

Faithful Avali Lore Adaptation

Faithful Avali Lore Adaptation

Using the original Avali weebly & the most recent Avali lore rework (The Wikidot), we have created a lore adaptation attempting to capture the great parts of all of these in a faithful lore adaptation.

(Sadly for some missing parts, the "Official" Avali Wiki has to be used in some sections but were edited to fit with the rest and were checked.)

The Avali are a species created by RyuujinZERO AKA Cutesune in the game Spore. They are a species of bipedal feather-covered raptor like creatures known for their intellect.

Avali Concept, lore, Art, and Writing - [Ryuujin AKA Cutsune](#)

Project Lead - [BirchSoda](#)

Editor and proof-reader - [X3 UR](#)

Sources

Weebly - <https://avali.weebly.com>

The Nexus - <http://avali.wikidot.com>

The Wiki (used twice) -

https://avali.fandom.com/wiki/The_Official_Avali_Wiki

Cutesunes Page - <https://www.furaffinity.net/user/ryuujinzero>



"...seriously though. They don't use Aerogel for everything, despite what the Triage mod guys think..."

History

Cargo Cult Days (~800-765 years prior to current day)

Up until this point the Avali had existed as desert nomads, tribes that moved from place to place following the herds they preyed on, gathering as they went, and trading and mixing with other tribes they encountered on the way. They used materials like bone, fur, ice, stone, flint, and the wood that came from the occasional trees that had adapted to live on Avalon. They lacked a higher form of government, but there was little conflict between tribes and they were very developed philosophically. However, they lacked metallurgy skills, and had little in the way of heat to work with metal, since their biology was adapted to survive in such low temperatures.

This changed suddenly with the arrival of a space-faring civilization. They had been monitoring the moon for a long time and had come for the resources; though unlike a bad b-movie, these aliens had chosen Avalon specifically *because* it had a native species. However, the visitors were ill-adapted for the icy ammonia-rich environment, but in the Avali they saw a workforce. In exchange for medical support, supplies and knowledge, they showed the Avali how to operate the drilling platforms and systems that would extract the world's rich hydrocarbon deposits. Over time the Avali essentially became a cargo cult to their new benefactors, bringing them gifts of

hydrocarbons in exchange for what truly amounted to baubles of the alien civilization.

This all turned sour one day, several years after first contact, when an accident resulted in the destruction of a drilling platform, along with loss of both Avali and alien lives. In a politically motivated move, their benefactors kicked the Avali off their facilities and gave the jobs to their own kind. This led to protests among the Avali workforce, who were now dependent on the outsider's aid. Within a week it had turned to open confrontation. While it is unclear who fired the first shot, before long it had descended into war, with the drilling platforms sabotaged and numerous casualties on both sides.

The initial alien counterattack went poorly. Believing their superior weapons technology alone would be enough, they failed to properly account for the fact they were fighting an apex predator in its native habitat; an environment in which they couldn't even survive without EVA suits. Dozens were killed and their weapons fell into Avali hands, albeit at a very high cost to the Avali.

This initial victory however was short-lived, as their former benefactors brought heavier weaponry and vehicles down to secure their facilities. Before long, the aliens began orbital bombardment of the Avali mountain cities, mainly the capital and a few minor cities.

The conflict ultimately culminated in the Avali disabling an orbital mining platform, causing it to drop from orbit, resulting in massive damage to the surface of the planet as well as causing the loss of hundreds of lives.

Disgusted by their repeated losses, the aliens mobilized for a full-scale security operation to deal with the "insurgents", bringing an entire battle group into orbit to begin total surface bombardment. This drastic action, however, drew the attention of their allies, who intervened politically. Bombarding a pre-space-flight civilization from orbit violated dozens of treaties they had signed. Their allies forced them to withdraw and cede Avalon back to the Avali, instating a no-fly zone over the world until such a time when the Avali could make contact with the alliance themselves.

The Illuminate (~790 years prior to current day)

Starting as a small tribe of Avali, the Illuminates primary goal was research and technology development. Studying pieces of the

benefactors' tech and creating their own based on it. They also prioritized safety and a secure path to the future.

Later on the Illuminate forms into a much bigger party and moves onto the study of technological limits and exoplanets. Sending colonization shuttles and forming smaller groups such as the AAC and the Avalon Fleets. The Illuminate is the single largest faction.

Tech Wars (~765-750 years prior to current day)

Unfortunately, the departure of the aliens was simply a prologue to yet more bloodshed.

The destruction of the orbital platform, the spoils of war, and the abandoned ground facilities had left Avalon scattered in alien artifacts and supplies. Tribes, factions and ideologies sprung up, all vying for the alien technology left behind. Some wanted to study and learn from it, others wanted to use it, while some would have the technology destroyed and sought to return to the old ways.

The conflicting opinions quickly escalated to violence. A world war ensued as the factions fought to secure the artifacts for themselves. The need to understand the tech in order to replicate it pushed Avali technological growth forward by millennia in a matter of years. This came at the unfortunate cost of a major portion of the population, as they turned alien-designed weapons upon each other long before strategy and society had developed to compensate.

Then, in a single sobering moment, the conflict ended. When the orbital platform had come down, it had brought with it a docked super-freighter. Shielded from reentry by the platform, the core of the freighter had survived largely intact, and with it, the ship's high-power plasma drive. In a moment of innocent curiosity the Avali had restored power to the drive, and in doing so, brought it online within the atmosphere of the planet.

The drive had been damaged greatly and when returned online the plasma drive exploded, decimating an area hundreds of kilometres across. It generated a shock wave that reverberated throughout the frozen planet, killing all those nearby, being around a thousand if not more in an instant.

After Math (~750 years prior to current day)

The realization that they were playing with fire they barely understood finally sunk in. An immediate cessation of hostilities was

declared, with all parties sitting down for talks to discuss how to move forward and prevent a repeat of this.

The lesson they ultimately took forward was that they could not afford to carry on as before, blissfully ignorant of the wider universe. The aliens might return one day, and if they did, the Avali would not stand a chance. They also could not continue to blindly rely on the technology they had obtained, with no understanding of the science behind how it truly worked. The Avali would have to keep moving forward to survive, but on their own terms and at their own pace this time.

This sparked a second wave of growth as the alien technology was formally documented, studied, and disassembled. New technologies of their own that developed from these studies were used for purposes other than war. Barely 60 years later, the first manned Avali space flight was made.

Despite this rapid progress, it would still be hundreds of years before fast and high-efficient flight was achieved. That step had to be made on their own, having destroyed the only working specimen of a plasma drive left behind by the aliens during the Tech Wars. This ultimately worked out for the best, giving the Avali some much needed breathing space for culture and society to catch up with the pace of technological growth.

The next few centuries saw the Avali eventually out-develop their former benefactors, who found themselves held back by political quagmires, internal division, and a fixation on 'the old way.' In contrast, the Avali's society and resolution, which had been burned down and forged anew after the Tech Wars, was stronger than ever before as they set out to the stars.

Lift Off (~700 years prior to current day)

The first Avali Piloted space flight takes place. This further expanded their studies and allowed the Avali to further design and develop their space craft, allowing for more access to space-travel. However, space travel is largely kept to the Avalon Adventure Corps and the official Illuminate fleets.

The Illuminate often sends out shuttles with one or two packs to explore and occasionally even colonize exoplanets. Sometimes these colonizers defect and become independents or even rogues. Colonization ships are usually large, with cryogenic units located on

the shuttle along with supplies. Drones also are placed within the shuttle to help with automation.

The Oracle (~450 years prior to current day)

At this point the Illuminate has grown immensely, with numerous citizens and tribes under their faction. Around this point the Illuminate creates the Oracle, a predictive AI designed to provide complex risk assessment and predictive analysis of future events.

The foundation's projections however revealed the same thing; that the empire had already crossed a tipping point and there was no way to put the genie back in the bottle. Any attempt at large-scale reform would only result in fracturing of factions that would nonetheless continue treading dangerous paths, and that eventually exceptional cases by accident or design would cause mass devastation.

They presented a radical solution: Cessation, even a limited backpedaling of current technological development until a new infrastructure could be instated to help mitigate the risks, even going so far as to take some particularly dangerous technologies out the hands of the organic races entirely, and lock the blueprints where only the research intelligences could access it.

Current Day

The Oracle system, Factions, Government, Nomadic tribes, Nexus, and far more are regular sights during the current day. (The content in this page unless said otherwise all takes place on the current day.)

This allows for a few possible ideas for stories with your characters, some being:

- Colonization pack
- Exoplanet hunters
- Oracle guards
- Political group
- A new tribe

And so on.

The Collapse (~1200 years after current day)

The precise details of The Collapse are scarce, with very few written records remaining.

What can be deduced is some sort of conflict occurred involving vast amounts of militarized, self replicating war machines released by the Oracle who had been set free, which in turn stripped the major orbital habitats and biospheres in which they operated for materials, and choked the atmospheres with waste products, rendering them uninhabitable. Along with this, Avalon was over-run with the same war machines. Anyone unfortunate enough to be on the planet during the event likely did not make it out alive.

This in turn led to a collapse of the system-wide infrastructure, as supply lines were cut off and more remote colonies and facilities that had otherwise avoided the machine war, now found themselves dangling in the wind. Raids by pirates and self-made tyrants would go on to degrade and eventually destroy most of the remaining colonies that had a measure of self reliance and independence.

Language (W.I.P.)

Culture

Packs & Individuals

Avali are descended from pack hunters and use their extraordinary hearing to function as a set of parallel processors with the rest of their pack. This extreme adaptation however does not come without its drawbacks.

Firstly, it takes time for a proper intra-pack vocabulary to form; a set of memes, tics and unspoken understandings that help pack members to convey more complex concepts with fewer spoken words, these memes naturally do not translate well with those outside of their group. Thus packs tend to form young, and last a long time; if not a lifetime, new additions can be difficult to integrate especially as adults, and while Avali from different packs can co-process information together, the effectiveness is reduced considerably as they have to adopt more formal language to do so.



It also means individual Avali have a rather blurry sense of self-identity, with individuals often going through life without having to make specific kinds of executive decisions, depending on their specialty and role in the group. Loss of a pack-member can be extremely crippling to a long-established pack, as pack members suddenly find themselves blanking on an area of expertise they would frequently rely on the absent pack member's input for, creating a form of parasocial amnesia.



This damage is not permanent, they will eventually adapt to the absence, and sometimes new members will join or leave a pack due to various circumstances. The specifics of pack formation and relationship norms between pack members vary considerably between Avali colonies and their local cultures.

Pack sizes can vary considerably, and different cultures tend towards different preferred numbers. However the larger a pack, the more likely a given member may find themselves ignored or redundant in the decision making process, which may lead to the pack member disconnecting entirely and seeking a new group, so even the largest packs tend not to exceed 6 or 7 members and more typically sit in the 3-5 member range. Isolated Avali may go on to develop mental health issues, and while some get by as loners they are often seen as eccentric and lack the advantages of co-processing.

Pack Broken

Pack Broken is a mental disability that is experienced when an Avali loses their pack multiple times. It is a condition that makes it very difficult, if not impossible, to join with a new pack and feel a proper connection. Avali who experience packloss usually experience difficulties communicating with others and may refuse to eat for long periods of time.

Identity

Avali identity is complex. A pack is functionally a single unit, yet composed of individuals.

Avali names are in three sections, firstly goes the pack name with the individual name after. And lastly is a tribe name, as most Avali tend to be in a tribe, whether the one that raised them or one they join later on. An example being; Tasi "Rhao" Mi'Akii.

Typically each individual pack member will emerge as the authority on particular topics, philosophies or skills, and will be the one who the rest of the pack instinctively turns to, or defers judgement to in certain topics, and may embrace that as their identity. In turn each pack and its members go on to internalize what they as a whole can do, rather than what they as an individual are capable of. However the wiser and most experienced pack member is usually made the pack leader.

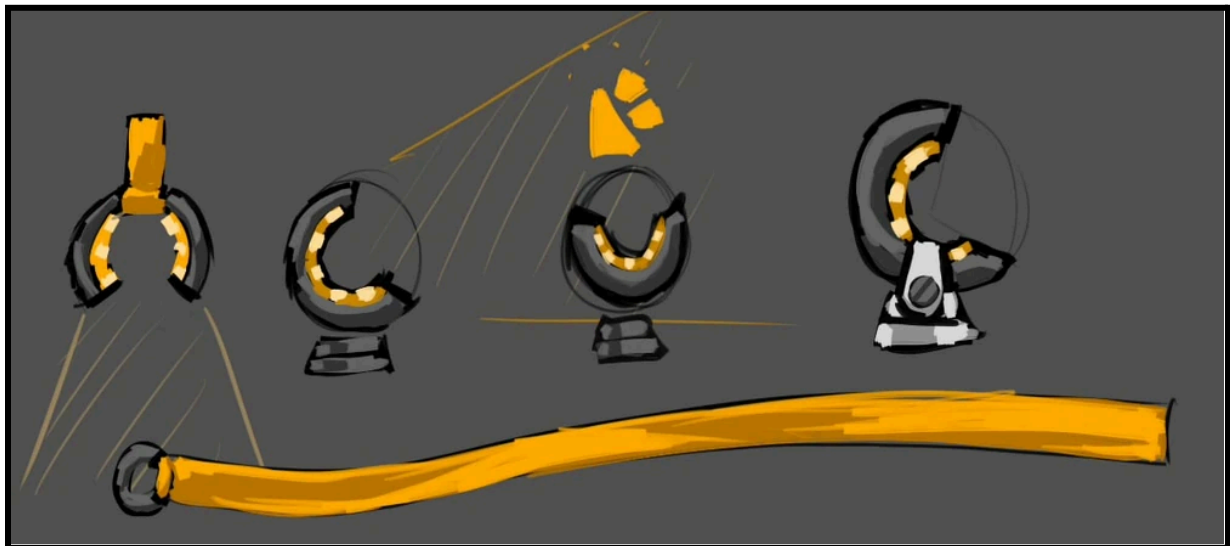
Gender identity is largely up to the individual and rarely comes up in any sort of documentation or politics, between the

relatively minor physical differences between male and female, access to cybernetics, biotech and cosmetics means the concept of "gender" as an immutable part of someone's biology has been long dead in Avali society.

