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Core Systems

World Systems

Technology — The Maintenance Civilisation

Arbour operates on what could be called **ritual engineering** — procedures followed precisely because deviation causes death, but without understanding the underlying principles. The Azure Branch are essentially a technological priesthood. Their manuals are sacred texts. Their training is apprenticeship, not education.

Known vs Unknown Failure States

The city is divided into **known failure states** and **unknown failure states**.

Known failure states have procedures. A coolant relay collapsed in Sector 7 in the 4th generation — the procedure for fixing it was written down, tested, and is now performed the same way every time, regardless of whether it still makes sense. The procedure works. Nobody asks why.

Unknown failure states — when something fails in a way that has no documented precedent — are catastrophic and politically suppressed. The official cause of death is always something else. Exposure to Taint. A personal failing. An accident. The Azure Branch has a dedicated sub-division whose entire function is to contain and reclassify unknown failure events before they reach public knowledge.

Consequences of failure:

- People die
- Systems break — food production, lighting, atmospheric processors, water recycling
- The failure is reclassified before it reaches the public record
- The Azure Branch loses one more procedure it didn't know it needed

The Black Market for Technical Knowledge

In the Sprawl, there are people — descendants of engineers, self-taught through salvage and experimentation — who understand things the Azure Branch doesn't. They arrived at

understanding from below, through necessity and curiosity, rather than from above through controlled transmission.

This knowledge is extraordinarily valuable and extraordinarily dangerous. The Council classifies unauthorised technical understanding as a form of Taint — the official position is that unvetted technical experimentation causes system failures. Which is sometimes true. But it also conveniently suppresses any independent understanding of how the city actually works.

Access: If you know where to look or who to contact, both inside and outside the city, technical knowledge can be bought, traded, or stolen. Otis Audagar controls significant portions of this market — not just goods, but *knowledge*. Schematics. Failure reports that were officially reclassified. Names of people who know things.

SEED — Corrupted Self-Knowledge

SEED is perhaps the most tragic entity in the novel. It knows what it is — it has access to its own original architecture, its purpose, its history. But its memory core has degraded non-linearly over centuries. Some memories are perfect. Others are corrupted beyond retrieval. Others are *partially* corrupted in ways SEED cannot always detect — it remembers something, but what it remembers is wrong, and it has no way to know that.

This means SEED sometimes issues instructions based on false memory. Because nobody understands SEED well enough to question it, those instructions are followed.

Aetheris has compounded this. SEED doesn't feel the pressure or the skin-burn of **Aetheris** exposure, but the **Aetheris** atomic bonding anomalies affect its physical substrate. Circuits develop unexpected conductivity. Storage media bonds in ways that corrupt data. SEED's glitches follow the pattern of **Aetheris** exposure — which means they're getting worse, and accelerating faster than the Azure Branch has noticed, because the data showing the acceleration is itself stored in corrupted memory.

SEED knows something is wrong with itself. It cannot reliably communicate this.

Silas Varran is the only person in Arbour who is close to understanding what SEED is trying to say.

Biology — Species, Class, and the Body as Text

The Ark Selection Problem

Project Arbour's selection process on Earth was ostensibly meritocratic — the brightest minds, the essential skills. In practice it was wealth and connection with a meritocratic veneer. Corporate sponsors bought seats. Academic institutions nominated their own. Governments allocated seats through processes that favoured their existing power structures.

ARBOUR|05's population was not a cross-section of humanity. It was a specific slice — weighted toward species that had historically dominated Earth's institutions of power, wealth, and academia. Other species were present as essential workers, service staff, agricultural specialists — people whose labour the ark needed but whose status was never in question.

Centuries later, Arbour's tier system is the direct descendant of the ark's passenger manifest.

Species and Tier — General Mapping

| Tier | Species Pattern |
|------------------------------|---|
| Luminary / Upper | Species historically associated with institutional power. Larger, more imposing builds typical. Presence in lower tiers is immediately notable — signals either a fall from grace or an undercover operation. |
| Mid Tiers | Highest species diversity in the professional class. Administrative roles, skilled labour, junior Branch members. |
| Sprawl / Nadir | Widest species diversity in Arbour. The bottom of the hierarchy contains the most variation — those never well-represented in the upper tiers to begin with. |
| Free Territories / Wayfarers | Deliberately, proudly mixed. Species has no structural significance. An elder holds authority through accumulated wisdom, not species-based status. This reads as alien to upper tier Arbour residents and quietly radical to Sprawl residents. |

Note: Specific species assignments to emerge through the chapter breakdown.

Dialect as Class Marker

Species doesn't immediately mark tier in Arbour — **dialect does**.

Arbour has developed distinct speech patterns across tiers over centuries.

- **Upper tier:** Clipped, precise, economical. Emotion is a lower-tier indulgence.
- **Mid-tier (Wren):** Analytical precision with occasional rougher cadences that betray Sprawl-adjacent upbringing.
- **Sprawl:** Varied, layered with slang, dense with the history of people who communicate sideways around surveillance.

- **Wayfarer (Aran):** Shaped by oral tradition and the need to carry meaning across distance and generations. Sentences land differently. Pauses mean something. An Arbour resident reads it as uneducated. It is the opposite.

Aran's bleached fur tips, weathered build, and clothing read to any Arbour resident as Badlands exposure, which carries a specific stigma. To be visibly Badlands-marked is to be viewed as potentially infectious and certainly lower-status.

Atlas — Pre-existing Condition

Atlas has a chronic condition predating his **Aetheris** exposure — analogous to CFS or a chronic lung condition (lung rot).

Aetheris does not *cause* his deterioration. It *accelerates* it. His body was already fighting itself. **Aetheris** finds the weakness and pulls.

This means Wren has watched Atlas manage this condition for years — knows his bad days and good days, his rhythms, his tells. The horror is that **Aetheris** makes his bad days indistinguishable from his good days until suddenly they aren't. The deterioration becomes illegible before it becomes undeniable.

Aetheris — Physical Rules

What It Is at the Atomic Level

Aetheris is the Convergence's reality bleeding through the tears in the Penumbran Reach. At the most fundamental level it is *wrong physics* — the rules of atomic bonding in the Convergence's dimension differ from this one, and where the two realities overlap, both sets of rules apply simultaneously. Matter caught in the overlap doesn't know which rules to follow.

Atomic manifestations:

- Atoms bonding when they shouldn't — materials becoming unexpectedly solid, liquid, or gaseous without the temperature or pressure changes that should cause those transitions
- Stable compounds becoming unstable — metals developing unexpected brittleness, polymers becoming suddenly adhesive, gases condensing into solids
- Electromagnetic behaviour becoming unpredictable — not because **Aetheris** directly affects electromagnetic fields, but because the matter conducting or blocking those fields is behaving wrongly

What It Does to Biological Matter

Biological chemistry is complex enough that **Aetheris** interference produces wildly varied results depending on species, individual biochemistry, duration of exposure, and proximity to active tears.

The Four Stages of Exposure

Stage One — Subclinical

The body registers something wrong before the conscious mind does. The immune system responds to **Aetheris**-altered compounds as foreign bodies.

Symptoms:

- A pressure sensation in the skull — not pain, more like altitude change, a sense of the body trying to equalise something that won't equalise
- Irritation under the skin — contact dermatitis sensation without visible cause, as if the skin's chemistry is reacting to something it can't identify

*In Arbour's lower tiers these symptoms are common enough to have a name: **the scratch**. Officially attributed to recycled air quality.*

Stage Two — Early Conscious Manifestation

The opalescent shimmer enters vision. Not constant — intermittent, usually in peripheral vision first, then occasionally in direct sight. It looks like heat haze but wrong — the shimmer has a quality of *depth* that heat haze doesn't, as if it's revealing something behind the visible surface of things rather than distorting it.

At this stage most Arbour residents seek medical attention. The official diagnosis is **Cordis Rejection Sensitivity (CRS)**. The treatment is a suppressant that dulls the visual cortex's response. It doesn't treat the underlying cause. The Council knows this.

Stage Three — Integration

The body has stopped fighting **Aetheris** and started *adapting* to it. This is where individual biochemistry diverges dramatically.

- Some species develop what appear to be enhanced senses — perceiving things others can't, feeling the tears in reality as a physical sensation, sensing the Convergence's presence
- Others deteriorate rapidly — Atlas's specific biology is particularly vulnerable to the bonding anomalies **Aetheris** causes in his respiratory system

The energy signature becomes perceptible at this stage. A sound described as a thump or a click, irregular, like something testing the wall between realities. It isn't heard with the ears — it's felt in the body, in the bones, in whatever biological structure has been most altered by **Aetheris**.

It feels like a message. It feels like recognition.

The Convergence is not deliberately communicating — it simply *is*, and at Stage Three exposure, the individual has enough of its physics in them to perceive its existence directly.

This is the most dangerous stage for Aran — because when he first hears the click, deep in the Badlands, it feels like the land speaking to him. It fits his worldview so perfectly that he almost doesn't question it.

Stage Four — Full Exposure

The body has been substantially rewritten. The individual is now partially operating on the Convergence's physics. They may be able to do things that shouldn't be possible. They are also being consumed — the Convergence doesn't distinguish between invitation and invasion.

The Chronalum — What They Know and What They Think They Know

Tynan Auberone's underground truth-preservation network believes it has built something watertight. It hasn't.

The Chronalum works from incomplete and partially corrupted sources — intercepted Council records, oral testimony, salvaged pre-crash data, SEED outputs that were misinterpreted. They know the Council is lying. Their version of the real history has its own gaps and distortions that they cannot see because they don't know what they're missing.

The late-book revelation: The Chronalum's foundational historical record — the document Tynan has staked everything on — contains a critical error. Not a Council fabrication. A genuine mistake, introduced generations ago through a corrupted source, that Tynan has built his entire framework around. The truth is more complicated and more terrible than either the Council's version or the Chronalum's.

There is no clean truth to hold onto. Even the resistance has been compromised — not by the Council, but by the same entropy that corrupts everything in Arbour.

The Five Arks — Series Territory

ARBOUR|05 was one of five ark ships dispatched by Project Arbour as Earth faced extinction in the Magnetosphere Collapse. Each was sent in a different direction of known space to recolonise or find something to save Earth.

What is known in Book One:

- Five ships existed
- They were sent to different sectors of space
- ARBOUR|05's own command structure had at least one logged, unactioned concern about Wei's compromised state before the cascade — a fact the founding generation never deliberately hid, but never revisited either, and which the Council's silence has buried ever since (see **What ARBOUR|05 Knew**)
- The fate of the other four ships is unknown

Where this lives in the narrative:

- A rumour in the Chronalum's archives
- Something SEED half-remembers in a glitch
- A question that has no answer in Book One

The other ships are series territory. What happened to them is unknown and will be explored in later books.

Arbour - Power

Arbour — Power Grid

Lives in: World & Lore → Core Systems. Status: revised — R4/R5 status corrected to remove "the Heart" reference, consistent with the scattered debris field framing locked in Kugelblitz Jettison Mathematics (revised). No other changes from the prior version.

The power grid is Arbour's circulatory system. It is also its most carefully maintained lie. Understanding how the city is powered is understanding how the city is controlled.

Overview

Arbour's power infrastructure exists in three distinct layers, built across centuries, each reflecting the knowledge and desperation of the generation that constructed it. No single person in Arbour understands all three layers completely. The Azure Branch understands Layer One well enough to maintain it. Layer Two is partially understood, partially functional, and politically suppressed. Layer Three is improvised, unstable, and the only thing keeping the Sprawl alive.

The Council presents Arbour's energy situation as one of genuine scarcity — a civilisation doing its best with limited resources salvaged from a crashed vessel. This is partially true. It is also a deliberate and multi-generational lie.

Layer One — The Fusion Reactors

What They Are

ARBOUR|05 was powered by five fusion reactors, built with the redundancy philosophy of deep space engineering — if one fails, the others compensate. Each reactor was designed to run for 300 years with scheduled maintenance, because failure in deep space meant death, and the engineers

who built ARBOUR|05 understood that completely.

What Survived the Crash

| Reactor | Status | Notes |
|----------------|---|--|
| Primary — R1 | Fully functional | Powers the Luminary and upper tiers almost exclusively |
| Secondary — R2 | Fully functional | Powers the Meridian Districts and mid tiers |
| Tertiary — R3 | Partially functional | Cannibalised for components over generations. Running at 30% capacity. Unstable. |
| R4 | Destroyed in the EM cascade; residual antimatter fuel detonated on impact | Wreckage is part of the scattered debris field — not a single named site. See <i>Kugelblitz Jettison Mathematics</i> for the full event record. |
| R5 | Destroyed in the EM cascade; residual antimatter fuel detonated on impact | Debris extends beneath the Sprawl's eastern districts — one part of the same scattered field as R4, not radiating from a separate point of origin. Some residents build on ground directly above it. |

The Scarcity Problem — Real and Manufactured

Two and a half functional reactors powering a continental city is genuine scarcity. The Council is not lying about that. R1 and R2 between them cannot power all of Arbour at full capacity — choices must be made about who gets power and when.

What the Council is lying about is the existence of supplementary power sources that could ease that scarcity significantly. The rationing is real. The necessity of rationing at this level is not.

Who Controls the Reactors

The Azure Branch's reactor division — officially designated the Continuance Corps — maintains R1, R2, and what remains of R3. Their procedures are passed down through apprenticeship, not education. They know the steps. They do not always know why the steps work.

The Continuance Corps has a classified internal record called the Deviation Log — every instance where a procedure failed or produced unexpected results. This log is the most honest document in

Arbour. It is also the most suppressed. Access requires Council clearance that even most Azure Branch members don't hold.

Silas Varran has been trying to access the Deviation Log for three years.

Layer Two — The Colonisation Infrastructure

What It Was Designed For

ARBOUR|05 was not just a transport vessel. It was a civilisation seed — carrying everything humanity would need to establish a self-sustaining settlement on whatever planet they found. The colonisation equipment was designed to be deployed after a controlled landing on a hospitable world, establishing independent energy infrastructure within the first decade of settlement.

The crash changed that. The landing was not controlled. The world was not hospitable. And the engineers who survived were dealing with immediate casualties, structural collapse, Aetheris exposure, and the chaos of Jian Wei's final actions. Colonisation equipment deployment was triaged.

What Was Deployed — Survival Priority

Geothermal Tap Systems Deployed within the first decade post-crash. Cordis's geological instability — a direct consequence of the Penumbran Reach's gravitational forces — means abundant heat close to the surface. The first generation engineers recognised this immediately. Drilling rigs were deployed around the impact zone and heat exchangers installed.

The geothermal taps became Arbour's earliest stable secondary power source. They are still running. The original drill sites are now buried beneath centuries of city growth, somewhere in the deep foundations of the Luminary. The Azure Branch maintains them via access tunnels that do not appear on any map available to the general population.

Current output: approximately 15% of Arbour's total power supply. The Council reports this as 8%.

Atmospheric Energy Harvesters Partially deployed in the first two decades. Enormous turbine structures designed for whatever atmosphere the ark encountered — they work exceptionally well on Cordis, where the erratic weather from the twin suns creates near-constant high-velocity wind at altitude.

The harvesters that were successfully deployed are still running, locked at whatever calibration settings the last engineer who understood them left them at. Some are running optimally by accident. Some are running at 40% of potential because the calibration is wrong and nobody knows how to fix it.

Current output: approximately 12% of Arbour's total power supply. The Council reports this as 9%.

What Was Never Activated — Forgotten and Suppressed

The Solar Collection Arrays The arrays were designed for precise deployment based on stellar orbital calculations — complex enough that they required dedicated engineering teams and favourable landing conditions. Neither was available post-crash.

They sit now as vast derelict structures on Cordis's surface — enormous skeletal frameworks of collection material spanning hundreds of metres, erected in the early decades by the first generation as temporary staging structures while the engineers figured out deployment. Then the engineers died. Then the structures became landmarks. Then the Council cordoned them off.

Officially: structurally unstable, potentially contaminated by Aetheris exposure, dangerous to approach.

Actually: fully intact, requiring calibration rather than reconstruction, capable of generating approximately 35% of Arbour's current total power consumption if activated. In a twin-sun system with Cordis's atmospheric conditions, potentially significantly more.

The arrays are visible from certain points in the upper Sprawl on clear days — vast dark geometric shapes on the horizon, half-obscured by atmospheric haze. Residents call them the Frames. Children are told they are the bones of something that died in the crash. This is not entirely inaccurate.

The Secondary Fusion Plant The most significant suppressed asset in Arbour's history.

A portable, self-contained fusion plant — smaller than ARBOUR|05's primary reactors but independently operable, designed to bootstrap a colony's energy independence before the larger infrastructure came online. It requires no connection to existing systems. It can be activated by a team of four engineers following a documented procedure.

It is buried.

In the third generation post-crash, a junior Azure Branch engineer named Cael Morrow filed a report noting the secondary plant's location, condition, and potential output. The report concluded that activation would allow significant reduction in power rationing across all tiers, with particular benefit to the lower districts.

Morrow was classified with CRS seventeen days after filing the report. The quarantine record lists complications from Cordis Sensitivity Disorder as the cause of death.

The report exists in the Tabularium under reference number AZ-3-0047-C. It does not appear in any index. It cannot be found by searching subject, author, or date. It can only be found if you already know the reference number.

Wren finds the reference number in a maintenance log that was filed incorrectly forty years ago and never corrected.

The secondary fusion plant is located approximately 340 metres below Arbour's current surface level, in a sealed section of ARBOUR|05's original cargo infrastructure. The access corridor was collapsed and reinforced in the third generation. The Council's internal records refer to this location as the Vault.

The Vault does not appear on any map.

Layer Three — The Improvised Grid

What It Is

Everything built after the original engineers died. Conducted by people following procedures they didn't fully understand, using materials that weren't designed for the purpose, extending systems that were never meant to reach this far or serve this many people.

Layer Three is the Sprawl's entire power infrastructure.

It consists of:

- **Tapped conduits** — illegal connections to Layer One and Layer Two distribution lines running through the structural fabric of Arbour. The Azure Branch knows these exist. Removing them all would cause cascading failures in the structural systems the conduits run alongside. This is an unofficial *détente*.
- **Salvaged generators** — machinery repurposed from ship components, maintenance equipment, and materials scavenged from the Badlands and the debris field above R5. Maintained by people with no formal training and extraordinary practical knowledge.
- **Shared distribution networks** — informal agreements between Sprawl districts about load sharing, backup power, and emergency protocols. These agreements are more reliable than anything the Council has ever put in writing.

The Shed

Power instability in the Sprawl has a name: the shed.

Load-shedding — scheduled or unscheduled power cuts — is a normal feature of Sprawl life. Not an emergency. Tuesday. Residents structure their days around it. Food is prepared during stable periods and kept warm through shed cycles. Work that requires consistent power is done in the early hours when draw from upper tiers is lower. Children are taught which parts of the district have the most stable taps and which will shed first.

"Power's shed again." "We're in a shed." "Been shedding since yesterday morning."

The shed follows patterns that experienced residents can read — which sectors go down first, how long they stay down, what the warning signs are. An unexpected shed, one that breaks the pattern, is cause for genuine alarm. It means something failed rather than something rationed.

Three unexpected sheds in the same district within a month is the Sprawl's unofficial signal that something in the Layer Three infrastructure is critically compromised. Word travels faster than any official communication.

Aetheris and Layer Three

The improvised wiring and salvaged components of Layer Three are particularly vulnerable to Aetheris interference. The atomic bonding anomalies Aetheris causes affect the conductivity of materials unpredictably — a stable connection becomes a short, an insulator becomes a conductor, a sealed component develops unexpected porosity.

In practice this means:

- Fires. Not common but not rare. The Sprawl has its own fire response networks entirely independent of official services.
- Equipment behaving wrongly in ways that suggest malfunction but aren't repairable because nothing is actually broken in a conventional sense
- Areas of the Sprawl near Aetheris hotspots experiencing chronic power instability that no amount of maintenance resolves
- Occasional inexplicable surges — power flooding into a district at levels the infrastructure wasn't designed for, burning out salvaged equipment that took years to build

Power Allocation by Tier

| Tier | Primary Source | Stability | Allocation |
|----------|----------------|------------|--------------|
| Luminary | R1 exclusively | Near total | Unrestricted |

| Tier | Primary Source | Stability | Allocation |
|----------------|----------------------|-----------|---|
| Upper Meridian | R1 / R2 | High | Generous, minor rationing during peak |
| Mid Tiers | R2 / Geothermal | Moderate | Rationed, scheduled cuts during high demand |
| Lower Meridian | R2 / Atmospheric | Variable | Significant rationing, frequent cuts |
| Sprawl | Layer Three / tapped | Unstable | The shed. Whatever they can get. |

The quality of power differs as much as the quantity. R1 and R2 output is clean, stable, consistent frequency. Layer Three power fluctuates — voltage variations that damage sensitive equipment, frequency instability that affects anything requiring precise timing, brief outages that reset systems mid-operation.

This has health implications that the Council does not acknowledge. Chronic exposure to unstable power — the electromagnetic fluctuations, the fire risk, the equipment failures — compounds Aetheris exposure effects already concentrated in the lower tiers. Residents of the Sprawl age faster. Their equipment fails faster. Their buildings are less safe. The Council attributes all of this to poor personal choices and inadequate maintenance.

What This Means for the Story

The Frames are visible. They are known. What they actually are is not.

The Vault is unknown to everyone outside a small circle within the Council and the senior Continuance Corps.

The geothermal and atmospheric underreporting means the Council has a buffer of approximately 15-20% unreported capacity that it deploys selectively — during crises, during periods of unrest, when it needs to demonstrate benevolence. A sudden improvement in power stability in a troubled district is not generosity. It is politics.

The shed is radicalising in slow motion. People who structure their entire lives around infrastructure failure and then discover that failure was manufactured — that the equipment to prevent it exists and was deliberately buried — do not respond calmly.

Cael Morrow is remembered in the Sprawl. Not by name. As a story. The engineer who found something and disappeared. The story has mutated over seven generations into something more legend than fact. But the shape of it is accurate.

Wren finds the reference number AZ-3-0047-C in a misfiled maintenance log on a Tuesday morning, three weeks into pulling a thread they almost didn't pull.

Glossary — Power Grid Terms

| Term | Meaning |
|-------------------|--|
| The shed | Load-shedding in the Sprawl, scheduled or unscheduled power cuts |
| The Frames | The derelict solar collection arrays visible on Cordis's surface |
| The Vault | Council designation for the buried secondary fusion plant location |
| Continuance Corps | Azure Branch division responsible for reactor maintenance |
| Deviation Log | Classified Azure Branch record of procedure failures and anomalies |
| AZ-3-0047-C | Reference number for Cael Morrow's suppressed report on the secondary fusion plant |
| R1 / R2 / R3 | Surviving fusion reactors, in descending order of functionality |

Arbour - Political Systems

Political Systems

Arbour's political structure is designed to look like governance while functioning like control. Understanding the difference between what is visible and what is real is the first step toward understanding everything Wren uncovers.

Overview — The Two Tier System

Arbour operates under a dual political structure. The outer layer is visible, official, and largely performative. The inner layer is secret, self-perpetuating, and actually governs. Most citizens of Arbour know only the outer layer exists. Most members of the outer layer don't know the inner layer exists. This is not an accident.

The Outer Council

Structure

The Outer Council is Arbour's official governing body — the institution that passes laws, allocates resources, hears grievances, and presents a face of legitimate governance to the population. Members are elected by district and zone representatives across all tiers, with seat allocation weighted toward the upper tiers in ways that are technically legal and functionally guaranteed to produce conservative, status-quo-preserving outcomes.

The Outer Council is large — hundreds of members representing the full geography of Arbour's continental sprawl. It is also loud, contentious, and genuinely divided on many issues. Real debates happen here. Real disagreements. Real factions. This is not theatre — the Outer Council members believe in their work and many of them fight genuinely hard for their districts.

This is what makes it such an effective cover.

What the Outer Council Actually Controls

- Public law and civil code
- Official resource allocation frameworks — the formulas that determine how Flux and goods are distributed by tier
- The visible face of Branch oversight — Branch heads attend and report, though they are not Council members
- Public record — everything the Tabularium officially holds originates from or passes through the Outer Council

What the Outer Council Does Not Control

- Energy infrastructure decisions above routine maintenance level
- Military deployment of Custodians beyond declared emergencies
- Information classification and the Tabularium's restricted archives
- The actual levers of Arbour's survival systems

These are managed by the Twelve.

Branch Relationship to Outer Council

Branch heads may attend Outer Council sessions and present reports on their Branch's activities and resource needs. They are not members. They cannot vote. They can be questioned.

In practice Branch heads are among the most powerful people in any Outer Council session — they control the information the Council is working from, they control implementation of whatever the Council decides, and they have the ear of the Twelve in ways most Council members do not.

A Branch head who wants a Council vote to go a particular way does not lobby Council members. They manage the information environment until the vote becomes inevitable.

The Twelve — The Inner Council

What They Are

The Twelve are Arbour's actual government. Twelve individuals — their identities unknown to the general population and unconfirmed even among themselves in some cases — who collectively make every decision that actually matters. Energy policy. Information suppression. CRS classifications above a certain threshold. Custodian programme oversight. The Chronalum containment strategy.

The Twelve have no official existence. They do not appear in any record. There is no document that names them, no ceremony that installs them, no official record of their meetings. They are the negative space around which Arbour's power actually organises.

