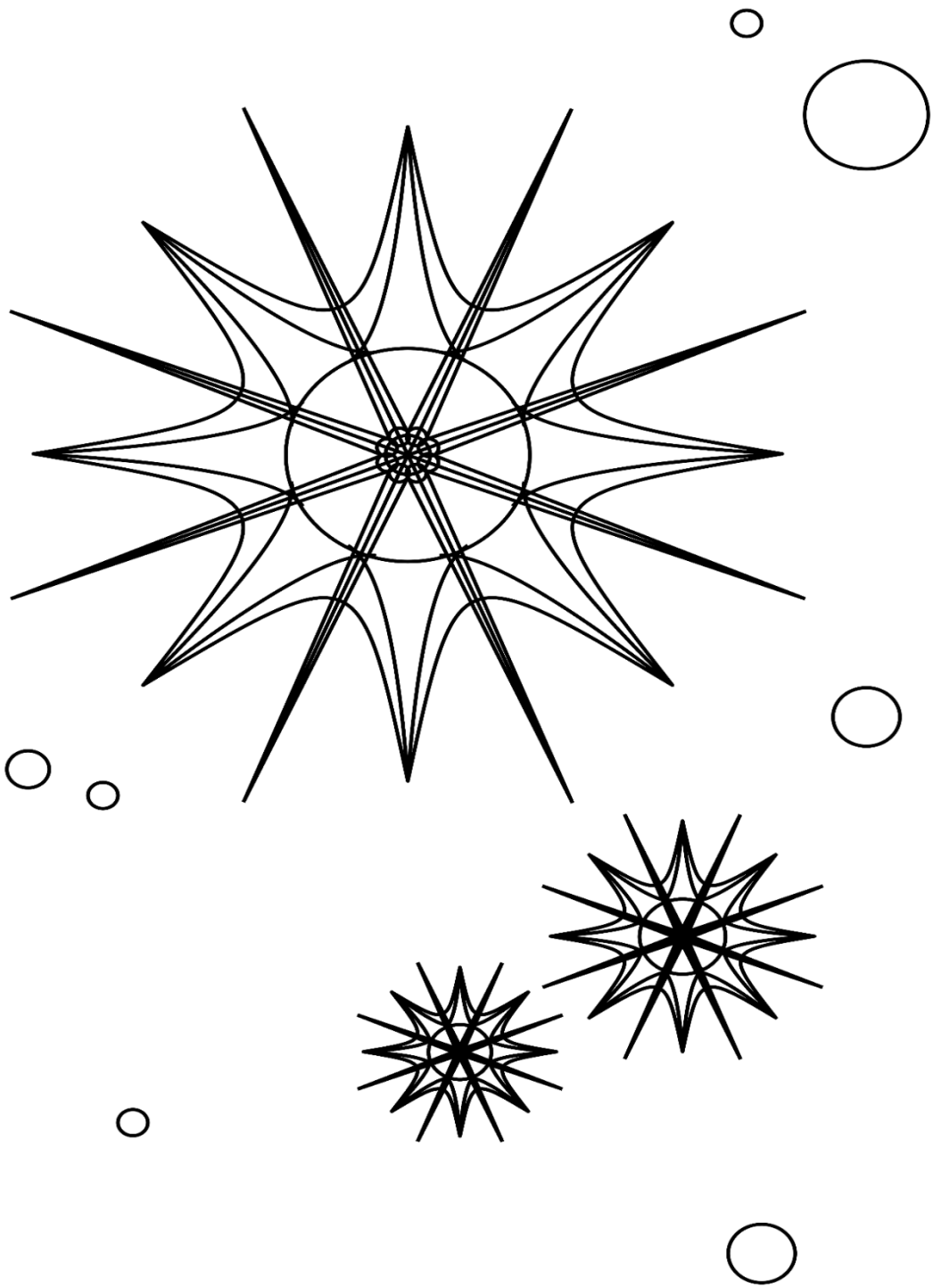


UNIVERSE WALKTHROUGH

OXNAR

Returning to the most popular kind of story since pre-history: this is a creation and end story for the universe, a walkthrough of its different lifecycle stages, and a description of some of its most important characters and features.



End

Genesis

In the beginning there was one infinite existence, and because it existed it manifested and time began. This existence, while hyperbolic, had an infinite flat three-dimensional surface of energy. As time passed, the existence expanded locally around every point, causing its surface to simultaneously expand. The energy of the expanding surface collapsed into forms. Tearing into the nothingness, the mass of these forms brought forward uneven seas of reality around themselves. This surface grew into the universe.

