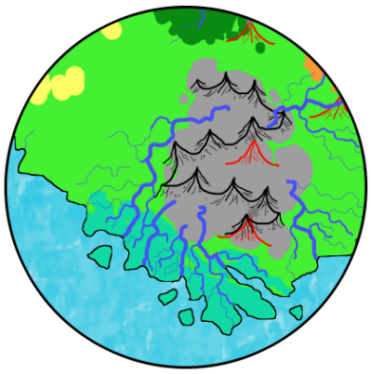
KALEIDA



Kaleida is an unspoilt world with an emphasis on beauty, colour, and biodiversity, and none of the troubles of Earth: no human-induced climate change, no plastic problem, no systemic over-consumption of resources, and no extreme over-population of any one species.

The planet is rich with natural wonders, whether geological, biological, or cultural, and these are showcased on the Kaleida web site. As a result, it is protected by an interplanetary organisation and is currently occupied by teams of rangers and environmental studies students who protect, record, and monitor the planet's health.

🪐 Context 🪐

Kaleida exists partly as a passion-project, partly as a showcase for my worldbuilding skills. I also use it to collaborate with artists.

Geography

Here are a few versions of Kaleida's map: Physical Map (with biomes) | Physical Map (with natural landmarks) | Political Map

Kaleida has little in the way of political demarcation, as the natives are all stone-age at best. Names exist for areas loosely defined as continents, but these names were given by off-worlders for the sake of easier discussion about Kaleida.

Continents

The continents of Kaleida generally do not have clearly defined edges. [I'll need to make clear edges to each at some point.]

Accra Forest
Accra Forest has something of a misleading name. The continent does indeed have a large, tropical rainforest and a big expanse of temperate forest, but the actual area of Accra Forest is a large continent connected with Oplayn and Limtun, and is separated from both by mountain ranges.

A major river runs north, bisecting the continent, and is responsible for its name: 'Accra' is derived from 'cracked'. It's a forest cracked in two.

Boverok
A broadly-square shaped continent with a mix of tropical rainforest and grassland. It sits north of Neathrok and the two are connected by a volcano range. That isn't its only range of volcanoes - aside from sharing one with Neathrok it has its very own, some of which may have become extinct and now form the basis of three huge lakes.

Evallie Chain
A strange continent. Not only is it made entirely of volcanic islands, but it's long and approximately Y-shaped, and squeezes in between Boverock and Neathrok, and Accra Forest.

The chain of volcanoes are the result of a thinning of the planet's crust, which itself is the result of separation of the above-mentioned three continents. Evallie stretches from one subpolar region to the other.

Limtun

The ‘little tundra’ of Kaleida. A small continent that collided with the southernmost part of Accra Forest, Limtun is a land of coniferous forest, which gives way to tundra, which in turn gives way to snow as the southern parts reach almost to the south pole. A line of volcanic islands lie to the East with a range of terrains.

Onar
The smallest of the continents, this continent sits on its own tectonic plate and is slowly working its way apart from Boverok. The pressures pushing it away have cracked the crust enough to allow frequent eruptions of undersea lava, and Onar is now ‘shielded’ from Boverok with a line of volcanoes, some active, some extinct.

Neathrok
Boverock’s southern sister. Neathrok stretches from the equator to the south pole. Heavily forested and shares a volcanic range where it joins with Boverok.

North Oplayn
Oplayn is a broad portion of Kaleida’s mass, and North Oplayn in particular has a long mountain range.

Rem
A bleak place indeed. Formed entirely of volcanoes (all of which appear to be extinct), and far away from any other landmasses, Rem sits squarely in the northern tundral area, with just a few minor islands reaching into temperate zones.

These remote islands are made mostly of obsidian, and the natural glass has shattered due to the island chain’s geologically violent history. If you go, watch your feet.

South Oplayn
Has its own, shorter mountain range.

Wesserty
A large wedge of land, which broke off from Oplayn many millennia ago. This continent is mostly desert terrain.

Major Landmarks

This list of major landmarks is always growing as more of Kaleida is catalogued, but currently the majority of this list is of particularly beautiful locations earmarked as suitable for tourism.

Amber Islands
Continent: Onar
A set of calderas on the Onar continent, which began life as volcanoes. Conifers grew on them as they became less active and left amber behind. The warmth of the dying volcanoes melted and separated the amber until pure, molten amber remained, which was occasionally pushed over the volcanoes' lips before the volcanoes finally became extinct. The result is a number of volcanoes covered with a thick layer of clear, golden amber.

Bluehaven
Continent: Evallie
A chain of islands within the Evallie continent that are rich with chrysocolla, azurite, and other blue rocks. The unusual colour of this environment encourages a unique ecosystem.

Blue Soils
Continent: Neathrok
A few locations on Kaleida are made of white limestone soils that contain rich quantities of copper. This copper has oxidised, turned blue-green, and given the soil a blue tinge. This location is the most notable.

Caverns of Light
Continent: Boverok
A vast network of underground caverns, many containing rivers, that are filled with an entire ecosystem of bioluminescent and ultraviolet life.

