

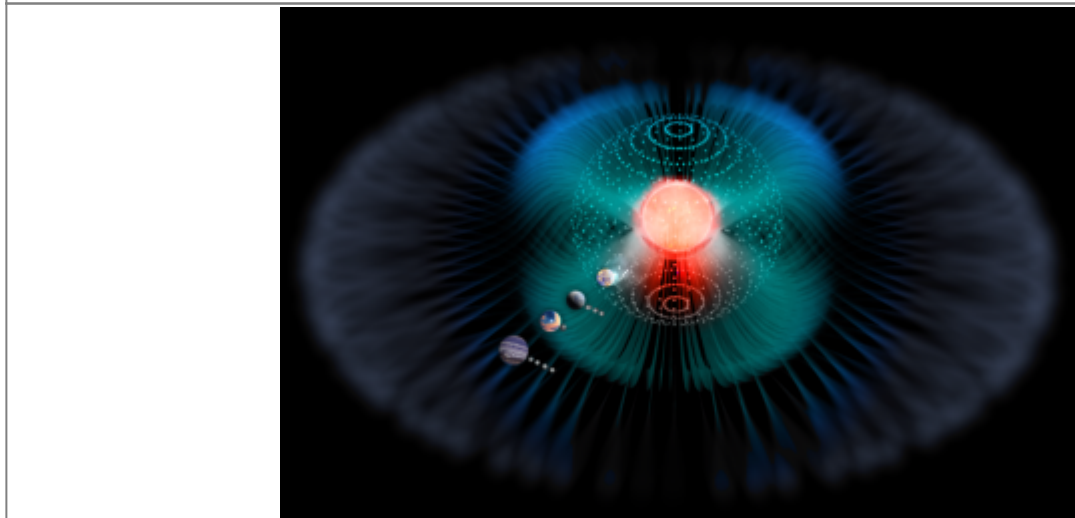
Project Checkout

The [Matriarchy](#) completed their exodus in [YE 39](#) and in doing so rendered the impact of their leaving upon the systems of [Lor](#), [Nyli](#), and [Hici'emi](#). They are intensely changed because of the nature of the Lorath's exit. Around each system, large installations were premeditated and installed in order for the Lorath Matriarchy to exit this universe and enter their own new one.

Project Checkout Installations

The following diagram is the UF1, based around the Lor system, though identical systems adjusted for stellar mass are in place around Lor, Nyli, and Hici'emi.

Topological diagram of the core checkout shell around the Lor core star



The Findings

The [Matriarchy](#) completed their exit from this universe in [YE 39](#) when the systems of [Lor](#), [Nyli](#), and [Hici'emi](#) were intensely changed by of the nature of the exodus. There was a black hole that was opened by the exit and sealed afterward by the exit's inherent abilities. The space around the systems and planets of [Zesuaium](#) are incredibly difficult to navigate due to the electromagnetic signatures, space-time disruptions, and plasma flares.

What Happened

Stars, planets, stations, ships, even people.

[Zesuaium](#).

Spheres of Zesu

The spheres of Zesuaium left behind are as follows:

- Lor
- Nyli
- Hici'emi

Science

Opening up the wormhole and keeping it open required something called negative mass, as wormholes inherently want to collapse in upon themselves. When the negative mass was brought into existence (which is very hard to do), it really, really wanted to stabilize; concurrently, particles (called virtual particles) popped in and out of existence. Normally, virtual particles are only around for a brief amount of time due to being pushed back out of existence by the numbers in the equations that define reality all adding up correctly - but when those numbers *don't* add up (due to bringing negative mass into existence), some of those virtual particles remain. The amount of negative mass that was needed to actually stabilize the process was enormous and came from a gigantic interstellar noded [aetheric](#) network. The amount of positive mass kept in existence from the virtual particles was whatever the densest form possible was; since the densest material is [Zesuaium](#), the remaining positive mass was preserved in the form of [Zesuaium](#) objects that precisely match the shape of the objects that went through the wormhole.

History

While the means to carry out the plan would not exist for hundreds of years, the outlay had been in existence for such a time that it had changed the very shape and path of Lorath society, creating a secret society to aid in the research and development of these goals.



The first formal testing of the project began in [YE 26](#) with the creation of the first transuniversal probe - similar to the [Transuniversal Teleportation Drive](#) developed by [AvaNet](#). Initially, these attempts ended catastrophically with failures to initiate the transfer or the complete loss of the unmanned probe upon delivery. Later experiments presented more horrifying implications when the probes did return, often warped in sickening and unnatural ways with the pattern of organics particularly being disrupted beyond recognition — many having to be annihilated on return to prevent possible infection of local space from what had returned.


