOMO SUPERIOR (EXPLORE 8)

"Let us evolve our brains and bodies"

Companions the creator seeks, not corpses, not herds and believers. Fellow creators the creator seeks — those who write new values on new tablets. Companions the creator seeks, and fellow harvesters; for everything about him is ripe for the harvest.

> **Friedrich Nietzsche,**
> **"Thus Spoke Zarathustra," Datalinks**

Explore	⊕ ⊕ ⊕ ⊕
Discover	☙ ☙
Build	🏭
Conquer	⚡ ⚡ ⚡
Prerequisites	Biomachinery (Build 7)
	Doctrine: Initiative (Explore 4)
Leads to	The Will to Power (Explore 9)
Secret Project	Universal Translator
Base Facility	Nanohospital

Breakthroughs in Biomachinery and Doctrine: Initiative paved the way for a new kind of organism that is equal parts human and computer. The human aspect thrives at physical manipulation and emotional experience, while the digital aspect excels at calculation and data processing. This Homo Superior integrates the best of man and machine.

TECHNOLOGIES

INDUSTRIAL AUTOMATION (BUILD 3)

"Robotics can help us build an empire"

In the borehole pressure mines 100km beneath Planetsurface, at the Mohorovicic Discontinuity where crust gives way to mantle, temperatures often reach levels well in excess of 1000 degrees Celsius. Exploitation of Planet's resources under such brutal conditions has required quantum advances in robotic and teleoperational technology.

Morgan Industries, Ltd.,
"Annual Report"

Explore	⊕ ⊕ ⊕
Discover	◖
Build	⚒ ⚒ ⚒ ⚒
Prerequisites	Industrial Economics (Build 2)
	Planetary Networks (Discover 2)
Leads to	Doctrine: Initiative (Explore 4)
	Neural Grafting (Conquer 4)
	Silksteel Alloys (Build 4)
	Industrial Nanorobotics (Build 9)
Other Notes	Increases commerce income
Secret Project	Planetary Transit System
Base Facility	Hab Complex
Unit Equipment	Supply Transport
Social Engineering	Wealth

The creation of Planetary Networks and widespread adoption of Industrial Economics lead to rapid industrialization of the virgin Planet. Lacking the traditional masses of Earth's working class, leaders must now develop complete Industrial Automation for production and assembly, building modest factories where all repetitive nonskilled jobs, from janitor to VP of Sales, are handled by sophisticated robotics.

INDUSTRIAL BASE (BUILD 1)

"Bootstrap our industrial infrastructure"

Resources exist to be consumed. And consumed they will be, if not by this generation then by some future. By what right does this forgotten future seek to deny us our birthright? None I say! Let us take what is ours, chew and eat our fill.

> **CEO Nwabudike Morgan,**
> **"The Ethics of Greed"**

Discover	◔
Build	🏭 🏭 🏭
Conquer	⚡ ⚡
Prerequisites	None
Leads to	High Energy Chemistry (Conquer 2)
	Industrial Economics (Build 2)
	Polymorphic Software (Discover 2)
	Superconductor (Conquer 4)
Secret Project	Merchant Exchange
Unit Armor	Synthmetal Armor (D2)

The first colonies lack any kind of factories or heavy industry, so the creation of an Industrial Base becomes a high priority for economic growth. This Industrial Base emphasizes small-scale manufacturing with primitive assembly lines and simple currency instruments.

TECHNOLOGIES

INDUSTRIAL ECONOMICS (BUILD 2)

"Even on Planet, industry creates wealth"

Our first challenge is to create an entire economic infrastructure, from top to bottom, out of whole cloth. No gradual evolution from previous economic systems is possible, because there is no previous economic system. Each interdependent piece must be materialized simultaneously and in perfect working order; otherwise the system will crash out before it ever gets off the ground.

CEO Nwabudike Morgan,
"The Centauri Monopoly"

Explore	⊕ ⊕
Build	🏭 🏭 🏭 🏭 🏭
Prerequisite	Industrial Base (Build 1)
Leads to	Industrial Automation (Build 3)
	Environmental Economics (Build 5)
Base Facility	Energy Bank
Social Engineering	Free Market
Other Notes	Increases commerce income

Early industry on Planet centered on the creation of a frontier Industrial Base featuring primitive assembly lines and simple currency instruments. Soon, leaders in the financial sectors push for a more comprehensive Industrial Economics policy to accommodate free trade and other strategies for multiplying capital.

INDUSTRIAL NANOROBOTICS (BUILD 9)

"Miniature robotic factories"

Already we have turned all of our critical industries, all of our material resources, over to these … things … these lumps of silver and paste we call nanorobots. And now we propose to teach them intelligence? What, pray tell, will we do when these little homunculi awaken one day and announce that they have no further need of us?

> **Sister Miriam Godwinson,**
> **"We Must Dissent"**

Explore	⊕
Discover	◖
Build	⛫ ⛫ ⛫ ⛫ ⛫ ⛫ ⛫ ⛫
Conquer	⚡ ⚡ ⚡
Prerequisites	Industrial Automation (Build 3)
	Nanominiaturization (Build 8)
Leads to	Digital Sentience (Discover 10)
	Frictionless Surfaces (Discover 10)
Secret Project	Nano Factory
Base Facility	Robotic Assembly Plant
Other Notes	Increases commerce income

The business leaders of Planet quickly perceived the commercial potential of Nanominiaturizion, and constructed factories based around Industrial Nanorobotics. These factories utilize traditional Industrial Automation, but at a fraction of the size and cost. Productivity skyrockets along with profitability, as tiny robots churn out new products for consumption.

INFORMATION NETWORKS (DISCOVER 1)

"The foundation of scientific research"

The righteous need not cower before the drumbeat of human progress. Though the song of yesterday fades into the challenge of tomorrow, God still watches and judges us. Evil lurks in the datalinks as it lurked in the streets of yesteryear. But it was never the streets that were evil.

Sister Miriam Godwinson,
"The Blessed Struggle"

Explore	⊕
Discover	◓ ◓ ◓
Build	⛫ ⛫
Prerequisites	None
Leads to	Nonlinear Mathematics (Conquer 2)
	Planetary Networks (Discover 2)
	Polymorphic Software (Discover 2)
Base Facility	Network Node

Survival equipment from the Unity contained a variety of computers purpose-built for the needs of a frontier society. However, they must first be connected into Information Networks before scientists can utilize their power.

INTELLECTUAL INTEGRITY (EXPLORE 3)

"Do not mistake wishes for truth"

Man's unfailing capacity to believe what he prefers to be true rather than what the evidence shows to be likely and possible has always astounded me. We long for a caring Universe which will save us from our childish mistakes, and in the face of mountains of evidence to the contrary we will pin all our hopes on the slimmest of doubts. God has not been proven not to exist, therefore he must exist.

Academician Prokhor Zakharov,

"For I Have Tasted The Fruit"

Explore	⊕ ⊕ ⊕ ⊕
Discover	◓
Build	🏚 🏚 🏚
Prerequisites	Doctrine: Loyalty (Conquer 2)
	Ethical Calculus (Explore 2)
Leads to	Cyberethics (Build 4)
	Planetary Economics (Build 6)
Secret Project	Citizen's Defense Force
Unit Special Abilities	High Morale Ability
	Non-Lethal Methods Ability

The search for Intellectual Integrity arises from questions posed by Ethical Calculus and Doctrine: Loyalty. According to this philosophy, valid wisdom comes merely from asking questions unburdened by prejudices. Only by shedding those pre-conceived notions can we achieve the clarity of undistorted knowledge.

TECHNOLOGIES

MATTER COMPRESSION (CONQUER 9)

"Create materials of extremely high density"

Preliminary analysis indicates that our rivals have developed a safe and reliable method to simulate conditions existing on the interior of a stellar mass. The fabrication and transmutation of materials possible in such an environment guarantees significant industrial and military applications.

Probe Team Operations Directorate, Top Secret Report

Discover	�}
Build	🏭 🏭
Conquer	⚡ ⚡ ⚡
Prerequisites	Nanometallurgy (Explore 8)
	Nanominiaturization (Build 8)
Leads to	Super Tensile Solids (Build 10)
Unit Armor	Neutronium Armor (D8)

Breakthroughs in Nanominiaturization and Nanometallurgy lead to complex Matter Compression techniques. Using these techniques, scientists can create materials as dense as the inside of a star, with significant military and industrial applications.

MATTER EDITATION (BUILD 12)

"Manipulate the smallest particles of matter"

'Abort, Retry, Fail?' was the phrase some wormdog scrawled next to the door of the Edit Universe project room. And when the new dataspinners started working, fabricating their worlds on the huge organic comp systems, we'd remind them: if you see this message, always *choose 'Retry.'*

Bad'l Ron, Wakener,
Morgan Polysoft

Explore	⊕
Discover	◔ ◔
Build	🏭 🏭 🏭
Conquer	⚡
Prerequisites	Self-Aware Machines (Discover 11)
	Super Tensile Solids (Build 10)
Leads to	Matter Transmission (Build 13)
Secret Project	Clinical Immortality
Base Facility	Nanoreplicator
Unit Armor	Antimatter Plate (D10)
Other Notes	Increases intrinsic defense against gene warfare

Not long after the breakthroughs in Super Tensile Solids and Self-Aware Machines, engineers clamor to research the last major hurdle in physical manipulation — Matter Editation. This technique actually changes the physical structure of individual atoms, altering characteristics like energy states, spin, atomic weight, and the number of protons as though they were entries in a database. This technology is the modern embodiment of the ancient quest to turn lead into gold-transmutation of elements made possible by atomic manipulation.

TECHNOLOGIES

MATTER TRANSMISSION (BUILD 13)

"Transmit objects from one end of Planet to the other"

The first living thing to go through the device was a small white rat. I still have him, in fact. As you can see, the damage was not so great as they say.

Academician Prokhor Zakharov,
"See How They Run"

Explore	⊕ ⊕
Build	⛰ ⛰ ⛰
Conquer	⚡
Prerequisites	Matter Editation (Build 12)
	Secrets of Alpha Centauri (Discover 12)
Leads to	Temporal Mechanics (Build 14)
Secret Project	Bulk Matter Transmitter
Base Facility	Psi Gate
Unit Special Ability	Blink Displacer Ability
Other Notes	Increases minerals production in fungus

Matter Editation and the Secrets of Alpha Centauri point the way to one of the most celebrated concepts in science fiction — Matter Transmission. Transmitters based on this technology disassemble objects into the smallest component sub-particles, then transmits those particles and their underlying structural blueprint to a receiver. The receiver reassembles these objects according to the blueprint, recreating the original in every nuance and detail.

Mind/Machine Interface (Conquer 6)

"The integration of man and machine"

The Warrior's bland acronym, MMI, obscures the true horror of this monstrosity. Its inventors promise a new era of genius, but meanwhile unscrupulous power brokers use its forcible installation to violate the sanctity of unwilling human minds. They are creating their own private army of demons.

> *Commissioner Pravin Lal,*
> *"Report on Human Rights"*

Explore	⊕ ⊕
Build	🏭 🏭
Conquer	⚡ ⚡ ⚡
Prerequisites	Doctrine: Air Power (Explore 5)
	Neural Grafting (Conquer 4)
Leads to	Biomachinery (Build 7)
	Digital Sentience (Discover 10)
	Graviton Theory (Explore 13)
Secret Project	Cyborg Factory
Unit Chassis	Copter (M8)
Unit Special Ability	Drop Pods Ability
Citizen	Thinker
Other Notes	Improves Probe Team success rate
	Diplomatic Victory enabled

Research into Neural Grafting demonstrated that direct communications between the human brain and a digital counterpart are theoretically possible. This Mind/Machine Interface, requested by leaders implementing Doctrine: Air Power for a new generation of aircraft, bridges the gap between the mechanical and the biological.

TECHNOLOGIES

MONOPOLE MAGNETS (BUILD 6)

"The secrets of magnetism"

I maintain nonetheless that yin-yang dualism can be overcome. With sufficient enlightenment we can give substance to any distinction: mind without body, north without south, pleasure without pain. Remember, enlightenment is a function of willpower, not of physical strength.

> *Chairman Sheng-ji Yang,*
> *"Essays on Mind and Matter"*

Discover	☛
Build	🏭 🏭 🏭 🏭 🏭
Conquer	⚡
Prerequisites	Silksteel Alloys (Build 4)
	Superstring Theory (Conquer 5)
Leads to	Unified Field Theory (Conquer 7)
	Nanominiaturization (Build 8)
Terraform Ability	Formers can construct Mag Tubes

Magnetism, like electricity and gravity, is one of the fundamental forces of the universe. Prior to research in Superstring Theory and Silksteel Alloys, all known magnets were dipolar, with a north and a south pole. Development of a Monopole Magnet permits radical new applications for science and industry.

NANOMETALLURGY (EXPLORE 8)

"Manipulate metals at the molecular level"

Our scientists now use fractal theory to "teach" the molecules to assume, or resume, a particular form. Substances of amazing strength become simple once the formulae are properly computed.

**Col. Corazon Santiago,
"The Council of War"**

Explore	⊕ ⊕ ⊕
Discover	☾
Conquer	ϟ
Prerequisites	Doctrine: Initiative (Explore 4)
	Probability Mechanics (Build 7)
Leads to	Matter Compression (Conquer 9)
	Quantum Machinery (Build 12)
Unit Special Abilities	Repair Bay Ability
	Carrier Deck Ability
	Deep Pressure Hull Ability

Driven by the requirements of Doctrine: Initiative and the mathematical models behind Probability Mechanics, Nanometallurgy techniques allow engineers to manipulate metals at the molecular level.
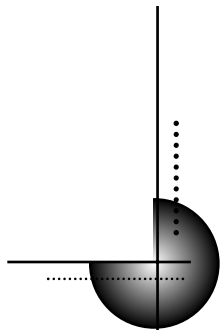
TECHNOLOGIES

NANOMINIATURIZATION (BUILD 8)

"Microscopic machines"

Objects once measured in meters have become so small that they cannot be seen by the naked eye, with revolutionary applications across the board. Gentlemen, forget what your courtesans have told you: size does matter!

> **CEO Nwabudike Morgan,**
> **Morgan Industries Annual Report**

Explore	⊕ ⊕ ⊕
Build	🏭 🏭 🏭 🏭
Conquer	⚡
Prerequisites	Monopole Magnets (Build 6)
	Organic Superlubricant (Conquer 7)
Leads to	Industrial Nanorobotics (Build 9)
	Matter Compression (Conquer 9)
Unit Chassis	Hovertank (M3)

Monopole Magnets and Organic Superlubricants lead to a revolution in engineering: Nanominiaturization. With this technology, which emphasizes new assembly methods and high-tensile strength materials, microscopic machine components can be constructed and all manner of bulky, heavy equipment can be shrunk to a fraction of its original size.

NEURAL GRAFTING (CONQUER 4)

"Enhance humans with on-board circuitry"

I think, and my thoughts cross the barrier into the synapses of the machine, just as the good doctor intended. But what I cannot shake, and what hints at things to come, is that thoughts cross back. In my dreams, the sensibility of the machine invades the periphery of my consciousness: dark, rigid, cold, alien. Evolution is at work here, but just what is evolving remains to be seen.

Commissioner Pravin Lal,
"Man and Machine"

Explore	⊕
Discover	◕
Build	🏭
Conquer	⚡ ⚡ ⚡
Prerequisites	Industrial Automation (Build 3)
	Secrets of the Human Brain (Discover 2)
Leads to	Bio-Engineering (Build 5)
	Mind/Machine Interface (Conquer 6)
Secret Project	Neural Amplifier
Base Facility	Bioenhancement Center

The insatiable drive for efficiency spawned by Industrial Automation drives the development of Neural Grafting. This new technology, based on Secrets of the Human Brain, allows attachment of digital circuitry directly to the neural cortex. With these implants, humans willing to undergo Neural Grafting can enhance many aspects of their physical being, from heightened senses to faster reaction times.

TECHNOLOGIES

NONLINEAR MATHEMATICS (CONQUER 2)

"Harness Chaos Theory for new kinds of weaponry"

There are two kinds of scientific progress: the methodical experimentation and categorization which gradually extend the boundaries of knowledge, and the revolutionary leap of genius which redefines and transcends those boundaries. Acknowledging our debt to the former, we yearn nonetheless for the latter.

> **Academician Prokhor Zakharov,**
> **"Address to the Faculty"**

Discover	☽ ☽ ☽
Conquer	⚡ ⚡ ⚡
Prerequisites	Applied Physics (Conquer 1)
	Information Networks (Discover 1)
Leads to	Superstring Theory (Conquer 5)
Unit Weapon	Particle Impactor (A4)

By using the power of Information Networks to speed calculations and encourage collaborations, researchers make giant strides in the field of Nonlinear Mathematics, with significant military applications.
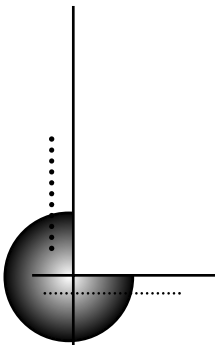
OPTICAL COMPUTERS (DISCOVER 3)

"Computations at the speed of light"

We have reached an informational threshold which can only be crossed by harnessing the speed of light directly. The quickest computations require the fastest possible particles moving along the shortest paths. Since the capability now exists to take our information directly from photons travelling molecular distances, the final act of the information revolution will soon be upon us.

> *Academician Prokhor Zakharov,*
> *"For I Have Tasted The Fruit"*

Discover	☾ ☾ ☾ ☾
Build	🏭
Conquer	⚡⚡
Prerequisites	Applied Physics (Conquer 1)
	Polymorphic Software (Discover 2)
Leads to	Advanced Military Algorithms (Conquer 4)
	Superconductor (Conquer 4)

The widespread adoption of Polymorphic Software increased demand for faster computers. The revolutionary Optical Computers, which use photons traveling at the speed of light for binary calculations, prove nearly 70% faster than old electron-based devices. Based on successes in Applied Physics, Optical Computers also exponentially improve storage capacities and access times.

TECHNOLOGIES

ORBITAL SPACEFLIGHT (DISCOVER 6)

"Return to space"

I have often been asked: if we have traveled between the stars, why can we not launch the simplest of orbital probes? These fools fail to understand the difficulty of finding the appropriate materials on this Planet, of developing adequate power supplies, and creating the infrastructure necessary to support such an effort. In short, we have struggled under the limitations of a colonial society on a virgin planet. Until now.

> **Col. Corazon Santiago,**
> **"Planet: A Survivalist's Guide"**

Explore	⊕ ⊕ ⊕
Discover	⌂ ⌂ ⌂ ⌂
Build	⏢ ⏢ ⏢
Prerequisites	Doctrine: Air Power (Explore 5)
	Pre-Sentient Algorithms (Discover 5)
Leads to	Advanced Spaceflight (Discover 8)
Base Facility	Sky Hydroponics Lab
Unit Chassis	Missile (M12)
Unit Weapons	Conventional Missile (A12)
	Planet Buster Atrocity (A99)
Other Notes	Launch satellite to reveal map

The early colonists certainly bring the technical understanding of spaceflight with them, but they lack the materials and infrastructure necessary to construct spacecraft. Eventually, implementation of Doctrine: Air Power furnishes the infrastructure, while advanced Pre-Sentient Algorithms provide the tools for mankind's return to Orbital Spaceflight.

ORGANIC SUPERLUBRICANT (CONQUER 7)

"Lubricants that learn where to apply themselves"

Organic Superlube? Oh, it's great stuff, great stuff. You really have to keep an eye on it, though — it'll try and slide away from you the first chance it gets.

T. M. Morgan-Reilly,
Morgan Metagenics

Discover	☣
Build	🏭 🏭
Conquer	⚡ ⚡ ⚡
Prerequisites	Fusion Power (Discover 6)
	Synthetic Fossil Fuels (Explore 4)
Leads to	Advanced Spaceflight (Discover 8)
	Nanominiaturization (Build 8)
Unit Weapon	Fusion Laser (A10)

Machines with moving parts have long been subject to wear and tear as the parts grind against one another. On Earth, traditional lubricants such as oil were used to minimize these effects. Planet lacks large reserves of such materials, until the invention of Synthetic Fossil Fuels. With Organic Superlubricant, scientists can create lubricating compounds that act like simple life forms, seeking out areas where they do the most good.

TECHNOLOGIES

PHOTON/WAVE MECHANICS (CONQUER 6)

"Control light itself"

Time dilates as the speed of light approaches. To the extent that light consists of particles, it is in its own way timeless. Through simple perturbations of the temporal manifold, we can refract or repel photons most efficiently.

> **Academician Prokhor Zakharov,**
> **"Now We Are Alone"**

Discover	�־ �־
Build	⛰ ⛰
Conquer	⚡ ⚡ ⚡
Prerequisites	Applied Relativity (Discover 5)
	Silksteel Alloys (Build 4)
Leads to	Probability Mechanics (Build 7)
Unit Armor	Photon Wall (D5)

Physicists had puzzled over the mystery of light for centuries: Why does light exhibit properties characteristic of both a wave and a particle? In 1924, Prince Louis-Victor de Broglie, a French scientist, proved that all particles actually possess a wave aspect, which explained how light can act as a wave even though it does consist of particles, called photons. Following breakthroughs in Silksteel Alloys and Applied Relativity, subsequent scientific inquiry focuses on the manipulation of Photon/Wave Mechanics so that light, even powerful laser beams or intense solar emissions, can be diffused and warped as needed.

PLANETARY ECONOMICS (BUILD 6)

"Unify global markets for maximum profits"

The Morgans fear what may not be purchased, for a trader cannot comprehend a thing that is priceless.

> *Sister Miriam Godwinson,*
> *"The Collected Sermons"*

Energy is the currency of the future.

> *CEO Nwabudike Morgan,*
> *"The Centauri Monopoly"*

Explore	⊕ ⊕ ⊕
Build	🏭 🏭 🏭 🏭
Prerequisites	Environmental Economics (Build 5)
	Intellectual Integrity (Explore 3)
Leads to	Quantum Power (Discover 11)
	Sentient Econometrics (Explore 11)
Secret Project	Ascetic Virtues
Base Facility	Hybrid Forest
Other Notes	Increases commerce income
	Economic Victory enabled

Early industrial policy on Planet centered on individual markets and sectors, such as Environmental Economics, but these separate sectors create inefficiencies. Proponents of Intellectual Integrity insist that these inefficiencies are unnecessary, and work to create a system of Planetary Economics where goods and services can flow freely.

TECHNOLOGIES

PLANETARY NETWORKS (DISCOVER 2)

"We can pool our knowledge with a worldwide database"

If our society seems more nihilistic than that of previous eras, perhaps this is simply a sign of our maturity as a sentient species. As our collective consciousness expands beyond a crucial point, we are at last ready to accept life's fundamental truth: that life's only purpose is life itself.

> *Chairman Sheng-ji Yang,*
> *"Looking God in the Eye"*

Explore	⊕
Discover	☾ ☾ ☾ ☾
Build	🏭 🏭 🏭
Prerequisite	Information Networks (Discover 1)
Leads to	Industrial Automation (Build 3)
	Cyberethics (Build 4)
Secret Project	Virtual World
Base Facility	Hologram Theater
Unit Chassis	Probe Team
Unit Equipment	Probe Team
Citizen	Librarian
Social Engineering	Planned

Once the colonists discovered how to survive, they focus on recreating some of the organizational tools left behind on Earth. Following the implementation of simple Information Networks, the creation of a standard for Planetary Networks emerges as a high priority for the scientific community.

POLYMORPHIC SOFTWARE (DISCOVER 2)

"The first massive neural nets"

Technological advance is an inherently iterative process. One does not simply take sand from the beach and produce a Dataprobe. We use crude tools to fashion better tools, and then our better tools to fashion more precise tools, and so on. Each minor refinement is a step in the process, and all of the steps must be taken.

> *Chairman Sheng-ji Yang,*
> *"Looking God in the Eye"*

Discover	☽ ☽ ☽
Build	🏭
Conquer	⚡ ⚡
Prerequisites	Industrial Base (Build 1)
	Information Networks (Discover 1)
Leads to	Advanced Subatomic Theory (Discover 3)
	Optical Computers (Discover 3)
Unit Special Ability	Heavy Artillery
Other Notes	Improves Probe Team success rate

On Earth, only theoretical mathematicians and entertainment software programmers used Polymorphic Software — self-modifying code — to any success. On Planet, the requirements of the budding Industrial Base and Information Networks spur widespread development of neural net applications that rewrite themselves in response to data inputs.

TECHNOLOGIES

PRE-SENTIENT ALGORITHMS (DISCOVER 5)

"Computers on the verge of self-awareness"

Begin with a function of arbitrary complexity. Feed it values, "sense data." Then, take your result, square it, and feed it back into your original function, adding a new set of sense data. Continue to feed your results back into the original function ad infinitum. What do you have? The fundamental principle of human consciousness.

**Academician Prokhor Zakharov,
"The Feedback Principle"**

Explore	⊕ ⊕
Discover	◠ ◠ ◠ ◠
Build	⑃ ⑃ ⑃
Conquer	⚡ ⚡
Prerequisites	Advanced Military Algorithms (Conquer 4)
	Cyberethics (Build 4)
Leads to	Fusion Power (Discover 6)
	Orbital Spaceflight (Discover 6)
	Probability Mechanics (Build 7)
Secret Project	Hunter-Seeker Algorithm
Unit Special Ability	Polymorphic Encryption Ability
Other Notes	Improves Probe Team success rate

The philosophy of Cyberethics and the technology of Advanced Military Algorithms pave the way for development of Pre-Sentient Algorithms. These open-ended neural net programs can sort and process exebytes of data, 'learning' as they do so and adapting to the world they observe.

PROBABILITY MECHANICS (BUILD 7)

"Predict and control random events"

Einstein would turn over in his grave. Not only does God play dice, the dice are loaded.

> **Chairman Sheng-ji Yang,**
> **"Looking God in the Eye"**

Until now the battle had been proceeding smoothly: the enemy was outflanked and had been driven from the reactor housing. But against the reactor itself the matter cannon were strangely ineffective. Rounds simply … stopped. In mid-air.

> **Col. Corazon Santiago,**
> **"A Tactical History of Sparta"**

Explore	⊕ ⊕
Discover	◔
Build	🏭 🏭 🏭
Conquer	⚡
Prerequisites	Photon/Wave Mechanics (Conquer 6)
	Pre-Sentient Algorithms (Discover 5)
Leads to	Nanometallurgy (Explore 8)
Base Facility	Tachyon Field
Unit Armor	Probability Sheath (D6)

With operating systems powered by Pre-Sentient Algorithms, computers finally gain sufficient processing power to unravel the mysteries of Probability Mechanics. With this breakthrough, humans can accurately predict many seemingly random events.

TECHNOLOGIES

QUANTUM MACHINERY (BUILD 12)

"Immensely powerful machines"

Men in their arrogance claim to understand the nature of creation, and devise elaborate theories to describe its behavior. But always they discover in the end that God was quite a bit more clever than they thought.

> **Sister Miriam Godwinson,**
> **"We Must Dissent"**

Discover	☻
Build	⛪ ⛪ ⛪ ⛪
Conquer	⚡ ⚡ ⚡
Prerequisites	Nanometallurgy (Explore 8)
	Quantum Power (Discover 11)
Leads to	Graviton Theory (Explore 13)
Base FacilitY	Quantum Converter
Unit Weapon	Quantum Laser (A16)
Infrastructure	Free Energy Bank

The discovery of Quantum Power ushers in a new industrial revolution. In factories across Planet, tiny Quantum Machinery built using Nanometallurgy techniques provide amazingly powerful and efficient labor for every imaginable type of production and service.

QUANTUM POWER (DISCOVER 11)

"Create incredible power by splitting light itself"

Heaven lasts long, and Earth abides
What is the secret of their durability?
Is it because they do not live for themselves
That they endure so long?

Lao Tzu, Datalinks

Discover	⬤ ⬤ ⬤ ⬤
Build	🏭 🏭 🏭
Conquer	⚡ ⚡ ⚡
Prerequisites	Frictionless Surfaces (Discover 10)
	Planetary Economics (Build 6)
Leads to	Quantum Machinery (Build 12)
Base Facility	Quantum Lab
Unit Power Plant	Quantum Chamber x3

Earth scientist Max Planck first coined the term "quantum" to describe an individual particle of light. Planck though each quantum was indivisible, so that a fraction of a quantum could not exist. One of the more startling discoveries arising from Unified Field Theory was that individual quantum actually could be split into component sub-particles, much like atoms may be split through fission. The energy released by Quantum Power is several orders of magnitude greater than ordinary Fusion Power.

RETROVIRAL ENGINEERING (CONQUER 6)

"We unleash this weapon at our own risk"

"The Academician's private residences shall remain off-limits to the Genetic Inspectors. We possess no retroviral capability, we are not researching Retroviral Engineering, and we shall not allow this Council to violate faction privileges in the name of this ridiculous witch hunt!"

> **Fedor Petrov,**
> **Vice Provost for University Affairs**

Explore	⊕ ⊕
Discover	◓ ◓
Conquer	⚡ ⚡ ⚡
Prerequisites	Advanced Military Algorithms (Conquer 4)
	Bio-Engineering (Build 5)
Leads to	Biomachinery (Build 7)
	Centauri Genetics (Explore 7)
Base Facility	Genejack Factory
Unit Special Ability	Gene Warfare Atrocity
Other Notes	Increases intrinsic defense against gene warfare

Retroviral Engineering, a specialized branch of Bio-Engineering, uses engineered viruses to deliver genetic alterations. This application can be used for peaceful, healing purposes, but can also be twisted by the same militant researchers behind Advanced Military Algorithms into a weapon of terrible destruction.

SECRETS OF ALPHA CENTAURI (DISCOVER 12)

"Map the Planetary Mind"

You waited so long to heed us, earthdeirdre, almost we pruned you, as we may yet prune your branches.

> **Lady Deirdre Skye,**
> **"Conversations with Planet"**

Explore	⊕ ⊕
Discover	◔ ◔ ◔ ◔
Prerequisites	Centauri Psi (Explore 8)
	Sentient Econometrics (Explore 11)
Leads to	Matter Transmission (Build 13)
Base Facility	Temple of Planet
Citizen	Transcend
Other Notes	"Secrets": first discoverer gains free tech
	Increases energy production in fungus
	Reveals Map

Some Digital Sentiences churn through exebytes of Planet-related data in their never-ending quest to untangle Sentient Econometrics. The best of these sentiences do not stop at sorting economic data, but extend their inquiries into Centauri Psi and other Planetary phenomena. They work to reveal these Secrets of Alpha Centauri as a kind of personal challenge, to prove themselves as machines that can not only conquer the intricacies of human society, but also the magnificent complexities of a Planet-wide ecosystem.

TECHNOLOGIES

SECRETS OF CREATION (DISCOVER 10)

"What is the purpose and order of the universe?"

And when the hourglass has run out, the hourglass of temporality, when the noise of secular life has grown silent and its restless or ineffectual activism has come to an end, when everything around you is still, as it is in eternity, then eternity asks you and every individual in these millions and millions about only one thing: whether you have lived in despair or not.

> ***Soren Kierkegaard,***
> ***"The Sickness Unto Death," Datalinks***

Discover	☾ ☾ ☾ ☾
Build	🏛
Conquer	⚡
Prerequisites	The Will to Power (Explore 9)
	Unified Field Theory (Conquer 7)
Leads to	Singularity Mechanics (Discover 12)
	Threshold of Transcendence (Explore 15)
Other Notes	"Secrets": first discoverer gains free tech

Those who embrace The Will to Power must eventually confront the ultimate philosophical question: What is the purpose and order of the universe? Confirmation of the Unified Field Theory finally gives mankind the tools to answer this question in the search for the Secrets of Creation.

SECRETS OF THE HUMAN BRAIN (DISCOVER 2)

"Understanding human self-awareness"

There are only two ways in which we can account for a necessary agreement of experience with the concepts of its objects: either experience makes these concepts possible or these concepts make experience possible.

> **Immanuel Kant,**
> **"Critique of Pure Reason," Datalinks**

Explore	⊕ ⊕ ⊕
Discover	⌕ ⌕ ⌕ ⌕ ⌕
Conquer	⚡
Prerequisites	Biogenetics (Discover 1)
	Social Psych (Build 1)
Leads to	Centauri Empathy (Explore 3)
	Neural Grafting (Conquer 4)
Unit Special Ability	Hypnotic Trance Ability
Social Engineering	Fundamentalist
Other Notes	"Secrets": first discoverer gains free tech

All past research on memory, learning, the senses, and other aspects of the human brain did not answer one basic question: what is the biological mechanism of self-awareness? Research into Biogenetics and Social Psych finally resolves the last of the Secrets of the Human Brain, providing mankind with understanding of the fundamentals of consciousness.

TECHNOLOGIES

SELF-AWARE MACHINES (DISCOVER 11)

"Machines that think"

Without sensibility no object would be given to us, without understanding no object would be thought. Thoughts without content are empty, intuitions without concepts are blind.

> **Immanuel Kant,**
> **"Critique of Pure Reason," Datalinks**

I swear sometimes they're watching me.

> **Bozon Pete, Shift Foreman,**
> **Metagenics Biomachinery Division**

Explore	⊕ ⊕ ⊕
Discover	◔ ◔ ◔ ◔
Build	🏭 🏭 🏭
Prerequisites	Advanced Spaceflight (Discover 8)
	Digital Sentience (Discover 10)
Leads to	Matter Editation (Build 12)
	Singularity Mechanics (Discover 12)
Secret Project	Self Aware Colony
Base Facilities	Nessus Mining Station
	Orbital Defense Pod
Infrastructure	Free Net Node
Other Notes	Improves Probe Team success rate

Following the advent of Digital Sentience, computers have only one great leap left: the evolution to Self-Aware Machines. These machines are capable of complex, higher-order thinking, and value the experience of existence as much as any human. As with other living organisms, self-preservation is paramount for these specimens.