Coral Beach
Continent: South Oplayn
Coral Beach is a south-facing feature on the coast of South Oplayn, the result of an ancient coral reef which was rich with giant table corals. When the corals died they left their skeletons behind. Over the millenia, the tectonic plates shifted, exposing the skeletons above sea level. In the modern day they are used as open 'burrows' by the mukash and kasulam.

Dunes of Gold
Continent: Accra Forest
A desert situated close to a beach where historically, a population of gold nacre-producing molluscs lived. When they died, their shells were ground in the surf, dried on the beach, and were blown inland. The Dunes was where the majority of this debris landed, and as a result the desert has a layer of pearlescent, shimmering golden sand.

Nacrefalls / Hot Rains
Continent: Boverok

A semi-extinct volcano that's tall enough to create its own weather-system - hence the rain - and warms the rainwater collected within its crater - hence the *hot* rain. Giant clams live in this water and create generous quantities of blue nacre, enough that it spills from the clams and solidifies on the ground.

Opal Canyons
Continent: North Oplayn
One of Kaleida's limestone canyons is notable for the opals that line its walls. Dry and shaded, it provides welcome relief for its inhabitants, which venture out for food in the mornings and evenings.

Sunset Cathedra
Continent: South Oplayn
Hundreds of thousands of years ago, volcanoes erupted in this area. Air pockets became trapped underground as the lava cooled, and as the millenia passed, water filtered down to, and through, the air pockets, leaving minerals behind. Those minerals crystallised into amethyst.

The rock was worn down by rain during the ice ages, and sand during Kaleida's hotter times, until the first few air pockets with their amethyst interiors - geodes - were exposed.

That was when the mukash and kasulam - two sapient Kaleidian species - scouted the area. They discovered the smaller geodes and broke them open to see that they contained purple crystals. Then they examined the larger balls of rock that had been partly revealed after the thousands of years' worth of weathering, and cracked them open to see that they too contained amethysts.

The location was a poor choice for a settlement, given that it was in the desert, but its remoteness became a helpful feature for the tribal chiefs to meet and discuss important matters in private. So that was what it became. The rest of the largest geodes were cracked until there were several, enough to act as thrones for an entire tribal council. Still, amethysts are uncomfortable to sit on, so they poured sand into the amethyst thrones to make the seating more comfortable.

Since then, whenever there is a council to be held, the mukash, kasulam, and pinno' grath assistants go on ahead to prepare the location for the meeting to take place.

Volcanic Sands
Continent: Evallie

Several of the Evallie islands boast black sand, but one particular location has the darkest. The Volcanic Sands here lend the beach a particularly moody appearance when storms are overhead, and one of rich fertility when the sky is blue.

White Caves
Continent: Wesserty
An extensive range of limestone caves that are considered to have played a major role in the evolution of white pinno' grath. Populations of the creatures still live there. Their backs and wings have brushed against the soft rock for aeons, and the result is that in parts the caves are perfectly smooth.

Regions

The regions are defined by coordinates. Kaleida's world atlas' X-axis is defined as a 3-digit number, while its Y-axis is defined by 3 letters, starting with AAA.

Each region is square, and 42.5km (26.4 miles) long and wide. 16,698 regions exist on land throughout Kaleida, and each requires a workforce of 193 people. Each staffing team is divided at a ratio of 1:1 between rangers (referred to as 'global rangers') and researchers.

The working population of each region is 12 people per sq km. See *Region Staffing* for further details.

Example - AEQ, 294
Description: AEQ, 294 is a coastal region at a subtropical latitude in the southern hemisphere. It includes an approximately 10-mile bay and forms part of the Coral Beach area. Approximately ¼ of the area is ocean, with the rest being beach and an in-land coral reef composed of dead table corals. A small river flows in from the east and runs along and over a portion of the corals before emptying into the sea at the extreme western border of the region.
Population: This is the heartland of the kasulam-mukash Coral Beach supertribe.
Infrastructure: This region is as well equipped as any on Kaleida, given the importance of this location to the natives.

Communication: It has its own radio tower. The appearance of this structure is being softened by growing vines up its bars, but it will always be easy to see and the natives are aware of its presence. The tower here is being used as a case study in normalising radio towers with the natives.

Food: Food is provided that does not require cooking, although enough food intended for hot consumption is provided for a hot meal twice per week. This is to maintain morale. Cooking facilities are mostly large-scale paella pans, wind shields, tables, and stirring implements and bowls where they haven't already been provided by the locals. These pans are easy to move under cover during the rainy season.

The corals provide natural, cool pantries for food, especially as many of these are too small to inhabit as homes. However, the natives are consulted as to where they are content for food, fuel, and other goods to be stored. This region's oceanside location also makes it easy for the off-worlders / natives to provide food to the off-worlders. off-worlders are encouraged to build relationships with the natives to arrange for this. The standard off-worlder foods will be provided regardless.

Energy: Wind and solar are the best energy sources here, so solar panels and portable wind turbines are used. Solar water heating technology is included.