With neutrons not surviving the compression state intact through the space-time distortion of the TTD-Gate, the decision was made instead to try transmitting and receiving signals as electrons appeared to move intact through the compression due to their small size, velocity, and self-regulating interference patterning.

Initial Findings

These experiments with modifying and copying signals which passed through the gate would facilitate the events of the first physical Lorath/Sourcian meeting; [the Maras](#). The vessel mistakenly believed the signal to be an arrival beacon and locked on with its wormhole drive to the target-location of the TTD-Gate, arriving with superficial damage from transportation with an unknown system and extensive damage from combat prior to its destination.

While the Lorath had great success in the production of negative mass (needed to defeat the implosive force of a black hole) and the creation of micro-black holes themselves, creating usable wormholes until this point had been believed to be impossible, with only unstable wormholes existing. To do so, the singularity or “singularness” of a black hole would need to be split over two destinations in three-dimensional space or greater in order to become a functioning black hole. This was, of course, something the Maras did quite effortlessly and as such no time was wasted in reverse-engineering it.

The result determined that the gravitor box used some mysterious process that accelerated a  [Bose-Einstein](#) ensemble to near light-speed rotationally. This differed from existing systems in that it was specifically designed for the purpose of altering space-time across multiple dimensions and “just happened to double as a faster-than-light travel system” — unlike local attempts at TTD which worked in reverse, trying to make faster-than-light travel space-time distortion systems act as dimensional bridges. Attempts to replicate this ability to alter space-time using common technologies of local space would result in the Type-1 gravitational  [centrifuge](#) from which all further centrifuges would be developed.

In addition, the “maesus” brain of the [Sourcian](#) offered a class of computation unmatched by anything the Lorath had seen prior. This space gave rise to the phenomenon MOTHER, the arrival partner of the Maras and its occupant; additionally, the secrets to a more effective aetheric technology would be discovered, one which actually created the bridging particles for electrical transfer through the destruction of matter via  [baryon](#) decay induced specifically by magnetic monopoles: the Aurora device, the Aura, and the particles themselves, which were known to have an effect on affective spacetime systems.

Enter Fury

Knowing the plan would be dependent on this power source, MOTHER would search for evidence of prior Sourcian presence and would discover the [Beta Rhoi](#) system: the leftovers of an ancient solar-engineering project which produced a binary star-system from what previously had been a neutron star as a natural farm of monopoles. The system acted like a massive electrical dynamo, constricting the magnetic fields of its hyper-dense gas-giant Fury, which remains a stable planetoid without leeching thanks to its ferromagnetic core and its superheated electrically active metallic composition of metallic hydrogen, iron, and mercury.

Once the outpost Beta Rhoi was established, the farming of advancement would begin.

MOTHER

MOTHER is a codename for what is believed to be the first artificial intelligence transmitted through the TDD-Gate during the transmission experiment stage of Project Checkout. Through careful manipulation, MOTHER would be smuggled out through a [Nepleslian hospital](#) via a brain implant stored in one [Sana Nakamura](#). Unintentionally, the implant activated, triggering a partial merger between Sana and MOTHER.

MOTHER, believing the use of aetheric systems accelerated the entropic loss of this universe would result in its premature destruction, believed escape was utterly essential and outlined a means of how escape might be achieved.

More about MOTHER

With careful modification, MOTHER was altered into a form which lacked an ego but still possessed agency - having a poor concept of itself to prevent potentially dangerous self-preservation behavior that existed outside of the already agreed Project Checkout - thus rendering MOTHER dependant on [Aiesu Kalopsia](#).

This dependency forced MOTHER to scout 12 specialized persons, to create a secondary logistical body which could perform unethical research in secret, and to begin forming the technological grounds for a large-scale [TTD](#) transfer via the manipulation of international macroeconomics and political interference. There were careful design choices in the construction of the exiting craft to prevent her escape and ensure that UF1's ongoing design would continue.

The Consortium

Of the twelve original "members" so named for their direct contact with MOTHER at some point and their massive importance, eight members survived of the twelve, though many would go on to do great things.