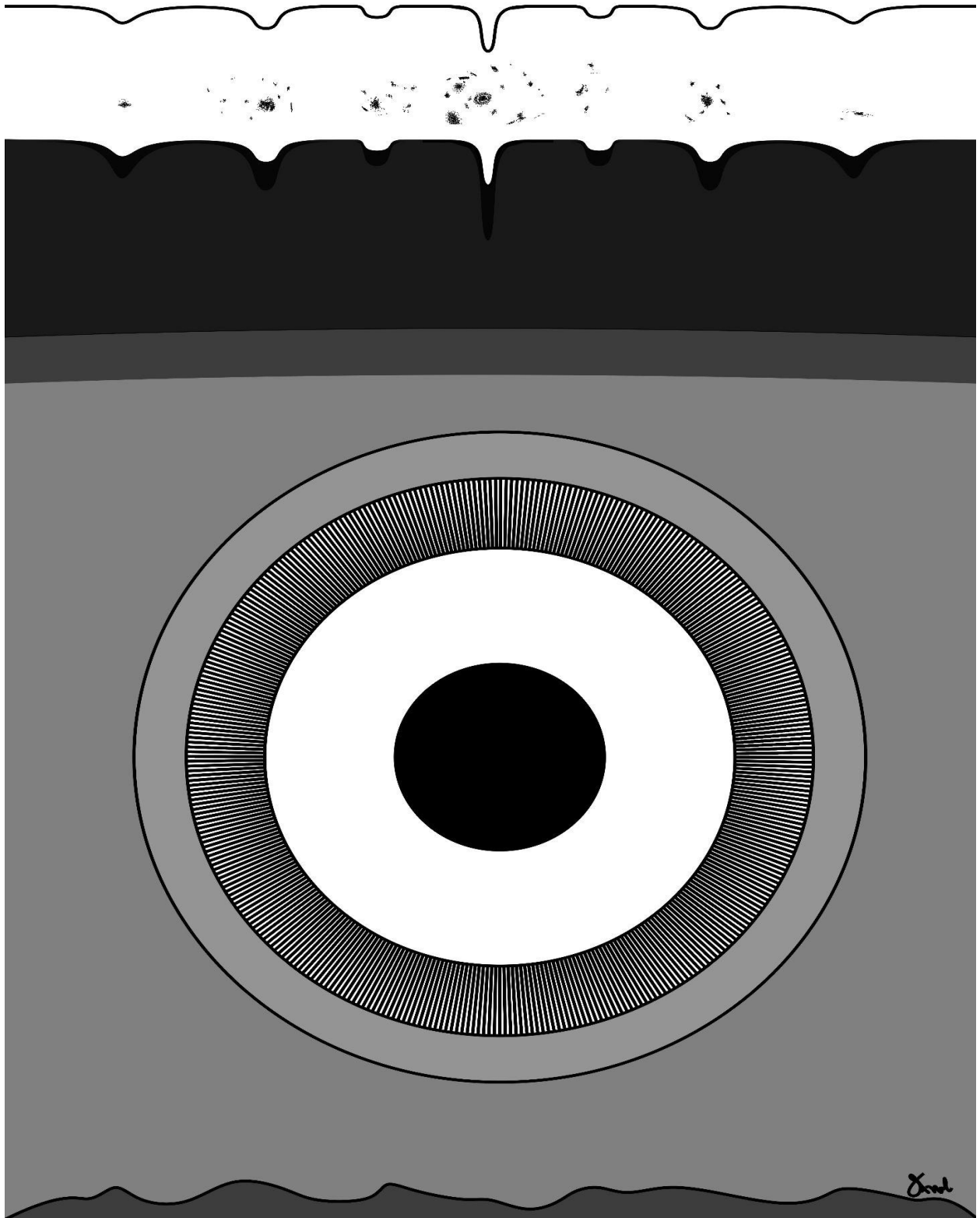
As the universe grew, there passed a time of chaos and radiation in which creation and destruction happened nearly simultaneously. This effect subsided as much of reality came to rest. As it settled it began to achieve stability and the forms present became the building blocks for all matter. In this stability there existed a tremendous amount of mass, and much of this mass collapsed into the first violent primordial black holes.

In the ashes of the eruptions of these primordial black holes and in places where reality had come to rest in unusual and extraordinary ways, exotic matter was formed. Much of this exotic matter lies scattered in regions of vast empty space, floating in the cores of stars, or trapped in black-holes. This type of matter can be extremely dangerous and cause the collapse of stars if used correctly. However, exotic matter is so rare that even the archivists trillions of years in the future with the power of thousands of solar systems at their control would be hard-pressed to produce even a small sample of it.

As the universe expanded outward unevenly around its creations it cooled, and as it cooled the perfect conditions for life arose on a massive scale. In this vast ocean of chaotic radioactive compacting and separating matter, the first proteins and cells were formed. Most of this life, known as the first life, was simple single celled organisms, but in the vastness of space, even in the briefness of this time, other strange creatures are formed, titanic, feeding off gas and light. Among these creatures, some were tragically formed with the intelligence to understand the fate of their ocean of a universe. They were mostly driven to madness as the fabric of their world was torn by powers outside their control.

The expansion and destruction of this warm ocean universe caused a near universal mass extinction event. This left only the toughest and most

adaptable life alive, mostly composed of single celled organisms. These single celled organisms were scattered across the expanding universe, seeding the way for more complex life. Many waited patiently on barren worlds or asteroids for the right conditions for billions of years. Some waited for eternity. Though few remnants of the ocean universe will exist, all future forms of life will bear some shared ancestry with these original forms. Their genetics carrying their stories with them.