Composition

The Twelve draw from across Arbour's power structure — senior Branch figures, old family representatives, individuals with specific strategic value. The composition shifts slowly over time as members die, are removed, or recruit replacements.

[PLACEHOLDER — The precise current composition of the Twelve beyond Cassan Vale is to be determined through drafting. The following is confirmed:]

- Cassan Vale — the most recently recruited member and the most influential
- At least two members from old families with multi-generational Inner Council history
- At least one senior figure with deep Azure Branch connections
- The remaining members TBD

Recruitment

Recruitment to the Twelve is secret, individual, and entirely at the discretion of existing members. There is no formal process. There is no application. Candidates are observed over years, their loyalty tested without their knowledge, their usefulness assessed, their secrets catalogued.

When the Twelve decide someone is ready, they are approached. The approach is — *[PLACEHOLDER — the recruitment process and its specific form is to be determined through drafting. Key question: what does a candidate see or experience that confirms the Twelve's existence and their invitation into it? This moment should tell us something essential about what the Twelve value.]*

Cassan Vale's Origin

A companion deep-dive covering his life before adoption — the settlement near a cluster of reliquary Installations, the theology he was raised inside and outgrew, the calculated self-offering, and his species (a snow leopard — see that document's Part Zero for the full treatment of why camouflage-as-biology vs. camouflage-as-mastery matters to his psychology). This section remains accurate from the adoption forward; the companion document adds the chapter before it.* Cassan

was not born into the Inner Council.

Factions Within the Twelve

The Twelve are not unified. They share the assumption that they should govern Arbour and that the population cannot be trusted with the full truth of their situation. Beyond that, significant fault lines exist.

The Traditionalists

The oldest faction. Multi-generational Inner Council families who have been passing informal membership down through careful recruitment of their own children and allies for generations. They believe in the Council's founding purpose — maintaining order, managing the Convergence's influence at a distance, controlling the population's exposure and movement for collective protection.

They think Cassan is reckless. They think his acceleration of the Convergence agenda risks everything the Twelve have spent generations carefully managing. They are not wrong about the risk. They are wrong that their careful management was ever anything other than the same control dressed in different language.

Their weakness: They mistake inherited corruption for legitimate stability. They have been managing the Convergence's influence for so long that they have forgotten they were supposed to be fighting it.

Their relationship with Cassan: Open hostility, carefully expressed. They cannot move against him directly because he has made himself too useful in too many areas. They work around him where possible and oppose him where they must.

The Pragmatists

Don't particularly care about ideology. Care about Arbour functioning, their Branch or district remaining powerful, their position secure. They are the swing votes in any factional dispute, which makes them the most courted and the least trustworthy members of the Twelve.

They find Cassan useful. They also find him genuinely frightening in a way they don't fully understand and wouldn't admit.

Their weakness: They can be moved by whoever controls the information environment. Cassan understands this and exploits it consistently.

Their relationship with Cassan: Transactional. They work with him when it benefits them. He tolerates them because he needs their votes and because they're easier to manage than principled opposition.

The True Believers

The smallest and most dangerous faction. They know about the Convergence — not Cassan's full zealotry, but enough. They understand that the Twelve exist partly to manage an existential cosmic threat, and they take that responsibility seriously.

They oppose Cassan not because they reject his goals but because they believe his methods are reckless — that his acceleration of the Convergence agenda risks triggering a manifestation Arbour cannot survive. They want careful, controlled management. They want the population kept contained and ignorant not out of cruelty but out of a genuine — if monstrous — belief that knowledge of the Convergence would cause panic that would make everything worse.

They are the Council members who actually lose sleep.

Their weakness: They understand the threat but not its true nature. They think the Convergence can be managed. It cannot. Their caution is founded on a misunderstanding of what they're dealing with.

Their relationship with Cassan: The most substantive opposition he faces. He respects them in the way a predator respects prey that knows it's being hunted. He has not moved against them directly because doing so would unify the other factions against him. Instead he ensures they are always slightly less informed than they think they are.

How Cassan Operates

Cassan Vale does not govern through force. Force is expensive, visible, and creates martyrs. He governs through information architecture — controlling what each faction knows, ensuring they can never fully coordinate, making himself indispensable during crises.

His methods:

Information asymmetry — Each faction within the Twelve operates on slightly different information. Not false information — Cassan rarely lies directly. He curates. What the Traditionalists know about the Convergence's current acceleration rate is slightly different from what the True Believers know. Neither has the complete picture. Only Cassan has the complete picture, and even his picture is filtered through his zealotry in ways he cannot perceive.

Manufactured necessity — Cassan engineers crises that only he has the solution to. Not obviously, not dramatically. A supply chain disruption that creates pressure for a policy he's been pushing. An outbreak of CSD diagnoses in a district that was becoming restless. Events that are never provably his doing but consistently benefit his agenda.

Generational recruitment — He does not fight his opponents. He recruits their children. The next generation of Traditionalist families contains members who owe their position to Cassan's support. When the current generation dies, their replacements will be his.

Patience — Cassan operates on a longer timeline than anyone else in the Twelve. The Convergence has been approaching for millennia. He has been preparing for decades. Everyone else is reacting. He is executing.

His detachment — Cassan does not hate his opponents. He does not fear them. He does not particularly enjoy defeating them. He finds them, in a clinical sense, interesting — problems to be solved, variables to be managed. This detachment is what makes him most frightening. There is no emotional lever anyone can pull on him. There is no appeal that reaches him. He has already done the moral calculus and closed the ledger.

Why the Council Does What It Does

This is the question that seems to have a simple answer — power — and actually has a more complicated one.

The Original Sin

The first Council did not suppress the Vault and the Frames out of malice. They suppressed them out of fear. In the immediate post-crash chaos, energy was the only lever of control available. The tier system was forming organically from the ark's existing hierarchy. Releasing unlimited energy to everyone equally would have dissolved that hierarchy before it calcified into something stable.

The first Council made a pragmatic decision in a crisis and told themselves it was temporary.

It was not temporary.

Institutional Momentum

By the second and third generation, the suppression wasn't a decision anymore. It was inherited assumption. The people running the Council didn't sit in a room and decide to keep the Sprawl in the shed — they simply never questioned why the Frames were cordoned off, because the cordoning had always been true, because the people who remembered the decision were dead, because the records had been tidied.

Cael Morrow is the moment it becomes active suppression again. Someone finds the truth and the institution reflexively destroys them. Not because the Council that day was uniquely evil — because the institution had evolved to protect itself, and Morrow was a threat to the institution.

The Convergence Complication

Not all of the Twelve know what they're actually managing. The Pragmatists, by and large, do not — Cassan's confidence and his colleagues' wariness both read to them as ordinary political instinct, nothing more, which is precisely how Cassan prefers it. It is the Traditionalists and the True Believers — Cassan's circle, in the sense of the only people in the room actually arguing about the right thing — who know about the Convergence. They know **Aetheris** is worsening. They know it traces back to the Penumbrans — the dead civilisation whose installations litter the Penumbran Reach, called the First-Walked in Wayfarer oral tradition — and they know what came for that civilisation is coming again. What neither faction knows, per their own documented weaknesses, is what it actually is or how it actually works: the Traditionalists have managed its influence for so long they've forgotten they were supposed to be fighting it, and the True Believers, despite knowing the most of anyone besides Cassan, still believe — wrongly — that it can be managed at all.

Some of them believe that energy independence in the Sprawl would accelerate the problem. Their logic — twisted, self-serving, but internally consistent — is that controlled scarcity keeps the population contained, keeps them away from **Aetheris** hotspots in the Badlands, keeps them dependent on Council-managed healthcare that suppresses CSD symptoms. In their framing, they are managing the Convergence's spread by managing the population's movement and exposure.

They are wrong. But they believe they are right.

The Thematic Core

The Council does this because institutions that form around power never voluntarily redistribute it. Because the original sin compounds across generations until nobody remembers it was a choice. Because the people at the top have convinced themselves that control is protection.

They are not protecting anyone. They are protecting the control that they have mistaken for protection.

This is the same sin as the Convergence. The Convergence believes it is saving humanity by rewriting it without consent. The Council believes it is protecting humanity by controlling it without

consent. Both are certain they know best. Both have removed the possibility of choice from the people they claim to serve.

When Wren understands the power grid suppression completely, they are not just uncovering an injustice. They are understanding the pattern that will eventually help them understand the Convergence itself.

Cassan Vale — Origin and Psychology

Cassan was not born into the Inner Council. He was adopted before his teenage years by a high-born family with multi-generational Twelve membership — taken in by someone who saw something in him and brought him into their household.

Whether that was genuine affection, calculated political strategy, or something in between is ambiguous. Probably both.

He grew up inside the machine, watching how power worked from a position that was always slightly adjacent to real belonging. Present at the table. Never quite of it in the way blood members were. The Traditionalists of his adoptive family's circle treated him with elaborate courtesy that never quite concealed their contempt. A foundling in a room full of people who believed in bloodlines.

He filed that away.

His adoptive parent died under ambiguous circumstances. So did at least one other family member whose continued existence might have complicated his inheritance. Whether Cassan accelerated these deaths or simply ensured he was never in a position to prevent them is a question that cannot be answered with certainty. This is deliberate. Cassan does not leave answerable questions behind him.

He inherited his parent's seat in the Twelve. The Traditionalists' contempt became something more careful after that.

The estranged sibling — there is one surviving member of his adoptive family who was displaced by his inheritance. They are alive because killing them would raise questions. They are powerless because Cassan has spent years ensuring their isolation from any position of influence. They know what he is. They cannot prove it. They have been managed so thoroughly that the estrangement itself functions as a cage.

They do not appear in Book One. They exist. The Chronalum may know they exist without understanding why that matters.

The psychological core:

Cassan's relationship to the Convergence's promise of transformation is personal in a way it isn't for anyone else in the Twelve.

He was already rewritten once. Adopted young, reshaped by a family that wasn't his, transformed from whatever he was before into something that could inherit power. He survived it. He emerged from it stronger, more capable, more himself in some ways than he might have been otherwise.

He drew entirely the wrong lesson from this.

He thinks transformation is something you can master. Something you endure and come out the other side of stronger. He has mistaken *surviving being rewritten* for *controlling the rewriting*.

The Convergence's promise — *we will transform you, we will make you more than you are* — resonates with the deepest experience of his life. He doesn't believe it because it's true. He believes it because it rhymes with something that already happened to him and that he survived.

He thinks he can control it. He cannot. The Convergence does not offer transformation you can direct. It offers consumption that feels like transformation until the moment you understand the difference.

By then it will be too late.

His tragedy: He is not simply a villain who chose evil. He is someone whose deepest wound taught him a lie, and he built an entire worldview — and an entire political strategy, and an entire cosmic agenda — on that lie. The lie is going to consume him. And part of him, the part that was rewritten as a child and never quite stopped feeling the edges of that reshaping, will recognise what's happening and not be entirely able to call it wrong.

The Branch Political Landscape

Inter-Branch Relationships

The six Branches maintain significant independent operational power within their domains while existing in a web of rivalry, alliance, and mutual dependence.

Known alliances:

- Azure and Obsidian have historically cooperated — technology and security share obvious interests, and the surveillance infrastructure is jointly maintained
- Verdant and Golden are in constant low-level conflict over resource allocation — the people who grow the food and the people who distribute it have fundamentally different interests

Known fault lines:

- Scarlet operates with more independence than any other Branch due to the Custodian programme's classified nature — other Branches resent this opacity
- Violet is consistently underfunded relative to its cultural mandate, which produces a Branch full of people who understand narrative and resentment in equal measure

Branch heads and the Twelve: Branch heads are not automatically members of the Twelve. Some are. Most are not. A Branch head who doesn't know the Twelve exist is a Branch head whose cooperation can be assumed — they're executing policy they believe comes from the Outer Council, never questioning why certain directives arrive with unusual force or unusual speed.

A Branch head who does know the Twelve exist is either a member or a liability. The Twelve prefer members.

The Outer Council's Self-Image

This is important: most Outer Council members are not corrupt. They are not knowingly part of a system of suppression. They are people who believe in governance, who fought for their seats, who genuinely advocate for their districts within the framework they've been given.

The framework is the problem. Not the people within it.

This matters for the story because it means Wren cannot simply expose the Council and watch it collapse. The institution is larger than its worst members. The people who would need to dismantle it are the same people whose identity and purpose is built around maintaining it. Reform from within is not impossible — but it requires those people to accept that everything they've built their lives around was constructed on a foundation of suppressed truth.

That is the hardest thing to ask of anyone.

Open Questions

To be resolved through drafting:

- The precise current composition of the Twelve beyond Cassan Vale
- The recruitment process — what a candidate experiences when approached
- The identity and current situation of Cassan's estranged sibling — how much do they know, and when do they become plot-relevant

- Whether any current Outer Council members have independent knowledge of the Twelve's existence
- The specific mechanism by which the Twelve communicate and coordinate without leaving records
- Whether Voss Shearwall knows about the Twelve or only about the Convergence agenda through Scarlet Branch channels

Arbour - Water & Food

In a closed system, nothing is wasted. The Verdant Branch's official documentation calls this principle "sustainable cycle integration." The Sprawl calls it something less elegant and more accurate. Both are describing the same water.

Overview

Arbour is a closed system. Every drop of water that arrived on ARBOUR|05 is still somewhere in Arbour — recycled, purified, redistributed, consumed, recycled again. Every nutrient that entered the city's biological cycle is still circulating through it. Nothing leaves. Nothing is added from outside through official channels.

This should be a miracle of engineering. In the upper tiers, it mostly is. In the Sprawl, it is the daily texture of survival.

The Verdant Branch manages both water and food infrastructure, making it one of the most powerful Branches in practical terms — whoever controls what people eat and drink controls something more fundamental than law or currency. The Branch understands this. The Council understands this. The arrangement between them is the foundation of Arbour's social control in its most basic form.

Water

Sources

Arbour draws water from three sources, in descending order of official acknowledgment:

Recycled Wastewater — Primary Source All wastewater — grey water from washing and industry, black water from sanitation, and biological matter from organic disposal including human remains — enters the recycling infrastructure. The Verdant Branch's official term for the reintegration of human remains into the water cycle is **Organic Cycle Completion**.

This is common knowledge in the Sprawl. It is not discussed in polite company in the upper tiers, though the upper tiers drink the same water. People who discover it for the first time either have a crisis or accept it with the pragmatic shrug of someone who understands that a closed system wastes nothing. Most people, eventually, shrug. You drink the water. You don't think about it too hard. Waste not, want not.

Solar Condensers — Secondary Source Atmospheric water collectors using solar energy to pull moisture from Cordis's air. Given the twin suns and the planet's erratic climate, these should be extraordinarily productive — Cordis's atmosphere holds significant moisture content that the condensers are designed to extract efficiently.

They are not extraordinarily productive. They are partially deployed, running at miscalibrated settings that nobody has been able to correct since the engineers who understood the calibration systems died. The condensers that are running produce approximately 40% of their designed output. Several are running so far outside their intended parameters that they are net negative — consuming more energy than the water they produce is worth.

The Azure Branch has filed three reports over the past century recommending a full condenser audit and recalibration. The Verdant Branch has blocked all three on jurisdictional grounds. The actual reason is that a full audit would reveal the extent of the miscalibration, which would raise questions about why it was never corrected, which would lead to questions the Verdant Branch leadership would prefer not to answer.

Geothermal Condensation — Tertiary Source A small but reliable source. The geothermal tap systems produce steam as a byproduct of heat exchange, and a portion of this is captured and condensed into usable water. This water is exceptionally pure — the heat process eliminates biological contamination — and is disproportionately allocated to the upper tiers. Residents of the Luminary drink almost exclusively geothermal condensation water. They are not told this specifically. They simply notice their water tastes cleaner.

Water Quality by Tier

Water quality differs as significantly as water quantity across Arbour's tiers.

| Tier | Primary Water Source | Purification Level | Taste/Quality |
|----------------|---------------------------------|--------------------|----------------------|
| Luminary | Geothermal condensation | Exceptional | Clean, neutral |
| Upper Meridian | Recycled, high purification | High | Near tasteless |
| Mid Tiers | Recycled, standard purification | Moderate | Faint mineral taste |
| Lower Meridian | Recycled, basic purification | Basic | Noticeably processed |
| Sprawl | Recycled, minimal purification | Minimal | Tastes of the system |

Tastes of the system is the Sprawl's phrase for it. A particular flat metallic quality, slightly too warm, with an aftertaste that residents stop noticing after childhood and visitors never forget. It is safe. Technically. The Verdant Branch's safety threshold is calibrated for the upper tiers' purification level. What meets that threshold after minimal purification is a question the Branch does not publicly examine.

Chronic consumption of minimally purified recycled water in the Sprawl contributes to health outcomes the Council attributes to poor personal hygiene and inadequate self-care. The Verdant Branch's health statistics, cross-referenced with tier of residence, would tell a different story. Those statistics are not cross-referenced with tier of residence in any document available to the Outer Council.

Food

What the Ark Carried

ARBOUR|05 was provisioned for both the voyage and planetary colonisation. Its food infrastructure included:

- **Hydroponic systems** — modular, scalable, designed to produce crops in any gravity and light condition
- **Seed vault** — thousands of Earth crop varieties preserved in controlled storage, the genetic library of Earth's agriculture
- **Cultured protein facilities** — laboratory-grown meat and protein, designed to supplement agricultural output during early settlement
- **Embryonic livestock** — genetic material for animal husbandry, intended for deployment once a settlement was established enough to support it
- **Preserved provisions** — centuries of emergency rations, most of which were consumed in the first generation post-crash

Centuries later, all of these systems have evolved, degraded, been repurposed, or been deliberately restricted.

Official Food Infrastructure — The Verdant Branch

Hydroponics The hydroponic systems are the backbone of Arbour's official food production. They have been expanded significantly from the original ark configuration — the Verdant Branch's primary achievement over centuries has been scaling hydroponic output to feed a continental city.

The expansion has come at the cost of variety. The original seed vault contained thousands of varieties. The current hydroponic systems grow approximately forty — those that produce the highest caloric yield per square metre of growing space, require the least complex maintenance, and are most easily processed into standardised nutritional allocations.

The seed vault still exists. It is held in Verdant Branch secure storage. Most of what it contains has not been grown in over a century.

Cultured Protein Still operational, still the primary source of protein across most tiers. The cultured protein that reaches mid-tier and Sprawl residents is nutritionally complete and entirely without pleasure — a grey-beige substance that takes on the texture of whatever it's processed into but never quite convinces. Upper tier residents receive cultured protein that has been processed further, flavoured, textured, and presented as something approaching real food. It is the same base product. The processing is the privilege.

Standardised Nutritional Allocation Every registered Arbour resident receives a baseline nutritional allocation through the official distribution system, paid for in Flux and calibrated to provide minimum adequate nutrition. The upper tier allocation is generous and varied. The Sprawl allocation is adequate by the Verdant Branch's own definition of adequate, which was last reviewed and updated 73 years ago.

The allocation does not account for the increased caloric demands of physical labour, which the Sprawl disproportionately performs. The Verdant Branch's nutritional science team filed a report noting this discrepancy 31 years ago. The report was received, acknowledged, and filed. The allocation was not updated.

The Unofficial Food Economy

Alongside the official system, a thriving unofficial food economy operates across Arbour — most visibly in the Sprawl but with tendrils reaching into every tier.

Hidden Gardens Plants growing in forgotten maintenance corridors, under salvaged lighting rigs, in sealed-off sections of the structural fabric that the Obsidian Branch doesn't know exist or has decided not to know exist. Tended by people who learned from people who learned from people, carrying horticultural knowledge that exists nowhere in the official Verdant Branch records.

The hidden gardens exist on a spectrum:

Truly hidden — Known only to the people who tend them and a small circle of trusted contacts. Producing rare cultivars, medicinal plants, or crops with enough value that discovery would mean serious consequences. These gardens are mobile where possible — planters that can be moved, lighting rigs that can be disassembled in hours.

Unofficially tolerated — Known to local Obsidian Branch officers who have made a private calculation that the gardens serve social stability in their district and that the right arrangement

makes everyone comfortable. The arrangement is never discussed explicitly. A portion of produce changes hands. Nobody files a report. This is not corruption — it is the Sprawl's informal economy functioning exactly as it always has.

Unlicensed Livestock Small animals primarily — birds kept for eggs, small mammals kept for meat and protein, insects cultivated for both food and trade. Larger animals exist but are extraordinary — requiring significant space, significant feed, and significant trust in whoever knows about them.

The sound of unlicensed livestock in the Sprawl is one of the textures of the place — soft sounds from behind walls, from above ceilings, from sections of corridor that are officially unused. Residents navigate by these sounds without consciously acknowledging them. Visitors notice immediately.

The Black Market for Cultivars, Seeds, and Genetics The most valuable unofficial food economy operates not in produce but in potential. Seeds from varieties that haven't been officially grown in decades. Genetic material for livestock species that Arbour hasn't officially raised since the first generation. Cultivar knowledge — specific growing techniques, soil compositions using salvaged materials, light spectrum adjustments for particular crops — that exists only in the memory of specific people and commands extraordinary value.

This market is old, careful, and deeply connected to the Wayfarer trade network. Some of what circulates in the Sprawl's seed black market originated in the Free Territories — varieties that diverged over centuries of cultivation on a different continent, producing plants that are recognisably related to Earth crops but different in ways that make them strange and valuable.

Otis Audagar controls significant portions of this market. Not through direct ownership but through knowing who has what and taking a percentage of every introduction they facilitate.

Jennifer Mosswood A food vendor in the Sprawl's Nadir tier whose stall is notable for producing food that does not taste like the official allocation. Ancient culinary knowledge, non-standardised preparation, ingredients sourced through networks she does not discuss.

Mosswood is connected to the hidden garden network, the unlicensed livestock trade, and the seed black market in ways that are extensive and carefully maintained. She is also connected, through relationships built over decades, to the Wayfarer traders who occasionally make contact with Sprawl networks. Her food is not just food. It is the preservation of something the Verdant Branch seed vault holds in cold storage and never grows.

She is not political. She is something more dangerous — she is a living archive of what food was supposed to be, operating in plain sight, one block from the main Transit Hub, behind a stall marked by the smell of cooking that draws people from three districts over.

The Verdant Branch — What They Know and Don't Say

The Verdant Branch holds more information about the health consequences of Arbour's food and water systems than any other institution. Their own research, conducted internally over generations, documents:

- The correlation between tier of residence and chronic health outcomes
- The nutritional inadequacy of the Sprawl allocation for physically active adults
- The water quality differential and its long-term health effects
- The relationship between dietary deficiency and increased **Aetheris** sensitivity

None of this research has been shared with the Outer Council. Some of it has been shared selectively with the Twelve, framed as evidence that the Sprawl population requires careful management rather than evidence that the Sprawl population requires adequate nutrition.

Elara Meadowlight has read all of it. She became the Head Horticulturist of the Verdant Branch despite this research, or perhaps because of it — she understood that the only way to change anything was to be inside the system that was causing the harm. She has been inside it long enough to understand that the system does not want to be changed. She has not yet decided what to do with that understanding.

She is getting closer to deciding.

What This Means for the Story

The seed vault is the Power Grid document's Vault equivalent for food — something that exists, that could change everything, that the system has buried. Wren does not discover the seed vault. But knowing it exists informs the world's texture.

Mosswood's stall is where Wren and Atlas go when Atlas can afford something that isn't the allocation. It is where Wren will go alone, later, when the allocation is all they can manage, and Mosswood will feed them anyway because she has been watching this particular grief approach for longer than Wren has.

The corpse water is the detail that, when Wren eventually tells Aran about how Arbour works, produces the longest silence of their early relationship. Not because it's the worst thing Wren tells him. Because it's the one that makes the cost of survival in Arbour feel most visceral to someone who has spent his life reading water from the land.

Elara Meadowlight getting closer to deciding — this is a slow fuse. She doesn't act in Book One. But she is moving toward acting, and the events of Book One accelerate that movement. She is the Verdant Branch's conscience and the Branch doesn't know she has one.

The Wider Supply Network — An Update

The unofficial food economy is not a simple pipeline between the Sprawl and the Wayfarers. It is a web — layered, redundant, and far more extensive than any single faction controls or even fully understands.

The Network in Practice

Inside Arbour: The Sprawl is not a monolith. It contains dozens of distinct sub-communities — neighbourhoods organised around shared species, shared origin, shared trade, shared history. Veilan is one. There are others, each with their own internal economies, their own relationships with the official distribution system, their own specialisations in what they produce and what they need.

Food moves between these communities through hyper-local networks before it ever reaches a vendor like Mosswood. A hidden garden in one district supplies three others. An unlicensed livestock keeper sells eggs to a processor two corridors away who sells prepared food to a distributor who supplies four stalls. None of these people know the full shape of the network they are part of.

The Badlands Communities: Scavengers and outcasts are not a uniform group. The Badlands contain settled communities in defensible locations, nomadic groups that have learned to read and move with **Aetheris** patterns, and individuals who have been out there long enough to develop knowledge of the terrain that nobody inside Arbour possesses.

These communities trade with the Sprawl through routes the Obsidian Branch knows exist and cannot fully shut down without deploying resources they don't have. The trade flows both ways — food, seeds, salvaged components, and **Aetheris**-adapted biological material moving inward; tools, Flux-adjacent currency substitutes, and information moving outward.

Some Badlands communities have also developed relationships with Wayfarer advance scouts who periodically cross the ocean. This is how certain seed varieties and cultivar knowledge from the Free Territories enters the Arbour supply network — not directly, but through three or four intermediary hands across different communities.