Housing: The weather is usually warm and pleasant in this region. For this reason, housing infrastructure is minimal, with tarpaulins and similar provided for the rainy season and blankets provided for cooler nights. There may or may not be enough coral caves available to house all off-worlders, so off-worlders should expect to live in tents. These are designed to be tall enough for most off-worlders to stand up straight in.

Water: Availability varies depending on the time of year, but is available enough for much of the year that there is always some water available. Careful usage is required, however.

Sanitation: The prevalence of corals presents an issue with some infrastructure such as composting toilets, so these are managed with relative care.

Sun protection: This region gets a lot of strong UV, so sun protection is advised. off-worlders are recommended to bring tshirts, hats, and other protective attire. Natives are able to direct off-worlders to mud baths.

Travel: off-worlders visiting this region should be prepared to walk in hot sunshine and torrential rain, and to pack accordingly. Travel will usually be on foot, as neither bicycles nor vehicles are appropriate for use on the corals. However, the local pinno' grath are relatively amenable to offering riding services, but trust must be built for this.

🐳 Ecosystem 🐳

Kaleida's native ecosystem is beautifully rich and varied. A broad description of the taxonomic Classes follows. Taxonomic Orders, Families, and species can be found elsewhere.

Plants

One of the more noteworthy aspects of Kaleida's plants is that the only flowering and fruiting plants grow in water, including salt water.

Bonded Plants
Bonded plants fill the oceans, fresh water lakes, and rivers of Kaleida. They work hard for the ecosystem, oxygenating the water to make it habitable for animals, and providing opportunities for symbiosis with many fungi, protozoa, and zooplankton. The occasional species goes rogue and produces toxins. They are often single-celled, never produce fruit or seeds, and instead either sub-divide or produce spores.

Eccentrics
Few plants can survive in tough conditions as well as eccentrics. They stand resolute and proud in extreme dry environments – both hot and cold – and on mountainsides where they are torn at every day by feral winds. Most other plants cannot grow near them, partly due to the eccentrics' sheer hardiness and partly thanks to their ability to discourage the growth of other plants.

Their fleshy leaves and stems are often edible in small quantities, and most species have delicate fronds which are too tough for most animals to eat.

Lace-roots
Many lace-roots stand tall on land, but their main contribution to the world of Kaleida is to hold the very soil together and to help keep it hydrated by holding onto water like a sponge. They do this by growing extensive, and extremely fine, root systems which assure the stability of the soil. They release spores.

Rugplants
These are tiny plants, generally trodden unnoticed underfoot, that nevertheless come with a dazzling array of miniscule leaf shapes. Some of these tessellate which makes the ground look visually stunning. They produce spores for reproduction.

Waterflowers

Waterflower plants grow in both salt and fresh water. They produce flowers, fruit, and seeds, all of which are almost invariably submerged. They produce nectar in forms that allow it to be collected by pollinators underwater, e.g., in solid form.

Witch herbs
Witch herbs perform the same basic functions as any other plant: oxygenation (of the water, in the case of this phylum), and provision of habitat and food for animals. Aside from this, they tend to be attractive to look at for any creature capable of aesthetic appreciation of plants - especially their sporophytes. They reproduce via spores, and prefer to grow in bodies of water or in consistently wet environments.

Fungi

[Introduction needed.]

Example 1
[To be worked on]

Example 2
[To be worked on]

Example 3
[To be worked on]

Animals

The animals of Kaleida are distinct from those on Earth, and many tend to be colourful, including those with mostly visible skin with no fur or feathers.

Cob'li po-fea
A group of primarily live-bearing, cold-blooded species with 4 limbs (usually two legs and two ‘fins’). Most have feathers, although these vary greatly from one species to the next. Some feathers are evolved to assist with flight, gliding, or assisted ruddering while running; short-quilled ones offer protection much like rough fur, while smooth ones facilitate a semi-aquatic lifestyle. Some cob’li po-fea have decorative feathers for display purposes.

O'fur-hai

Overall, o'fur-hai are warm-blooded egg-layers that live on land and possess 4 limbs, but have an aquatic larval stage. They do not transition entirely to a terrestrial lifestyle and must remain close to water to keep their delicate skins healthy. They generally have fur which often plays a part in protecting their skin.

Pogi'fula
Entirely aquatic beings with 4 limbs. Pogi'fula possess gills and are warm-blooded. The texture of their skin can vary a great deal, but they never have feathers or fur.

Wabl'o poba
Wabl'o poa are 6-limbed, warm-blooded creatures that mainly have bare skin, although this varies greatly from one species to another. They can be smooth, rough, or wrinkled, and have thick 'warts', bumps, or horns. The vast majority of species live on land and lay hard-shelled eggs.

War'col begla
Animals in this group possess only 2 limbs, and fur - everything from rough, thin bristles to the fluffiest, most luxurious pelt. Most species in this group lay eggs, and their combination of warm-and-cold-bloodedness has allowed them to live in most environments.

Invertebrates

[Introduction needed.]

