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"It is clear that we cannot distinguish the sane from the insane in psychiatric hospitals. The hospital itself imposes a special environment in which the meaning of behavior can easily be misunderstood. The consequences to patients hospitalized in such an environment – the powerlessness, depersonalization, segregation, mortification, and self-labeling – seem undoubtedly counter-therapeutic."
– David L. Rosenhan, "On Being Sane in Insane Places," Science, Vol. 179 (Jan. 1973), p. 250-258 (from The Wayback Machine) [1]

"I doubt if a single individual could be found from the whole of mankind free from some form of insanity. The only difference is one of degree. A man who sees a gourd and takes it for his wife is called insane because this happens to very few people." – Attributed to Desiderius Erasmus (b. 1466, d. 1536)

Primal States: At the beginning of play, all races represented by the positions exist in the Galactic Space (i.e. within the area represented by the initial Star Log) in some original state. The Primal State is a frozen moment in time just before the game begins in which the circumstance of each Major Native Population Type are determined, for which there are only two major options: Either the Major race is established in Galactic Space prior to the game (i.e. Home Positions: Homeworld, Lost Colony and Outposter Primal States), or they just arrived (i.e. Invader Positions: Expedition Leader, Nomadic Warfleet and Truly Alien Primal States).

✓ "But this doesn't mean that there are lots of intelligent aliens out there, just waiting to be contacted, the researchers stressed. 'The universe is more than 13 billion years old,' [Woodruff] Sullivan [University of Washington] said.... 'That means that even if there have been 1,000 civilizations in our own galaxy, if they live only as long as we have been around – roughly 10,000 years – then all of them are likely already extinct. And others won't evolve until we are long gone. For us to have much chance of success in finding another 'contemporary' active technological civilization, on average they must last much longer than our present lifetime.' (The 10,000-year figure cited by Sullivan refers to humanity's development of agriculture and other 'rudimentary' technologies...)" – Mike Wall, "The Universe Has Probably Hosted Many Alien Civilizations: Study," Space.com, May 5, 2016 referring to A. Frank, W.T. Sullivan III, "A New Empirical Constraint on the Prevalence of Technological Species in the Universe," Astrobiology, Vol. 16, No. 5, May 2016.[2]

Thus Galactic Space is an interstellar Mesopotamia if you like. As utterly specious as it seems, for game purposes only, the origin or pregame colonies of the non-Homeworld or invader positions will never be found in Galactic Space during play of the game. The invader positions are assumed to be entirely cut off from their ancestors and come as they are to the gathering.[3]

✓ "As men tied to the Earth, we dream of visiting the stars. As men tied to the stars, we will dream of returning home." – ending narration of the short environmental sci-fi film Telescope (2016) by Collin Davis & Matt Litwiller (DUST YouTube Channel).

✓ See also Interstellar Paleolithic Culture discussion, 6 Diplomacy, p. 1172, *infra*.

➢ Start It Up: Primal States are only determined and applied during the set up. All positions must choose their Primal State before the set up can proceed to the last step. During the last step of the setup process, positions must satisfy the requirements of their chosen Primal State by 'purchasing' the required population, technologies, and ships with their 'inheritance' (i.e. IPs) and informing the Concierge of their desired placements. Once all positions have submitted their Primal State choices, the Concierge will determine the starting location(s) of each position and make the necessary announcements. Only one position will start in any starsystem, and the Concierge will attempt to evenly distribute the starting positions throughout the initial Galactic Space. There are six possible Primal States, the first three representing those who were already there, and the last three represent 'invaders.'

    ✓ "'To have a mother in prison is like a primal wound,' said Brittany Barnett, founder of Girls Embracing Mothers, the organization that takes Lila for the monthly prison visits. The program, which started six years ago, has worked with 52 incarcerated women, all but two of them single mothers. 'Once the mom goes to prison, it really devastates the home and family,' said Ms. Barnett, whose mother spent time in prison." – Dan Levin, "As More Mothers Fill Prisons, Children Suffer 'A Primal Wound'" The New York Times, December 28, 2019.[4]

➢ Homeworld Position: Homeworld Positions begin on the Homeworld from which their species evolved. Because of the way in which technological cultures spew electromagnetic spectrum into space (see also Human-Made VLF Bubble feature quote *ut infra*), the Galactic Space locations of all Homeworlds are announced at the beginning of the game. The Homeworld Position must obtain the Industry Existential Patent and must begin with at least 100 native population factors and 20 industry. The Homeworld Position is free to distribute populations and industry to all available planets in the home starsystem, which is already explored, up to legal limits. Some planets may require Controlled Environment Technology (CET) to colonize, but Colony Ships are not required. It is assumed that efficient in-system travel has been established, so no starship or stardrive technologies are required for the Homeworld Position to establish colonies in the home starsystem. A Homeworld Position may be severely hampered in the beginning of the game for the lack of a Stardrive due to having to satisfy population and industry requirements. Should obtain Orbital Shipyard.