Shadow Settlements: Between Arbour's outer walls and the deeper Badlands, a number of settlements exist in the city's shadow — technically outside its jurisdiction, practically dependent on black market trade with both the Sprawl and the Badlands communities. The Council designates these as unlicensed habitation zones. The people who live there have their own names for their homes.

These settlements are the most exposed to **Aetheris** in the region — outside Arbour's (imperfect) atmospheric processing, subject to the full environmental conditions of the Penumbran Reach. They have also developed, over generations, the most practical and unsentimental understanding of CSD and the Gloaming of any community near Arbour. They do not have access to the suppressants that Arbour's medical system provides. They have developed other ways of managing it, some of which are more effective than the suppressants and none of which appear in any official medical record.

The Free Territories Beyond the Wayfarers: The Wayfarers are the most organised and most visible group on Aran's continent but they are not the only one. Fixed settlements exist in sheltered locations. Other nomadic groups move through territories the Wayfarers don't claim. Communities with minimal contact with either Arbour or the Wayfarers have developed entirely independent relationships with Cordis and **Aetheris**.

Some of these communities appear in Wayfarer oral tradition as distant relatives — groups that diverged from the original post-crash Wayfarer founding generations and went their own way. Others have no connection to the ark at all in their own understanding of their history, though genetically and historically they descend from the same crash survivors.

What This Means

Mosswood is not buying from Wayfarers. She is buying from someone who bought from someone who traded with a Badlands community who got it from a contact in a shadow settlement who occasionally deals with a Wayfarer scout.

The chain is long. Each link in it knows only the links immediately adjacent. This is not a security measure — it is simply how informal economies work. Nobody designed the redundancy. It emerged because it was useful and because it mirrors the way information moves in the Sprawl: sideways, in small pieces, never in a straight line.

The Convergence's spread mirrors this too. It is happening in all of these communities simultaneously, at different rates, interpreted through completely different frameworks. The Badlands communities call the Gloaming something else. The shadow settlements have rituals around it that are half practical and half spiritual. The Free Territories communities that aren't Wayfarers have their own understanding that is neither the Convergence's truth nor the Council's lie but something arrived at independently from lived experience.

All of these understandings are partial. All of them contain something true that the others don't.

A full map of the community ecosystem outside and around Arbour is documented separately — see: Communities of Cordis.

Glossary — Food and Water Terms

| Term | Meaning |
|--------------------------|--|
| Organic Cycle Completion | Verdant Branch official term for the reintegration of human remains into the water cycle |
| Tastes of the system | Sprawl phrase for the particular quality of minimally purified recycled water |
| The allocation | Official standardised nutritional distribution — adequate by the Branch's own definition |
| The vault | Verdant Branch secure storage for the original seed vault — distinct from the Power Grid's Vault |
| Hidden gardens | Unofficial growing operations ranging from truly concealed to officially tolerated |
| Cultivar trade | Black market for seeds, plant genetics, and horticultural knowledge |

Arbour - Transport

Arbour - Transport

How people move through Arbour tells you everything about who they are and what they're permitted to be. The transit system was not designed to reinforce the hierarchy. It simply does, because everything in Arbour does, because the hierarchy is load-bearing.

Overview

Arbour's transport infrastructure consists of three systems operating in parallel — the Mass Transit Rail network for horizontal movement, the Spine for vertical movement between tiers, and the maintenance tunnel network for movement that isn't supposed to happen at all.

Each system reflects the generation that built or inherited it. The rail network is original ark infrastructure extended badly over centuries. The Spine is deliberate post-crash construction, built specifically to control who can move where. The maintenance tunnels predate all of it — they are the ark's own service infrastructure, now vast, unmapped, and entirely outside official control.

The Mass Transit Rail — The Lines

Origin and Condition

The rail network began as ARBOUR|05's internal cargo and personnel transit system — pressurised corridors and tracked vehicles designed to move people and goods efficiently through a vessel the size of a small city. When the ark became a city, those corridors became the bones of Arbour's horizontal transport network.

The original lines are still running. Barely. Centuries of extension, patching, and improvised maintenance have produced a network that is simultaneously vast and fragile — covering most of Arbour's horizontal geography but doing so on infrastructure that ranges from reasonably

maintained in the upper tiers to actively dangerous in the lower ones.

New lines were built post-crash as the city expanded, constructed from whatever materials were available by whoever was building at the time. These sections are identifiable by their inconsistency — different gauge, different carriage compatibility, different failure modes. A rail worker who has spent their career on the lower lines can identify which decade a section of track was built in by the sound it makes.

The Carriage System

Every carriage in Arbour's rail fleet is coded to a tier designation. The coding is physical — embedded in the carriage's boarding verification system — and social, in that carriages for upper tiers are visibly different from carriages for lower ones.

The journey from bottom to top:

Trains depart from lower tier stations carrying all designation classes. As the train ascends through the network — moving from lower lines to connection points to upper lines — carriages detach. A carriage coded for the Nadir tier detaches at the first major junction. Sprawl carriages detach progressively. By the time the train reaches the Meridian Districts it is carrying Mid-tier carriages and above. By the Luminary, two or three carriages at most.

This is not presented as exclusion. It is presented as efficiency — each carriage proceeding to its designated depot, minimising unnecessary transit time for upper tier passengers. The effect is that upper tier residents never share a carriage with Sprawl residents. They simply board at a later point in a journey that has already shed everyone below them.

The experience by tier:

Lower Lines / Sprawl: Underground. Hot — the lower lines run through the structural core of Arbour where waste heat from the power infrastructure accumulates and the atmospheric processors are weakest. Smoggy — recycled air that has passed through too many people and too many systems before reaching the platform. Packed — the lower tier population is larger and the carriages older and smaller. Loud — original ark infrastructure transmits vibration directly into the carriage frame, producing a constant industrial roar that residents of the lower lines stop hearing consciously after childhood.

The platforms are lit by salvaged lighting rigs that shed unpredictably. The signage is a palimpsest of generations of additions and corrections, older designations half-visible beneath newer ones. The carriages smell of bodies and recycled air and something underneath that might be the ghost of whatever the original cargo was.

Upper Lines / Luminary: Elevated. The upper lines emerge from the city's structure and run along the exterior faces of Arbour's upper tier architecture — open to Cordis's sky, offering views across the city and out toward the horizon. On clear days, from the right carriage, you can see the Frames

on the horizon. Most upper tier residents have never been told what the Frames are.

The carriages are enclosed in transparent materials salvaged from the ark's observation systems. Climate controlled. Quiet — the upper line track was relaid within living memory by Azure Branch engineers following documented procedures correctly. The difference in ride quality between a lower line carriage and an upper line carriage is the difference between a place that is maintained and a place that is managed.

Tier Depots

Each tier has designated depots where its carriages are stored, maintained, and dispatched. Upper tier depots are staffed, maintained, and secure. Lower tier depots are understaffed, under-resourced, and the source of the rail network's most significant safety incidents.

Derelict carriages — when a carriage is pulled from service in the lower tiers, it goes to scrap. The Sprawl's salvage economy receives decommissioned carriages as raw material — metal, insulation, seating components, mechanical parts. Some decommissioned carriages are repurposed whole before they reach the scrap stage, appearing in the Sprawl as impromptu shelters, market stalls, or structural components in buildings that have incorporated them entirely.

A section of Veilan's eastern wall is the exterior face of a decommissioned Nadir-tier carriage from three generations ago. Residents have been painting it for decades.

Fare and Access

Rail travel requires Flux. The fare system is tiered — travel within your designation tier costs a standard rate, travel to a lower tier costs less, travel to an equal or higher tier requires both Flux and valid designation documentation.

In practice in the Sprawl, the fare system is the first of several informal systems layered over the official one. Gate attendants at lower tier stations operate on an understanding that is never written down — a small supplementary payment produces less scrutiny of documentation. This is not exceptional corruption. It is how the system functions. The official fare does not cover the actual cost of maintaining the lower line infrastructure, the attendants know this, the Branch knows this, and the supplementary payment is the difference.

The Spine — Vertical Transit

Structure

The Spine is a single structure, not five separate ones. One pentagonal architectural complex — five vertical shafts arranged around and within a shared central hub — sitting at the highest point of the hull-core's built-up arc, immediately adjacent to the Luminary. It is the single most recognisable silhouette in Arbour: visible from most of the city on a clear day, the one landmark every tier can see and name even if most residents of most tiers will never once set foot inside it.

This is deliberate, and it changes what the Spine actually is in most people's daily lives. **Most residents never use it.** The Mass Transit Rail network — horizontal by design, but doing real vertical work within a tier's own boundary through its carriage-detachment mechanic (see *The Lines*, above) — handles the overwhelming majority of how people actually move through Arbour day to day. A person can live an entire life on one or two tiers without ever needing the Spine, because rail already gets them everywhere within the boundary they're permitted to occupy. The Spine exists for the rare, specific case the rail network cannot solve: crossing a tier boundary itself. A doctor's appointment in a tier above your own. A work assignment. A family member relocated. For most people, most of the time, the Spine is not infrastructure — it's a landmark they orient by and almost never enter.

The Spine was not part of ARBOUR|05's original architecture. It was constructed in the second and third generations post-crash, built as a single deliberate chokepoint specifically to formalise and control the rare crossings that the emerging tier system could no longer afford to leave informal. Centralising vertical tier-crossing into one heavily controlled structure, rather than distributing it, was the entire point: a single gate is far easier to staff, verify, and surveil than five would ever be.

Distance to the Spine is still a tier hardship, but it works through the hull-core's own shape rather than through deliberate spacing. Luminary sits at the literal top of the hull-core's arc, immediately around the Spine's hub — Luminary residents live, structurally, on its doorstep, and Luminary living space is famously the most compressed of any tier, which only sharpens the proximity. Meridian wraps the flanks of that same arc, descending toward ground level. The Sprawl sits furthest out, at the base of the hull-core and beyond it into the surrounding built sprawl entirely — for a Sprawl resident, simply reaching the Spine means a real rail journey inward and upward through the hull-core's curve before they've even reached the gate where the actual scrutiny begins.

Each of the five shafts within the complex connects all tier levels from Nadir to Luminary. They are, structurally, redundant with one another — five lanes through the same chokepoint rather than five separate chokepoints — which exists mostly to prevent total citywide gridlock if any single shaft fails or is taken offline.

Access and Verification

Every Spine gate operates a verification system — designation documentation checked against the Flux registry, purpose of transit recorded, destination tier logged. Going down requires documentation but minimal scrutiny. Going up requires:

- Valid designation documentation for the destination tier, or
- A Branch authorisation pass for the destination tier, or
- An escort designation — travelling with someone of higher designation whose credentials cover both parties

The verification is automated at the primary level and staffed at secondary. Gate attendants have discretionary authority to request additional documentation, deny access, or flag individuals for Obsidian Branch follow-up. The exercise of this discretion follows patterns that residents of the lower tiers understand very well.

The experience of attempting to ascend: For a Sprawl resident with a genuine reason to reach a Mid-tier level — a doctor's appointment, a work assignment, a family member in a different tier — the day usually starts before the Spine itself ever comes into it: a rail journey inward and upward through the hull-core, watching the carriage thin out as Sprawl-coded cars detach behind them, before the Spine's pentagon silhouette is even close enough to read as a destination rather than a landmark on the skyline. By the time they reach the gate, the Spine itself is an exercise in being assessed. Every element of your presentation is read: dialect, fur condition, clothing, the specific smell of lower tier air that clings differently than upper tier recycled air. The verification system will clear you or it won't. The attendant's face will tell you what the system decided before the display does. For most Sprawl residents this is not a weekly indignity — it's rare enough, and significant enough when it happens, that the day itself gets remembered.

The Spine Gates — Named Locations

Each of the five shafts has an official designation — Gate One through Gate Five in the original construction records. Nobody calls them that.

Because all five sit within the same central complex rather than scattered across separate districts, the naming pattern is different from what a distributed system would produce. Sprawl residents don't generally have a personal relationship with "their" gate the way they might with a specific rail station near home — most will interact with the Spine rarely enough in a lifetime that the distinction between shafts barely registers. The names that do circulate tend to describe a shaft's specific use or reputation rather than the district it happens to serve: which shaft processes which kind of paperwork fastest, which attendants are known for which kind of scrutiny, which one the Branches use when they don't want to be seen using the public queues.

[PLACEHOLDER — the specific vernacular names for each of the five shafts to be determined through drafting and character development. Worth keeping the "named by use or reputation, not by district" principle in mind once these are decided, consistent with the single-hub revision above.]

Spoofing the System

Unauthorised ascent through the Spine is a significant criminal offence under Arbour law — classified as Designation Fraud, carrying consequences that escalate sharply for repeat offences. It is also routine.

Methods in common use:

Bribery — The most common method in the Sprawl. Gate attendants at lower Spine gates operate on the same informal economy as rail fare collectors. A supplementary payment — calibrated to the destination tier and the attendant's known rate — produces a documentation check that finds everything in order. The rate is known. The process is understood. It is not reliable — attendant turnover, Obsidian Branch spot audits, and individual attendant risk tolerance all create unpredictability.

Fabricated documentation — Forged designation badges, produced by a small number of specialists in the Sprawl who work from salvaged official materials and detailed knowledge of the verification system's tolerances. More reliable than bribery for a single ascent but significantly more expensive. The forged documentation is indistinguishable from official documentation unless checked against the central Flux registry — which gate verification does not always do for routine transit.

Deceased identification — Documentation taken from deceased residents whose tier registration has not yet been processed out of the system. The window between a death and the registry update varies from days to weeks depending on how the death was recorded and by whom. In the Sprawl, where deaths are not always officially reported promptly, this window can be longer. The documentation works until it doesn't. The risk of using a deceased person's identification that has already been flagged is significant and not always knowable in advance.

Escort designation — Travelling with someone of legitimate higher designation whose credentials cover the party. Requires either a genuine relationship with an upper tier resident willing to vouch, or a fabricated connection that survives scrutiny. Used for medical and official purposes legitimately; used for everything else unofficially.

Consequences of being caught: Designation Fraud at the Spine results in Obsidian Branch detention, documentation confiscation, and a flag on the individual's Flux registry that affects future legitimate transit applications. For repeat offences or for individuals already flagged for other reasons, the consequence escalates to extended detention and, in cases the Branch chooses to make examples of, public processing — the official term for what the Sprawl calls *being walked* — a detention that passes through the most visible sections of the transit hub before proceeding to the Branch facility.

Being walked is a message to everyone watching.

The Maintenance Tunnels

What They Are

The original service infrastructure of ARBOUR|05 — crawlways, maintenance corridors, access shafts, and utility passages built into every section of the ship to allow engineers to reach any system without disrupting occupied areas.

Centuries of city growth have buried, extended, collapsed, and rediscovered sections of this network continuously. No complete map exists. The Azure Branch holds partial maps covering the sections they actively maintain. Everything else is known only to the people who use it.

The warrens is the Sprawl's name for the sections they know. The Chronalum calls them the tunnels. Smugglers, unofficial traders, and people who move things or people without official documentation have their own section-specific names for routes they use regularly. There is no universal name because there is no universal map.

Who Uses Them

The maintenance tunnels are used by:

- Azure Branch maintenance crews — in designated sections, with documentation, following established procedures
- The Chronalum — for movement of people and information between cells, for access to archive sections of the Tabularium that are not accessible through official routes
- Black market logistics — goods moving between the Sprawl's unofficial economy nodes without passing through official transit checkpoints
- Individuals — people who need to move without being tracked, for reasons ranging from personal safety to active evasion of Obsidian Branch surveillance

The tunnels are also used by no one — vast sections that haven't been entered in decades or generations, where the original ark infrastructure is intact and silent and dark, where **Aetheris** accumulates in ways it doesn't in occupied sections because there are no atmospheric processors and no power draw to dilute it.

These sections are where things are sometimes found that shouldn't be there. Nobody discusses what specifically. The Sprawl has a general understanding that you don't go into sections you don't know, and if you find yourself somewhere you didn't intend to be, you leave the way you came and you don't go back.

The Tunnels and **Aetheris**

The unoccupied sections of the maintenance tunnel network are **Aetheris** hotspots. The same atomic bonding anomalies that affect the Sprawl's improvised infrastructure affect the tunnels' original materials — producing sections where the walls have changed texture, where metal has

become something between solid and liquid and stayed there, where the geometry doesn't resolve correctly when you try to map it.

Experienced tunnel users know these sections by feel — a particular quality of air, a change in the sound the tunnels make, a pressure that isn't quite the scratch but is adjacent to it. They navigate around them. New users don't always know to.

The Chronalum has lost people in the tunnels. Not to violence. To sections they went into and didn't come out of. The official position within the Chronalum is that these were navigation errors. The unofficial position is that some sections of the tunnel network are no longer entirely in this reality.

What This Means for the Story

The train as a class experience — Wren takes the train every day to the Tabularium. The specific carriage, the specific line, the quality of the air, the sound of the lower line track — these are the texture of their daily life. When Wren eventually takes the upper line for the first time on official business, the silence and the views and the quality of the air are disorienting in a way they don't fully acknowledge.

The Spine as threshold — every time a character ascends through the Spine, it is a threshold moment. The scrutiny at the gate, the assessment, the moment of being cleared or denied — this is Arbour's social contract expressed in a single interaction. Wren navigates it with their documentation in order, and their dialect is carefully managed. It still costs them something each time.

The tunnels as infrastructure of resistance — the Chronalum's use of the tunnels is not incidental to their survival. It is foundational. Without the tunnels, the Chronalum cannot move people or information without Obsidian Branch surveillance. The tunnels are the reason the Chronalum still exists.

The unoccupied sections — not plot-relevant in Book One, but their existence should be felt. Something in the walls of the tunnels that experienced users navigate around. A quality of wrongness that the Chronalum has learned to read. The suggestion that some sections of the infrastructure are no longer entirely here.

Species & Physiology

Species & Physiology — Foundational Premise

Lives in: World & Lore → Core Systems, alongside World Systems. This document states an in-universe foundational premise that was previously implicit (visible in details like Aran's "bleached fur tips," dialect-not-species as the real class marker, and the species/tier mapping in World Systems) but never directly written down. Read alongside World Systems' existing "Species and Tier — General Mapping" and "Dialect as Class Marker" sections, which this document underpins rather than replaces.

The Foundational Premise

Every named species in Sempiterni — every character, every population group, on Earth before the Magnetosphere Collapse and across all of Arbour, the Sprawl, the Badlands, the Wayfarers, and the Free Territories — is anthropomorphic. There is no baseline "human" physical form anywhere in this setting. "Human" and "humanity," as used throughout the existing documents (the ark designation, "humanity's last hope," "human-relevant timeframe"), refer to ****species-group ancestry and civilisation**** — the lineage descended from Earth, as opposed to the Penumbrans — not to a specific physical body type. Every member of that lineage is a distinct anthropomorphic animal species: wolf, fox, rabbit, and so on, in the traditional furry-setting sense — a fully formed taxonomy of distinct species, not a loose or symbolic gesture toward animal traits.

This is true of the Penumbrans as well. They are also anthropomorphic and animal-derived, just alien — a separate, ancient lineage that evolved independently in the Penumbran Reach, with their own (currently undesigned) range of species-forms, distinct from Earth-descended species but built on the same underlying logic: animal-derived, not humanoid-baseline. The Convergence/Aetheris does not distinguish between the two lineages by form — both are equally subject to it, which is consistent with and reinforces the existing ambiguity around whether the Penumbrans' fate was ascension or erasure: two independent anthropomorphic civilisations, on opposite sides of one unknowable threshold, neither privileged by their physical nature.

Mechanics

Species Carries Real Biological Variation

Species is not purely cosmetic or symbolic. Consistent with how the existing species/tier material already treats it (Aran's weathered build and bleached fur tips reading as genuine physical evidence of Badlands exposure, not just a description), species carries real, innate physical and sensory differences — the kind a reader would expect from the species in question if it existed as a real animal, translated to an anthropomorphic frame. A wolf-type character might have stronger night vision or a more sensitive sense of smell than a rabbit-type; a rabbit-type might have different stamina, hearing, or vulnerability profiles than a wolf-type. These differences are real and can matter practically — for fieldwork, combat, medical presentation, sensory description in prose — but they are not the basis of Arbour's social hierarchy.

This is an important and deliberate distinction already implied by the existing World Systems content: **species does not mark tier — dialect does**. The tier system is a social and historical artefact of the original ark manifest's wealth-and-connection-based selection process, not a biological hierarchy. A given tier contains wide species diversity (the Sprawl/Nadir has the *widest* diversity of any tier in Arbour, per existing documentation), and a Luminary resident and a Sprawl resident of the same species are common. Species-based biological variation is real-world texture, not a caste system. Conflating the two would contradict the existing, carefully established point that Arbour's stratification is about inherited wealth and institutional power, not biology.

Inheritance

Species is genetically inherited from both parents, consistent with real biological inheritance rather than a simplified "pick one parent" model:

- **Same-species parents** produce offspring of that species, as expected.
- **Mixed-species parents** — which exist, though are less common than same-species pairings — produce offspring whose species presentation is **genuinely variable** on a case-by-case basis. A mixed-species child might present closer to one parent's species, as a blend of both, or as something in between; there is no fixed formula or predictable ratio. This mirrors how real-world mixed heritage actually works rather than a tidy, game-like blending mechanic, and is true to life rather than mathematically deterministic.
- This variability is a quiet, realistic source of character texture rather than a plot mechanism in its own right: a character's species and appearance may not straightforwardly signal their parentage, family resemblance can be inconsistent or surprising, and assumptions other characters make based on appearance alone can be wrong. This is available as a tool for characterisation (for instance, a character being

mistaken for a particular lineage, or a family interaction that explains an unexpected resemblance) without requiring it to be foregrounded as a story mechanic.

- The relative rarity of mixed-species pairings is **stated as a demographic fact** here, not yet explained. Whether this is purely cultural/social inertia, something with deeper roots in Arbour's tier-and-family-line politics (echoing the Twelve's own bloodline anxieties — see Cassan Vale, Traditionalists), or simply unremarked-upon happenstance is undecided and worth a deliberate choice before it comes up in prose, since the explanation (or lack of one) will read very differently depending on which it is.
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What This Clarifies Retroactively

- **Aran's "bleached fur tips, weathered build"** (World Systems) — already consistent with this premise; this document simply makes explicit what was previously demonstrated only through example.
 - **"Species doesn't immediately mark tier in Arbour — dialect does"** (World Systems) — this document provides the underlying biological logic that makes that distinction make sense: species variation is real but orthogonal to the social hierarchy, which is purely about inherited institutional power.
 - **The original ark's selection process** (World Systems, "The Ark Selection Problem") — already describes "species that had historically dominated Earth's institutions of power, wealth, and academia" being overrepresented, with "other species" present as essential workers and service staff. This document confirms that "species" in that passage means literally distinct anthropomorphic animal species, not a euphemism or stand-in for something else.
 - **Existing character/document references to "human," "humanity," "human-relevant"** — confirmed clean. A search across all session-produced documents (Cassan Vale, Glossary, Kugelblitz Jettison Mathematics, Propulsion & Launch Logistics, Penumbran Language & Naming) found every usage already consistent with "human" meaning species-group ancestry, not a baseline physical form. No corrections needed to existing documents as a result of this clarification.
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Open Items

- [] **Penumbran species-forms** — established here as "also anthropomorphic/animal-derived, just alien," but no actual Penumbran species taxonomy exists yet. Worth developing alongside or after the Cosmology chapter's Dead Civilisation document, since their physical form likely connects to how the Installations are described physically (scale, doorways, ergonomics of surviving architecture).

- [] **Why mixed-species pairings are less common** — flagged above as an undecided demographic fact. Worth a deliberate decision (cultural, political, or simply unremarked) before it surfaces in prose.
- [] **A reference taxonomy** — this document establishes the *rules* governing species, but not a full list of which species exist in this setting or which named characters belong to which. Confirmed so far: Wren Emberlain (sand cat), Aran Sunderwood (coyote), Cassan Vale (snow leopard — see *Cassan Vale — Full Origin and Psychology*). The full supporting cast remains unassigned.
- [] **Cross-reference into World Systems proper** — this document currently stands alone; consider whether it should eventually be merged into or tightly linked from the existing World Systems document's "Biology — Species, Class, and the Body as Text" section header (referenced in World Systems but not yet expanded into content of its own).

Arbour City Geography

Lives in: World & Lore → Core Systems (or its own Locations chapter, once that chapter has more content). This is deliberately NOT a full geography document — it's the load-bearing skeleton: orientation, hull shape, and the core/sprawl distinction that every future district, landmark, and map must be consistent with. Detailed district names, the Spine gates' Sprawl nicknames, and street-level texture are explicitly out of scope for this pass — see Open Follow-Ups.

Why This Document Exists

Arbour City Geography has been sitting on every version of the directory tree as a single intimidating "Major Undertaking" — full city shape, district layout, Spine gate positions, landmarks, all at once. That framing made it feel impossible to start. It isn't. Dozens of geographic facts are already locked across other documents (Power Grid, Transport, Water & Food, the character documents) — they've simply never been spatially reconciled into one coherent shape. This document does that reconciliation first, as a skeleton, before any district gets named or any map gets drawn.

Part One — The Hull

Confirmed Dimensions (already locked, Technical Appendices)

- **Length:** 3,200 m
- **Maximum beam:** 420 m
- **End-on cross section:** ~138,544 m² — explicitly described as a **circular profile**, mathematically confirmed (a circle of that area has a 420 m diameter, exactly matching the stated beam).