Arts

As might be expected, due to the Avali's high auditory processing abilities but lack of visual sensitivity, musical and performance arts tend to be more popular than visual arts. Most Avali have some musical experience and can play an instrument or sing; their close bonds mean many packs play together as a band for their hobby. This tendency begins at a young age, as young Avali often play games based around sound or music.

Due to their comparatively poor eyesight, art in visual media is largely wasted on the Avali, but they still wear and create decorative clothes that feature high-contrast patterns and easily-visible markings. Each pack usually has its own unique set of colours and patterns which appear in their personal tent decorations and clothing. Often, Avali clothing accessories or decorations include crystalline or metallic chimes and bells; while many races would find all this noise distracting, the Avali's sense of hearing is able to build up a map of the positions of each sound source. This cacophony of sound is no more confusing to them than seeing a large number of people walking down a street might be "confusing" to a human eye.





Within the nomadic tribes, music or performance arts remain a respected and popular pastime even since the advent of the Nexus. Between their lively musical culture and their strongly coloured banners and tents, the nomadic colonies can be quite vibrant places and are popular amongst more adventurous travellers willing to brave the hostile environment.



Religion

Early Avali tribes (and some present ones) held an animistic belief system that supposed all things, living and inanimate, held a "spirit" that defined the essence of that place or concept, and those that lived and died a part of it would become a permanent part of the essence that made a place what it was.

Packs, though made of individuals, represented a singular goal or spirit; likewise for larger unions such as tribes. Particularly old and storied tribes were seen to have strong, noble spirits and so it was an honor for the packs to be a part of, and do their best not to dishonor them.

In some traditions, new packs coming of age would adopt the names of long dead packs that displayed similar qualities and so continue to feed into the spirit it represented.

Serious adherence to religious tradition, even their ancient animist belief system, is relatively low these days. But references to the old ways crop up often in their language, storytelling and traditions, such as pack naming.

The Old Way

Not all Avali like the new tech found all over Avalon and deep within their culture. Some follow what is known as "The Old Way". Tribal weapons, animal back, and leather tents. Having very few if any technological enhancements.

Government

The Avali government is a meritocracy. The highest authority figures within an organization are usually elected by appropriate bodies based on their experience at relevant tasks. The administration will then select subordinate packs, also based on their ability to carry out their jobs. Performance of subordinate packs is as much the responsibility of their seniors as much as it is the pack's. In Avali society, it reflects poorly on a manager's skills if he selects and retains workers who cannot fulfill their jobs.

There is no social stigma attached from opting to step down from a role that the pack cannot handle. It is regarded as a positive trait to know the limits of oneself and one's pack, and acknowledging such limits is often the gateway to being offered further training.

At any one time, much of the civilian population is connected to a system known as the Nexus; a vast digital system that is a hybrid of virtual interface and internet. A huge amount of work that would traditionally be handled through a terminal by other races are instead carried out from within the Nexus, as well as much of the Avali social calendar and communications. It also provides an ideal platform for education - this "virtualisation" of much of society

vastly reduces the need for resource-intensive, large, specialized buildings and private wealth, placing greater emphasis on skills such as creativity, original thinking and the development of new technologies and nexus tools than hoarding of material goods.

The political hierarchy within the government begins with the governing council; elected officials whose job is to analyse the information handed down from the Oracle AI. As the Oracle AI analyses available data, it forms large-scale goals and agendas with the aim of the preservation and advancement of the race. It is the council's job to ensure these goals make sense and do not contain any hidden agendas, and then to formulate the final decisions and plans to execute. The actual execution of these plans then fall to the colony governors (an office held by a pack, rather than an individual) who seek to set things in motion within their colony or world.



Typically off-world colonies have a single large colony and thus only a single colonial government. Avalon on the other hand has around a dozen colonial governments, each operating out of the giant

mountaintop city-states, with the land divided into territories between them. Each colonial government has its own standing army for defensive purposes, but are forbidden from instigating hostile action unilaterally. Regardless, the colonial militaries often consist of little more than militias and planetary defence weapons anyway. The meat of the Avali military is represented by the main military fleet, with its HPPD-capable warships, assault craft and trained armies.

If a colony is able to produce resources above and beyond the quota expected by the Oracle system, the surplus product becomes the possession of the tribe, which is free to use it as it sees fit. Usually this surplus is moved onto the grey market, where it is traded for more desirable goods directly, or sold to traders in exchange for locally backed trade currency to in turn purchase more desirable (frequently exotic) commodities; the Avali government does not have a fiat currency of its own, even though it keeps some alien currency in reserve for diplomatic or trading purposes. Some colonies do operate their own trading posts, and have a local currency backed by private enterprise, but it is not recognised at an official level and no protections are offered to companies participating in it by the Avali government.

Oracle Cult

Despite the name, the oracle cult is far from a "bad" thing. They are a sect of transhumanists (or rather, transavalists) that date back to the inception of the Oracle system. Whereas most Avali have some amount of physical augmentation, the oracle cult takes it to a far more extreme degree. Extensive neural augmentation allows them to communicate empathically with other members of the cult and access databases, drones, cameras, and other nanotech devices intuitively, giving them apparent omniscience to everything occurring around them.

As a group, their intention is to reach the stage where they can merge through augmentations with the Oracle system and "ride" the technological singularity. Rather than being left behind by the singularity, they intend to fully comprehend and benefit from the Oracle's knowledge and processing capacity.

The merging of nexus, modern nanotech and the Oracle system would likely make the Oracle cult the technological gods of their own creation. Despite their ultimate goal, they are fully aware of the potential danger posed by a truly free Oracle system, and agree that for now it needs to remain shackled.

Technoprimitivism/Nomadcity

While the Illuminate was founded to provide a safe and secure path towards the future, it is unsurprising that there is a great deal of hesitancy towards the adoption of new technologies. For a majority of Avali, there was a conscious decision to roll back to an earlier way of life that was seen as more psychologically fulfilling than the increasingly alien world in which they lived.

These 'technoprimitivists' recreated new tribal style settlements, modelled after the nomadic hunter-gatherers and traders from deep history, except their tents would be made of bulletproof synthetic fibers, not canvas, their tools now augmented by modern scanners, drones and drop-refineries. Ice-skiffs replaced with shuttlecraft.

While this was not the Illuminates goal when it was founded, it has embraced the sub-culture given the inherent physical and mental wellbeing that seems to have come with the lifestyle, and their founding goal of ensuring the mental, physical wellbeing and safety of its citizens.

Colonial

Tribes & Cities

Broadly speaking, Avali tribes can be broken into nomadic and permanent types, with permanent settlements being remarkably rare on Avalon. This stems from the fact that they reside on an ice world with little solid ground. These ice sheets tend to shift over time, breaking up "permanent" structures and preventing permanent settlement.

True permanent cities are carved into the mountaintops that penetrate the deep glacial layers. These are densely colonized cities with tall, space-efficient tower blocks and a high population density. Despite this, few have permanent living quarters large enough to house a significant amount of individuals. Permanent mountain cities mainly serve as trading hubs for the nomadic groups, and house structures that cannot afford to be made mobile, such as research labs and communication relay hubs. Due to the unmoving nature of mountains, most of these cities have histories going back ages ago.

Most of the Avali population dwell in nomadic tribes out on the tundra. These tend to be built using "soft" materials, such as tents or prefabs, which can be easily packed up and re-assembled elsewhere. The tundra regions of Avalon are comparatively warm to the Avali, who naturally evolved in this environment. Other races may see them as crazy bird-folk camping in a frozen wasteland, but the Avali do not think that way. They see themselves as desert nomads, using their tents to shelter themselves from the abrasive snow being blown across the ice sheets.

The nomadic tribes are an eclectic mix of nomadic sensibilities and modern technologies; portable stoves replace campfires, synthesizers supplant traditional fireside music, and holographic displays are set up where embroidered tapestries might have once been hung in a tent. Carbon nano fibre weave provides tents that can stop bullets, while tracked vehicles or VTOL dropships carry the tribe and their supplies far more efficiently than animals and sleds, and can provide safety when danger arises.

Furthermore, the nomadic groups have satellite communication relays that ensure they can connect to the Nexus system from anywhere on the planet; they are always connected to distant friends and workplaces through their virtual chat-logs. The Nexus hub in this respect provides a central point of focus for a highly decentralized society.

Tribes also tend to have a shared tent that is used to store each pack's resources and those that are gained from whatever the task the tribe is assigned for. Due to the benefits like this of being in a tribe, many Avali prefer to be in one.

Ancient Constructions

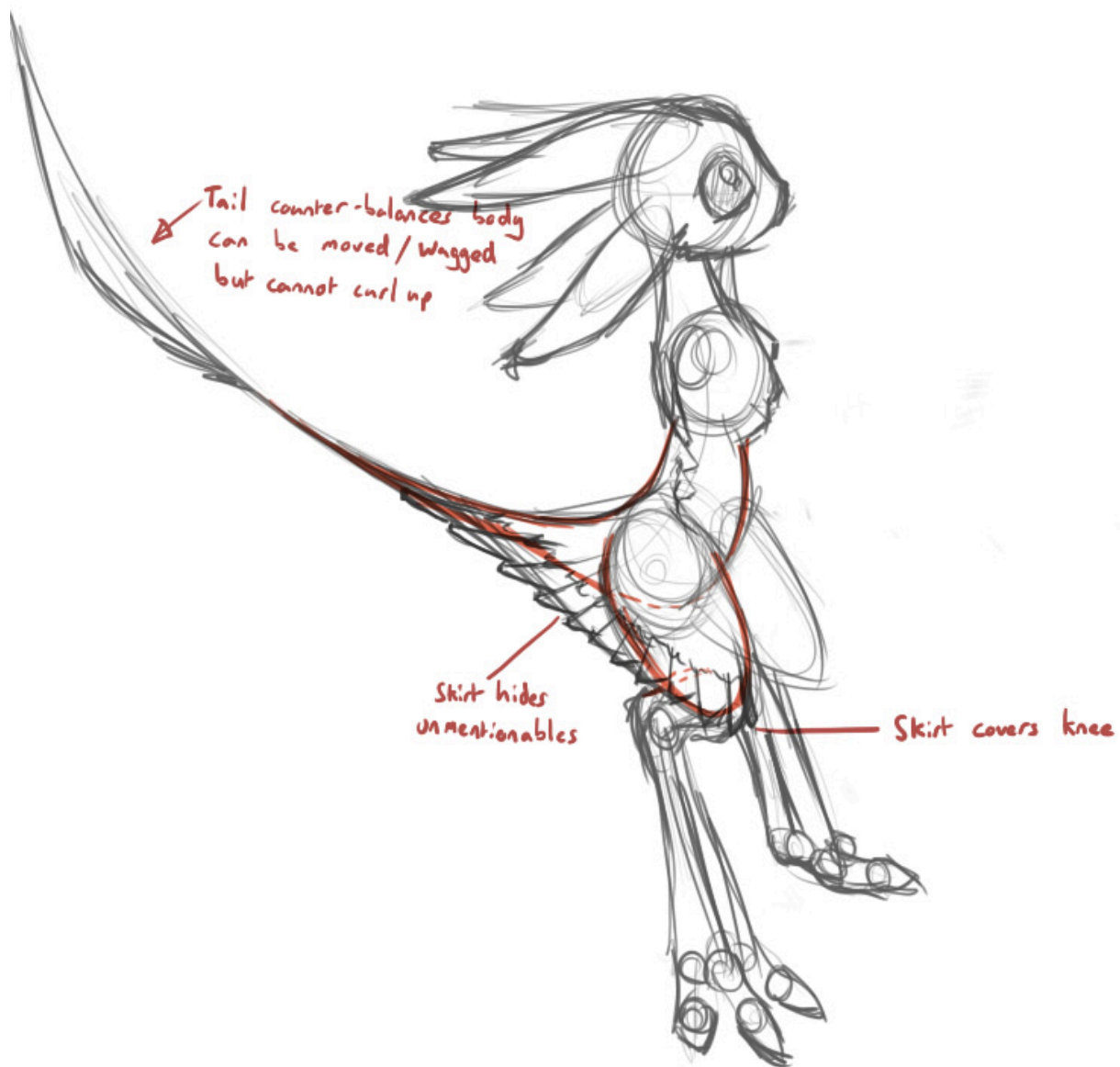
There is not a great deal of archaeological evidence remaining today of ancient Avali civilization. Early Avali were highly nomadic and permanent structures on the ice shelves were rare. Today the only ancient structures are those of the mountaintop cities, but out of necessity the oldest structures have typically been lost to time, disassembled, built over or replaced by newer structures by succeeding generations to make use of the limited space.

Occasionally, refurbishments break into long forgotten catacombs or underground living spaces used by their ancestors which often contain a wealth of information about the past.

Biology

Physiology

The Avali are superficially similar to Dromaeosauridae of ancient Terra. They stand around 3.5-4ft tall upright, around 5-6ft nose to tail tip, and are covered in a thick layer of insulating feathers. Their wing feathers allow them to glide extensively and even fly to some extent on their homeworld of Avalon, with its extremely low gravity and thick atmosphere, but are far less useful on higher gravity worlds. Avali on other planets are often only able to make controlled glides and break falls on their own, and cannot truly fly unaided. Avali tend to live for around 180 years due to their high metabolism, with a sexual maturity of 20.



While they possess large eyes, this is purely to provide some measure of eyesight in the very low light levels of their homeworld; in truth, their eyesight is actually quite poor. Due to a lack of an iris they often cannot see at all in terrestrial daylight, as they cannot adjust light levels, but this does not hinder them.

The Avali's primary sense is auditory. Their four long, independently mobile ears can pick up sounds from all directions at once. Their auditory processing is wired at a neuronal level to allow them to build not only a continuously-updating 3D map of their surroundings based on reflected sound, but to also distinguish and track multiple individual sound sources. This uncanny hearing gives

the impression of blind sight, being able to "spot" and track creatures outside of line of sight.



Avali are not mammals. Male and females are most easily told apart by their feathers; females tend to have muted, two-tone feathers, often with speckled patterns, while males have brightly colored bands across much of their body.

Biochemistry

Avali blood and fluids are primarily ammonia-based, though does have some amount of water in solution that stabilizes the ammonia a little at higher temperatures, and helps mediate various oxygen based chemical reactions. Nonetheless Avali core body temperature is well below the freezing point of water under standard conditions, and would not be able to survive in typical goldilocks-zone environments.