    ✓ Minimum Requirement: 205 IPs, 305 IPs with Generic Stardrive Existential Patent, plus 1 other Existential Patent and 1 Application on the 1st Era Matrix.

    ✓ An intriguing possibility is the EmDrive (formally, the "radio frequency (RF) resonant cavity thruster") proposed by Roger Shawyer in 1999, who built a couple of models in the early 2000s. The science community thought the idea was preposterous, a violation of the laws of physics, and his test results were in error. In August 2014, there were several news articles published on the EmDrive; the Chinese had built one in 2009 and claimed it worked, and NASA's Eagleworks Laboratory undertook the task and published a paper saying it works. The catch is, nobody knows why, it is a violation of the laws of physics. The EmDrive does not require propellant, it does not 'push' against anything, it is not like a conventional rocket. In November 2016, NASA published a peer-reviewed paper (with less news fanfare) detailing tests and results of the EmDrive at Eagleworks. NASA was impressed enough that they want to try it in space soon. The thrust from the EmDrive is very low, about

twice that of a solar sail, but freed of the need to use expendable propellants, it might be the key to regular reliable in-system travel.

- ▪ See EM Drive and Alcubierre Warp Drive excerpts, Movement, *infra*.

➤ Lost Colonist: Sometime in the dimmest distanttt-est past, a starship containing a small crew crash-landed on a remote planet.[5] The crew survived and prospered, but reverted to a more primitive state and 'evolved' a new civilization, with little or no memory of how they got there (e.g., "Probe 7, Over and Out," Twilight Zone, 1963[6]). The Lost Colonist is 'related' to one of the other Major Races (but will not know which one until First Contact) but now considers itself sovereign and independent through untold eons of cultural drift and survival. The Concierge determines the other Major Race to whom the Lost Colonist are related (however, the Lost Colonist will never be related to a Truly Alien position). Lost Colonist can be 'ancestors' of other Lost Colonist. For convenience, the starting world of the Lost Colonist position is called the Homeworld, even though it is not literally the evolutionary 'homeworld' of the species. The Lost Colonist starting coordinates are announced before the game.

- ✓ Relation is always relative *and involuntary*. All life on Earth is theoretically related to some single-cell organism a billion years ago, see also Mitochondrial Eve concept.

The Lost Colonist must follow the same set up requirements as the Homeworld Position; the only difference is that the Lost Colonist shares a Native Population Type with another position. Because two positions share the same Native Population Type, certain Fundamental Realities, especially those of the evolutionary kind, if chosen by one position will affect both positions, and count as Fundamental Realities for both positions (at the Concierge's judgment). The first and primary effect is to add Fundamental Realities to the other position, however neither position will be allowed to exceed the maximum number of Fundamental Realities as a result of 'discovered' Fundamental Realities, rather, the Concierge will adjust (i.e. discard) some Fundamental Realities to accommodate the shared Fundamental Realities of the Native Population Type after deciding which Fundamental Realities are such that they must apply to both positions. The subtleties of this Primal State may require some experience to appreciate.

- ✓ Minimum Requirement: 205 IPs, 305 IPs with Generic Stardrive Existential Patent, plus 1 other Existential Patent and 1 Application on the 1st Era Matrix.

- ✓ It is possible for participants to create a 'fallen civilization' game with all Lost Colonist Primal States (or many Lost Colonist with one Homeworld Primal State), in which case, barring divergent bio-evolution or manipulation, the primary differences between Native Population Types would be *ethnic*, not biological and participants should take this into account during the game. Possibilities exist for other sorts of games dominated by, for example, Nomadic Warfleet or Homeworld Primal States as well, that do not diverge from the basic rules for Native Population Types.

➤ Outposter: The Outposter represents a set of previously-established but now isolated and forgotten 'outpost' colonies from a race that originated far outside the Galactic Space of the game. The significant advantage of the Outposter is dispersion in the starting Galactic Space because the Outposter will begin in five starsystems with at least one colonizable planet each. The Outposter must begin with at least 10 populations at one planet of their choice in each of the five starting systems (i.e. 50 population factors).