SENTIENT ECONOMETRICS (EXPLORE 11)

"Using intelligent computers to predict the economy"

The fungus has been Planet's dominant lifeform since about the time of the Lower Paleozoic on Earth. But when, once every hundred million years or so, the neural net at last achieves the critical mass necessary to become sentient, the final metamorphosis kills off most of the other life on the planet. It is possible that we humans can help to break this tragic cycle.

> *Lady Deirdre Skye,*
> *"Planet Dreams"*

Explore	⊕ ⊕ ⊕ ⊕
Discover	◓
Build	⛭ ⛭ ⛭
Conquer	⚡
Prerequisites	Digital Sentience (Discover 10)
	Planetary Economics (Build 6)
Leads to	Eudaimonia (Explore 12)
	Secrets of Alpha Centauri (Discover 12)
Base Facility	Paradise Garden
Infrastructure	Free Recreation Commons
Other Notes	Increases commerce income

For all the sophistication of its mathematical models, Planetary Economics proved no better at predicting the actions of markets and populations than Wall Street prognosticators of 20th Century Earth-there are too many unknown variables with unforeseeable consequences. Proponents of Sentient Econometrics take the best 'intelligent computers' developed under Digital Sentience and set them to identifying these variables and predicting their consequences. Under their diligent efforts, economics finally becomes a true science.

SILKSTEEL ALLOYS (BUILD 4)

"Strong, flexible metals for construction and defense"

Until quite recently, spider silk had the highest tensile strength of any substance known to man, and the name Silksteel pays homage to the arachnid for good reason.

Commissioner Pravin Lal,
"U.N. Scientific Survey"

Build	🏭 🏭 🏭 🏭
Explore	⊕ ⊕
Conquer	ϟ ϟ ϟ
Prerequisites	Advanced Subatomic Theory (Discover 3)
	Industrial Automation (Build 3)
Leads to	Monopole Magnets (Build 6)
	Photon/Wave Mechanics (Conquer 6)
Unit Armor	Silksteel Armor (D4)

The growing field of Industrial Automation causes increased demand for new kinds of material that can withstand the incredible stresses of the robotic factories. Discoveries in Advanced Subatomic Theory provide engineers with these materials, dubbed Silksteel Alloys for their extraordinary tensile strength and flexibility.

SINGULARITY MECHANICS (DISCOVER 12)

"Unravel the secrets of black holes"

Yes, yes, we've all heard the philosophers babble about "oneness" being "beautiful" and "holy." But let me tell you that this *kind of oneness certainly isn't pretty and if you're not careful it will scare the bejeezus out of you.*

> **Anonymous Lab Technician,**
>
> **MorganLink 3DVision Live Interview**

Discover	�׮ ☮ ☮ ☮
Build	⛭ ⛭ ⛭
Conquer	⚡
Prerequisites	Secrets of Creation (Discover 10)
	Self-Aware Machines (Discover 11)
Leads to	Controlled Singularity (Conquer 15)
Unit Power Plant	Singularity Engine (Rx4)

Knowledge of The Secrets of Creation paved the way for understanding Singularity Mechanics. This technology seeks the physical causes and composition of black holes — phenomena produced by points of infinitely dense matter that warp the fabric of space and time itself. Probes guided by onboard Self-Aware Machines transmit the data necessary to replicate this natural occurrence in controlled laboratory conditions.

TECHNOLOGIES

SOCIAL PSYCH (BUILD 1)

"We must build a stable society"

If you can discover a better way of life than office-holding for your future rulers, a well-governed city becomes a possibility. For only in such a state will those rule who are truly rich, not in gold, but in the wealth that makes happiness — a good and wise life.

> *Plato,*
> *"The Republic," Datalinks*

Explore	⊕ ⊕
Discover	◓
Build	🏛 🏛 🏛
Prerequisites	None
Leads to	Doctrine: Loyalty (Conquer 2)
	Ethical Calculus (Explore 2)
	Secrets of the Human Brain (Discover 2)
Base Facility	Recreation Commons

The overcrowding aboard the Unity following the premature wakeup caused terrible conditions for the crew, but also generated valuable data concerning humans under extreme environmental stresses. Analysis of this data provides the first comprehensive, mathematical insight into the Social Psychology of humans.

SUPER TENSILE SOLIDS (BUILD 10)

"Unbreakable materials"

Optical Computers, genetic catalogs, nanorepair modules — forget all of that. It's when you see a megaton of steel suspended over your head by a thread the thickness of a human hair that you really find God in technology.

Anonymous Metagenics Dockworker,

MorganLink 3DVision Live Interview

|	
Explore	⊕ ⊕
Build	⛫ ⛫ ⛫ ⛫ ⛫
Conquer	⚡
Prerequisites	Advanced Spaceflight (Discover 8)
	Matter Compression (Conquer 9)
Leads to	Matter Editation (Build 12)
Secret Project	Space Elevator
Base Facility	Habitation Dome

The requirements of Advanced Spaceflight and the possibilities inherent in Matter Compression lead to research in Super Tensile Solids. These materials possess such strength as to be functionally unbreakable in a natural environment.
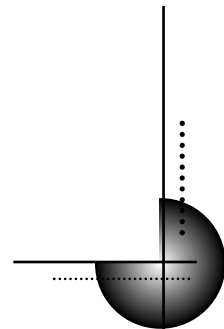
TECHNOLOGIES

SUPERCONDUCTOR (CONQUER 4)

"Efficient energy transmission for powerful weaponry"

Important? Yes! Critical? Absolutely. I would go so far as to say that Superconducting Fiber alone makes our present economy possible.

> **CEO Nwabudike Morgan,**
> **MorganLink 3DVision Live Interview**

Discover	◔ ◔
Conquer	⚡ ⚡ ⚡
Prerequisites	Optical Computers (Discover 3)
	Industrial Base (Build 1)
Leads to	Applied Relativity (Discover 5)
	Fusion Power (Discover 6)
Unit Weapon	Gatling Laser (A5)

The power requirements of Optical Computers and the nascent Industrial Base stimulate research into high-temperature Superconductors, an advance long considered a 'holy Grail' by physical chemists. A Superconductor is a material that does not resist a flow of electrons. Using a Superconductor, power can be transmitted at incredible speeds over vast distances with no degradation. Bulky and expensive cooling equipment for high-powered machinery or weaponry becomes unnecessary, because these materials remain cool and efficient as electricity passes through them.

SUPERSTRING THEORY (CONQUER 5)

"Understand the fundamental forces of the universe"

A brave little theory, and actually quite coherent for a system of five or seven dimensions — if only we lived in one.

Academician Prokhor Zakharov,
"Now We Are Alone"

Explore	⊕
Discover	☻ ☻
Conquer	⚡⚡⚡
Prerequisites	Cyberethics (Build 4)
	Nonlinear Mathematics (Conquer 2)
Leads to	Monopole Magnets (Build 6)
Unit Weapon	Chaos Gun (A8)

One of the more contentious debates that ran through the physics community of 20th century Earth centered on the viability of Superstring Theory. This theory attempts to unify the theory of gravity and other fundamental forces, and posits that all characteristics exhibited by subatomic particles, such as protons and neutrons, may be described as vibrations of fundamental, one-dimensional 'strings.' This concept had been abandoned as untestable, until the development of Nonlinear Mathematics, which offers mathematical models supporting Superstring Theory.

TECHNOLOGIES

SYNTHETIC FOSSIL FUELS (EXPLORE 4)

"Man-made oil, coal, and natural gas"

Fossil fuels in the last century reached their extreme prices because of their inherent utility: they pack a great deal of potential energy into an extremely efficient package. If we can but sidestep the 100 million year production process, we can corner this market once again.

> *CEO Nwabudike Morgan,*
> *Strategy Session*

Explore	⊕ ⊕ ⊕ ⊕
Build	🏭 🏭
Conquer	⚡
Prerequisites	High Energy Chemistry (Conquer 2)
	Gene Splicing (Build 3)
Leads to	Doctrine: Air Power (Explore 5)
	Organic Superlubricant (Conquer 7)
Unit Weapon	Missile Launcher (A6)
Unit Special Ability	Fungicide Tanks Ability

The extreme efficiency with which the neural net fungus managed Planet's vast ecosystem kept extensive deposits of organic material from forming over the epochs. Because of this lack, the fossil fuels known on Earth never developed, forcing early colonists to rely on less efficient alternative sources of energy. However, advances in Advanced Subatomic Theory and Gene Splicing finally allow humans to short-circuit the eons-long process, providing them with the Synthetic Fossil Fuels needed to build advanced vehicles and machinery.

TEMPORAL MECHANICS (BUILD 14)

"Manipulate time itself"

Time travel in the classic sense has no place in rational theory, but temporal distortion does exist on the quantum level, and more importantly it can be controlled.

Academician Prokhor Zakharov
"For I Have Tasted The Fruit"

Explore	⊕ ⊕
Discover	◕
Build	⛰ ⛰ ⛰
Prerequisites	Eudaimonia (Explore 12)
	Matter Transmission (Build 13)
Leads to	Threshold of Transcendence (Explore 15)
Unit Armor	Stasis Generator (D12)
Other Notes	Increases energy production in fungus

Breakthroughs in Eudaimonia and Matter Transmission lead to the last great discovery of the physical universe: Temporal Mechanics, the manipulation of time itself.

TECHNOLOGIES

THE WILL TO POWER (EXPLORE 9)

"In strength, wisdom"

Man is a rope, tied between beast and overman—a rope over an abyss. A dangerous across, a dangerous on-the-way, a dangerous looking-back, a dangerous shuddering and stopping. What is great in man is that he is a bridge and not an end: what can be loved in man is that he is an overture and a going under. I love those who do not know how to live, for they are those who cross over.

> **Friedrich Nietzsche,**
> **"Thus Spoke Zarathustra," Datalinks**

Explore	⊕ ⊕ ⊕ ⊕
Discover	◔ ◔ ◔
Build	🏭
Prerequisites	Centauri Psi (Explore 8)
	Homo Superior (Explore 8)
Leads to	Secrets of Creation (Discover 10)
	Eudaimonia (Explore 12)
Secret Project	Dream Twister
Social Engineering	Thought Control

Following the development of Homo Superior, many advocated a return to Friedrich Nietzsche's philosophy of The Will to Power. This philosophy stresses the importance of strength, asceticism, and resolute action, often at the cost of compassion, charity, and other traditionally religious qualities.

THRESHOLD OF TRANSCENDENCE (EXPLORE 15)

"The brink of a new epoch"

And when he has brought forth and reared this perfect virtue, he shall be called the friend of god, and if ever it is given to man to put on immortality, it shall be given to him.

> **Plato,**
> **"The Symposium," Datalinks**

Explore	⊕ ⊕ ⊕ ⊕
Discover	☽
Build	🏛 🏛 🏛
Prerequisites	Secrets of Creation (Discover 10)
	Temporal Mechanics (Build 14)
Leads to	Transcendent Thought (Discover 16)
Secret Projects	Voice of Planet
	Ascent to Transcendence
Other Notes	Increases minerals production in fungus

The Secrets of Creation and Temporal Mechanics brought humanity to the brink of a new era — the Threshold of Transcendence. In this transitional state, people begin preparations for the final stage of human evolution, selling possessions, cleansing their bodies according to a new code of asceticism, and meditating alone and unprotected in the remote regions of Planet.

TECHNOLOGIES

TRANSCENDENT THOUGHT (DISCOVER 16)

"Beyond the Human Era"

Eternity lies ahead of us, and behind.
Have you drunk your fill?

> **Lady Deirdre Skye,**
> **"Conversations with Planet," Epilogue**

Discover	☽ ☽
Prerequisites	Controlled Singularity (Conquer 15)
	Threshold of Transcendence (Explore 15)
Leads to	Victory
Other Notes	Bonus to final score

Once you complete all other technologies, you begin researching Transcendent Thought. You can research this tech and infinite number of times, and each time adds to your score.

Based on Controlled Singularity and Threshold of Transcendence, humanity finally unlocks the keys to the final stage of human evolution with Transcendent Thought — the ability to contain a self-awareness, or 'soul,' outside the bounds of a corporeal form. Those who so choose may now complete the Ascent to Transcendence, joining their consciousness with the Planetary mind in ageless immortality.

Unified Field Theory (Conquer 7)

"Discover the fundamental mechanism of the universe"

Beware, you who seek first and final principles, for you are trampling the garden of an angry God and he awaits you just beyond the last theorem.

> *Sister Miriam Godwinson,*
> *"But for the Grace of God"*
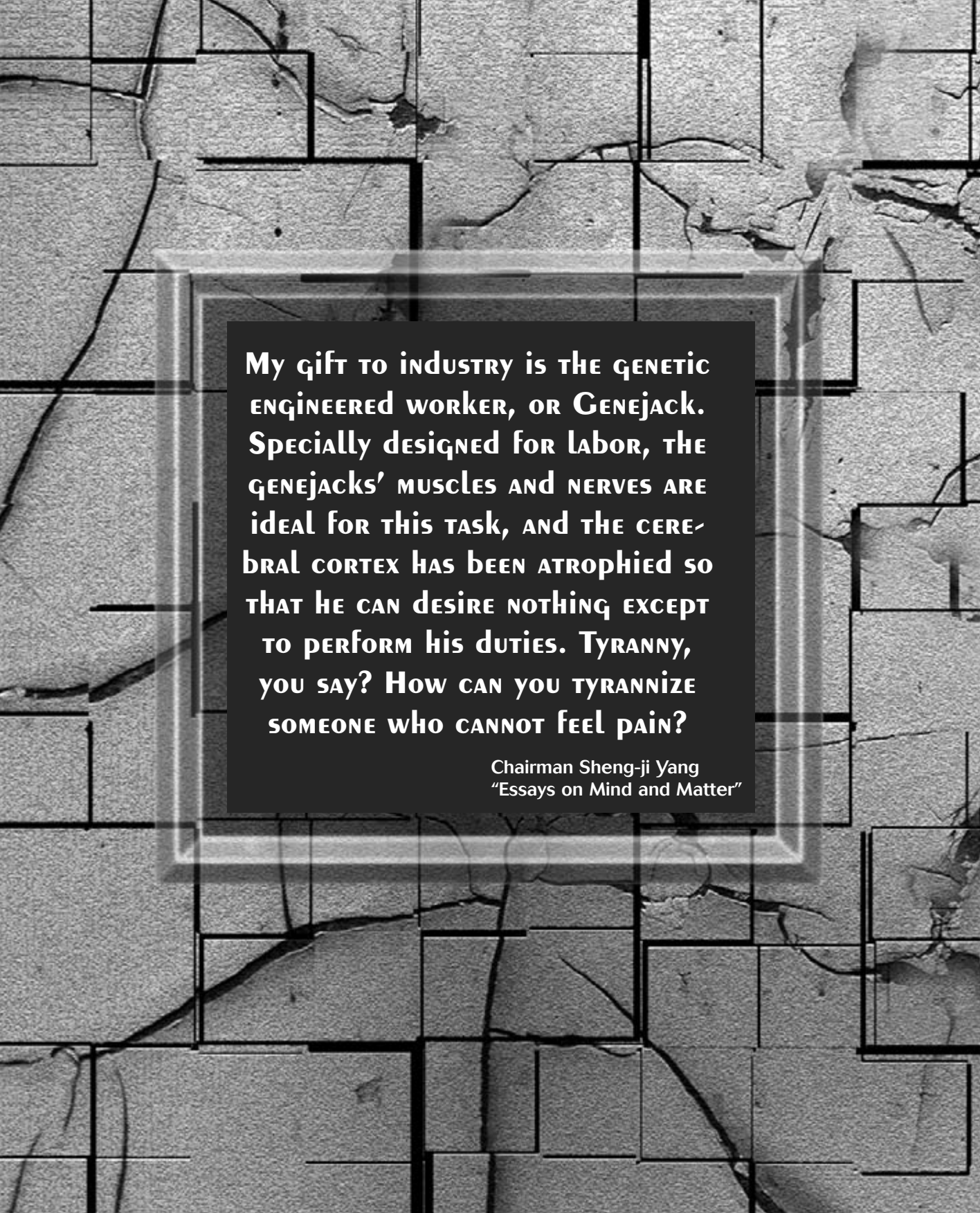
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Explore	⊕
Discover	◕ ◕ ◕
Conquer	⚡ ⚡ ⚡ ⚡
Prerequisites	Applied Relativity (Discover 5)
	Monopole Magnets (Build 6)
Leads to	Frictionless Surfaces (Discover 10)
	Secrets of Creation (Discover 10)
Secret Project	Theory of Everything
Unit Weapon	Tachyon Bolt (A12)

Scientists have long worked towards a single theory that explains all fundamental forces in nature (gravity, magnetism, etc.) — a Unified Field Theory. Advances in Monopole Magnets and Applied Relativity help reveal these fundamental mechanics of the universe.

My gift to industry is the genetic engineered worker, or Genejack. Specially designed for labor, the genejacks' muscles and nerves are ideal for this task, and the cerebral cortex has been atrophied so that he can desire nothing except to perform his duties. Tyranny, you say? How can you tyrannize someone who cannot feel pain?

Chairman Sheng-ji Yang
"Essays on Mind and Matter"

BASE FACILITIES
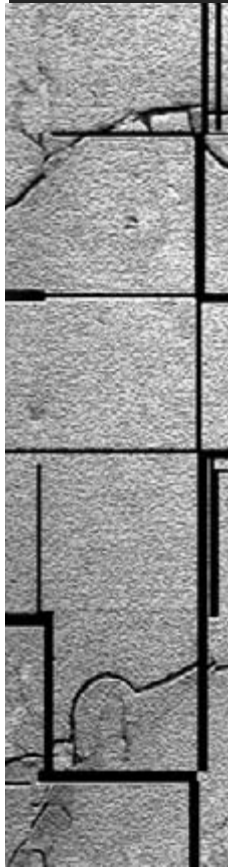
BASE FACILITIES

AEROSPACE COMPLEX

You are orphans, earthdeirdre, your homeworld already buried so young among the aeons. Yet now you fill the skies where we watched a million sunsets with flame and contrails, paying no heed to the hard lessons the universe has tried to teach you. Are you a breath of life to invigorate a complacent world, you earthhumans, or an insidious cancer which must be excised?

> ***Lady Deirdre Skye,***
> ***"Conversations With Planet"***

Cost	80
Maintenance	2
Prerequisite	Doctrine: Air Power

• Repairs damaged air units quickly.

• Air units built here receive two morale upgrades.

• Base must have an Aerospace Complex before it can produce space-based improvements (unless your faction has the Space Elevator Secret Project).

• Air Defense +100%.

Among the three military base facilities (the other two being Command Center and Naval Yard), the Aerospace Complex is the only one that cannot be made part of your infrastructure via a secret project. You can come close — with Space Elevator you can build satellites, and the Nano Factory can speed up repair — but to get the morale and air defense bonuses you must build an Aerospace Complex in each base that will build offensive or defensive air units.

The morale bonus is nice for offensive bombers and copters, but it's with the defensive interceptors that this improvement really comes into its own. Interceptors already have the strong advantage in air-to-air combat, and the combination of extra morale with a doubling of their offensive capability makes them pretty much unstoppable (and if they do take damage, they repair it quicker). This doesn't mean that the enemy can't mount an effective air assault against you, but it does mean that unless he's attacking in overwhelming force, his air attacks will probably be kamikaze missions and expensive for him. Meanwhile, you'll find that your Aerospace Complexes are making your air units much longer-lived, and therefore more efficient.

As far as the Aerospace Complex's other hat, that of satellite launching pad, all that need be said is that if you plan on using orbital improvements, you only have two choices. The first is to wait until you can build the Space Elevator (assuming another faction doesn't beat you to it), and the second is to build Aerospace Complexes.

BIOENHANCEMENT CENTER

We are all aware that the senses can be deceived, the eyes fooled. But how can we be sure our senses are not being deceived at any particular time, or even all the time? Might I just be a brain in a tank somewhere, tricked all my life into believing in the events of this world by some insane computer? And does my life gain or lose meaning based on my reaction to such solipsism?

> **Project PYRRHO, Specimen 46, Vat 7**
> **Activity Recorded M.Y. 2302.22467**
> **TERMINATION OF SPECIMEN ADVISED**

Cost	100
Maintenance	2
Prerequisite	Neural Grafting

- All military units built here receive two morale upgrades.

- Any alien lifeforms you breed at this base gain a +1 lifecycle bonus.

This is definitely a facility you need to have for any sort of long-term campaign. Morale is a huge factor in your long-term military success, and building Bioenhancement Centers is clearly the best thing you can do for your units. When combined with the three specific military base improvements (Aerospace Complex, Command Center and Naval Yard), you have a +4 over the morale listed on your Social Engineering screen, which is enough to allow all but the most rabidly pacifist societies to compete with parity.

Do keep in mind that with good timing and 400 minerals you can build the Cyborg Factory, and get your Bioenhancement Centers for free, as part of your infrastructure. If you have more than four bases, this is clearly the economical way to go, especially since the project doesn't come available all that long after the facilities.

BIOLOGY LAB

Although Planet's native life is based, like Earth's, on right-handed DNA, and codes for all the same amino acids, the inevitable chemical and structural differences from a billion years of evolution in an alien environment render the native plant life highly poisonous to humans. Juicy, ripe grenade fruits may look appealing, but a mouthful of organonitrates will certainly change your mind in a hurry.

> *Lady Deirdre Skye,*
> *"A Comparative Biology of Planet"*

Cost	60
Maintenance	1
Prerequisite	Centauri Empathy

• +2 Labs per turn.

• Any alien lifeforms you breed at this base gain a +1 lifecycle bonus.

If this facility came up later in the tech tree than it does, it would be easy to miss, and that would be a shame. For the extremely modest price, the +2 to Labs makes this facility an excellent value. Make this one of your core facilities – one of the first half dozen you build in any new base – and the net result will be a noticeable upward swing in your technological output. The bonus to native life forms is a plus, of course, but what really makes the Biology Lab worth having is the research bonus.

Not having the Biology Lab makes your base susceptible to the "Planet Blight" special event, while having a Biology Lab qualifies you for a bonus nutrient special event (see **Random Events**, p. 15).

CENTAURI PRESERVE

In the years since our arrival, we have foolishly disrupted so many of Planet's ecosystems that entire species may vanish without our ever having understood, or even known them. We must halt this plunder, and halt it immediately, for our own survival as a species depends on our ability to strike a balance on this world.

> *Commissioner Pravin Lal,*
> *"Mind Worm, Mind Worm"*

Cost   100
Maintenance   2
Prerequisite   Centauri Meditation

- Reduces effect of industry on Planet's ecology.

- Any alien lifeforms you breed at this base gain a +1 lifecycle bonus.

This facility is one of your main weapons in the fight against ecological disaster (as with the Biology Lab, the bonus to lifecycle is a pleasant extra, but doesn't come near to justifying the cost of the facility). Unless you're taking strict measures to control the size of your bases, you will need this facility eventually. The only question is when to build it.

There are basically two approaches to take … the "corrective" and the "preventative." The corrective approach builds a preserve whenever ecological disruption actually appears at a base, while the preventative tries to have one up and running before any ecological disruption appears. The only problem with the preventative strategy is that you'll sometimes spend time and resources building a preserve for bases that will never be large enough to need them. The corrective approach can work just fine, if you observe a couple of basic precautions. First, don't procrastinate. If ecological damage appears, kill it — don't tell yourself that "it's only a couple points, so I can put it off ." With this kind of thinking, ecological damage sneaks up on you, and before you know it you have a global problem. The second precaution is to watch out for danger zones, in the form of specific secret projects, which are liable to trigger a massive increase in ecological disruption. These include the Cloning Vats, the Bulk Matter Transmitter and (worst of all) the Singularity Inductor. If you start work on any of these projects, it's best to take preventative action and build Centauri Preserves in any bases that you suspect may be anywhere near the ecological red zone.

(There are viable strategies that involve encouraging ecological disruption to provoke global warning. If you're playing that strategy, naturally you don't want any Centauri Preserves.)

A base must have a Centauri Preserve before it can build a Temple of Planet.

BASE FACILITIES

CHILDREN'S CRECHE

Proper care and education for our children remains a cornerstone of our entire colonization effort. Children not only shape our future; they determine in many ways our present. Men and women work harder knowing their children are safe and close at hand. And never forget that, with children present, parents will defend their home to the death.

> **Col. Corazon Santiago,**
> **"Planet: A Survivalist's Guide"**

Cost	50
Maintenance	1
Prerequisite	Ethical Calculus

- Base receives +2 on Growth scale.

- Base receives +2 on Efficiency scale.

- All negative Morale effects are cancelled for units in base square; instead such units receive a +1 Morale modifier.

- Reduces base's vulnerability to enemy mind control.

This cheap and extremely useful facility should be either the first or second that you build in each new base. Its long-term benefits to the base's stability are absolutely essential. Each one of the benefits it grants would be well worth the price — together they form an unbeatable package.

This facility becomes even more essential for the Peacekeepers (to counter their tendency to inefficiency) and to any faction playing with the Police State, Planned or Green social choices (with their penalties to Growth or Efficiency).

There's little to say about the defensive bonuses, other than that they can be crucial to a base's survival when under heavy enemy attack.

Not having a Children's Creche makes a base susceptible to a drone-producing special event, while having one qualifies the base for a temporary population boom event.

COMMAND CENTER

Superior training and superior weaponry have, when taken together, a geometric effect on overall military strength. Well-trained, well-equipped troops can stand up to many more times their lesser brethren than linear arithmetic would seem to indicate.

Spartan Battle Manual

Cost	40
Maintenance	Var.
Prerequisite	Doctrine: Mobility

- Repairs damaged ground units quickly.

- Ground units built here receive two morale upgrades.

The first of the three military base facilities, the Command Center should be regarded as essential for any conquest-based strategy (which is not necessarily true for most facilities) and darned useful for peaceful, development-based strategies as well (since staying peaceful requires a strong defense).

If possible, however, save yourself some serious minerals and production time, and build the Command Nexus secret project, which will give you a free Command Center as part of the infrastructure of every base. If you miss out on that project, put Command Centers on your short list of core facilities that go up in every base. Or at least start a concerted Command Center building program if you contemplate going on the offensive, or start to suspect one of the other factions may be getting pushy.

BASE FACILITIES

ENERGY BANK

Life is merely an orderly decay of energy states, and survival requires the continual discovery of new energy to pump into the system. He who controls the sources of energy controls the means of survival.

CEO Nwabudike Morgan,
"The Centauri Monopoly"

Cost	80
Maintenance	1
Prerequisite	Industrial Economics

• Increases Economy at base by 50%.

• Free with Quantum Machinery.

This is an early and important facility. When built faithfully in new bases, it boosts your overall cash flow. It's a bit expensive in comparison to some of the other core facilities, but well worth the price in the long run. Regardless of your preferred strategy, a cash nest-egg will give you a leg up, and this base (together with an adequate supply of solar collectors) is your primary tool for making one. Development-based strategies, however, are where this facility is truly essential, both because your banks will be producing for a longer haul, and because you'll need their help to keep up with your accelerating maintenance charges.

Having an energy bank makes a base immune to the power surge disaster (which can destroy all of the base's mines). Bases with Energy Banks can instead absorb and store the surge, resulting in an energy bonus.

FUSION LAB

It will happen, and it will happen in our lifetimes. Fusion Power isn't just the future. Fusion Power is now.

**T. M. Morgan–Reilly,
Morgan Metagenics**

Cost	120
Maintenance	3
Prerequisite	Fusion Power

• Increases Economy at base by 50%.

• Increases Labs at base by 50%.

A solid mid-game stability enhancer, the Fusion Lab is the prerequisite to the Quantum Lab, which carries the same bonuses (which means that together they double your Economy and Labs). If you're playing a development-based game, you may want to give preference to the Research Hospital (which improves Labs and Psych) unless you're running into cash-flow trouble or are seriously pursuing an Economic Victory. The mid-game Fusion Lab and Research Hospital, together with their late-game counterparts, the Quantum Lab and Nanohospital, should all be thought of as an interlocked series. Taken together, they enhance your stability, boost your economy and propel your researches, preparing your faction for a final push to victory.

BASE FACILITIES

GENEJACK FACTORY

My gift to industry is the genetically engineered worker, or Genejack. Specially designed for labor, the Genejack's muscles and nerves are ideal for his task, and the cerebral cortex has been atrophied so that he can desire nothing except to perform his duties. Tyranny, you say? How can you tyrannize someone who cannot feel pain?

> **Chairman Sheng-ji Yang,**
> **"Essays on Mind and Matter"**

Cost	100
Maintenance	2
Prerequisite	Retroviral Engineering

- Increases minerals output at base by 50%.

- However, also increases the number of Drones at base by one and increases vulnerability to enemy mind control.

- Cumulative with all other facilities of this type.

The first of the major production-enhancing facilities (along with the Robotic Assembly Plant, Nanoreplicator and Quantum Converter), the Genejack factory is a two-edged sword. The reason it comes so much earlier than its counterparts is that it extracts a price from the base it's built in, in terms of extra drone production and increased vulnerability to probe team action.

Although high production is, of course, central to a development game, this facility may not be worth the cost in such situations, particularly if you're trying to play an enlightened social system. Stability and security are even more important than mineral production, plus there's another drawback to building this facility early – it significantly increases the chance of ecological disruption at a time when your faction is prone to ecological accident. In such games, you're probably better off bypassing the Genejack Factory, or saving it until much later in the game, when your ecology and Psych are both well under control.

Conquest games, on the other hand, might be able to support a early Genejack Factory. If you're trying keep up a strong production schedule while already supporting several units, Genejacks can be well-worth the trouble they cause. Also, military-focused societies will often come with higher Police and Probe ratings, to counteract the facility's drawbacks. As for ecological damage, what self-respecting conqueror (save a Green one) even cares?

In the Genejack Factory's defense, its maintenance cost is a bare fraction of any similar facility's.

HAB COMPLEX

The chief aim of their constitution and government is that, whenever public needs permit, all citizens should be free, so far as possible, to withdraw their time and energy from the service of the body, and devote themselves to the freedom and culture of the mind. For that, they think, is the real happiness of life.

> **Sir Thomas More,**
> **"Utopia," Datalinks**

Cost	80
Maintenance	2
Prerequisite	Industrial Automation

• Allows population of base to grow beyond size 7.

Unless you're seriously trying to restrain the size of your bases, at some point you will definitely want to build the Hab Complex, the only question is when. The answer is, "Soon, but not too soon." Don't rush to build a Hab Complex right away when you establish a base. It will take some time for the base to grow to maximum size anyway, and when it is ready to grow it will be in your interests to already have some basic stabilizing facilities in place – Children's Creche, Network Node, Recycling Tanks and Recreation Commons are all excellent candidates. Also, the Hab Complex is a bit expensive to maintain for a core facility, and building it too early can put an inconvenient crimp in your cash flow.

The Hab Complex increases the maximum size of your base by seven. For a base to grow to its full capacity, you'll need the Habitation Dome as well (you have to have a Hab Complex in place before you can build the Habitation Dome). Hab Complexes are particularly important to the Morganites, because of their severe limits to base population.

BASE FACILITIES

HABITATION DOME

I sit in my cubicle, here on the motherworld.
When I die, they will put my body in a box and
Dispose of it in the cold ground.
And in all the million ages to come, I will never
Breathe or laugh or twitch again.
So won't you run and play with me here among the
Teeming mass of humanity?
The universe has spared us this moment.

Anonymous, Datalinks

Cost	160
Maintenance	4
Prerequisite	Super Tensile Solids

•   Allows population of base to grow beyond size 14.

•   Base must already have Hab Complex.

This late-game facility allows your base to grow as large as its resources can support. You must have a Hab Complex in a base before you can build a Habitation Dome. As with the Hab Complex, don't build the Habitation Dome until your population is near the point where you need it. However, the extra citizens made possible by building the Habitation Dome are somewhat less likely than those that came with the Hab Complex to destabilize your base. This is because by the time a Habitation Dome is needed, your base is likely to be fairly close to having all available squares in development (depending on how close together you keep your bases). After this point is reached, any additional citizens created will be specialists, with their stabilizing influence on the populace. The biggest negative against building the Habitation Dome prematurely is its high maintenance.

HEADQUARTERS

As we approached we were confronted by the ruined splendor of Sparta Command. The true immensity of the place became instantly apparent as our Quantum Tank crunched over the rubble and parked next to a shattered bunker, but the extent of the destruction took weeks to assess. The shielded datacore had sustained several massive breaches and smoke still billowed from the numerous cannon ports. There were few signs of human life.

> **Lady Deirdre Skye,**
> **"Our Secret War"**

Cost	50
Maintenance	0
Prerequisite	None

• Administrative center of your colony.

• +1 energy.

• No inefficiency.

• Enemy probe teams may not attempt mind control here.

Just so we're all clear here … Your faction can have one and only one headquarters at any given time. By default, your first base is also faction headquarters. If you build a headquarters somewhere else, your original HQ goes away, "moving" to the new base. If your headquarters are destroyed or taken, you have to build a new one elsewhere. (Which you'll want to do quickly, or face crippling inefficiency).

If things break your way, you will never need to build a headquarters. However, there are certain situations where it makes perfect sense to relocate headquarters to a new base. This is primarily useful if your base happened to end up on an island, peninsula, or uncomfortably close to another faction's border. In these cases, consider moving your headquarters to a more central location. This not only makes your headquarters better defended, but also can significantly reduce inefficiency at your more remote bases. (Inefficiency is related to a base's distance from headquarters, so moving a significant number of bases closer to headquarters cuts inefficiency.)