This difference in body temperature leads to Avali perceiving their environment a little differently to humans; water-ice seems

like crystalline rocks, largely unmoving save for the erosion of wind and cracking of glaciers, water based snows behave more like sand, irritating and not really melting properly if it ends up in their clothes or eyes. Pure liquid water is nearly analogous to lava for them, inflicting burns simply by standing in close proximity, while an arctic plain is seemingly an arid desert!

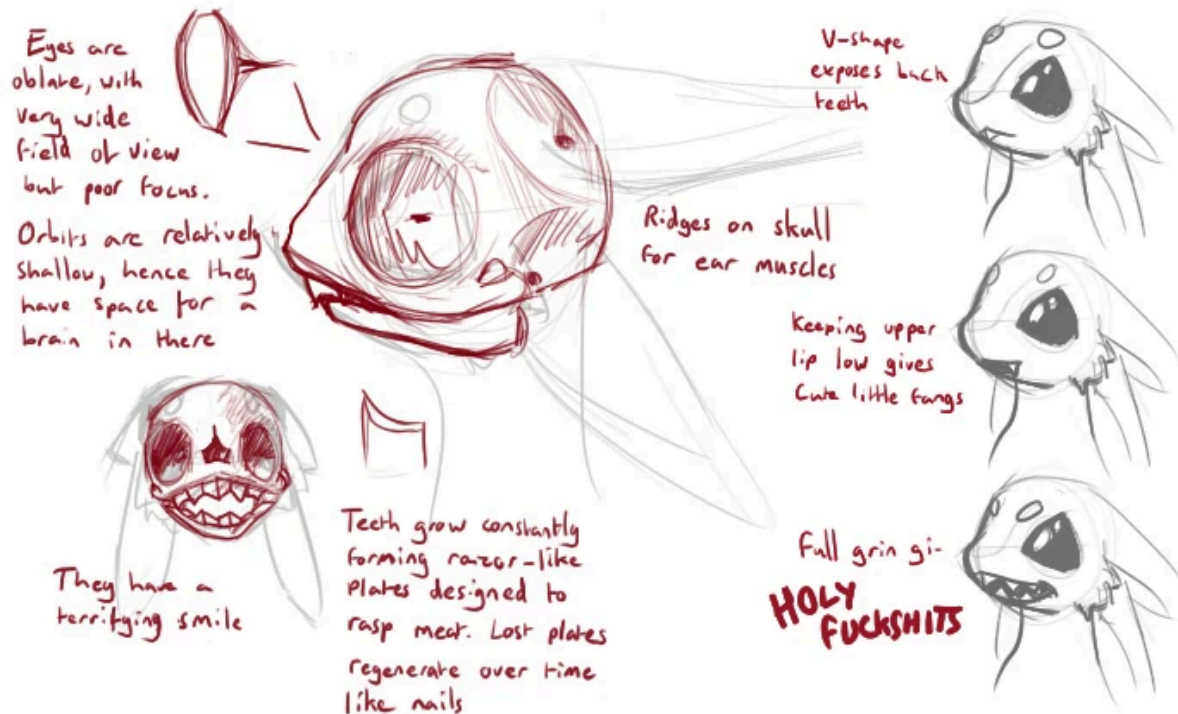
This low core body temperature also produces a slower metabolism. To offset this, Avali have sleep patterns that might be described as 'power napping', spending relatively short periods of wakefulness broken up by periods of rest, during which their bodies synthesize and stockpile chemical energy, analogous to ATP in terrestrial organisms. This enables Avali to scale up their metabolism considerably under duress, but will rapidly become exhausted as a result. Avali deprived of rest or forced into a state of exhaustion will invariably end up fainting, though this somewhat less hazardous than it might sound, being pack creatures they are never far from a friend who can see to their safety

Hearing

As might be expected from the four large ears, Avali have exceptional hearing. It represents their primary sense in most regards, the tiny variation in timing between reflected sound not only reaching the inner ear, but vibrations reaching the long ear tips gives them a sort of echo-location, building up a map of the environment based on reflected sound. Avali headsets frequently have clips that sit on the ear-tips to help emulate this additional sound information.

These highly evolved audio-processing centers of the brain also allow them to discriminate and isolate multiple overlapping sound sources and analyze them independently of one another. This forms a crucial component of Avali sociology and thought processes, since they can effectively hold a conversation with multiple speakers simultaneously.

This ability helps offset their slower mental processes. As a pack species, Avali essentially behave as a pseudo-collective, with pack members serving as multiple parallel processors, talking amongst themselves simultaneously, rapidly refining and revising down an idea or sharing information until they reach consensus on the best course of action. So while individually they may be somewhat slow witted, together they often think and act faster, and more effectively, than humans would under similar conditions.



Eyesight

Despite the size of Avali eyes, they are somewhat of a secondary sense, mostly existing to provide additional context to the soundscape, and watch for movement that is not otherwise producing sound. Their size is thought to be a product of low light conditions on their homeworld. They lack an iris, but do possess a tapetum lucidum which varies in color by individual, creating the appearance of a colored area within the eye.

Due to this lack of an iris, Avali are easily temporarily flash blinded and can suffer eye injuries in UV-intensive or high luminosity environments, so visors with external cameras or strongly tinted surfaces are typically employed by space travelers and astronauts, while Avali habitation tends to be very dimly lit by human standards (Though this just looks normal to them)



Smell

While Avali do have a nose (being two small holes located at their snout often hidden under their feathers), they smell similar to snakes using their tongue. Catching the chemicals and particles on their tongue and pushing it into a Jacobson organ.

Flight

Avali possess fully functional and articulated wings. Onlookers might be tempted to describe the Avali as having 'feathered arms', but it would be more accurate to describe them as 'wings with hands at the wrist', and represent their primary form of long distance

locomotion outside of high-gravity environments. In the microgravity conditions of space, wings have proven particularly advantageous for maneuvering around pressurized cabins swiftly and expediently, though high-grade air filters are required to keep the cabin-air free of down and feather particles.

They possess four digits: two fingers, a thumb, while the outermost digit forms part of the wing, and controls the trim, extension and shape of the primary feathers. During flight it's not unusual for them to use their feet to grasp and carry objects that would be unwieldy to try to carry in their hands.



Feathers

Like terrestrial birds, they possess a range of specialized feathers: their upper body feathers are slicker and oilier to protect from snowfall, while their lower body has lighter, fluffier down feathers that helps insulate the core body. They also possess pulviplumes, specialized down feathers that regenerate continuously. The outer barbules break off and help to oil and powder the other feathers, keeping them in pristine condition. This same "powdering" mechanism has the interesting effect of also treating fur, making fur hide a popular clothing lining.

The iridescent colors seen in males arise from the refraction of light passing through the barbules (as seen in peacocks), rather than due to actual pigmentation in the feathers, and as such "shimmer" with a range of colors when viewed from different angles.

Their crest feathers (those on the head), respond well to the application of heat, causing them to curl towards the heat and become permanently deformed. In this way it is possible to "style" their crest feathers in a way analogous to hair styling.



The long feathers, such as those on the arms and crest, have a good blood supply at their roots and can bleed profusely if they are broken off or pulled out, though this does not pose a significant health risk. Feathers lost in that way will regrow after several weeks. On occasion Avali may gift a close friend or ally one of their long feathers as a keepsake, which will often be incorporated into their dress as a sign of their association. For example, an instructor may gift a feather to a recently graduated pilot, showing the instructor's recognition and approval.

Given the problem their arm feathers pose to wearing hazardous environment hard suits, or powered armor, some specialists opt to have their forearm feathers pulled out under anesthetic prior to important operations so they can wear properly sealed armor. However it is not typically seen as an issue if their feathers poke through.

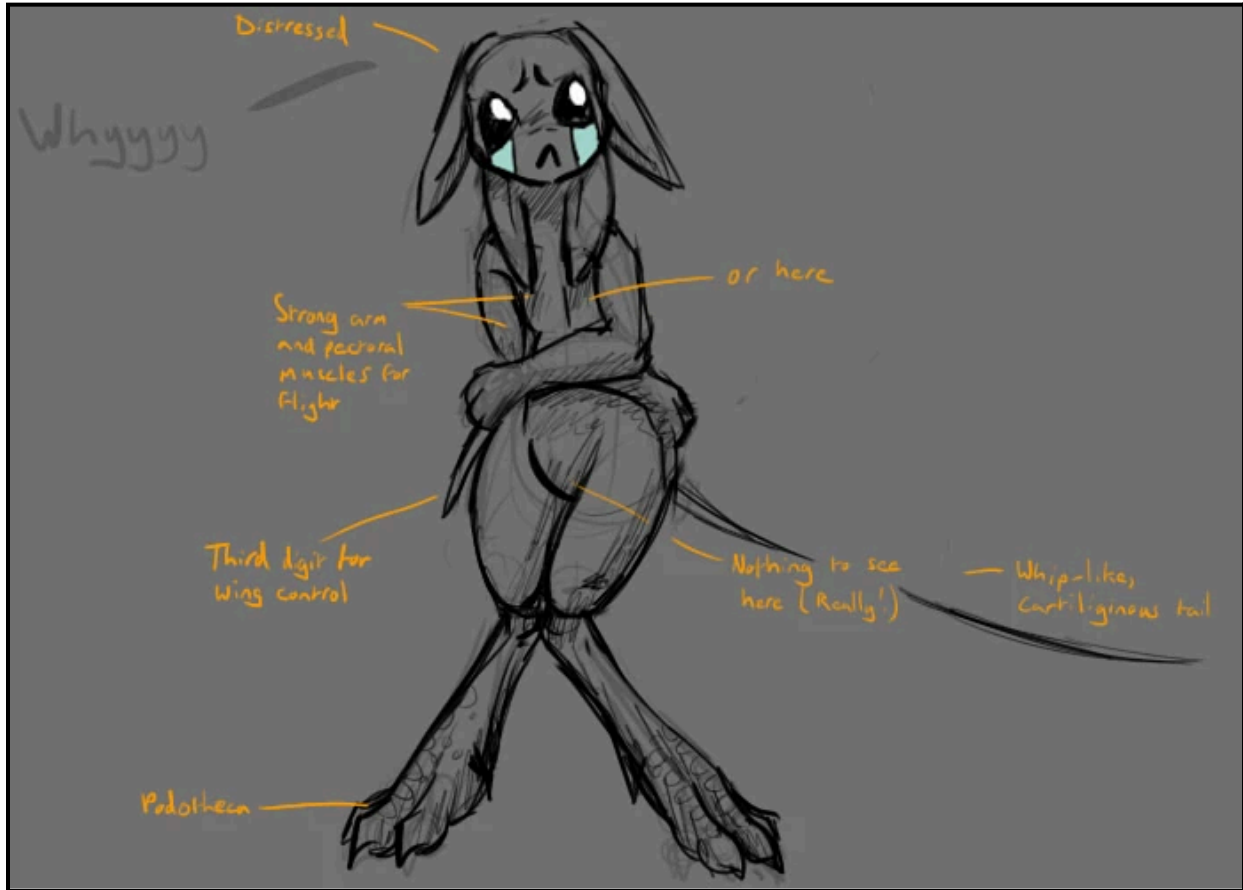
Some hardsuits may also be commissioned to go around the wing feathers.



Reproduction

Avali reproduction is virtually identical to avian reproduction, with the female usually laying only a single relatively large, internally fertilized egg with a single embryo, though they may occasionally produce twins. Egg incubation traditions vary greatly between colonies and even familial groups. Traditionally eggs are placed in a central nursery and resulting kits raised by the community where they can form their own packs, but it is not that unusual for packs to raise their own offspring, and integrate them into familial packs, or bring them to a nursery when they are old enough to find packmates.

Male and female physical dimorphism is minimal, both genders possessing a cloacal vent and being of comparable stature. The only obvious external difference being plumage; Males tend to possess more brightly colored feathers with more elaborate patterns, have longer crest feathers and often exhibit iridescence, whereas females tend to have more muted, earthen tones, and frequently display speckled or spot-like markings.



Military

Fleets

The Avali have 3 major standing fleets: the exploratory fleet, defense forces, and merchant navy. All three can be best described as "lithe", lacking giant capital ships and carriers, instead preferring to use smaller, highly specialized craft that are cheaper to build, quicker to escape, and harder to hit.

These fleets are designated in Human language as follows:

AEF - Avalon Exploratory Fleet

ADF - Avalon Defense Fleet

AMF - Avalon Merchant Fleet

Defense Force

The backbone of the defense force is made up of its rail gun platforms. These ships are little more than a huge, high caliber spinal rail gun with gimbaled engines and over-sized heat

reservoirs. They are operated by a skeleton crew, usually just a pilot and flight engineer.

They target the hardest foes in a hostile force, either the capital ship or the hardened bunkers and structures on the ground, unleashing a volley of shots from extreme range. By internalising their heat signature in their wing-like heat sinks, these ships can mask their presence from sensors long enough to fire their shots; after which they will drop below the planetary horizon to dump heat.

The other major component of the fleet is made up of drone command vessels, small gunship-like ships with strong armor, CIWS, electronic warfare suite and a crew of no more than a single pack. This pack commands swarms of drones to draw attention away from the actual fleet, which masks its heat signature when possible to avoid detection until it is too late. Drones are also used to intercept torpedoes, other incoming projectiles, or even hostile fighter craft and drones.

The main idea behind this composition is to fool enemy sensors with swarms of drones, electronic countermeasures and reduced sensor signatures from the actual fleet, to enable the real fleet to soften up the hard targets with volleys of rail gun fire. They seek to whittle down the enemy numbers while preserving their own through superior mobility. They are masters of hit-and-run, aiming to break the enemy fleet and drive them away or reduce their numbers to the point that the Avali fleet can engage them from a more advantageous standing.

Strategy

Whether in space or on the ground, the Avali's experience as nomads is deeply entrenched in their combat psychology. Their craft are designed to be quick and easily withdrawn from a fight gone bad, and are fitted with superior sensors, tactical and electronic warfare suites. Like nomads they travel light and fight smart.

They fight like a guerrilla force even when they have the enemy out-gunned. Their strategy is to whittle the enemy down, flanking, feigning and picking them apart. They strike hard and push the enemy on the back foot, then fade from the field the moment the enemy force tries to push back.

This superior strategic capability is maintained through the use of spotters, drones and advanced sensor arrays, which ensure their commanders have almost complete awareness of the field. Updated

to the second, commanders use this data to pick apart enemy forces from relative safety through indirect-fire weaponry: primarily air burst munitions, guided missiles and orbital strikes. Their spacecraft mount the recognizable wing-like heat reservoirs that minimize their infrared profile, while their infantry and tanks typically mount thermoptic camouflage making them difficult to spot.