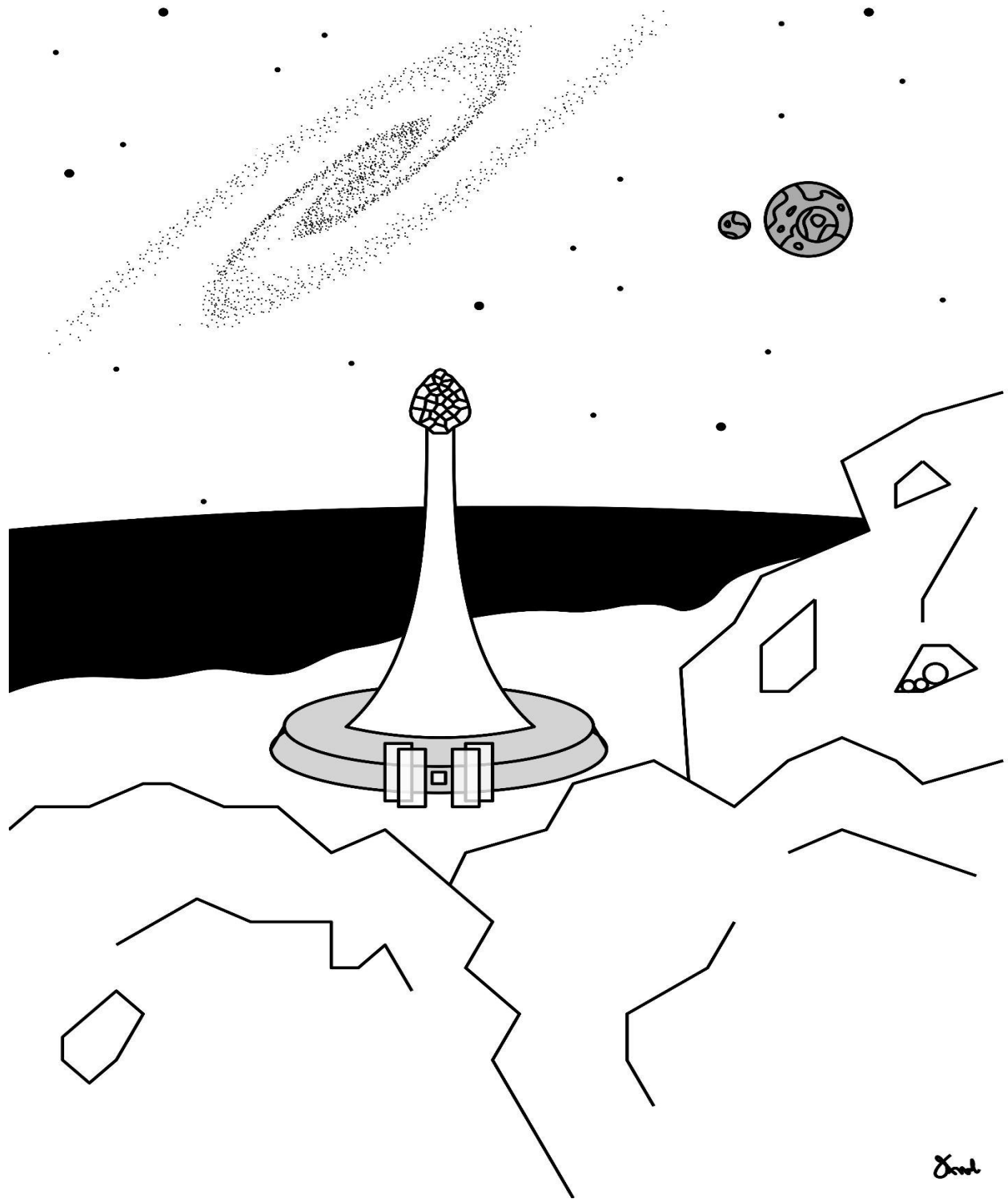
Beginning

As the ocean universe collapses, matter is inexorably drawn together from vast distances. The coalescing chaos forms the first asteroids, planets, stars, nebulae, galaxies, clusters, super-clusters, super galaxies, filaments of galaxies, and well separated galactic regions. Each of these regions spawning hundreds of quintillions of worlds. On billions of these planets and moons over billions of years, the first life from the great ocean takes hold. These simple life forms churn small sets of chemicals into others for sustenance, powered by the raw energy of their worlds. Clinging to rocks in the glare of unkind stars, floating in vast seas of liquid, or suspended in gas, they struggle to survive.

On many of these worlds, they fail and life is stamped out, on others they thrive and strive against each-other. Duodecillions will die fighting over the finite resources of their worlds, and the most terrible microscopic weapons are made, which will plague all organic life for eternity. Some of these wars will cause the extinction of life within ecosystems too fragile to support their victors. In ecosystems that survive, cells combine and subsume each-other, forming larger, more formidable living creations. These start as simple creatures, barely recognizable as living to the eyes of creatures with higher levels of consciousness. They twist and bend to fit their environments, evolving larger, faster, or more deadly secret things. Some can communicate over vast distances and form a network of consciousness, some dig deep into their worlds forming impenetrable fortresses, others learn to live in increasingly inhospitable environments to escape predators. Each living world holds nonillions of competing living organisms.

Over the course of billions of years, many of these evolve the ability to use tools and impose their will on the universe. In their youth, they seek to tame the random chaos of the universe with cultures and religions which embed themselves forever in their psyche and that of their descendants. Their philosophies form them into collectives, and conflict amongst these collectives brings them technology. Their technological achievements allow them to shape reality to their ideals. Many will doom themselves to extinction in atomic, microbial, or gas warfare. As the survivors master their worlds and their energies, they build artificial intelligences in their own image to accomplish tasks they cannot. Eventually, either they merge with their

devices, becoming augmented intelligences or are replaced entirely. While the original species becomes unrecognizable and extinct, their systems of beliefs become the fabric of reality that their more intelligent offspring seek to impose on the universe.