Example 1
[To be worked on]

Example 2
[To be worked on]

Example 3
[To be worked on]

Dominant Species

A few species have developed sapience and overcome the demands of their environments enough to be described as dominant species. They include:

Kasulam
The kasulam are overall a welcoming and unaggressive species, and eager to include off-worlders in their lives. Families tend to be large (kasulam litters range in size from 6 to 16), and a large portion of youngsters from each generation tend to relocate upon maturity. Kasulam are often family- and community-orientated and this is central to their culture.

Learn more about kasluam culture in the Kasulam Lore Bible.

Mukash
The mukash are similarly welcoming and unaggressive compared to the kasulam, but are generally more pragmatic. They are known to be keen problem-solvers and willingly seek productive, cooperative relationships with others.

Learn more about mukash culture in the Mukash Lore Bible.

Pinno' Grath
The pinno' grath maintain strong predatory instincts but are capable of intelligent conversation, thought, and cooperation. Natives and off-worlders continue to support the pinno' grath in developing and maintaining positive, mutually safe relationships, but care must be taken.

Learn more about pinno' grath culture in the Pinno' Grath Lore Bible.

Bacteria, Viruses, and Other Pathogens

[Introduction needed.]

Example 1
[To be worked on]

Example 2
[To be worked on]

Example 3
[To be worked on]

Artificial Life

There is no artificial native life - no magical beings, elementals, or otherwise unnatural life. [It's possible that robotic animals are used by off-worlders to help with research and protection - such as shoals of robotic fish used for detecting chemicals, and insectoids that unobtrusively watch for untoward activity. I'll come back to this.]

Example 1
[To be worked on]

Example 2
[To be worked on]

Example 3
[To be worked on]

Off-worlders

A number of alien species came to Kaleida as part of the protection program. They include but are not limited to:

Eborgine
The eborgine are stocky creatures with four legs and a dexterous trunk. Adults are 2 metres long from forehead to tail, with the trunk often being around .5 of a metre.

"Furries"
The collective term for several species of aliens who usually look like anthropomorphized versions of animals from Earth. Their contributions vary from species to species, but they tend to fit into Kaleida's imported working and living spaces easily on account of sharing a roughly similar body shape to that of humans.

Humans
There is little to say about humans as much of the historical background and current culture of humans is likely to be familiar to the reader, at a far higher level than it would be appropriate to discuss here. However, suffice to say that in spite of current widespread human belief, the humans have long-since had contact with the intergalactic community, hence their role in the Kaleida protection program.

Ispep

The ispep are elongated in shape with six tentacles at the front and two vestigial eyes. Their skin is very soft and produces slime to protect itself from pathogens and intense sunlight. An adult ispep is approximately 3 metres long.

They move rather slowly - approx. 2.5km per hour, although they try to speed up by moving in each others' slime trails so they don't have to produce as much of their own. They also strongly favour dark, moist environments.

Kz-cutl
Kz-cutl look not quite entirely like tarantulas. They have 10 segmented legs which typically have a span of 1.5 metres across and 2 metres from front to back when a kz-cutl is standing normally (that is, when they are neither tucking their legs in or laying flat on the ground). Much like a spider they have no recognisable face, although they do possess most of the same set of sensory organs that a human does.

Their general appearance leads to much consternation from humans, who instinctively find them disturbing, and from some of the other species who visit Kaleida and come from a world where spiders or similar animals exist.

Note: kz-cutl are not venomous.

It may be noted that they are culturally inclined to be formal and bureaucratic, to the point that demonstrating fear around one can lead to complaints to Human Resources.

Stull
Three-legged aliens who typically stand at a height of 10ft. Stull have a black, shiny carapace, feet resembling hooves, mouth-parts suited to a liquivore diet, and curly horns.

Their size means that they present a challenge to the construction specs assigned to Kaleida's living and working quarters, but are valued members of the team.

History

Kaleida's history may be described as unremarkable up until the Earthian year of 2015 due to none of its native species being developed beyond their mesolithic era. In 2015 the planet was discovered by the space-faring community, and subsequently contact was made to facilitate protecting the planet.

While this required an act that technically amounts to an invasion, this was carried out in the most sensitive way possible and resources are not taken from Kaleida beyond those required by the teams protecting Kaleida to live while carrying out their jobs.

Prehistory

[Introduction needed.]

Example 1
[To be worked on]

Example 2
[To be worked on]

Example 3
[To be worked on]

The Ancient World

[Introduction needed.]

Example 1
[To be worked on]

Example 2
[To be worked on]

Example 3

[To be worked on]

Modern-Day Backstory

In the equivalent of Earth's year 2015, planet Kaleida was discovered by a mining spacecraft from an unnamed civilisation. It quickly became apparent to the crew that Kaleida was rich with life and was as yet unrecorded on the intergalactic survey as such. As per the rules in such a situation they reported it to the Intergalactic Untouched Planet Committee (IUPC), who stepped in to organise the planet's protection.

The IUPC sent a team to the planet to check for intelligent life, and they identified a number of mesolithic species.