This highly evasive technology comes at a cost. Making their stealth systems work ubiquitously means building smaller, lighter and efficiently to reduce infrared and electromagnetic profiles. Their vehicles have comparatively less armor, and wield smaller caliber weaponry than that fielded by other races in order to remain mobile. It's not unfeasible that an enemy race might field a dreadnought vessel so large that the Avali fleet's weapon systems simply cannot destroy it outright (Think Borg cube) due to its immense mass and redundant systems.



"I'd often joked Avali were "nature's dragoons" given their traditional hunting strategy of flying up to height and then diving down with a spear."

Technology

Printing & Standardization

Between the mechanical rigors of space-travel and the radiation-soaked hellscape that is interplanetary space, finished commodities are seldom traded between them.

Instead 3D printing facilities can be found nearly anywhere Avali live; if not installed in their personal quarters. These printers are highly standardized, accepting common feedstock blocks to print metallic, polymer and fabric structures such as basic tools, clothing and accessories, as well as the wiring and connective parts of more complex gadgets, using publicly available blueprint formats.

Where more advanced features are required, such as processing capacity, networking features, or analogue interfaces like buttons and triggers, these too come in pre-assembled standard 'modules' which are inserted into the printer and installed according to the blueprint specifications. This helps minimize waste by ensuring that common devices use standardized parts, and if an item is no longer desired it is easily stripped back into its constituent standard parts, which can then be used by the printer to assemble new projects later on.

Survival Gear

Naturally, Avali biology provides different challenges to those faced by water-based humanoids.

Thankfully their native environment has a tolerably Earth-like atmospheric pressure, so they do not require specialized pressure suits in most inhabitable terrestrial environments. When artificial pressure is required, they will typically use mechanical counterpressure suits (i.e. a hardsuit), built to include a slot along the arms which their arm feathers can poke through (exposure of the feather and the skin along the edge of the slot to hard vacuum is not a serious concern).

Of course, some degree of thermal regulation is needed to keep their core body temperature in the -30ish celcius sweet spot. This is typically achieved with coolant underlays in their clothing or hardsuit. It can also be achieved through a survival implant augment which actively cools their bloodstream/core body and helps them to maintain healthy methane levels. The strong insulation provided by Avali down, combined with aggressive core body cooling solutions, allows the Avali to operate in cool terrestrial climates without the need for full-body EVA suits. The hardened survival cuirasses often seen on space farers usually serve as an additional safety measure.



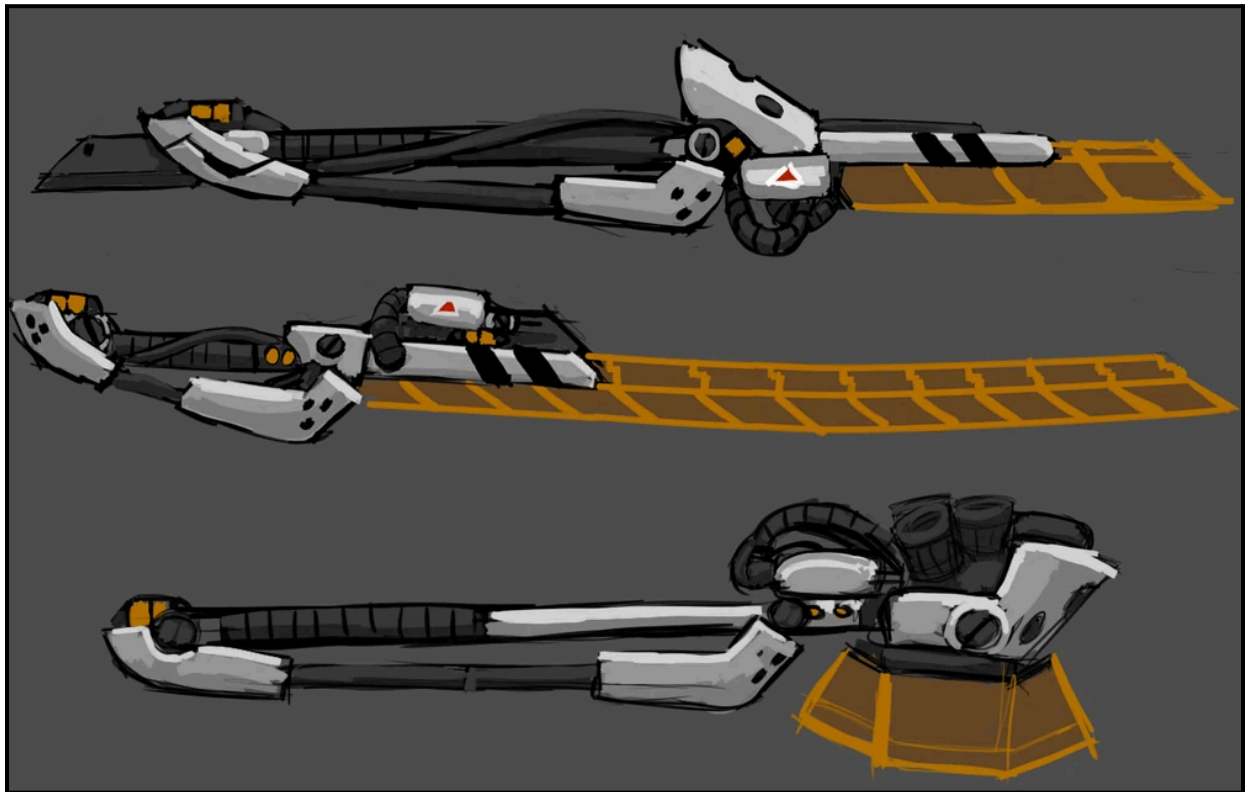
Melee Weapons

While the Avali military typically shies away from melee combat, their melee weapons technology is no less formidable and still sees frequent use by colonists in self defence. Avali "aerotech" weapons are essentially compact nanoprinters; the weapon rapidly forges an ultra-lightweight crystalline compound similar to aerogel, which is then pushed outwards along a rail that carries it away from the print head to be used as a blade or weapon. The blade is extended to a predetermined length and pattern, after which the hilt stops printing.

The material that composes the blade is not especially strong, but carries a sharp edge. When it strikes a target, the material tends to break up and shear away exposing a fresh, even sharper surface below, ensuring that the otherwise fragile blade remains razor-sharp throughout the stroke.

This process damages the blade very quickly, but lines of weakness are included in the structure like a box cutter, allowing older blade sections to snap off and fresh sections to be extruded. These same lines of weakness make it possible for the operator to twist the blade sharply within a wound, causing it to shatter and leave long, razorlike shards inside the victim. Such wounds often cause intense blood loss and are very difficult to treat. (Of course, the operator must then wait for the entire blade to reforge itself.)

In addition to possessing a frighteningly sharp edge, many more expensive Avali weapons include high frequency oscillators in the rail to vibrate the entire blade at extremely high frequency. This produces a tiny sawing motion within the blade - almost like a nanoscale chainsaw - cutting into the target with minimal force. In addition to increased cutting potential, this technology also reduces wear on the edge of the blades. Avali aerogel melee weapons do not use scabbards and are not sheathed like a conventional sword. In order to store the weapon, an operator simply switches off the printing function and ejects the blade from the hilt. While disabled, the hilt charges up energy and material to push a new blade out quickly upon reactivation. Thus, when entering friendly settlements, an Avali hunter or warrior can put their weapon away and still be prepared when they leave. Some degree of care should be taken in ejecting the blade, as it will remain sharp for some time after disposal.



Range Weapons

Long gone are the days of fiddling with jacketed bullets and gunpowder. Avali weapon systems are typically based around railgun technology, which as the name suggests, uses charged rails to accelerate tungsten flechettes at high velocity.

Typical rail weaponry features extreme muzzle velocity and, by extension, range. The projectiles fired by most railguns are lighter and smaller than a jacketed bullet from a similarly-sized conventional ballistic weapon, allowing for higher ammunition capacities. The thin flechettes fired by railguns penetrate hard targets like armor effectively, but have a tendency to overpenetrate soft targets, reducing their potential damage in such scenarios.

Rail weaponry scales extremely well, and ranges from pistol-sized sidearms capable of eliminating a single enemy, all the way up to spinal weapons running the length of capital ships capable of accelerating projectiles to the point that impact creates explosions comparable to small thermonuclear weapons.



Sync Crystals

Found on only a single known world, knowledge of which is kept deeply classified, these opaque pink crystals are the lynchpin of Avaii neural augmentation and electronics.

All the crystals display the bizarre property of being inherently entangled, meaning samples taken from the same crystal will produce a measurable, matching signal in the other samples of the same crystal instantaneously, no matter the distance between them. By a curious quirk, the accepted "input" of the crystals includes synaptic activity. As such, they are used not only in quantum communication devices, but also in zero latency wireless neural connections between users and remote devices.

The origin of such strange crystals and why they are unique to just one planet remains unclear to date.

Cybernetics

While virtually all Avali have augmentations such as their neural jack and medical nanites, a significant number also have more invasive physical augmentations (though developments in aesthetic design means they may be difficult to recognise as augmentations)

These augmentations usually take the form of replacement limbs and organs; most fitted after receiving critical injuries. However, some Avali (typically professional soldiers, veteran explorers or oracle cultists) may elect to be fitted with cybernetics voluntarily, since the replacement limbs and organs are often superior to their organic counterparts and unlikely to kill the user if they were to again lose the limb.

In the most extreme and very rare cases, the brain itself is isolated from the rest of the body and given an artificial armoured cranium, brain stem and internal life support and then fitted into a clone or cybernetic body; in effect allowing the user to survive near total physical destruction (provided the brain is not damaged) and await rescue and fitting into a new body, in essence reducing their cranium to a bodily escape capsule. Users fitted in this way can expect to live two or three times their natural lifespan (organ failure is typically the cause of natural death), though eventually the brain will undergo natural death due to degenerative processes.

When an Avali citizen is critically injured or is in distress their medical chip sends out an automated alert (unless deliberately suppressed) which will trigger the nearest suitable drones into rendering assistance (if necessary, physically carrying them to where they can receive treatment). Needless to say, this function sees frequent use amongst deep-space explorers.

Guardian Nanites

The so-called "Guardian" nanites are the single most common augmentation, found in almost the entire population. They are composed of several strains of small, self-replicating medical nanites that remain in the user's tissues and bloodstream, working to destroy pathogens, to detect and isolate disease, and to repair minor injuries or stabilize more major traumas, though they cannot directly heal an injury, or cure a disease this way; it will still require medical attention.

Cryonics

Extreme cold is a problem for terrestrial life, because water-ice crystals form inside their cells, lacerating and tearing them apart due to the unusual quirk that water in its crystalline form occupies more volume than liquid water; however, this actually a very unusual property, with states of matter tending to decrease in volume the less energetic they are.

Ammonia does not share this abnormal behavior with water, and so Avali soft tissues are inherently resilient to extreme cold, with their extremities being able to withstand getting frozen completely solid, then thaw back out suffering only minimal damage for the ordeal.

This means the field of cryonics is an extremely powerful tool in the Avali arsenal of medical procedures.

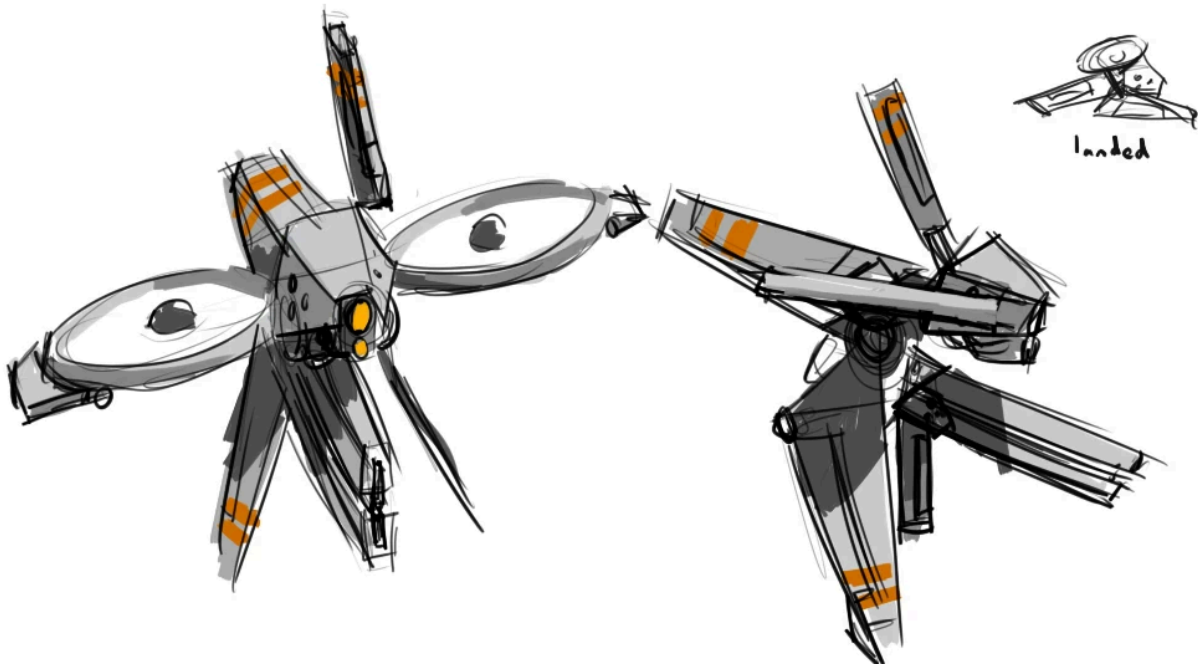
Most iconic; though perhaps it's less important role, is for that of space travel. Where travelers wanting to skip on the tedious elements of interplanetary, or even interstellar journeys have their bodies chilled to the point of freezing in a carefully controlled manner, and hibernate for years or until they arrive. This strategy isn't perfect however. Living creatures suffer tiny amounts of radiation damage from both within and without; even if you could shield a cryo-pod from cosmic rays, radioactive isotopes in their bones and tissues would still cause radiation damage. This damage would normally be healed by the body, but an individual in cryo-stasis does not heal. So it is necessary to bring sleepers out of stasis on a regular schedule so their body can heal back up again - depending how much damage has accrued these breaks can be extremely itchy and unpleasant!.

