**Framework for Planetary and Celestial Logic***Document contains worldbuilding notes, structural details, and planetary foundations for the setting of Halferth. All content reflects in-world logic and phrasing where possible, but may utilize real-world terminology for clarity.*

**Calendars and Timekeeping**

Timekeeping in Halferth is complicated by the absence of a true sunrise-sunset cycle. In the absence of daily light transitions, most Halferthian cultures—especially in the High Circle—rely on artificial markers.

Among commonfolk, timecandles are the most widely used. These wax blends are engineered to burn at a precise rate, allowing for consistent measurement of time. Many include small nails inserted at intervals which fall into a tin below as they melt, creating an audible cue. Each interval is called a nail, roughly equivalent to an hour. A standard Daycandle burns for 21 nails.

Finer measurements use natural pacing:

* A Heldbreath (≈ 1 minute) is the time one can hold a slow breath.
* A Beat or Tick (≈ 1 second) is the time of one heartbeat.

Larger groupings follow a decimal structure:

* A Tenday or “week” is 10 days.
* A Season (≈ 420 days) consists of 42 weeks.

The Season (year) is informally divided into two halves:

* The Long Dark: 21 weeks of dim sunlight or twilight conditions.
* The Sun Weeks: 21 weeks of visible solar movement and clearer skies.

Engineers and scientists in the Twisting City use a much more precise system of measurements, structurally similar to the metric system but rooted in Greek-derived terminology. These units remain uncommon outside of formal or academic use.

**Planetary Scale and Perception**

Halferth is the only known major landmass on its planet, measuring approximately 5.5 million square kilometers—roughly three-quarters the size of Australia. From the perspective of its inhabitants, it is perceived not as part of a globe, but as a final outpost of land in a sea-locked, dying world. This belief is not the result of ignorance, but a consistent and reinforced reality: few who travel beyond the boiling seas return, and no reliable records speak of other lands.

The global population of Halferth is estimated at around three million sapient beings, with approximately a third residing in or around the Twisting City. Settlement density decreases rapidly the farther one travels from the High Circle, with only scattered communities or frontier-like populations existing in the Veradian and virtually none in the Lowhere.

**Planetary Environmental Biomes**

Halferth is geographically and ecologically divided into three major concentric zones, or "rings," radiating outward from the planetary pole on which the Twisting City rests. These rings are a cultural and practical method of understanding distance, climate, and navigational progression across the Heartlands and beyond:

* The High Circle — The innermost ring, containing the Twisting City, the Parcels, Hobble, Worms Port, The Tails, and a large portion of Hasdvarda. This region is closest to the planetary pole and contains the most temperate and politically structured portions of Halferth. Despite being polar, it is survivable due to solar rotation and geothermal influence.
* The Veradian — The middle ring, transitioning from cool to warm. This includes the Hivelands, the Soothills, the Scythes, H’Rask, Sisterclan Island, The Spine, and the Shrapnels. The Veradian is characterized by denser flora, fuller sun exposure, and a more variable seasonal cycle. It is considered the most ecologically diverse band of Halferth.
* The Lowhere — The outermost and harshest zone. This ring borders the equatorial oceans and includes the Lowhere Desert and Leviathan Island. It is an overwhelmingly hot and hostile land, with frequent tales of extreme weather, monstrous life, and instability. Navigation is dangerous here, and settlement is nearly nonexistent.

**Planetary Framework**

"Halferth" is the technical name for the planet itself but also largely serves to identify its habitable land-masses as a whole cohesive unit. These land masses (one large continent and several smaller islands) are centered on the southern hemisphere of the planet which orbits a sun-like star.

This planet, most of whose surface is covered in oceanic zones, exists at a very high temperature and maintains a harsh global climate that makes most of its surface uninhabitable—even if it wasn't covered in water. Temperatures across the equatorial and mid-latitudes are extreme—oceans boil under the proximity of the horizon-skimming sun.

This superheated perimeter effectively locks the Heartlands and outlying Islands into a dome of viability around the southern polar region, where heat dissipates enough for sustainable life. The High Circle, located at the planetary pole, is only cold by comparison. It remains in the lower temperatures perpetually, but rarely dips far below freezing due to a combination of geothermal venting, axial sun-skimming, and a planetary atmosphere that traps heat efficiently. Snow exists but is not omnipresent, and most settlements are adapted to chilly but manageable climates rather than true arctic cold.

To those who live on Halferth, however, the world is not perceived as a globe. The inhabitants treat their land as a flat plane surrounded by an infinite sea, which is largely accurate from their perspective. The edge of known civilization is the heat-locked Lowhere ring, where the seas become inhospitable and navigation ends.