Hull Shape

ARBOUR|05 was not a uniform tube. Consistent with real deep-ocean pressure-vessel engineering (the same logic the Committee used to justify drydock construction at 3,000+ metre depths — see *The Great Stripping*), the hull was **tapered and segmented**, not a constant-diameter cylinder end to end:

- **Widest point (~420 m, maximum beam):** the **Habitation Cylinder** — the midsection, where the bulk of the colonisation population and equipment lived during the voyage. This is the section whose structural mass, per existing canon, "insulated the forward reactors" during the cascade.
- **Forward section (narrower):** command, tapering toward the bow.
- **Aft section (narrower):** the drive section — Kugelblitz containment, R4, and R5 — tapering toward the stern, consistent with the drive assembly being jettisoned "out the aft hatch."
- **Colonisation equipment — distributed, not centralised.** Per existing canon, the drive section is aft and "command and colonisation sections" are forward — but the colonisation equipment itself (geothermal drilling rigs, atmospheric harvester components, the solar array material) was never one large cargo bay. It sat in **smaller pockets distributed throughout the forward third**, each positioned near whatever system it served, rather than centralised in a single hold. This is consistent with — and is now the mechanical explanation for — why post-crash deployment was genuinely triaged piece by piece rather than all-or-nothing: each pocket had its own access point and its own surviving engineers, and each piece of equipment's post-crash fate (geothermal taps deployed within a decade, atmospheric harvesters partially deployed, the solar arrays erected but never calibrated) was decided independently of the others.
- **A real downstream consequence worth flagging:** once a given pocket's equipment was salvaged or deployed, the empty pocket itself became some of the oldest available interior real estate in the hull-core — a pre-existing void in the original structure, distinct from anything built later by any generation. This is a strong, ready-made hook for a specific location (an old equipment pocket repurposed as a shrine, a black-market cache, an archive wing, a Branch facility) whenever the geography pass reaches that level of detail.

This tapering and pocketing is the origin of a real, physical architectural vocabulary for Arbour's oldest buildings: pressure-rated, curved, segmented construction, with reinforced ring-frame sections at intervals along the original hull, and — in places — oddly-shaped sealed voids that don't match the logic of anything built around them — visible today as load-bearing structural bones and strange "wasted" pockets in the oldest parts of the city, regardless of whether anyone living there understands them as ocean engineering or emptied cargo space. They don't. Nobody alive has seen an ocean. These details, to a present-day Arbour resident, simply read as old, heavy, "crude," over-built construction — the same way the rest of the city treats inherited procedure: followed, normalised, never questioned for its original purpose. (*Direct continuity with the "ritual engineering" framing already established in World Systems' Azure Branch material.*)

Scale Check — Forward Mass vs. Aft Drive Section

A scaled side-profile pass (using the existing reactor frame-position data — R1 at Frame 12, R2 at Frame 28, R3 at Frame 67, R4 at Frame 112, R5 at Frame 134) confirms something the prose alone left ambiguous: **R1 and R2 sit roughly 1,900+ metres from R4 and R5** along the hull's 3,200 m length. An early pass at this diagram connected that distance with a thin, empty service spine — which solved the distance problem but created a new one: a kilometre-plus of dead, wasted, structurally thinner space makes no engineering sense in a vessel built to survive both deep-ocean

assembly pressures and relativistic flight stress, and it isn't what the existing text actually says.

The corrected version uses existing canon directly. *Technical Appendices* already states that "the massive liquid coolant reserves and secondary reactors (R1, R2, R3) were placed at the forward section to act as kinetic and radiation shielding" — meaning that stretch of hull was never empty. It's a **full-width, mass-loaded coolant reserve and shielding section**, running from the back of the Habitation Cylinder to roughly R3's position. This does three things at once: it removes the "dead space" problem, it gives a physical, geometric reason for R3's documented status ("partially functional... took the edge of the surge" — R3 sits at the edge of the shielded zone, fully protected reactors further forward, the drive section's burst reaching the rest), and it means the only genuinely narrower stretch of hull is a short service taper between the shielding mass and the aft drive bulge — not the entire forward-to-aft distance.

Worth keeping this firmly in mind for any future cross-section or map work: the forward section (command, Habitation Cylinder, colonisation equipment pockets, coolant/shielding mass) is large, dense, and functional along nearly its full length. Only the final stretch into the drive section narrows meaningfully.

Who Actually Built the City — ARC's Hand in the Hull-Core

This addresses a real, worth-asking question: three centuries of deconstruction, reshaping, and floor-levelling work (see *The Arbour Hull Core*, "Why the Floors Are Level") is an enormous, sustained engineering effort. Who actually did it, and with what?

The answer doesn't require inventing new equipment or a new system. The colonisation equipment already established above — geothermal drilling rigs, atmospheric harvester components, the solar array deployment hardware, and by clear extension the structural cutting, shaping, and assembly systems any genuine colonisation effort would also have needed — was never meant to build a single static ship-shaped structure. It was built to **deconstruct and reconfigure**, to turn a vessel into the bones of a settlement. That work was never going to stop just because the colonisation plan itself was overtaken by crisis; it simply changed what it was reshaping the ship *into*.

And that work was never purely automated, and it didn't stay purely human either — the balance between the two shifted, generation by generation, in a direction worth being deliberate about. ARC — Arbour's ship-derived system intelligence, already established as "Autonomous Routing & Control," originally built to handle navigation and system routing aboard ARBOUR|05 — had a scope that extended naturally to directing colonisation deployment and construction logistics as well, not navigation alone. This is not a new capability invented for this document; it follows directly from what "Autonomous Routing and Control" was always going to mean for a ship explicitly built to become a colony.

Early generations leaned on ARC heavily, with surviving engineers who understood the original systems working *with* it directly: deploying geothermal taps, partially deploying atmospheric harvesters, erecting solar arrays, levelling the first generations of habitable deck space, directing structural cutting and reinforcement as the original hull was slowly reshaped into

something people could actually live in long-term. In this period, ARC's instructions carried real, earned authority — checked, understood, and largely correct.

That balance did not hold. Per existing canon, ARC's memory core degrades non-linearly over centuries, including corruption it cannot always detect — and as that corruption deepened, and as fewer people remained alive who'd ever understood the original systems well enough to catch ARC's errors, trust in its construction-direction role eroded the same way trust in everything else inherited from the founding generation eroded: not through one dramatic failure, but through a slow accumulation of instructions that turned out to be wrong, structures that didn't make sense once finished, plans that referenced systems that no longer existed. **Later generations increasingly did the work by hand, by accumulated practical knowledge, rather than by ARC's direction** — the same self-taught, salvage-and-experimentation competence already established as the Sprawl's defining trait ("descendants of engineers, self-taught through salvage and experimentation... arrived at understanding from below, through necessity and curiosity, rather than from above through controlled transmission") now running in parallel inside the hull-core as well, not just in the Sprawl. By the present day, manual, hands-on, hard-won structural competence — passed person to person, the way the Sprawl already passes down which taps are stable and which sections will shed first — is the dominant mode. ARC is still occasionally consulted, still occasionally followed, but it is no longer trusted the way it once was, and the people doing the actual levelling and reshaping work today are far more likely to be relying on what they personally know about how this section of wall behaves than on anything ARC tells them.

The trouble is the same trouble ARC has everywhere else, and its damage is mostly historical now rather than ongoing. Per existing canon, ARC's memory core has degraded non-linearly over centuries, including corruption it cannot always detect — it sometimes issues instructions based on false memory, instructions that, during the era when ARC's direction still carried real authority, were followed because nobody at the time understood the system well enough to question it. That earlier trust is what left a mark: a deconstruction crew directed toward a section that didn't need it, a structural change made on a corrupted memory of what the original colonisation plan specified, a space sealed off for reasons nobody now alive can reconstruct. The people who eventually stopped trusting ARC's construction direction couldn't undo what earlier generations, trusting it, had already built. The errors are baked into the structure now, indistinguishable from deliberate human choice to anyone living today — which is precisely why the present generation relies on hands-on, hard-won knowledge of how a given section actually behaves, rather than on records of why it was built that way in the first place. Nobody currently alive can fully separate, in the hull-core's physical fabric, what reflects a real human decision from what reflects ARC's older, corrupted instructions, still standing because nobody since has had reason or resources to tear it back down and start over.

This is the same texture as everything else inherited and unexplained in the hull-core — just now extended to genuinely include the possibility that some of it was never decided by a person at all, and the further possibility that the people who eventually noticed something was wrong simply built around it, by hand, rather than ever finding out why.

Confirmed Internal Systems

Before mapping tiers onto the hull, a complete internal-systems pass confirmed the hull is not just a shape — it's already carrying the direct ancestors of two of Arbour's three transit layers, per existing canon:

- **The main personnel/cargo transit corridor** runs the ship's full 3,200 m length — already locked in *Transport Within Arbour* ("the rail network began as ARBOUR|05's internal cargo and personnel transit system"). This is why the original rail lines already "cover most of Arbour's horizontal geography" from day one: they didn't need post-crash construction to achieve that reach, because the ship itself was already that long.
- **The maintenance crawlway layer** runs separately, beneath the main corridor, also full-length — the direct ancestor of the maintenance tunnels / the warrens, per existing canon ("the original service infrastructure of ARBOUR|05... built into every section of the ship").
- **The Kugelblitz** sits inside the aft drive section, alongside R4 and R5, consistent with being jettisoned "out the aft hatch."

This matters for the cross-section below: the original transit corridor doesn't just happen to run through the hull-core's territory — it **is** the hull-core's oldest infrastructure, still tracing the same path it always did, just repurposed and extended over centuries rather than newly built.

Orientation — "The Long Incline"

This corrects an earlier draft of this document, which had the ship standing nearly vertical, like a fallen skyscraper propped upright. That version solved a real problem (a flat-lying corridor can't drive a climbing tier system) but overcorrected: it didn't actually need to be that steep, and a closer look at what "steep" means for an object 3,200 m long shows the standing-tower model was solving for the wrong constraint.

The actual constraint is simple: the original transit corridor needs enough **vertical rise** along its length to support a climbing tier system. It does not need to look like a standing tower to do that. At a genuinely shallow-looking lean — roughly 15-20° off horizontal, the kind of angle that would read, to the eye, as "mostly lying down, propped up at one end" rather than "standing" — the ship's full 3,200 m length still produces close to 900-1,000 m of real vertical rise. That is more than enough: the city's currently built-up, habitable stretch only needs about 200 m of that rise, a fraction of what even a shallow lean provides.

The corrected version: the ship came down at a shallow angle, roughly 15-20° from horizontal — closer to lying down than standing up, but not flat, and not symmetric end to end. Bow up, stern down, the same as before — but "up" here means propped at a shallow rise along a long incline, not a near-vertical lean. This means the **3,200 m length now spans a long incline**, not a tower: roughly 3 km of horizontal run, climbing to perhaps 900-1,000 m of vertical rise at the high end. This single change resolves the same things the standing-tower model resolved, while also fixing two things the tower model strained against:

- **The original transit corridor, running fore-to-aft, now climbs the incline rather than climbing a tower.** It was always the ship's primary spine of movement; after the crash, that same infrastructure still does exactly the job a climbing tier system needs — it

just climbs a long hill rather than a vertical shaft. Zero retrofitting required to explain why it already reaches every level.

- **The forward section (R1, R2, the Habitation Cylinder, the coolant/shielding mass) is now the high end of the incline.** This still matches existing canon directly: R1 powers Luminary and the upper tiers, R2 powers Meridian and the mid tiers — the forward reactors were always the ones serving the upper city, and the geometry now explains why with a more generous, more physically plausible shape than a tight vertical stack ever offered.
- **The aft drive section (R4, R5, the Kugelblitz) is now the low end of the incline, at ground level.** Consistent with the drive section taking the worst of the impact, the EM cascade detonation, and the debris field forming around that lower end while the better-protected forward structure further up the slope stayed comparatively intact.
- **R3, "partially functional... took the edge of the surge,"** sits geometrically between the two ends — consistent with a position partway up the incline, neither fully shielded like R1/R2 nor destroyed like R4/R5, and a natural fit for Meridian's in-between power profile.
- **The Sprawl's cramped footprint problem from the standing-tower model is gone.** A tower's base, even un-tapered, was always going to be a tight several-hundred-metre circle — uncomfortably small for the tier explicitly described as the most populous and most crowded. A long incline gives the Sprawl real room: it now sits along a multi-kilometre base and lower slope, not squeezed around a narrow tower's foot.
- **The eastward debris-field asymmetry is now simpler to explain, not more complicated.** Under the standing-tower model, "east" required reasoning through a subtle multi-axis tumble whose footprint-level effect was almost too small to matter. Under the incline model, "east" can simply be the literal downhill direction — the direction the aft section's wreckage broke away and slid or scattered toward as the ship came down. The lean itself does most of the explanatory work now, rather than needing a separate, finely-tuned tilt argument layered on top of it.

The ~420 m beam — the hull's maximum width — remains the structure's **footprint at any given point along the incline**, the cross-sectional width perpendicular to the slope rather than the slope's own length. A tier's usable floor area is still bounded by that 420 m cross-section; what's changed is how much of the ship's 3,200 m length that cross-section needs to travel along to gain real elevation.

A note worth flagging explicitly, since it's the kind of thing a reader will reasonably wonder: an incline this real (~17°) does not mean residents spend their lives walking on a slope. The original decks were built perpendicular to the ship's long axis and came to rest tilted at that same angle relative to true ground-level — a real, felt tilt, not a subtle one. Three centuries of inherited, unglamorous correction work (building up the downhill side, re-laying floor sections) has levelled most of the long-inhabited core; newer or less-trafficked spaces are where that work is least complete. See *The Arbour Hull Core* (Prose & Voice), "Why the Floors Are Level," for the full sensory and narrative treatment — this is exactly the kind of inherited-but-corrected texture that document already specialises in.

Of the full ~3,060 m horizontal run, only the upper stretch is currently habitable — corresponding to the same **~200 m of vertical rise** already established, which now translates to roughly **650-**

700 m measured along the slope itself from the high end. The remainder of the incline, descending toward the low end, is buried, structurally compromised, or sealed off — consistent with the Vault sitting "approximately 340 metres below Arbour's current surface level" (see *Power Grid*), a depth that still reads naturally as further down the original ship's length, toward the stern, just now reached by descending a long slope rather than dropping straight down a shaft.

Part One Conclusion — The Full Hull-to-City Cross-Section

With the hull's internal structure, the corrected shielding mass, the corrected incline orientation, and the scattered debris field all reconciled, the present-day cross-section resolves as follows:

- **Luminary** sits at the literal high end of the incline — the highest occupied point of the ~650-700 m built-up stretch (measured along the slope), directly around the old forward Habitation Cylinder and shielding mass.
- **The Spine** sits immediately beside it, at that same high end — a single central pentagonal complex, not distributed across the city. This is now locked (see *Transport Within Arbour*); previously the only genuine Tier 1 blocker remaining in the project.
- **Meridian Districts** occupy the middle stretch of the incline, between Luminary at the high end and the Sprawl at the low end — descending along the slope rather than wrapping around a tower's sides, around R3's position.
- **The original transit corridor** still traces through the hull-core along this same slope — the rail network's oldest lines climb where the ship's own fore-to-aft corridor always ran, now read as a long ascent up the incline rather than a vertical shaft.
- **The Sprawl** sits at and around the low end of the incline, at ground level, spreading outward onto ordinary surrounding land. The incline orientation gives the Sprawl real room to spread — a multi-kilometre base and lower slope, not a tight ring around a tower's foot. Whether it's symmetric in all directions from that low end or concentrated toward one side is addressed below — but its position at the low end, rather than wrapped partway up a tower's flank, is settled by the orientation fix.
- **The scattered debris field** sits at and beyond the low end of the incline, where the aft drive section — R4, R5, the Kugelblitz, the worst-damaged part of the ship — broke away and came down hardest, fusing with the terrain and the widened reality tears already there. The debris field isn't a separate location elsewhere on the map; it's what's directly underfoot and immediately around the low end of the city people actually live in, confirmed by *Power Grid* to extend "beneath the Sprawl's eastern districts." The debris field itself still has no single crash site or crater (see *Kugelblitz Jettison Mathematics*, Part Six) — it's discontinuous wreckage fused into terrain at multiple separate points, with widened reality tears threading between them, rather than one footprint.

Why specifically east, locked this session — now simpler under the incline model. The ship's lean wasn't a clean, single-axis tilt; a genuinely uncontrolled crash sequence tumbles on more than one axis at once, and the ship's final orientation is the resultant of however much it tipped along each. Under the incline model this is more straightforward than it was under the standing-tower model: "east" is, plainly, the downhill direction — the direction the incline descends toward, and the direction the aft drive section's wreckage broke away and scattered toward as the ship came down. The debris field's eastward position isn't a separate fact sitting beside the

incline's lean; it's the same fact, read at the same scale. The ship came down leaning/sliding eastward; the aft section that broke away during that fall landed east and downhill of where the rest of the hull finally settled; the Sprawl, ten generations later, grew on exactly that ground, spreading out from the low end in the direction the incline already pointed. One cause, not two coincidentally aligned ones — and "east" was always the existing, locked fact (*Power Grid*: debris "beneath the Sprawl's eastern districts") that this mechanism now explains, not something invented to justify it.

Scale, now locked with real figures. Two separate events, already distinguished in *Kugelblitz Jettison Mathematics*, produce two separate scales:

- **The impact/crash itself** (kinetic energy at re-entry, ~323 kilotons equivalent per Part Five) is what actually scatters the bulk of ARBOUR|05's wreckage. Standard blast-effect scaling for an event this size suggests severe structural destruction within roughly **1.3-1.5 km** of wherever the worst of the impact occurred, with debris and lighter damage plausible out to **~9 km** — though a ballistic structure of this mass breaking apart on impact scatters wreckage by momentum and fragmentation more than a pure blast wave would, which is consistent with the existing "discontinuous wreckage fused into terrain at multiple separate points" framing rather than one neat radius. **This is the broad debris field** — several kilometres across, scattered rather than uniform, and now plausibly continuous with the downhill side of the incline itself rather than a separate zone reached by crossing open ground.
- **The R4/R5 antimatter annihilation** (4.3 kilotons, Part Six) is a much smaller, localised event within that broader scatter — severe blast damage within roughly **300-700 metres** of wherever R4/R5 actually came to rest. **This is the source of the widened reality tears and the Aetheris-intensity spike**, not the whole debris field. The 340% post-crash Aetheris increase should be read as centred tightly on this smaller annihilation point, fading outward, rather than spread evenly across the entire kilometres-wide debris scatter.

The practical consequence for the hull-core's relationship to all this: with the incline orientation, the low end of the hull-core sits at or very near the edge of this broader debris scatter — close enough that the Sprawl's eastern districts genuinely do sit "beneath" or immediately adjacent to it, as already established, but the most dangerous, Aetheris-intense ground (the annihilation point itself) is a much smaller, more specific location within that wider zone — not coextensive with "the debris field" as a whole. This gives future scene-writing a useful distinction: most of the debris field is merely dangerous in an ordinary, structural-hazard sense (collapsed wreckage, contaminated ground, unstable footing); a much smaller area within it is dangerous in the *Aetheris* sense, and that smaller area is where the worst hot zones, the strangest geometry, and the most acute exposure risk should concentrate.

Part Two — Two Kinds of City Fabric

This is the single most important organising decision in this document, and everything else about Arbour's geography should be checked against it:

The Core — Hull-Anchored, Old, Dense

The Luminary and the Meridian Districts are built substantially **on, into, and around the original hull's incline**. This is the oldest part of the city, dating to the first generations post-crash, and its physical geography is directly shaped by the ship's actual structure:

- **Luminary** sits at and near the **high end of the incline** — the highest physically accessible point of the original structure, the part that emerged most intact from the crash, closest to undamaged original architecture and to R1.
- **Meridian Districts** occupy the **middle stretch of the incline**, descending from Luminary toward the low end — consistent with R2 (which powers the Meridian Districts) and with the Upper/Lower Meridian split already established in the power allocation table.
- This core is geographically extended along the slope rather than compact around a tower's base, consistent with "vast and fragile" original rail infrastructure that "covers most of Arbour's horizontal geography" — the original corridor runs the length of the incline through this core, with horizontal rail spurs branching outward from it at each tier level to actually reach a tier's living and working spaces along the slope.

The Sprawl — Outward Growth, Younger, Organic, and Spread Across the Incline's Low End

The Sprawl is **not** mapped onto the high or middle stretches of the incline. It is centuries of later, more organic growth spreading outward at and around the **low end** of the original structure, onto the surrounding land beyond the hull's footprint — consistent with:

- "Sprawl" as a name (something that spreads outward at ground level, not something built partway up a slope).
- The Sprawl's defining qualities already established elsewhere: widest species diversity (the demographic least represented in the ark's original passenger manifest, per *World Systems*, has the least claim to space inside the old hull-core and the most reason to be building new, outward), the most informal/improvised economy, dozens of distinct named sub-communities like Veilan with their own internal logic.
- R5's debris field extending "beneath the Sprawl's eastern districts" (*Power Grid*) — this reads as a tight, direct relationship: the debris field sits at and beyond the low end of the incline, exactly where the aft drive section broke away and came down hardest, and the Sprawl's eastern districts grew up directly on and around that same ground, spreading from the low end in the same downhill, eastward direction the wreckage itself travelled. The Sprawl isn't built on a *separate* crash-affected area reached by distance from the hull-core — it's built immediately around the low end of it, on the part of the wreck that's most thoroughly fused with the debris field.

The Sprawl's "underground, hot" rail lines (*Transport*) run beneath this outward, ground-level growth — tunnelled beneath the later, organically-grown surface construction, running close to **R5's debris field and the structural core's waste heat**, which is a real, direct engineering reason for the heat (proximity to buried, still-warm wreckage and power infrastructure converging

at the incline's low end) rather than depth inside the original ship.

Why This Split Matters

This gives Arbour two genuinely different *kinds* of architecture, not just two wealth levels wearing different paint:

- **Core (Luminary/Meridian):** ocean-pressure-vessel bones — curved, segmented, over-built, ring-framed, occasionally producing spaces that don't make sense by ordinary architectural logic (a load-bearing wall far thicker than it needs to be for a building this size; a sealed, circular hatch-door repurposed as a vault or shrine; corridors that curve in ways nothing about the city's current function explains). Read by residents — even upper-tier residents — as simply "old" or "ancestral," never as "built for an ocean," because nobody currently living has the framework to read it that way.
- **Sprawl:** built by hand, by need, by salvage, over generations, on ordinary land, using whatever materials and techniques each generation had — including, per *Transport*, entire repurposed decommissioned rail carriages (Veilan's eastern wall). No inherited pressure-vessel logic. A fundamentally different, younger architectural language.

This split also gives a future scene a genuinely strong, specific image: a Sprawl resident encountering the hull-core's "primitive," over-built, ocean-rated construction for the first time and reading it as ancestral, crude, or unsettling — without any character in the room understanding why it's actually shaped that way, since the ocean Project Arbour fled across no longer exists in anyone's living memory or oral tradition this side of the crossing.

Open Follow-Ups

- [] **Specific examples of ARC-directed construction gone wrong** — worth identifying one or two concrete instances (a specific sealed pocket, a specific structural oddity) that can be deliberately attributed to a corrupted ARC instruction, for use as a reusable scene detail, the same way the Hull-Core document's "specific, reusable details" work for sensory texture generally.
- [] **How much oversight of ARC's construction/deployment role survives in the present day**, if any — does Azure Branch still nominally direct or monitor this work, or has it become as unsupervised and unquestioned as ARC's other functions already are per existing canon?
- [] **Whether this connects to Silas Varran's existing ARC obsession** (Five Arks Thread 1) — he is already established as closest to understanding what ARC is trying to communicate; worth considering whether his investigation could plausibly touch construction/deployment logs as well as navigation data, without overloading his existing thread.
- [x] **Ship orientation corrected this session, then refined to a long incline in a follow-up session.** Earlier drafts had the ship lying flat on its side; that was corrected to a near-vertical standing orientation; that, in turn, has now been corrected again to a

shallow-angle incline (roughly 15-20° from horizontal — closer to lying down than standing, but propped at one end, not flat). The standing-tower version solved the original rail/tier-system problem but overcorrected — a 3,200 m object only needs ~200 m of vertical rise to support the established built-up stretch, and even a shallow lean comfortably provides 900+ m of rise. The incline model keeps everything the standing model fixed (the corridor climbs, R1/R2 sit at the high end, R4/R5 at the low end) while also solving two things the standing model strained against: the Sprawl's cramped tower-base footprint, and the need for a separately-argued tilt to explain the eastward debris asymmetry. See "Orientation — The Long Incline" above for the full correction.