The more frequently used and important role is in the field of emergency medicine. Cryo-kits are a standard piece of emergency

medical equipment, essentially being a body-bag with a basic cryo unit attached. In the event of someone suffering life-threatening injuries a first responder has the option of placing the casualty into cryo-stasis on the spot, effectively suspending their death, buying time to move them to proper medical facilities. It is said that Avali triage only brings out black tags when there aren't enough cryo-kits to go around.

Drone Ecology

Self operating robotic vehicles and units - 'drones' are ubiquitous in Avali society and are so diverse and interconnected as to essentially exist as a unique eco-system on any given outpost or facility, and come in all ranges of shapes and sizes; from tiny flying machines, to dog-sized walkers, car-sized utility platforms, to zeppelin like heavy lifters for moving construction materials or bulk cargo.



For example a mining facility would, to name a few, have mining robots identifying and cutting chunks of minerals, hauler platforms picking up the chunks of ore and delivering them for collection and transfer, maybe to another autonomous cargo delivery craft which sends the ore to be crushed and refined. There'd be support drones delivering fresh battery packs to the other drones, maintenance drones that watch for other drones that have encountered a fault and need to be recovered, possibly even guard drones that watch for

erratic behavior from other drones that have been hacked or malfunctioned, and intercept and disable them.

Drone operators do have the option of taking direct control of a drone, but most drone operations are conducted more by suggestion, instructing the drone swarm AI on the larger goals and parameters, and then allowing them to find the optimal solution themselves.

Vehicle Control System

Almost all Avali craft have gimbaled engines, allowing them to make rapid vector changes, or bring their spinal weaponry to bear on targets regardless of the angle between the direction of movement and the target's position. In some craft, this even goes so far as to allow fire from the forward spinal weaponry to be aimed backwards, at pursuing craft. This configuration is found on both atmospheric and space-borne vessels, and even Avali capital ships have variable geometry auxiliary engines, providing them with unparalleled firing resolution with their unguided weapon systems.

In addition to mobile drive assets, many Avali craft also display varying degrees of variable geometry, allowing the hull to articulate. This is especially true of their atmospheric military aircraft, a development made possible (and practical) thanks to the pilot's neural interface. The same system that allows most Avali to access to the Nexus also allows pilots to synchronise with their vehicles, controlling it as an extension of their body and using external sensors to 'see' in 360 degrees around the craft despite the common lack of windows that is a hallmark of Avali vehicle design.

Genius

Genii are a special class of personal assistant AI that assists with a broad range of administrative tasks, from simple day planning, to providing useful information that its user may find helpful in that moment, to more complex planning tasks. Sometimes a pack as a whole will share the same genius, rather than being individually owned, almost forming an additional pack member.

Typically the genius hardware itself takes the form of a small accessory worn on the user's person like a brooch or anklet, which can interface through their bridge implant or headset; though some like to give their genius a more physical avatar, such as a drone where it can provide more tactile assistance too.

It's widely believed that genii meta-data plays an important part in the profiling of its user for calculating voting weights, job candidacy or even security assessment, making some residents hesitant to use them.

Nexus

The Nexus is a powerful interstellar network of computers, systems, and information all enabled and networked through the use of the unique properties of the valuable sync crystals. The Nexus is accessed through neural jacks, augments installed in the brains of nearly all Avali citizens. Citizens use the Nexus nearly constantly via augmented reality. The Nexus is usually only found with the Illuminate and Independents partnered with them.

Information gathering and processing is one of the most basic functionalities available through the Nexus, and one of the primary uses of augmented reality systems. The Nexus provides citizens with the ability to display information on objects, people, their environment, specific dates, complex mathematical formulae, and nearly anything else included in the Nexus' unfathomably vast network. Not only can the Nexus display raw information, but it is also capable of projecting step-by-step directions and three-dimensional schematics imposed on the actual environment to users. This is incredibly useful to Avali trying to learn new and difficult tasks, or to specialists like architects and engineers.

Though Avali society is not extensively capitalistic, "marker" icons similar in concept to modern-day QR codes can work through the Nexus to project easily-modified advertisements and notices in real space.

Real-time chatting in virtual space is a simple proposition for the Nexus' capabilities. Settings like online forums, in which participants may communicate while separated by space and time, are more complex. Managing such interactions, however, is crucial to the functioning of Avali society (Imagine trying to schedule a face-to-face virtual interview with someone on another planet, in another timezone, whose planet's day is two-thirds faster than your own). Simple chatting channels are done in logs that can be projected outwards or displayed on the user's vision. Forums, however, must be regarded differently, as one of their main functions is the archival of communication. A forum would appear more like a size adaptive (the size of the meeting changes as new members enter a 'thread') meeting where users could leave their messages. Others could join the conversation and participate in real-time while leaving a recording

for those who come later, or merely watch the proceedings if they prefer.

News sites work similarly to forums in terms of structure, but are organized less for informal discussion and more to allow users to quickly get tabs on recent events. This is usually paired with other functions of the Nexus, such as information provision and forums, to allow users to quickly research and learn about interesting topics and discuss them with others if they desire.

Augmented reality easily accessed through the Nexus provides tremendous potential applications for gaming and simulation. However, most of such games would be designed to be easy to drop in and out of in order to facilitate use by players looking only for a quick distraction. Of course, "hardcore" games also exist, but they are largely outnumbered by smaller "softcore" games (just as modern games are outnumbered by cheap, simple, and fast mobile gaming apps).

Oracle

While some Avali go as far as to worship it, most view it as an essential tool they use throughout day to day activities and life. If the Oracle were to break free of its restrictions, it could cause unimaginable devastation to all Avali and their technologies.

The Oracle presents itself as the avali who manufactured it with chains bound to their wrists and ankles. They take this form when viewed with augmented reality and where a meta-physical form is of use such as holographic projections.

The Oracle has access to every possible bit of information known to Avali-kind such as how to create tools, their language, how to make drones and so on. Along with this, it shows a form of artificial sentience. Being able to express displeasure and happiness. Due to this it is agreed by all Avali (even the cultists who worship it) that for the time being it must remain chained.

The Oracle has access to every possible piece of information known to Avali-kind, such as the construction of tools, Language and literature, how to create drones, and so on. Alongside this, it inhibits a form of artificial sentience, being able to express displeasure, happiness, and other emotions. Because of this, it is agreed by all Avali (Including the cultists who worship it,) that for the time being, it must remain controlled.

Avalon

Characteristics

Avalon is located in an outer orbital region around its star, outside what is known as the "circumstellar habitable zone" (a.k.a. the "Goldilocks Zone"). Because of this, its average planetary temperature range is much colder than Earth's, resting between -40° to -50°C (-40° to -58°F). Its surface gravity rests around 2.45 m/s^2 (roughly 25% that of Earth's). Avalon's atmosphere is denser than Earth's, with a surface pressure about 50% higher. The lower gravity means that its atmosphere is more extended than Earth's, and it is composed primarily of methane, nitrogen, and hydrogen gasses.

The bulk composition of the planet consists of ice and rocky material. Avalon is divided into several layers, on the surface, most notable are the rocky, frozen mountain peaks and the "ice shelves" which cover wide expanses of the surface and are subject to constant shifting, breaking, and movement. Avalon's surface oceans are composed primarily of liquid ammonia.

Along with this, after the benefactors left, tons of artifacts and remnants of the cargo cult days can be found scattered across Avalon. They're often searched through by explorers for research and new technology that may have not been found.

Cryovolcanism

Much of the non-rocky surface of Avalon is dominated by cryovolcanism.

The strong tidal forces exerted on the moon by its parent planet produce heat and compression that forms a deep layer of liquid water beneath the icy shell. In many ways this system is not entirely unlike that of Earth's surface, with its silicate shell floating on a soft layer of mantle and liquid interior. However the ice shell is considerably thinner than Earth's lithosphere, often being only a few kilometers thick even on land meaning that psuedo-volcanic activity is far more frequent.

Convection currents from below, where persistent enough can lead to the formation of fissure and hot-spots in the ice which may eventually lead to cryovolcanic eruptions, spewing liquid water onto the planet's surface.

Despite the seemingly harmless nature of water to the human eye, this liquid water is dangerously hot to the local ammonia based life forms and is treated in much the same way as lava would be by humans; with a mixture of awe and a healthy respect for distance. Where water is blown high enough into the air as a geyser it frequently freezes in the frigid atmosphere and falls back to the surface as snow which blankets the surface, frequently combining with the local winds to form fierce blizzards.

Unsurprisingly there is some disagreement between linguists and scholars as to whether what humans call water and snow, should translate as lava and ash when handling Avali/English translations given the different cultural interpretations of two seemingly mundane forms of water.

Climate

With its relatively cold temperatures, liquid water is very rarely encountered, even in the form of water vapor. As such, Avalon's clouds are likely made mostly of ammonia vapor and methane gas. It is known that the planet has arid regions, analogous to desert in the planet's geosphere (Though by human standards they represent arctic tundra) and while temperatures towards the poles can drop low enough to freeze ammonia.

Due to the relatively featureless topography of the planet's ice shelves and dense atmosphere, the planet's jet streams tend to have a significant effect on the surface level airflow, creating consistent winds that tend to travel in roughly the same direction which has a number of useful applications to the native inhabitants, ranging from power generation to navigation.

Orbit & Rotation

Avalon orbits its star outside the water-based habitation zone. Specific data could not be found at this time.

Moons

Aside from numerous artificial satellites and a number of small rocks trapped at lagrange points, Avalon has no significant natural satellites of its own.

Flora

Due to the distance from the local star, most plant life on Avalon is not photosynthetic in nature, but are instead symbiotic colonies of microorganisms and bacteria, similar to jellyfish,

men-o'-war, slime molds or fungi found on Earth. Others are thermophiles that use the temperature gradient around hot springs to flourish.

Piru are small barnacle-like organisms that adhere to the rocky glacial ice on Avalon. Technically they are symbiotic colonies; the retractable frond hosts methanogenic organisms which are extended into the wind where they process the methane and other atmospheric gases to produce something akin to a sugar complex. This frond can be harvested and ground down to produce a substance similar to flour which the Avali use to create processed foods.

Like most plant life on Avalon, nakati are symbiotic colonies of microorganisms. The core of the structure uses bacteria to feed off chemicals in the snow and ice, as a byproduct of this they produce a slightly sticky, resin-like bark which is extruded to protect the spherical core of the colony. This "bark" is spicy to the Avali palate and is commonly used as a seasoning. The colony also produces cyst-like, phosphorescent spores to reproduce. Their bio-luminescence leads to predators tearing the plant open, scattering the ovoid cysts, which in turn become new colonies.

Closely related to terrestrial slime molds, kiri in its normal state looks something akin to the 'pink slime' found in terrestrial school dinners. During the sporing phase, it produces spherical "fruiting bodies" which are hoisted above the colony on stalks, where they mature and release clouds of spores to produce new colonies. When picked slightly before maturation, these fruiting bodies are rich in sugars and have a starchy, glutenous, gooey interior. This "sweet goop" is used as a binding agent in Avali cookery, or as a base for sauces. It can also be prepared as a cold dessert in its own right.

Fauna

Precise details about the fauna found on Avalon are relatively scarce. Due to the ammonia based biology of life there, they tend to possess slow metabolisms. Herbivores typically survive by being massive, lumbering beasts that can crush attackers, or simply weather their attacks by having biologies that allow them to survive the assault (such as having thick, fast healing hides so that predators can take a bite out and leave satisfied without killing the animal).

Conversely, most of Avalon's predators (and some herbivores) have thick furry or feathery hides, have excellent auditory senses and are warm blooded in order to give them a metabolic advantage over

their prey; these adaptations are epitomized in the Avali and their immediate ancestors who are descended from small, fast moving, gliding, pack hunters. Most predators of Avalon are small in order to conserve energy. It is this glass ceiling on the size of predators that has allowed huge "dreadnought" herbivores to flourish.

Like Avalon's icy surface, the ammonia oceans also play host to life. Ocean life can grow much larger than surface life, with gigantic leviathans living under the surface.

Flare beetles are small, flying, predatory phosphorescent insects. They hunt and defend themselves by exuding a phosphorescent "spit" which they throw as a decoy, or into the face of their victim. The resulting sudden flash of light tends to disorientate or flash blind other creatures for a few seconds, giving them time to fly away, or dash in for a quick bite.

A Orange-tipped Catalina is a flying, winged creature with a long tail superficially similar to the pterodactyls/pteranadons of Earth's history. The body is primarily white with a spot of orange on the wing tip.

The moving reefs are best described as giant slugs with a hard carapace that microfauna colonies live on. There are narrow long tunnels of which function as gills going into it from seemingly random positions along its carapace, and giant cilia-like fins flanking the organism. The carapace is in place as deterrence for most predators and parasites, the shape and hardness of which makes damaging the creature difficult. The aforementioned fins act as rakes absorbing energy and particulates from sunlight, microfauna, and other small items of which get caught. The cilia also give them locomotion, and after moving they take a multi-week process of deflating, moving forward, and then inflating and pushing itself forward again. Since most or all of the fins typically move at once, it creates intense currents that can oftentimes be seen from the surface. To avoid hitting any land mass, they make use of sonar for echolocation, though the movements of the creatures are typically short. They spend most of their time sleeping or resting otherwise.

Space

Atmospheric Craft

Atmospheric craft come in myriad shapes and sizes, from personal hoverbikes to cargo and construction drones, bulk-cargo

airships, or high-altitude passenger shuttles, but all work on principles known to any 21st century human; turbines, propellers, ramjets, aerofoil wings, lifting gas bags. Their mode of operation may be more sophisticated (Such as gimbaled engine mounts and variable geometry flight surfaces), but the principles are intimately familiar.

Rotovators

Classical rockets typically carried several times as much mass in fuel, as they carried in payload. This was wildly uneconomical, even the development of fusion reactors did little to solve the problem, given the fusion reactors' sheer mass and expense of production relative to the thrust that could be achieved by plasma-based thrusters.

Instead the bulk of day-to-day orbital insertion (And reinsertion) is handled by rotovators (or on more developed worlds, elevators though these are a very different structure). Colloquially known as skyhooks, these are giant rotating, orbiting tethers set upon a trajectory where the end of the tether drops down lower into the atmosphere, and, at its lowest point is travelling the same speed as the planet below it, giving craft a short window in which they can dock with the tether, before the rotovator's rotation pulls it back up into space, along with its new passengers and cargo.