Navigation in Halferth is not based on cardinal directions. Instead, direction is framed relative to the magnetic pole upon which the Twisting City is built:

* High = Toward the planetary pole (up, “north”)
* Low = Away from the pole (down, “south”)
* True High/Low = Direct vector from the City to/away from the pole

This cultural framing makes “north” and “south” foreign concepts, and while they may appear in external commentary or editorial voice, locals exclusively use High, Low, Highward, and Lowward. East and West remain unchanged.

Magnetism also plays a large role in navigation—not only as a navigational anchor but as a cultural and spiritual one. A massive, ancient magnetic field emanates from the machinery beneath the Twisting City, and every compass-like instrument centers on it. The magnetic machinery beneath the Twisting City is considered sacred by some, a source of power and stability. Its field extends across the planet, ensuring compasses always point to the City—not to any 'north'—cementing its importance in both daily and mythic geography.

Halferth's solar cycle creates a phenomenon where the sun does not rise or fall in a typical arc, but rather skims around the horizon in a continuous rotation. Days and nights blend fluidly depending on the season, with the sun circling the sky like a dial. Full darkness is rare and often brief, creating unique adaptations in culture, sleep, agriculture, and behavior. Combined with the planet’s axial tilt and heat retention, this allows parts of Halferth—even within polar zones—to remain temperate or even lush year-round.

**Moons and Sky Phenomena**

Halferth has two moons: **Mother** and **Daughter**, both tinted blue and engaging in a complex, visually stunning orbital dance. Mother is the larger, brighter satellite and orbits Halferth directly; Daughter is the smaller, darker moon and orbits Mother. Their behavior includes visible eclipses, erratic arc patterns, and seasonally shifting presence in the sky, particularly vivid from the southern pole.

Due to the binary configuration of the moons—Mother in a near rectilinear halo orbit and Daughter orbiting Mother—sky events are irregular and non-repeating. Their influence is primarily cultural and symbolic, with calendars, omens, and metaphors tied to their movement. For a complete and scientifically rigorous description of the lunar system and orbital mechanics, see the dedicated **Lunar Framework** document.

Halferth’s sky is saturated with starlight. Unlike Earth’s relatively modest canopy of night, Halferth's firmament blazes with countless celestial points, far denser and more radiant than our familiar constellations. Most prominent is a thick galactic swath stretching horizon to horizon—a luminous band of stars and dust akin to the Milky Way but far brighter. This stellar river rotates steadily overhead, disorienting those who rely on consistent constellations.

The abundance of stars makes celestial navigation unreliable, especially without compasswork. Constellations shift perceptibly over the course of weeks, leading to localized or seasonal naming traditions rather than permanent celestial maps. Cultural star lore exists, but differs significantly between regions, with constellations appearing, vanishing, or being reinterpreted throughout the Season.

One exception is the lone fixed star—a large, brilliant blue point of light that hovers in the sky like a beacon. Though it has no official name, this star is known by several titles—"the guiding eye," "the polestar," "the City’s star," among others—and is often used by seafarers and wanderers alike to orient themselves. It appears to reside directly above the Twisting City during much of the year, and was once regarded as a divine marker of civilization’s center. Even today, it remains a trusted if mystical reference for those traveling without magnetic tools.

The abundance of celestial bodies—including two moons, thick starfields, and dense galactic light—casts a surprising amount of illumination over Halferth, even during the darkest parts of the Long Dark. While it never approaches daylight brightness, the result is a diffuse, nocturnal glow comparable to an Earth night under two full moons. This light is particularly blue in hue due to the moons’ coloration, and in the High Circle, snowpack and pale stone amplify this blue radiance. Night is rarely pitch-black, and true darkness is often considered unnatural or uncanny by many cultures.

Auroral phenomena are visible seasonally due to atmospheric pressure variance and the magnetic field of the pole. These are often interpreted religiously or omened, and can vary in color and intensity depending on solar activity and the position of the moons. Some cultures consider them to be the spirits of the drowned, messages from the dead, or reflections of unseen celestial bodies.

**Note on Language and Deep Time**

Though Halferthians speak a tongue we might recognize as English, the roots of their scientific and technical vocabulary are more often derived from Greek than Latin. These terms are not known to the people as “Greek”—they are simply understood as part of the Keeper’s Tongue, a language of precision and old meaning, passed down through ritual and memory.

The Keepers themselves whisper of the bees—the first rememberers, the eternal observers. It is said that the bees have always been here and always will be. That everything which has happened, and everything that will happen, has happened already. In the deepest lore of Halferth, time is not a line but a hive. Past and future hum together, unseparated.

Some say Halferth is Earth—not in our past, but in our far, cyclical future. Perhaps it is 500 million years ago. Perhaps 500 million years from now. Perhaps both.

Ask the bees.