They landed, introduced themselves to the first individual they met, and requested to meet with the individual's tribal leader to discuss the reasons for their visit. This individual was a mukash member of the Coral Beach supertribe.

The Mukashs' history of deal-making made discussions with the Mukash as easy as could have been expected. Arrangements were made for the IUPC representatives to speak with the tribal leaders of the Mukash, Kasulam, and Pinno' Grath. The series of meetings that followed took place within the Sunset Cathedra.

During these meetings the IUPC explained the nature of their visit and offered to guide the mesolithics through the process of protecting their planet from invasion for any reason that may cause damage or undesired changes to the planet. To facilitate this, the IUPC stated that they required data about environmental pollution levels (which was fully expected to be nil at the time), population levels of various key species, and to be permitted to monitor Kaleida for unsanctioned alien activity on an ongoing basis. They also requested permission to install teams of global rangers to live at strategic points across Kaleida, to help facilitate this research and enact any protective measures required in case of environmental damage, including but not limited to invasions, claiming of land, mining, or poaching. Finally they explained the concept of ecotourism and requested permission to allow a small number of tourists to visit Kaleida, in order to fund the ranger teams. They explained that the research teams could be self-funded.

All of this required the active support of the Mukash, Kasulam, and Pinno' Grath species.

Outcome

After a number of meetings, the natives reached a consensus and agreed to allow for the ranger, research, and vacation groups to visit Kaleida in return for the best possible guarantee of protection from the more aggressive members of the intergalactic community. The IUPC are confident they can deliver this.

The IUPC advised that integration of these groups with the global community was advisable, especially for the ranger teams, ie., to live on-site, encourage them to hunt and gather for their own food, and to trade with locals for as many of their needs as possible. This helps foster a sense of equality to redress the enormous power imbalance between the visitors and the natives. In the interests of ensuring optimal performance from the resident working aliens, it was agreed that a food station would be stationed nearby off-planet with regular drop-offs of top-up supplies. This food station was later put into orbit around Kaleida, with regular deliveries made by an automated vehicle service.

Members of the IUPC also explained the concepts of money (in order to fully explain the necessity for vacationers), drone technology, teleportation, small-scale renewable energy-generation, and radio. This was to prepare the natives for the understanding that we would need to install repeater towers for the radio system, to convey the harmlessness of the drones and shuttle vehicles used to support the rangers and research teams, and to inform them of the usual preferred mode of transport on and off-planet going forward. The natives accepted all of this with varying degrees of enthusiasm and reluctance, however their understanding of the latter forms of technology was understandably lacking in depth.

Overall, all parties agreed on a lifestyle for the working teams. Concerns were raised at various stages, including over the physiological nature of the rangers, researchers, and holidaymakers/vacationers, as the IUPC representative team members included a variety of alien ethnicities, some of which the Kaleida natives found alarming. The IUPC agreed to introduce the tribal chiefs to representatives of any new species who wished to visit Kaleida.

All of this was agreed to on the understanding that other, either equally or more advanced, species may be discovered elsewhere on Kaleida, and that further agreements may need to be made with them.

Subsequent to agreements being made, the IUPC began work to source the necessary teams of global rangers and researchers, and prepared for the arrival of vacationers.

Timeline

A Kaleida-specific calendar is currently in production [ie., I need to make one!]. For now, the Earthian calendar is used.

2015 - Discovery and Assessment
Kaleida is discovered by a mining ship and reported for closer assessment for complex life. Complex life discovered. Contact made.

2016 - Diplomatic Agreement for Protection
Agreements made between Mukash, Kasulam, and Pinno' grath civilizations with IUPC.

Disasters

[Introduction needed.]

Example 1
[To be worked on]

Example 2
[To be worked on]

Example 3
[To be worked on]

Culture

Each sapient species on Kaleida has its own culture, and understanding these can be highly beneficial to understanding the overall gestalt culture of any particular region. Much more information is held on other documents about each sapient species, but an overview can be found in the *Dominant Species* portion of the *Ecosystem* section.

♟ Politics ♟

As a universally protected planet, Kaleida requires protection on a micro and macro scale. Macro scale protection involves the political landscape of the intergalactic community and is not written about in great detail here. Suffice to say that the IUPC has the support of enough members of the intergalactic community to be able to offer excellent protection to the planets under its care, including Kaleida. Kaleida's safety is not considered to be under significant threat from this perspective.

On a micro scale, opportunists may attempt to take advantage of Kaleida. The IUPC tackled this by creating regions of equal size throughout Kaleida and populating them with staff who act to protect Kaleida on the ground.

Region Staffing

16,698 regions exist on land throughout Kaleida, and each requires a workforce of 193 people. Each staffing team is divided at a ratio of 1:1 between rangers (referred to as 'global rangers') and researchers.

The working population of each region is 12 people per sq km.

Global Rangers

Each region requires 95 rangers. These are hired from around the universe from trusted civilizations.

Ranger responsibilities are broad, and include law enforcement, educating and informing vacationers, providing an emergency response, assisting with research, maintaining infrastructure, and administration. Read the Kaleida site's ranger team page on the web site for further details. No one ranger is expected to fulfil all of these roles, but the overall team is recruited and trained to ensure good coverage of these skills.