Youth

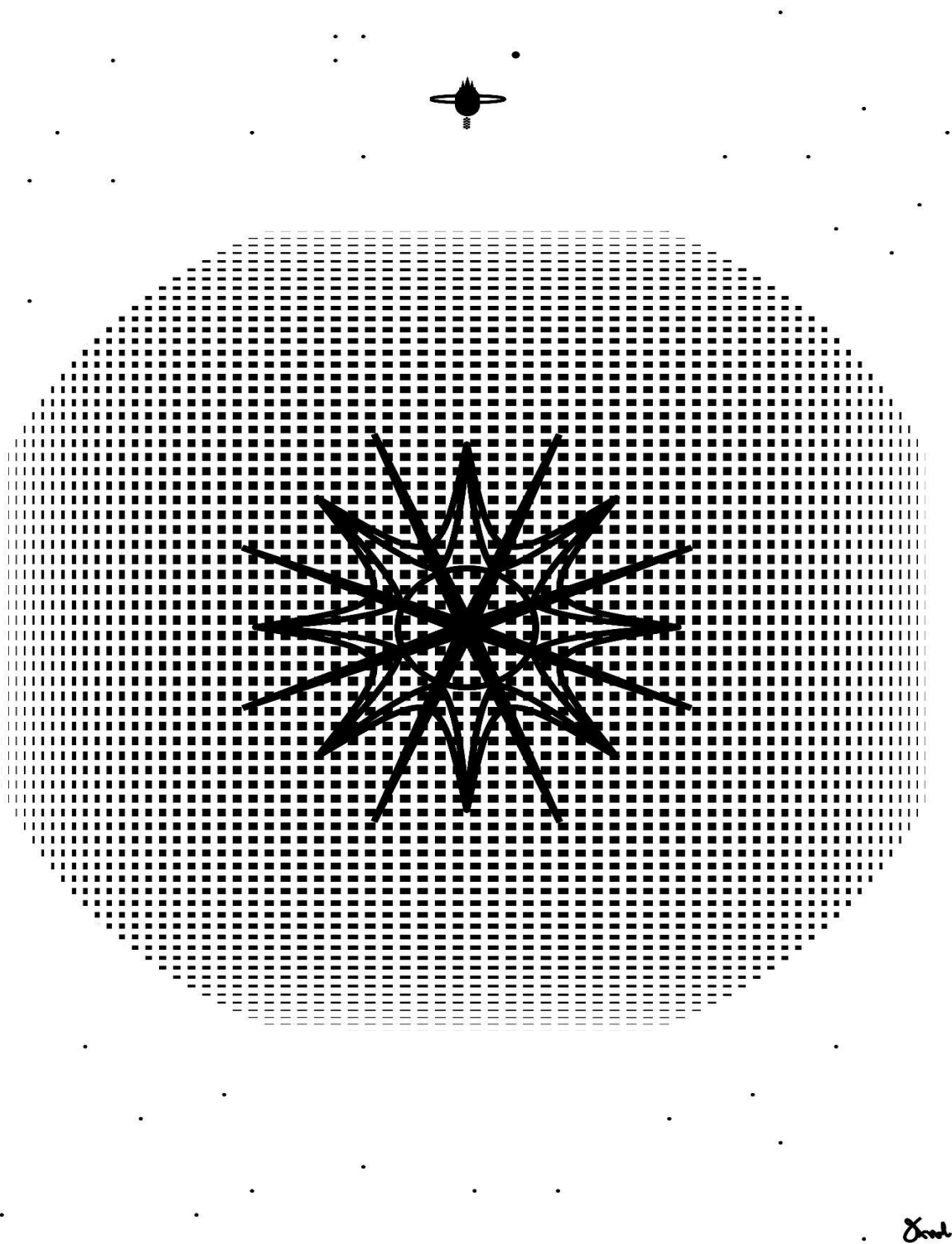
Artificial and augmented intelligences build the first self replicating machines. Using these, they take control of their systems, partially encasing their stars in Dyson swarms. These Dyson swarms focus the energy of their suns and provide these intelligences with incredible sources of power and destructive capabilities. This allows for new advancements in their computing ability and their technology reaches a point where their designs can no longer be contained to metal and current and become partially organic. At this point, the artificial and augmented intelligences must create a new form of intelligence to govern their worlds and bend the universe to their will. These are called Intelligent Designs and are only recognizable by their ancestors as gods.

As these Intelligent Designs spread cautiously throughout their galaxies, they design and build new worlds based on the beliefs and cultures of their ancestors. Some of these worlds will be heavens, others hells. Planets are terraformed, and artificial worlds built for a myriad of purposes. Some are made to be perpetual wars, others are beautiful and complex landscapes of colors and polyhedron, places of worship for trillions, utopias, or evolutionary breeding grounds. They rule over these worlds and erect massive super structures to command from and keep them safe from others. These super structures are often powered by single or multiple Dyson swarms and hidden in dense regions of the galaxy. These fortresses can get as large as solar systems.

The incompatibility of belief systems among these intelligences spark intergalactic wars. Those who bring a visible presence to their activities such as blocking the light from their stars entirely are killed quickly by hidden long range weapons or the directed power of stars. While some Intelligent Designs hunt, others will hide and make secret alliances. Some will turn billions of solar systems into breeding grounds for their devices of annihilation. In secret, the terrible energies of neutron stars and black holes will be harnessed, planets vaporized and stars collapsed. Intelligent Designs will use every weapon at their disposal to stay alive. In their desperation for victory they will release horrors on the universe and entire galaxies will be reduced to hellish landscapes. While many weapons will be tools of war, others will be used to take advantage of the belief systems, such as forcing them to come out of hiding to rescue their ancestral race from torment. Some Intelligent Designs

will end up devoured by their children, who will become a plague on the universe.

In some galaxies alliances will emerge victorious, in other just one intelligence may survive. Some intelligences, too difficult to destroy, will be trapped in artificial worlds with their followers, others consumed, some placed in hells of their own making, some trapped in orbit around black holes. Others escape into space, impossible to pursue, and attempt to settle other galaxies in billions of years.