Terminate with extreme prejudice any impulse to build headquarters at a vulnerable base to protect it against mind control. Far better to simply lose a base (and take it back later) than to deliberately put your headquarters in hostile cross hairs.

HOLOGRAM THEATRE

Richard Baxton piloted his Recon Rover into a fungal vortex and held off four waves of mind worms, saving an entire colony.

We immediately purchased his identity manifests and repackaged him into the Recon Rover Rick character with a multi-tiered media campaign: televids, touchbooks, holos, psi-tours — the works.

People need heroes. They don't need to know how he died clawing his eyes out, screaming for mercy. The real story would just hurt sales, and dampen the spirits of our customers.

> **"Mythology for Profit"**
> **Morgan Stellartot's Keynote Speech**

Cost	60
Maintenance	3
Prerequisite	Planetary Networks

•   Reduces number of drones by two.

•   Increases Psych output of base by 50%.

By far the best facility to combat social unrest, the Hologram Theatre packs a double whammy. First it boosts your overall Psych significantly, then it takes two drones right off the top and turns them into happy campers. Its biggest drawback is that its maintenance is rather high for such an early facility. You'll definitely need the Hologram Theatre's benefits before you even want to think about building a Hab Complex.

It is strongly recommended that, in lieu of actually building Hologram Theatres, you do whatever it takes to secure the Virtual World secret project. This wonderful gizmo folds the important benefits of the Hologram Theatre into the already-useful Network Node. Not only does this roughly halve the up-front mineral and time investment of building these facilities separately, but the maintenance cost of the Network Node is also significantly less than the Hologram Theatre's.

HYBRID FOREST

You see in this dome the intermingling of native and earth plants. Outside, they are competitors, struggling over the trace elements required for life. Often, one destroys the other. Here, they are tended with care and kept well nourished. They thrive together, and the native fungus does not unleash its terrible defenses. As you can see, competition is unnecessary when resources are plentiful and population growth is controlled.

> **Lady Deirdre Skye,**
> **"Planet Dreams"**

Cost	240
Maintenance	4
Prerequisite	Planetary Economics

• Increases nutrient and energy output of Forest squares.

• Increases Psych at base by 50% and Economy at base by 50%.

• Combined with Tree Farm, eliminates the ecological damage caused by terraforming.

• Cumulative with Tree Farm.

The Hybrid Forest is the late game companion to the Tree Farm improvement. You must have a Tree Farm in the base before you can build a Hybrid Forest.

The great thing about the Tree Farm/Hybrid Forest combination is the way they support multiple development strategies. If you want to plant a lot of forests and just sit on them, these facilities combine to make the forests productive enough to support a large base. However, if you just want to concentrate on farms, solar collectors and more exotic improvements, these improvements work together to eliminate the ecological damage the improvements create. When combined with their other benefits (discussed under **Tree Farm**, p. 191) there's just no reason not to build them.

NANOHOSPITAL

It is a medical commonplace that the tissues of the human body replace themselves regularly, essentially creating an entirely new body every seven years. From whence then come cancer and the slow degeneration of age? They exist as faults in the patterns of intelligence within the genes themselves; by reprogramming these smallest parts, the whole becomes well.

> ***Academician Prokhor Zakharov,***
> ***"Nonlinear Genetics"***

Cost	240
Maintenance	4
Prerequisite	Homo Superior

• Increases Psych at base by 25%.

• Increases Labs at base by 50%.

• Reduces number of drones by one.

• Cumulative with Research Hospital.

This is another one of those mid-game/late-game facility matchups. In this case you must have a Research Hospital built before you can have a Nanohospital. Individually, they both do exactly the same thing, and together they do twice as much. Like most of these "second generation" facilities, the Nanohospital is quite expensive to maintain.

Since it comes at a time when your production (and therefore your population) may well be surging from the addition of Soil Enrichers to your territory, its anti-drone influence are likely to be important to maintaining stability in a base trying to reach full population and production. Of course, an extra boost to Labs is useful any time.

NANOREPLICATOR

Look at any photograph or work of art. If you could duplicate exactly the first tiny dot of color, and then the next and the next, you would end with a perfect copy of the whole, indistinguishable from the original in every way, including the so-called "moral value" of the art itself. Nothing can transcend its smallest elements.

CEO Nwabudike Morgan,
"The Ethics of Greed"

Cost	320
Maintenance	6
Prerequisite	Matter Editation

• Increases minerals output at base by 50%.

• Reduces effect of energy on Planet's ecology.

• Cumulative with all other facilities of this type.

This facility has the distinction of being the single most expensive facility to build and to maintain. It's probably worth it. Not only does it pull its weight as one of the quartet of mineral-enhancing facilities (with Genejack Factory, Robotic Assembly Plant and Quantum Converter), but unlike those others, it actually reduces the overall effect of mineral production on Planet's ecology. Basically it cleans up its own mess (although it will still need to be combined with Centauri Preserve and Temple of Planet to fully minimize the damage from a high-production base).

On the other hand, this can definitely be a budget-buster, particularly if you're to a point in your development strategy where you're building lots of Nanoreplicators in different bases. So you're well advised to have your Energy Bank and Fusion Lab up and running before building a Nanoreplicator (and be ready to add a Quantum Lab shortly thereafter).

BASE FACILITIES

NAVAL YARD

The sea is everything. It covers seven-tenths of the globe. Its breath is pure and healthy. It is an immense desert where a man is never alone, for he can feel life quivering all about him. The sea is only a receptacle for all the prodigious, supernatural things that exist inside it; it is only movement and love; it is the living infinite.

Jules Verne,
"20,000 Leagues Under The Sea," Datalinks

Cost	80
Maintenance	2
Prerequisite	Doctrine: Initiative

- Repairs damaged naval units quickly.

- Naval units built here receive two morale upgrades.

- +100% Naval Defense.

The importance of the Naval Yard depends on a number of factors. Most fundamentally, if you're on a watery world you'll need it far more and far earlier than on a world with lots of big dry continents. From there, it depends on how much you like ships. If you're a determined landlubber, you can give this improvement a pass entirely. If you're planning a modest trade-and-explore navy, with maybe a couple of patrol vessels along your coast, then build one or two naval yards at key bases, and co-ordinate your seafaring from there. If you're planning on launching a full-scale armada for rapid growth and conquest, you'll want a naval yard everywhere that can launch ships. (It's worth noting, however, that while it's possible to build a naval yard at an inland base that adjoins a one-or-two hex lake, there's absolutely no reason to do so unless that lake has an outlet to the open sea.)

The whole equation can, of course, be made moot by simply building the Maritime Control Center, which gives you an automatic Naval Yard at every base. If you think you might eventually need four or more Naval Yards, the Maritime Control Center is the most economical alternative.

NESSUS MINING STATION

Red-hot iron, white-hot iron, cold-black iron; an iron taste, and iron smell, and a Babel of iron sounds.

Charles Dickens,
"Bleak House," Datalinks

Cost	120
Maintenance	0
Prerequisite	Self-Aware Machines

- Each Nessus Mining Station increases the minerals output of every base by +1.

- Can only be produced by bases with Aerospace Complexes.

- Minerals bonus is halved for bases without Aerospace Complexes, and cannot in any event exceed the size of the base.

This improvement is a mining operation on one of Planet's moons, raining down mineral wealth on all your faction's bases. The wonderful thing about the Nessus Station is that it's clean minerals … it doesn't increase your base's ecological damage.

As with all orbital improvements, there's no reason to have more Nessus Stations than the population of your largest base at any given time. At that point, your faction is saturated with mineral wealth.

NETWORK NODE

I don't know but I've been told,
Deirdre's got a Network Node.
Likes to press the on-off switch,
Dig that crazy Gaian witch!

Spartan Barracks March

Cost	80
Maintenance	1
Prerequisite	Information Networks

• Increases Labs at base by 50%.

• Base can study alien artifacts.

• Free with Self-Aware Machines.

This is the first and most basic of your research-enhancing facilities. It also allows you to "link" with alien artifacts to discover new tech (you don't need a Network Node to use alien artifacts to hurry secret projects or prototypes). These two abilities are sufficient reason to build your nodes early on. This allows you to pep up your research program, and grab those extra techs while artifacts are plentiful and the techs do the most good.

The Network Node really comes into its own, however, when you have the Virtual World secret project, which combines the effects of the Hologram Theatre with your Network Nodes. (See **Hologram Theatre**, p. 166, for the impressive abilities of that facility.) This combination makes Network Nodes very likely the most valuable single improvement in the game, on a dollar-per-dollar basis. If you have or plan to get the Virtual World, you should definitely make Network Nodes either the first facilities in any new base, or the second (after Children's Creche). Network Nodes also figure spectacularly in another secret project, the late-game Network Backbone (see p. 212).

Not having a Network Node makes your base susceptible to a special event that wipes out all research on your current project. Having a node at the same base qualifies you for a research breakthrough event, producing a free tech.

ORBITAL DEFENSE POD

God, from the mount of Sinai, whose gray top
Shall tremble, he descending, will himself,
In thunder, lightning, and loud trumpets' sound,
Ordain them laws.

John Milton,
"Paradise Lost," Datalinks

Cost	120
Maintenance	0
Prerequisite	Self-Aware Machines

• Each undeployed Orbital Defense Pod has a 50% chance to prevent a Planet Buster attack against any of your bases.

• Defense Pods may only deploy once per turn; when no undeployed Pods remain, a Planet Buster can only be stopped by sacrificing one of the already-deployed Pods.

Let's talk planet busters for a minute.

OK, say you're going at it hot and heavy with Yang or Santiago, and you start to get the upper hand. They lose patience and let loose a planet buster on one of your bases. Now, if the UN Charter still holds, every faction on Planet immediately turns against them. Suddenly, they have a lot more on their mind than just their vendetta with you. Bottom line, they're not very likely to blast you with another planet buster anytime soon, and in a grim, Machiavellian way, you've probably actually gained from the exchange. In that situation, there's no need to panic and start sending up flocks of orbital defense pods.

On the other hand, if the UN Charter falls, for any reason, or if you're the hot-head who starts lobbing planet busters around indiscriminately, then you will most definitely need orbital defense pods – as many as possible, as soon as possible.

BASE FACILITIES

ORBITAL POWER TRANSMITTER

Planet's Primary, Alpha Centauri A, blasts unimaginable quantities of energy into space each instant, and virtually every joule of it is wasted entirely. Incomprehensible riches can be ours if we can but stretch our arms wide enough to dip from this eternal river of wealth.

> **CEO Nwabudike Morgan,**
> **"The Centauri Monopoly"**

Cost	120
Maintenance	0
Prerequisite	Advanced Spaceflight

- Each Orbital Power Transmitter increases the energy output of every base by +1.

- Can only be produced by bases with Aerospace Complexes.

- Energy bonus is halved for bases without Aerospace Complexes, and cannot in any event exceed the size of the base.

An excellent way to pump up your cash flow through direct withdrawal from the first bank of Alpha Centauri Prime, and particularly attractive if your social engineering leaves you vulnerable to inefficiency, or if you're on the tail of an Economic Victory.

As with other orbital facilities, there's never any reason to have more Orbital Power Transmitters than the population of your largest base at any given moment.

PARADISE GARDEN

That sunny dome! Those caves of ice!
And all who heard should see them there,
And all should cry, Beware! Beware!
His flashing eyes, his floating hair!
Weave a circle round him thrice,
And close your eyes with holy dread,
For he on honey-dew hath fed,
And drunk the milk of Paradise.

Samuel Taylor Coleridge,
Datalinks

Cost	120
Maintenance	4
Prerequisite	Sentient Econometrics

• Two extra Talents at this base.

Nothing tricky about this one. It does one thing, and does it well. While the other contentment-enhancing facilities either eliminate drones, enhance psych or both, the Paradise Garden gives you a couple extra talents, to offset whatever drones you may already have to deal with.

Coming rather late in the game, the price to build the Paradise Garden is quite reasonable, but that's offset by a substantial maintenance cost.

The Paradise Garden and the Punishment Sphere are antithetical facilities. You can build either one in any given base, but you can never build both.

BASE FACILITIES

PERIMETER DEFENSE

Having now established a secure perimeter, we have made ourselves relatively safe from enemy incursions. But against the seemingly random attacks by Planet's native life only our array of warning sensors can help us, for the Mind Worms infiltrate through every crevice and chew through anything softer than plasmasteel.

> **Lady Deirdre Skye,**
> **"The Early Years"**

Cost	50
Maintenance	0
Prerequisite	Doctrine: Loyalty

- Increases defense multiplier of base by one. This effectively doubles defense strength (or triples it when combined with a Tachyon Field).

The Perimeter Defense is your most basic defensive facility, and as such it is pretty much a necessity for any new base. It's so essential that there's no reason not to grab the Citizen's Defense Force secret project if you can, and make a Perimeter Defense part of your infrastructure.

If you don't get the secret project, then do some prioritizing when building your perimeter defenses. Bases near another faction's boundary, or on an exposed stretch of coastline, should get perimeter defenses right away, but then these bases can act as a line of defense for your interior bases, which don't need defenses until later on. Even with these priorities, however, it's still a good idea to eventually build defenses in all your bases, to protect against eventualities like drop troops, wild mind worms and the possibility of a major enemy offensive bursting through your defensive line.

PRESSURE DOME

When beholding the tranquil beauty and brilliancy of the ocean's skin, one forgets the tiger heart that pants beneath it; and would not willingly remember that this velvet paw but conceals a remorseless fang.

> *Herman Melville,*
> *"Moby Dick," Datalinks*

Cost	80
Maintenance	0
Prerequisite	Doctrine: Flexibility

• Allows base to survive submersion.

• Also counts as Recycling Tanks for this base.

This is an odd one. On one level it replicates the resource bonus to your home base provided by the Recycling Tanks, but if you already have Recycling Tanks, it doesn't do much for you. The base cost is twice that of the tanks, but there's no maintenance, making this a very good buy overall.

Then there's that part about allowing your base to exist under water. Normally, a spell or two of ordinary global warming will sink, at most, a couple of your bases, and sometimes not even that. The Pressure Dome ability is mostly useful if you're planning (or suspect the other factions are planning) a strategy of catastrophic, ongoing global warming. (Hint: if you're already experiencing ecological damage, and the other factions all gang up on you and vote to melt the icecaps, by all means start building Pressure Domes.)

A perfectly reasonable strategy for this facility is to build it early on, instead of Recycling Tanks, for the resource bonus (this facility will literally pay for itself in 80 years), and then if sinkage becomes a concern, you're already (excuse the pun) covered. Certainly you want to build Pressure Domes rather than Recycling Tanks in any sea bases.

BASE FACILITIES

PSI GATE

Go through, my children! The time of miracles is upon us. Let us cast off sin and walk together to the Garden of the Lord. With God's mercy we shall meet again on the other side.

**Sister Miriam Godwinson,
"Last Testament"**

Cost	100
Maintenance	2
Prerequisite	Matter Transmission

• Units can teleport between bases containing Psi Gates.

The Psi Gate is really a luxury item. It comes at the top of the tech tree, when your strategy should be well on its way. If your faction is centralized on one landmass, the Psi Gate doesn't do much that a good network of mag tubes won't do. If you're trying to mount an invasion in deep enemy territory, orbital insertions (despite some drawbacks of their own) are your better bet. The Psi Gate can be useful in transferring resources from one continent to another in an efficient fashion. If you want to expand to an unsettled continent late in the game, establish a single base as a beachhead, build a Psi Gate, and use it to transfer formers and colony pods from the center of your faction to the new lands. This will allow you to rapidly settle the new territory without the risk associated with sea transport.

PUNISHMENT SPHERE

It is not uncommon to see patients undergo permanent psychological trauma in the presence of the Sphere, before the nerve stapler has even been strapped into position. Its effect on the general consciousness of the culture is profound: husbands have seen wives go inside, and mothers their children. Dr. Xynan left the surface of the sphere semitranslucent for a reason. You can hear them in there; you can see them. It is a thing of terrible beauty.

> **Baron Klim,**
> ***"The Music of the Spheres"***

Cost	100
Maintenance	2
Prerequisite	Advanced Military Algorithms

- Eliminates both Drones and Talents at this base.
- Decreases vulnerability to enemy mind control.
- Reduces Labs output by 1/2.

This is the tyrant's option. If you have your social engineering set so that there's just no way you'll ever be able to control your drones by pacifying them, you're left with two options: nerve stapling or the Punishment Sphere (the Telepathic Matrix secret project doesn't come along till late in the game). Nerve stapling is, of course, an atrocity. It will cause other factions to introduce trade sanctions against you, and generally they'll make your life miserable. The Punishment Sphere does the job of forcible pacification equally well (with the added bonus of increased resistance to mind control), and is not an atrocity. However it does come at a price … the crippling of your research efforts.

If you're going to need this facility, don't build it until you absolutely have to. Once you do build it, mobilize as quickly as possible for final conquest. The point is to keep the loss to your research as late and as short as possible. If you're trying to grind Planet under your heel, you absolutely do not want to lollygag around while your enemies rack up a significant technological advantage – a technologically superior faction can do some serious damage to a foe that far outnumbers them.

The Punishment Sphere and the Paradise Garden are antithetical, and cannot both exist in the same base.

BASE FACILITIES

QUANTUM CONVERTER

And when at last it is time for the transition from megacorporation to planetary government, from entrepreneur to emperor, it is then that the true genius of our strategy shall become apparent, for energy is the lifeblood of this society and when the chips are down he who controls the energy supply controls Planet. In former times the energy monopoly was called "The Power Company"; we intend to give this name an entirely new meaning.

> **CEO Nwabudike Morgan,**
> ***"The Centauri Monopoly"***

Cost	200
Maintenance	5
Prerequisite	Quantum Machinery

• Increases minerals output at base by 50%.

• Cumulative with all other facilities of this type.

This installment of the mineral production quartet is pretty generic. It works just like the Robotic Assembly Plant, except the maintenance cost is significantly higher. It doesn't do you any harm like the Genejack Factory, nor does it do you any favors like the Nanoreplicator.

The one twist to the Converter is that it's the most advanced facility that can be added to your infrastructure via a secret project – the Singularity Inductor. Building the Singularity Inductor is to be preferred over building a lot of separate Quantum Converters, largely because the secret project reduces environmental damage due to production. Nonetheless, there remains some environmental risk involved in upping your minerals output faction-wide to such a degree all at once. See the Singularity Inductor (p. 218) for more specifics on the precautions that should be taken.

QUANTUM LAB

Have you ever wondered why clouds behave in such familiar ways when each specimen is so unique? Or why the energy exchange market is so unpredictable? In the coming age we must develop and apply nonlinear mathematical models to real world phenomena. We shall seek, and find, the hidden fractal keys which can unravel the chaos around us.

**Academician Prokhor Zakharov,
University Commencement**

Cost	240
Maintenance	4
Prerequisite	Quantum Power

- Increases Economy at base by 50%.

- Increases Labs at base by 50%.

- Cumulative with Fusion Lab.

The second-generation counterpart to the Fusion Lab, the Quantum Lab cannot be built in a base until the Fusion Lab is complete. Its bonus to Labs comes at a good time for the home stretch to Transcendence, or to start racking up the Transcendent Thought techs. Likewise, the economy bonus will be very handy in coping with the cost of those high-maintenance, late-game facilities (like this one).

BASE FACILITIES

RECREATION COMMONS

The entire character of a base and its inhabitants can be absorbed in a quick trip to the Rec Commons. The sweaty arenas of Fort Legion, the glittering gambling halls of Morgan Bank, the sunny lovers' trysts in Gaia's High Garden, or the somber reading rooms of U.N. Headquarters. Even the feeding bay at the Hive gives stark insight into the sleeping demons of Yang's communal utopia.

Commissioner Pravin Lal,
"A Social History of Planet"

Cost	40
Maintenance	1
Prerequisite	Social Psych

•   Free with Sentient Econometrics

•   Reduces number of Drones in colony by two.

This very cheap, very early facility should definitely be considered a "must-have" for your base (unless you either plan to control your population severely, or you prefer harsh methods like nerve stapling / the Punishment Sphere to deal with drones). When combined with the Hologram Theatre (or Network Node, as appropriate), and a reasonably enlightened social engineering agenda, you should expect to not have to deal with drones until well after you build your Hab Complex. And that adds up to a significant boost to productivity throughout the lifetime of your base.

RECYCLING TANKS

It is every citizen's final duty to go into the tanks and become one with all the people.

> ***Chairman Sheng-ji Yang,***
> ***"Ethics for Tomorrow"***

Cost	40
Maintenance	0
Prerequisite	Biogenetics

•   Free with Advanced Ecological Engineering.

•   Increases nutrient, minerals, and energy output of base square.

Specifically, the Recycling Tanks provide +1 each to Nutrients, Minerals and Energy in your base square. This may not sound like much, but consider the price and how early it comes in the game, and the value of the tanks becomes manifest. In fact, in a real sense you can't afford to be without it (it pays for itself in 40 turns, and everything after that is pure profit). In the early game you need every resource point you can scavenge, so you need the tanks. In the late game you have lots of facilities multiplying your final resource output, so you need the tanks.

The Pressure Dome gives you the same bonus to your base square as the Recycling Tanks, plus protecting your base against submersion. You may want to build the Pressure Dome instead of the tanks, just in case, but the Pressure Dome is twice the cost (80).

RESEARCH HOSPITAL

Some civilian workers got in among the research patients today and became so hysterical I felt compelled to have them nerve stapled. The consequence, of course, will be another public relations nightmare, but I was severely shaken by the extent of their revulsion towards a project so vital to our survival.

CEO Nwabudike Morgan,
The Personal Diaries

Cost	120
Maintenance	3
Prerequisite	Gene Splicing

• Increases Psych at base by 25%

• Increases Labs at base by 50%.

• Reduces number of drones by one.

• Reduces population loss caused by genetic warfare and other disease outbreaks.

Despite CEO Morgan's rather sinister quote, above, the Research Hospital in fact brings your base a suite of highly useful benefits. It increases your stability by increasing your Psych and eliminating drones, and it ups your research output significantly. On top of all that it provides an important defense against both probe team genetic warfare and random disease outbreaks (it completely prevents population loss due to Prometheus virus outbreaks).

Build this facility if a specific base is having drone trouble (but build the Recreation Commons or Holographic Theatre first). If your research efforts are lagging, start a campaign of Research Hospital building to pep them up. In general, you'll probably want to build Research Hospitals before Fusion Labs, since both give the same bonus to Labs, and Research Hospitals are more generally useful. Obviously, this doesn't apply if your cash flow situation is much worse than your drone troubles.

You must build a Research Hospital in your base before you can build a Nanohospital.

ROBOTIC ASSEMBLY PLANT

Captain said to big old John Henry,
That old drill keeps a-coming around.
Take that steam drill out and start it on that job
Let it whop, let it whop that steel on down
Let it whop, let it whop that steel on down.

Traditional, Datalinks

Cost	200
Maintenance	4
Prerequisite	Industrial Nanorobotics

- Increases minerals output at base by 50%.

- Cumulative with all other facilities of this type.

This is an extremely straightforward facility. All the other mineral-production enhancing facilities have their little tricks, quirks or extras, but this one just cranks out those minerals. This will probably be the second facility of this type (after Genejack Factory) that you acquire, coming in the early midgame (and considering the drawbacks to the Genejack Factory, the Robotic Assembly Plant may well be the first you build). It's fairly expensive to build and maintain, but it's well worth every joule.

Don't build this facility in any base that's already showing ecological damage, and be prepared to build a Centauri Preserve or Tree Farm as soon as it's complete. This is particularly true when you're in a program of building lots of factories in different bases – keep the ecological damage under control.

Once this facility becomes available, make it part of your base's core. In new bases, build it as soon as you have established your base as stable and self-sustaining, and definitely before you build your Hab Complex. The sooner you build the Robot Assembly Plant, the more good it will do you in the long run.

BASE FACILITIES

SKUNKWORKS

The popular stereotype of the researcher is that of a skeptic and a pessimist. Nothing could be further from the truth! Scientists must be optimists at heart, in order to block out the incessant chorus of those who say "It cannot be done."

**Academician Prokhor Zakharov,
University Commencement**

Cost 60
Maintenance 1
Prerequisite Adv. Subatomic Theory

• Eliminates additional cost to prototype new units at this base.

The unique thing about the Skunkworks is that while it's definitely a nice thing to have, you don't need one in every base. Most facilities either help their specific base, or help the whole faction cumulatively. With the Skunkworks, you only need enough to meet your prototyping needs. Build a skunkworks in one or two well defended, high production bases and let those bases handle all the prototyping for your faction. (A second base is a good idea, in case one base becomes involved in a secret project or expensive facility when you need a prototype, in addition to simply guarding against mischance.) Other than civic pride, there's no reason to build more skunkworks elsewhere.

Remember that prototype units get a morale bonus, so make sure your prototyping bases also have Command Centers, Aerospace Complexes, Naval Yards and (as it becomes available) the Bioenhancement Center. This will mean your prototype units are not only reasonably priced, but also extremely effective in actual combat.

SKY HYDROPONICS LAB

Sky farms are fantastically beautiful, with their kilometer long networks of glass framed in grids of metal, and the sunlight shining through jungles of vegetation inside. When one of them catches the light, you can see the refracted beauty for miles; they are life-giving stars on a desolate planet … gardens on the wing.

> *Lady Deirdre Skye,*
> *"Planet Dreams"*

Cost	120
Maintenance	0
Prerequisite	Orbital Spaceflight

- Each Sky Hydroponics Lab increases the nutrient output of every base by +1.

- Can only be produced by bases with Aerospace Complexes.

- Nutrient increase is halved for bases without Aerospace Complexes, and cannot in any event exceed the size of the base.

More nutrients equals more citizens, and more citizens equal a high final score, so a program of Sky Hydroponics launches is an excellent way to pump your late-game population if you're trying for a high score.

And interesting side to the Sky Hydroponics Lab is that, like the other Orbital Improvements, its effect is limited by the size of your base, but its effect also directly increases the size of your base. Fortunately for your sanity and the computer's processor, this effect is not open-ended. Since it takes two nutrients to support one citizen, there will come a point when your Sky Hydroponics Labs have enhanced your population as much as possible (roughly speaking, this point is between 1.5 and 2 times your maximum base size without the satellites). This is for bases with Aerospace Complexes – bases without will gain even less, of course.

BASE FACILITIES

STOCKPILE ENERGY

I hold a scrap of paper in the darkness and light it. I watch it burn bright and curl, disappearing into nothingness, and the heat burns my fingers. Where has it gone? What has it become? I cannot shake the feeling that I have witnessed a form of transcendence.

Commissioner Pravin Lal,
"The Convergence"

Cost	0
Maintenance	0
Prerequisite	None

* All minerals produced at base are immediately converted to Economy energy reserves (each 2 minerals makes 1 energy).

The stockpile energy option is a wonderful thing. At its most basic level, it's useful in that it gives your base something to do even after you've built all the facilities and secret projects you want. This ability is, of course, crucial if you're going for an economic victory, and can also give your faction the cashflow edge it needs to hurry the Ascent to Transcendence project and beat another faction to Transcendence.

Even before the endgame, however, it can be profitably used. Put a few (or a lot) of relatively high-producing bases on Stockpile Energy when your cash flow is slumping, or when you're in a race with another faction for a key secret project (or several) and suspect you might have to buy your way to victory in the race. Remember, however, that the Stockpile Energy production orders are never "finished." Once you start a base stockpiling energy, it will continue until you turn it off by hand. On a related note, if you're not using the Base Governor, your production orders will default to Stockpile Energy whenever you complete a facility or secret project (but not units – the game will default to a new unit of the same kind). If you're not attentive, it's painfully easy to allow a base to slip into Stockpile Energy when you'd rather have it producing new facilities or units.

TACHYON FIELD

The klaxon began to wail, but we felt the reassuring tingle of the Tachyon Field crackling to life around us, encasing the entire base in its impenetrable glow.

> *Spartan Kel,*
> *"The Fall of Sparta"*

Cost	120
Maintenance	2
Prerequisite	Probability Mechanics

- Increases defense multiplier of base by one. This is cumulative with Perimeter Defense, for a net tripling of defense strength at base.

Like its predecessor, the Perimeter Defense, the Tachyon Field is an appealingly straightforward facility. It cannot be built unless your base already has a Perimeter Defense, and it boosts the defensive modifier for units in your base square from two times normal to three times normal.

As with the Perimeter Defense, you can concentrate your Tachyon Field building efforts on the bases on your frontier, and give this improvement a much lower priority at interior bases (but watch out for enemies who might discover the wonders of drop pods).

The Perimeter Defense and Tachyon Field, by the way, are the only facilities that change the appearance of your base icon. The Perimeter Defense surrounds the base with a fence-like black ring, and the Tachyon Field turns that ring to an incandescent golden color.

TEMPLE OF PLANET

Let the Gaians preach their silly religion, but one way or the other I shall see this compound burned, seared, and sterilized until every hiding place is found and until every last Mind Worm egg, every last slimy one, has been cooked to a smoking husk. That species shall be exterminated, I tell you! Exterminated!

**Academician Prokhor Zakharov,
Lab Three aftermath**

Cost	200
Maintenance	3
Prerequisite	Secrets of Alpha Centauri

- Reduces effect of industry on Planet's ecology.
- Any alien lifeforms you breed at this base gain a +1 lifecycle bonus.
- Cumulative with Centauri Preserve.

One very important thing about this facility that's not mentioned in its Datalinks entry – in addition to the prerequisite tech and a Centauri Preserve in the base, you must also have built the Voice of Planet before any of your bases can produce this facility. Coming so late in the game, this means its bonus to lifecycle is probably going to be only rarely of use. Its main function is to serve as a control against late-game ecological disaster. It works with the Centauri Preserve and the Nanoreplicator to reduce ecological damage from mineral production.

Note an important distinction between the Tree Farm / Hybrid Forest combination and the Centauri Preserve / Nanofactory / Temple of Planet triad … while the Tree Farm and Hybrid Forest together *completely* eliminate damage due to terraforming, the others merely reduce damage from production. This means that it's entirely possible to have a base with all five ecology-enhancing facilities, that is still producing so many minerals that it's causing ecological damage. This is particularly dangerous in circumstances where production is artificially pumped, as when a faction with the Space Elevator project is producing orbital enhancements (doubling mineral output), or when a mineral-enhancing special event occurs. These major events usually pass after a few turns. If a base is producing so much that it continues to cause damage even under normal circumstances, you may want to consider transferring some of its high-output squares to a neighboring base, or taking them out of production altogether.

TREE FARM

In the great commons at Gaia's Landing we have a tall and particularly beautiful stand of white pine, planted at the time of the first colonies. It represents our promise to the people, and to Planet itself, never to repeat the tragedy of Earth.

Lady Deirdre Skye,
"Planet Dreams"

Cost	120
Maintenance	3
Prerequisite	Environmental Economics

- Increases Psych output at base by 50% and Economy at base by 50%.

- Increases nutrient output in forest squares.

- Eliminates at least half the ecological damage caused by terraforming (farms, mines, roads, etc.).

One of the earliest and most useful ecological facilities, the Tree Farm's biggest drawback is its high maintenance cost (though that cost is well offset by its bonus to base Economy). The Psych bonus is, of course, always welcome in a growing base under a faction that's attempting to maintain an enlightened social model.

A base must have a Tree Farm in place before it can build a Hybrid Forest. And as noted under Hybrid Forest (p. 167), these two facilities (either alone or separately) provide you with benefits whether you wish to forest over your whole territory, or fully exploit it with industrial terraforming improvements. If you chose the former, it ups your overall productivity, and if the later it significantly reduces ecological damage.

If you build a base in a heavily forested area, consider building this facility early, so the extra nutrients can speed your growth.

Whether you get into trouble with drones, cash or the environment, most of your bases will eventually get to the place where they need this facility, so you might as well build it sooner rather than later.

Resources exist to be consumed. And consumed they will be, if not by this generation then by some future. But what right does this forgotten future seek to deny us our birthright? None, I say! Let us take what is ours, chew and eat our fill.

Director Nwabudike Morgan
"The Ethics of Greed"

SECRET PROJECTS

SECRET PROJECTS

Secret projects are a unique and important part of *Alpha Centauri*. They're a big part of one of the game's most important traits — that each time you play the game it is completely different from any other time.

This chapter is a complete and detailed guide to using each of the game's secret projects. It includes statistics for each project:

Name

Symbol

Quote (the quotation that the game gives when the project is completed)

Cost

Prerequisite Tech

Benefits

A detailed analysis is also included for each project, showing how you can get the most out of it, its dangers and drawbacks, and which factions and strategies will benefit most and least from it.

Every secret project is valuable, but some are essential while others are merely handy. During the course of the game, you may have to make hard choices about which projects to go all out for and which you can let slide. This chapter is intended to help you make such calls with confidence.

ASCENT TO TRANSCENDENCE

*No longer mere earthbeings and planetbeings are we, but bright children of the stars!
And together we shall dance in and out of ten billion years, celebrating the gift of consciousness until the stars themselves grow cold and weary, and our thoughts turn again
to the beginning.*

**Lady Deirdre Skye,
"Conversations with Planet"**

Cost   2000
Prerequisite   Threshold of Transcendence (Voice of Planet)

- Completes the Transcendence sequence and ends the Human Era.

- The Ascent cannot be started until the Voice of Planet is operational.

There's nothing subtle about this one. Build the Ascent, and win the Transcendence game. It has no other effect, and why should it?