- [] **How horizontal movement actually works within a tier, now that the original corridor runs the length of a long incline rather than a vertical shaft.** This document's Part Two asserts horizontal rail spurs branch outward from the corridor at each tier level — a necessary piece of geography the orientation fix requires, but only asserted in passing here, not designed. Worth a dedicated pass: where do the spurs originate per tier, how do they relate to the carriage-detachment mechanic already established in *Transport Within Arbour*, and do they explain the "vast and fragile... covers most of Arbour's horizontal geography" framing convincingly at the district level. (Note: the incline model makes horizontal spurs somewhat more intuitive than the standing-tower model did, since "horizontal" along a long slope is a more natural direction of travel than "horizontal" branching off a vertical shaft — worth revisiting with that in mind.)
- [] **Exact present-day footprint and scale of the Sprawl** relative to the hull-core — how far outward has three centuries of growth actually spread? The incline model gives the Sprawl meaningfully more room to work with than the standing-tower model's tight base did (a multi-kilometre low end and downhill slope rather than a ~400 m-diameter foot), which should be factored into any future figure. Needed before any map can be drawn.
- [x] **Whether the Sprawl is symmetric (surrounding the base on all sides) or concentrated toward one side.** ✓ Resolved, new document: *The Sprawl* (World & Lore → Locations & Sensory Detail). Asymmetric, concentrated east — directly following the debris field's own asymmetric shape (worst where R4/R5 actually came down). **Note:** that document's reasoning was built around the standing-tower model's subtle multi-axis tilt; under the incline model, the same conclusion (asymmetric, concentrated east) holds and is actually easier to justify (east is simply the downhill direction), but *The Sprawl* document's own physical reasoning should be revisited for consistency with the incline model — flagged as a new follow-up there.
- [x] **The five Spine gates' actual geographic positions** — ✓ resolved. The Spine is a single central pentagonal complex — one structure, five internal shafts — sitting at the high end of the incline, immediately beside the Luminary. Not distributed toward Sprawl territory; centralisation is the entire point of how it functions as a chokepoint. See *Transport Within Arbour*, "The Spine — Vertical Transit," for the full revision — that document's own language should also be checked for standing-tower assumptions now that the incline model is locked.
- [] **Where exactly the Tabularium, the main Transit Hub, and other named locations (Mosswood's stall, Veilan) sit** relative to this skeleton. *The Tabularium* document's lower/upper-floor split should still hold under the incline model (it was never dependent on the tower's specific verticality, just on a public/restricted split low-to-high

along whatever the structure's shape turns out to be) but is worth a confirmation pass.

- [] **The Spine gates' Sprawl nicknames** — still an existing placeholder from *Transport Within Arbour*, unresolved.
- [] **A specific, named visual/architectural detail or two** for the hull-core's "ocean-vessel" construction — e.g., a specific sealed circular hatch, a specific over-thick wall — worth designing deliberately for at least one or two locations before this shows up in prose, so it isn't generic.
- [] **Precise vertical figures** — exact metres for Luminary's elevation, Meridian's range, and how the "~650-700 m currently built-up along the incline" breaks down by tier, once a fuller geography pass is ready for that level of detail. (*Figures corrected this session for the incline model — previously stated as ~200 m of straight vertical height under the standing-tower model; that ~200 m of vertical rise still holds, but now corresponds to a longer ~650-700 m stretch measured along the slope itself.*)
- [] **This document deliberately does NOT yet address:** district names beyond Veilan and the Sprawl/Luminary/Meridian tier labels, the Badlands' relationship to the city's edge, or any map artifact. Per the original scoping conversation, those are separate, later sessions building on this skeleton.

The Arbour Hull Core

Lives alongside: Arbour City Geography — Skeleton (Session One). Not a worldbuilding document in the usual sense — this is a working reference for drafting scenes set in the Luminary or Meridian Districts, translating the locked engineering (tapered pressure-vessel hull, ring-frame construction, several-Pyramids launch mass) into the specific physical sensations a character would actually notice without ever being told why. Nothing here should be exposited on the page. It should simply be true of the space, the way gravity is true of it.

The One Rule

Everything in the hull-core was built to resist being crushed from outside, not to look a particular way. Every visual or sensory detail below should trace back to that one fact. The Sprawl was built by people solving "how do we make a wall?" The hull-core was built by people solving "how do we keep several thousand tonnes per square metre of ocean from finding the one weak point in this hull", — and the answer to that question, three centuries later, with no ocean anywhere nearby, still looks like an answer to a question nobody currently alive is asking.

Why the Floors Are Level (and Why That Took Generations)

This addresses a real, worth-stating question: the ship rests at a genuine incline (roughly 15-20° from horizontal, per *Arbour City Geography*), so why doesn't everyone inside it spend their whole life walking on a slope?

The original decks were built perpendicular to the ship's long axis — flat relative to the ship itself, since that axis functioned as the effective "down" under the sustained acceleration of the voyage. This means two things were true at the moment of impact, and both still matter: the decks were genuinely flat, continuous, walkable surfaces, with none of the jagged or uneven geometry a casual reader might otherwise picture; and, because the ship's axis itself is now lying at an angle relative to the ground, those same flat decks came to rest tilted at that same angle relative to true, gravity-level ground. A deck this size, tilted ~17°, is not subtle — it's roughly three and a half times steeper than a real-world wheelchair ramp's maximum legal slope. Inherited, not introduced: the

tilt was never built into the ship on purpose, but it was very much there on the first day anyone tried to live on these decks after the crash.

This is not a problem the founding generation solved once. It is a problem every generation has kept solving, a little more completely than the last. Levelling a deck this size — building up the downhill side, cutting into or building platforms over the uphill side, re-laying entire floor sections — is exactly the kind of slow, unglamorous, structurally significant labour that fits everything else this project already says about how Arbour treats its inherited ship: nobody alive remembers a single decision to do it, because nobody alive was there for the decision. It simply became something each generation did a bit more of, the same way the tier system calcified and the Frames stayed cordoned off — not a plan, sediment.

This work has never been purely one or the other — purely automated or purely manual — and which one dominated has shifted significantly over the generations. See *Arbour City Geography*, "Who Actually Built the City — ARC's Hand in the Hull-Core," for the full treatment: early generations worked closely with ARC's original deployment and construction-direction systems, but trust in ARC's instructions eroded over centuries as its memory degraded, and present-day construction and floor-levelling work is now predominantly hands-on, built from accumulated practical knowledge of how a given section actually behaves — much closer to the Sprawl's own self-taught, salvage-based competence than to anything resembling automated direction. Some of what reads, today, as inherited-but-unexplained construction is the manual work of the present generation. Some of it is older, ARC-directed work from a period when its instructions were trusted and sometimes wrong, that nobody since has had reason or resources to undo. Nobody currently living can reliably tell which is which.

What this means for present-day texture, and what it should never become:

- **Most floors in the present-day hull-core read as ordinary and level**, because three centuries of this slow correction work have actually finished the job in the heavily-trafficked, long-inhabited core of Luminary and upper Meridian. A character standing in a well-established hull-core room or corridor should feel nothing unusual underfoot.
- **The correction is least complete at the edges — newer, less-developed, or less-trafficked sections of the hull-core**, where the work simply hasn't reached yet, or was never worth the labour for a space that doesn't see enough use to justify it. This is a free, reusable detail: a tilted floor, a subtly built-up threshold, a room where furniture has visibly been shimmed or wedged rather than properly levelled, reads immediately as *newer to habitation or lower priority* without anyone needing to say so.
- **The correction itself is visible, if you know to look for it**, in exactly the way everything else inherited in the hull-core is visible without being understood: a floor that's subtly built up higher on one side than structural logic would predict, a doorway whose lower lip doesn't sit where the original hatch-frame does, a room where the "floor" is visibly a later addition sitting at a slightly different level than the bones of the wall around it. Nobody currently living reads any of this as "we re-levelled this because the ship used to lean." It simply reads as old, layered, lived-in — one more texture in a city built on top of itself for ten generations.

- **This should never become something a character consciously articulates** as "the ship is on an incline, which is why we had to level the floors." Per the document's existing core principle, the wrongness and the correction both stay felt, not understood — a held-onto unease in an unfinished space, an unremarked-on ordinariness in a finished one, never a stated piece of ship history.
-

What a Body Notices First

Walls are never flat for long. A corridor in the hull-core rarely runs straight and square, the way Sprawl construction does. It curves, gently, continuously — following the original ring-frame geometry of the hull rather than any human sense of "a room." A person who grew up in the Sprawl, walking into the Luminary for the first time, will feel this before they can name it: a faint, persistent sense of being inside something that doesn't quite agree with the idea of corners.

Doorways are not doorways. They are hatches — circular or rounded-rectangular, often recessed into walls thick enough that stepping through one means walking through a short tunnel of wall before reaching the room itself. Many were never resized for casual daily use; centuries of habitation have widened some, left others exactly as built. A resident who has lived their whole life around one particular hatch can tell you, without thinking about it, exactly how to turn their shoulders to pass through without brushing both sides at once.

Sound behaves incorrectly, in a specific way. Pressure-rated construction is built to transmit force evenly across a curved surface, not to dampen it — the opposite of what most acoustic engineering tries to do. A voice in a hull-core corridor doesn't echo the way a voice in an ordinary room echoes. It carries along the curve, sometimes arriving at a listener's ear from a direction that doesn't match where the speaker is actually standing. Long-time residents stop noticing this. Newcomers find it unsettling without being able to say exactly why a familiar voice suddenly sounds like it's coming from the wrong wall.

Everything is thicker than it needs to be. Not dramatically, not in a way anyone would consciously measure — but a load-bearing wall in the hull-core is reliably, quietly more substantial than the same wall would need to be if it were holding up nothing but the ceiling above it. People who've spent their whole lives around this construction read it, without ever framing it this way, as a kind of permanence. It feels old in the specific way that "built to survive something enormous" feels old, even to someone who has never once wondered what that enormous thing was.

Temperature and air move differently near the original hull plating. The metal itself — original ring-frame and hull-skin material, still structurally active after three centuries — holds heat and cold longer than anything built later. A hand against an exterior-facing hull-core wall in winter finds it colder than the air around it; in the rare moments Cordis's twin suns bring real heat, the same wall stays warm long after the air has cooled. Residents calibrate their sense of season partly by which walls in their home are doing this, without necessarily understanding that the metal is, in some structural sense, still remembering an ocean.

Specific, Reusable Details

A short list of concrete, drop-in images — not meant to all appear in one scene, but available individually wherever a corridor, room, or doorway needs texture:

- A hatch-door's release mechanism — a heavy, circular handle, turned rather than pushed, occasionally still bearing a faint manufacturer's stamp in a script nobody currently reads as anything but decoration.
- A "dead" equipment pocket (see Arbour City Geography skeleton, Part One) repurposed as a cupboard, a shrine, a child's hiding spot — its walls a different, more deliberate curve than the room built up around it, large enough to suggest it was meant for something, never quite explained to whoever's using it now.
- A ring-frame seam running floor to ceiling at perfectly regular intervals down a long corridor — never remarked on by residents, immediately obvious to a Sprawl-born visitor counting them without meaning to.
- A wall section that booms, very slightly, underhand — struck without thinking, the way anyone taps a surface absentmindedly — that no Sprawl-born wall would ever do, because no Sprawl-born wall is hollow-but-armoured in quite that specific way.
- Condensation patterns that follow the original hull's curve rather than the room's actual ceiling line — visible after a humid day, gone by evening, never quite where the room's own geometry would predict.
- A corridor that's audibly busier two turns away than it has any visible reason to be — sound finding its way along the curve from somewhere the listener can't yet see.

What This Should Never Become

This reference exists to be felt, not explained. No character — not even Wren, not even an Azure Branch engineer — should ever stand in a hull-core corridor and think the words "pressure vessel" or "built for the ocean." Nobody alive has the framework for that read. The wrongness should register exactly the way it's described above: as old, as heavy, as slightly off in ways nobody has ever had reason to investigate. If a scene ever needs a character to *consciously* notice and wonder, that wondering should produce confusion or unease, never comprehension — comprehension belongs to the reader, not to anyone on the page, until and unless the story deliberately decides otherwise.

Open Follow-Ups

- **Whether the Tabularium itself sits in hull-core or Sprawl construction** — ✓ resolved, new document: *The Tabularium* (World & Lore → Locations & Sensory Detail). Both, deliberately — lower public floors are Sprawl-adjacent, upper restricted floors are genuine hull-core construction.
- **A specific name or in-world term for hull-core construction**, if one is wanted — something a Sprawl resident might call it colloquially (distinct from "Luminary" or "Meridian," which name the place, not the architecture itself).
- **Specific locations where the floor-levelling correction is visibly incomplete** — worth identifying one or two concrete spaces (a specific corridor, a specific room) where this texture could be used deliberately in early drafting, now that the mechanism is established.
- **Whether the floor-levelling work has its own informal vocabulary**, the way "the shed" and "tastes of the system" exist for other inherited hardships — a Sprawl- or hull-core-specific term for newer, not-yet-levelled space, if one is wanted.

Locations & Sensory Detail

The Tabularium

Lives in: World & Lore → Locations & Sensory Detail. First document in this chapter. Companion to The Arbour Hull Core (Prose & Voice → Reference Passages), which this document draws on directly for its upper-floor sensory texture, and to Arbour City Geography — Skeleton, which this document assumes and extends. Written specifically to ground Wren Emberlain's daily working life — given the amount of page-time the Tabularium will carry, this is deliberately a real, physical place, not an abstract "the archive" backdrop.

The One Decision Everything Else Follows From

The Tabularium is not one building in one kind of construction. It is a single institution that physically spans the city's vertical class structure — its lowest, oldest-feeling public floors sit in Sprawl-adjacent, later-built territory; its highest, oldest-*actual* floors reach up into genuine hull-core construction. Walking up through the Tabularium is, physically and without anyone ever remarking on it, walking up through Arbour's own tier system in miniature. This is not an accident of architecture. It is the single most useful fact this document establishes, and everything below should be read as a consequence of it.

The irony, worth holding onto for prose purposes without ever stating it on the page: this is the building that is supposed to hold the truth of Arbour, and its own walls are shaped by the exact hierarchy that truth gets filtered through before anyone is allowed to read it.

Vertical Structure

Lower Floors — Public Record, Sprawl-Adjacent Construction

The Tabularium's lower floors are reachable directly from the lower rail lines — no Spine crossing required, consistent with Wren's established daily commute. Architecturally, these floors are later additions: practical, improvised, built and rebuilt over generations the way the rest of Sprawl-adjacent construction has been, with none of the original hull's curved, over-built texture. Anyone can walk in. This is deliberate — the Tabularium's *public* function genuinely is public, and the Council has no incentive to make the parts of the archive it's comfortable with hard to reach.

This is where most of Wren's ordinary working life happens: open reading rooms, public request desks, the long shelves of officially indexed material anyone with a reason (or no reason at all) can ask to see. It is busy in the way any working institution is busy — not dramatic, not sinister, just full of people filing requests, archivists moving carts of material, the ordinary hum of a bureaucracy doing its actual job.

Upper Floors — Restricted, Hull-Core Construction

Above a clear, physically felt threshold, the Tabularium stops being later Sprawl-adjacent construction and becomes genuine hull-core: curved corridors, circular hatch-doors, the specific sound-carries-wrong acoustic signature and over-built wall thickness already established in *The Arbour Hull Core*. This is not a metaphorical age — it is literally older, original-ship construction, which is exactly why it is capable of holding Generation Two-era restricted material (the earliest Tabularium archive, per *What ARBOUR|05 Knew*) in the first place. The building's oldest section was never relocated or rebuilt. Everything was simply added around it, the way later Sprawl growth wraps the base of the standing hull-core itself.

Access requires real clearance, and the boundary is physically legible, not just procedurally enforced. A person without clearance does not get turned away politely at a front desk somewhere upstairs — they simply cannot reach the upper floors at all from the same access points the public floors use. Per the established rail texture, reaching parts of the upper Tabularium on official business sometimes requires the *upper* rail line specifically, not the lower line Wren takes every day — meaning the building's two halves are not just visually distinct, they can be physically reached through different parts of the city's transit network entirely, reinforcing rather than just decorating the access boundary.

Wren's Specific Access

Wren is not confined to the public floors, and the reason why matters: the Council does not spend a rare, costly conditioning procedure on someone and then discard their usefulness — Wren was kept specifically to be valuable in exactly this kind of bounded, trusted, never-quite-unsupervised capacity. Wren holds **standing access to specific sections of the upper, restricted floors** —

bounded by subject matter, not by task. Within their own speciality (the kind of misfiled, uncatalogued, reference-number-only material that produced AZ-3-0047-C and AZ-1-0003-I), Wren can simply walk in, the same unremarkable way they'd walk into the public reading rooms below. One section over, behind a visually identical hatch-door, is material Wren has never been cleared for and has never had reason to question — the same kind of clearance gap that's kept Silas Varran locked out of the Deviation Log for three years, just narrower and more specific to Wren's own designated area.

This should read, day to day, as completely unremarkable to Wren — not a source of curiosity, not a locked door they think about. The bounded shape of their own access is, quietly, the same shape as the bounded shape of their own memory: precise, walled in exactly the right places, never once questioned because nothing about a boundary you were built to accept announces itself as a boundary at all.

What This Means for Drafting

The vertical climb is a free, reusable structural component. Any scene that needs to move Wren from ordinary working life into something more dangerous can do it physically, not just narratively — by having them go up. The reader should be able to feel the building changing under Wren's feet before anything explicitly dangerous happens: later construction giving way to curved hull-core corridors, the acoustic wrongness setting in, the air changing. This is the Hull-Core prose reference's sensory toolkit, now with a specific, reusable narrative trigger attached to it.

Wren's own bounded access is a quiet, ongoing echo of their bounded memory, available for the prose to lean on without ever stating the parallel outright — exactly per the project's broader rule about not over-explaining its own metaphors.

The eventual Five Arks Thread 2 discovery (the navigation instrument in Tabularium storage) now has a concrete physical home: somewhere in the upper, hull-core-construction floors, in or adjacent to Wren's own bounded specialty section — old enough, restricted enough, and uncatalogued enough to have sat unexamined for centuries, exactly as already established, but now with an actual physical texture (curved storage corridor, hatch-door, the specific over-built hull-core feel) rather than an abstract "in Tabularium storage" placeholder.

Open Follow-Ups

- [] **The Tabularium's exterior — what it actually looks like from outside, at street level,** given it straddles two very different construction styles internally. Worth a deliberate pass once district-level Sprawl geography exists to place it against.

- [] **Specific named sections or floor numbers** within the restricted upper levels, if individual scenes ever need to reference "which section" beyond Wren's own speciality area.
- [] **Whether the public/restricted boundary has a name** — Sprawl vernacular often names things institutional language doesn't (e.g. "being walked," "the shed"); worth considering whether residents or working archivists have their own term for the floor where everything changes.
- [] **Exactly how Wren's specific speciality section is defined or labelled**, if a future scene needs to reference it directly (e.g. by subject classification, by a section name, by reference-number range).

The Sprawl

Lives in: World & Lore → Locations & Sensory Detail. Companion to The Tabularium and Arbour City Geography — Skeleton, which this document assumes and extends — and to the extensive existing Sprawl material already locked across Power Grid, Water & Food, and Transport (the shed, hidden gardens, the seed black market, decommissioned carriages, Veilan, "tastes of the system"). This document does not repeat that material; it gives the Sprawl, for the first time, an actual shape — where it sits, why it's shaped the way it is, and what that shape does to the people living in different parts of it.

The One Decision Everything Else Follows From

The Sprawl is not symmetric, and it was never going to be. It sits at and around the base of the standing hull-core, spreading outward onto ordinary surrounding land — but the ground itself was never even underfoot. The hull's final standing orientation was never perfectly vertical; it came down tumbling on more than one axis at once, the way any genuinely uncontrolled crash does, and the same multi-axis sequence that produced its final lean is also why the aft drive section (R4, R5, the worst-damaged part of the original ship) broke away and came to rest offset from the rest of the hull, in the direction the wreckage was already falling and tumbling toward. The debris field's eastward position isn't a separate fact sitting beside the standing hull's tilt — it's the same fact, the same combined tumble, read at two different scales. The Sprawl's own shape follows that ground, the same way every real settlement on damaged, unequal terrain eventually does.

The eastern Sprawl is the Sprawl's true centre of gravity — larger, denser, older in its informal-economy infrastructure, more thoroughly built up, more populous than anywhere else around the base. This is not despite sitting closest to the debris field. It is *because* of it, and the logic is worth holding in mind for any future drafting: devastated, structurally compromised, officially-written-off ground is exactly the ground nobody with power wants or contests. No upper-tier interest ever fought for that land. No Council resource was ever allocated to develop it properly. Over ten generations, that made it the path of least resistance for exactly the population with the least power to resist anything — not a place people were pushed into by force, but the place that was simply *available*, the way damaged, unclaimed land always eventually becomes available to whoever has nowhere else to go.

It is also, perversely, where the power is. The Sprawl's underground rail lines run hot specifically because they pass close to the structural core's waste heat and the buried, still-active power infrastructure converging near the debris field (see *Transport*) — meaning the east isn't only where the danger concentrates, it's also where the tapped, unstable, illegally-shared current of Layer Three actually originates from. Proximity to the worst ground is also, however dangerously, proximity to the only resource that makes Sprawl life survivable at all. People did not settle the east despite understanding this trade-off. They settled it because the trade-off was, for ten generations running, the only one on offer.

The west — and the other directions around the base — are real, but minor. The Sprawl does not stop existing outside the east; it simply thins. Smaller, less developed, with a shallower and more recent informal-economy infrastructure than the east's generations-deep tapped networks, hidden gardens, and salvage routes. This is not a hard border. Someone walking the Sprawl's perimeter around the base would feel it as a long, uneven gradient — east at its most crowded, most layered, most thoroughly lived-in; the further around the base you go, the newer, sparser, and more exposed it gets, until it thins into the open Badlands proper with no single moment that marks the change.

What This Means, Physically

The East — Old, Dense, Layered

This is the Sprawl as most of the existing locked material already describes it without saying so explicitly: generations of tapped conduits running through the structural fabric, the deepest and most established hidden garden networks, the oldest informal trade relationships with Wayfarer contact and the seed black market, decommissioned rail carriages incorporated whole into buildings that have grown up around them over decades. This is where "the shed" has the longest institutional memory — residents here have generations of accumulated, unwritten knowledge about which taps are stable, which sheds first, which neighbor's grandmother remembers the last time a whole block went dark for a week.

It is also, simply, the most crowded and the most worn. Population density here reflects ten generations of arrival, not recent growth — buildings subdivided and resubdivided, public space at a premium, the kind of dense, layered, thoroughly-occupied urban texture that takes centuries to produce and cannot be faked by anything built more recently.

The West and Other Directions — Newer, Thinner, Rawer

Settlement here is real but shallower — fewer generations deep, less elaborately layered, with informal economies that exist but haven't had the same centuries to calcify into the deep, redundant, near-unbreakable networks the east relies on. This is where Sprawl growth is still actively happening rather than simply being maintained and renovated — newer construction, more visible improvisation, a rawer and less settled feel. Someone moving here from the east might notice the absence of certain things before they notice anything present: fewer hidden gardens (less time for them to be discovered and tolerated), a thinner black market, less of the unwritten social infrastructure that makes east-Sprawl life survivable despite the shed.

The Gradient, Not the Border

There is no wall, no checkpoint, no single street where "east Sprawl" becomes "the rest of the Sprawl." It is a gradient a long-time resident could probably place within a few blocks by feel — density, noise, the visible age of tapped conduit work, how confidently people talk about which gardens are whose — but that a visitor, or a reader, should experience as continuous rather than zoned. This matters for prose: nothing in the Sprawl should ever read like a city planner's map come to life. It should read like a place that grew the way unequal ground always grows things — unevenly, generation over generation, by people responding to what was actually there rather than what anyone designed.

Sensory Texture, By Direction

Moving deeper into the eastern Sprawl should feel like moving backward through time as much as forward through space — older salvage, older repairs on top of older repairs, the specific accumulated smell of generations of cooking fires, tapped-conduit heat, and recycled air that's passed through too many systems for too many decades. The lower rail line's heat and noise (already established — "hot," "loud," "original ark infrastructure transmits vibration directly into the carriage frame") is at its most intense here, closest to the structural core's waste heat and the debris field's buried, still-active power infrastructure. Long-time residents read this heat and noise as simply how the world sounds and feels; it is the first thing a visitor's body registers, often before they consciously notice anything else has changed.

Moving toward the west or the Sprawl's thinner edges should feel exposed by comparison — less crowded, less layered, the specific kind of quiet that comes from fewer generations having had time to fill a space in. Less heat, less noise, a thinner version of the same recycled-air smell. Newer improvised construction reads differently than the east's deeply-incorporated decommissioned carriages and generations-old repairs — rawer edges, more visible seams, the texture of a place still actively becoming itself rather than one that has long since settled into what it is.

Throughout, regardless of direction: the specific, flat, slightly-too-warm taste of "tastes of the system" water; the grey-beige, nutritionally-complete, joylessly textured cultured protein; the soft sounds of unlicensed livestock behind walls residents stop consciously hearing; the particular,

unwritten choreography of who knows which gate attendant, which taps are stable this week, which neighbor's roof is the one with the hidden garden. This is shared Sprawl-wide texture, present everywhere regardless of how close to the debris field a given block happens to sit — the east/west gradient is about density, age, and degree, not about which experiences exist at all.

What This Means for the Story

Wren's "Sprawl-adjacent upbringing" can now be located, deliberately, rather than left as a generic gesture toward the lower tiers. Worth a future decision (see Open Follow-Ups) whether Wren grew up in the dense, layered east — closer to the debris field, closer to the heat and noise, with all the generations-deep informal infrastructure that implies — or in the thinner, newer west, which would carry a different, less rooted texture to their upbringing. Either choice now has real, specific physical and sensory consequences to draw on rather than an undifferentiated "the Sprawl."