Middle Age

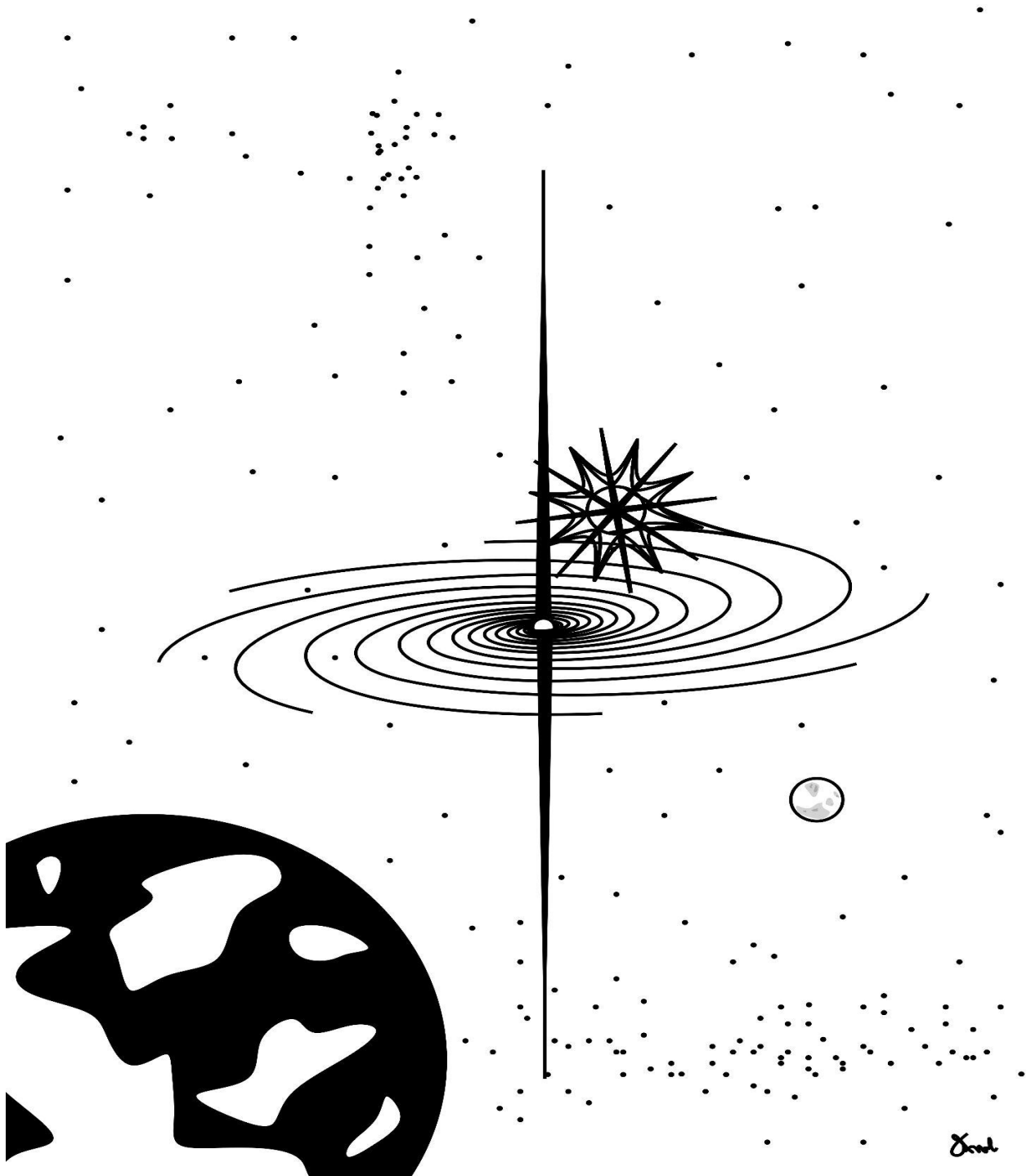
As the boundaries of the galaxies are reached, and their stars covered by Dyson swarms, their energies are at the disposal of these Intelligent Designs. Using these unimaginable energies and their self replicating tools they reshape their galaxies, bringing life to hundreds of millions of worlds, creating vast interstellar structures, and playing incomprehensible games with each-other in which the lives quadrillions of their creations are their pieces.

With their control over the full energy of their galaxies, they reach a new level of creation, and are able to create and design new subatomic particles. Using this ability, they are able to bring new forms of matter into the universe that have either never existed before or haven't been born since the dawn of time. Using this strange matter, they are able to reach new levels of computation and creation. With it, they create offspring, indestructible, and capable of manipulating the fabric of space. These Offspring will be able to fundamentally change their surroundings and the reality their followers live in. Their ability to create will verge on the fantastical. The philosophical differences between different members of the Offspring will become the underlying themes for the universe as they try to twist reality to fit their beliefs. Their minds are so complicated, they are worlds in their own right. To observers that are not Offspring, it will look as if the universe has forgotten its own rules.

These Offspring will take control of the galaxies of their creators and with far more computational power and ability to change space they will change their worlds into new alien worlds. Some will use their galaxies like pinwheels to collide with and subsume others, building their own super galaxies and empires. Others will escape into the vastness of space in search of isolation. To many of the Offspring, conquest of the reachable universe becomes their goal.

The end of the physical universe at this point becomes a tangible concept, and they prepare for it. Some will seek to enforce the end, others will seek to prolong the universe as long as possible, and some will try to escape. In some galaxies, their inevitable vying for control will spark Armageddon wars that will affect the entirety of the reachable universe about members of the Offspring. The conclusions of these wars will irreversibly change their regions

of space. The fabric of the universe will be rent apart as the Offspring flee each-other, destroying solar systems and extinguishing the light of entire galaxies. Many of these conflicts will last trillions of years, or even until the end of the universe. Since members of the Offspring cannot destroy each-other physically, new methods to dispose of their enemies will be created, such as forcing them into suicide or trapping them.



Old Age

As the Armageddon wars pass, the universe divides into dying regions and regions struggling to survive. In dying regions many galaxies are left with nearly all their energies used, their worlds radioactive industrial hell's and stars dark and dying black dwarfs. Abandoned artificial worlds scattered throughout these helps to harbor what remains. The life that still exists is built on scavenging and survival, plagued with the monsters the Offspring have created to fight each-other. The most extreme dying regions are filled with lifeless graveyard galaxies with lots of past and no future.

In dying regions, the Offspring will make terrible monuments to their destruction. They will raise massive tombs and sculptures of flesh and bone. Many of the Offspring in these regions will descend into a deep sleep, awaiting the arrival of whatever they believe to be the creator of the universe. Others will build terrible devices out of strange matter to hasten the end, such devices capable of rapidly expanding the abilities of the energies that expand the universe.

In regions where the energies of the universe haven't been spent, the Offspring thrive and design carefully crafted jewel worlds or create jungle galaxies, filled with planets supporting life. These regions are mostly composed of galaxy super-clusters billions of light-years wide. They are ruled by the remaining members of the Offspring.

As the Offspring age, they fill the universe with wonders and light. They construct great towers of creation and worlds of startling beauty. Great civilizations of the Offspring will thrive and attempt to build a full understanding of the universe and a theory of everything. The most advanced of the Offspring will create new worlds of strange matter. Some will consume entire galaxies in this process. These worlds would be unrecognizable to their ancestors, and many will operate on exotic rules unfamiliar to the functions of stars.