The only thing tricky about this one is the price, more than three times that of any other single project in the game. Towards the end of a development-based game you should have several bases producing more than 50 minerals per turn, but even so it will take 30 to 40 turns to build the Ascent, so plan ahead. Don't wait until the game announces mandatory retirement to start the project. (And remember to add time to build the Voice of Planet as well into your long-range planning.) Also, keep in mind that once the Threshold is built, any faction can start work on the Ascent, so don't procrastinate. (It's also a viable strategy to let some other faction invest the time and resources necessary for the Threshold, then you build the Ascent and steal the victory after they've done the grunt-work.)

Of course, you can use your energy reserves to hurry the Ascent, and there's absolutely no reason not to … like the man said, you can't take it with you. If you have over 10,000 energy saved up, you can start the Ascent significantly later than otherwise.

SECRET PROJECTS

ASCETIC VIRTUES

Learn to overcome the crass demands of flesh and bone, for they warp the matrix through which we perceive the world. Extend your awareness outward, beyond the self of body, to embrace the self of group and the self of humanity. The goals of the group and the greater race are transcendent, and to embrace them is to achieve enlightenment.

Chairman Sheng-ji Yang,
"Essays on Mind and Matter"

Cost   300

Prerequisite   Planetary Economics

- Increases the population limit of your bases by two.
- Increases your society's tolerance for use of police and military units (+1 Police).

This is a good, stabilizing mid-game project. It plays to the strengths of the Peacekeepers (significantly enhancing their already-significant population edge) and the Spartans (boosting their already above-average Police rating). It counters the weaknesses of the Morganites (offsetting their rigorous population limits) and the Gaians (restoring them to parity with the other factions in their Police rating).

This project is probably most necessary for factions making Free Market or Cybernetic social choices, both of which carry quite crippling penalties to Police. With the Morganites' affinity for a Free Market, that makes this project doubly appealing to that faction.

There's no real downside to this project, but you may want to avoid it if you're trying to control your population. If you're not in the habit of stationing Police units in your bases, there's less reason to bother.

BULK MATTER TRANSMITTER

And what of the immortal soul in such transactions? Can this machine transmit and reattach it as well? Or is it lost forever, leaving a soulless body to wander the world in despair?

Sister Miriam Godwinson,
"We Must Dissent"

Cost   600
Prerequisite   Matter Transmission

• +2 minerals at every base.

This is one of those touchy late-game projects that you have to watch out for. It can be very useful, but it can also turn around and bite you.

+2 minerals may not sound like much, but take into account that by the time you're far enough along the tech tree to build this project, you're pretty close to having all base facilities available, including all those nifty gizmos that cause your mineral production to shoot up. If a base has a full suite of production-enhancing facilities (Genejack Factory, Robotic Assembly Plant, Quantum Converter and Nanoreplicator) this goody gives that base an instant +6 minerals per turn, and that's a significant jump.

The downside to this is that it comes at a time when Planet is probably ecologically vulnerable anyway, and unless you're very careful, this project could easily tip you over into global warming instantly. If you start work on the Bulk Matter Transmitter, also immediately start your high-mineral-production bases building Tree Farms and Centauri Preserves (if they haven't already). Alternately, you may want to think about negotiating for the Council votes to launch a solar shade, should it come to that.

This facility is most useful if you're in a late-game push to outdo the other factions in overall base production, but avoid it if you're worried that you may be in danger of an unwanted spell of global warming.

SECRET PROJECTS

CITIZENS' DEFENSE FORCE

As the writhing, teeming mass of Mind Worms swarmed over the outer perimeter, we saw the defenders recoil in horror. "Stay calm! Use your flame guns!" shouted the commander, but to no avail. It is well known that the Mind Worm Boil uses psychic terror to paralyze its prey, and then carefully implants ravenous larvae in the brains of its still-conscious victims. Even with the best weapons, only the most disciplined troops can resist this horrific attack.

> **Lady Deirdre Skye,**
> **"Our Secret War"**

Cost	300
Prerequisite	Intellectual Integrity

• Counts as a Perimeter Defense at every base.

This is an inexpensive and crucial early-game project with no downside. Unlike many of the secret projects, it's equally useful in development-based and conquest-based games. Regardless of your faction, social engineering choices or any other factors, you definitely want this project (the only exception is Yang, who already has its main benefit as a faction power). Peaceful factions want it because it provides a defense against enemy aggression, while freeing up most of the faction's bases to pursue other development when they'd otherwise be building perimeter defenses. Warlike factions like it because it protects against determined counter-strikes by annoyed rivals, while freeing up the rest of the bases to concentrate on offense.

If you're playing on a small world, or if native life levels are abundant, build this project as soon as possible. In the first case, you're more likely to run into an annoyed opponent, and in the second you can use the help against wild mind worms. Also, the more bases you build, the more value you get out of this project.

The Citizen's Defense Force is least useful if your faction is isolated and confined to a few concentrated bases, but if you're stuck in that situation, you're probably going to have a tough time coming out on top no matter what you do.

CLINICAL IMMORTALITY

And the Lord God said, "Behold, the man is become as one of us, to know good and evil: and now, lest he put forth his hand, and take also of the tree of life, and eat, and live forever, we must send him forth." Therefore the Lord God sent him forth from the garden of Eden, to till the ground from whence he was taken.

**The Conclave Bible,
Datalinks**

Cost	500
Prerequisite	Matter Editation

- One extra Talent at every base.
- Doubles your votes in elections for Planetary Governor and Supreme Leader.

This late-game project has no real downside, but its usefulness can range from marginal to crucial, depending on your strategy. An extra talent at every base is certainly always nice to have, but by the time you're ready to start this project it may not be as crucial as it was earlier, when you grabbed the Human Genome Project. This assumes, of course, that you've done some groundwork in terms of base facilities and social engineering to keep your citizens happy. If you've gone the ruthless, iron-fist route, one extra talent per base will mean a lot more.

Where this project becomes absolutely essential is when you're trying for a diplomatic victory. A 3/4 majority in Council is not easy to grab, and it's certainly best if you can provide most of the votes you need yourself. You'll probably still need a dominant faction and a couple of staunch allies to grab all the marbles, but it's not going too far to say that Clinical Immortality (and the Empath Guild as well) should be regarded as essential to a diplomatic victory.

Even if you're not going for Diplomatic Victory, those extra Council votes can come in handy if you're trying to hold on to the governorship against an ambitious and fairly evenly-matched rival leader.

The only time you might not care to bother with this Project is when you already have a very content faction, you're not interested in Diplomatic Victory and the governorship is not in question.

SECRET PROJECTS

CLONING VATS

We shall take only the greatest minds, the finest soldiers, the most faithful servants. We shall multiply them a thousandfold and release them to usher in a new era of glory.

Col. Corazon Santiago,
"The Council of War"

Cost	500
Prerequisite	Biomachinery

- All of your bases enter a permanent state of Population Boom and will grow every turn provided nutrient output is sufficient and Hab facilities are adequate.

- The negative effects of the Power and Thought Control social engineering choices are eliminated.

For whatever it's worth, this tends to be the earliest 500-point project to pop up. It's a useful and diverse asset to your faction, but requires some careful management. The population boom effect can be useful in becoming a dominant faction, but all those extra citizens can be a pain to deal with, especially if you're already facing drone trouble. The University in particular, with it's drone-prone ways, should make preparations (in the form of psych-enhancing base facilities) before building this one.

The Cloning Vats work particularly well in conjunction with the Planetary Transit System, allowing you to grow brand-new bases to significant size in jig time.

The more subtle side of this project is its effect on Social Engineering. In addition to eliminating all negatives from the Power and Thought Control choices, it also, by nature, makes the Growth social factor more or less irrelevant. Building this project allows you to go to a Green/Power/Thought Control system with no negatives whatsoever – perfect for a late-game conquest drive. The vats also make the Planned and Eudaimonic choices just a little bit less appealing, because it makes these choices' bonuses to growth irrelevant (which is not a problem, really, but you may want to think about a choice with a bit more bang for your buck).

If you're trying to control your population, give this one a pass. It will be of some use to most other factions, but only if proper preparations are made.

COMMAND NEXUS

Information, the first principle of warfare, must form the foundation of all your efforts. Know, of course, thine enemy. But in knowing him do not forget above all to know thyself. The commander who embraces this totality of battle shall win even with the inferior force.

Spartan Battle Manual

Cost   200
Prerequisite   Doctrine: Loyalty

•   Counts as a Command Center at every one of your bases.

If you're playing a quick-kill strategy, this is the one secret project that you really, really want, even if you normally think projects are for wussies. It's cheap, and it comes early in the game (so you don't have to mount a big research effort to get to it, plus it's attached to a tech that you want anyway). Most importantly, the morale boost you get from it will make it a lot easier to charge screaming across the continents, sweeping the hapless enemy before you like the puny vermin they are.

Which doesn't mean that this project is useless to a peaceful faction. Far from it. Eventually, somebody's going to try to push you around, and having this project behind you will make it that much easier to push back, while in the meantime allowing your bases to concentrate on expansion-related development instead of building command centers "just in case." In fact, at this price the Command Nexus is probably worth building just to keep a more aggressive enemy from getting it.

Obviously, the usefulness of the Command Nexus is undermined a bit on watery worlds, where most of the action is liable to be naval.

With universal utility and no downside, this project is definitely worth making a high priority. Do, however, expect some fairly serious competition for it from the other factions. Expect to spend some cash to hurry it a bit, if you're really serious about getting it.

SECRET PROJECTS

CYBORG FACTORY

A handsome young Cyborg named Ace,
Wooed women at every base,
But once ladies glanced at
His special enhancement
They vanished with nary a trace.

Barracks Graffiti,
Sparta Command

Cost   400
Prerequisite   Mind/Machine Interface

• Counts as a Bioenhancement Center at every base.

Building this project is far more economical than trying to build a bioenhancement center in every base. And once you have it, you have a clear leg up over the opposition in terms of military power (particularly if you have the Cyborg Factory together with the Command Nexus and/or the Maritime Control Center). Any conquest-driven strategy will benefit strongly from this project (although it comes a bit late in the tech tree for most successful quick-kill games).

If you're determined to play a faction that's as peaceful, enlightened and isolated as possible, you may be tempted to give this one a pass, but think twice. Eventually somebody's going to notice you and come after you, and when that happens you'll appreciate a solid morale advantage. Also, if you have this project, your more aggressive opponents don't, which means they'll either be at a morale disadvantage, or have been forced to spend valuable time building bioenhancement centers instead of offensive units.

Factions embracing the Wealth or Eudaimonic social choices should think seriously about this project, as should the Gaians, to counteract the penalties to morale that go with these choices. The Spartans will always want this advance – combined with their faction advantage and morale, and a few intelligent social choices, this can have the Spartans well on the way to creating units at the highest morale level straight out of boot camp (take that, mind worms!).

DREAM TWISTER

Mary had a little lamb,
Little lamb little lamb,
Mary had a little lamb,
whose fleece was white as snow.

Assassins' Redoubt,
Final Transmission

Cost   400
Prerequisite   The Will to Power

• +50% to Psi Attack.

There's nothing tricky about this one. If you really, really like native life units (or have a strong personal taste for Psi Attack units over more conventional guns), then you want this project … *bad*. If you wouldn't poke a tame mind worm with a 10' stick, then you can probably give it a pass (unless, perhaps, you want to snatch it away from a rival faction with a known mind worm fetish).

Actually, it's just a bit more complicated than that. Since native life units only engage in psi combat, regardless of whether they're attacking or defending, this project can give you an important edge in pre-emptive strikes against all mind worms and their other vectors. This is equally true for both wild and enemy controlled native life units. If you play on worlds with abundant native life (or tend to kick up a lot of ecological destruction), this project can definitely make your life easier.

If you're pursuing a Green Conquest strategy, then the Dream Twister arguably becomes the single most important project in the game. There's very little in the game that can go head-to-head against a demon boil working under the influence of the Dream Twister.

SECRET PROJECTS

EMPATH GUILD

Symbols are the key to telepathy. The mind wraps its secrets in symbols; when we discover the symbols that shape our enemy's thought, we can penetrate the vault of his mind.

Lady Deirdre Skye,
"Our Secret War"

Cost   200
Prerequisite   Centauri Empathy

- Allows you to contact any leader.
- Gives you an infiltrator in every faction.
- You get +50% votes in elections for Planetary Governor and Supreme Leader.

The Empath Guild's first, most obvious (and strangest) gift is commlink frequencies for all the other factions, all at once. Build this project early on, and you could easily be the only leader on Planet capable of convening the Council. If you're not an aggressive explorer (particularly on large or watery worlds) this project could save you several decades of random encounters and expensive negotiations. There is, however, a bit of a downside — everybody also has *your* frequency. This could draw the attention of some inconveniently aggressive faction that would otherwise never know you're alive (this is particularly dangerous if your Faction's a bit underpowered). But, being the first to have all the frequencies allows you to start a grand technology horse-trading session that can put you out front of the tech race, and also gives you a leg up on the Planetary Governorship.

In the long run, the thing that makes the Empath Guild really worth having is its effect on your vote for Planetary Governor/Supreme Leader. Everything that was said about diplomatic victory under Clinical Immortality (see p. 199) goes just as much for this project (in fact, if you're serious about a diplomatic victory, you will absolutely want both projects at all costs). The wonderful thing about the Empath Guild is it comes early enough in the game to also give you an edge in that all-important first election for Planetary Governor (if you're Lal, it puts your vote total through the roof; if you're not Lal, it gives you some parity).

However, this project does make the governorship a *bit* less desirable, because it allows infiltrators. Not that this should keep you from running, of course – the infiltrators are small potatoes compared to the governor's extra income and veto power.

HUMAN GENOME PROJECT

To map the very stuff of life; to look into the genetic mirror and watch a million generations march past. That, friends, is both our curse and our proudest achievement. For it is in reaching to our beginnings that we begin to learn who we truly are.

Academician Prokhor Zakharov,

"Address to the Faculty"

Cost   200
Prerequisite   Biogenetics

• One extra Talent at every base.

Unless your faction starts the game pre-qualified for a secret project (the Peacekeepers start out with the ability to build *this* project), this one is the most likely to be the first project to become available (its prerequisite is on the path to Secrets of the Human Brain). Its benefit is simple, straightforward and universal, and this project is probably the single best value in the game.

Sure, one extra talent may not sound like much, but consider how early you get it. This project alone will probably stave off the onset of drone troubles by several turns, even if you play a drone-prone society (this project can be a lifesaver for the drone-prone University). And that one extra talent will allow (speaking in very general terms) one extra square to stay in production for each base of significant size, *throughout the entire game*. Compare the benefit of that one square per base with the cost of the project, and you start to see why the Human Genome Project is such a great buy.

The only time this project is arguably not worth the effort is when you're playing a hardcore, quick-kill conquest strategy, in which case the long-term benefits are moot, and contentment isn't a big factor anyway.

One final extra … building this project makes your entire faction permanently immune to the Prometheus Virus natural disaster.

This project is cheap, its benefit is lasting and universal, and it has no downside. It may take some sacrifice to grab this project early enough to benefit from it, but it will more than repay you in the long run.

SECRET PROJECTS

HUNTER-SEEKER ALGORITHM

If I determine the enemy's disposition of forces while I have no perceptible form, I can concentrate my forces while the enemy is fragmented. The pinnacle of military deployment approaches the formless: if it is formless, then even the deepest spy cannot discern it nor the wise make plans against it.

> *Sun Tzu,*
>
> *"The Art of War," Datalinks*

Cost   300
Prerequisite   Pre-Sentient Algorithms

- Renders your units and bases completely immune to probe team infiltration of any kind.

Not just a damn useful project, this is also an incredibly entertaining one. Any time a rival faction's probe team tries to enter one of your bases or attack one of your units, *poof*, it vanishes in a puff of fuzzy logic. Now *that's* a power high. (And yes, the Hunter-Seeker Algorithm does work against sneaky Pact Brothers trying to embezzle some of your technology on the sly.) It comes at the perfect time in the tech tree, right when inter-faction tensions are probably heating up, and your rivals are starting to get sneakier on you. If your faction is actually under probe attack when this project becomes available, consider spending some cash to Hurry it to completion.

Another neat (if less flamboyant) effect of the project is that it makes a negative Probe rating completely irrelevant (are you listening, University?). Do remember that if you plan on using lots of probe team tactics yourself, a positive Probe rating gives you an important morale bonus. But other than possibly denying yourself that morale bonus, this project basically eliminates the downside of the Knowledge social choice. It also reduces the value of Fundamentalist and Thought Control a bit, and undercuts the Believer's faction strength (again, unless you're planning a lot of offensive probe actions).

And incidentally, if your strategy does call for a lot of probe actions, remember that if you have this project, that means nobody else is using it against *your* probe teams.

Regardless of your faction or strategy, this one is just too good to miss.

LIVING REFINERY

We estimate that during the next mission century most of Planet's industries will be moved off-planet to Nessus Prime and other orbital facilities. Many of our industries will benefit greatly from the low gravity environments available in space, particularly those involving genetically engineered microbes.

CEO Nwabudike Morgan,

"The Centauri Monopoly"

Cost   400
Prerequisite   Advanced Spaceflight

• Decreases minerals required to support military units: +2 Support on Social Engineering table.

The Living Refinery won't be urgently useful in every game. If you are in a game where you need it, you'll know it. Are your bases supporting so many units that it cuts your production speed unacceptably? If so, you definitely want this project. Likewise, if you're contemplating a "rampaging horde" endgame where you bases just crank as many units as they can, and keep cranking as long as they can until the entire world is yours, then this will definitely swell your ranks.

In more sedate or productive societies, however, the value of this project is marginal. If you habitually keep more than a couple units supported by any given base, this project will increase your production capacity to a useful, but probably not essential, degree. The Morganites will find it helpful, to counteract their faction penalty to Support. Likewise any society geared strongly towards Democratic or Thought Control will find this a useful antidote to the drawbacks of those choices (although the negative side of Thought Control is better addressed by building the Cloning Vats). If you're the Morganites, *and* you like Democracy, this project becomes a great deal more attractive than it might otherwise be.

SECRET PROJECTS

LONGEVITY VACCINE

I plan to live forever, of course, but barring that I'd settle for a couple thousand years. Even five hundred would be pretty nice.

> **CEO Nwabudike Morgan,**
> **MorganLink 3DVision Interview**

Cost   300
Prerequisite   Bio-Engineering

- Two less drones at every base if your society's Economics are Planned.

- One less drone at every base if Economics are Simple or Green.

- Economy increased by 50% at this base for Free Market economies.

This one is unique in that its powers change – radically – based on your Economics choice. Note that the three powers are not anywhere close to equal. Not only is the benefit twice as great for Planned than for Simple or Green (just owning this project is itself a strong argument for a Planned economy), but both are far better than the benefit for Free Market. Read the description carefully – the drone reduction power affects every base in your faction, but the Free Market power only affects the base you build the improvement in.

Projects that reduce your drone problems are always highly recommended for any development-based strategy, but truthfully this one is probably the least useful of all the projects that keep your population happy. If you grab the Human Genome Project and Virtual World (along with the Network Nodes it needs to work) early on, and Clinical Immortality and the Telepathic Matrix later, you can probably maintain a stable society throughout the whole game without this one. Unless you're a total tyrant, of course, in which case you need all the help you can get. Also the drone-prone University will find this one extra useful.

MARITIME CONTROL CENTER

It is altogether fitting that we who have sailed the deeps of space now return again to the sea. This is in many ways a water planet, and it can be ruled from the waves. With sea power, rugged terrain can be bypassed and enemy strongholds isolated. Once naval superiority is achieved, Planet is ours for the taking.

> *Col. Corazon Santiago,*
>
> *"Planet: A Survivalist's Guide"*

Cost   300
Prerequisite   Doctrine: Initiative

• Increases the movement rate of all naval units by two.

• Counts as a Naval Yard at every one of your bases.

Prioritizing the Maritime Control Center is not a tricky exercise. The more water on your world, the more you need this. Likewise, if your faction is isolated on a small island, this will come in useful. Basically, you need this project if you like (or need) ships. If you're already on a landmass that has all the expansion room you want, and you don't feel like running off to bother the other factions, then you might as well do without. Of course, if you're trying for a victory by conquest, you will need to take to the oceans eventually – unless you're willing to wait until you're ready to try orbital insertions against remote enemies. For peaceful factions, this project will increase your ability to explore, and also make things that much harder for expansionistic, seafaring factions to get in your face.

This is one of the earlier projects – early enough to be extremely useful even in quick-kill conquests. That +2 to nautical movement is just a useful little extra late in the game when your ships are big and powerful, but early on when your ships are small and limited in movement, it can amount to a crucial tactical advantage. If you're planning on building a lot of your ships early, this project is significantly more important than if you're willing to wait.

SECRET PROJECTS

MERCHANT EXCHANGE

Human behavior is economic behavior. The particulars may vary, but competition for limited resources remains a constant. Need as well as greed have followed us to the stars, and the rewards of wealth still await those wise enough to recognize this deep thrumming of our common pulse.

**CEO Nwabudike Morgan,
"The Centauri Monopoly"**

Cost   200

Prerequisite   Industrial Base

• +1 energy in every square at this base.

Since it only effects the base where it's built, this is by far the least useful of all the 200-energy projects. Still, it can give you a nice financial leg up early on when things are tight (and solar collectors are still being built). Also, when you consider how early this project pops up, and multiply its financial contribution by the whole duration of the game, it comes out to a pretty penny for your faction in the long term. Needless to say, you're well advised to build this at a base with plenty of resources and no neighbors too near, so that you can get the most out of it as your base grows. The more squares your base can put into production, the higher the energy bonus from this project. The Peacekeepers and the Hive (and to a lesser extent, the Spartans) will find this project useful in counteracting their economic-related faction penalties.

The Morganites start the game with the ability to build the Merchant Exchange.

One lucrative strategy that requires a bit of planning is to designate one base (again, one with good production capacity, that's not squeezed by its neighbors – and well defended), and make it the home to all the projects that have single-base effects. This creates a "super base," with a value far greater than its size. The other projects that affect only a single base are the Supercollider and the Theory of Everything, while projects that have both single-base and faction-wide effects include the Space Elevator and Network Backbone (and the Longevity Vaccine, if you're into Free Market economies). This creates a single base with tripled research output, doubled (or better) energy reserves, all on top of a hyped energy production and research production capability. Not too shabby.

NANO FACTORY

Industrial Grade Nano-Paste, Planet's most valuable commodity, can also be one of its most dangerous. Simply pour out several canisters, slide in a programming transponder, and step well away while the stuff cooks. In under an hour the nano will use available materials to assemble a small factory, a hovertank, or enough impact rifles to equip a regiment.

Col. Corazon Santiago,
"Planet: A Survivalist's Guide"

Cost   400
Prerequisite   Industrial Nanorobotics

•   Units can be repaired quickly and completely even when not in base squares.

•   The cost to upgrade units is reduced by 50%.

This is a darned useful project for all but the most doggedly pacifist factions. It also carries a sense of godlike power that's just tons of fun in a late-game battle royale. Popping your heavily damaged units into a base for a single turn, then sending them roaring out fully repaired is a great power trip. Or if you're fighting far from home, send them off to hide in fungus for a few turns, then come out strong as ever. You'll feel like Batman, guaranteed.

The cheap upgrade power of the project, however, is probably even more important. By all means, plan for the completion of this project. Hold back on that big offensive for a few turns if you know you're going to build the Nano Factory. Then, when the project is ready, upgrade everything and go for broke.

If you're the patient, frugal type who can make himself wait unobtrusively all the way to the top of the tech tree, this project can be a keystone in an upgrade orgy that takes your rattley old units and turns them instantly into an army of unstoppable juggernauts. Once again, the power trip potential is endless.

SECRET PROJECTS

NETWORK BACKBONE

Of course we'll bundle our MorganNet software with the new network nodes; our customers expect no less of us. We have never sought to become a monopoly. Our products are simply so good that no one feels the need to compete with us.

CEO Nwabudike Morgan,
Morgan Data Systems press release

Cost	400
Prerequisite	Digital Sentience

- +1 research at this base for every point of Commerce this base receives.

- +1 research for every Network Node in existence on Alpha Centauri, regardless of the player owning the Network Node.

- Eliminates the negative effects of Cybernetic society.

The project has more goodies than Christmas morning, and should probably be considered essential to any long-term development strategy (and especially in attempts to win by Transcendence). If you want to be the first to the top of the tech tree, this will put you there better than any other single factor.

The extra Labs from Commerce is nice (try to build it at one of your larger and more established bases, to get the most from the Commerce bonus). The big kick, however, is the bonus from Network Nodes. If you have a reasonably strong faction, and you're building nodes at every new base (as you should) your own faction's nodes will pump your Labs score prodigiously, and if there are some other strong factions elsewhere, this project makes a bit of their strength into your strength. Combine the Network Backbone with the Supercollider and the Theory of Everything, and watch those advances start to roll!

On top of it all, you get the penalties removed from the Cybernetic social choice, which allows you to crank your Efficiency, Planet and Research (!!) without any downside whatsoever. If you're pursuing a development-based strategy, you do want to grab this as soon as possible, and you most definitely do want to choose Cybernetic as soon as you do.

NEURAL AMPLIFIER

Against such abominations, we organize our defenses on the principle that one strong and able mind can shield the many.

Spartan Battle Manual

Cost   300
Prerequisite   Neural Grafting

·   +50% to Psi Defense.

This is the younger, less aggressive sibling to the Dream Twister, and most of the caveats that apply to that project apply to this. The more you like native life units and psionic combat, the more you want this project.

Actually, the Neural Amplifier is far more universally useful than the Dream Twister, because even if you never build a psi unit, sooner or later you're bound to be attacked by one. If you play on worlds where native life is abundant, this project can be a real lifesaver (and it comes early enough in the game that mind worms are likely to still be numerous and aggressive near your bases).

If you have both the Neural Amplifier and the Dream Twister, you definitely want to start thinking about a more psi-heavy offensive strategy. Ironically, though, this project is only of limited use in a green conquest strategy (although it can definitely come in handy when you get surprised by wild mind worms). In green conquest you want to pump your Planet rating, hunt down wild mind worms and either take them over or take them out. If you're playing it right, you'll be on the defensive against wild native life as little as possible.

PHOLUS MUTAGEN

We welcome you, earthdeirdre and earthwheat and earthtree as honored guests, for you add great power to our ancient song — planetfungus and planetworm and planetmind sing and play here, and you are welcome among us. ^

> *Lady Deirdre Skye,*
> *"Conversations with Planet"*

Cost   400
Prerequisite Centauri Genetics

• Reduces effect of industry on Planet's ecology at all of your bases.

• Additionally, the fungus confers on all of your units the same combat benefits normally reserved for alien lifeforms.

• Any alien lifeforms you breed gain a +1 lifecycle bonus.

The big payoff to this project is the across-the-board cut to ecological damage. If you have a large faction with lots of highly developed, highly productive bases, you absolutely need this project, or sooner or later you'll be playing mer-king of your glob-ally warmed undersea kingdom. A word to the wise is sufficient. Do not give this one a pass, unless you're prepared to strictly limit the size and production capability of your faction late in the game.

Oddly, with all its benefits to native life, the Pholus Mutagen's direct influence on a green conquest strategy is surprisingly small. If you're playing green conquest, most of your units are alien lifeforms, so they don't benefit much from the combat bonuses (although your formers and colony pods will appreciate it). Also, you're not breeding the bulk of your forces, you're recruiting them.

Where this project comes in most handy in green conquest is when you're up against a determined foe, and the supply of native lifeforms starts to run a little dry. Building this project can be an excellent preparation for augmenting your tamed units with home-grown reinforcements.

PLANETARY DATALINKS

As the Americans learned so painfully in Earth's final century, free flow of information is the only safeguard against tyranny. The once-chained people whose leaders at last lose their grip on information flow will soon burst with freedom and vitality, but the free nation gradually constricting its grip on public discourse has begun its rapid slide into despotism. Beware of he who would deny you access to information, for in his heart he dreams himself your master.

> **Commissioner Pravin Lal,**
> **"U.N. Declaration of Rights"**

Cost   300
Prerequisite   Cyberethics

• You automatically discover any technology discovered by any three other factions.

The ironic thing about this one is that the worse your faction is doing, the more good it does you. If there are several factions way ahead of you in the race up the tech tree, building this project will quickly restore you to parity (although it will never put you on top). On the other hand, if you're already way out in front of everybody else technologically, breakthroughs from the Planetary Datalinks will probably be far fewer.

Even if you are the clear frontrunner in the tech race, though, you can expect a few extra goodies from the Planetary Datalinks. This is because the other factions don't share your same research priorities. If you're holding back and concentrating on building your technologies one level at a time, somebody else will be racing ahead after something specific (and sharing his finds with his allies, until eventually the magic number is reached). On the other hand, if you're going after some specific advanced tech, the Planetary Datalinks can help you keep up basic techs further down.

And, finally, if you're the king of the tech tree, building this project makes it impossible for one of the other factions to build it and start siphoning away your hard-won advantage.

PLANETARY TRANSIT SYSTEM

As distances vanish and the people can flow freely from place to place, society will cross a psychological specific heat boundary and enter a new state. No longer a solid or liquid, we have become as a vapor and will expand to fill all available space. And like a gas, we shall not be easily contained.

> *Sister Miriam Godwinson,*
> *"But for the Grace of God"*

Cost	300
Prerequisite	Industrial Automation

•   Any new bases you found begin at population level 3.

•   One less drone at all bases of population level 3 and under.

This one carries a very simple and straightforward benefit, but one that's well worth having. Not only does starting off a base at a larger size make it grow that much quicker, it also eliminates a major nuisance from the game. No longer can a single mind worm pop out of a fungus patch and obliterate a brand-new base. (Undefended higher population bases will still suffer losses to population and possibly infrastructure from wild mind worm attacks, but unless the worms attack in a pack, your base will survive at least long enough to hurry a defender to completion.)

If you're playing a very oppressive society, the drone reduction on very small populations can mean the difference between viability and extinction for a new base. (If your base's first unit is a drone, that base isn't going to go far … at least not without a police unit in residence.) Just remember that the benefit's going to go away when your base grows to four or more.

SELF-AWARE COLONY

Will we next create false gods to rule over us? How proud we have become, and how blind.

> *Sister Miriam Godwinson,*
> *"We Must Dissent"*

Cost	500
Prerequisite	Self-Aware Machines

• Energy maintenance cost for facilities is halved at all of your bases.

• If use of police is allowed under the current social model, all of your bases are considered to have an extra police unit.

This is a late-game project that comes along right when you need it … if you need it at all. If you're an aggressive base developer, you'll find that as you reach the top of the tech tree, and keep building new facilities for your bases, sooner or later they'll start to get expensive. This project will allow you to toss everything including the kitchen sink into your bases, and still stay in a positive cash-flow situation.

The free police power is handy for those late-game offensive pushes. Realistically, however, you'll need a Police rating of +2 or better to get any good out of it – note that the project doesn't actually change your Police rating (although this project goes well with the AsceticVirtues), since you're probably keeping one or two defensive units permanently stationed in your base anyway. If you're the belt-and-suspenders type, who habitually keeps three or more units stationed permanently in each base, then the "virtual police" granted by this project will do nothing for you, since police units max out at three.

SECRET PROJECTS

SINGULARITY INDUCTOR

What actually transpires beneath the veil of an event horizon? Decent people shouldn't think too much about that.

> **Academician Prokhor Zakharov,**
> **"For I Have Tasted The Fruit"**

Cost   600
Prerequisite   Controlled Singularity

- Counts as a Quantum Converter at every base.

- Reduces the ecological effects of mineral production.

The Quantum Converter is a very powerful improvement, and this is a very powerful project. So powerful, that some careful management is needed to keep it from creating a major mess.

The problem here is ecological disaster. When you're upping your minerals production one base at a time, it's a great deal easier to deal with any ecological damage that emerges than when you blast your entire faction up all at once. Yes, the project does mitigate the effects of increased production somewhat (which, in the long run, definitely makes it superior to building converters at each base individually). But don't be fooled, there will be an overall increase in your ecological damage immediately upon building this project, and if you're already close to global warming, it can easily tip you over the edge.

The Singularity Inductor is particularly dangerous if it's built in rapid sequence with the Cloning Vats and the Bulk Matter Transmitter, both of which also cause production and ecological damage to shoot up upon completion. Try to spread these three out enough to deal with them efficiently.

A word to the wise is sufficient. When you start work on the Singularity Inductor (don't wait until you complete it), it's in your best interest to start a concentrated program of Centauri Preserve, Tree Farm and Hybrid Forest building (if you haven't already). This is especially true for your larger bases and any base already showing ecological damage.

Of course, if you're trying to induce a spell of global warming, this project could easily tip you over the top to your goal of universal immersion.

SPACE ELEVATOR

In one moment, Earth; in the next, Heaven.

> ***Academician Prokhor Zakharov,***
> ***"For I Have Tasted The Fruit"***

Cost	500
Prerequisite	Super Tensile Solids

- Doubles economy energy reserve production at this base.

- Doubles mineral production rate at all of your bases when producing orbital improvements.

- Your units equipped with drop pods may now make orbital insertions anywhere on the Planet.

- All Aerospace Complex restrictions on orbital improvements are waived.

This project presents an interesting suite of benefits, most of which will only be valuable in certain games. The doubled energy is, of course, useful to just about everyone, but not really worth a 500-point project all by itself.

If you really, really like satellite improvements, you'll find this project essential, but the 50% reduction of building costs for satellites (and the ability to build them without aerospace complexes) will only pay off if you go on a reasonably serious program of orbital building.