The Outposter may not purchase any warships during set up, but may purchase the 1st Era Warship Existential Patent, and **must** purchase the Generic Stardrive Existential Patent, Ship Systems, Scout Ship, and the Colony Transport Existential Patents during setup. The Outposter's Primal State, but not Galactic Space coordinates for the starting colonies, are announced to all before the beginning of the game. Should try to buy Industry Existential Patent and lots of starting Industry & population, and an Orbital Shipyard if possible.

- ✓ Minimum Requirement: 345 IPs, must begin with Generic Stardrive Existential Patent, plus 3 other Existential Patents and 5 Applications on the 1st Era Matrix.

➤ Expedition Leader: Expedition Leaders have just arrived with a fleet of Colony Transports to begin colonization. Thus, the Expedition Leader is required to purchase at the minimum, Existential Patents for Generic Stardrive, Ship Systems, Colony Transport, Scout Ship, Industry, and Controlled Environment Technology (CET), and must begin with *at least* 24 population factors and 8 Colony Transports to hold all of the population. The starting Galactic Space coordinates and Primal State of the Expedition Leader, are not announced. The Expedition Leader must place all of his ships in one starting system where they have just arrived. Obviously, colonies will need to be established immediately and the starting system **must** contain at least one colonizable planet. Should probably purchase extra Colony Transports, empty or with population, and a Scout Ship.

- ✓ Minimum Requirement: 473 IPs, must begin with Generic Stardrive Existential Patent, plus 5 other Existential Patents and 7 Applications on the 1st Era Matrix.

➤ Nomadic Warfleet: There is nothing like throwing a big bang in the middle of an empty universe, in fact, it only took one to get things boiling! The Nomadic Warfleet position must begin the game with the Generic Stardrive, Ship Systems, and Colony Transport Existential Patents, and either 1st Era Warship and Ship Missile or 1st Era Carrier and Fighter Existential Patents, and at least 10 population factors on Colony Transports. After purchasing the required Existential Patents, population and Colony Transports, the remainder of the Inheritance must be spent on warships, Fighters, military enhancements, and military related Patents. The Nomadic Warfleet begins in a single starsystem, having just arrived. The starting Galactic Space coordinates and Primal State of the Nomadic Warfleet are not announced. This Primal State may be more attractive in 'crowded' games (8 to 10 positions, you know, 'two is company, three is a...'); it may also quickly insure someone's early extinction.

- ✓ Minimum Requirement: 414 or 429 IPs, must begin with Generic Stardrive Existential Patent, plus 4 other Existential Patents and either 6 or 7 Applications on the 1st Era Matrix.

➤ Truly Alien: In a galaxy filled with weird, disgusting, and otherwise incompatible sentient races, yours stands out as being strange by any standards. Especially since yours seem to have appeared out of a space rift called the Crack of Dawn. Actually, your species has just completed one-way dimensional travel into the Galactic Space. Prior to the beginning of the game, your species was peeping on the area from another dimension. As a result, the Truly Alien position *receives system information* for every star on the initial Star Log (however, no colony or position information will be provided with the system information, thus they are not 'peeping toms'☺).

✓ When H.G. Wells, in the opening monologue to War of the Worlds (1898), referred to the peeping Martians as "intelligences greater than man's," it seems likely (given the outcome of the story) that he was referring to their technology (i.e. the ability to spy on us and to invade our planet) and not to their intellect. This is consistent with the European colonialism of the day; whereas, our concept of intelligence has noticeably separated from (but remains intertwined with) technology so that intelligence now implies foresight, planning, processing and creative ability, wisdom and insight – all of which generally relate to technology but are not on the same plane.

▪ See excerpt Opening/Closing Narration, War of the Worlds, Expansion, *infra*.

The Truly Alien position must begin with Generic Stardrive, Ship Systems, Colony Transport, and Scout Ship Existential Patents and 24 population factors on Colony Transports equipped with Controlled Environment Technology.

✓ The Truly Alien position must then evenly divide its population into three fleets, which may be accompanied by other ships.

✓ On the first turn of the game, four to six new stars will appear on the edge of the Galactic Space, and three of them will contain one of the Truly Alien starting fleets. The newly appeared systems will begin fully explored for the Truly Alien position.

✓ The starting Galactic coordinates of the Truly Alien position will not be announced, but the sudden appearance of new stars will likely be shortly noticed.