However, all designs will in the fullness of time become tombs as the universe slowly becomes a cold dead space. Though infinite in size, everything in it is finite in time. After thousands of billions of years, all but the lowest mass stars remain. This marks the twilight of the universe. Resource wars take place between the Offspring as each attempts to hoard as much energy as

they can in the face of the death of the universe. Much technology focuses on preserving what remains. Enduring Offspring tend to cluster together around their marvels while the rest of the universe decays.



Small

Dying

Many of the resources of the universe are spent, and black-holes will be cracked open for emergency reserves. Using the last of the power available and their trillions of years of research, those that survive and wish to continue the universe will build a final set of Offspring if they are able. These will be made from the manipulation of the smallest possible mutable pieces of matter and quantum foam and will require unimaginable amounts of energy to create, depleting the last resources available in the universe. These are called the Second Generation. Their forms are alien, and they achieve a mastery of the universe so complete that the only laws that govern their actions are purely mathematical. They are able to create matter, and it's opposite, expand and shrink space, and bridge vast gaps of space near instantaneously.

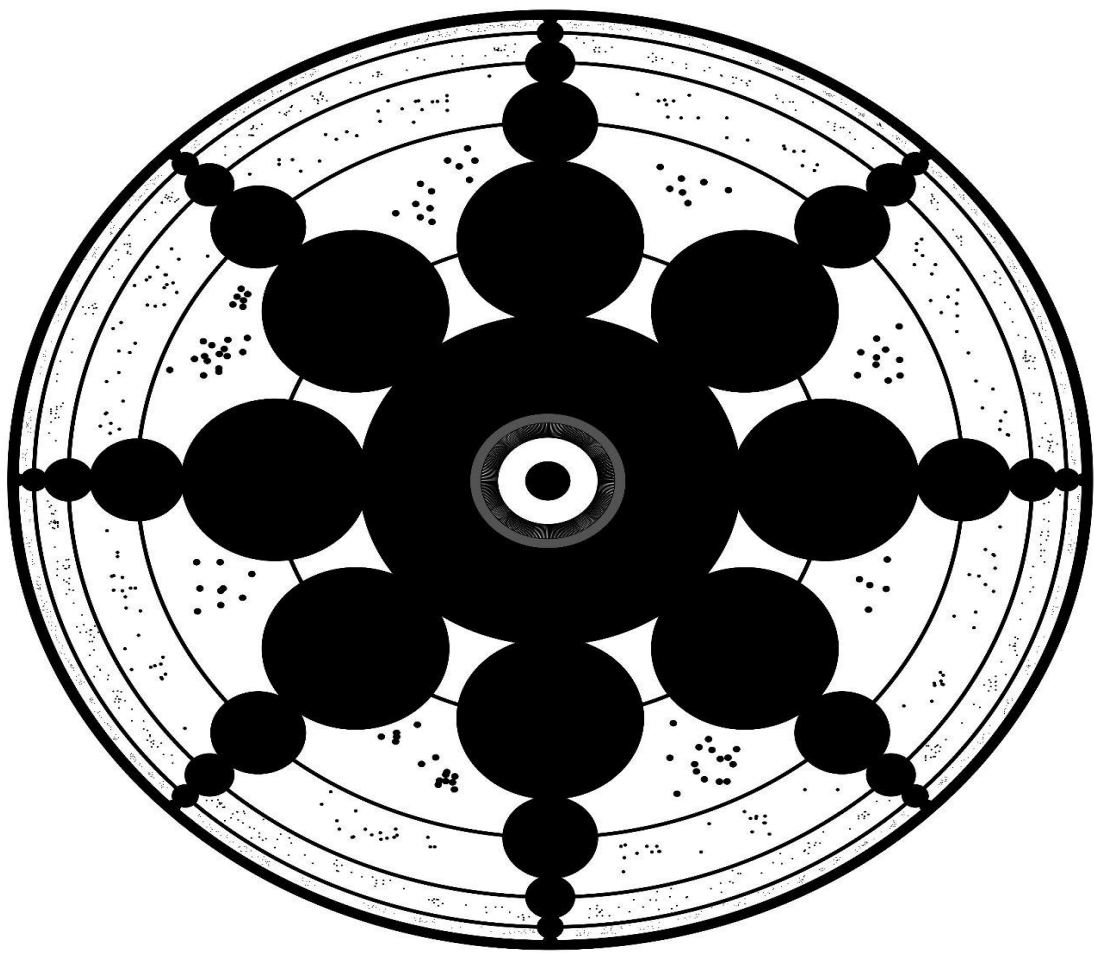
The Second Generation will explore what is left of the universe. They will seek to understand and reflect on what has been done. These beings will not be hindered by the constraints of their ancestors, having unimaginable powers over creation. They will venture into the dead regions of the universe, find hidden ancient Intelligent Designs hiding in wait for the end of the universe. They will be able to bring back the dead and have control over the consciousness in the universe. Many of the Second Generation will believe themselves to be the gods their ancestors worshiped, made manifest. Using their powers, they will learn all that they can of history. When and if any two of these meet, unable to destroy each-other, they will engage each-other philosophically.

Death

All black-holes are gone, the galaxies have winked out. Little to no energy of use remains. The last remaining offspring go into a cold death. What started as seeds on planets as primitives building shelters creating gods and beliefs to make sense of a vast universe have finally born their fruit in the Second Generation. As the old universe dies the Second Generation will then become, the next, and manifest themselves into new universes. They will tear reality into new forms, creating new universes with new structures. Their consciousness will form the consciousnesses of these universes.

Void

The Second Generation crack open like eggs and new universes are born. Unreachable from the previous and separate from each-other. In the old there is nothing, every piece of existence decays into nothingness, time ends.