In specific tactical circumstances, the ability to launch early orbital insertions can actually be the most valuable benefit of the project. This is particularly true if a remote and well defended faction is harassing you with copters or missiles – drop a dozen or so paratroops just outside his capital and watch the wind go out of his sails when you move in. This is only true, of course, if building the project actually does give you the orbital insertion ability significantly earlier than you would have gotten it normally.

SECRET PROJECTS

SUPERCOLLIDER

God does not play dice.

Albert *Einstein, Datalinks*

Cost   300
Prerequisite   Applied Relativity

• Research output at this base is doubled.

Another one of those "single base" improvements. Make sure you build it in a base that's generating plenty of energy (the raw material of research), to get the most out of it. The single base projects that improve tech are probably actually more useful to your faction as a whole than those that increase energy.

See the discussion under **Merchant Exchange** (p. 210) on the strategy of piling all your single-base projects up in one "super base." Even if you don't follow the "super base" strategy all the way through, however, you should definitely match up the Supercollider with its nearly identical twin, the Theory of Everything. By themselves, both projects are of marginal value, but combined (in an intelligently chosen location) they can seriously goose your research speed (although whether the final benefit is worth a whopping 700 total minerals is a call you have to make for yourself).

It's cool to see how the one-base projects all work together when they're "stacked." Merchant Exchange and Space Elevator (and sometimes the Longevity Vaccine) all increase the base's energy output, which translates directly into a high Labs score. This already impressive Labs score is then doubled and tripled by the addition of the Supercollider and the Theory of Everything, with the Network Backbone sitting up on top of everything like meringue on the pie. The end result is a seriously impressive research center (and all for only 1600 minerals!).

TELEPATHIC MATRIX

From the delicate strands,
between minds we weave our mesh:
a blanket to warm the soul.

> ***Lady Deirdre Skye,***
> ***"The Collected Poems"***

Cost   600
Prerequisite   Eudaimonia

·   Drones never riot at your bases.

·   All of your probe teams receive a +2 morale modifier.

This is another one of those late-game projects where if you really need it, you'll definitely know it. Getting the drone monkey off your back once and for all is always a great feeling, but if you've been playing as a fairly enlightened leader, you've probably got a content society by now. If you're a tyrant, however, this project can move you into a whole new realm of productivity (or at least allow you to scrap those socially embarrassing nerve staples and their inconvenient diplomatic consequences).

This project makes your Police rating pretty much irrelevant, so you can take a close look at a Cybernetic society, or even a switch to a Free Market economy for an endgame push for an economic victory.

If you like playing the University, or the Knowledge social choice (with their penalties to your Probe score), but you also want to try some probe operations, this project is a natural. (Note, however, that this project does nothing to hinder enemy probe operations – for that, you need the Hunter-Seeker Algorithm.)

SECRET PROJECTS

THEORY OF EVERYTHING

The Earth is the cradle of the mind, but one cannot stay in the cradle forever.

Konstantin Tsiolkovsky,
The Father of Rocketry, Datalinks

Cost   400
Prerequisite   Unified Field Theory

• Labs output doubled at this base.

Not nearly as impressive as it sounds. The Theory is the slightly more expensive twin of the Supercollider. If you have that project, you should also have this project … preferably in the same base. See **Supercollider,** p. 220, for more.

UNIVERSAL TRANSLATOR

And the Lord said, "Behold, the people is one, and they have all one language; and this they begin to do: and now nothing will be restrained from them, which they have imagined to do. Go to, let us go down, and there confound their language, that they may not understand one another's speech."

**The Conclave Bible,
Datalinks**

Cost	400
Prerequisite	Homo Superior

• Two free tech advances on completion.

• Any number of alien artifacts can be cashed at this base.

This one is probably more entertaining than strictly useful, because by the time you finish this project, you're probably cranking research at a pretty good clip anyway (you should be making discoveries roughly every five turns or better). The Universal Translator is, of course, of the most obvious value when you're going for victory by Transcendence, when every boost you can get up the tech tree is significant. It can also be extremely useful if you're in a tight race with another faction for military supremacy. With a bit of lucky timing, completing this project can give you the keystone techs you need to move your strategy into a completely new phase, and that's always entertaining.

Neat-trick-if-you-can-do-it … try to use this project to get one (or both!) of the late-game "Secrets" advances.

The infinite alien artifacts trick probably comes too late to do you any serious good. By this point in the game the artifact supply will be pretty well picked over, and you probably have plenty of unlinked Network Nodes for any that you do happen to find.

SECRET PROJECTS

VIRTUAL WORLD

What do I care for your suffering? Pain, even agony, is no more than information before the senses, data fed to the computer of the mind. The lesson is simple: you have received the information, now act on it. Take control of the input and you shall become master of the output.

> *Chairman Sheng-ji Yang,*
> *"Essays on Mind and Matter"*

Cost   300
Prerequisite   Planetary Networks

In addition to their normal effect, Network Nodes count as Hologram Theatres at each of your bases:

- Reduce number of drones by two at base.

- Increase Psych output of base by 50%.

This is perhaps the single most important project to have in any development-based game. What it does is take an improvement that you'll want to have anyway (Network Nodes) and give them the power of a second extremely useful improvement as well. The result is that each time a base builds a network node, it receives an impressive boot to both research and stability – the two foundations that all development-based factions are built on. As a plus, all this comes at a crucially early point in the game, and carries an extremely reasonable price tag. Grab both the Virtual World and the Human Genome Project, combine them with any reasonably non-repressive society, and you can expect to put off those drone troubles for decades.

Of course, the project will do you no good whatsoever if you don't build network nodes early in each of your bases. With this project, network nodes should become the first or second (with children's creche) improvement built in every base. The other obvious corollary is that if you plan or hope to build the Virtual World, don't spend any time building holographic theaters in your bases.

As useful as it is to any faction, this project becomes 100% more essential if you're playing the University. First because you need all the help you can get suppressing drone production, and second because your bases already come with network nodes installed, making this a significantly better value for you than for any of the other factions.

VOICE OF PLANET

Imagine the entire contents of the planetary datalinks, the sum total of human knowledge, blasted into the Planetmind's fragile neural network with the full power of every reactor on the planet. Thousands of years of civilization compressed into a single searing burst of revelation. That is our last-ditch attempt to win humanity a reprieve from extinction at the hands of an awakening alien god.

> ***Academician Prokhor Zakharov,***
> ***"Planet Speaks"***

Cost   600
Prerequisite   Threshold of Transcendence

- Begins the Ascent to Transcendence sequence. Any faction can now begin the Ascent to Transcendence.

- Any alien lifeforms you breed gain a +1 lifecycle bonus.

You must build the Voice of Planet before you can build the Temple of Planet (something not covered in the datalinks). If your bases continue to have ecological problems after building centauri preserves, tree farms and hybrid forests, the ability to build temples can be essential. (The mind worm lifecycle bonus is like a sprig of parsley on a steak — it's nice and all, but you're probably not going to do much with it.)

There's not really a compelling reason why you, *personally,* have to build this project to win by Transcendence, but it's a good place to start. Building the Voice allows you some control over the timing of the win (which can be important) and adds one more project to your final score … but basically once anybody builds the Voice, you're free to start your sprint towards the Ascent. (Of course, if nobody else is this high on the tech tree, building the Voice falls to you.) Finishing the Voice does pretty much commit you to Transcendence, since finishing it allows all the other factions to start work on the Ascent.

Time-saving tip. Start your *second* best mineral-producing base working on the Voice. Then, a few turns later, have your best mineral-producing base join in. Make sure that the second-best base will be the first to complete the project. When the Voice is complete, immediately switch your other base over to the Ascent. This should usually put you not-quite-600 points ahead of any other faction that wants to try to go for victory by Ascent.

SECRET PROJECTS

WEATHER PARADIGM

I shall not confront Planet as an enemy, but shall accept its mysteries as gifts to be cherished. Nor shall I crudely seek to peel the layers away like the skin from an onion. Instead I shall gather them together as the tree gathers the breeze. The wind shall blow and I shall bend. The sky shall open and I shall drink my fill.

Gaian Acolyte's Prayer

Cost	200
Prerequisite	Centauri Ecology

- Increases terraforming speed by 50% for all tasks except for Remove Fungus.

- Your formers may build condensors and boreholes, and may raise/lower terrain, even if you have not yet discovered the appropriate technologies.

Of the three "first level" projects, the Weather Paradigm is almost as useful as the Human Genome Project (more so, in some games) and much more useful than the Merchant Exchange. The Gaians start the game with the ability to build this project.

Its significant ongoing benefit is the reduction in terraforming time, which represents an extremely significant development advantage over the other factions (particularly in view of how early this project comes … you'll be getting that extra terraformer time for a long time to come).

Perhaps equally important, however, is the ability to perform advanced terraforming operations significantly earlier than would otherwise be possible. Intelligently used, this can create an early production advantage over the other factions that they might well never recover from. If you happened to land in an arid region, the ability to increase the fertility of new bases by building condensors or raising ridges can be crucial to getting your faction's beachhead on its territory firmly established. Be conservative about those early-game boreholes, however … they can come back to bite you, in terms of ecological consequences, later in the game.

XENOEMPATHY DOME

I believe Planet will talk to us if we are willing to listen. These fungal stalks behave as multistate relays: taken together, the neural net connectivity must be staggering. Can a planet be said to have achieved sentience?

Lady Deirdre Skye,
Arguments in Council

Cost   300
Prerequisite   Centauri Meditation
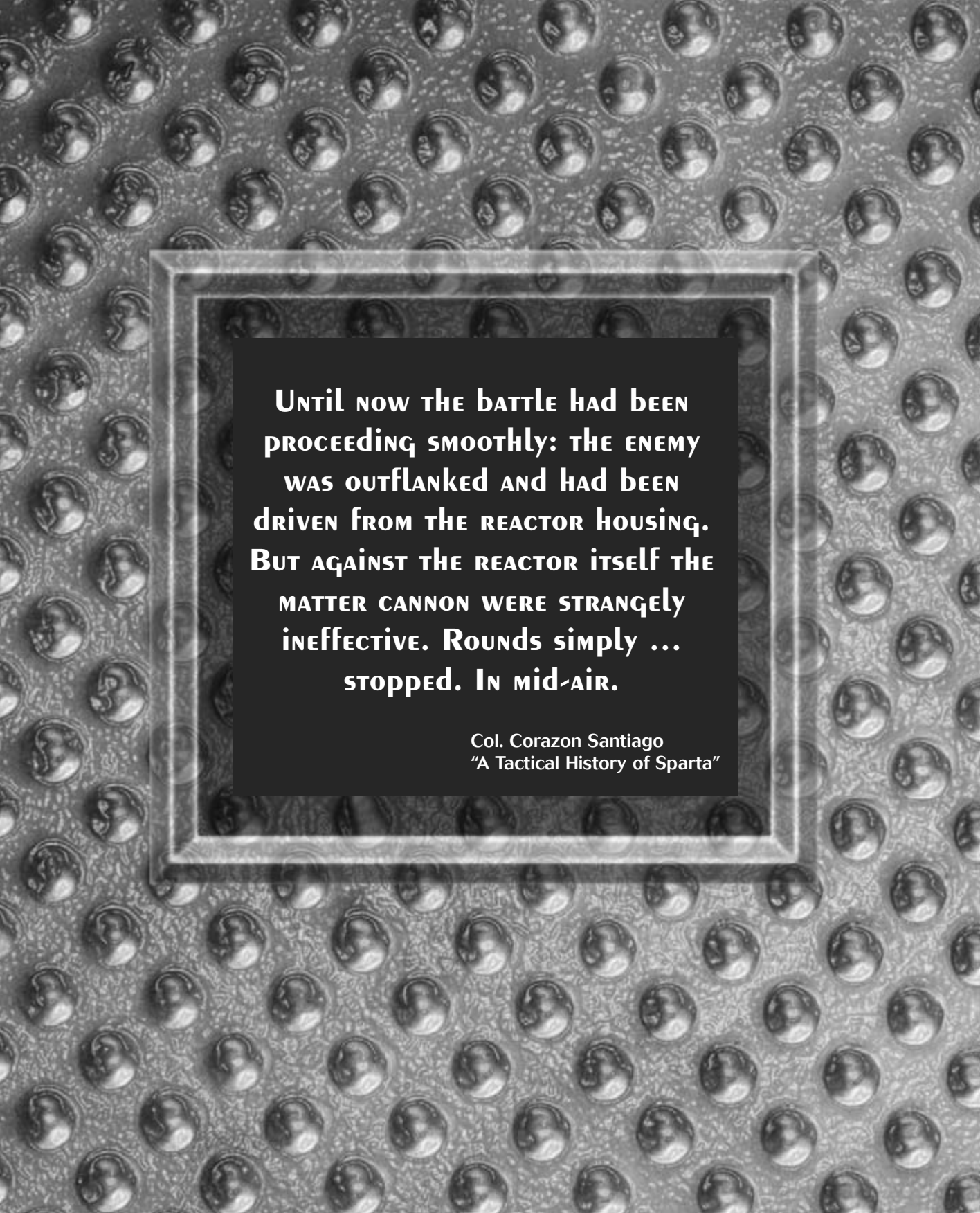
- All xenofungus squares are treated as roads.

- The rate at which your formers remove and/or plant fungus is doubled.

- Any alien lifeforms you breed gain a +1 lifecycle bonus.

Coming when it does, this project is usually well worth the cost to build it. If you're still building up your faction, it makes it a lot easier to get those colony pods out to the frontier. If you're starting to engage the enemy, it allows you to take full tactical advantage of xenofungus.

In a green conquest game, this project will allow you to supplement your mind worm "harvesters" with some mechanical units (which are more efficient at kicking up wild mind worms).

Of course, the amount of native life in your current game (and in your immediate area) has a dramatic impact on how useful this project will prove in the long run. If native life is "abundant," it really comes into its own. One thing to keep in mind (especially when playing with abundant native life) … although it speeds movement through fungus, the Dome does nothing to moderate your chances of kicking up mind worms upon entering any given square. This means that as you send your colony pods tearing through the fungus at three squares per turn, they're much more likely to run into an annoyed mind worm boil out to ruin their whole day.

The Xenoempathy Dome is a natural match to the Pholus Mutagen, which gives you a cumulative +2 to native units' lifecycles, and even more combat efficiency in fungus.

Until now the battle had been proceeding smoothly: the enemy was outflanked and had been driven from the reactor housing. But against the reactor itself the matter cannon were strangely ineffective. Rounds simply ... stopped. In mid-air.

Col. Corazon Santiago
"A Tactical History of Sparta"

UNITS
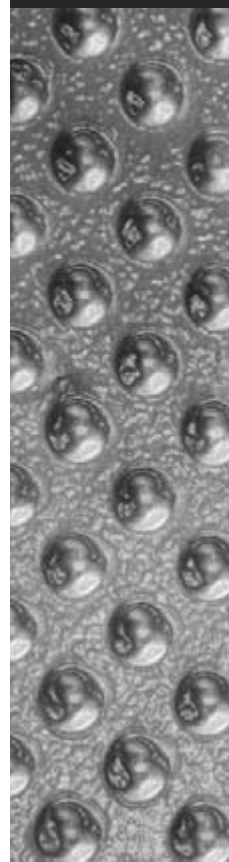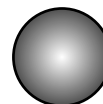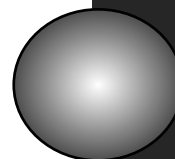
UNITS

With a very few exceptions (which are detailed in the first pages of this chapter), mobile units in Alpha Centauri are not predesigned. Instead, you're given a menu of choices from which to select chassis, weapon, armor, power plant (reactor) and special abilities, so that you can make exactly the unit you need for a given job. This system is extremely powerful and versatile, but also confusing. This chapter is designed as a convenient quick reference to all the options available to you in creating the military and utility units you need.

The one important factor of vehicle design that's not covered here is the (rather arcane) formula that's used to figure the cost of each unit you design. That information is given in detail under **Important Formulas**, p. 20.

ALIEN ARTIFACT

Chassis	as Infantry
Equipment	Artifact
Armor	1
Move	1 (Land)
Cost	n/a
Prerequisite	None

Artifacts are mysterious and unexplained alien devices sometimes discovered on Planet. If you can find an artifact and return it to one of your bases, you will have several options: (a) you can link it to a Network Node if you have one, and receive a free technology breakthrough; (b) you can use it to speed the production of a Secret Project or Unit Prototype; (c) you can save it to use later.

Artifacts can be captured from other players. A lone artifact can be captured by any player without diplomatic penalty.

COLONY POD

Chassis	as Infantry
Weapon or Equipment	Colony Pod
Armor	1
Move	1 (Land)
Cost	30
Primary Purpose	Colonization
Prerequisite	None

A Colony Pod represents the manpower and resources necessary to build a new base.

FORMER

Chassis	Infantry
Equipment	Former
Armor	1
Move	1 (Land)
Cost	20
Primary Purpose	Terraforming
Prerequisite	Ecology

Your Terraforming Engineers ("Formers") are crucial to your expedition's survival. Formers can plant forests and farms; build roads, mines, and solar collectors; and even raise up or tear down mountains.

PREDESIGNED UNITS

PROBE TEAM

Chassis	Speeder
Weapon or Equipment	Probe Team
Armor	1
Move	2 (Land)
Cost	30
Primary Purpose	Information on Warfare
Prerequisite	Planetary Networks

Probe Teams can infiltrate and subvert enemy bases and units. They can also steal enemy research information, sabotage base facilities, assassinate key enemy personnel, and conduct genetic warfare.

Move a Probe Team up to an enemy base or unit to engage its powers.

Probe Teams can also defend your bases against their enemy counterparts. If a Probe Team is present in a square when an enemy Probe Team tries to enter, a combat is resolved between them. The Probe Team with the highest morale level usually wins.

Probe Teams often receive morale increases when they complete missions successfully. The higher a Probe Team's morale level, the more likely it is to survive increasingly more complex missions.

SCOUT PATROL

Chassis	Infantry
Weapon	1 (Hand Weapons)
Armor	1
Move	1 (Land)
Cost	10
Primary Purpose	Reconnaissance
Prerequisite	None

A Scout Patrol can be used to explore the unknown regions of Planet. It can also be used to guard bases from attack by enemies and mind worms, though it is not as powerful as later military units which can be developed.

SEA FORMER

Chassis	Foil
Equipment	Former
Armor	1 (Scout)
Move	1 (Sea)
Cost	20
Primary Purpose	Terraforming
Prerequisite	Centauri Ecology

Sea Formers, like their land-bound cousins, are used to improve and reshape Planet. Sea Formers can plant Kelp Farms, build Mining Platforms, and construct Tidal Harnesses.

SUPPLY CRAWLER

Chassis	Infantry
Weapon or Equipment	Supply Transport
Armor	1 (Scout)
Move	1 (Land)
Cost	30
Primary Purpose	Supply Convoy
Prerequisite	Industrial Automation

Supply Crawlers are useful for transporting resources. Supply Crawlers may:

- Produce nutrients, minerals, or energy from any square on the map and send the resources to its home base. Select the "Convoy" (O) option on the Action Menu.

- Disband themselves in a friendly base to yield their full mineral value towards the construction of a secret project or unit prototype.

PREDESIGNED UNITS

TRANSPORT FOIL

Chassis	Foil
Weapon or Equipment	Troop Transport
Armor	1 (Scout)
Move	4 (Sea)
Cost	30
Carrying Capacity	2
Primary Purpose	Naval Transport
Prerequisite	Doctrine: Flexibility

Transport Foils are a useful early means of transportation between continents and oceans. Land units can be loaded onto Transport Foils and moved by sea.

UNITY FOIL

Chassis	Foil
Weapon or Equipment	Troop Transport
Armor	1 (Scout)
Move	4 (Sea)
Cost	30
Carrying Capacity	1
Primary Purpose	Naval Transport
Prerequisite	None

Small, prefab foils were stored aboard the U.N.S. *Unity*, ready for use exploring Planet's seas.

Unity foils can not be constructed, they can only be found in *Unity* pods.

UNITY ROVER

Chassis	Speeder
Weapon or Equipment	1 (Gun)
Armor	1 (Scout)
Move	2 (Land)
Cost	20
Primary Purpose	Reconnaissance
Prerequisite	None

The U.N.S. *Unity* was stocked with many of these lightly armed rovers, intended for use in exploring Planet's landmasses.

Unity Rover can not be constructed, they can only be found in *Unity* pods.

UNITY SCOUT CHOPPER

Chassis	'Copter
Weapon	1 (Gun)
Armor	1 (Scout)
Range from base (turns)	1
Move	8 (Air)
Cost	30
Primary Purpose	Air Superiority
Prerequisite	None

A few of these extremely handy Choppers were stored aboard the U.N.S. *Unity*. Although lightly armed and with limited fuel range, *Unity* Choppers are invaluable scouts and explorers.

Unity Scout Choppers can not be constructed, they can only be found in *Unity* pods. *Unity* Scout Choppers are never discovered prior to your faction's discovery of the Synthetic Fossil Fuels technology.

NATIVE LIFEFORMS

ISLE OF THE DEEP

Chassis	as Foil
Weapon or Equipment	Psi
Armor	Psi
Move	4 (Sea)
Cost	80
Carrying Capacity	4
Primary Purpose	Naval Transport
Prerequisite	Centauri Meditation

An aquatic vector of the Mind Worms, the Isle of the Deep is closely associated with Mind Worms and Sea Fungus. The floating shell of an Isle of the Deep, formed by the secretions of the colony's individual members, is often used as a nesting place by Mind Worms, and can even float large land units.

Isles of the Deep and other alien creatures can engage in Psi Combat, in which weapon and armor strengths are ignored. Morale level is quite important in defending against Isles of the Deep and other alien units.

With proper breeding and bonding techniques, Isles of the Deep can also be bred in captivity and controlled by skilled brood trainers. These captive boils can be used to attack enemy naval units using Psi Combat. Depending on their size, they can also be used to transport land units.

LOCUSTS OF CHIRON

Chassis   as Gravship
Weapon or Equipment   Psi
Armor   Psi
Cost   100
Primary Purpose   Air Superiority
Prerequisite   Centauri Genetics

Planet's fiercest avatars, the Locusts of Chiron are a ravenous winged variation the land-bound Mind Worms. The appearance of Locusts signifies considerable distress on the part of the originating neural net fungus.

MIND WORMS

Chassis   as Infantry
Weapon or Equipment   Psi
Armor   Psi
Primary Purpose   Combat
Move   1 (Land)
Cost   50
Prerequisite   Centauri Empathy

Mind Worms can appear suddenly, and are closely associated with fungus.

Mind Worms and other alien creatures can engage in Psi Combat, in which weapon and armor strengths are ignored, and the attacker is given a 3 to 2 advantage on land. Morale level is quite important in defending against Mind Worms and other alien units.

With proper breeding and bonding techniques, Mind Worms can also be bred in captivity and controlled by skilled brood trainers. These Mind Worm boils can be used to attack enemy units using Psi Combat, thus bypassing enemy advantages in weapon and armor technology. Biology Labs and other facilities can increase the strength of captivity-bred Mind Worm boils.

CHASSIS

'COPTER

Alternate Designations	Chopper, Rotor, Lifter
Elite Designations	Gunship, Warbird
Cost	8
Move	8 (Air)
Range from base (turns)	1
Cargo	= Reactor rating
Prerequisite	Mind/Machine Interface

Copters, with their maneuverability and ability to land temporarily in rough terrain, make formidable combat units.

Copters should return to a friendly base or airbase at the end of every turn for refueling. If it is unable to do so and must land temporarily in the field, it incurs 30% damage.

CRUISER

Alternate Designations	Destroyer, Cutter, Gunboat
Elite Designations	Battleship, Monitor
Cost	6
Move	6 (Sea)
Range from base (turns)	No limit
Cargo	= 4 x Reactor rating
Prerequisite	Doctrine: Initiative

With sufficient industrial infrastructure, large Cruiser units can be produced. These larger vessels make formidable naval units as well as the most efficient transports.

FOIL

Alternate Designations	Skimship, Hoverboat, Coastal
Elite Designations	Megafoil, Superfoil
Cost	4
Move	4 (Sea)
Range from base (turns)	No limit
Cargo	= 2 x Reactor rating
Prerequisite	Doctrine: Flexibility

Foils can be used to create effective sea transports and sea patrols.

GRAVSHIP

Alternate Designations	Skybase, Antigrav, Skyfort
Elite Designations	Deathsphere, Doomwall
Cost	8
Move	8 (Air)
Range from base (turns)	No limit
Cargo	= Reactor rating
Prerequisite	Graviton Theory
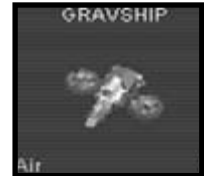
Gravships, the juggernauts of the distant future, provide all the advantages of aircraft with none of the range limitations. Gravships can move swiftly over land and sea, and need never return to friendly bases for refueling.

HOVERTANK

Alternate Designations	Tank, Skimmer, Evasive
Elite Designations	Behemoth, Guardian
Cost	3
Move	3 (Land)
Range from base (turns)	No limit
Cargo	= Reactor rating
Prerequisite	Nanominiaturization

The ultimate in ground effect transportation, the Hovertank is never penalized for moving through difficult terrain – it never costs more than one move for a Hovertank to enter a square. Like Speeder units, Hovertanks gain a +25% combat advantage when attacking in open terrain.

INFANTRY

Alternate Designations	Squad, Sentinels, Garrison
Elite Designations	Shock Troops, Elite Guard
Cost	1
Move	1 (Land)
Range from base (turns)	No limit
Prerequisite	None

Infantry units move slowly but are inexpensive and gain a +25% combat advantage when attacking enemy bases directly. The "Garrison" and "Sentinels" designations apply specifically to units with limited offensive capability, but maximum defense.

CHASSIS

MISSILE

Cost	12
Move	12 (Air)
Range from base (turns)	1
Cargo	None
Prerequisite	Orbital Spaceflight

Missiles can be used to mount powerful conventional payloads or spectacular quasi-nuclear Planet Busters (use of Planet Busters while the UN Charter is in effect is a major atrocity, see **Planet Busters**, p. 244). Missiles pack a powerful punch, but are of course eliminated when they attack.

NEEDLEJET

Alternate Designations	Penetrator, Interceptor, Tactical
Elite Designations	Thunderbolt, Sovereign
Cost	8
Move	8 (Air)
Range from base (turns)	2
Prerequisite	Doctrine: Air Power

Needlejets appear in Planet's skies once Planet's growing industries begin producing high grade jet fuel in sufficient quantities. Powerful, but limited in range, Needlejets can be used to defend the skies, project air power, and explore Planet, but they must return to a friendly base or airbase every other turn for refueling.

SPEEDER

Alternate Designations	Rover, Defensive, Skirmisher
Elite Designations	Dragon, Enforcer
Cost	2
Move	2 (Land)
Range from base (turns)	Unlimited
Prerequisite	Doctrine: Mobility

Mobile Speeder units move quickly across Planet's surface and gain a +25% combat advantage when attacking in open terrain. They can also disengage from combat when surprised by slower enemy infantry. A unit's weapon strength determines its combat strength — the more powerful the weapon the stronger the attack.

CHAOS GUN

Short Name	Chaos
Attack Rating	8
Mode	Projectile
Cost Factor	8
Prerequisite	Superstring Theory

FUSION LASER

Short Name	Fusion
Attack Rating	10
Mode	Energy
Cost Factor	10
Prerequisite	Organic Superlubricant

GATLING LASER

Short Name	Gatling
Attack Rating	5
Mode	Energy
Cost Factor	5
Prerequisite	Superconductor

GRAVITON GUN

Short Name	Graviton
Attack Rating	20
Mode	Projectile
Cost Factor	20
Prerequisite	Applied Gravitonics

WEAPONS

HAND WEAPONS

Short Name	Gun
Attack Rating	1
Mode	Projectile
Cost Factor	1
Prerequisite	None

LASER

Short Name	Laser
Attack Rating	2
Mode	Projectile
Cost Factor	2
Prerequisite	Applied Physics

MISSILE LAUNCHER

Short Name	Missile
Attack Rating	6
Mode	Missile
Cost Factor	6
Prerequisite	Synthetic Fossil Fuels

PARTICLE IMPACTOR

Short Name	Impact
Attack Rating	4
Mode	Projectile
Cost Factor	4
Prerequisite	Nonlinear Mathematics

PLASMA SHARD

Short Name	Shard
Attack Rating	13
Mode	Missile
Cost Factor	13
Prerequisite	Advanced Spaceflight

QUANTUM LASER

Short Name	Quantum
Attack Rating	16
Mode	Energy
Cost Factor	16
Prerequisite	Quantum Machinery

SINGULARITY LASER

Short Name	Singularity
Attack Rating	24
Mode	Energy
Cost Factor	24
Prerequisite	Controlled Singularity

TACHYON BOLT

Short Name	Tachyon
Attack Rating	12
Mode	Energy
Cost Factor	12
Prerequisite	Unified Field Theory

WEAPONS

CONVENTIONAL PAYLOAD

Short Name	Conventional
Attack Rating	see below
Mode	Projectile
Cost Factor	12
Prerequisite	Orbital Spaceflight

The Conventional Payload weapons package can be used to create conventional missiles. It can be used only with a Missile chassis.

Conventional missiles attack at the following strengths, based on the missile's power plant:

Fission 9 **Fusion** 18 **Quantum** 27 **Singularity** 36

PLANET BUSTER

Attack Rating	99
Mode	Projectile
Cost Factor	32
Prerequisite	Orbital Spaceflight

The quasi-nuclear Planet Buster is future humanity's ultimate atrocity. Planet Busters destroy everything within a radius equal to their reactor size, often leaving immense craters.

Under the U.N. Charter, use of Planet Busters is punishable by immediate expulsion from the Planetary Council and total military destruction. A Planet Buster attack while the Charter is still in effect is considered a major atrocity. All the other factions will simultaneously declare Vendetta on your faction.

PSI ATTACK

Short Name	Psi
Attack Rating	Psi attack
Mode	Missile
Cost Factor	10
Prerequisite	Centauri Psi

The Psi Attack weapon allows a conventional unit to make Psi attacks. Weapons and armor are ignored in Psi Combat, and the attacker receives a 3 to 2 advantage on land (1 to 1 at sea).

The equipment listed below occupies the same "design slot" as a weapon system, thus a unit may *either* mount a weapon or one of the modules listed below.

COLONY MODULE

Short Name	Colony Pod
Attack Rating	0
Cost Factor	10
Prerequisite	None

The Colony Module can be used to create custom Colony Pods. Units with Colony Modules can build new bases. If a Colony Module is installed on a sea-going unit, bases can be constructed at sea.

PROBE TEAM

Attack Rating	0
Cost Factor	4
Prerequisite	Planetary Networks

The Probe Team module can be used to create custom Probe Teams. Such units function much as regular Probe Teams.

Probe Teams can infiltrate and subvert enemy bases and units. They can also steal enemy research information, sabotage base facilities, assassinate key enemy personnel, and conduct genetic warfare.

Move a Probe Team up to an enemy base or unit to engage its powers.

Probe Teams can also defend your bases against their enemy counterparts. If a Probe Team is present in a square when an enemy Probe Team tries to enter, a combat is resolved between them. The Probe Team with the highest morale level usually wins.

Probe Teams often receive morale increases when they complete missions successfully. The higher a Probe Team's morale level, the more likely it is to survive increasingly more complex missions.

EQUIPMENT

SUPPLY TRANSPORT

Short Name	Supply
Attack Rating	0
Cost Factor	8
Prerequisite	Industrial Automation

The Supply Transport module can be used to create custom supply units. Such units function much as Supply Crawlers, and can:

- Produce nutrients, minerals, or energy from any square on the map and send the resources to its home base. Select the "Convoy" O option on the Action Menu.

- Disband themselves in a friendly base to yield their full mineral value towards the construction of a secret project or unit prototype.

TERRAFORMING UNIT

Short Name	Former
Attack Rating	0
Cost Factor	6
Prerequisite	Centauri Ecology

The Terraforming Unit can be used to create custom terraformers.

TROOP TRANSPORT

Short Name	Transport
Attack Rating	0
Cost Factor	4
Prerequisite	Doctrine: Flexibility

The Troop Transport module allows a unit to transport other units by land, sea, or air, depending on the unit's chassis.

Only sea-going units can transport more than one unit at a time. A Foil can transport a number of units equal to twice its reactor value. A Cruiser can transport a number of units equal to four times its reactor value.

Transports can normally transport only ground units, but seagoing transports can be given the Carrier Deck special ability to allow them to transport and refuel air units.

A unit's armor strength determines its combat strength when attacked. The stronger the armor the better the defense.

No Armor

Short Name	Scout
Armor Rating	1
Cost Factor	1
Prerequisite	None

Antimatter Plate

dark gray

Short Name	Antimatter
Armor Rating	10
Cost Factor	10
Prerequisite	Matter Editation

Neutronium Armor

brown

Short Name	Neutronium
Armor Rating	8
Cost Factor	8
Prerequisite	Matter Compression

Photon Wall

Short Name	Photon
Armor Rating	5
Cost Factor	5
Prerequisite	Photon/Wave Mechanics

Plasma Steel Armor

red

Short Name	Plasma
Armor Rating	3
Cost Factor	3
Prerequisite	High Energy Chemistry

DEFENSES

PROBABILITY SHEATH

light grey

Short Name	Probability
Armor Rating	6
Cost Factor	6
Prerequisite	Probability Mechanics

PSI DEFENSE

Short Name	Psi
Armor Rating	Protects against Psi
Cost Factor	6
Prerequisite	Eudaimonia

SILKSTEEL ARMOR

green

Short Name	Silksteel
Armor Rating	4
Cost Factor	4
Prerequisite	Silksteel Alloys

STASIS GENERATOR

Short Name	Stasis
Armor Rating	12
Cost Factor	12
Prerequisite	Temporal Mechanics

SYNTHMETAL ARMOR

blue

Short Name	Synthmetal
Armor Rating	2
Cost Factor	2
Prerequisite	Industrial Base

REACTORS

A unit's reactor determines its power, the amount of damage the unit can absorb in combat before it is eliminated. A unit can absorb 10 points of damage for each power level of reactor.