Global ranger salaries are the approximate equivalent to $46,300 USD. This raises a financial need for the IUPC, as there are 1,611,357 rangers across Kaleida. $46,300 x 1,611,357 rangers = $74,605,829,100 USD. The Kaleida vacation program raises the funds for this.

The IUPC's administrative team monitors the number of global rangers in employment each year plus the number of vacationers to ensure that funds remain available to pay the rangers' salaries. When there is a shortfall, the IUPC encourages Kaleida's natives to train as rangers.

Researchers
In order for the IUPC to protect Kaleida, the development and maintenance of a knowledge-base is required to allow them to assess changes in the environment such as the presence of pollution, decreases or increases in the populations of various species, mining, and other issues. Knowing when such a change has occurred would allow them to repair the damage done and potentially prevent further damage. This is where researchers come in.

Each region has a team of researchers of equal size to that of global rangers (see *Global Rangers* for further details). However, the role of researcher is not a paid position, so they do not raise the same issues for funding.

Kaleida's existence is classified (or its equivalent) for many space-facing civilizations, with only world leaders or specialist agencies being aware of it. An exception is written into classification protocols for the recruitment of students in the environmental sciences field, who are studying at selected, prestigious universities. There are many of these across the universe, but the Earthian ones include (but are not limited to) Oxford and Cambridge Universities, Harvard University, Yale University, and several more.

Research on Kaleida provides these students with the opportunity to complete their field hours, and cover stories and documentation are provided to them in order to maintain Kaleida's secrecy.

Students are assessed for quality, but also for resilience: travel on and off-world is limited to once per year, meaning that students will not see their family, friends, and partners for long periods of time. They are assessed for their ability to manage this limitation.

Further information is available on Kaleida's Research Team webpage.

Contentious Issues

Like all global national parks, Kaleida is subject to a number of controversies. These are the main ones.

Alien Intrusion/Invasion
Not all Kaleidian natives are content to share their world with the regional teams. This situation is handled with a combination of cultural sensitivity from the teams, and the management of discontented individuals by native tribal leaders.

Vacationers have been shown to be less sensitive to this, and the vacationer funding program (see the *Global Rangers* and *Vacationers* sections for further details) is being gradually phased out in favour of natives upskilling to fulfil the global ranger role without the need for remuneration.

This solution conflicts with the issue of modernisation of the natives.

Ecotourism
One of Kaleida's most contentious issues is the tourism that occurs there. Tourism is proven to damage destination locations, and there is a risk that Kaleida will follow this pattern. However, the IUPC monitors this situation carefully to limit or prevent this.

Ecotourism is an oxymoron in the sense that it is impossible for tourists to avoid impacting any location they visit, but ecotourism principles are followed to minimise the impact of visitors to Kaleida.

Modernisation of the Natives
Another contentious issue on Kaleida is the moral dilemma of providing the natives with knowledge and technology that will take them through, and beyond, their mesolithic age. Ethical issues surrounding this include but are not limited to provision or withholding of medicine, food stability, sanitation, and war.

[I'd like to write a handbook about this, that boils down to "Don't push the locals into the Iron Age".]

Radio Repeater Towers
These are among the most obvious pieces of infrastructure introduced to Kaleida, subsequent to the arrival of the IUPC. As such they can be symbols of what some natives consider to be an invasion. Most natives lack the ability to knock them down, but attempts have been made in the past. Some have begun to be colonised by

Kaleida's flora, which can reduce their visual impact. Solutions are being sought to render them obsolete in favour of less-visible technology.

Safety from Predators
The Mukash and Kasulam have achieved a delicate diplomatic relationship with the Pinno' grath (who are apex predators) to prevent themselves being treated as prey. The presence of aliens within the regions in which these species live threatens to tip this balance.

Visitors are discouraged from interfering, and this can be morally difficult to do.

Another aspect of this issue is the safety of off-worlders from predators. The risk of predation can be mitigated in many ways, but the IUPC refuses to sanction any cull of predators.

💲 Economy 💲

The IUPC strives to maintain as little reliance on finance as possible in the protection of protected planets such as Kaleida. This is an effort on their part to prevent such planets from becoming exploitable resources. Therefore, the committee relies on a combination of grants, charity and other acts of goodwill by civilizations active within the intergalactic community, and carefully-managed diplomacy.

Vacationers

For Kaleida's remaining needs, a small number of vacationers are invited to Kaleida in return for a generous fee. This generally helps to meet some of Kaleida's expenses.

A vacation to Kaleida costs approximately $166,345 USD. Kaleida's expenses (mostly salaries for global rangers) comes to $74,605,829,100 USD. This, divided by $166,345 = 448,500 vacationers per annum. This adds up to around 27 holidaymakers per region, and the vacationers' population density is approximately 0.003 per square km. Vacations are 1 month long, so each region hosts four vacationers per month for 6 months of the year.