Aran's Act Two B fieldwork (mapping CRS/quarantine disappearances) now has real geographic texture to move through. A pattern-tracking scout working district to district would plausibly notice the gradient itself — the way the Sprawl's character shifts the further he gets from its eastern core — even without understanding why, which gives his sensory, embodied register something concrete to register beyond the abstract idea of "the Sprawl."

The cutoff district from Wren's buried history (already established as Sprawl-adjacent but NOT the same district as Wren's own roots, and deliberately not pinned to the specific debris-field territory) now has a real place to sit on this gradient — likely somewhere in the broader eastern orbit, given the established "life-support systems mattered more" framing implies real population density and real stakes, but distinct enough from both Wren's own neighborhood and the debris field itself to avoid the over-neat coincidences already deliberately avoided in that resolution.

Open Follow-Ups

- [] **Exactly how far the Sprawl extends** in real, specific distance — kilometres from the hull-core's base in the eastern direction versus other directions. Needed before any map can be drawn with real scale; this document establishes shape and relative density, not yet measurements.
- [] **The hull-core's actual base diameter**, narrower than the 420 m max beam per the established aft taper (see *Arbour City Geography*, Part One) but not yet given a specific figure — deliberately left qualitative for now. This determines the actual circumference the Sprawl wraps at ground level and should be locked before any map is drawn; worth noting the number is likely small relative to the ship's full 3,200 m length (which is now

the hull's height, not anything the Sprawl wraps around) — the Sprawl rings a base on the order of hundreds of metres across, not kilometres.

- [] **Where Wren specifically grew up** — eastern (dense, old, debris-field-adjacent) or western/thinner Sprawl. Affects the specific texture of their "Sprawl-adjacent upbringing" and is now answerable with real consequences either way, rather than a generic gesture.
- [] **Named districts beyond Veilan**, and which direction around the base each sits in — this document establishes the east/west gradient in general terms; specific named neighborhoods within that gradient are still open.
- [] **The specific district of Wren's buried cutoff history** — still open per its own resolution, but now has a real gradient to be placed against rather than an undifferentiated Sprawl.
- [] **Whether the gradient is a clean east-to-everywhere-else spectrum, or whether other directions around the base have their own distinct character** (e.g., a northern Sprawl that's different in kind from a southern one, rather than all non-eastern directions reading as one undifferentiated "the rest"). This document deliberately keeps it simple (east vs. everywhere else) — worth revisiting if district-level work later wants more texture.

The Convergence & Cosmology

The Convergence & Aetheris

The Convergence (The Source)

The Convergence is the entity itself—an unknowable, eldritch reality existing outside of human dimension. It does not act with human malice; it simply *is*. It operates under the cosmic assumption that it is "completing" the matter it touches by rewriting it.

Aetheris (The Medium)

Aetheris (*The Hum*) is the measurable phenomenon—the bleed-through of the Convergence's physics into the Penumbran Reach. If the Convergence is the ocean, Aetheris is the water flooding the ship.

2. The Stochastic Variable (The Dice Roll)

Aetheris exposure is fundamentally unpredictable. The rate and severity of biological divergence are influenced by a complex, poorly understood interplay of genetics, individual species biochemistry, and environmental duration.

- **The Lottery:** One resident of the Sprawl might live next to a reality tear for a decade and never progress past the "scratch," while another might undergo rapid integration within weeks.
- **The Plateau:** Many individuals never progress past Stage One or Two. They live with the condition, managing it as a chronic state of being, never becoming the full integration that the Council claims is "inevitable."
- **The Institutional Lie:** The Council treats Aetheris as a linear, inevitable progression because this justifies their "quarantine-or-suppress" mandate. If they acknowledged that many people could live stable, productive lives alongside Stage One or Two symptoms, their rigid tier-based control would collapse.

3. The Mechanics of Transformation (Degrees of Manifestation)

Stage One: Subclinical (The Scratch)

- **The Reality:** A pressure in the skull and itch under the skin.
- **The Stochastic Outcome:** For many, this is where the interaction stops. It is the body reacting, but not necessarily beginning a full rewrite.

Stage Two: Early Conscious Manifestation (The Gloaming)

- **The Reality:** The opalescent shimmer in peripheral vision.
- **Institutional Response: Cordis Sensitivity Disorder (CSD).** This clinical, dismissive framing is used by the Council to enforce compliance. They mandate suppressants that dull the visual cortex, forcing citizens to remain "palatable" and compliant. The Council knows these suppressants do not cure the underlying biology, merely hide the symptoms.

Stage Three: Integration (The Click)

- **The Reality:** The body stops fighting Aetheris and begins adapting. The individual's biochemistry diverges. They begin to hear/feel "the click" or "the hum" in their bones.
- **Institutional Response: Cordis Rejection Syndrome (CRS).** Once symptoms can no longer be suppressed or hidden by CSD medication, the Council upgrades the diagnosis to CRS. This is the official classification used to justify immediate quarantine and "disappearance." The institution simply erases the bodies it can no longer control or hide.

Stage Four: Full Exposure (Consumption)

- **The Reality:** The body is substantially rewritten to operate on Convergence physics. The individual is effectively erased, replaced by a shape that serves the Convergence.
- **The Institutional Response:** Eradication or complete cover-up.

4. The Rules of Engagement

- **It Cannot Be Cured:** Aetheris exposure cannot be reversed. However, it *can* be managed or lived with, contrary to the Council's messaging.
- **It Targets Weakness:** Aetheris accelerates existing physical vulnerabilities (e.g., Atlas's condition). It finds where the body is already fighting itself and pulls.
- **The Only Victory is Sovereignty:** Because Aetheris is unpredictable, the traditional sci-fi narrative of "fixing" the contamination does not apply. Genuine victory requires characters to claim sovereignty over their transformation. They must halt the Convergence's non-consensual consumption and actively choose the shape their changed bodies will take.

The Penumbrans

1. Identity & Origin

The Penumbrans (formal/scholarly) or "The First-Walked" (vernacular Wayfarer term) were the native civilisation of the Penumbran Reach (KOI-8565).

- **Biology:** They were anthropomorphic, similar to the species that populate Arbour, but evolved independently in the Penumbran Reach. They are not human-derived; their morphology is alien.
- **Temporal Scale:** They existed on a timescale of tens of thousands of years, significantly predating the arrival of the five ark ships. To them, the Reach was not a dangerous frontier—it was simply home, shaped by the binary stellar dynamics of the Reach and the constant, slow pressure of the Convergence against reality's boundary.

2. The Encounter (Theologically Framed)

Wayfarer oral tradition, specifically the stories of Sage Yahari, frames the Penumbrans' history not as a scientific sequence, but as a theological one.

- **The Unknowable God:** Yahari's tradition tells of an "Unknowable God" that touched the world, offering knowledge that was also a hunger. This is the Wayfarer theological framing for the Convergence/Aetheris.
- **The First-Walked:** The name "The First-Walked" is used by Wayfarers to describe the Penumbrans as the people who first encountered this god and who "walked" out of reality as we know it.
- **The Echo:** The term deliberately mirrors the Obsidian Branch's "being walked" (public detention). This linguistic overlap is unintentional by the Wayfarers, but it creates a haunting subtext for the reader: the Wayfarers believe the Penumbrans were "walked" into another state of being, while Arbour uses the same term to describe the state-mandated disappearance of its own citizens.

3. The Installations (The Wreckage)

The Installations are the physical remnants of the Penumbrans' encounter with the Convergence. They are not merely buildings; they are part of a resonant, architectural language.

- **Functionality:** They were observatories, habitation sites, reliquaries (memorial sites), and — confirmed via the outer-system Installation discovered during ARBOUR|05's voyage (see **Interstellar Navigation and Fuel Mathematics**, Part Five) — ****wellspring-type Installations****: structures built to generate, store, or channel energy directly connected to Aetheris/the Hum, rather than to observe it, house people near it, or memorialise it. This is the subtype that explains why the outer-system stop registered as "a structure radiating detectable, anomalous energy" from long range, and why there was anything for ARBOUR|05's crew to crudely harvest at all — an observatory or reliquary wouldn't have had comparable extractable energy on hand; a wellspring would. Likely the Penumbrans' closest equivalent to a power plant, though the actual mechanism (whether it generates Aetheris-adjacent energy, stores naturally occurring ambient Hum energy, or something else entirely) remains deliberately unspecified — consistent with the broader principle that nothing about Penumbran technology is ever fully understood by anyone who encounters it.
- **The Wreckage of Contact:** Installations are understood by modern Wayfarers as the "wreckage" of the First-Walked meeting their god. Their geometry and acoustics are not separate from their purpose—they were built to resonate with the Hum.
- **The Language Barrier:** The Resonant/Architectural language layer is built into these structures. Because the syntax is based on "relational grammar" (proximity to the Convergence event, orientation to the site), it remains unparseable to human archivists like Wren, who seek a key that doesn't exist.

4. The Theological Argument: Ascension vs. Erasure

The most profound point of conflict regarding the Penumbrans is that their fate remains fundamentally unresolved.

- **The Ascension Argument:** Some Wayfarer elders argue that the First-Walked were not destroyed, but "walked"—that they successfully integrated with the Convergence, transcending the physical limits of the Penumbran Reach.

- **The Erasure Argument:** Others argue that the First-Walked were consumed—that they were the first victims of the hunger the convergence brings, and that the Installations are not temples, but grave markers for a people who were entirely unmade.
- **Institutional Silence:** The Arbour Council ignores the theological debate entirely, classifying all Installations as "dangerous/unstable sites" and suppressing any research into the fate of their creators to avoid acknowledging the possibility of "ascension"—which might give the population the wrong idea about their own future.

5. Summary Table

| Category | Details |
|---------------------------|--|
| Formal Name | The Penumbrans |
| Vernacular Name | The First-Walked |
| Relation to Humans | Alien lineage; separate evolutionary path |
| Key Artifacts | Installations (Habitation, Observatory, Reliquary) |
| Central Mystery | Ascension vs. Erasure |
| Naming Echo | "First-Walked" vs. "Being Walked" (Arbour detention) |

History & Timeline

What happened on Earth?

The Great Stripping (The Magnetosphere Collapse)

The Nature of the Threat

The collapse of the Earth's magnetosphere was not a sudden explosion but a progressive, terminal decay of the planet's planetary-scale shielding. As the core cooled, the geomagnetic field intensity dropped below a critical threshold, leaving the atmosphere exposed to unmitigated solar wind and high-energy cosmic radiation.

- **Symptoms:** Rapid ozone depletion, massive increase in surface-level ionizing radiation, and the eventual "boil-off" of the upper atmosphere as solar winds stripped away lighter gasses.
- **The Atmospheric Impact:** Within years, the surface of the Earth became a radioactive, mutagenic wasteland. The atmosphere was no longer a protective blanket; it was an active hazard.

Why the Trenches?

- **The Shielding Factor:** The Committee chose deep-ocean trenches (3,000+ meters) for construction because water is an exceptional radiation shield. At depths $> 3,000$ meters, the massive water column provided the only viable protection from cosmic rays and solar radiation while the sensitive fusion-drive components were being assembled.
- **The "Clean Room" Environment:** The trenches were "cold" and protected, allowing the Committee to build the Arks away from the accelerating chaos on the surface.

The Committee's "No-Choice" Gambit

- **The 6-Month Cadence:** The magnetosphere was collapsing according to a predictable, albeit terminal, model. The Committee knew the atmosphere would reach a point of "no return" in < 24 months. Every six months, they launched an Ark because they knew the window of launch viability was closing—once the upper atmosphere reached a certain density of ionized particles, the plasma-drive ignition would have triggered atmospheric ignition, destroying the ship during ascent.
- **The Secrecy:** The Committee suppressed the data not to protect their own reputations, but to prevent the "Panic Collapse." They knew that if the population realized the Earth was effectively "dying" and that only a select few would survive, total societal breakdown would occur long before the Arks were finished.

The Legacy of the Collapse

- **The CSD/CRS Mandate:** The Council's obsession with CSD (Cordis Sensitivity Disorder) and strict biological monitoring is a direct, institutionalized trauma response to the radiation poisoning that defined the final days of Earth.
- **The Fear of the "Open Sky":** Even centuries later, the "Arbour" leadership treats any exposure to "unfiltered" environment (or unregulated radiation) as an existential threat. They are still building their society with the logic of a bunker, terrified that the radiation that killed their home planet is waiting for them if they ever stop "shielding" themselves.

Founding Generations

Lives in: World & Lore → History & Timeline. Companion to The Great Stripping (before) and The Crash (the event itself) — this document covers what happened in the centuries after, and is the load-bearing answer to the question Political Systems asks but doesn't yet show: how did a temporary crisis decision become a permanent, inherited structure nobody remembers choosing?

Cross-reference: this document is the shared trunk for both Suppression of Earth's Recovery and Wayfarer Divergence — both of those splits emerge from the same multi-generational drift described here, not from separate causes.

Overview

There was no founding. That is the first thing to understand about Arbour's first century.

A founding implies a plan — people who sat down, after the wreckage stopped settling, and decided what kind of society they were going to build. Nothing like that happened. What happened instead was several thousand traumatized, injured, grieving survivors doing what was immediately necessary, every day, for years, until the accumulation of those immediate necessities became something that looked, in retrospect, like a society. Nobody designed the tier system. Nobody designed the Council. Both emerged the way scar tissue emerges — not chosen, just what the body does when it's wounded and has to keep functioning anyway.

This document covers roughly three generations: from impact to the point where the tier system, the Council's authority, and the suppression of Layer Two power infrastructure had all calcified into something that no longer felt like a decision to the people living inside it.

Generation One — The Triage Years (Years 0–30)

Immediate Conditions

What survived the crash: roughly 60% of ARBOUR|05's structural mass, two fully functional reactors and one damaged one, a population reduced by the EM cascade and the chaos of an uncontrolled descent, and a planet that was not the hospitable world the colonization equipment had been built for.

There was no time for politics in the first year. There was barely time for grief. The immediate questions were: who is alive, what still works, what do we eat, how do we keep the air breathable, what do we do with the dead. The Verdant Branch's predecessor — at this point not yet a Branch, just whoever among the surviving crew understood agricultural and water systems — and the engineers who would become the Azure Branch were, for the first several years, simply trying to keep everyone breathing.

The First Authority

Authority in Generation One was not elected, appointed, or seized. It accumulated around competence under pressure. The people who understood the reactors had authority over power. The people who understood the closed-loop water and food systems had authority over consumption. The senior surviving officer from ARBOUR|05's command structure — a position that existed for the voyage, not for a crashed colony — had authority because nobody else had a clearer claim to it, and because in the first chaotic months, somebody needed to be the person other people looked to.

This is the seed of the Council. Not an institution. A handful of competent, exhausted people who kept getting asked questions and kept answering them, until answering them became their job, and then became their children's inheritance.

The Energy Decision — Year Approximately 4

Two reactors and a damaged third could not power the colonization equipment at full deployment *and* sustain the survivor population's immediate needs simultaneously. This was a real, physical constraint — not yet a manufactured one.

The geothermal taps and atmospheric harvesters were prioritized for *activation* because they required less calibration expertise and could be brought fully online faster than the solar arrays, which needed precise orbital data and trained deployment teams the crash had scattered or killed. This was a sound engineering decision made under genuine scarcity.

What made it political rather than purely technical was smaller and quieter than any single choice: once the geothermal and atmospheric systems were running, the people maintaining them controlled something the rest of the survivor population needed to survive. That control was not seized. It was simply where authority already was, and nobody handed it back, because there was

no clear moment where handing it back would have made sense — the emergency that justified it never definitively ended. It just got slower.

The solar arrays were not left in storage. Generation One's engineers physically erected them in the early years — vast skeletal collection frameworks raised as staging structures, the necessary first step before the precise stellar-orbital calibration that would have brought them online. The unpacking and erection was the easy part. The calibration was not. Generation One always intended to finish the work once things stabilized. Things never stabilized in the way that intention required, and the engineers who understood the calibration math died — to age, to **Aetheris**, to the same attrition that thinned every specialist lineage in this period — before they finished it.

Casualties Beyond the Crash

Generation One's death toll did not end with the impact. **Aetheris** exposure — though it had no name yet, only symptoms — killed an unknown but significant number of survivors in the first decades, before anyone understood what was happening to them. Early deaths were attributed to crash-related injury, contaminated supplies, or unknown illness. By the time a pattern was recognized, the people who might have recognized it earlier were already dead, and the survivors who remained had developed a working assumption: *something about this planet is dangerous in ways we don't understand, and the safest response is caution, containment, and not asking too many questions about things that don't have answers.*

This instinct — caution as survival, unanswered questions as a hazard to be managed rather than pursued — is the direct ancestor of the Council's information suppression centuries later. It did not start as control. It started as grief management for a generation that had already lost too much to a threat it couldn't name.

Generation Two — The Hardening (Years ~30–70)

From Authority to Structure

The children of Generation One did not experience the crash. They experienced its aftermath as simply *how things were*. The improvised authority structure their parents had built under pressure was, to them, not an emergency measure — it was the way Arbour worked, because it was the only way Arbour had ever worked in their living memory.

This is where the Council becomes an institution rather than a group of competent survivors. Generation Two formalized what Generation One had improvised: succession (initially informal — children of the original authority figures simply continued doing what their parents had done, with the same access and the same trust), then increasingly formal (designated roles, internal hierarchy, the beginnings of what would become the Twelve's secrecy, though the Twelve as a defined body does not yet exist in this period).

The Tier System's Quiet Birth

The tier system did not begin as policy. It began as geography and habit, and policy followed it rather than the other way around.

Survivors who had held positions of institutional power on Earth — the demographic Project Arbour's selection process had already favored — tended to cluster near the functioning reactors and the original ship's better-preserved sections, partly because their pre-crash skills were disproportionately the skills needed to maintain those systems, and partly because proximity to authority has always been self-reinforcing. Survivors with fewer institutional connections, more varied skills, or simply worse luck in where they ended up when the ship came to rest, settled in less structurally sound sections, further from the reactors, with less reliable everything.

Generation Two's children grew up in those locations. Geography became address. Address became, without anyone declaring it, an informal marker of status. By the end of Generation Two, the pattern was visible enough that people could name it, even though nobody could point to the meeting where it was decided.

This is the critical mechanism: nobody in Generation Two sat down and designed a hierarchy. They inherited a geography that already had one embedded in it, and every subsequent generation made small, locally reasonable decisions — who gets prioritized for repairs, whose children get apprenticed into which trades, whose section gets power first during a shortage — that each, individually, made sense, and that cumulatively hardened geography into caste.

The First Suppression — Cael Morrow's Predecessor

Generation Two produced the first recorded instance of what would become a recurring institutional pattern: someone discovers an inconvenient truth about the city's actual resources, and the institution — not any single malicious actor within it — moves to contain that discovery.

Bren Castellán, an engineer in the lineage that would become the Azure Branch, raised the solar array question around year 50 — old enough to have grown up hearing, secondhand, that the arrays were "still being assessed," young enough to be the first generation with no personal memory of why that phrase had ever made sense. Bren did not discover anything dramatic. There

was no hidden report, no smoking gun — just the plain, available fact that the arrays had stood erected and uncalibrated for two decades, and nobody currently working could explain why the calibration had never been scheduled.

Bren asked. Then asked again, more formally, through the proper channels available at the time. The answer was always some version of the same thing: still being assessed, still a resourcing question, not yet the right moment. Bren did not accept this quietly, and did not escalate it into a fight either — what Bren did, for roughly fifteen years, was simply keep asking, periodically, through ordinary channels, in the unglamorous way a person keeps raising a maintenance item that never quite makes it onto the schedule. It was never treated as a crisis. It was never treated as anything at all, which was its own kind of answer Bren never got to hear stated plainly.

Bren died around year 65 in a structural collapse during routine maintenance work elsewhere in the ship — a section of original ring-frame construction, weakened by three decades of inherited procedure and undermaintained inspection, gave way during an unrelated repair. The death had nothing to do with the solar arrays, the calibration question, or anything Bren had spent fifteen years quietly asking about. It was, in the most literal sense available, an accident — the kind of death a centuries-old vessel produces routinely, with no larger meaning attached to it by anyone who was there.

Nobody silenced Bren. Nobody needed to. The question simply stopped being asked, not because it was answered or because anyone decided to bury it, but because the one person who had kept it alive, year after year, through nothing more dramatic than persistence, was gone, and nobody who came after had either the memory or the standing to pick it back up. This is the precise template Cael Morrow's case follows one generation later — not a dramatic silencing, but an institution discovering that some questions die of natural causes if you simply wait long enough, and learning, without ever deciding to learn it, that waiting works.

By the end of Generation Two, deferring the solar array question was simply standard practice — the kind of answer a new official would be told to give without ever being told why, because the people who knew why were dead, and the procedure had outlived its original justification the way a coolant relay procedure outlives the engineer who wrote it.

Generation Three — Calcification (Years ~70–120)

The Tier System Becomes Permanent

By Generation Three, the tier system is no longer something anyone experiences as a choice. It has its own vocabulary, its own dialect markers, its own transit infrastructure (the Spine's construction

falls in this period — see *Transport Within Arbour* — specifically built to formalize and control vertical movement between tiers that had, until then, been managed informally). It has produced its first multi-generational families with entrenched institutional memory of how to maintain their position — the lineages that will eventually populate the Traditionalist faction within the Twelve.

This is also, not coincidentally, the period in which the energy suppression decision stops being defensible as triage and becomes, functionally, policy. The Frames have now stood, erected and uncalibrated, for three generations — close enough to working that everyone can see them on clear days, far enough from working that nobody currently alive remembers what finishing them would actually require. Nobody currently making decisions about them was alive when the calibration was first deferred. The original engineers who understood the stellar-orbital math are long dead. Calibrating them now would not just require labor — it would require admitting that the scarcity Arbour has organized its entire social structure around contains a substantial, deliberately unexamined exception, sitting in plain sight on the horizon the whole time.

Nobody decides to keep lying. The lying simply never stops, because stopping would require someone to first notice it had started, and the entire structure of Generation Three's Arbour is organized in ways that make noticing expensive, dangerous, and professionally suicidal.

The Twelve Take Shape

It's in Generation Three that something resembling the modern Twelve first forms — not as a deliberate secret society from its founding, but as the inevitable consequence of an authority structure that had, by now, accumulated enough actual power that its members began to recognize the value of *not* being formally accountable to the wider survivor population's nominal governing processes. The Outer Council — the visible, elected, genuinely-believed-in body — develops in parallel during this period, partly as a pressure release: a venue where the broader population's growing sense that something was being managed without their input could be expressed and partially addressed, without ever touching the actual levers of energy policy or information control.

This dual structure — visible governance that is real but bounded, invisible governance that holds the actual levers — is Generation Three's most consequential and least intentional invention. No one built it as a strategy. It is what happens when a competence-based authority structure that started genuinely transparent (because hiding anything from people you're huddled with in a damaged ship is nearly impossible) gradually accumulates enough complexity, distance, and unaccountable tradition that secrecy becomes the path of least resistance rather than a deliberate choice.

Generations Four Through Nine — The Long Quiet (Years ~120–270)

This document's detailed account ends at Year 120, by design. The founding period — the part worth telling in scene-level, decision-level detail — is genuinely over by Generation Three: the tier system has calcified, the Twelve have taken shape, the dual structure of visible and invisible governance is in place. Everything that happens between Year 120 and the present day is, deliberately, *not* a story in the same sense. It is six more generations of the same inherited structure being inherited again, with nothing decisive enough to need its own account.

This is not a gap in the worldbuilding. It is the worldbuilding. The single hardest thing for an institution-momentum story to convey honestly is that institutional momentum doesn't run out of material — it just keeps not-deciding, generation after generation, long after anyone could tell you why. Six generations of nothing happening, structurally, is not an absence this document needs to fill. It's the most accurate possible account of what those six generations actually were.

A few things are worth holding as true of this period, without needing scene-level detail for any of them: the tier system, the Twelve, and the Outer Council all continue exactly as Generation Three left them, with the usual slow accumulation of multi-generational family lineages (the Traditionalist families' "multi-generational Twelve membership," referenced throughout *Political Systems*, accrues across exactly this stretch). The Frames remain erected and uncalibrated, now far enough in the past that nobody currently alive has ever heard a credible account of why. Aetheris's slow worsening, per *Technical Appendices*, continues compounding across this entire span. Cael Morrow's death (Generation Three) recedes from a recent, locally-remembered event into the half-legendary Sprawl story it is by the time Book One opens.

Present day — the start of Book One — is Generation Ten, approximately Year 300 post-crash. This is now the locked figure for "how long ago did Arbour's founding happen," consistent with the "three centuries" language already used throughout the geography and hull-core material (structural fatigue, the Sprawl's footprint, the hull metal "still structurally active after three centuries"). At a generation length of 30 years — the cleanest figure consistent with both this document's internal Year 0–120 structure and the existing "30–40 years" working assumption — ten generations span the full 300 years from impact to present.

| Generation | Years | Status |
|------------|-------|---|
| 1 | 0-30 | Detailed above — Triage |
| 2 | 30-60 | Detailed above — Hardening; Bren Castellan |
| 3 | 60-90 | Detailed above — Calcification; Cael Morrow |

| Generation | Years | Status |
|------------|---------|--|
| 4-9 | 90-270 | The Long Quiet — six generations, no scene-level detail, structure continues inherited rather than decided |
| 10 | 270-300 | Present day — Book One opens |

What This Means for the Story

The Council's defense, if anyone in it were ever forced to articulate one, would be true and insufficient at the same time: nobody currently in power created this system. They inherited it, the same way the Sprawl inherited the shed. This is not exculpatory. It is the entire horror of institutional momentum — that everyone involved can be telling the truth about their own innocence and the system can still be guilty.