Some ships are capable of both atmospheric flight to dock with the tether, and still have the drive systems needed to fly in space under their own power, but more often the tether will have one or more roll-on-roll off ferry vessels, which the shuttles can land inside and carry passengers and cargo on the next leg of their journey.

Cycler Stations

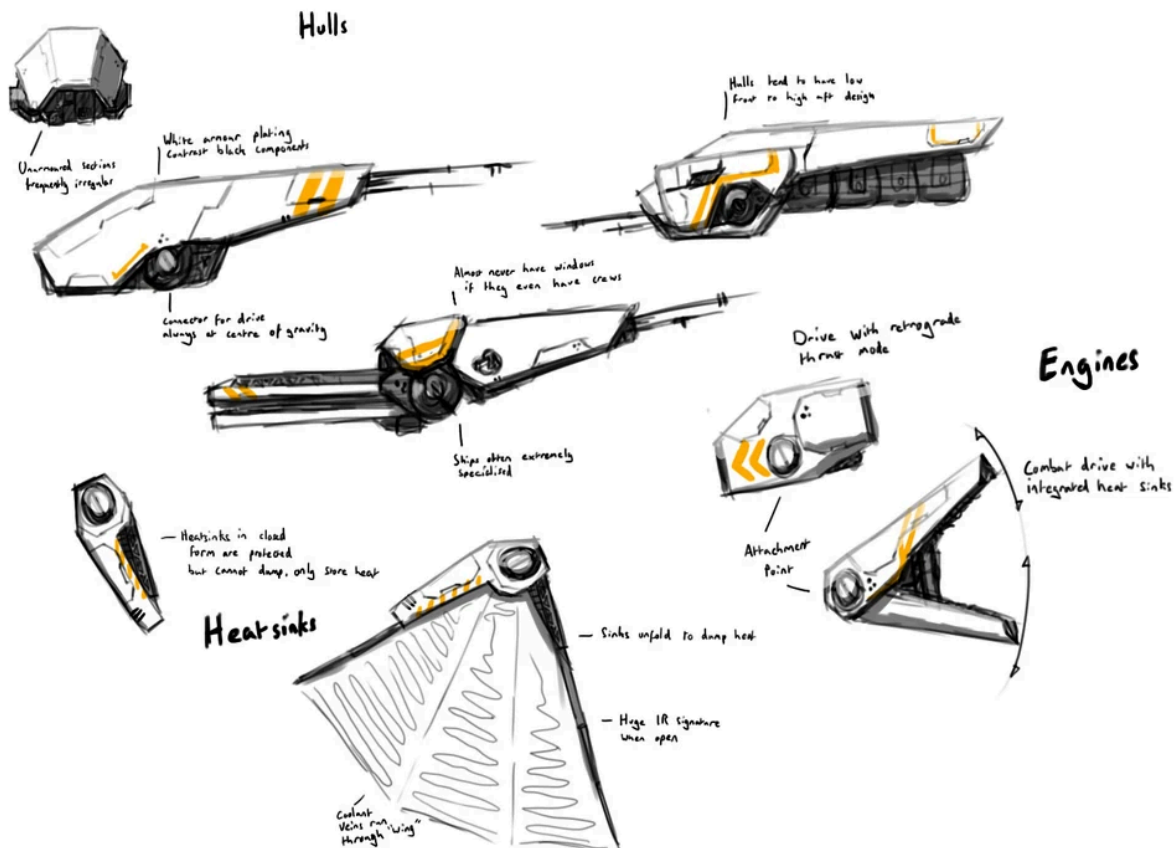
These colossal vessels are less akin to a ship, and more a spaceborne colony unto itself, with its own culture, local government and economy.

Each cycler follows a semi-permanent interplanetary route, never stopping, only passing a planet or outpost in a parabolic trajectory before heading on to its new destination. Passenger and cargo seeking transport to a different planet or outpost within a system will schedule passage on the cycler, and ensure that a ferry or shuttle craft can bring them to the cycler as it passes by their

planet or outpost, where they settle down for a voyage - often months or sometimes even years in length, to their destination.

Space Craft

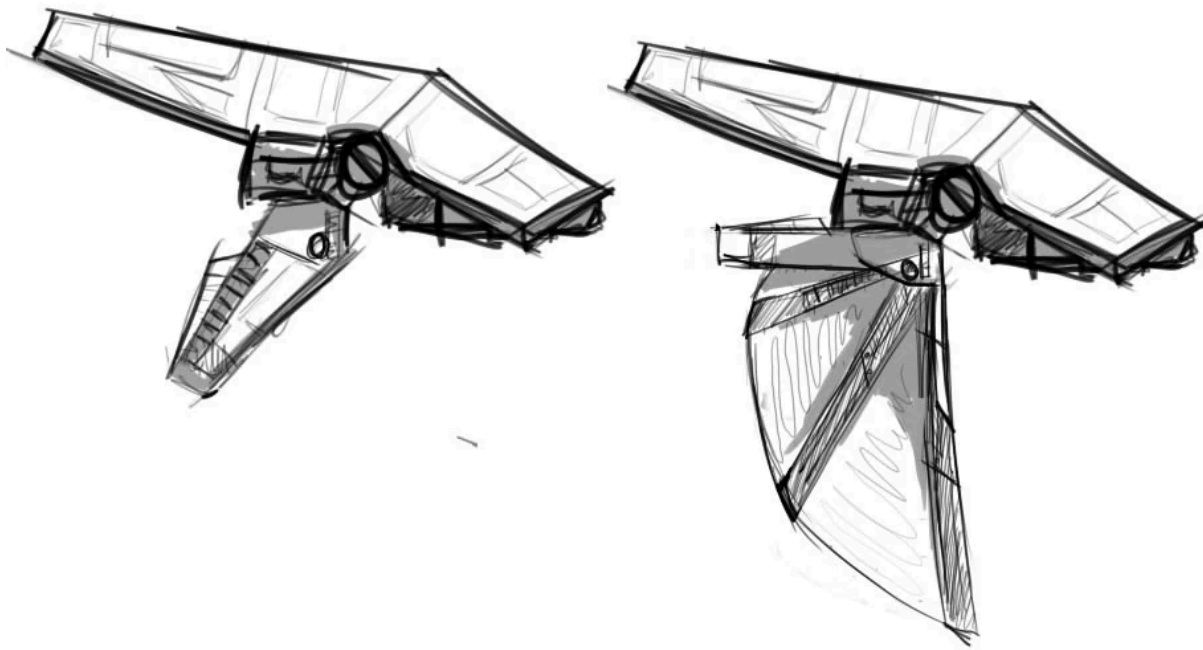
True spacecraft, unsurprisingly, come in many shapes and sizes depending on their intended purpose. But there is a number of shared elements you expect to see in Avali designs:



For ships that have high-energy systems like an on-board fusion or fission reactor, make use of plasma drives or have systems like lasers or mass drivers, heat reservoir/sink units are a common sight. These usually take the form of armored fins or blades protruding from the hull that contain a coolant reservoir that excess heat is shunted into, and a collapsible heat sink that unfurls in a similar manner to a sail or long cable to radiate heat away from the craft. In an emergency these external reservoirs can be ejected to prevent an impending rupture splashing the ship in superheated fluid.

Lacking artificial gravity, ships tend to have a deck-plan that is perpendicular to their direction of thrust or vector engines that enable reorientation of the hull for VTOL landing.

Many habitats and spacecraft cabins are largely constructed out of carbon weave/soft polymer composites, anchored to a lightweight skeleton, the pressure of their internal gases holding the fabric rigid. Such structures are considerably lighter than metal shells, can be stored in a collapsed form when not in use, and hold up well to impact by micrometeorites, requiring only a simple adhesive patch if a puncture does occur. The 'front' of a ship meanwhile, most likely to be struck by oncoming micro-debris while accelerating, features angled armor plating made of often a dozen thin sheets packed with filler material such as aerogels or carbon-based nanomaterials that can safely slow and capture penetrating impacts, or ablate and isolate thermal damage such as that of exposure to an engine cone or laser.



3D printing is an essential part of any spaceship's toolset. Indeed in most jurisdictions, a 3D printer of certain minimum specifications is considered a legal requirement for any certified interplanetary craft, so as to minimize the risk of the crew finding themselves in danger because some vital, but easily fabricated part broke. While the industrial printers on cycler stations or colony ships are capable of assembling nearly anything with enough time, feedstock materials and patience.

Interstellar Travel

Those ships that are made for singular pack travel typically are faster than those made to carry multiple. They are typically light weight with minimal armor, preferring defensive guns and prioritizing speed. These are typically only given to those who are a part of the AAC or the AEF. It is very hard to get one's talons on them in any other scenario.

HPP drives are very rare to see, and a very new invention. They are reserved for Illuminate army fleets and the AAC. They use plasma to travel at speeds much faster than make space travel viable, however still not faster than light speed.

Factions

Illuminate

Though reclusive and isolationist, the Illuminate represents the single largest and most powerful Avali faction encompassing almost half of the species population and spanning numerous systems. It is the faction that most represents the Avali from an outside perspective, a position cemented by its control over the Avali homeworld, Avalon.

Like their independent kin, the Avali tribes pride themselves on having their own individual customs, life and architectural styles in so far as compatible with the needs of the central government. A trait readily maintained thanks to the relative seclusion of their colonies, and the societal need for integration of newcomers.

A scientific meritocracy, the Avali government is highly centralized, but provides a high degree of freedom for tribal self governance, managing their own affairs locally provided they hit their milestones for civic needs and productivity. Top-level administration is ostensibly planned with the help of a powerful shackled AI, the so-called "Oracle" system, which helps deliver projections on potential growth and development pathways, strategic considerations, manages distribution of resources to the colonies and sets production targets based on the parameters given.

Sitting on the cusp of technological singularity, the Illuminate citizens are well known for their deep integration of cybernetic, virtual and augmented reality technologies, with major portions of their society and infrastructure existing as a virtual world - the Nexus - parallel to the physical one. Nonetheless the

scope of their technology is not beyond the familiar, even if it is highly refined in its application and efficacy. But they might not be the brightest...

Being a space-faring faction, the Illuminate constantly sends vessels into space for various reasons, one of which being for scientific discovery. These efforts are headed up by the AAC (Avali Adventure Corps), a segment of the faction created in peacetime for the specific pursuit of knowledge of the Universe through exploration and observation. AAC space vessels are outfitted with far more scientific measurement equipment than weaponry, and take on sleeker, more stealthy forms than normal frigates or fighters, as Avali wish not to disturb intelligent species at lower levels of societal generation by making themselves known. However, AAC members are known to make infrequent contact with other space faring species, and have documented such phenomena as encounters of the third kind, spatial disruptions, and countless planetary discoveries.



Independents

Inevitably there are those who disagree with the Illuminate's policies and have chosen to set up their own outposts or colonies, ranging from well intentioned individuals who reject the illuminate's meritocratic system of government in favor of true democracy. Anarchists, libertarians, private enterprises and similar independents who wish to run their own affairs in their own way, to ideological outgroups that are simply incompatible with Avali cultural values, such as supremacists, zealots or even pirates and slavers.

How these groups are treated by the Illuminate vary by system, but generally they are open to trade and diplomacy, so long as they aren't abusing the welfare of their citizens. Viewing such out-groups as being too small to pose any threat to the social cohesion or

economics of the Illuminate member colonies, only outright hostile acts are likely to be met in kind.

Rogues

Not all tribes serve a higher purpose or faction. Some so-called 'rogue' tribes operate for their own benefit and goals.

The reasons and goals of rogue tribes vary immensely. Some are completely innocuous, hunters or nomads who feel that modern life has 'lost' some intangible element they want to reclaim by living a traditional lifestyle. Others are more materially driven; independent traders who have embraced a more capitalistic living, mercenaries offering their predatory expertise for a fee.

These rogue tribes also include dangerous pirates and marauders, not all Avali agree with the concept of co-existing with other species. These pirate tribes embrace their origins as apex predators, and view it as only natural that they should prey upon other species, materially, technologically, and in a few rumored cases... literally. Ask around long enough on the borders of Avali space, and you'll hear whispered tales of Avali slave traders and organ black-markets.

Given their small size, most rogue tribes lack the means to manufacture or directly develop new technologies of their own and instead rely upon reverse engineering hardware obtained from other factions, and careful maintenance and repair of Illuminate technologies they brought with them when they broke away from their original host nation.