- The Physician ([Aiesu Kalopsia](#))
- The Consultant ([Miles Gunn](#), who departed with The Physician)
- The Ambassador ([Rebeka Retana](#))
- The Confechor ([Seiren Isbala](#), unaware)
- The Watchman ([Luca Pavone](#), unaware)
- The Historian (whose name was never formally given)
- The Specialist ([Danny Hanley Lewis](#))
- The Custodian ([Executor Mar'zhaz Keib "Howler" New Tur'lista](#), unknowingly)
- The Librarian ([Arlyle 'The Librarian' Arlie Ablemare The Third](#))
- The Assassin (Kaspar Dolores)

There was a rumored thirteenth member, The Inquisitor ([Helen Klein](#)), who was thought to be involved with [Yamatai's Star Army Intelligence](#) and was to act as a referee of sorts between the two teams. Also of note was The Independent, MOTHER's attempt to recruit a fourteenth member many times: [Sesshoseki Tamamo](#), who would repeatedly turn down multiple positions. They would serve alongside The

Watchman, The Confeactor, The Ambassador, and a construct of The Physician unknowingly and would later self-elect to join the *LSDF Herald* and leave known-space as part of the first manned mission into the multiverse to the UF1's planned destination - infuriating MOTHER, who was not able to travel with them due to careful design choices in the construction of the *Herald* to prevent her escape.

Passing Destination

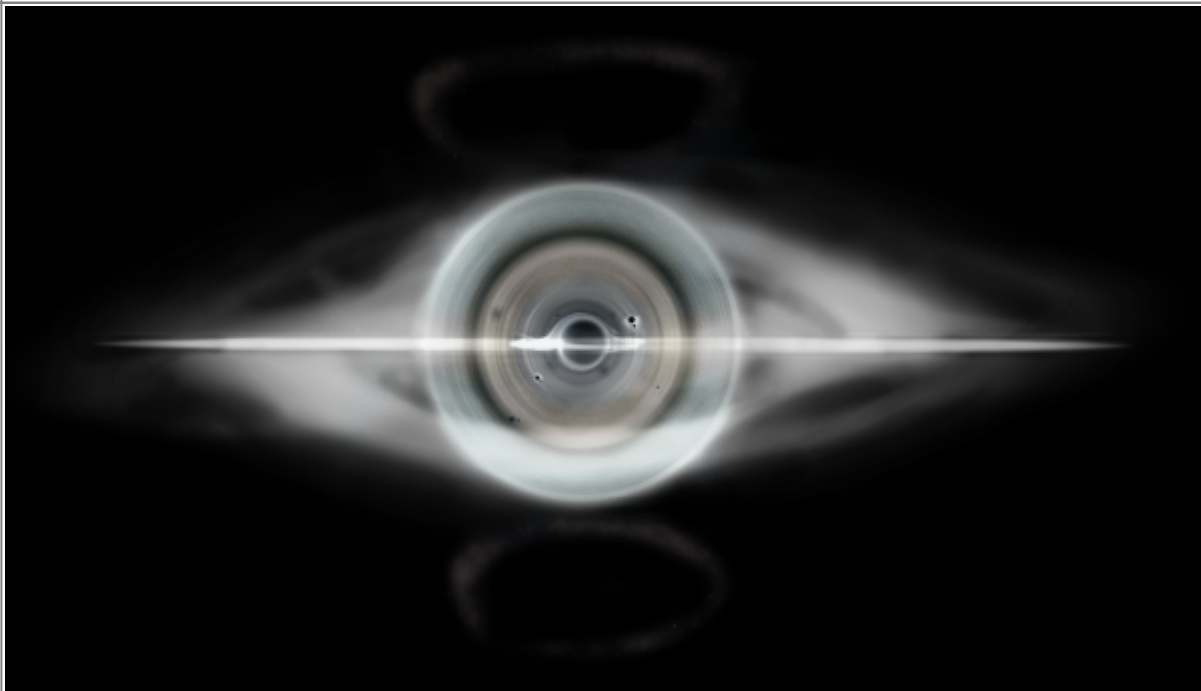
Later when scouting for an arrival point, Lorath observatories would observe what was described as an accelerating star cluster moving in a way which violated the expected movement pattern, with an agency - akin to a starship in a path against the spacetime around it - which could only be artificial. With the detection of this mysterious seven-dimensional probabilistic location charted and the interference waves it had with other objects calculated, its surroundings could be approximated — mapping taking a decade and spanning an arrival point of ten light-years.

With this in mind, a safe arrival point could be plotted.