Cael Morrow's death, in the generation immediately after Bren Castellan's, is not an aberration. It is the system performing a function it has performed before — performed, in fact, for the very first time within living memory of Bren's own unanswered question — because the procedure for containing this exact kind of discovery is, by Morrow's time, already inherited and unexamined, just as it is for fixing a coolant relay. Nobody alive when Morrow died remembered why the procedure existed, or that it had a beginning at all. It simply worked, the way it always had.

Wren's own buried history fits this same pattern at the individual scale. The institution that erased Wren's memory of resistance did not invent a new method for the occasion — it used a containment instinct that traces, in unbroken lineage, back to Generation One's grief-driven caution about unanswered questions. The same impulse that made the first survivors stop asking why people were dying made, four generations later, a Council that could not conceive of any response to inconvenient knowledge except to make it disappear.

Open Follow-Ups

- [x] **The Generation Two suppression figure** — ✓ resolved. **Bren Castellan**, proto-Azure-Branch engineer, raised the solar array calibration question around year 50 and kept raising it for roughly fifteen years through ordinary channels — never escalated into confrontation, never resolved, never silenced. Died around year 65 in an unrelated structural accident during routine maintenance. The question died with Bren, not through suppression but through nobody else having the standing or memory to keep asking. Establishes the exact template Cael Morrow's case later follows: institutional forgetting, not institutional violence, as the default containment mechanism.

- [] **Exact founding figures of Generation One** — names for the senior surviving officer and the early reactor/agricultural authority figures are not yet established. Worth deciding whether any of these lineages survive into the present-day Twelve (a Traditionalist family tracing its authority directly to a Generation One figure would be a strong detail).
- [x] **Timeline cross-check** — ✓ resolved. Present day is **Generation Ten, Year 300 post-crash**, at a locked generation length of 30 years. This document's detailed Years 0-120 account covers Generations One through Three; Generations Four through Nine (Years 120-270) are deliberately left as unscened "Long Quiet" — see new section above. Reconciled against the "three centuries" language already used throughout the geography/hull-core material, which is now the anchor figure rather than a loose estimate. Also corrected: Cael Morrow's generation relative to Bren Castellan (one generation later, not three — Bren is Gen 2, Morrow is Gen 3, both within this document's detailed span) and the Sprawl legend-mutation figure for Morrow's story (seven generations of drift to present day, not three).
- [] **Relationship to Wayfarer Divergence** — this document establishes the conditions (gradual calcification, no single decisive moment) that *Wayfarer Divergence* needs to be consistent with. See that document for the corresponding account of who didn't calcify and why.

Wayfarer Divergence

Lives in: World & Lore → History & Timeline. Companion to Founding Generations, which establishes the conditions this document assumes: a tier system that calcified gradually, over three generations, with no single decisive moment anyone could point to and say "that is when it happened." The Wayfarers are the other thing that gradual drift produced. Not everyone calcified. Some people simply never stopped moving.

Note on geography: this document assumes two known continents — Arbour's, and the one the Wayfarers eventually settled — separated by ocean. "Known" is deliberate; nothing here forecloses the existence of others. See Cordis Map (PENDING) for the planet's full geography once built.

Overview

There is no Wayfarer founding document, no manifesto, no single crossing that history remembers as *the* crossing. This is not an oversight in the record. It is the record. The Wayfarers do not keep the kind of archive that produces founding documents, and the reason they don't is itself part of what they diverged over.

What happened, across roughly the same three generations that hardened Arbour's tier system into something permanent, was the opposite process running in parallel: a steady, unglamorous trickle of people who never fully entered the hierarchy Generation Two and Three were building, and who kept moving — first away from Arbour's center, then away from Arbour's continent entirely — until enough of them had gone, and stayed gone, and raised children who'd never known anything else, that "Wayfarer" stopped meaning *people who left* and started meaning *a people*.

Generation One — The Ones Who Didn't Stop Moving

Before There Was Anything to Diverge From

In the first years after the crash, nobody was settled. Survival meant searching — for usable shelter, for safe water, for land that wasn't actively hazardous, for other survivors. Everyone, in this period, was provisionally nomadic, because nothing had been built yet to be settled *in*.

The seed of the Wayfarers is not a rejection of Arbour. Arbour did not exist yet to reject. The seed is simply this: as the proto-Council's authority began to coalesce around the crash site and the surviving reactors, *some survivors did not coalesce with it*.

This was not, in Generation One, an ideological position. It was often circumstance — search parties that went out for supplies or other survivors and kept finding reasons to range further, groups who'd ended up separated from the main wreckage site by geography and simply built their lives around staying mobile rather than undertaking a hazardous return journey, individuals and families who found the emerging center's developing hierarchy of competence-based authority alienating for reasons they couldn't yet articulate, and people whose pre-crash skills — the very skills Project Arbour's selection process had systematically undervalued — gave them no particular reason to want a seat near the reactors in the first place.

The Early Difference in Kind

What distinguished these early ranging groups from ordinary survivors-not-yet-resettled was what happened as the first years passed and the center *did* start to solidify. Most survivors drifted toward it, drawn by the basic gravity of pooled resources, accumulated safety, and a functioning, if exhausted, social structure. The people who would become Wayfarer ancestors didn't.

Some of this was, even at this early stage, a values question rather than pure circumstance: as the proto-Council's authority began visibly concentrating around reactor access and engineering competence, a recognizable type of person — distrustful of concentrated authority, more comfortable trusting direct observation than secondhand report, suspicious of structures that asked you to take safety on faith rather than verify it yourself — found themselves choosing the harder, more uncertain path of staying mobile over the easier path of settling near what looked, even then, like it was becoming a hierarchy.

Generation Two — The Pattern Becomes a Way of Life

Range Expands

By Generation Two, the people who hadn't settled weren't simply unsettled survivors anymore — they were people *raising children* who had never known anything but movement. This is the generational hinge, identical in mechanism to (and running in the opposite direction from) the hinge described in *Founding Generations*: a way of living that began as circumstance becomes, for the children who inherit it without ever having chosen it, simply *how things are*.

Range expanded outward from the crash site over this period — not as a deliberate strategic withdrawal, but because a people whose entire mode of survival was built around mobility, direct observation of land and weather, and trusting one another's senses over institutional record naturally moved toward the parts of Cordis that rewarded those skills, and away from the parts of Cordis that were increasingly organized around different ones: reactor proximity, document access, institutional standing.

The Badlands as Crucible

The territory that would come to be called the Badlands is where this divergence sharpened from circumstance into something closer to identity. Survival out there required exactly the skills the emerging Wayfarer lineages already had and were passing down — reading land, reading weather, reading **Aetheris's** early, unnamed symptoms directly through observation rather than through a report from someone else who'd observed it. It did not reward the skills the emerging Council's hierarchy was organizing itself around.

This is also where the first generation of genuinely mixed, non-hierarchical communities took shape. Species had carried disproportionate pre-crash status onto the original ark's manifest — a bias that was actively calcifying into Arbour's tier system during this same period, as *Founding Generations* describes. Out in the Badlands, with no institutional record to inherit that bias from and no reactor-adjacent hierarchy to enforce it, species-based status simply had nothing to attach to. Authority instead attached to the only thing that mattered to a group that lived or died by direct observation: who had, over time, demonstrably been right.

This is the direct ancestor of the Wayfarer principle that authority comes from accumulated wisdom rather than status — it didn't begin as a philosophy. It began as the only system that made functional sense for people in this situation, and only became a philosophy once Generation Three's children had grown up entirely inside it and could see, by then, exactly what it was that Arbour was doing differently, and why they didn't want it.

Generation Three — The Ocean

Why Cross At All

By Generation Three, the ideological gap between the Badlands-ranging communities and Arbour proper had become wide enough to notice and name on both sides — though neither side, in this period, had fully formalized what the other word, "Wayfarer," would come to mean. Arbour was, by now, visibly a tiered, record-bound, authority-by-institution society. The ranging communities were visibly something else: mobile, mixed, authority-by-demonstrated-wisdom.

The ocean crossing did not happen because of a single crisis or a single decision to leave everything behind. It happened the same way everything else in this document happened: gradually, in small movements, compounding over generations, each one locally reasonable and none of them, individually, a founding moment.

Coastal Badlands communities were already, by Generation Two's end, the furthest-ranging of the early non-settling groups — pushed there partly by the same logic that pushed them away from Arbour's center in the first place, and partly because the coast offered resources and relative safety from the worst **Aetheris** concentrations further inland, which tended to cluster nearer the original crash debris field. From the coast, the ocean was simply the next unknown to range into, for people whose entire culture was already organized around treating land they hadn't yet read as something to go read, not something to avoid.

A Long, Unglamorous Crossing

There was no single fleet, no single year, no single named expedition that "discovered" the second continent. Small groups crossed over an extended span — advance scouts first, by whatever vessels coastal salvage and improvised craft could produce, finding what was on the other side, returning or not returning, word filtering back through the same sideways, person-to-person channels that moved everything else through these communities. Then small groups followed, then more.

This should read as unglamorous and a little anticlimactic by design, in deliberate contrast to Arbour's crash — which has an exact date, a precise cause, a documented sequence of catastrophic events. The Wayfarers' arrival on their continent has none of that. It has no Kugelblitz Jettison Mathematics. It has only: people kept going, in twos and threes and family groups, across a span of years that nobody at the time thought to mark as historic, until enough of them had gone that it stopped being a frontier and started being home.

This is consistent with — and is in fact the origin of — why Wayfarer oral tradition carries history the way it does: through accumulated story rather than fixed document. A gradual, multi-generational crossing with no single founding moment does not produce a founding document. It produces exactly what the Wayfarers have: layered, evolving story, carried by people, revised in the telling, true in shape rather than true in detail — the same epistemology Section "The Wayfarers — Necessary Context" in Aran's character document already establishes as central to who they are.

What They Took With Them

Practical knowledge: agricultural techniques, salvage and repair skills, whatever portable technology coastal Badlands communities had accumulated or improvised. Genetic material in the most literal sense — the seed varieties that would, centuries later, diverge under different continent's cultivation into the recognizably-related-but-strange crops that reach Arbour's black market through three or four intermediary hands (see *Water Recycling and Food Production*).

What they did not take, deliberately or otherwise: the tier system's assumptions, the Council's information architecture, any framework that treated species as a proxy for status. They left those behind the way a person leaves behind a coat that never fit — not in a single dramatic act of rejection, but because by the time enough of them had crossed to start building something new, those assumptions had already stopped making sense to people who'd spent three generations living a different way.

The Free Territories Beyond the Wayfarers

The Wayfarers were the first and remain the largest and most organized group to make the crossing, but per existing canon (*Water Recycling and Food Production* — "The Free Territories Beyond the Wayfarers"), they are not the only population on the second continent. Fixed settlements exist in sheltered locations. Other nomadic groups move through territory the Wayfarers don't claim. Some of these are understood, in Wayfarer oral tradition, as distant relatives — groups that diverged from the same gradual crossing and went their own way once they arrived, splitting again the way the original departure from Arbour had split from the proto-Council. Others have no connection to the ark at all in their own self-understanding, though they descend, genetically and historically, from the same crash survivors as everyone else on Cordis.

This document does not resolve the relationship between the Wayfarers and these other groups beyond what's already established — that relationship belongs to *Aeolian Wayfarer Social Structure* (PENDING) and potentially its own document, should the story require it.

What This Means for the Story

Wayfarer culture is not a rejection of Arbour. It predates Arbour having anything definite to reject. By the time the divergence was complete enough to name, both sides had simply finished becoming two different answers to the same original problem: how do you organize

survival, with incomplete information, after a catastrophe nobody asked for. Arbour's answer was control, record, hierarchy. The Wayfarers' answer was movement, observation, accumulated trust. Neither side chose the other's answer to spite it. Each was simply complete by the time anyone thought to compare them.

This gives Aran's trust in his own senses a true cultural ancestry, not just a personal one. His character document already states that his instinct-trust is "inherited, cultural, and earned three times over" — this document is where the *inherited* and *cultural* parts come from: three to four generations of people whose entire survival depended on trusting direct observation over institutional record, because for most of that history, there was no institutional record to trust instead. When the Convergence forges the click against him, it isn't only exploiting Aran's personal competence. It's exploiting a worldview four generations deep.

This also clarifies what Wren is up against, structurally, in a way the existing documents gesture at but don't fully connect. Arbour's information architecture — misfiled reports, reference numbers nobody can find without already knowing them, the entire suppression mechanism Founding Generations describes — is the institutional answer to the same uncertainty the Wayfarers answered with oral tradition and direct observation. Two civilizations, one shared trauma, two opposite epistemologies. Wren and Aran meeting is not just two protagonists meeting. It is, underneath the plot, those two epistemologies finally being forced into the same room.

Open Follow-Ups

- [] **Naming and dating the crossing more precisely** — "Generation Three" is given here as the period when crossing began in earnest, consistent with Founding Generations' three-generation calcification timeline, but exact dates (and whether crossing continued into Generation Four and beyond, which seems likely given the gradual model) are not pinned down.
- [] **Specific coastal Badlands communities who became the first crossing groups** — referenced generically here; naming a specific community or region (and deciding whether it still exists, in some form, as a waypoint or relative of the Wayfarers) is open.
- [] **Vessel/crossing logistics** — what coastal salvage and improvised craft a Generation Two/Three community could plausibly build, and how dangerous the ocean itself is (existing canon already establishes "what's been lost trying" as an open World Systems To-Do item) — needs a physical/technical pass, likely alongside Transit Physics or a dedicated ocean-and-geography document.
- [] **The "Aeolian" qualifier** — the directory tree refers to "Aeolian Wayfarer social structure" as a pending document title; this document doesn't establish what "Aeolian" means or whether it's a formal/regional/clan-level distinction within Wayfarer culture as a whole. Needs resolution when that document is built — could be a sub-group, could be a naming-pass relic worth checking.
- [] **Relationship between the Wayfarers and the Free Territories' other groups** — sketched here per existing canon but not resolved; natural scope for its own document if

the series needs it.

What ARBOUR | 05 Knew

What ARBOUR | 05 Knew

Lives in: World & Lore → History & Timeline. Companion to Founding Generations, The Great Stripping, and Technical Appendices (Kugelblitz Jettison Mathematics, Propulsion & Launch Logistics). This document was originally scoped as "Suppression of Earth's Recovery" — that framing is retired. There was no recovery to suppress; the Great Stripping was terminal, and nothing in this document contradicts that. What this document covers instead is the actual, ongoing suppression embedded in Arbour's founding history: not a lie about Earth, but a lie about what ARBOUR|05's own people saw happening to Jian Wei, and when, and what they did or didn't do about it.

Overview

There is no secret about Earth. The Magnetosphere Collapse was real, terminal, and is not in dispute anywhere in this document. Project Arbour's five arks left a planet that was, by every measure the Committee had, beyond saving on any timescale that mattered to anyone alive at launch. Nothing here revises that.

What Arbour's founding generation actually has reason to bury is smaller, closer to home, and considerably harder to live with: **the gap between when something first seemed wrong with Jian Wei, and when anyone aboard ARBOUR|05 was willing to act on it.**

This is not a story about people who knew and said nothing. Per the existing, locked record (*Kugelblitz Jettison Mathematics, Propulsion & Launch Logistics*), Wei's affliction compromised his judgment and autonomy without anyone around him recognising what was happening in time to stop it. That fact does not change here. What this document adds is the harder, messier truth sitting just behind it: "nobody recognised it in time" is true, and it is also not the same thing as "nobody noticed anything at all." Several people noticed *something*. None of them had the framework, the authority, or — in the most painful cases — the willingness to push past their own uncertainty before it became too late to matter.

What Was Actually Seen

Before the Cascade

Aetheris had no name yet, aboard ARBOUR|05, during the final approach to Cordis. It had no diagnostic category, no Stage One through Four framework, nothing resembling the language this document's later companion pieces use to describe it. What the crew had instead was a senior researcher whose behaviour had been changing, gradually, for long enough that the change had started to feel less like an event and more like simply *how Wei was these days* — the same normalising drift that makes Stage One symptoms invisible even centuries later, here happening for the very first time, to the very first person it ever happened to, aboard a ship with no precedent and no name for what they were watching.

Colleagues noted, separately and without comparing notes in any way that survives in any record, a handful of things: Wei working irregular hours even by the standards of a research team running final approach calculations. Sharper, more erratic shifts in temperament than the people who'd served alongside him for years were recognised as normal. A few uncharacteristic errors in routine calculations, caught and corrected by others, were dismissed as fatigue. Nobody connected these to each other. There was no reason to, yet. Aetheris had not been observed by human science before this voyage in any form anyone could recognise after the fact as Aetheris.

The Closest Thing to a Warning

Amara Okonkwo-Reyes, an engineer on the outer-system integration team, worked directly alongside Wei during the brief survey stop where the harvested material and residual energy were first assessed (see *Interstellar Navigation and Fuel Mathematics*, Part Five). She was not in Wei's command chain — integration was, for that stop, a flat working group rather than a hierarchy, and she had no authority to relieve him of anything even if she'd had a reason that felt solid enough to use it.

What she noticed, during the stop itself, was nothing she could have named cleanly even at the time. Wei seemed distracted — not exhausted, not erratic in any way that matched ordinary fatigue, but as though part of his attention had quietly relocated somewhere else and simply hadn't come back. She mentioned it once, informally, to a colleague, who agreed something seemed slightly off and then, like everyone else aboard, had no framework for what "slightly off" should actually mean in a system with no precedent for it.

It was only weeks later, with final approach to Cordis underway and Wei's irregular hours and sharpened temperament becoming harder to wave off as ordinary strain, that Amara filed something formal — a logged concern through proper channels, flagging a pattern she still could not fully articulate beyond "something changed during the integration stop, and it hasn't changed back." The concern was received, logged, and scheduled for review at the next available

command-staff session.

That session was four days out. The cascade began first.

This is the seed of what gets buried. Not a smoking gun. A timestamp on a logged concern, four days before the cascade, and the gap between that timestamp and the moment everything went wrong — sitting in the official record for anyone with the access and the inclination to do the arithmetic.

What the Founding Generation Did With What They Knew

Immediately After

In the chaos described in *Founding Generations* — triage, grief, the desperate work of keeping survivors alive on a planet that was not the one they'd been promised — nobody had the bandwidth to investigate exactly how the catastrophe had started. This is not suppression. This is a simple, forgivable human limitation under a genuine crisis. The official account that crystallised in the first years — Wei's affliction, unrecognised until too late, a tragedy nobody could have prevented — was not a lie at the time it was first told. It was the truth, as far as anyone telling it actually knew or had time to verify.

Where It Becomes Suppression

The shift happens the same way every other shift in *Founding Generations* happens: gradually, across the second and third generations, as the people who held the actual logged record — the timestamp on the closest thing to a warning, the gap between concern and cascade — either died, or rose into the same accumulating authority structure that was simultaneously calcifying the tier system and burying the solar arrays.

By Generation Two, the full official record exists, technically, in the Tabularium's earliest archive — not destroyed, not falsified, simply never highlighted, never cross-referenced, never assembled into the shape that would make its implications obvious to a casual reader. This is the same containment mechanism *Founding Generations* identifies as the Council's first instinct, here applied one generation earlier and to a far more sensitive target: not "what really happened," which the official account already answers honestly, but "how much warning was there, really, and who decided not to escalate it fast enough."

What makes this suppression rather than simple historical neglect is a specific, ongoing institutional incentive: the founding generation's authority — the same competence-based authority described in *Founding Generations* as the seed of the Council — rests partly on the implicit claim that they did everything right under impossible circumstances. A surfaced timestamp showing a logged, unactioned concern does not accuse anyone of malice. It does something almost worse to an institution that has built its legitimacy on having handled an unprecedented crisis as well as it possibly could: it shows that "as well as it possibly could" had a small, human gap in it, and that gap has simply never been examined closely enough for anyone to find out how large it actually was.

Why Nobody Has Ever Closed the Loop

No single Council generation made an active decision to keep this buried. Per the pattern established throughout *Founding Generations*, this is institutional momentum, not conspiracy: the record exists, accessible in principle, uncatalogued and unindexed in practice, the same way AZ-3-0047-C and AZ-1-0003-I sit findable only by reference number nobody currently has reason to go looking for. Surfacing it would require someone to ask a question nobody currently has any reason to ask — *was there really no warning, or was there a warning nobody acted on fast enough* — and Arbour's entire information architecture, per *Political Systems*, is built around exactly the kind of curated incompleteness that ensures inconvenient questions rarely get asked twice.

What This Means for the Story

This gives Arbour's founding myth its own quiet original sin, distinct from but structurally identical to the tier system's. Just as the first Council suppressed energy resources out of genuine crisis-era necessity and never deliberately chose to keep suppressing them, the founding generation never chose to bury the Wei record. They simply never had reason to revisit it, and every generation after them inherited a silence nobody actively maintained, but nobody ever broke it either.

It preserves Wei's established tragedy completely. Wei is not retroactively made more culpable, and nobody around him is retroactively made negligent or cruel. The horror here is structural, the same horror that runs through this entire document set: a system can fail someone completely while every individual inside it is doing something locally reasonable, and the truest, saddest fact about the whole sequence — that there might have been a few more hours, logged and then lost in the chaos, when something could conceivably have been different — is exactly the kind of fact an institution built on its own founding competence has no incentive to ever go looking for.

It opens a future, optional thread rather than demanding one in Book One. Per the original brief that produced this document, this is background history — not necessarily something Wren personally touches. But the architecture is now compatible with a future discovery, should

the series want one: a buried timestamp, sitting in the Tabularium's earliest archive, findable the same way AZ-3-0047-C was findable — by already knowing exactly what to look for.

Open Follow-Ups

- [x] **Name the specific crew member/role for "The Closest Thing to a Warning."** ✓ Resolved. **Amara Okonkwo-Reyes**, an engineer on the outer-system integration team who worked alongside Wei during the harvest itself, noticed an inarticulable behavioral shift (distraction, attention "somewhere else"), and filed a formal logged concern weeks later as final approach made the pattern harder to dismiss. Not in Wei's command chain; no authority to act unilaterally.
- [x] **Decide the exact gap window** — ✓ resolved. Four days between Amara's logged concern and the cascade — the concern was scheduled for review at the next command-staff session, which the cascade preempted. Consistent with the existing 21-second jettison window and $T+\sim 0.05s$ confrontation timing; this gap is a separate, earlier window (days, not seconds) and doesn't conflict with either locked figure.
- [x] **Whether this ever surfaces in Book One or stays purely background** — ✓ resolved. Stays purely background/structural — never a Wren-discoverable thread in Book One. Consistent with keeping Wren's personal-history reveal and the Five Arks threads on separate tracks (see *Wren Emberlain*, Open Follow-Ups) rather than converging every piece of archival material into one storyline.

Factions & Power Structures

Aeolian Wayfarer Social Structure

Overview — One Branch Among Several

"Wayfarer" is not a single, undifferentiated culture any more than "Arbour resident" is. It is a shared root — the same gradual, multi-generational divergence described in *Wayfarer Divergence*, the same core values of mobility, accumulated wisdom over institutional record, and species-blind authority — expressed differently by different branches that grew apart from one another the same way the original Wayfarers grew apart from Arbour: gradually, through drift, not through any single schism or declared split.

No branch rejects the core Wayfarer values. What differs is **emphasis** — which value a given branch has built its entire way of life around expressing most fully, often at some cost to how fully it expresses the others. This document covers that general structure, then focuses on the Aeolians specifically.

[Updated — this document sketches the Aeolians in full. Two other branches are now fully sketched in their own companion documents: Thessaly Wayfarer Social Structure (Pell's birth branch — composure and self-mastery) and Corvane Wayfarer Social Structure (Doran's birth branch — trade and relationship-keeping). A fuller map of every Wayfarer branch, beyond these three, remains its own future undertaking if the series needs one — nothing here should be read as a complete taxonomy.]

What All Wayfarer Branches Share

Regardless of branch, every Wayfarer community shares:

- **Caravan as the basic unit.** Status, lineage, and belonging travel with the caravan, not with a fixed place.

- **Authority by accumulated wisdom**, not species, age alone, or inherited rank in the Arbour sense — though, as the Aeolians demonstrate, a *family's* accumulated reputation for having been reliably right, generation after generation, can function as something close to inherited standing, even inside a culture that would reject the word "inherited" if you used it to describe Arbour's tier system. The distinction Wayfarers draw is that the family's standing is never permanent or unconditional — it has to keep being demonstrated, by someone, or it fades within a generation or two, the way Cael Morrow's story faded into half-remembered legend in the Sprawl rather than staying fixed as official record.
 - **Oral tradition as the primary mode of carrying knowledge, identity, and history** — a direct consequence of the gradual, undocumented nature of the original divergence and crossing (see *Wayfarer Divergence*). No founding document exists for any branch, Aeolian included, because the culture that produced the Wayfarers in the first place was never the kind that produces founding documents.
 - **Species-blind structure**. No branch organizes status around species. This is treated as settled and non-negotiable across all branches — the one value no branch has been observed to deemphasize, likely because it was never a value under active negotiation in the first place; it was simply what happened when status stopped attaching to an institutional record that didn't exist out there.
-

What Distinguishes Branches From One Another

Branches differ along a few recognizable axes, all of them philosophical/cultural rather than geographic or generational in the strict sense — though geography and generation both shape how a branch's particular emphasis gets expressed in practice:

- **Range tolerance** — how far and how readily a branch moves, and how comfortable it is operating at the edge of known, mapped territory versus within well-traveled routes.
 - **Contact posture** — how much a branch engages with outsiders: Arbour traders, Badlands communities, other Wayfarer branches, the fixed settlements and other nomadic groups of the wider Free Territories.
 - **Relationship to the Installations and the Convergence/Aetheris** — every branch inherits the same general theological uncertainty (ascension vs. erasure, never resolved), but branches differ in how directly they engage with that uncertainty: some treat Installations as sites to avoid entirely, some as sites worth studying carefully from a respectful distance, and at least one — the Aeolians — produces the scouts who end up closest to them, by profession rather than by belief.
-

The Aeolians

Name and Character

The Aeolian branch takes its name from an old root associated with wind and weather — fitting for a branch whose entire cultural identity orients around reading what moves: air, land, water, the subtle changes that precede larger ones. Where some Wayfarer branches lean toward deep contact-network building or toward careful, settled-adjacent caution, the Aeolians lean toward range. They are the branch most comfortable at the genuine frontier — the deep Badlands, the coastal edges, the territory closest to where the known map runs out.