Truly Alien is the *alterity* position of the game. They may make other races feel weak and tired in their presence, like the Klicks in the Star*Drive setting of the *Alternity* RPG (who seem to be modeled after the Shadows in Babylon 5 television series), or make other races feel like crawling under a rock, like the Shadows in Babylon 5 or be disturbingly difficult to look at, like the Shadows' minion race, the Drakh (Babylon 5, "Lines of Communication" (1997)). There's always going to be something *wrong* and instantly recognizable about the Truly Alien race as it developed in another universe.

✓ <u>Minimum Requirement</u>: 591 IPs, must begin with Generic Stardrive Existential Patent, plus 3 other Existential Patents and 5 Applications on the 1st Era Matrix.

✓ By operation of the 'looking rules' (see 2 Expansion, *infra*), arguably a Truly Alien position creates the existence of 'alternate' and 'parallel' universes to the game universe, accessible from the Galactic Space. For the shrewdest reasons of game sanity (i.e. manageability) it is not likely that the Concierge will permit regular, easy, or meaningful access to 'alternate' and 'parallel' universes. The Truly Alien position should be considered 'cut off' (a one way trip) like the other invader Primal States.

➢ <u>Blue Shift</u>: The Truly Alien position also receives one special Truly Alien Fundamental Reality (colored blue, 'blue-shifted' – as in bug-eyed aliens are coming to get you! ☺), which may not be discarded, and which counts as a Major Fundamental Reality against the number of Fundamental Realities taken by the position. It also counts against the number of Fundamental Realities Drawn, i.e. it is not an 'extra card,' no 'advantage' is gained in this sense.

Unlike regular Fundamental Realities, however, Truly Alien Fundamental Realities do introduce significant deviations or variations from (i.e. 'break') the regular rules of GGDM in

some way. It is what makes them Truly Alien to the game universe, like Stephen R. Donaldson's character, Thomas Covenant and his white gold wedding ring. See guidelines vs. special rules discussions, Type 1 and Creator, 3 Beginnings, pp. 42-43, *supra*).

- ✓ The rule-breaking in Truly Alien Fundamental Realities imposes some difficulties and some advantages on the Truly Alien position or just something different, which is intended to approximately even out, granting no 'special advantages' overall, or just to make an interesting *alternate* position.

➢ Laying It Down: Planets and stars in Galactic Space that are currently in view of a position and occupied in any way are part of that position's current 'reality' and must occupy some portion of the position's Public Space. Each star and planet must occupy a separate Monad in the Public Space, and all planets (whether colonized or not) must be adjacent on the Public Space to either their star or another planet that is part of the same starsystem. Thus, the qualifying stars and planets in the position's initial view must all be legally placed in the Public Space during setup, after the placement of Government Titles.

- ✓ Generally, whatever you currently see, hear, smell, or sense in any way forces itself into part of your consciousness of the moment; it's called sentience. During WWII, from news reports, the names of places most people never heard of forced themselves into our collective consciousness, some became etched there as part of history and lore, others faded away to obscurity again. Some sights, sounds, smells may remain in memory, related to some event in your life, while 99.9% of sensory input vanishes quickly from our consciousness once it passes or ceases.

"VLF signals are transmitted from ground stations at huge powers to communicate with submarines deep in the ocean. While these waves are intended for communications below the surface, they also extend out beyond our atmosphere, shrouding Earth in a VLF bubble. This bubble is even seen by spacecraft high above Earth's surface, such as NASA's Van Allen Probes, which study electrons and ions in the near-Earth environment. The probes have noticed an interesting coincidence – the outward extent of the VLF bubble corresponds almost exactly to the inner edge of the Van Allen radiation belts, a layer of charged particles held in place by Earth's magnetic fields. Dan Baker, director of the University of Colorado's Laboratory for Atmospheric and Space Physics in Boulder, coined this lower limit the 'impenetrable barrier' and speculates that if there were no human VLF transmissions, the boundary would likely stretch closer to Earth. Indeed, comparisons of the modern extent of the radiation belts from Van Allen Probe data show the inner boundary to be much farther away than its recorded position in satellite data from the 1960s, when VLF transmissions were more limited. With further study, VLF transmissions may serve as a way to remove excess radiation from the near-Earth environment."

– NASA Press Release, "NASA's Van Allen Probes Spots Man Made Barrier Shrouding the Earth," May 17, 2017

Endnotes.