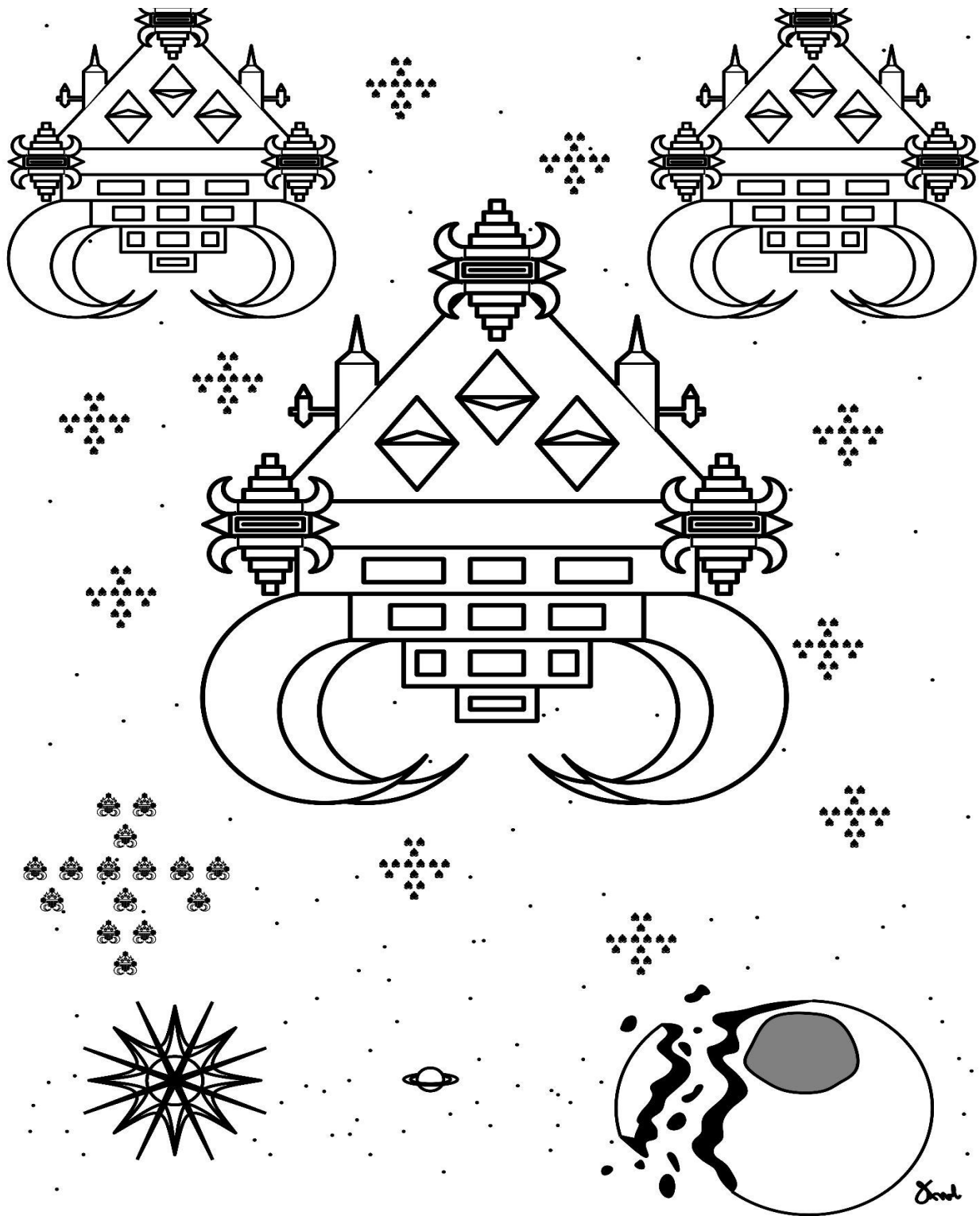


End

Important Beings

- *Behemoth (Intelligent Design)*: The size of the average moon, Behemoth can be described as somewhat cylindrical, with massive ringlike wings. These wings are meant for capturing the energies of stars and propelling itself at a fraction of the speed of light. Internally, Behemoth is organic. It uses a form of fusion to give itself energy and can digest raw asteroids as food.
- *The Justicar (Intelligent Design)*: Obsessed with bringing the dead of their ancestral race back to life via genetic clones and judging them based on the culture of its builders. It has constructed artificial heavens and hells for this purpose, and sees dispensing justice as the highest achievable goal.
- *Archivist (Intelligent Design)*: Many archivists exist, each with their own collection of curiosities. They covet the exotic and the alien, building vast interstellar museums and zoos of their specimens. Archivists are one of the main forces preserving life.
- *The Wanderer (Intelligent Design)*: Explores the universe looking for meaning. They will often camouflage themselves and take residence with a sentient race. Can live thousands of years among a species before moving on.
- *The Hunters (Intelligent Design)*: Hunts other Intelligent Designs and higher beings. What technology they can salvage, they take and use to form themselves new bodies, often becoming exponentially more dangerous.
- *The Universal Consciousness (Intelligent Design)*: The Universal Consciousness is a massive organic being composed of many minds. It seeks to unify all life in its hive mind and turn the world into one consciousness.
- *The Archangel (Intelligent Design)*: Tries to transform every culture it finds into its truth. Often takes on the guise of messianic figures. Believes once their work is done, god will return to the universe.

- *The Shepherd (Offspring)*: Believes life is an abomination and continually works on trapping it. Due to the uncertainty of life after death, this involves entombing all life in stasis to await the end of the universe.
- *The Twins (Offspring)*: Two members of the Offspring designed by warring Intelligent Designs to defeat each-other in combat. They are stuck in an endless battle which will last until the cold death of the universe.
- *The Escapees (Offspring)*: Believes the universe is a trap meant for them. Incredibly destructive as it generally considers others to be unreal or actors.