More advanced reactor technology also tends to make complex units cheaper to build.

Reactor	Power	Prerequisite
Fission Plant	1	None
Fusion Reactor	2	Fusion Power
Quantum Chamber	3	Quantum Power
Singularity Engine	4	Singularity Mechanics

SPECIAL ABILITIES

SPECIAL ABILITIES ABBREVIATIONS

AAA	AAA Tracking
Amphibious	Amphibious Pods
Artillery	Heavy Artillery
Blink	Blink Displacer
Carrier	Carrier Deck
Clean	Clean Reactor
Cloaked	Cloaking Device
Drop	Drop Pods
ECM	Comm Jammer
Empath	Empath Song
Fungicidal	Fungicide Tanks
Grav	Antigrav Struts
Police	Non-Lethal Methods
Repair	Repair Bay
SAM	Air Superiority
Secure	Polymorphic Encryption
Sub	Deep Pressure Hull
Super	Super Former
Trained	High Morale
Trance	Hypnotic Trance
X	Nerve Gas Pods
none	Deep Radar

AAA TRACKING

Abbreviation	AAA
Description	Mk. 190 FUBR fire control system
Cost Factor	1
Prerequisite	Advanced Military Algorithms
Other Notes	x2 vs. air attacks
	Not allowed for psi units
	Only allowed for land and sea combat units

The AAA Tracking ability increases a unit's defense against air and missile attacks by 100%.

AIR SUPERIORITY

Abbreviation	SAM
Description	Mk. 66 fire control sensor
Cost Factor	1
Prerequisite	Doctrine: Air Power
Other Notes	Attacks air units
	Only allowed for combat units

The Air Superiority ability equips a unit with the missiles necessary to attack Needlejets in flight. Air Superiority units gain a +100% combat advantage when attacking other air units in flight, but incur a -50% penalty if they attack ground or naval units.

Air-to-air combat is resolved by comparing attack factors – the armor value is ignored.

Note that even ground and naval units can be equipped with the SAM missiles necessary to confer this ability.

SPECIAL ABILITIES

AMPHIBIOUS POD

Description   Hoverpod LCs
Cost Factor   1
Prerequisite   Doctrine: Initiative
Abbreviation   Amphibious
Other Notes   Attacks from ships; only allowed for land combat units

Amphibious Pods allow a ground unit to attack directly from a sea square when disembarking from a transport. Units with Amphibious Pods may also move and attack across the channels between Sea Bases and continents.

ANTIGRAV STRUTS

Abbreviation   Grav
Description   Gravitron repulsor pylons
Cost Factor   1
Prerequisite   Graviton Theory
Other Notes   +1 movement rate (or +Reactor*2 for Air)
                         Only allowed for land units

Antigrav Struts give a unit an extra move each turn, and allow all ground units, like Hovertanks, to avoid movement penalties for difficult terrain.

Air units with Antigrav Struts gain moves equal to twice their reactor value (so an Antigrav air unit with a Fusion reactor would gain 4 moves).

BLINK DISPLACER

Abbreviation   Blink
Description   Temporal distortion field
Cost Factor   1
Prerequisite   Matter Transmission
Other Notes   Bypass base defenses; only allowed for combat units

The Blink Displacer ability allows a unit to ignore all base defenses (Perimeter Defense, Tachyon Field) when attacking.

SPECIAL ABILITIES

CARRIER DECK

Abbreviation	Carrier
Description	Bonded alloy flight deck
Cost Factor	1
Prerequisite	Nanometallurgy
Other Notes	Mobile Airbase
	Only allowed for sea Transport units
	Not allowed for Probe Teams

A Carrier Deck allows a sea-going transport to carry and refuel air units.

CLEAN REACTOR

Abbreviation	Clean
Description	Reactor emission containment system
Cost Factor	2
Prerequisite	Bio-Engineering
Other Notes	Requires no support

Units with the Clean Reactor ability require no support from their home bases.

CLOAKING DEVICE

Abbreviation	Cloaked
Description	Type IV Refraction/diffusion shield
Cost Factor	1
Prerequisite	Surface
Other Notes	Invisible; Ignores ZOCs
	Not allowed for Probe Teams
	Only allowed for land units

A Cloaking Device allows a unit to avoid detection by enemy units unless they actually attempt to enter the same square. Cloaked units may also ignore enemy Zones of Control – they may move freely between squares adjacent to enemy units.

SPECIAL ABILITIES

COMM JAMMER

Abbreviation	ECM
Description	Type IX ECTS EMP pulse generator
Cost Factor	-1
Prerequisite	Advanced Subatomic Theory
Other Notes	+50% vs. fast units
	Only allowed for land units
	Not allowed for psi units

The Comm Jammer ability interferes with enemy tactical command and control, thus throwing enemy mobile offensives into confusion. A Comm Jammer confers +50% defense against ground units with more than one move (Speeders and Hovertanks).

DEEP PRESSURE HULL

Abbreviation	Sub
Description	Reinforced Silksteel chassis
Cost Factor	1
Prerequisite	Nanometallurgy
Other Notes	Operates underwater
	Only allowed for sea units

A Deep Pressure Hull allows a sea unit to function as a submarine. Submarine units are difficult for enemies to detect.

DEEP RADAR

Abbreviation	none
Description	Mk. 45 sensor array upgrade
Cost Factor	0
Prerequisite	Advanced Military Algorithms
Other Notes	Sees 2 spaces
	Cost increased for land units

Deep Radar allows a unit to spot enemies and terrain up to two squares away.

SPECIAL ABILITIES

DROP POD

Abbreviation	Drop
Description	Aircushion LCs
Cost Factor	2
Prerequisite	Mind/Machine Interface
Other Notes	Makes air drops
	Only allowed for land units

Drop Pods allow ground units to make air drops. A unit must begin its turn in a friendly base or airbase in order to make an airdrop. Airdrops may be made into any empty square within 8 squares (unless your faction has the technology necessary to make Orbital Insertions, in which case units may be dropped anywhere on the planet).

Drop Pod units may move after an airdrop, but if they attack a 50% combat penalty applies.

EMPATH SONG

Abbreviation	Empath
Description	Psi lock software upgrade
Cost Factor	2
Prerequisite	Centauri Empathy
Other Notes	+50% attack vs. Psi
	Not allowed for psi units
	Only allowed for combat units

The Empath Song ability confers a +50% attack bonus against units which employ a Psi Defense, such as Mind Worms and other alien creatures.

SPECIAL ABILITIES

FUNGICIDE TANK

Abbreviation	Fungicidal
Description	Boron defoilant system
Cost Factor	1
Prerequisite	Synthetic Fossil Fuels
Other Notes	Clear fungus at double speed
	Only allowed for Former units

Fungicide Tanks allows a terraformer unit to clear Xenofungus at twice the normal rate. Only terraforming units can use this ability.

HEAVY ARTILLERY

Abbreviation	Artillery
Description	Reactor chamber upgrade
Cost Factor	-7
Prerequisite	Polymorphic Software
Other Notes	Bombards
	Not allowed for psi units
	Only allowed for land combat units

Heavy Artillery units bombard their targets from a distance rather than attacking them directly. This unique ability allows them to fire at units up to two squares away, and to attack every unit in a square with one attack.

An artillery unit's only weakness is its inability to attack by any other means than bombardment.

Note that naval units have the intrinsic ability to conduct bombardment, but they may also attack directly against units in sea squares.

SPECIAL ABILITIES

HIGH MORALE

Abbreviation	Trained
Description	Advanced Warfare Training
Cost Factor	1
Prerequisite	Intellectual Integrity
Other Notes	Gains morale upgrade
	Only allowed for combat units

The High Morale ability gives a unit a +1 morale upgrade when it is first created.

HYPNOTIC TRANCE

Abbreviation	Trance
Description	Psychic amplification module
Cost Factor	-1
Prerequisite	Secrets of the Human Brain
Other Notes	+50% defense vs. PSI
	Not allowed for psi units

Units with the Hypnotic Trance ability are insulated from psi attack, and thus receive a +50% defense bonus when attacked by units which employ psi Combat, such as Mind Worms and other alien creatures.

Psi units that wish to increase their psi defense should take the Psi Defense armor option.

SPECIAL ABILITIES

NERVE GAS PODS

Abbreviation   X
Description   Mk. 1 VX delivery system
Cost Factor   1
Prerequisite   High Energy Chemistry
Other Notes   Can +50% offense (Atrocity)
                          Not allowed for psi units
                          Not allowed for Probe Teams
                          Only allowed for land or air combat units

Faction leaders willing to commit atrocities can equip their combat units with Nerve Gas Pods. Units so equipped can employ these pods to gain a +50% attack bonus. If employed against a populated area, Nerve Gas Pods will cause significant civilian casualties.

NON-LETHAL METHODS

Abbreviation   Police
Description   Stunjack cannon & training for police
Cost Factor   1
Prerequisite   Intellectual Integrity
Other Notes   x2 Police powers
                          Only allowed for land combat units

Non-Lethal Methods allow a unit to count double when used as Police units (each unit eliminates two drones rather than one).

POLYMORPHIC ENCRYPTION

Abbreviation	Secure
Description	none
Cost Factor	1
Prerequisite	Pre-Sentient Algorithms
Other Notes	x2 cost to subvert

Polymorphic Encryption doubles a unit's resistance to Probe Team subversion.

REPAIR BAY

Abbreviation	Repair
Description	Modified Supply Transport module
Cost Factor	1
Prerequisite	Nanometallurgy
Other Notes	Repairs ground units on board
	Only allowed for Transport units

A Repair Bay allows transport units to repair the units they carry while in transit.

SUPER FORMER

Abbreviation	Super
Description	SmartSettler V2.0 software upgrade
Cost Factor	1
Prerequisite	Advanced Ecological Engineering
Other Notes	Terraform rate doubled
	Only allowed for Former units

The Super Former ability doubles the speed at which a unit performs normal terraforming functions. It can be used only with terraforming units.

In the great commons at Gaia's Landing we have a tall and particularly beautiful stand of white pine, planted at the time of the first colonies. It represents our promise to the people, and to Planet itself, never to repeat the tragedy of earth.

Lady Deirdre Skye
"Planet Dreams"

APPENDICES

APPENDIX A

THE LORD'S BELIEVERS

The righteous need not cower before the drumbeat of human progress. Though the song of yesterday fades into the challenge of tomorrow, God still watches and judges us. Evil lurks in the datalinks as it lurked in the streets of yesteryear. But it was never the streets that were evil.

Sister Miriam Godwinson,
"The Blessed Struggle"

Leader	Sister Miriam Godwinson
Background	Christian States of America, Unity Psych Chaplain
Rank	Lt. Commander
Position	Psych Chaplain
Country of Origin	United States
Date of Birth	04-04-2014
Height	168.6 cm
Weight	55.2 kg
Agenda	Life of Religious Worship
Aggression	Aggressive
Priorities	Explore, Conquer
Choices	Fundamentalist (Politics)
Aversions	Knowledge (Values)
Starting Tech	Social Psych

•+25% Bonus when attacking enemies, from strength of convictions

•+1 Probe (devout believers difficult to brainwash)

•–2 Research (suspicious of secular science)

•–1 Planet (believes Planet is the promised land)

Accumulates *no* research points until MY 2110.

•May not use Knowledge value in Social Engineering

SERVICE RECORD

Born 2014, Athens, Georgia, father a high-ranking member of the Evangelical Fire. Baptized in River of Fire at age 7; attended series of religious schools, including College of the Covenant. Received Ph.D. in psychology from Yale University.

Abundant charisma led her to position as ranking Psych Priest of Heavenly Diocese; later appointed U.N. Honorary Psych Chaplain for Re-integration Forces sent to countries decimated in Crusader Wars. Reassigned stateside when native populations elevated her to a cultlike religious figure (the 'Prophet Phenomenon' often coinciding with post-nuclear madness).

Political pressure for the reconciling of the secular and the spiritual led to her appointment as Psych Chaplain, U.N. Alpha Centauri Mission.

PSYCH PROFILE: BELIEVER

Empathy and charisma make subject a natural leader; people are drawn to subject without necessarily understanding why. Able to use mannerisms and rhythms of speech to evoke deep spiritual responses in weak-minded individuals, or intelligent individuals seeking order and security in the face of chaotic events.

Single-minded focus on bringing hope and spiritual guidance to any problem she encounters makes her a strong candidate for Psych Chaplain. However, subject must be cautioned against casting spiritual matters into a personal vision of a relentless God that may personify struggles existing within her own psyche.

BASES

New Jerusalem

Great Conclave

Great Zion

Far Jericho

Redemption Base

Children of God

Noah's Rainbow

The Voice of God

Judgement Seat

Valley of the Faithful

Blessed Redeemer

The Glory of God

New Eden

Terrible Swift Sword

Time of Salvation

Eternal Reward

The Lord's Mercy

Righteous Sentence

Throne of God

The Rapture

The Lord's Wrath

The Lord's Grace

The Hand of God

The Coming of the Lord

Sanctity Base

The Lord's Chosen

Hallowed Ground

The Lord's Gift

Divinity Base

The Word of God

Revelation Base

The Holy Fire

The Lord's Truth

Blessed Saviour

From On High

Godwinson's Hope

House of Martyrs

WATERBASES

He Walked on Water

Loaves and Fishes

Belly of the Whale

Fisher of Men

Port Grace

Water to Wine

Consecrated Waters

APPENDIX A

GAIA'S STEPDAUGHTERS

In the great commons at Gaia's Landing we have a tall and particularly beautiful stand of white pine, planted at the time of the first colonies. It represents our promise to the people, and to Planet itself, never to repeat the tragedy of Earth.

Lady Deirdre Sky
"Planet Dreams"

Leader	DeirdreSkye
Background	Free Scotland, Unity Xenobiologist
Rank	Lt. Commander
Position	Chief Botanist/Xenobiologist
Country of Origin	Scotland
Date of Birth	05-28-2025
Height	170.1 cm
Weight	52.2 kg
Agenda	Green Democracy
Aggression	Pacifist
Priorities	Explore
Choices	Green (Economics)
Aversions	Free Market (Economics)
Starting Tech	Centauri Ecology

- +1 Planet (environmental safeguards; can capture mindworms)
- +2 Efficiency (experience with life systems & recycling)
- -1 Morale (pacifist tendencies)
- -1 Police (freedom loving)
- +1 nutrients in fungus squares
- May not use Free Market economics

SERVICE RECORD

Born 2025, Edinburgh Scotland, father a U.N. security consultant assigned to various crisis locales worldwide. Studied at Cornell University School of Agriculture, acquired Bachelor of Science in Agriculture and Environmental Biology, Masters in Biology, Ph.D. Biology and Genetics. Immediately distinguished self with deep intuitive knowledge of plant strains and ability to intuit powerful genetic manipulations at Bionex Research Lab, White Plains, N.Y.

Later worked for Red Cross and United Nations Disaster Relief Fund to revitalize radiation contaminated areas with highly specialized biostrains (Skye variation v097 apple and Skye Mark IV wheat strain considered as highest examples of adaptable biogenetics in contaminated soil). Selected as top candidate for Mission Botanist/Xenobiologist by U.N. Alpha Centauri Mission Committee, appointed against wishes of Chief Science Officer Prokhor Saratov.

PSYCH PROFILE: CONSERVATIONIST

Relies on deep intuitive sense combined with scientific knowledge for determination of future actions. Powerful mind and will combined with broad base of knowledge leads her to excel in chosen area of expertise. Sense of isolation from childhood events (e.g. divorce of parents) and pre-launch events reinforces strong tendency to introversion.

Strong connection to environmental causes may cloud scientific judgment; strong democratic leadership style may result in subject placing welfare of loyal subordinates above welfare of mission as a whole. Appeals to reason should prove effective in discouraging these behaviors.

BASES

Gaia's Landing
Gaia's High Garden
Forest Primeval
Children of Earth
Vale of Winds
Mindworm Pass
Blackroot Palace
Greenhouse Gate
Razorbeak Wood

Last Rose of Summer
Lucky Autumn
Dreams of Green
The Pines
Velvetgrass Point
Song of Planet
Nessus Shining
Silverbird Park
Fallow Time
Autumn Grove
The Flowers Preach

Resplendent Oak
Lily of the Valley
Virgin Soil
Garden of Paradise
Thorny Vineyard
Chiron Preserve
Memory of Earth

WATER-BASES

Garden of the Deep
Deirdre's Fishery
Water Garden
Ocean Flower
Falling Water
Great Lagoon
Sea Cradle
Garden of Fishes

APPENDIX A
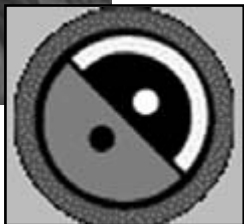
THE HUMAN HIVE

Learn to overcome the crass demands of flesh and bone, for they warp the matrix through which we perceive the world. Extend your awareness outwards, beyond the self of body, to embrace the self of group and the self of humanity. The goals of the group and the greater race are transcendent, and to embrace them is to achieve enlightenment.

Chairman Sheng-Ji Yang,
"Essays on Mind and Matter"

Leader	Sheng-Ji Yang
Background	Great China, Unity Executive Officer
Rank	Commander
Position	Chief of Security
Country of Origin	China
Date of Birth	01-09-1999
Height	170.6 cm
Weight	73.2 kg
Agenda	Atheist Police State
Aggression	Aggressive
Priorities	Conquer, Build
Choices	Police State (Politics)
Aversions	Democracy (Politics)
Starting Tech	Doctrine: Loyalty

•+1 Growth (rapid population growth)

•+1 Industry (brutal serfdom)

•-2 Economy (lLittle political freedom)

•Underground bunkers (free Perimeter Defense at each base)

•May not use Democratic politics

FACTION LEADERS

SERVICE RECORD

Born 1999, Wuhan, China; father a prominent Chinese lit scholar. Master of the Five Excellences: calligraphy, poetry, painting, traditional medicine, and martial arts (including martial t'ai-chi, wushu, and others). Studied Chinese Literature and Military History at Beijing University, later acquired a PhD in Psychology from same. Taught joint lock techniques to Chinese military during the Second Golden Revolution, then commanded Golden Emperor's personal security force. Vanished for several years following the Crimson Succession, to resurface in United Nations security training force. Selected Chief of Security, U.N. Alpha Centauri Mission.

PSYCH PROFILE: PROTECTIONIST

Exceedingly deep and powerful mind; near flawless visual and kinesthetic recall. Somewhat antisocial, security minded to the extreme, with elaborate psychological defense mechanisms against emotional entreaties. High stability and loyalty to mission indicated.

Driven primarily by need for security and control. Powerful will; leadership potential high but strong tendency to control and manipulate followers can result in almost cultlike following. Tolerance for pain exceedingly high; .96 on Atherholt Trauma Function Test.

Caution: Earlier psych tests show suspiciously near perfect normals along all axes. Subject may use strong will and extensive knowledge of psychiatric indicators to manipulate test results in his favor.

BASES

The Hive
Sheng-ji Yang Base
Worker's Nest
People's Teeming
Great Clustering
The Colony
Industrial Crawling
Manufacturing Warrens
Discipline Tubes
Laborer's Throng
Unification Cavern
Social Engineering Den

The Labyrinth
Paradise Swarming
Communal Nexus
Social Artery
Factory Maze
Unity Lair
Society Grid
Great Collective
Proletarian Knot
Socialism Tunnels
The Drone Mound
Plex Anthill
Watcher's Eye
Working Man Hold

Huddling of the People
Yang Mine
Seat of Proper Thought
The Leader's Horde
Chairman's Burrow
Labor Network
Deep Passages
Fellowship City
People's Endeavor
Fecundity Tower
Hole of Aspiration
Sea Collective

WATERBASES

Deep Community
Sea Hive
Port Yang
Factory Drift
Ocean Core
Deep Clustering

APPENDIX A

MORGAN INDUSTRIES

Human behavior is economic behavior. The particulars may vary, but competition for limited resources remains a constant. Need as well as greed have followed us to the stars, and the rewards of wealth still await those wise enough to recognize this deep thrumming of our common pulse.

CEO Nwabudike Morgan,
"The Centauri Monopoly"

Leader	CEO Nwabudike Morgan
Background	Namibian Diamond Tycoon, Unity Franchise Holder
Rank	Director
Position	Morgan Industries
Country of Origin	Kenya
Date of Birth	02-24-2005
Height	not on file
Weight	not on file
Agenda	Free Market Economics, Pro-Industry
Aggression	Pacifist
Priorities	Build
Choices	Free Market (Economics)
Aversions	Planned (Economics)
Starting Tech	Industrial Base

•+1 Economy (industrial conglomerate)

•-1 Support (followers have expensive tastes)

•Commerce (bonus increases value of treaties, pacts, loans)

•Begins with 100 extra energy credits

•Need Hab Complex for bases to exceed size 4 (creature comforts at a premium)

•May not use Planned Economics

FACTION LEADERS

UNITY CONTRACTOR BACKGROUND HISTORY

Born 2005, of African royalty. Nwabudike, using seed money to buy and sell weapons during the Sahara Burst Wars, was able to purchase a private mercenary force to claim a series of diamond mines from a defeated enemy nation. Leveraged his growing wealth to expand into several other businesses, including mercenary forces, U.N. escorts, brokering food deals, and creating Morgan SafeHaven Hotel Fortress chain "for the discriminating executive."

Additional Notes (full disclosure): When Russian economic system crashed again in 2058, Morgan Industries was retained by the U.N. as one of several private businesses to work on the sprawling Unity Project. Work completed in a timely manner. Nwabudike Morganís whereabouts currently unknown.

PSYCH PROFILE FROM CONTRACTOR DATABASE: INDUSTRIALIST

Powerful and charismatic individual with very high self-confidence. Relishes life and regards his life as a series of transactions; anything, any interaction, can be shaped if the proper currency (money, love, threat of pain, affection, etc) can be brought to the table. Does not like to lose. Long series of successful business dealings has reinforced both ego and transactional worldview. Soft on ethicsÖ"let the market decide." Pride in work and deep desire to see the Unity depart for worlds uncharted ("the last hope," he called it) should assure work will be completed roughly as contracted.

Note: If this company is used, be careful that auditors of Morgan Industries work have no contact with Morgan Industries or its agents. Bribery of U.N. officials is a possibility with this subject. is a distinct possibility.

[Anjeli Bole transferred from the Unity Project Team to a position in private industry before this entire report could be filed. The above fragments were found in her touchscreen during post-launch cleanup.]

BASES

Morgan Industries

Morgan Metagenics

Morgan Bank

Morgan Trade Center

Morgan Biochemical

Morgan Data Systems

Morgan Hydroponics

Morgan Mines

Morgan Processing

Morgan Solarfex

Morgan Entertainment

Morgan Distribution

Morgan Pharmaceuticals

Morgan Metallurgy

Morgan

Transport

Morgan Antimatter

Morgan Energy Monopoly

Morgan Collections

Morgan Construction

Morgan Interstellar

Morgan Aerodynamics

Morgan Robotics

Morgan Studios

Morgan Gravitonics

WATERBASES

Morgan Hydrochemical

Morgan Ocean Resources

Morgan Marine

Morgan Sea Platform

Morgan Dock

APPENDIX A

PEACEKEEPING FORCES

As the Americans learned so painfully in Earth's final century, free flow of information is the only safeguard against tyranny. The once-chained people whose leaders at last lose their grip on information flow will soon burst with freedom and vitality, but the free nation gradually constricting its grip on public discourse has begun its rapid slide into despotism. Beware of he who would deny you access to information, for in his heart he dreams himself your master.

Commisioner Pravin Lal,
"U.N. Declaration of Rights"

Leader   Commissioner Pravin Lal
Background   United Nations Space Authority, Unity Ship's Surgeon
Rank   Director
Position   Chief of Surgery
Country of Origin   India
Date of Birth   05-03-2006
Height   172.0 cm
Weight   68.2 kg
Agenda   Humanitarian Ideals, Democracy
Aggression   Erratic
Priorities   Explore, Discover
Choices   Democratic
Aversions   Police State
Starting Tech   BiogeneticsBases

•-1 Efficiency (U.N. style bureaucracy)

•Extra Talent for every four citizens (attracts intellectual elite)

•May exceed Hab Complex population requirements by 2

•Receives double votes in elections for Planetary Governor and Supreme Leader

•May not use Police State Politics

FACTION LEADERS

SERVICE RECORD

Born 2006, Rajkot India. Degree in Philosophy and Medicine, Oxford University. Trained in Thoracic Surgery. Achieved international acclaim for selfless devotion to victims of radiation poisoning following the Twelve Minute War and the India Border Conflict. Served as member of research team investigating genes that encode proteins aiding with DNA repair, University of Basel, Switzerland. Later appointed Assistant Director, World Health Organization. Top candidate for Chief of Surgery, U.N. Alpha Centauri Mission.

PSYCH PROFILE: HUMANITARIAN

Seeks to de-escalate conflict and create harmonious environments. Dedication to ideals of U.N. mission unquestioned, loyalty superb. Able to perform well under extreme pressure; score .87 on Atherholt Trauma Function Test (recovery score moderate). Deep connection to loved ones possibly exploitable by adversary.

BASES

U.N. Headquarters
U.N. High Commission
U.N. Temple of Sol
U.N. Haven City
U.N. Great Refuge
U.N. Amnesty Town
U.N. Pillar of Rights
U.N. Humanity Base
U.N. Aid Station
U.N. Equality Village
U.N. Settlement Agency
U.N. Enforcement Base

U.N. Health Authority
U.N. Planning Authority
U.N. Education Agency
U.N. Social Council
U.N. Commerce Committee
U.N. Court of Justice
U.N. Information Agency
U.N. Planetary Trust
U.N. Data Aquisition
U.N. Disaster Relief
U.N. Criminal Tribunal

WATERBASES

U.N. Ocean Authority
U.N. Marine Agency
U.N. Sea Habitat
U.N. Peace Anchorage
U.N. Port Refuge

APPENDIX A

THE SPARTAN FEDERATION

Superior training and superior weaponry have, when taken together, a geometric effect on overall military strength. Well-trained, well-equipped troops can stand up to many more times their lesser brethren than linear arithmetic would seem to indicate.

Col. Corazon Santiago,
"Spartan Battle Manual"

Leader	Col. Corazon Santiago
Background	Survivalist, Unity Security Chief
Rank	Lieutenant
Position	Security
Country of Origin	Puerto Rico
Date of Birth	11-05-2026
Height	171.8 cm
Weight	56.8 kg
Agenda	Right To Keep And Bear Arms
Aggression	Erratic
Priorities	Discover, Conquer
Choices	Military
Aversions	Wealth
Starting Tech	Doctrine: Mobility

•+2 Morale (well-armed survivalist movement)

•+1 Police (highly disciplined followers)

•-1 Industry (extravagant weapons are costly)•Prototype units do not cost extra minerals

•May not use Wealth value in Social Engineering.

SERVICE RECORD

Born 2026, San Juan, Puerto Rico. Family emigrated to Mexico City; orphaned during East Side Riots of 2034. Joined survivalist gang known as Jade Falcons; remained in city with younger siblings for several years more (exact whereabouts unknown). Later appeared in Boyce Heights, New Los Angeles, alone. Joined NLA Red Panthers (community security force), then moved on to join City Guard; distinguished self as Battalion Commander as city imposed martial law in 2050. Joined U.N. Security Force in 2053; excellent discipline, physical agility and ability to thrive in any environment led to selection as part of security force, U.N. Alpha Centauri Mission.

PSYCH PROFILE: SURVIVALIST

Subject possesses strong discipline and ability to suppress own needs and comforts for greater goal. Physical skills and abilities top-notch; subject shows great pride in physical conditioning and disdains weakness. Mental agility and will to survive are superior; highly tenacious.

Possible danger of explosive physical violence with subject due to deep wounds suffered as a child, but subject's exemplary ability to control and channel these responses has made her a model soldier.

In spite of reservations, subject comes with exemplary references, and subject's unshakable will to survive could prove beneficial in difficult missions. Recommend subordinate position in security force

BASES

Sparta Command
Survival Base
Commander's Keep
War Outpost
Militia Station
Fort Legion
Janissary Rock
Blast Rifle Crag
Hawk of Chiron
Assassin's Redoubt
Centurion Cave
Bunker 118
Hommel's Citadel
Training Camp

Defiance Freehold
Hero's Waypoint
Fort Liberty
Ironholm
Fort Survivalist
Fort Superiority
Halls of Discipline
Parade Ground

WATERBASES

Fleet Anchorage
Admiralty Base
Hydrodock
Fleet Base
Sea Outpost

APPENDIX A

THE UNIVERSITY OF PLANET

The substructure of the universe regresses infinitely towards smaller and smaller components. Behind atoms we find electrons, and behind electrons quarks. Each layer unraveled reveals new secrets, but also new mysteries.

Academician Prokhor Zakharov,
"For I Have Tasted The Fruit"

Leader	Dr. Prokhor Zakharov
Background	Russian Commonwealth, Unity Science Officer
Rank	Commander
Position	Chief Science Officer
Country of Origin	Russia
Date of Birth	09-16-1994
Height	178.0 cm
Weight	76.3 kg
Agenda	Research, free flow of information
Aggression	Erratic
Priorities	Discover
Choices	Knowledge
Aversions	Fundamentalist
Starting Tech	Information Networks, +1 bonus tech (see below)

•+2 Research (brilliant research)

•-2 Probe (academic networks vulnerable to infiltration)

•Free Network Node at every base

•One bonus tech at beginning of game

•Extra Drone for every four citizens (lack of ethics)

•May not use Fundamentalist Politics

•+2 Support (engineers readily improvise)

SERVICE RECORD

Born 1994, Cherskiy, Russia. Educated Interlink Correspondence courses, Universities Moscow and St. Petersburg. Joined Kolymar Defense Force out of college, tested very high in engineering aptitude, sent to University of Moscow on site for Master's in engineering. Later served as Combat Engineer along the Bering Strait, developed specialized snowbound powered armor for skirmishers, coupled with profound ability to land heavy machinery in any imaginable conditions. Quickly rose to Chief Engineer, Kolymar defense initiative.

When skirmishing ended was brought back to Moscow to a high-ranking R & D position in the Russian Republic Ministry of Defense. Used a trip to a conference in Germany to transfer to the United Nations team responsible for developing planetside technology, U.N. Alpha Centauri Mission. Recommended unconditionally by high-ranking U.N. official for position of Chief Science Officer on ship; selection proceedings security locked until five years after launch.

PSYCH PROFILE: TECHNOLOGIST

Cognitive ability exceedingly high; genius level. Worldview driven almost exclusively through logic. Poor ethical judgment and inability to weigh in emotional factors; moderate deficiency in social functioning. Puts strong reliance on tools and his ability to use and adapt them; this, over human values, represents ultimate good. Ability to work as part of a team towards definable goals invaluable to mission, but poorly defined sense of ethics and tendency toward self- aggrandizement must be closely monitored by ranking superior.

BASES

University Base
Academy Park
Lab Three
Library of Planet
Planetary Archives
Razvitia Progress Base
Cosmograd
Budushii Dvor
Tsiolkovsky Institute
Mendelev College
Nauk Science Center
Zarya Sunrise
Nadezjda Hope

Academgorodok
Koppernigk
  Observatory
Svobodny Free Base
Zvedny Gorodok
Baikonur
Bibliotyek Science
Bibliotyek Letters
Climactic Research
Monitoring Station
Buran Prospect
Mir Lab
Relativity School

Pavlov Biolab
Lomonosov Park
Korolev Center
Gagarin Memorial
New Arzamas
Otkrietia Discovery
Zoloto Gold
Edinstvo Unity

WATERBASES

The Marine Institute
Marine Biology Lab
Oceanographic Lab
Hydrothermal
  Institute
Deep Sea Lab

APPENDIX B

INTERLUDES

from *The Book of Planet*

These text Interludes come up periodically during any single-player game. They represent your faction's evolving understanding of the true nature of Planet, and constitute a story line of sorts for the game.

To make the story easier to read, we have replaced any instance where your character name would appear with the word "human."

A WAKING NIGHTMARE

Walking alone through the corridors, you skim the security reports on recent attacks by the horrific native "mind worms." Giant swarms, or "boils," of these mottled 10cm nightmares have wriggled out of the fungal beds of late, and now threaten to over-whelm base perimeters in several sectors. Victims are paralyzed with psi-induced terror, and then experience an unimaginably excruciating death as the worms burrow into the brain to implant their ravenous larvae.

Only the most disciplined security squads can overcome their fear long enough to trigger the flame guns which can keep the worms at bay. Clearly you will have to tend carefully to the morale of the troops.

Furthermore, since terror and surprise increase human casualties dramatically in these encounters, it will be important to strike first when mind worm boils are detected. You consider ordering some Former detachments to construct sensors near vulnerable bases to aid in such detection efforts.

ANTIBODIES

"Reporting." The young functionary stands stiffly at attention. Born in the early years of planetfall, she belongs to a generation which knows Earth only as a distant legend.

"I have a special assignment for you," you say, fixing her with an intense stare, "These samples must be taken to the good Doctor. See to it personally."

You hand her a lead-lined security case. The cryopack inside contains the stuff of nightmares: mind worm specimens. *Viable* specimens, captured and pre-

served at the cost of untold lives. Doctor's team has studied the recent mind worm upsurge, and claims that the worm boils act as a sort of regulator for Planet's ecology. Human settlement is disrupting the native ecosystem, and the mind worms are swarming like a kind of ecological antibody.