Activation and Remaining Phenomena

Activation of the UF1 would begin first with mass dislocation, stretching nearly 125 cubic light-years in several seconds. The event threshold and the space-time difference separating the UF1's internal radius from local space-time would create fluctuating extremes in red-shift and blueshift passing through it, caused by vibrations in its outer topology and mass-dislocation caused by space-compression. Observably, the activation of the UF1 created a lensing effect similar to that of a black hole, distorting light which moves behind it and through it.

A look at the end product phenomenon from a distance



The black hole, its accretion disk within, and the pulsar radiance axially from left to right.

The remains of such a journey would be a number of very small black holes - composed of the positive mass left behind - and the enormous compression-wake caused by the mass dislocation of transit itself. Research has revealed it will eventually decay and distort in shape in a few billion years, creating a form very closely resembling the [Blue Rift Expanse](#). The rim of the wormhole itself radiated with an output comparable to that of a pulsar; this, along with the very thin polar axis of visible light about its exterior (formed by superheated hydrogen), could potentially create new nebulae.

The interior space of the white expanse is filled with remaining positive mass - created under enormous pressure via the [Casimir phenomenon](#) as a product of the negative mass created to stabilize the wormhole passage - in the form of hydrogen, nitrogen, oxygen gas nebula, enormous planetoids, and sun-sized satellites of solid [Zesuaium](#) orbiting at a safe distance around the core black hole. Pressure and thermal changes caused by inner rotation of the white expanse fused the interior products to form water and ammonia with oxygen and nitrogen remaining as the atmospheres surrounding most of the Zesuaium spheres. Each sphere has a unique atmospheric pressure. At the center of the phenomenon, creating the "pupil," is a black hole of approximately 50 [solar masses](#) composed primarily of the remaining positive mass resulting from the negative mass production and the creation of the initial black hole.

In addition, interference phenomena passing through retrocausality will create the illusion of light being inverted — with the surrounding space appearing as white (hence the term "white expanse") and the visible objects within appearing as black. This is caused not by the light itself - but by the systems which perceive it such as sensors or eyes. This same phenomenon of false readings continues across the rest of the electromagnetic spectrum, meaning that to see light accurately, specially-designed systems - using comparison inference averaging to defeat interference - must be utilized.

["Caernarfon" Variable Drones](#) (left behind as to reduce the amount of negative mass needed to be produced) are, through the production of positive mass, protons, neutrons, and electrons, now composed entirely of solid lead. They are additionally petrified with an exterior crust of a hafnium, nitrogen, and carbon allotrope compound (thought to resist up to 6000 °C) caused by a planned alteration of their outer layer's construction by MOTHER. They orbit the white expanse's spherical center, maintaining their original positions relatively speaking.

For this reason, their exteriors were modified during construction to incorporate language and symbolism; similarly, their inner plates were engraved with a complete cultural lexicon of the Lorath people. Each additionally includes the name of a single Lorath and everything they ever did in recorded history. It is thought that the Caernarfon will remain until the very end (as lead is a highly stable molecular structure) and should even 0.0001% of them survive, the written, musical, artistic, cultural lexicon and list of every Lorath ever born in known space will also survive.

The negative mass required to hold open the resulting wormhole was mathematically about equal to the mass which transited through the system and appeared in roughly the same location as a shadow of positive matter in the form of virtual particles. These particles condensed back into the masses' equivalency as a result of the net energy the Lorath pulled from the [aether](#) in order to open it; thus the resulting wormhole is now closed as a result of the departure.

Aether has a theoretical maximum energy output equal to the actual magnitude of energy of an empty space, therefore the remaining mass was transformed into [Zesuaium](#), the mathematical equivalent of aether's max energy output magnitude of an empty space as expressed by $(10^{(-4)}\text{Ev})^4$ - which can be

translated as the opposite of quantum potential energy.

Because of this, every piece of mass in the Lorath territories mentioned above was turned into pure Zesuaium. The space around these spheres is highly volatile and unstable to the point of being almost impassable. It is on par with the [Blue Rift Expanse](#) in that lifeforms and technology specifically suited or designed for this environment may be able to exist within it. The conditions are inherently capable of creating self-sustaining patterns of space and time, thus creating a place where space and time move very quickly; on top of that, there are intense gravitational shifts and electrical discharges that can vaporize via arcs of plasma.

OOC Notes

[Osaka/Osakanone](#) originally created this article on 2017/05/26 18:13; [Ametheliana](#) and [Legix](#) assumed control of it (after receiving permission from [Wes](#)) on 2017/11/23 12:48. [approved](#) it (using the [checklist](#)) on 2018/07/23 09:45.

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