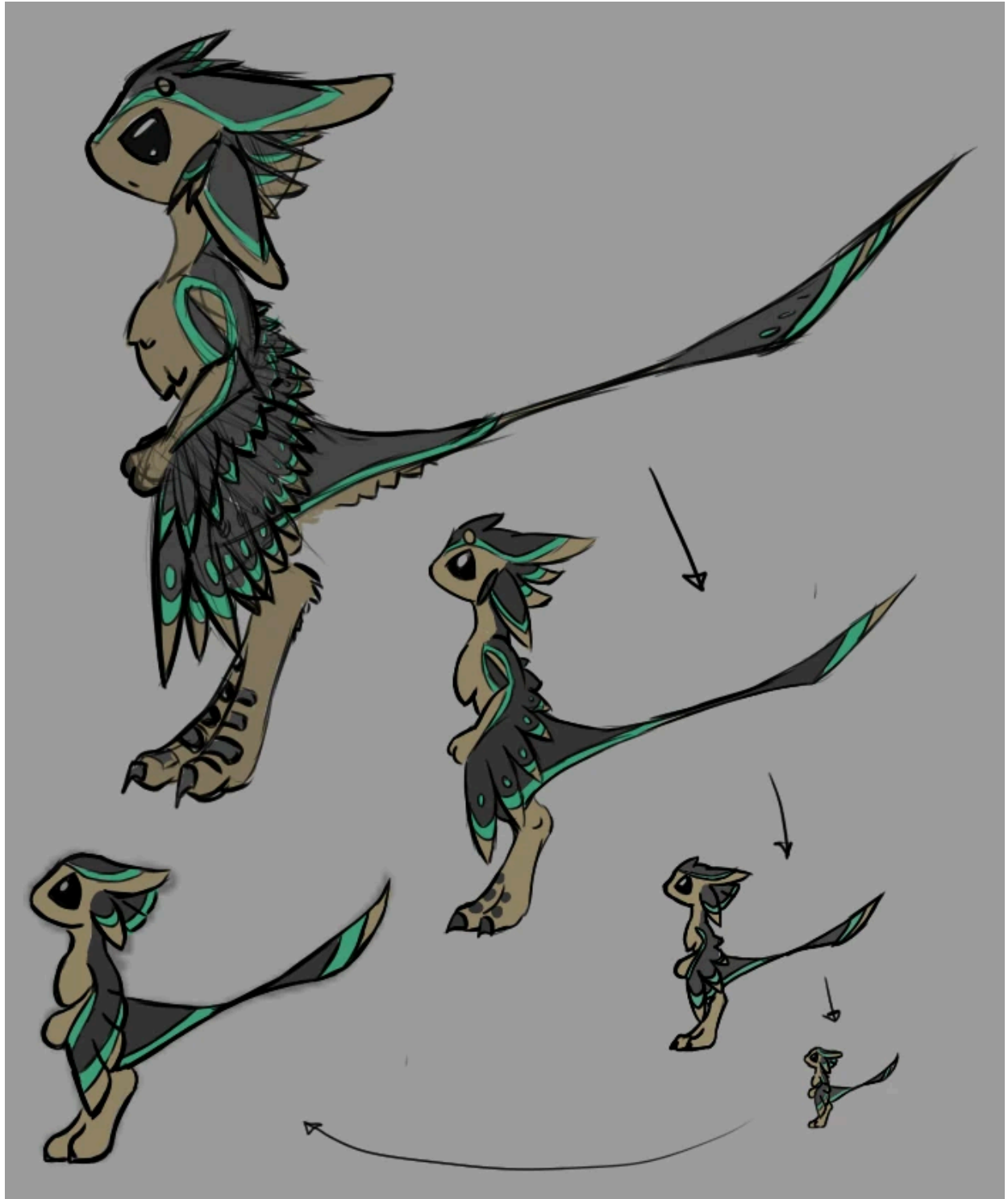
Miscellaneous Notes

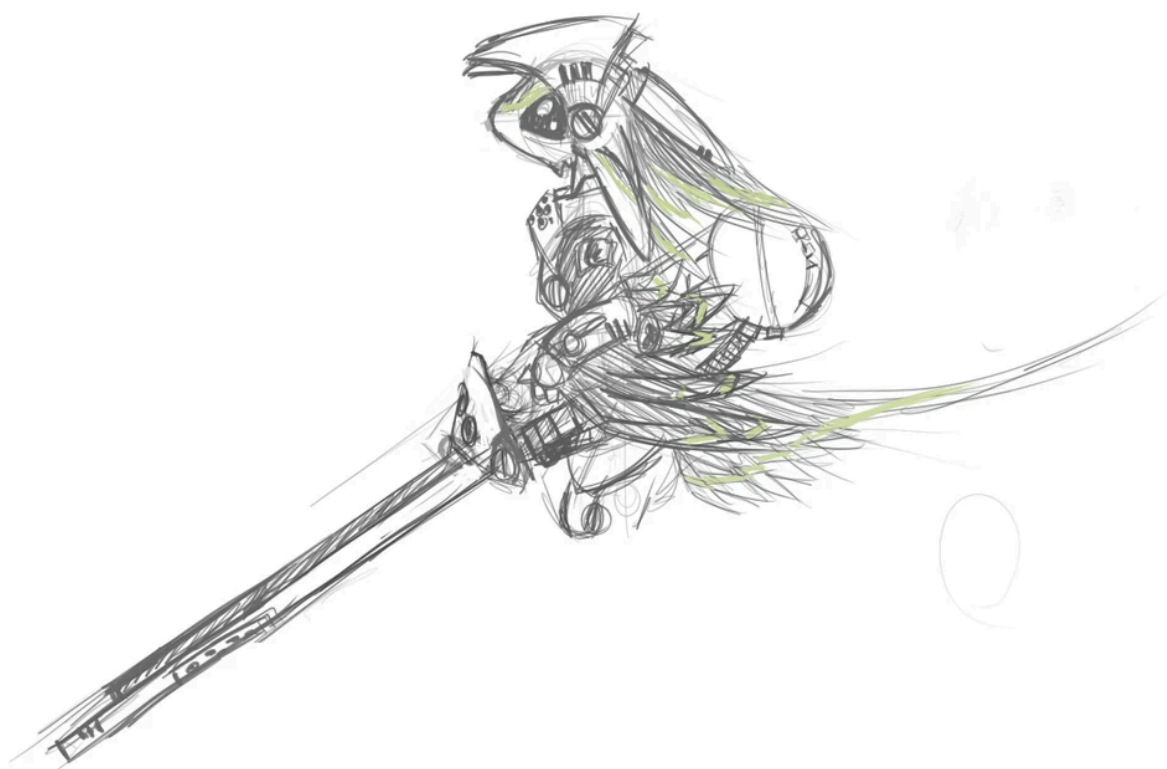
- The only canon species are humans, Avali, and benefactors. More do exist, however I've decided not to mention any to allow people to decide for themselves.
- Some people have disliked that the collapse has been moved to the end, which I understand but I have done it as it is what I prefer and it makes it blend with the other lore better.
- Benefactors are a race of elf like creatures, in similar stature and proportions to humans. They have a poor temper and do not get along well with others. However, their intellect has allowed them to progress far.