Kaleida vacations are something of a contentious topic, as tourism tends to damage the locations visited, and while these vacations are generally run as strictly under ecotourism principles as possible, it is difficult to entirely eliminate their impact, especially when catering to the people who are capable of affording such holidays.

Finance isn't the only reason for vacationers being allowed to Kaleida. While the existence of Kaleida is openly known in some civilizations, in others only a select few people are aware it exists. Because of this, a small number of individuals, often the elite, wish to visit and see its wonders for themselves. Vacations to Kaleida are therefore a resource used for diplomacy, networking, or other relationship-building purposes, and this is a significant reason for the existence of Kaleida holidays.

Kaleida's website, which advertises the various vacations on offer, can be seen on the Vacationers' webpage.

Infrastructure

The IUPC plans Kaleida's infrastructure to have as minimal an impact as possible. The following infrastructure issues are handled regionally, with variations depending on terrain, climate, and other resources.

Communications
Radio allows for communication across the world, and repeater towers allow for radio communication on a global scale.

Off-world communication is rather different. Off-worlders are able to go to Kaleida thanks to teleportation technology as donated by the Stull. This technology is highly expensive and energy-hungry, which means that they ask for its use to be strictly limited.

Two levels of this teleportation service are available: animate, and inanimate. Animate teleportation is designed to safely transport living beings and requires a higher level of resources. This is usually used on an annual basis to bring new staff to the regional teams or to take individuals who have resigned home. Individuals charged with gross misconduct are taken to the space-station where a set of prison cells are located, where they can be returned to their native world during the next mass-teleportation event.

Inanimate teleportation is capable of teleporting inanimate objects, such as letters, and is cheaper (though by no means cheap) to do. The Stull provide regular, periodic availability of the inanimate teleportation service, although most inanimate teleportations happen via the space station, where written communications can be sent up via the weekly food-shuttle, scanned by the postal department for contraband, and then bulk-sent to their native worlds.

Contraband includes:

- Explicit references to Kaleida, or hints of its existence
- Photographs of Kaleida's landscapes, flora, or fauna, or otherwise providing evidence of the existence of Kaleida
- Plant parts
- Animal parts
- Any other parts of organisms native to Kaleida

Team members are asked only to write home in case of emergencies or other special cases. ‘Keeping in touch’ without due reason puts extra strain on the communications infrastructure which the Stull and IUPC wish to avoid.

Cooking Facilities
Some food is already cooked prior to delivery (see *Food Supply and Storage*) so that cooking is unnecessary to access the increased calorific content of cooked food and therefore meet the team’s energetic needs, although it will have been cooled prior to delivery. Cooking facilities may or may not be available depending on the location, but for colder locations fires may be built, and combustible material such as compressed wood pellets, can be requested and supplied via the shuttle.

Generally, energy harvested via the equipment listed under *Energy Sourcing* is unlikely to be used for cooking, given the high energetic demands of generating heat. Large-scale cooking facilities such as large paella pans and wide bar-b-que barrels are provided. Cutlery, crockery, and water bottles are made of metal and are also provided.

Energy Sourcing
It is important to note that Kaleida has no energy grid. Each region is provided with small-scale renewable energy equipment suitable to the location, and takes responsibility for their own energy-production. This is generally the most efficient equipment the intergalactic community has to offer, and in many cases has been kindly donated by the Stull, Eborgine, Kz-cutl, and Ispep civilizations.

Regions may have access to any or all of the following forms of energy:

- Wind
- Hydro-electric
- Solar
- Heat pumps

Solar water-heating technology is installed in most regions, as this can produce heated (potentially boiling) water which is almost universally appreciated by the teams as a luxury, and to ensure that water is safe to drink.

Due to the sometimes limited nature of energy production on Kaleida, it is requested of teams to avoid using energy for cooking or heating, unless wood pellets are not available (see *Cooking Facilities* for further details). It is also requested of the teams to

bear in mind that priority for energy consumption should be given to the ranger and research teams, who may require energy to do their work.

Food Supply and Storage
Food is delivered to a space station and subsequently to each region via a weekly shuttle service. Each region has several pantries, one for each sub-team, that are restocked at this time.

The foodstuffs available in these deliveries have been carefully chosen to prevent the introduction of exotic chemicals to Kaleida, and to improve relations between natives and non-natives by putting little to no pressure on the natives to feed the non-natives.

Foods originating on Kaleida can be eaten, and locals may assist with hunting and gathering at their own discretion. The natives reserve the right to refuse to do this. Information can be provided by the research teams about what foods are safe and pleasant to eat.

Common foods include:

- bread or breadcrumbs
- chocolate/hazelnut spreads (non-dairy only)
- cooking oils
- crisps/potato chips
- dates (de-seeded)*
- dressings (no seeds)* and pestos
- macadamia nuts (crushed)*
- maple syrup
- mashed potatoes*
- nougat
- oatmeal (as cookies or offered as is)
- pasta
- peanut butter
- pecans (crushed)*
- Raisins (seedless/seeds removed only)
- sugar
- salami and other dried meats

*Seeds and tubers are only imported to Kaleida once they have been rendered unviable for germination.