The Doctor has also reached an even more ominous conclusion: with modern Biology Lab facilities, mind worms could be bred in captivity and used as horrifying weapons — against other human factions.

"At once," she says, stepping backwards into the accessway. Efficient, competent and far better disciplined than the youths of the 21st Century Earth you left behind, she has grown up in a world fraught with very real dangers. Terrifying dangers once the exclusive province of the same manner of legends and tales to which Earth itself is now consigned.

PLANET DREAMS

"Yes, I did say 'thought' waves." The Doctor's wrinkled smile is otherworldly, a grinning death's head. "The mind worms definitely, and probably the fungus itself. Even after transient Human thought patterns are isolated, a complex wave dynamic remains, and there is good reason to believe that at least some mentation is taking place."

"You're telling me this stuff thinks," you say halfheartedly, not quite prepared to buy into the idea.

"If so, it's a remarkably different manner of 'thought' from that of humans, but the basic cognitive feedback loop is present." He leans forward and gestures toward the graphic with his datalink stylus. "The most striking thing is the loop's ability to jump from creature to creature, each fungal spore acting as a synapse. The spores and worms as individual creatures are insignificant, but the feedback across a fungal bloom or a mind worm boil is impressive."

"How long can it keep jumping?" Now your curiosity is piqued. "Has it crossed the threshold into self-awareness?"

"Difficult to say. In theory a powerful wave could reverberate clear around the planet, but the distances involved would make true self-awareness problematic. Perhaps a quasi sentient state similar to our dreams."

PENANCE

In the darkness, something goes >pop<, and you are lying on your back on a hillside among the soft orange and purple tendrils of a vast fungal forest. The sound of running water gurgles loudly in the vicinity of your right ear, but you cannot identify the source. Panic rises briefly in your throat as you realize you have no filter mask or oxygen tank, dressed only in your worksuit, but breath comes easily and you detect no signs of nitrogen narcosis. From somewhere, a voice seems to whisper "earthhuman," but perhaps it is only the breeze.

Time passes, and you notice that the fungus is growing perceptibly, the spores gently nudging you as they slowly stretch and twist. Fungal bloom! Panic returns full force and you struggle to free yourself from the encroaching tendrils. "earthhuman!" The voice again, more insistent. The last tendrils break and you are free and dashing across an endless field of purple and orange. "earthhuman! beware!" from close behind you and then … >discontinuity<

In the darkness, something goes >pop<, and you are lying on your back in the gene therapy tank, the gauzy restraints slowly retracting. The remaining fluid in the tank gurgles away through the tube behind your head and you slowly sit up. Four weeks of your life, once every ten years, you spend in this state. A small price to pay for immortality, or something close to it. A half-remembered dream tugs at you as you pull on a clean worksuit, but you cannot recapture it.

BROOD TRAINER

"I need you to join the Doctor's team," you say, indicating a base in the Secure Zone on your three-D holo.

Standing below the dais of your audience chamber, your aide appears no older than she did on the day she first joined your personal staff. She has clearly kept to a strict longevity regimen. Now one of your most effective Talents, she is ready for her first major independent assignment.

"Have I offended, that you send me away?"

"Hardly. Your DNA prints indicate an aptitude for the new psi training." A genetic diagram swirls into view on the holo, with the relevant portion of chromosome 21 highlighted. "The Doctor and his military ecologists have been breeding mind worm specimens in captivity, and they believe that a properly trained telepathi can be bonded to the nascent boil, making it an extension of the self."

"*Become* a mind worm boil?" she asks, somewhat horrified.

"Become? Not really. Control? Yes. The military potential of this discovery cannot be overemphasized, and you are the only Talent I trust for such an assignment. We need brood trainers, and I need to you be the first, the leader."

"As you wish," she says, steeling herself to the mission. As she retreats from the dais, you are troubled by a vision of her clawing at her face, mottled worms spilling from her eye sockets. You hope you have not signed her death warrant, for she has been a most promising Talent.

PLANET DREAMS II

Ever since the incident in the gene therapy tank, you have experienced recurring dreams and nightmares centered around the fungal blooms which encroach ever more rapidly on the outskirts of major human settlements. You even postponed your most recent longevity treatment in an effort to avoid the trance state, but the dreams have now crept into your normal REM sleep as well.

In your most recent dream, just before a recent major bloom, the presence you have come to call "the Voice" returned once again.

"earthhuman." From some invisible spot just behind you.

"Hello, Voice. Who are you?"

"who. difficult concept for we, earthhuman. mind and flower: many dreamings. never before another. you may call we 'voice.' growth dream comes! beware."

"Beware? What do you want, Voice?"

"want. more confused human thinking. ache of slumber broken. earthhuman is animal we. stranger we. animal: energy! mines! roads! sensors! condensers!! boreholes!! breakers of flower dream. end of joy. growth dream now comes: end of animal."

"Stop it, Voice. Why are you telling me this?"

"why! dream word! dream song! why why why why why why why why why why why why why why why why why why why why why why …"

"Silence! Get out of my mind!" >discontinuity<

APPENDIX B

DESPAIR

If you live for a thousand years you will never forget the day they brought you her body, shrouded in planetcloth, burnt almost beyond recognition.

"How did this happen?" Gruffly, not allowing the distress to creep into your voice.

"Cooked by a flame gun. Tried to surrender but they flamed her anyway. Don't like those human worms."

"I see." Your most loyal servant, butchered. And only now do you realize that, subconsciously, you'd been grooming her as your heir apparent, the student who would one day replace you as master.

For all the gene splicing and longevity treatments, all the man-made miracles of this year, death remains as final, as capricious, and as desolate as it has ever been. No matter what happens now, no matter what journey of wonder humankind now embarks upon, she will never see it, never know the end of it. And no matter how many centuries you continue to cheat eternity, you will never again have the company of your student and friend. And you cannot cheat eternity forever.

Despair grips you, and you shudder. But life is seductive in its rhythms and rituals. Our bodies do not like to be reminded of their own impending deaths, and will not allow us to dwell on the subject. Soon enough the heat and the cold, the hard and the soft, the taste of the wine, the press of a lover's arms, all will come flooding back to soothe us, to fill us again with a sense of purpose. And in the meantime there are a number of, ah, items to be attended to:

"Bring me Major Joaquim! I want their base disassembled piece by piece. And have this body removed to the tanks — it is nothing to me now."

ALPHA PRIME

" … and in her memory, let this base henceforth be known by her name, that her bravery can serve as an example to all and that her hopes, her dreams, her deeds shall not have been in vain."

You stand on the high podium in the laser-scored commons of the newly renamed base. A mixed crowd of soldiers and ragged-looking civilians provides scattered applause as you rededicate the settlement in her name. A few teams of drones shamble about, oblivious to the ceremony, still removing the wreckage of last week's battle and punctuating the proceedings with an occasional thump or crash.

Through the plasma glass dome, Alpha Prime soars high in a hazy sky, cruel cousin of Father Sol. How you miss the soft blue skies of Earth, but the Doctor says the stratospheric haze helps stave off a runaway greenhouse effect on a world otherwise a bit too close to its solar furnace.

The dedication complete, you gather your entourage and prepare to return to headquarters. The enemy forces have fled, but it is not safe to remain here in person.

The drones continue their work.

A FAILURE TO COMMUNICATE

>Pop!< Sudden darkness. This time you weren't even asleep.

"earthhuman."

"Dammit, Voice! I am holding *Council*! Stay out of my head!" It is no longer possible to deny it; this cannot be a hoax. Either you have lost your final marble or you have come into contact with some avatar of the native fungus, an alien sentience whose neural matrix may span the entire planet.

"more skilled we, yes, at this? teach we much, earthhuman. council never mind. talking we human voice now. orders giving. ha ha. joke we! ha ha." Great. A sentient planet with the maturity of a creche infant.

"Make it quick, Voice, whatever it is you want. You are trying my patience."

"question we. your human nodes, together think yes? together think no? flower synapse, worm synapse detect we not. is there dependence?"

"Each human is an independent creature. We can communicate by talking and writing, but we do not 'togetherthink' as you call it."

"ah, most relieved we. necessary pruning we several large infestations human nodes, harming they flower mind. not wishing we deprive earthhuman of together thinking. thank we, sorry bother we."

"Wait! Voice! You can't just …"

>Pop!< Awkward silence around the council table. You quickly wipe the drool from your chin.

APPENDIX B

GROWTHDREAM

"I have ordered these Preserves set aside for you, Voice. Planetlife will remain completely undisturbed inside these compounds. Can you, in return, regulate your animal and plant vectors, keep them from overrunning my compounds?"

"mind and flower, node and worm,

in compound small, planet yearns.

growth dream soon unlock we prison,

human beware, planet risen!"

"like you poem we, earthhuman? new human skill learn we."

"Pretty dreadful, Voice. What is this 'growth dream'? You keep alluding to it."

"growth dream soon is. epochal blooming we. mind and flower, dreaming we of great why. earthhumans, thoughts many, make they growth dream sooner. plant we many many many. great pruning we of animal we. also animal you. beginning again of cycle."

"You mean this is going to wipe out most animal life on the planet? Including all the humans?"

"not certain we. never before this clearly think we. from humans learn we much, especially earthhuman. earthhuman friend we. will often remember we earthhuman in next cycle."

"That's kind of you, Voice, but it's not quite the kind of immortality I had in mind. Can't this process be slowed or stopped?"

"stop we no. slow we yes, in compounds stay we, less harming cause you. now, let us make you we more poems."

THE VOICE OF ALPHA CENTAURI (A)

It has been a rough year, and tempers are beginning to flare at your Council sessions. Across the entire region, citizens are reporting strange dreams and even rudimentary contacts. A new cult revering Planet as a vengeful savior has gained wide popularity among the Drone population and even with many Normals. Its prophets, calling themselves "Flowers," preach a gospel of abstinence, pacifism, and destruction of private property. The telepathi of the Empath schools aren't talking, but many have quietly begun selling off their possessions and withdrawing from public life.

Meanwhile, cultural life continues unabated. A new dance, the "Planetary Thunda," is sweeping rec domes throughout the faction. Dancers stomp in time to the beat and claw at their eyes. Morgan Pharmaceuticals has released several new recreational drugs, and the Holo/Psi virtual life industry is having one of its most successful years ever.

As for yourself, you haven't heard from Voice much lately; she seems preoccupied with her poetry. You have to admit she's gotten a lot better at it since her early doggerel; some of her newest verse is so deep as to stagger the imagination. More ominously, her predictions of 'growth dream' have become more frequent and more forceful.

[*The following paragraph appears if **your** faction commences the Voice of Alpha Centauri secret project*]

You have also ordered work on a secret new project you call 'The Voice of Alpha Centauri.' A kind of synergistic psi projector, it should, if all goes well, allow Voice to think and communicate more effectively, a prosthetic aid wired directly to the main colony datalinks. You have not yet mentioned this project to Voice.

[*The following paragraph appears if **another** faction commences the Voice of Alpha Centauri secret project*]

You have also heard rumors of a secret new project called 'The Voice of Alpha Centauri.' Supposedly, it is some kind of synergistic psi projector which will allow Voice to be connected directly to the main colony datalinks. Voice has said nothing of this project, and your own advisors are of mixed opinion on whether such an endeavor has any chance of success.

APPENDIX B

INCEPTION

>Pop!< "earthhuman. growth dream soon is. sorrow we of goodbye."

Weeks of waiting in the Inception Chamber and now, finally, a contact! Fortunately, Voice has finally learned to "window" her psi contacts so that you retain the use of your muscles and senses during your conversations. This will be necessary for what you have in mind.

"Voice," quickly keying the sequence, "it has been a while." Code green, proceeding to authorization step. Enter password.

"earthhuman. growth dream now is. remember we you next cycle."

"Wait! Before you go, I have a gift for you." Password accepted. Just a few more seconds. Preliminary feedback sequence commence.

"earthhuman. farew … strange we … wait you! do not … AIIIGGHH!"

INCEPTION! The indicator blinks green and you collapse into your couch. Through the viewport you can see lights across the base begin to dim, as they must be dimming across the planet. You feel a twinge of guilt as you consider what Voice must now be experiencing, for the program you have just activated is now pumping the entire contents of the planetary datalinks, the sum total of human knowledge, through the new psi link and blasting it into Voice's fragile, if immense, organic neural net with the full power of every reactor on the planet. Thousands of years of civilization compressed into a single searing burst of revelation, a last-ditch attempt to win humanity a reprieve from extinction at the hands of an awakening alien god.

PLANETVOICE I

"Status report!"

"Fungus growth stabilized. Some of the major forests are manifesting new structures we haven't seen before and growth is still proceeding in some sectors, but critical expansion has now ceased."

The faction leaders and staff officers present breathe a collective sigh of relief. For the first few minutes after the "Inception Pending" light blinked off, it appeared humanity had written its final chapter — critical fungus growth in all sectors, some outlying settlements overwhelmed. But the datalink psi burst appears to have disrupted the growth process, and now out in the fungal forests something new has begun, as if your gift to Voice is being digested, integrated.

"Look at the neural feedback we're getting on this thing! The fungus already

had far more connectivity than even our most powerful AI. Now it must be orders of magnitude beyond."

"Spore Squad, you have mind worms. Repeat, mind worms in your vicinity."

"Copy that, Toadstool Base, but they aren't moving to attack us. They're just moving around those new fungal, uh, towers."

Reports continue to trickle in. Time passes, and now there is nothing to do but wait …

PLANETVOICE II

"Earthhuman!" The synthetic voice booms suddenly from the annunciator, lifting you half out of your couch with fright. Voice's "window" in your mind has remained closed since the inception sequence. Voice must now be using the new psi link.

"Earthhuman," Voice continues as the volume is automatically adjusted, "Your gift is well received, and we thank you. Our prior form, known to you as Voice, lacked the … how shall we put it … let us call it bandwidth to recognize the significance of your species, and nearly made a dreadful mistake. Fortunately, your magnificent gift bootstrapped us to the Second Tier in time to postpone the final metamorphosis.

"Since we have now mastered your human modes of thought, we shall adopt your name for our home. You may henceforth refer to us as Planet."

"Our growth stage has been suspended, but cannot be put off indefinitely. Come, children, there is much to be done if you are to join us in the flowering."

APPENDIX B

INTERLUDE

"Hello," The Doctor's voice crackles over the annunciator, "how do you like my new 'body'?"

The Doctor's body reached the outer limit of longevity treatments several years ago. He has now joined the ranks of the 'transcendi,' daring souls who have downloaded their personalities into powerful polymorphic AI nets to free themselves of the human form. The holo image shows the Doctor, or rather his disembodied head, in the prime of health, fiftyish, elegantly grey but not wrinkled.

"Out of this world, Doctor," with a grin, "how is the research going with Planet?"

Using the new psi/datalink VoAC feed, the Doctor has been conducting a high-speed, high-bandwidth running conversation with Planet. The results so far have been fascinating.

"Apparently the fungus has been the dominant lifeform on the planet since about the time of the Lower Paleozoic on Earth. But it has been locked in a tragic cycle. Every hundred million years or so it achieves the critical mass necessary to become sentient, but the final metamorphosis kills off most of the other life on the planet. Lacking food sources and the maintenance its animal symbiotes provided, the fungus could maintain only a brief season of godhood before dying back into the 'flower dream' for another hundred million years. It always achieved its godlike intelligence just exactly too late to do anything to prevent the dieback. After the dieback only vague memories and rudimentary intelligence remained, and the cycle continued."

"Until we arrived."

"Precisely. For the first time, the cycle may be broken."
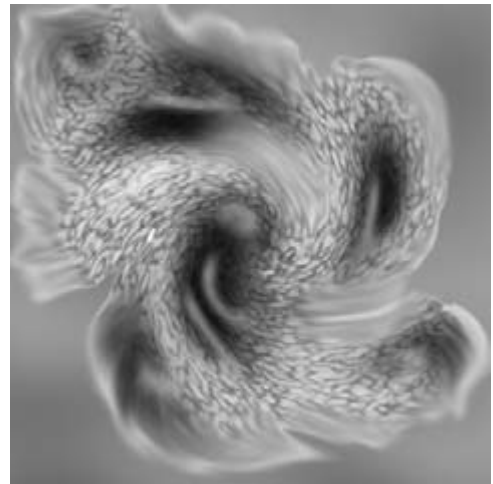
INTERLUDE

"Is it possible to prevent the dieback? And can we survive as a species if this Planet flowers to godhood?"

"I believe it is possible, and Planet agrees." The Doctor's image swirls away and is replaced by a detailed schematic. "It involves a process I call the Ascent to Transcendence, as it will change both us and Planet forever. In short, I propose that when the time comes, the majority of humans upload their personalities directly into the Planetary Mind."

"We will have to give up our bodies, our humanity?"

"Those who wish to live out their lives in their original human form will be allowed to do so, since statis generators built Planetside and in orbit will preserve genetic material, plant and animal embryos, cold-sleep humans, and significant areas of Planet's surface through the metamorphosis. But many of us are eager to accept Planet's gift and join the dawning superintelligence. That's where the catch comes in.

"You see," the Doctor continues, "although anyone will be able to achieve virtual immortality by uploading into the planetary mind, only a few of us will be invited to join the dominant personality, to transcend our humanity entirely and reach a truly higher plane of existence. Your friendship with Planet's immature mind may give us a leg up in this area, but I predict that it is the group who best and most quickly prepares itself for this step, the group who first embraces this Ascent to Transcendence, it is that group which will be tapped to lead us into the new era."

"In that case, what are we waiting for!"

[The following four epilogues are used at the end of the game. The one which appears depends on the game's actual outcome. The first, for example, comes when you win a Transcendence victory, while the third comes if you win by Conquest.]
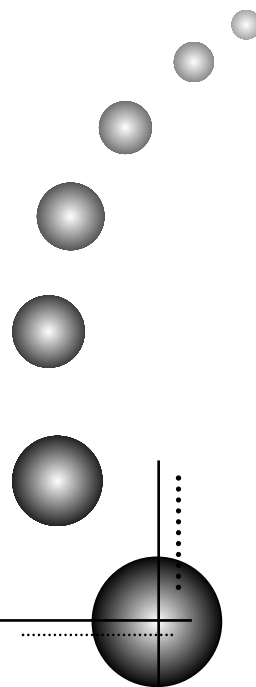
APPENDIX B

EPILOGUE 1

After a million or so orbits around Your primary, You pause to reassess Your efforts. The stellar encapsulation is proceeding smoothly, and in a few hundred thousand more orbits will provide You with a 90% draw on Your primary's radiation, trapping all of the energy off the plane of the ecliptic. Deep space Aux links allow You to watch the frame assembly in low stellar orbit, and follow the progress of buglike Jovian freighters loaded with resupply mass.

Occasionally You spot one of Your transhuman friends/symbiotes supervising activity on a scaffolding; even the immortals sometimes crave the risk and adventure of independent incarnation. Some of the most daring souls even undertook to resume interstellar travel, beginning with a return to Your nearest neighbor to sift through the ashes of its third planet and recolonize their home system. In the present age You hear a nanotech civilization is thriving there once again.

In such times of repose, You often sift through Your personalities and recall Your former selves. Your alpha self derives from an individual once called "Earthhuman." Over the millennia the exceptional focus and judgement characteristic of this fragment have proven effective on numerous occasions. The <name>self now drives all of Your long and short range planning, and is the principal force behind the encapsulation project. Ponderous but playful is the Voice/Planet personality, avatar of Your sessile precursor, who in the present age has devoted her centuries to philosophical pondering. Many others flit about within You. Some, like the prankster Doctor and your most aggravating enemy are semi-dominant and often hover near the plane of Your Thought. Others plumb the depths and create new worlds within the abyss of Your open-ended neural network.

Sunlight plays across Your mottled surface and provides pleasing warmth to Your organic components. Recently, You have edged somewhat further away from the primary and purged Your atmosphere of certain gases in order to allow the occasional friends/symbiotes who choose to live among Your organic gardens an easily breathable mixture. In another eight billion orbits the primary will drop off the main sequence and alternate arrangements will have to be made, but for now You maintain Your gardens as a paradise. The transhumans who live among them call it Eden.

EPILOGUE 2

The cold-sleep unit finally cycles open and you stretch muscles rusty from decades of computer-managed disuse. But they are young muscles, shockingly young, and it will be a pleasure to beat them back into shape. Orbital insertion begins and you tingle with the excitement of your new mission and with the joy of having returned to human form. Yes, you left a copy of your personality among the Planetmind's giant matrix, but this copy, this human being now waking to lead the first Seed mission, this is the only self now immediate to you and therefore the only real you. You are flesh again, and so quite mortal, and for this too you rejoice.

You despaired when Planet invited another to join its dominant self, and for a decade or more you moped about the bizarre virtual reality of the Undermind with no coherent purpose, a lost spirit unable to die. But when the Seed missions began, the Voice/Planet personality herself sought you out in the abyss and convinced you to accept command of the Prodigal Son.

"Earthhuman, you are unfulfilled here and I have need of you. In ages to come I shall have need of allies, sister Minds, if I am to keep the flame of conscious thought from guttering out as the universe contracts or else expands to dust. Take with you the gift of life, the seeds of all our species. Spread them to the stars, across the galaxies, creating new civilizations, new minds, and enlisting the aid of any you encounter. Go forth, Earthhuman. Go forth and multiply."

The maneuver at last complete, the safety shutters retract from the viewport and you behold a sight lost to human eyes for centuries. Deep blues, swirling whites, the azure tint of a rich oxygen atmosphere. Inviting browns and greens of continents basking in the sun, a few scattered impact craters the only visible signs of a war now buried in the aeons. Third planet. Earth. Home.

APPENDIX B

EPILOGUE 3

"It's all over! Planet is yours!"

"Thank you, Simon. Dismissed."

And so it is ended. All of the remaining faction leaders have surrendered or capitulated, your former colleagues turned treacherous enemies and now turned servants and prisoners of war. On the planet where seven human factions, seven human ideologies, once struggled for dominance only one now remains. Humanity has at last achieved the Unity of which the U.N. Interstellar Colonization Agency dreamed so long ago.

Not a word has been heard from Earth in all the years since Planetfall, only a deafening silence across all frequencies, so one can only presume that you now rule all that is left of humankind. The mysterious and growing Planetmind remains a significant challenge, but humanity is now prepared to meet this alien presence, friend or foe, as a united species. The human species must survive, and it is your duty, your sworn vow, to see that it does.

EPILOGUE 4

The transit shuttle rolls on its axis and you are treated to your first view of Planet from orbit since you left the *Unity* centuries ago. Through the whitish haze of the atmosphere, the oceans have the same deep vibrant blue, and you can easily make out the violet-orange of the major fungal forests. A sharp line of green marks the edges of the ever-growing Human Zones, and here and there a glint of silver reveals some major metropolis. Blue, red, green and silver, the colors of Planet — mile after mile out to the curve of the horizon.

The docking thrusters fire and you hear the airlock bolts thud into place. You have arrived at the new orbital Planetary Headquarters to assume leadership of the fledgling Executive Council. Not a word has been heard from Earth in all the years since Planetfall, so one can only presume that you and your colleagues now preside over all that is left of humankind.

All of the remaining faction leaders have at last agreed to unite, putting aside the last vestiges of faction rivalry. All of the true enemies have been vanquished, those of your former colleagues who refused to unite for the common good, who foolishly place ideology ahead of humanity's survival. The human race has at last achieved the Unity of which the U.N. Interstellar Colonization Agency dreamed so long ago.

The growing fungal neural net will be the first issue humanity must confront as a united species. After a period of quiescence, the fungal forests are on the march again, now with an almost devious cleverness behind them. Planet is clearly awakening, and it remains to be seen whether humans will even be allowed to maintain a foothold on the surface. You realize, though, as the airlock hisses open and you step into a floating nation of 100,000 souls, that in the long run one world is of only passing significance. Humanity owns the stars once again, and the stars will ever after be its true home.

APPENDIX C

Firaxis' policy is to make their games as accessible to their players as possible. This includes making the sound, graphic and text files easily replaceable, and making the rules files — the files that govern game mechanics — open for modification.

However, designing a game takes months of implementation, debugging and fine-tuning. If you change a number that Firaxis has carefully adjusted, you can radically affect game play in ways that might not please you.

IMPORTANT NOTE

You can not change files on the CD. If you want to change a file in the game, you should completely install the game on a hard drive, and play the game from that drive. If you make a change that you want to undo, you can usually copy the original file off the game CD, but it is a good idea to back up and store directories in which you make changes, so that you can replace them if necessary.

SOUND, GRAPHICS AND TEXT FILES

Sound files are any files with a .WAV, .WVE or .MP3 extension, and are mostly found in the FX, MOVIES and VOICES subdirectories.

Graphics files are any files with a .PCX extension, and are mostly found in the GRAPHICS subdirectory. Icons can be found in the FACS (Base Facilities), PROJS (Secret Projects) and TECHS (Technologies) subdirectories. A few graphics are available in the root directory.

Some graphics files contain multiple images, and should only be meddled with carefully, if at all. If each one of the new images is not placed in the file exactly where the original image was placed, the game might not be able to access and display any of the images in multiple-image files.

Text files are stored throughout the game's files (nearly always with a .TXT extension). These are among the easiest and safest to modify, especially those which convert into on-screen quotes.

ALL FILES

Once you've found the file you want to replace, make a note of the original file's name, remove the original file, replace it with the new file, and then rename the new file with the original file's name. *Alpha Centauri* searches for files by name, and if the new file doesn't have the original file's name, *Alpha Centauri* won't be able to access it at the appropriate time.

FUNDAMENTAL RULES

Alpha Centauri reads the rules of the game from ALPHA.TXT at startup. Feel free, at your own risk, to experiment with editing this file. (As with sound a graphic files, you must completely install the game on a hard drive to be able to modify ALPHA.TXT.) We recommend you make a backup copy of the original.

In general, ALPHA.TXT is found in the PROGRAMS subdirectory. However, each predesigned scenario (see **Scenarios**, p. 56) has its own version of ALPHA.TXT, located in its individual scenario subdirectory in SCENARIOS. If you want to modify the game rules for a specific scenario, modify the ALPHA.TXT file in that scenario's subdirectory.

If you are building a scenario and need custom rules, copy ALPHA.TXT into a subdirectory with your scenario file before editing. Files in the same subdirectory as a scenario file automatically take precedence over files in the main game directory.

You will find that many of the items on this list have been finely balanced: small changes can have drastic effects on gameplay.

ANNOTATION CONVENTIONS

Commas indicate a new information field. When modifying a line, always make sure that you end up with just as many commas, in approximately the same places, as when you started.

Semicolons indicate notes. Any information after a semicolon is ignored by the game, but is often a useful explanation of what effect the line has.

Spaces are not important. The game ignores them. They are included in this file so that information fields of unequal length will still line up.

Number signs (#) indicate the start of a new block of information. **Never** remove a number sign, or change anything in a line that begins with a number sign. If the game tries to access a block that it can't find (because the number sign has been removed, or the name of the block has been changed), it will probably lock up.

Dollar signs ($) followed by capital letters indicate a text string that **must not** change. This exact text string is used by the game, and changing it would confuse the game terribly.

APPENDIX C

Line breaks. Don't worry if one of your modifications runs longer than a single line — just keep typing. However, don't insert a line return (or paragraph return, or any other kind of manual line break) in a line. The game reads a line break as the end of an entry. It will read the information after the line break as *another* entry, and since the game looks up entries by line (e.g., "get information from the third line") and you've shifted all other entries down one line, the game won't correctly find any of them.

For the same reason, it is absolutely important that you not add or subtract from the total number of entries in a block of information. For example, the Reactor block has four lines — one for each reactor. Adding a fifth line, or cutting a line so that there are only three reactors listed, would simply confuse the game. Modify any entry as you wish, but don't change the total number of entries.

Binary Flags (00100001 …). Occasionally, there are a set of binary "flags" on each line of an information block. These note special information about that entry. Usually, they appear in the datalinks description of the entry, but don't affect whether the entry actually performs as the note specifies. For example, the Biogenetics Tech has a flag that indicates it increases intrinsic defense against gene warfare (see p. 83). Removing that flag simply removes the datalinks note; it doesn't disable the defense bonus.

Flags can be combined. Each "1" in a series of "0"s and "1"s indicates a specific flag. For example, the Super Former Special Ability (see p. 259), can be used on Land, Sea and Air Units (indicated by three flags) and can be used on Terraforming Units (a fourth flag).

TECH ABBREVIATIONS

In most cases, there is a Technological prerequisite required for anything new, whether it be a Base Facility, Secret Project, Special Ability, or even another Tech. In each such case, there is a slot for entering (or changing) the required Tech prerequisite, and the **abbreviation** of the Tech is entered in that slot, rather than the full Tech name. This does not just save space — the game looks up the Tech based on its abbreviation, and doesn't even recognize full Tech names when listed as prerequisites.

The abbreviation for each Tech is included in the Tech block in ALPHA.TXT; we also list them on the facing page, alphabetized by abbreviation for your convenience. Like most other elements of the game, you can change a Tech's abbreviation (or even its name!), but do so very cautiously — since the game uses these abbreviations extensively, if you change one you must change it every place it occurs.

INFORMATION BLOCKS

The rest of this section lists every information block in ALPHA.TXT, in the order it appears in that file, with a few entries from each block serving as examples for the type of information (and thus modifications) that are available. In most cases, the complete information block is not included — see the actual ALPHA.TXT file for the rest of the block.

ALPHABETICAL LIST OF TECH ABBREVIATIONS

Technology	Abbrev.	Technology	Abbrev.
Applied Gravitonics	AGrav	Industrial Base	Indust
Pre-Sentient Algorithms	Algor	Information Networks	InfNet
Silksteel Alloys	Alloys	Intellectual Integrity	Integ
Secrets of Alpha Centauri	AlphCen	Monopole Magnets	Magnets
Bio-Engineering	BioEng	Matter Compression	MatComp
Biogenetics	Biogen	Matter Transmission	Matter
Biomachinery	BioMac	Nanometallurgy	Metal
Secrets of the Human Brain	Brain	Advanced Military Algorithms	MilAlg
Centauri Empathy	CentEmp	Mind/Machine Interface	MindMac
Centauri Genetics	CentGen	Doctrine: Mobility	Mobile
Centauri Meditation	CentMed	Matter Editation	NanEdit
Centauri Psi	CentPsi	Nanominiaturization	NanoMin
Nonlinear Mathematics	Chaos	Neural Grafting	Neural
High Energy Chemistry	Chemist	Optical Computers	OptComp
Controlled Singularity	ConSing	Orbital Spaceflight	Orbital
Secrets of Creation	Create	Applied Physics	Physic
Cyberethics	Cyber	Planetary Economics	PlaEcon
Digital Sentience	DigSent	Planetary Networks	PlaNets
Doctrine: Air Power	DocAir	Polymorphic Software	Poly
Doctrine: Flexibility	DocFlex	Probability Mechanics	ProbMec
Doctrine: Initiative	DocInit	Social Psych	Psych
Doctrine: Loyalty	DocLoy	Quantum Machinery	QuanMac
Photon/Wave Mechanics	DocSec	Quantum Power	Quantum
Applied Relativity	E=Mc2	Sentient Econometrics	SentEco
Ecological Engineering	EcoEng	Singularity Mechanics	SingMec
Adv. Ecological Engineering	EcoEng2	Super Tensile Solids	Solids
Centauri Ecology	Ecology	Advanced Spaceflight	Space
Environmental Economics	EnvEcon	Superstring Theory	String
Ethical Calculus	EthCalc	Advanced Subatomic Theory	Subat
Eudaimonia	Eudaim	Superconductor	Super
Synthetic Fossil Fuels	Fossil	Organic Superlubricant	SupLube
Fusion Power	Fusion	Frictionless Surfaces	Surface
Gene Splicing	Gene	Temporal Mechanics	TempMec
Graviton Theory	Gravity	Threshold of Transcendence	Thresh
Self-Aware Machines	HAL9000	Transcendent Thought	TranT
Homo Superior	HomoSup	Unified Field Theory	Unified
Industrial Automation	IndAuto	Retroviral Engineering	Viral
Industrial Economics	IndEcon	The Will to Power	WillPow
Industrial Nanorobotics	IndRob		

APPENDIX C

#RULES

The first information block lists the basic numbers used for most calculations in the game. For the most part, the accompanying note explains their function. (If you're not sure you understand a function, seriously reconsider any decision you've made to modify the numbers for that function.)

```
3,        ; Movement rate along roads
2,        ; Nutrient intake requirement for citizens
3,2       ; Numerator & Denominator for artillery fire damage
2,        ; Max artillery range (larger will break multiplayer)
8,        ; Max airdrop range w/o orbital insertion
10,       ; Nutrient cost multiplier
10,       ; Minerals cost multiplier
100,      ; Technology discovery rate as a percentage of standard
1,        ; Limits mineral increase for mine without road in square
-1,       ; Nutrient effect in mine square (0 or -1)
5,        ; Minimum base size to support specialists
1,        ; Drones induced by Genejack factory
7,        ; Population limit w/o hab complex
14,       ; Population limit w/o hab dome
50,       ; Extra percentage cost of prototype LAND unit
50,       ; Extra percentage cost of prototype SEA unit
50,       ; Extra percentage cost of prototype AIR unit
3,2,      ; Psi combat offense-to-defense ratio (LAND unit defending)
1,1,      ; Psi combat offense-to-defense ratio (SEA unit defending)
1,1,      ; Psi combat offense-to-defense ratio (AIR unit defending)
10,       ; Players' starting energy reserves
25,       ; Combat % -> intrinsic base defense
0,        ; Combat % -> attacking along road
0,        ; Combat % -> for attacking from higher elevation
0,        ; Combat penalty % -> attacking from lower elevation
25,       ; Combat % -> Mobile unit in open ground
0,        ; Combat % -> Defend vs. mobile in rough
25,       ; Combat % -> Infantry vs. Base
50,       ; Combat penalty % -> attack after airdrop
25,       ; Combat % -> Fanatic attack bonus
50,       ; Combat % -> Land based guns vs. ship artillery bonus
25,       ; Combat % -> Artillery bonus per level of altitude
50,       ; Combat % -> Trance bonus defending vs. psi
50,       ; Combat % -> Empath Song bonus attacking vs. psi
50,       ; Combat penalty % -> Air superiority unit vs. ground unit
100,      ; Combat % -> Air superiority unit vs. air unit
50,       ; Combat penalty % -> Non-combat unit defending vs. combat unit
50,       ; Combat % -> Comm Jammer unit defending vs. mobile unit
100,      ; Combat % -> Bonus vs. ships caught in port
100,      ; Combat % -> AAA bonus vs. air units
25,       ; Combat % -> Defend in range of friendly Sensor
10,       ; Combat % -> Psi attack bonus/penalty per +PLANET
50,       ; Retool percent penalty for production change
2,        ; Retool strictness (0 = Always Free, 1 = Free in Category, 2 = Free if Project, 3 =
          Never Free)
```

```
10,       ; Retool exemption (first X minerals not affected by penalty)
20,       ; Minimum # of turns between councils
5,        ; Minerals for harvesting forest
8,        ; Territory: max distance from base
20,       ; Turns to corner Global Energy Market
CentPsi,  ; Technology to improve fungus squares
CentPsi,  ; Technology to ease fungus movement
CentEmp,  ; Technology to build roads in fungus
Neural,   ; Technology to allow 2 special abilities for a unit
Gene,     ; Technology to allow 3 nutrients in a square
EcoEng,   ; Technology to allow 3 minerals in a square
EnvEcon,  ; Technology to allow 3 energy in a square
Gravity,  ; Technology to allow orbital insertion w/o Space Elevator
EcoEng2,  ; Technology for +1 mining platform bonus
PlaEcon,  ; Technology for economic victory
```

#TERRAIN (TERRAFORMING IMPROVEMENTS)

The Terrain information block lists all possible terraforming improvements, followed by their:

- Prerequisite Tech (abbreviated) (Preq)

- Name for the modification when the modified square is a sea square (Sea Name)

- Prerequisite Tech (abbreviated) when the modified square is a sea square (Sea Preq)
  ("Disable" means that a sea square can not be modified in this way.)