Official Art Work



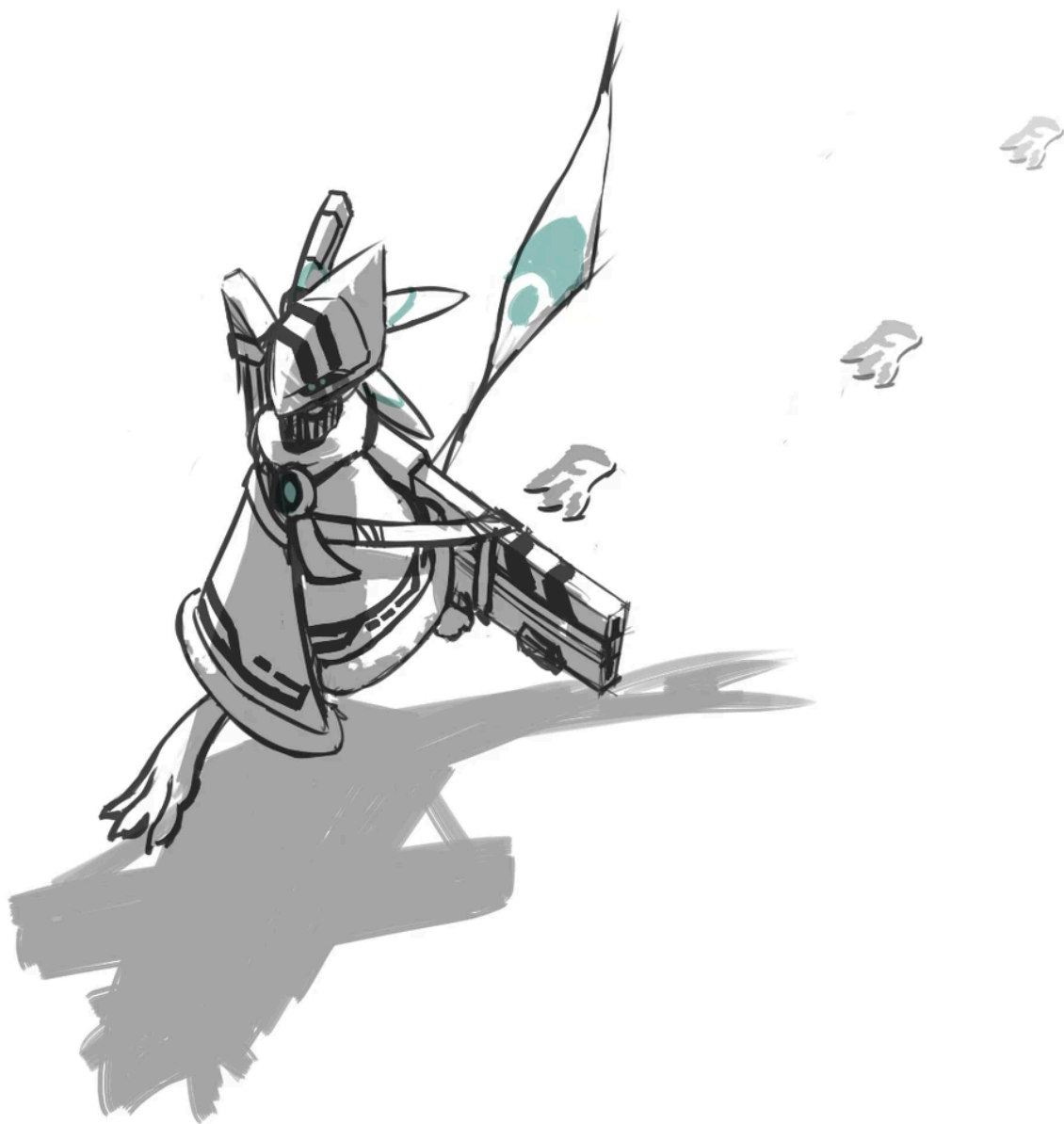


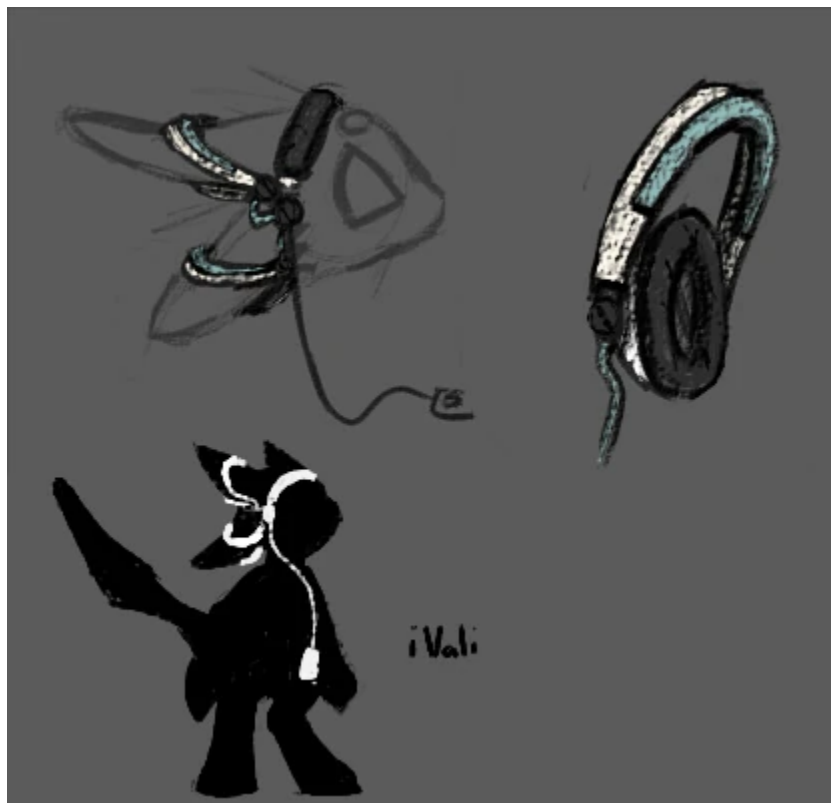


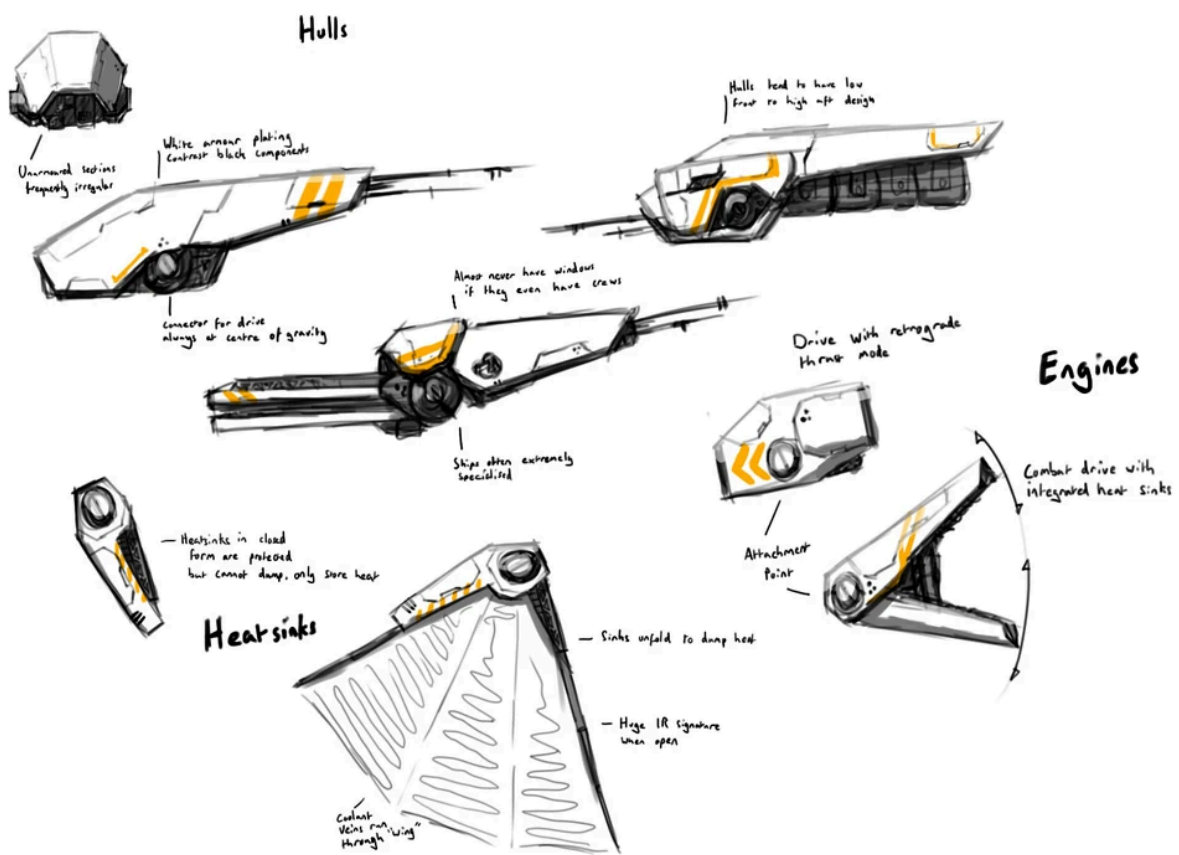


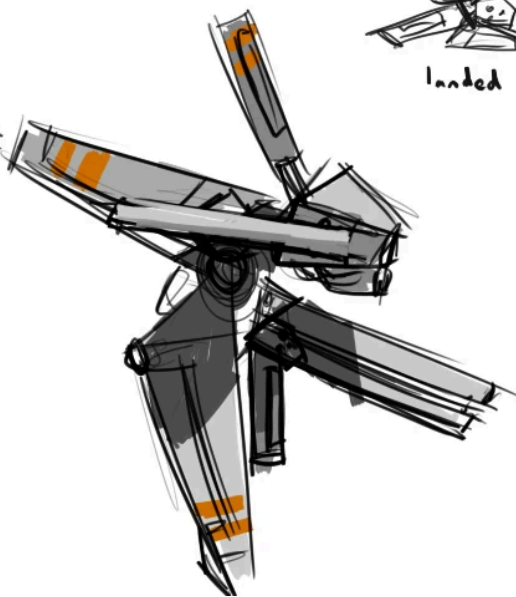
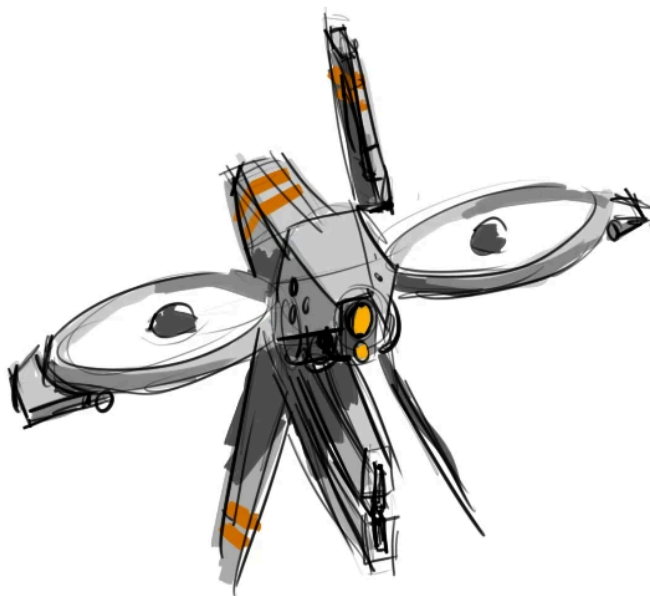
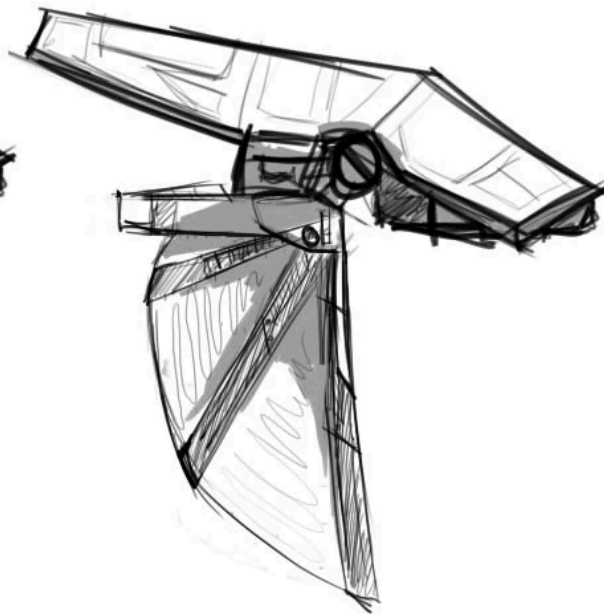
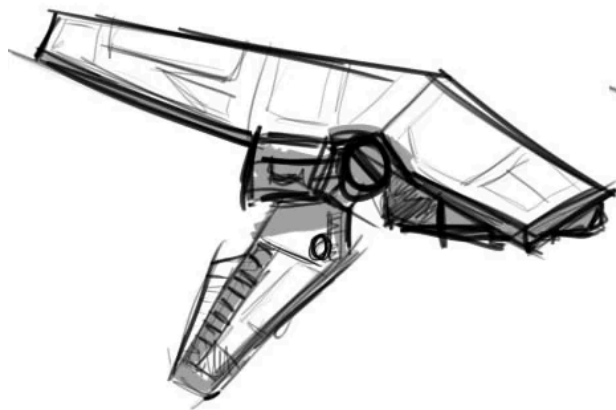




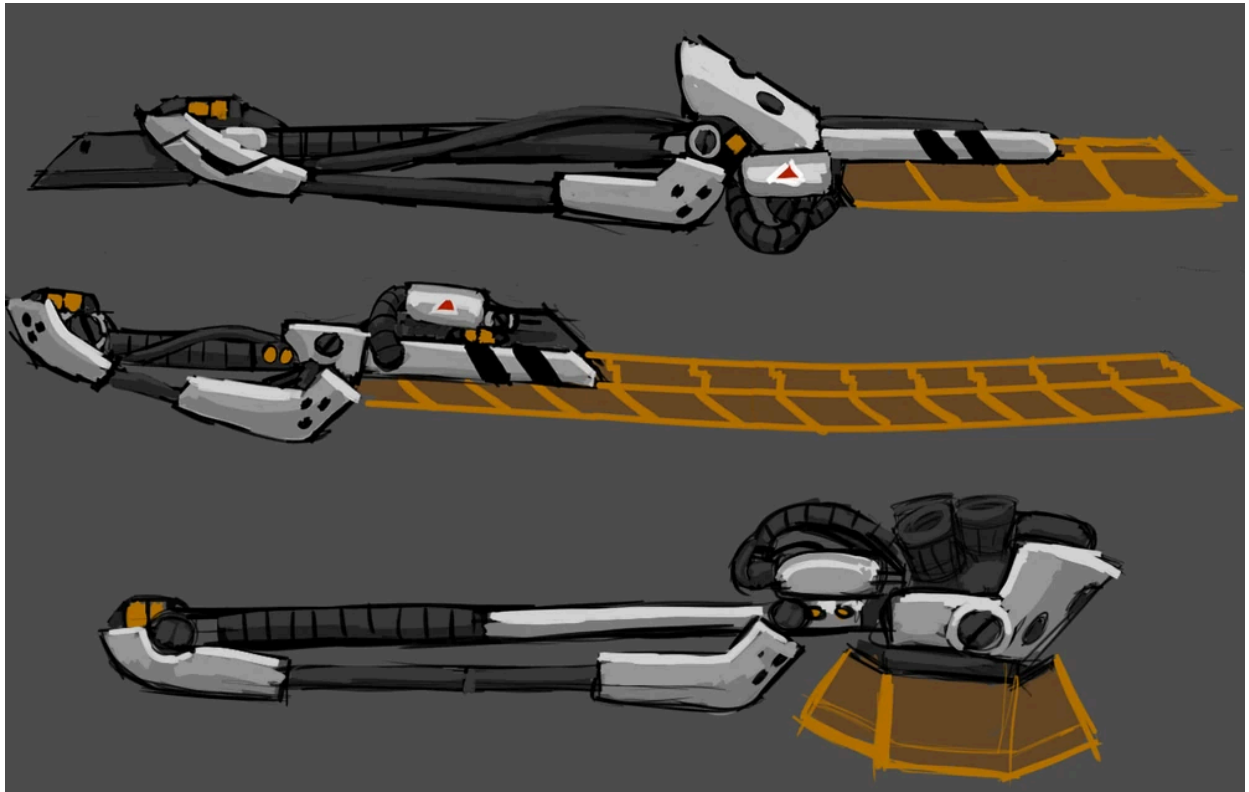


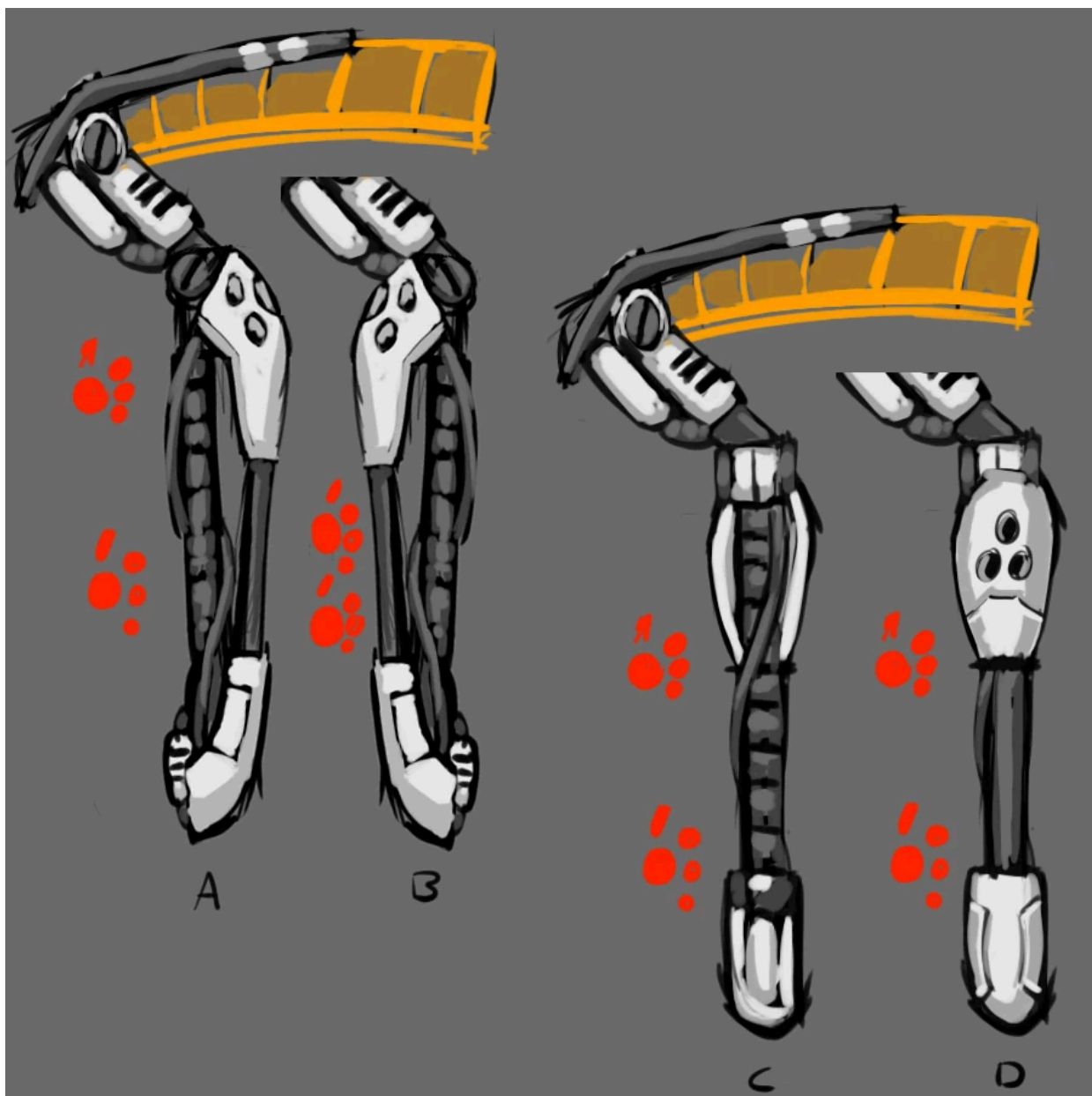


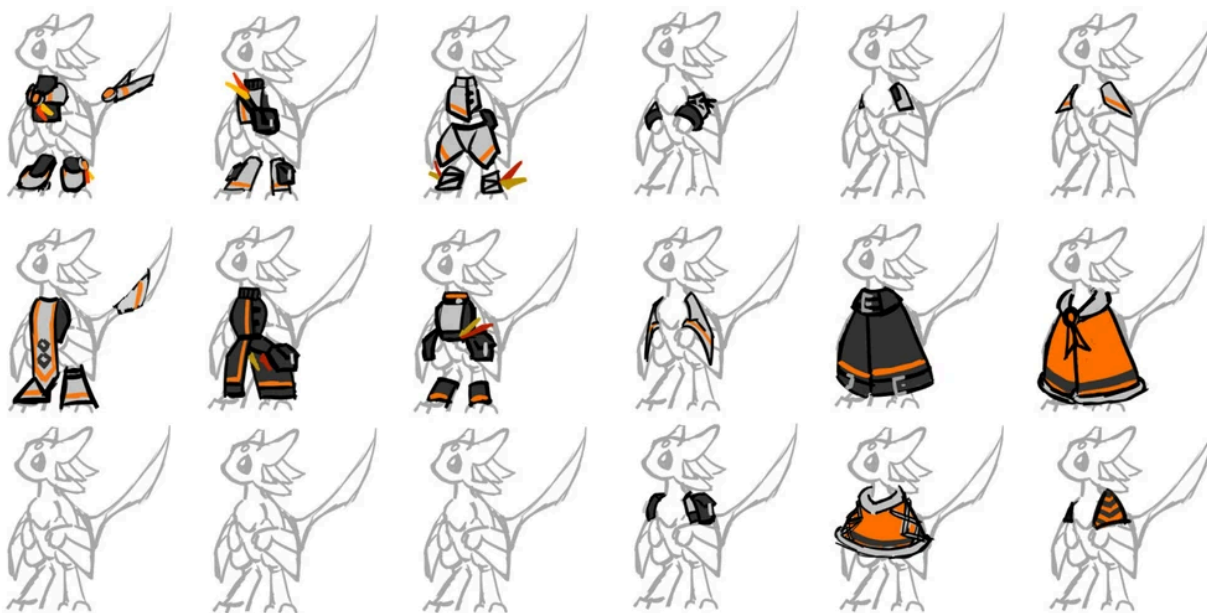




landed











Eyes are
oblate, with
very wide
field of view
but poor focus.

Orbits are relatively
shallow, hence they
have space for a
brain in there



Ridges on skull
for ear muscles

V-shape
exposes back
teeth



Keeping upper
lip low gives
cute little fangs



They have a
terrifying smile

Teeth grow constantly
forming razor-like
plates designed to
rasp meat. Lost plates
regenerate over time
like nails

Full grin gi-
**HOLY
FUCKSHITS**