The following may also be available. However, discretion is advised as some natives consider the consumption of dairy products to be unsavoury:

- caramel
- cheeses
- milk / white chocolate
- mayonnaise

Living/sleeping Quarters
Flat-pack buildings were donated by the Eborgine civilization. In addition to being relatively easy to assemble, they are well-insulated and/or designed to maximise air-flow, reducing the need for energy to be expended on heating and air conditioning.

Medical
Specialist rangers are able to offer paramedic services.

However, for medical emergencies beyond this, patients are evacuated via an emergency shuttle journey to the Space Station's hospital. This is a taxing journey, especially for a critically ill individual, so the IUPC seeks to prevent serious injuries from occurring to the best of its ability.

Wherever possible, paramedic-trained rangers will treat patients on Kaleida. They have access to several light-weight tools including ultrasound equipment, which can help them identify a wide host of medical problems and offer a diagnosis quickly. Telemedicine (remote treatment of patients by doctors via an electronic video link) is also available to support the medical teams. They are also able to deliver injections and extract teeth.

A brief note should be made regarding parenthood: birth-control is highly recommended for the duration of an off-worlder's stay, and pregnancy termination services are available. Pregnancy is considered to incur medical risk that the IUPC may not be able to meet, and giving birth or egg-laying by an off-worlder on Kaleida is grounds for immediate return to the parents' native worlds.

Unfertilised eggs are an exception; all eggs must be submitted for candling. Infertile eggs can be destroyed, while fertilised eggs can be destroyed or returned to the parent/s along with a notice of return to their home-world.

Injuries from animal attacks are a realistic risk on Kaleida, although all possible precautions are taken to avoid this.

Postal Service
See *Communications*.

Quarantine
Multiple quarantine units exist throughout Kaleida. It was considered prudent to house these on Kaleida to prevent the discovery of quarantine sites on the planets on which Kaleida's existence is classified - and by extension, Kaleida itself.

Safe Drinking Water
Water for drinking, cooking, and brushing teeth (and other semi-internal uses) is taken directly from the region's water supply. Supplementary water can be delivered by shuttle if required. The natives can advise on safe water sources, although off-worlders are recommended to educate themselves prior to a visit on the sourcing of safe water.

The primary strategy for water purification is boiling, to kill any pathogens. Cloudy water should be allowed to settle, and the clear water skimmed off prior to boiling.

Boiled water should be stored in sanitised containers with tight covers. The bottles themselves are sanitised by washing in hot, soapy water and left up-side down to air-dry. Soap will be provided for this purpose (see *Personal Hygiene* for further details).

Off-worlders are asked to be responsible with their water usage and not over-use it or contaminate water supplies.

Sanitation
The site of each sub-team has two sets of composting toilets, one of which will be in use at any given time. The resulting compost is available to be used for growing plants.

Personal Hygiene
Soaps can damage Kaleida's ecosystem, so shower blocks are designated for all personal hygiene purposes. "Eco-friendly" soaps and detergents are no exception to this. A bucket bath and wash-cloth are to be used wherever shower blocks are unavailable, and soapy water should <u>never</u> be emptied within 200 metres of a source of drinking water.

All soapy water is to be mixed with calcium carbonate, and the resulting water is to be filtered, and the filters sent in the weekly shuttle for disposal.

- biodegradable soaps are provided as standard, including laundry soaps
- tooth powders and tabs are also available, and biodegradable toothbrushes are provided
- deodorants are not available
- feminine hygiene products are restricted to menstrual cups
- commercial sunscreen is not available
- toilet paper is provided and must be taken to the nearest fire after use to be burned

Sun protection can be a particular issue. Off-worlders who are vulnerable to strong sunlight will either be assigned to cloudier climates or are recommended to cover up and spend as much time as possible in the shade. Alternatively, some planets offer gene therapy to permanently improve protection against the sun. Recruits may wish to use this if they wish to visit a hotter location.

Travel
Off-worlders are required to have a sufficient level of health to walk or fly reasonable distances. Hardier hikers and flyers will be selected for terrains that present higher difficulty. Good-quality hiking boots and wet-weather gear are required.

Off-road bicycles are available.

Some regions have the use of a vehicle, and these are generally battery, hydrogen, or ethanol-fuelled.

Depending on the quality of the relationship between the off-worlders and natives, some natives are willing and able to provide riding services. This must be approached sensitively where an established riding relationship is not already in effect, to avoid offending the natives.

Waste Disposal (non-sewage)
Generally, sub-teams are anticipated to produce a certain amount of waste, although team infrastructure has been designed to keep this to a minimum. This waste must be loaded onto the weekly shuttle for delivery to the Kaleida Space Station. Expected waste items include:

- biohazard material (e.g., used needles and bandages)
- filters filled with calcium stearate (calcium carbonate bonded with soap)
- plastics

Credits

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Want to upgrade to an Infographic or video, or expand your setting into a worldbuilding project? Email me on hello@thecharacterconsultancy.co.uk and I will be happy to help you!

~Hayley, The Character Consultancy