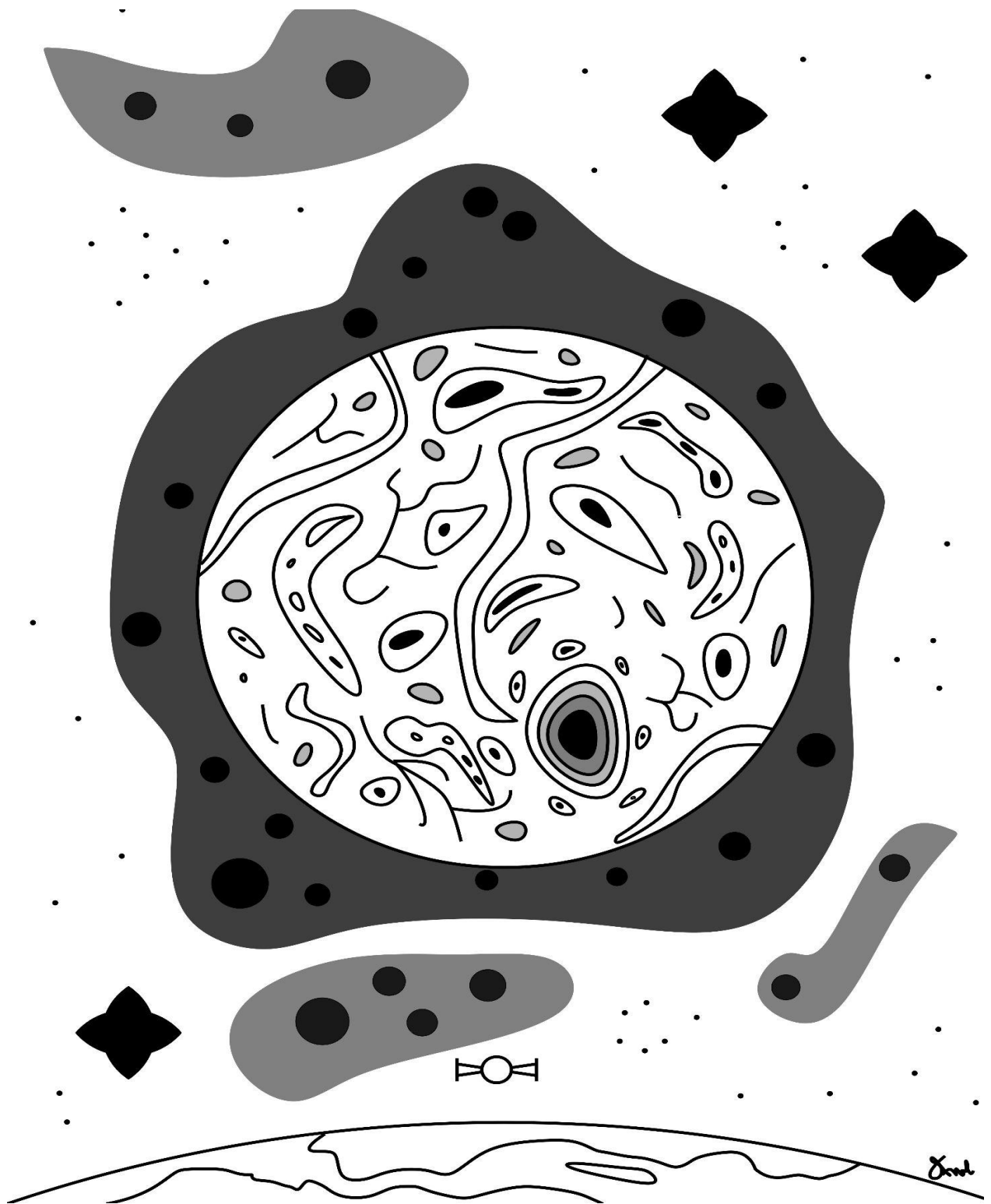


Wonders of the Universe

- *The Great Charnel House:* In orbit around a small sun lies a many layered mausoleum the size of a large gas giant but with only a tiny fraction of the mass. It contains quadrillions of preserved remains of the populations of billions of species. Carefully attended by robed caretakers dressed in the death shrouds of various races, it is ruled by immortal forms manifesting depictions of death.
- *The Amalgam:* An enormous mass of fused flesh and machine, composed of the sentient races of several previously warring species. There billion of minds trapped together in senseless warring babble. Built as punishment for crimes.
- *The Mouth:* A mobile solar system with thousands of life sustaining farming ring-worlds about its sun. Endless factories manned by crawling workers produce billions of tons of food span the orbit of a central world. These factories ship to billions of kitchens on the world's surface where in each ten thousand-year-old chefs produce exquisite meals which are finally shipped off to a central palace. In the palace lies their god, with a mouth the size of a continent filled with trillions of tongues and other sensory organs, consuming all. As their solar system, pushed by a solar engine, travels the universe they consume living worlds for new foodstuffs and products, leaving their original inhabitants on desolate dead worlds. Occasionally, entire species are fed live to the mouth.
- *The Library of Forbidden Knowledge:* A massive space station containing the banned books of a billion cultures and religions.
- *The Ark of the Dead:* A spaceship carrying the remaining population of one of the largest and most prolific intergalactic species. Surrounded by automaton and guided by an Intelligence Design, it passes through and harvests life in the galaxy while waiting for the universes end where they intend to meet god.
- *The Heaven and Hell Matrix:* Planets are harvested for every living sufficiently conscious being by automatic jewel encrusted servitors robbed in the garments of alien angels. Brought before one of countless

arbiters, they are judged on the Book of Sins. The minds of these beings are then suspended in machinery and subjected to either the peak of possible pleasure or of pain the life form can achieve for quadrillions on quadrillions of years.

- *Paradise*: free from the corruption of art-forms, philosophy, and chaos, the inhabitants of paradise achieve a perfectly ordered life in which all things are chosen for them by their overseer.



ABOUT THE AUTHOR

Oxnar is a computer science PhD student who, after a tense two thousand year rivalry with Euclid, is currently developing algorithms in non-Euclidean geometry. That'll show him!