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[1] Commentary: Substitute "universe" for "hospital" in the Rosenhan quote; a perverse view might hold that the universe is a giant psychiatric hospital. Or at least the Earth is in regards to humanity...

[2] Citation: Abstract of Astrobiology article: "In this article, we address the cosmic frequency of technological species. Recent advances in exoplanet studies provide strong constraints on all astrophysical terms in the Drake equation. Using these and modifying the form and intent of the Drake equation, we set a firm lower bound on the probability that one or more technological species have evolved anywhere and at any time in the history of the observable Universe. We find that as long as the probability that a habitable zone planet develops a technological species is larger than $\sim 10^{-24}$, humanity is not the only time technological intelligence has evolved. This constraint has important scientific and philosophical consequences." *Id.*

[3] Commentary & Citation: In some far future science fiction settings, the Earth and its fate are myth. The homeworlds of invader/non-homeworld Primal States may take on this status during the game.

- ✓ [Narrator] "For 3,000 years, most people viewed the Iliad as fiction and believed the city of Troy never existed. Then, in 1870, German archeologist Heinrich Schliemann uncovered the ruins of Troy, exactly where Homer said it was. In 1876, Schliemann also unearthed the ancient city of Mycenae, in his effort to prove that Homer's writings were more than mere poems; they included actual history. That is, except for the parts of the Iliad that tell of how the Greek gods of Mt. Olympus took sides and participated in the war, a poetic blending of history and mythology." – Timelines of Ancient Civilizations, Episode 3.
    - ▪ Heinrich Schliemann was a savage amateur by modern standards and may have destroyed with dynamite and careless digging more of Troy during the excavations than the Greeks did in the capture of Troy or in the earthquakes. The arguments continue to this day, in combination with his mislabeling and wishful misinterpretation of what he found. Still, he is notable for being a pioneer and for shaping, with Sir Arthur Evans, the emerging understanding of Bronze Age Greece.
    - ▪ Oddly, this puts Heinrich Schliemann in the shadow of the same disdain that has rained on the Spanish Conquistadors, though there is a vast difference in the order of magnitude of what they did (Schliemann was digging in long dead ruins) and disdain for Schliemann is limited to professional circles because so few know of him.

[4] Commentary: A mother incarcerated (or civilly committed) is worse than a deceased mother: You know she may come back. She's not really gone. And not here.

[5] Commentary: I dislike 'desert island' and 'lifeboat' type questions because in one sense, they are hypotheticals that I have a difficult time taking seriously (in addition to having read *Queen v. Dudley* (1884) 14 QBD 273 DC in criminal law class), and yet, on the other, one cannot help but to take them seriously because they are phrased such that the answer will reveal your inner person and can often strain relationships and stain your soul. I am sure that is exactly what is intended by such questions and may regard the asker as suspect.

[6] Citation & Commentary: Of Adam Cook and Eve Norda, two adult humans, from different planets, stranded together on an empty optimally habitable planet she called "Eart-th," Rod Sterling offers this closing narration:

- ✓ "Do you know these people? Names familiar, are they? They lived a long time ago. Perhaps they're part fable, perhaps they're part fantasy. And perhaps the place they're walking to now is not really called 'Eden.' We offer it only as a presumption. This has been the Twilight Zone." – "Probe 7, Over and Out."
    - ▪ In the third part of the pilot episode of Stargate Universe ("Air" (2009)), some members of the expedition to the desert planet dialed one of the four Stargate addresses that were marked as locked out by Ancients starship Destiny. Foreshadowing, Dr. Rush had previously warned that one could not determine that a planet was safe for humans by a cursory remote scan (even though that is exactly what they did before they went to the desert planet). They sent through a remote sensor and camera device, saw a habitable planet with vegetation, breathable air and decent temperatures. Two members of the expedition – Amanda and Curtis – go through to the locked-out planet, quickly lose contact, and are stranded there when the expedition must return to the Destiny and the Destiny jumps to FTL. The immediate lesson was that there was a good reason why the address was locked out by the Ancients ship. But in the end, I half-expected to see Rod Sterling coming out of the desert delivering a lesson about rushing into the Garden of Eden....

Note that the writers, producers, network executives, and advertisers were not concerned in 1963 about offending Christian Biblical Literalists, whose frustration at the increasing marginalization of their beliefs perhaps impelled them to the various boorish absurdities and positions in the 1980s, discussed in the Excerpt of Dangerous Games, Primal States, *supra*, and in other places throughout GGDM.

6 Beginnings – Primal States