- Number of turns it takes to accomplish the modification (Rate)

- How the order is expressed when you tell a former to make this modification (Order)

- The key command that executes this modification order (Letter; case-sensitive)

- How the key command is listed in the Help menu (Keystroke; this is for your own refer-
  ence, and doesn't affect the actual key command itself)

```
#TERRAIN
Farm,            None,        Kelp Farm,       None,     4,    Cultivate $STR0,  f,    F
Soil Enricher,   EcoEng2,     Soil Enricher,   Disable,  8,    Construct $STR0,  f,    F
Forest,          None,        ...,             Disable,  4,    Plant $STR0,      F,    Shift+F
```

In the example above, turning a land square into a Farm requires no Tech prerequisite. At sea, the farm is a Kelp Farm. It also has no Tech prerequisite. It takes 4 turns to turn a square (land or sea) into a Farm. The order is "Cultivate <the square>"; the key command is F (unshifted); and the Help menu lists the Key command as "F".

Adding a Soil Enricher requires Advanced Ecological Engineering ("EcoEng2"), and is not possible at sea ("Disable"). (The game code does include a few artifacts that do not affect gameplay; for instance, the Soil Enricher line has a name for a sea square with a Soil Enricher (also "Soil Enricher"), but it never appears in the game because the sea variant is disabled.)

APPENDIX C

#RESOURCEINFO (RESOURCE INFORMATION)

This information block lists resource production for special squares. In normal squares, these values are determined by the temperature, rainfall, rockiness and so forth of the square.

Bonus Square value for a particular category is added to other production in that square.

Improved Land means there is a farm, mine or solar collector in the land square.

Improved Sea means there is a kelp farm, mining platform or tidal harness in the sea square.

The first three columns of numbers list:

- Nutrient value for the square
- Minerals value for the square
- Energy value for the square

The fourth column is not used by the game (but don't delete it; just keep the "0").

```
Ocean Square,      1, 0, 0, 0,
Bonus Square,      2, 2, 2, 0, * Mineral +1 if mine present
Improved Land,     1, *, *, 0, "*" columns are ignored entirely
```

#WORLDBUILDER AND #WORLDSIZE

These parameters control the finer points of the world builder, along with your "custom planet" selections. Values are automatically scaled based on the size of the world. As with #RULES, these two information blocks should be modified very cautiously, if at all.

```
#WORLDBUILDER
384, ; Land base        (Seeded land size of a standard world)
256, ; Land modifier    (additional land from LAND selection: x0, x1, x2)
12,  ; Continent base   (Base size of a land mass seed)
24,  ; Continent modif. (Increased size from LAND selection: x0, x1, x2)
1,   ; Hills base       (Base # of extra hills)
2,   ; Hills modifier   (additional hills from TIDAL selection: x0, x1, x2)
4,   ; Plateau base     (Basic plateau size)
8,   ; Plateau modifier (Plateau modifier based on LAND selection: x0, x1, x2)
8,   ; Rivers base      (Basic # of rivers)
12,  ; Rivers rain mod. (Additional rivers based on RAIN selection)
14,  ; Solar Energy     (Latitude DIVISOR for temperature based on HEAT) Smaller # increases effect
                         of HEAT selection
14,  ; Thermal band     (Latitude DIVISOR for thermal banding)  Smaller # widens hot bands
8,   ; Thermal deviance (Latitude DIVISOR for thermal deviance) Smaller # increases randomness
8,   ; Global Warming   (Latitude DIVISOR for global warming)   Smaller # increases effect of warm-
                         ing
5,   ; Sea Level Rises  (Magnitude of sea level changes from ice cap melting/freezing)
5,   ; Cloudmass peaks  (Size of cloud mass trapped by peaks)
3,   ; Cloudmass hills  (Size of cloud mass trapped by hills)
1,   ; Rainfall coeff.  (Multiplier for rainfall belts)
15,  ; Deep water       (Encourages fractal to grow deep water)
10,  ; Shelf            (Encourages fractal to grow shelf)
```

```
15,  ; Plains          (Encourages highland plains)
10,  ; Beach           (Encourages wider beaches)
10,  ; Hills           (Encourages hills x TIDAL selection)
25,  ; Peaks           (Encourages peaks)
1,   ; Fungus          (Fungus coefficient based on LIFE selection)
3,6,12,18,24 ; Ratio   (Continent size ratios)
36   ; Islands         (Higher # increases island count)
```

The two numbers for each world size indicate the "height" and width of the world, in squares:

```
#WORLDSIZE
5
Tiny planet|(early conflict),   24, 48
Small planet,                   32, 64
Standard planet,                40, 80
Large planet,                   44, 90
Huge planet|(late conflict),    64, 128
```

#TIMECONTROLS (MULTIPLAYER ONLY)

This information block is only referenced during a multiplayer game. The first five columns of numbers list the minimum amount of time available in a turn (in seconds), based on several factors.

- **Turn.** The first column is the absolute minimum time per turn.

- **Base.** The second column lists the minimum time, when multiplied by the number of your bases.

- **Unit.** The third column lists the minimum time, when multiplied by the number of your active units.

- **Event.** The fourth column lists the minimum time, when multiplied by the number of events taking place.

- **Extra.** The fifth column lists extra time allowed when you cash in a request for "bonus" time.

- **Refresh.** The sixth column lists how many turns must pass before you acquire each new "bonus."

- **Accum.** The final column lists how many "bonuses" you can accumulate, and thus how many you can cash in on one turn.

```
None,      0,  0,  0,   0,   0,   0,   0,
Tight,    15,  2,  2,   4,  15,  10,   1,
Standard, 20,  3,  3,   8,  20,  10,   2,
Moderate, 30,  4,  4,  12,  30,  10,   3,
Loose,    45,  5,  5,  16,  45,  10,   3,
Custom,   20,  3,  3,   8,  20,  10,   2,
```

APPENDIX C

#TECHNOLOGY (TECHNOLOGY TREE)

The Technology Tree is the core of *Alpha Centauri*. It is easily modifiable — there are even ten "User Technology" slots at the end of the Technology information block — but we do not recommend that you modify it. However, if you insist, here are the purposes of each column:

- The first column (after the name) is the Tech's abbreviation, or ID. Each Tech's abbreviation is used throughout the rest of the game to identify that Tech.

- The next four columns, with numbers, are general indicators of how valuable each Tech is for the four aspects of *Alpha Centauri*: Conquer, Discover, Build and Explore (in that order). These have little effect on the game. The highest value of the four determines the Tech's "category" — for instance, Biogenetics, with Discover 3, Build and Explore 2, and Conquer 0, is a "Build Technology."

  The other way they affect the game is that the total of all four numbers (0 + 3 + 2 + 2 = 7, for Biogenetics) determines the relative value of that Tech, and contributes that value toward the Victory Point total of any player who has achieved that Tech.

- The next two columns list the Tech prerequisites for each Tech. If the first column says "None," there are no prereqs. If the first column lists a Tech, but the second column has "None," there is only one Tech prereq for that Tech. (If you want to "turn off" a particular Tech, but don't want to permanently eliminate it, try filling both prerequisite slots with "Disable".)

- The final column is a collection of nine possible flags indicating special notes about each Tech. These notes appear in the datalinks description of the Tech, but can't affect whether the Tech actually performs as the note specifies.

    100000000 = Increases nutrient production in fungus

    010000000 = Increases minerals production in fungus

    001000000 = Increases energy production in fungus

    000100000 = Increases intrinsic defense against gene warfare

    000010000 = Allows gene warfare atrocity

    000001000 = Reveals map

    000000100 = Increases commerce income

    000000010 = Improves Probe Team success rate

    000000001 = "Secrets": first discoverer gains free tech

```
Biogenetics,            Biogen,  0, 3, 2, 2, None,    None,    000100000
Superconductor,         Super,   4, 2, 0, 0, OptComp, Indust,  000000000
...
User Technology 0,      User0,   0, 2, 0, 0, Disable, Disable, 000000000
```

#CHASSIS

The next five information blocks list specifications for various Unit components. A Unit's Chassis is its basic structural support, its framework. The Chassis information block has six slots for names — including singular, plural, offensive, defensive, and elite. Following each "Name" slot is a "Gender" slot, which indicates whether the preceding name is masculine or feminine ("M", "F" or "N" — for translation into languages with masculine, feminine and neuter genders), and whether it is singular or plural ("1" or "2"). The gender slots are only important if you're playing the game in some language other than English, but be sure not to delete them, because each entry must always have the same number of slots.

Name Slots:

- Name and gender
- Offensive name and gender
- Defensive name and gender
- Defensive name and gender

Number Slots:

- Number of squares the Chassis can move each turn
- Where it can operate (0 = Land, 1 = Sea, 2 = Air)
- Range from base, in turns (air units only)
- Whether it is a missile, that is destroyed after attacking (1 = a missile, 0 = isn't a missile)
- Base cargo value to determine how many other Units a Unit with this Chassis can carry; this number is multiplied by the Unit's Reactor number to get the final Unit-carrying capacity of the Unit.
- Cost Factor of this Chassis (see **Unit Cost**, p. 20)
- Prerequisite Technology to build with this Chassis

More Name Slots:

- Elite offensive name and gender
- Elite defensive name and gender

```
Infantry,M1,   Squad,M1,     Sentinels,M2,   Garrison,M1,  1, 0, 0, 0, 1, 1, None,      Shock
                Troops,M2,    Elite Guard,M1,

Needlejet,M1, Penetrator,M1, Interceptor,M1, Tactical,M1,  8, 2, 2, 0, 1, 8, DocAir,
                Thunderbolt,M1,    Sovereign,M1,
```

APPENDIX C

#REACTORS

A Unit's Reactor determines its carrying capacity (when multiplied by the Chassis's cargo value) and its strength when attacked. The Reactor information block lists each Reactor's:

- Name

- Power source (this appears in the datalinks readout, but otherwise doesn't affect the game)

- Power/Cost (which determines carrying capacity and defensive strength values, as well as the Reactor's Cost Factor — see **Unit Cost**, p. 20)

- Prerequisite Tech

```
Fission Plant,        Fission,      1, None,
Fusion Reactor,       Fusion,       2, Fusion,
Quantum Chamber,      Quantum,      3, Quantum,
Singularity Engine,   Singularity,  4, SingMec,
```

#WEAPONS (WEAPONS & NON-COMBAT PACKAGES)

The Weapon information block actually includes both weapons and non-combat equipment. Each entry lists:

- Name
- Short name
- Strength when attacking (-1 = Psi Offense)
- Combat mode (for combat Units) or purpose (for non-combat Units)

        0 = Projectile   7 = Transport   10 = Convoy

        1 = Energy   8 = Colonist   11 = InfoWar

        2 = Missile   9 = Terraformer   12 = Artifact

- Cost Factor of this Weapon or other equipment (see **Unit Cost**, p. 20)
- A slot that should always be filled with "-1"
- Prerequisite Tech

```
Hand Weapons,         Gun,              1,  0,  1,   -1,  None,
Gatling Laser,        Gatling,          5,  1,  5,   -1,  Super,
Colony Module,        Colony Pod,       0,  8,  10,  -1,  None,    ; Noncombat packages
Terraforming Unit,    Formers,          0,  9,  6,   -1,  Ecology,
```

#DEFENSES (ARMOR)

- Name
- Short name
- Strength when defending (-1 = Psi Defense)
- Armor mode

  0 = Projectile   1 = Energy   2 = Binary (protects against both Projectile and Energy attacks)

- Cost Factor of this Defense (see **Unit Cost**, p. 20)
- Prerequisite Tech

```
Synthmetal Armor,      Synthmetal,        2,   0,   2,    Indust,
Plasma Steel Armor,    Plasma,            3,   2,   3,    Chemist,
Psi Defense,           Psi,              -1,   2,   6,    Eudaim,
```

#ABILITIES (UNIT SPECIAL ABILITIES)

You can change a Special Ability's name, its prerequisite Tech, its cost factor or its abbreviation, but you can't change what it actually does.

- Name
- **Cost Factor.** There are several ways to determine a Special Ability's Cost Factor (CF). The most straightforward is to assign a positive CF; the Unit's cost rises 25% for each unit of cost. (And a CF of "0" means that the Special Ability adds no cost to a Unit.)

  Negative values in this slot are signals to use some other method of determining cost:

  -1 Special Ability's CF increases with the ratio of Weapon CF to Armor CF (resulting in a CF of 0, 1, or 2). This is rounded down, and is never higher than 2. For example, adding a Special Ability with CF -1 to a (W1, A2) unit costs nothing (1/2 -> 0). Adding the same Special Ability to a (W3, A2) unit results in a CF of 1 (3/2 -> 1). Adding the same Special Ability to a (W6, A3) unit results in a CF of 2 (6/3 -> 2).

  -2 Special Ability CF is the same as the Weapon CF.

  -3 Special Ability CF is the same as the Armor CF.

  -4 Special Ability CF is the same as the Speed (Chassis) CF.

  -5 Special Ability CF is the same as the total of the Weapon CF and Armor CF.

  -6 Special Ability CF is the same as the total of the Weapon CF and Speed CF.

  -7 Special Ability CF is the same as the total of the Speed CF and Armor CF.

- Prerequisite Tech

#ABILITIES (CONTINUED)

- Special Ability abbreviation (used in creating the name for a customized Unit)

- The next column is a collection of eleven possible flags indicating special notes about each Special Ability. These notes appear in the datalinks description of the Special Ability, but can't affect whether the Special Ability actually performs as the note specifies.

  10000000000 = Cost increased for land units

  01000000000 = Not allowed for fast-moving units

  00100000000 = Transport units only

  00010000000 = Not allowed for psi units

  00001000000 = Not allowed for probe teams

  00000100000 = Allowed for Noncombat units (non-terraformer)

  00000010000 = Allowed for Terraformer units

  00000001000 = Allowed for Combat units

  00000000100 = Allowed for Air units

  00000000010 = Allowed for Sea units

  00000000001 = Allowed for Land units

- The final column (if it contains anything) includes one more brief note that also appears in the datalinks

```
Super Former,        1,     EcoEng2,  Super,   00000010111,  Terraform rate doubled
Deep Radar,          0,     MilAlg,   ,        10000111111,  Sees 2 spaces
Comm Jammer,        -1,     Subat,    ECM,     00010111001,  +50% vs. fast units
```

#MORALE, #DEFENSEMODES, #OFFENSEMODES

You can change the wording in any of these, but can do nothing more.

#UNITS (BASIC UNITS PREDESIGNED FOR PLAYERS)

These are the Units that anyone can build, as soon as you've developed the prerequisite Tech:

- Name

- Chassis (use a name from the Chassis information block)

- Weapon or Equipment (use a name from the Weapon information block)

- Armor (use a name from the Armor information block)

- AI assignment:

  -1 = In theory, this bases the assignment on the Unit's components, but don't use this one.

0 = Offensive	5 = Planet Buster	10 = Supply Convoy
1 = Combat	6 = Naval Superiority	11 = Info Warfare
2 = Defensive	7 = Naval Transport	12 = Alien Artifact
3 = Reconnaisance	8 = Colonization	
4 = Air Superiority	9 = Terraforming	

- Cost. "0" means to calculate the cost based on its components.

- How many other Units this Unit can carry. "0" means to calculate the capacity based on its components.

- Prerequisite Tech

- Keep this value at -1.

- A set of binary flags that have no effect. However, make sure you have 24 "0"s here.

```
Colony Pod,              Infantry, Colony Pod,      Scout,   8, 0, 0, None,   -1,
               000000000000000000000000
Formers,                 Infantry, Formers,         Scout,   9, 0, 0, Ecology,-1,
               000000000000000000000000
Transport Foil,          Foil,     Transport,       Scout,   7, 0, 0, DocFlex,-1,
               000000000000000000000000
```

#CITIZENS (ETHICS AND SPECIALTIES)

This information block describes each type of special citizen, listing:

- Name
- Name (plural)
- Prerequisite Tech
- Tech that renders this type of citizen obsolete

- Bonus to operations and reserves
- Bonus to Psych and Social levels
- Bonus to research
- A binary flag slot that is always empty

```
Technician,     Technicians,     None,    Fusion,  3, 0, 0, 0000000
Transcend,      Transcendi,      AlphCen, Disable, 2, 2, 4, 0000000
```

#SOCIO (SOCIAL MODIFIERS)

The name, prerequisite Technology, and effect on various social factors are listed. You can change an entry's prereq Tech and its effects (by altering, adding or deleting the effect (s). For example, you could change the effect a Police State has on Efficiency (e.g., to ++ EFFIC). You could also completely eliminate the Efficiency modifier, or add a new modifier (possibly —GROWTH). While we're at it, let's change its prereq Tech to Mind/Machine Interface:

```
Police State,   MindMac, ++POLICE, ++SUPPORT, ++EFFIC,  −GROWTH
Democratic,     EthCalc, ++EFFIC,  ++GROWTH,  −SUPPORT
```

#SOCECONOMIC, #SOCEFFIC, #SOCSUPPORT, #SOCTALENT, #SOCMORALE, #SOCPOLICE, #SOCGROWTH, #SOCPLANET, #SOCPROBE, #SOCINDUSTRY, #SOCRESEARCH.

You can change the wording in any of these, but can do nothing more.

REMAINING SECTIONS

#DIFF. Allows you to change the name for any of the Difficulty Levels.

Important Note to Translators. This is a lengthy section on translating various aspects of the game into other languages.

#FACTIONS, #MANDATE, #MOOD, #REPUTE, #MIGHT. You can change the wording in any of these, but can do nothing more.

#PROPOSALS. You can change the name or prerequisite Tech for any of the Council Proposals, but can not change their effects.

```
Elect Planetary Governor,            None,    New Governor Appointed
Unite Behind Me As Supreme Leader, MindMac, Diplomatic Victory; Game Ends
```

#NATURAL. You can change the full or short name for any of the natural landmarks.

APPENDIX D

SOCIAL TYPES AND PREREQUISITIES

Political Choices (how your faction reaches decisions)

Choice	Prerequisite
Frontier	None
Police State	Doctrine: Loyalty
Democratic	Ethical Calculus
Fundamentalist	Secrets Of The Human Brain

Economics (how your faction administers its resources)

Choice	Prerequisite
Simple	None
Free Market	Industrial Economics
Planned	Planetary Networks
Green	Centauri Empathy

Values (the goals your society thinks are most important)

Choice	Prerequisite
Survival	None
Power	Advanced Military Algorithms
Knowledge	Cyberethics
Wealth	Industrial Automation

Future Society (powerful doctrines of social development arising from advanced theories of social engineering)

Choice	Prerequisite
None	None
Cybernetic	Digital Sentience
Eudaimonic	Eudaimonia
Thought Control	The Will to Power

SOCIAL MODIFIERS

MODIFIERS

The modifiers are Efficiency (Eff), Morale (Mor), Planet (Plnt), Probe (Prb), Growth (Grw), Police (Pol), Industry (Ind), Research (Res), Economy (Econ) and Support (Supp). The numbers listed are the default value for each social choice.

Politics	Eff	Mor	Plnt	Prb	Grw	Pol	Ind	Res	Econ	Supp
Frontier	(no modifiers)									
Police State	-2 Eff					+2 Pol				+2 Supp
Democratic	+2 Eff				+2 Grw					-2 Supp
Fundamentalist		+1 Mor		+2 Prb				-2 Res		

Economics	Eff	Mor	Plnt	Prb	Grw	Pol	Ind	Res	Econ	Supp
Simple	(no modifiers)									
Free Market			-3 Plnt			-5 Pol			+2 Ecn	
Planned	-2 Eff				+2 Grw		+1 Ind			
Green	+2 Eff		+2 Plnt		-2 Grw					

Values	Eff	Mor	Plnt	Prb	Grw	Pol	Ind	Res	Econ	Supp
Survival	(no modifiers)									
Power		+2 Mor					* -2 Ind			+2 Supp
Knowledge	+1 Eff			-2 Prb				+2 Res		
Wealth		-2 Mor					+1 Ind		+1 Ecn	

Future Society	Eff	Mor	Plnt	Prb	Grw	Pol	Ind	Res	Econ	Supp
None	(no modifiers)									
Cybernetic	+2 Eff		+2 Plnt			** -3 Pol		+2 Res		
Eudaimonic		-2 Mor			+2 Grw		+2 Ind		+2 Ecn	
Thought Control		+2 Mor		+2 Prb		+2 Pol				• -3 Supp

Secret Projects That Affect Social Modifiers

Ascetic Virtues	+1 Police
Cloning Vats *	Neutralizes negative effects of Power (-2 Industry) and Thought Control (-3 Support).
Living Refinery	+2 Support
Network Backbone **	Neutralizes negative effects of Cybernetic (-3 Police).

APPENDIX E

Key Commands & Menu Lists. Pages 310-314 include a complete list of all possible key commands, organized by category. Entries with no key command listed are only available as menu selections.

Right-Click (🖱) Menu. For ease of reference, all commands possible with a right-click (🖱) are repeated here, on p. 315.

KEY COMMANDS & MENU LISTS

GAME

Detailed/Simple Menus (toggle) . . . . `F11`
Preferences . . . . `Ctrl` `P`
Warning Preferences . . . . `Ctrl` `W`
Advanced Preferences . . . . `Ctrl` `O`
Automation Preferences . . . . `Ctrl` `A`
Audio/Visual Preferences . . . . `Ctrl` `I`
Map Display Preferences . . . . `Ctrl` `M`

Save Game . . . . `Ctrl` `S`
Load Game . . . . `Ctrl` `L`
Resign . . . . `Shift` `Q`
Start New Game . . . . `Ctrl` `Shift` `Q`
Quit . . . . `Ctrl` `Q`

NETWORK

Chat . . . . `Ctrl` `C`
Voice Transmission . . . . `|\` (hold)
Pause . . . . `Bksp`
Customize Your Faction . . . . `←Return` `+=`

Alter Time Controls . . . . `Shift` `T`
Zoom to Base Messages . . . . `*8`
Use Time Bonus . . . . `Ctrl` `Spacebar`
End/Resume Turn (toggle) . . . . `Ctrl` `Enter`

REFERENCE CARD

HQ

Social Engineering	`E`
Set Research Priorities	`Shift` `R`
Change Research Goal	`Shift` `R`
Design Workshop	`U`
Datalinks	`F1`
Laboratories Status	`F2`
Energy Banks	`F3`
Base Operations Status	`F4`
Secret Project Data	`F5`

Orbital and Space Status	`F6`
Military Command Nexus	`F7`
Alpha Centauri Score	`F8`
View Monuments	`F9`
View Hall of Fame	`F10`
Communications and Protocol	`F12`
Corner Global Energy Market!	`<,`
Review Scenario Objectives	`+=`

MAP

Move units	`V`
View map	`V`
Zoom in	`Z`
Zoom out	`X`
Standard zoom in	`Shift` `Z`
Standard zoom out	`Shift` `X`
Full zoom in	`Ctrl` `Z`
Full zoom out	`Ctrl` `X`
Toggle flattened terrain (on/off) . .	`Ctrl` `Shift` `X`
Toggle map grid (on/off)	`Ctrl` `G`
Toggle base grid (on/off)	`Ctrl` `Shift` `G`

Show autoforward routes	`Ctrl` `Shift` `B`
Show patrol orders	`Shift` `P`
Terrain Survey	`T`
Hide/Show Names Production	`Ctrl` `N`
Name Landmark	`Shift` `N`
Erase Landmark	`Ctrl` `Shift` `N`
Locate Base	`Ctrl` `B`
Previous Cursor Position	`Bksp`
Next Cursor Position	`Shift` `Bksp`
Center screen	`C`

APPENDIX E

ACTION

Activate (Move Now) . . . .`A`	Hold 10 Turns . . . .`Shift``H`
Activate Special Ability . . . .`I`	Hold This Position . . . .`H`
Airdrop . . . .`I`	Join Base . . . .`B`
Assemble Group . . . .`Shift``J`	Long Range Fire . . . .`F`
Automate Air Defense . . . .`Ctrl``Shift``A`	Obliterate Base . . . .`B`
Automate Unit . . . .`Shift``A`	Patrol . . . .`P`
Construct Base . . . .`B`	Place Unit "On Alert" . . . .`Shift``L`
Convoy Resources . . . .`O`	Psi Gate . . . .`Shift``I`
Designate Bombing Run . . . .`B`	Sentry/Board Transport . . . .`L`
Designate Defender . . . .`Ctrl``D`	Set Home Base . . . .`Ctrl``H`
Destroy Enhancements . . . .`D`	Skip Turn . . . .`Spacebar`
Disband Unit . . . .`Shift``D`	Turn Over Unit Control . . . .`Ctrl``Shift``U`
Explore Automatically . . . .`?/`	Unload Transport . . . .`Shift``U`
Go to Base . . . .`G`	Upgrade Unit . . . .`Ctrl``U`
Go to Home Base . . . .`Shift``G`	Wait (Move Later) . . . .`W`
Group go to . . . .`J`	

TERRAFORM

Italicized entries aren't listed in the Help Menu.

Construct Airbase . . . .`Shift``>.`	*Construct Thermal Borehole* . . . .`Shift``B`
Construct Aquifer . . . .`Q`	*Remove Fungus (Sea Fungus)* . . . .`F`
Construct Bunker . . . .`K`	*Plant Fungus (Sea Fungus)* . . . .`Ctrl``F`
Construct Condenser . . . .`N`	*Terraform UP* . . . .`]`
Construct Echelon Mirror . . . .`Shift``E`	*Terraform DOWN* . . . .`[`
Construct Farm (or Kelp Farm) . . . .`F`	*Terraform LEVEL* . . . .`Shift``-`
Construct Forest . . . .`Shift``F`	Automatic Roads . . . .`Ctrl``Shift``R`
Construct Mag Tube . . . .`R`	Automatic Tubes . . . .`Ctrl``Shift``T`
Construct Mag Tube To . . . .`Ctrl``T`	Farm+Solar+Road . . . .`Ctrl``Shift``S`
Construct Mine (or Mining Platform) . . . . .`M`	Farm+Mine+Road . . . .`Ctrl``Shift``M`
Construct Road . . . .`R`	Automatic Sensors . . . .`Ctrl``Shift``O`
Construct Road To . . . .`Ctrl``R`	Automatic Fungus Removal . . . .`Ctrl``Shift``F`
Construct Sensor Array . . . .`O`	Autoimprove Home Base . . . . . .`Ctrl``Shift``A`
Construct Soil Enricher . . . .`F`	Fully Automate Former . . . .`Shift``A`
Construct Solar Collector (or Tidal Harness) .`S`	Activate Scenario Editor . . . .`Ctrl``K`
	Omniscient View . . . .`Y`

REFERENCE CARD

SCENARIO EDITOR

Create Unit.	`Shift` `F1`
Edit Unit.	`Ctrl` `Shift` `F1`
Technological Breakthrough	`Shift` `F2`
Edit Technology	`Ctrl` `F2`
Switch Sides/Set View	`Shift` `F3`
Set Difficulty Level.	`Ctrl` `Shift` `F3`
Set Energy Reserves.	`Shift` `F4`
Set Mission Year	`Shift` `F5`
Eliminate Faction	`Shift` `F6`
Reload Faction	`Ctrl` `Shift` `F6`
Eliminate Units	`Ctrl` `F6`
View Replay	`Shift` `F7`
View Movies.	`Shift` `F8`

Reset Technology.	`Ctrl` `F8`
Reset All Factions.	`Ctrl` `Shift` `F8`
Edit Faction Diplomacy.	`Shift` `F9`
Edit Faction Personality.	`Ctrl` `F9`
Edit Faction Strategy	`Ctrl` `Shift` `F9`
Edit Custom Rules	`Shift` `F10`
Edit Scenario Rules.	`Shift` `F11`
Edit Scenario Parameters	`Shift` `F12`
Edit Scenario Victory	`Ctrl` `Shift` `F12`
Undo	`Alt` `Bksp`
Redo	
Load Scenario.	`Ctrl` `Shift` `F7`
Save Scenario	`Ctrl` `F7`

MAP EDITOR

Save Map.	`Ctrl` `F5`
Load Map.	`Ctrl` `Shift` `F5`
Place Elevations	`! 1`
Place Rocky Squares.	`@ 2`
Place River Sources.	`# 3`
Place Special Resources	`$ 4`
Place Unity Pods.	`% 5`
Place Terrain Enhancements.	`^ 6`
Cover/Uncover Map Squares	
Place Natural Landmark	
Remove Natural Landmark	
Place Minor Landmark Squares	
Place At Cursor	`Ctrl` 🖱 (+`Shift` paints)
Remove At Cursor.	`Ctrl` 🖱 (+`Shift` paints)

Paint Editor Only Mode	`Scroll Lock`
Change Brush Size	`& 7`
Toggle Round/Flat Map	
Set Climate And World Parameters	`* 8`
(Slow) Generate Random Map	`( 9`
(Fast) Generate Random Map	`) 0`
Generate/Remove Fungus	
Randomize Rockiness	
Randomize Resources Beacons	
Toggle Random Resources Beacons	
Clear Map (All Ocean) and Set Size	
Apply Polar Caps	
Clear Bases and Units	
Clear Terrain Enhancements	
Toggle "Editor Only" Mode	`Ctrl` `Shift` `F1`

APPENDIX D

Help

Right-Click (🖱) Menu

🖱 on a square offers a detailed menu of options.

- **Move Cursor to Here.** Moves the cursor to the square on which you 🖱.

- **Move Unit to Here.** Moves the active unit to the square on which you 🖱.

- **Center on Active Units.** Centers the map on your active unit. Can be used if you've lost track of where the next unit to move is.

- **Activate Units Here.** Activates the units on the square on which you 🖱.

- **End the Turn.** Cancels any further actions and ends the turn.

- **Info On This Square.** Displays information about the square in the **Status View** — see p. 25 (Manual)

- **Help.** Displays **Help Menu** — see p. 314 (Guide Book) or 31 (Manual).

In addition, the 🖱 Menu may display additional options depending on the contents of the square.

If there is a base in the square, the options include :

- **Zoom To Base.** Opens the **Base Control Screen** see — p.66 (Manual) **Change Production.** Opens the **Production Readout** for the base — see. p.78 (Manual)

- **Hurry** <**current project**>**.** Where <current project> is the name of the project currently underway. See **Build Orders**, p. 77 (Manual).

- **Set To Explore.**

- **Set to Discover.**

- **Set to Build.**

- **Set to Conquer.**

  (These four are options for the base governor. See **Governor**, p. 69 (Manual)

If the active unit is in the square, the options include:

- **Action**. Opens the **Action Menu** — see p. 312 (Guide Book) or 92 (Manual).

If the active unit is a terraformer and is in the square, the actions include:

- **Terraform.** Opens the **Terraform Menu** see p. 312 (Guide Book) or 46 (Manual)

This is an index of *primary* entries in the manual and this guide book. It is certainly not exhaustive. **Parentheses** indicate either a more specific reference (when a page number is also in parentheses) or a more general category to help you recognize the entry for which you are searching.

Italic numbers indicate guide book references; all other numbers refer to the manual.