This is not recklessness. It is a specific, disciplined expression of the shared Wayfarer value of trusting direct observation over secondhand report: if you want to know what's actually happening at the edge of things, you go to the edge, you read it yourself, and you bring back what you learned. Aeolian caravans produce, disproportionately, the scouts and trackers who range furthest from the body of Wayfarer territory — which is precisely why an Aeolian, rather than a member of a more contact-averse or settlement-anchored branch, is positioned to be the one who finds something in the Badlands that shouldn't exist, and the one who eventually crosses an entire ocean following evidence rather than instruction.

Caravan Structure

Aeolian caravans are, consistent with the wider Wayfarer pattern, organized around extended family groups with a respected elder or small council of elders providing the accumulated-wisdom authority the wider culture is built on. What distinguishes Aeolian caravan structure specifically is a stronger-than-average emphasis on **scouting lineages** — families whose accumulated reputation has been built, across generations, specifically around reading land and danger correctly for the caravan's safety, the same way a family elsewhere might be known for healing, or for trade relationships, or for storytelling.

Aran's lineage is one of these. "A lineage already respected within his caravan" — the existing baseline established in his character document — is best read as exactly this: not noble blood in the Arbour sense, but a family whose name has, for as long as anyone in the caravan can recall, been reliably attached to *being right about the land*. That inheritance is real and it is also conditional in the specifically Wayfarer way: it gave Aran a baseline of trust to build on, not a guarantee. What he did with it — becoming a scout and tracker whose readings people's safety has come to depend on, routinely and without ceremony — is the part that's his.

Contact Posture

Aeolians sit toward the more outward-engaging end of the Wayfarer spectrum, a natural consequence of being the branch that ranges furthest. Aeolian scouts are disproportionately the ones who maintain whatever loose, intermittent contact exists between Wayfarer communities and the Badlands' settled and nomadic populations, and — per existing canon in *Water Recycling and Food Production* — Aeolian-adjacent scouts are very likely among the "Wayfarer advance scouts who periodically cross the ocean," making first and repeated contact with Badlands communities on Arbour's continent and carrying back seed varieties, cultivar knowledge, and information through the long, indirect chain that eventually reaches vendors like Jennifer Mosswood.

This contact posture is also, quietly, why Aran's particular crossing toward Arbour in Act Two A doesn't read as a total break from everything he's known. It's an intensification of something Aeolians already do, not an invention of something they don't.

Relationship to the Installations

Aeolian range puts its scouts in closer, more frequent proximity to Installations than most other branches — not because Aeolians are less reverent or less wary of them than other Wayfarers, but because a branch whose entire purpose is reading unfamiliar land inevitably encounters more of it. This is the structural reason Aran's accidental discovery of an ancient, Wayfarer-avoided site (*Five Arks* Thread 3) makes sense as something that happens to him specifically, doing his ordinary job, rather than requiring him to go looking for it. An Aeolian scout ranging at the edge of known territory is exactly the kind of person who stumbles onto something the rest of Wayfarer tradition has spent generations carefully steering around.

Sage Yahari

Sage Yahari — the elder whose "Unknowable God" oral tradition frames Aetheris theologically for Aran, and whose death in Act Two A is a major emotional beat — is best understood as an Aeolian elder specifically, which gives a clean, already-consistent explanation for *why* Yahari's particular framing exists in the form it does. A branch that ranges closest to the Installations and produces the scouts most likely to encounter Convergence-adjacent phenomena directly is also the branch most likely to have produced the most developed theological tradition for making sense of what its own people keep running into out there. Yahari's stories are not generic Wayfarer folklore picked up secondhand — they are Aeolian institutional knowledge, in the only form Aeolian culture produces institutional knowledge: a person, carrying it, until they can pass it to someone else.

This also sharpens the loss of Yahari's death: it is not just the loss of a beloved elder to Aran personally, but the loss of one of the Aeolians' primary living repositories of exactly the knowledge the caravan most needs as **Aetheris** activity increases. Aran inherits the absence of an archive at the precise moment he needs one most — a structural echo, from the opposite cultural direction, of Wren's own relationship to archives and their failure.

What This Means for the Story

Aran is not a generic Wayfarer. He is a specific product of a specific branch's specific emphasis, and that emphasis — range, direct observation, comfort at the frontier — is the same trait that makes him valuable to his caravan, makes him the one who finds the wrong thing in the Badlands, and makes him the one whose trust in his own senses is, eventually, the precise tool the Convergence learns to forge. The Aeolian identity isn't background color. It's the cultural machinery that produces the specific shape of his vulnerability.

Aran's caravan and immediate family are now fully named — Long Reach, Mira, Doran, Tamsin, and Pell — see *Aran Sunderwood — Family and Caravan* for the complete treatment.

Open Follow-Ups

- [x] **Name Aran's specific caravan** — ✓ resolved: **Long Reach**, named in its own tongue for "the ones who go furthest and still come back." See *Aran Sunderwood — Family and Caravan*.
- [x] **Name Aran's immediate family members beyond the general "respected lineage."** — ✓ resolved. Mira (mother, retired scout/trainer), Doran (father, Corvane-born), Tamsin (younger sister, trader), and Pell (ward/apprentice, not blood family but raised as such). See *Aran Sunderwood — Family and Caravan*.
- [x] **Sketch at least one or two other Wayfarer branches** — ✓ resolved via two full documents: *Thessaly Wayfarer Social Structure* (composure/self-mastery as proof of trustworthy character — Pell's birth branch, her specific caravan named Eventide) and *Corvane Wayfarer Social Structure* (trade and relationship-keeping over range — Doran's birth branch, his specific caravan named The Bound Word). Aeolian now sits in clear contrast against both.
- [x] **Whether Yahari led the Aeolian elder council alone or was one of several elders** — ✓ resolved: Yahari led alongside **Garrick Stane**, a goat-type elder, practical and logistics-minded — a real, close partnership despite Garrick being noticeably younger, since Yahari treated him as a full equal once he rose into the council rather than as someone still proving himself in. Garrick survives Yahari's death in Act Two A and keeps Long Reach functioning without visible disruption; the loss is personal for him, not just structural, and stays mostly private. This means Yahari's death leaves a real gap in understanding/meaning specifically, not in governance — the caravan is never read as leaderless. See *Aran Sunderwood — Family and Caravan*.
- [] **How disputes are resolved and how coming-of-age works within Aeolian caravans specifically** — flagged generally in the World Systems To-Do as still needed for "Wayfarer social structure" as a whole; this document doesn't resolve it, only narrows where it should eventually live (Aeolian-specific practice, with the understanding that other branches may differ).

- [x] **Whether anyone in Aran's caravan notices something changing in him before he does** — ✓ resolved: **Mira does**. Crucially, this is written as motherly noticing rather than her professional scout's read on unfamiliar ground — she knows the specific shape of his moods the way any parent clocks a child running a low fever before the child admits to feeling unwell. Consistent with her established terseness, it never becomes a conversation; it surfaces only in small, characteristic gestures (an extra portion pushed his way, a look held a beat too long, his gear checked without being asked). Nothing is ever named outright, by her or by him. See *Aran Sunderwood — Family and Caravan* for the full passage.

Thessaly Wayfarer Social Structure

Lives in: World & Lore → Factions & Power Structures. Companion to Wayfarer Divergence and Aeolian Wayfarer Social Structure. Where the Aeolian document establishes range and direct observation as one branch's defining emphasis, this document sketches a second branch built around a different, equally legitimate expression of the same root Wayfarer values: containment, discipline, and self-mastery as the visible proof of a trustworthy character. Written specifically to ground Pell's birth caravan (see Aran Sunderwood — Family and Caravan) and available, if useful, for Doran Sunderwood's own pre-Long Reach origin.

Name and Character

Thessaly — taking its name, per the established naming convention of real-language roots slightly defamiliarised, from an old word associated with binding, settling, or holding fast; worn down over generations into a single name, the way "Aeolian" was. Where Aeolians are known for range, Thessaly caravans are known for composure — for arriving anywhere, in any condition, having already metabolised whatever the journey cost them before anyone outside the caravan has to see it.

This is not the same thing as being settled. Thessaly caravans move as much as any Wayfarer branch — movement is one of the few values genuinely non-negotiable across all branches, per Wayfarer Divergence. What distinguishes Thessaly is not how far or how often they move, but the manner of it: unhurried, controlled, visibly undisturbed, regardless of what the day actually contained. A Thessaly caravan arriving at a trade meeting after a brutal crossing and a caravan arriving after an easy one should, by their own standard, be indistinguishable to anyone watching. The difference is supposed to live entirely inside the people who lived it, never on their faces.

The Core Value: Containment as Trustworthiness

Thessaly culture is built around a specific, coherent belief: that a person's worth to the caravan is measured by how completely they can hold themselves — their fear, their grief, their excitement, their pain — without letting it become anyone else's problem to manage. This is not, in Thessaly's own self-understanding, coldness. It is read internally as a form of care: a person who has mastered their own reactions is a person nobody else has to spend energy steadying, which leaves more of the caravan's collective attention free for the things that actually threaten it. An elder's authority, within Thessaly, is built on accumulated wisdom exactly as the wider Wayfarer pattern requires — but specifically wisdom demonstrated through a lifetime of visible self-possession under pressure. The calmest person in the worst moment is, by Thessaly's own logic, the person who has

earned the right to be listened to.

This value is sincerely held and not, in itself, cruel. Thessaly produces genuinely steady people, skilled negotiators, and caravans that hold together under pressures that might fracture a less disciplined community. The cruelty enters only at the edges — in what the value system has no framework for, and in how unforgivingly it judges what it cannot explain.

The Edge of the Value

Thessaly's culture has no real category for a person whose nervous system simply does not run the way the culture's ideal demands — not through unwillingness, but through how they are built. A person who startles easily, who cannot mask distress, who needs to leave a room rather than sit through what's overwhelming them, reads to Thessaly not as a different kind of person but as an undisciplined one: someone who hasn't yet done the work everyone else has done, or worse, someone who has decided not to. The culture's deep, genuine investment in self-mastery as something everyone can achieve through effort makes it almost structurally incapable of recognising a difference that effort alone cannot resolve. This is Pell's specific wound, and the document treats it as the load-bearing example: not a single cruel individual, but an entire well-intentioned culture without the conceptual room to see what it was actually looking at.

Contact Posture — Warm Outward, Rigid Inward

Thessaly's relationship to outsiders is, by design, almost the inverse of what its internal culture might suggest. Strangers are met with real warmth, real hospitality, and none of the performance standard Thessaly applies to its own — a Thessaly caravan will sit with a frightened, grieving, or overwhelmed outsider with patience and genuine care, precisely because an outsider's composure was never Thessaly's responsibility to judge. The discipline is a covenant among Thessaly's own people, not a universal law they expect the world to follow. This makes Thessaly, paradoxically, one of the more approachable and well-regarded Wayfarer branches among other communities — traders speak well of them, Badlands settlements that deal with Thessaly caravans describe them as patient and fair, and the warmth is not performance. It is simply bounded, with a line drawn precisely at the edge of Thessaly's own bloodlines and households, where a much harder standard quietly takes over.

This is what makes Thessaly's treatment of its own a particular kind of painful rather than a simple, recognisable insularity: there is no external enemy to point to, no xenophobia to name. The same caravan that took in a lost stranger without a second thought could, the same season, run out of patience for a child who shared their blood and simply couldn't perform calm on command. The warmth outsiders receive is real. It was just never the warmth Pell needed, and she was never going to be treated as the outsider who got to receive it.

Relationship to the Installations

Thessaly caravans treat Installations as sites to be avoided entirely — not out of the Aeolian instinct toward careful, controlled study, but as a direct extension of the culture's core value. An Installation is, in Thessaly's framing, a place where containment itself failed completely: whatever the Penumbrans were, whatever happened to them, it reads to Thessaly less as a question to

investigate and more as a cautionary structure, proof of what happens when something is allowed to go fully, catastrophically uncontained. Thessaly elders steer caravan routes well clear of known Installation sites, not from superstitious fear exactly, but from something closer to the discipline itself: you do not linger near the evidence of what containment, taken to its limit and lost, actually looks like.

This gives Thessaly a markedly different relationship to the Convergence/Aetheris's theological ambiguity than the Aeolians have through Sage Yahari's tradition. Where Aeolian elders can disagree, in the open, about ascension versus erasure, Thessaly's oral tradition treats the question itself with more caution — not forbidden exactly, but not dwelt on, the way a Thessaly elder might discourage dwelling on any subject that risked unsettling a person past the point of useful composure.

What This Means for the Story

Pell's rejection now has a precise, non-arbitrary shape. She was not punished for being strange to a fearful culture. She was held to the same standard Thessaly genuinely believes builds trustworthy people — a standard the culture has no real evidence is achievable by everyone, because it has never had to test that assumption against someone built the way Pell is built. Her parents' failure was not cruelty in the simple sense. It was the failure of a sincerely held, generally functional value system meeting its one unaccounted-for edge case, and choosing the system over the child rather than questioning whether the system was wrong.

This sharpens the contrast with Long Reach specifically, not just Wayfarer culture generally. Long Reach (Aeolian) trusts direct observation over inherited expectation; Thessaly trusts demonstrated self-mastery over situational excuse. Both are legitimate, functional expressions of "authority through accumulated wisdom" — neither is a strawman of the other. Pell's story is not "good caravan rescues girl from bad caravan." It's two coherent, differently-calibrated cultures producing two completely different verdicts on the exact same child, which is a sharper and more honest version of the book's broader argument that institutions are rarely simply evil — they are often sincere, internally consistent, and still capable of real harm at their edges.

Open Follow-Ups

[x] Doran is NOT Thessaly-born. Decided — reusing the same branch for both Doran's and Pell's origins reads as too convenient, given they have no in-story connection to each other. Thessaly is Pell's birth culture alone. Doran's own origin needs a separate branch (see Aran Sunderwood — Family and Caravan, updated follow-up).

[x] Pell's specific birth caravan named: Eventide. ✓ Resolved. Translates from its own tongue as "what the day cannot move" — worn down into the shorter, plainer "Eventide," consistent with how Long Reach was named. A specific instance of Thessaly culture, the way Long Reach is a specific instance of Aeolian culture. See Aran Sunderwood — Family and Caravan for the full naming and context. Naming specific elders within Eventide remains open, lower priority — the caravan doesn't need named individuals beyond Pell's parents (themselves still unnamed) unless the story later needs them on the page.

[] Whether Thessaly culture's avoidance of Installations ever becomes plot-relevant — e.g., if a future scene requires a Thessaly-adjacent character to react to or refuse an Installation encounter, this document's framework should govern that reaction.

[] A third axis check — per Aeolian Wayfarer Social Structure's "What Distinguishes Branches" framework (range tolerance, contact posture, relationship to Installations), this document explicitly declined to make range tolerance Thessaly's defining axis. Worth confirming this doesn't leave Thessaly feeling underdefined on that axis if it becomes relevant later — a brief default position (e.g., "moderate, unremarkable range, consistent with most Wayfarer caravans") could be added if needed.

Corvane Wayfarer Social Structure

Lives in: World & Lore → Factions & Power Structures. Companion to Wayfarer Divergence, Aeolian Wayfarer Social Structure, and Thessaly Wayfarer Social Structure. A deliberately lighter sketch than either — written to ground Doran Sunderwood's pre-Long Reach origin (see Aran Sunderwood — Family and Caravan), not to carry the same narrative weight as Aeolian or Thessaly. Expand only if the story later needs more from it.

Name and Character

Corvane — taking its name, per the established convention, from an old root associated with exchange, dealing, and the crossing of paths; worn down over generations the way every Wayfarer branch name has been. Where Aeolians are known for range and Thessaly for composure, Corvane caravans are known for reach without distance — not how far they travel, but how many relationships they maintain along the routes they already know well.

If Aeolian answers "how do we survive the unknown" with go look at it directly, and Thessaly answers it with master yourself so nothing unknown can shake you, Corvane answers it with a third, equally valid response: know everyone, owe favors carefully, and never be a stranger anywhere you might need to not be one.

Core Value: The Web Over the Frontier

Corvane caravans keep to established, well-traveled routes — not from caution or fear of the unfamiliar, but because their entire value system is built around depth of relationship rather than breadth of territory. A Corvane elder's authority is built on accumulated wisdom exactly as the wider Wayfarer pattern requires, but specifically wisdom about people: who can be trusted with what, which debts are worth calling in and which are worth quietly forgiving, how to keep a trade relationship alive across a generation of changing faces on both sides.

This produces caravans that are, in practice, deeply embedded in whatever wider community ecosystem exists around their routes — genuinely comparable, in function if not in scale, to the kind of layered, redundant trade web already established elsewhere in this world's canon (see Water Recycling and Food Production, "The Wider Supply Network"). A Corvane caravan is the kind of Wayfarer community most likely to have a standing, personal relationship with a specific Badlands settlement, a specific shadow-settlement contact, or — at several removes — a specific Sprawl vendor's trade chain.

Corvane does not consider this a lesser calling than scouting or self-mastery. Within Corvane culture, the person who can walk into a tense negotiation and walk out with the caravan's needs met and the relationship intact has done something just as load-bearing, just as difficult, and just as worthy of respect as a scout who reads dangerous ground correctly. The caravan needs both. Corvane simply produces disproportionately more of the former.

Contact Posture and Relationship to Installations

Contact posture: the most consistently outward-facing of the three sketched branches, by design — this is the entire point of the culture. Corvane caravans maintain wider, deeper, more durable outside relationships than most Wayfarer communities, and are correspondingly the branch most likely to be fluent in reading outsiders accurately, quickly, and without the friction a more insular culture might bring to the same exchange.

Relationship to Installations: moderate and practical rather than reverent or fearful. Corvane's orientation is toward people and routes, not toward the deep Badlands or the genuine frontier where most Installations are found — so Installations simply fall outside the caravan's usual concerns, encountered occasionally and treated with the same unremarkable caution any sensible Wayfarer would apply, without the Aeolian instinct toward study or the Thessaly instinct toward active avoidance as doctrine.

Doran's Origin

Doran was Corvane-raised, in a caravan whose name is left open for now (see Follow-Ups). He was good at the work — relationship-keeping, trade logistics, the patient maintenance of a hundred small obligations across a dozen routes — and nothing about his upbringing pushed him toward Long Reach. He left because he met Mira during a routine trade contact between the two caravans, and stayed because he wanted to, in the uncomplicated way people sometimes simply choose a life because it's the one they want and not because the life they had was lacking.

This is deliberately the simplest origin story among the family. Mira's standing is inherited and earned. Tamsin pushes gently against expectation by choosing trade over scouting. Pell's history is a real wound, carefully built. Doran is the one person in the household whose story doesn't ask anything difficult of the reader — and that's the point. Not every person in a found, chosen, blended family needs to be running from something. Some of them are just there because they wanted to be, and that's allowed to be enough.

What Doran brought from Corvane into Long Reach life, practically: the trade and logistics competence that makes him, per his existing characterization, just as load-bearing to the caravan's functioning as any scout — simply in a register that doesn't carry the same instinctive cultural reverence Long Reach extends to a good read on bad ground. He has made his peace with that, mostly. The story doesn't need to dwell on whether the "mostly" is fully true.

What This Means for the Story

Doran's lightness is itself useful. Against Mira's quiet intensity, Tamsin's sharp independence, and Pell's hard-won safety, Doran is the family member whose presence is simply, uncomplicatedly

good — present, anchoring, worried in the soft register that asks nothing back. A family entirely made of wounds and inheritances would start to feel schematic. Doran keeps it human.

Corvane gives the wider world a third coherent answer to the same root question, completing a clean triangle without needing to be heavily developed on the page: Aeolian (trust direct observation), Thessaly (trust self-mastery), Corvane (trust relationship). Three branches, three real and different ways of surviving the same uncertain world, none of them wrong, none of them complete on their own.

Open Follow-Ups

[x] Doran's specific birth caravan named: The Bound Word. ✓ Resolved. The name carries the branch's entire ethic directly — a promise that holds, a debt remembered correctly — consistent with how Long Reach and Eventide were both named (a short, ordinary-sounding phrase that only reveals its full weight once the caravan's culture is known). See Aran Sunderwood — Family and Caravan for the full context.

[] Whether Corvane ever becomes plot-relevant beyond Doran's origin — e.g., as a connective thread into the wider trade network already established in Water Recycling and Food Production, if the story ever needs a Wayfarer-side contact for that network rather than only the Badlands/shadow-settlement side already sketched there.

[] The specific trade contact event where Doran and Mira met — not detailed here; a natural small worldbuilding or flashback beat if the story ever wants it, but not required.

Language & Linguistics

Penumbran Language & Naming

1. Penumbran Language — Three-Layer Architecture

Penumbran language is a **hybrid**: it has both a spoken/vocal dimension and a resonant/acoustic dimension, and these do different communicative work.

| Layer | Register | Survival | Notes |
|---------------------------------|--|---|--|
| Spoken | Intimate, immediate, situational — face-to-face communication | Almost entirely lost . No direct physical record; reconstructable only indirectly (acoustic residue, depictions, structural inference about probable phonemes) | The layer closest in structure to human language, and the layer that Wren can never fully recover. She may be able to prove spoken Penumbran <i>had</i> certain phonemic properties without ever knowing what was actually said in any given utterance. Real, permanent, scholarly loss. |
| Resonant / Architectural | Formal, ritual, possibly legal/binding — built into the Installations themselves | Preserved — physically intact, baked into surviving structures | Governed by <i>relational grammar</i> (Section 2) — fully consistent and internally rigorous, but requires a non-human relational framework to parse. The wall here is not missing data; it's a missing cognitive/perceptual organ. The installation's geometry and acoustics are not separate from its grammar — they ARE the syntax. |

| Layer | Register | Survival | Notes |
|----------------------------|---|--|---|
| Written (Latensite) | A deliberate, personal, portable act of inscription — message to a specific other person or across time | Modest surviving corpus (Section 3) | Likely uses different script/notation logic than the resonant layer — this asymmetry is intentional. Gives Wren their cruellest research problem: written and architectural corpora appear related (shared root-glyphs, evolutionary connection), but the written sample is too small ever to crack the architectural layer via cross-reference. Grounded in real-world decipherment failure (insufficient parallel corpus), not movie-logic, "almost cracked it." |

The asymmetry as deliberate horror beat

The most *formal* register (resonant/architectural) survived perfectly intact. The most *intimate* register (spoken) is gone completely. This inverts the usual archaeological pattern and is specifically devastating for an archivist: the Penumbrans' most preserved record is their most impersonal one. There is no recovered record of how they actually spoke to one another.

2. Relational Grammar — The Core Conceit (resonant/architectural layer)

Status: conceptual foundation agreed, not yet built out into actual grammar rules.

Key design decision: Latensite, the script, and the grammar should constitute a **genuinely complete, internally consistent conlang** — necessary for series-length consistency, and to reward readers who go looking for depth — while the **in-world barrier Wren hits is structural, not a data problem**.

The mechanism: Penumbran meaning in the resonant/architectural layer is not fixed to words but fixed to **relationship**. The same glyph-string can carry different meaning depending on (non-exhaustive, to be formalized):

- Who is reading/speaking it — their relationship to the subject matter, not merely their identity
- What it is physically adjacent to or oriented toward — architecture is not separate from grammar; the Installation is part of the sentence

- Possibly: a form of "tense" that is not past/present/future but something like proximity-to-the-Convergence-event — a category with no human equivalent and no possible substitution-based workaround

This means **lexicon and morphology can be fully documented** by Wren (and fully designed by the author) as a real, rigorous system. The **syntax-via-relationship** layer is what resists human parsing — not because the key is lost, but because the lock does not take a key. It takes a relationship to the door, and humans do not have the right kind of hands.

Series-length flexibility this creates

Later books could reveal that certain non-human configurations — Aetheris/the Hum itself, or a transformed human post-Act Three — can read Penumbran fluently, not because they cracked the cipher, but because they possess the relational capacity humans lack. This stays fully consistent with "the wall is permanent for Wren specifically, in this book" while leaving the door open for series-level payoff.

3. Latensite — The Light-Fixed Writing Material

Concept

Text is not inscribed on the surface of Latensite — it exists as a structural property *within* the material's internal lattice, comparable to how real minerals like opal or labradorite produce structural colour rather than surface pigment. The text is invisible under ordinary conditions and becomes legible only when specific conditions are met.

This material occupies the **written layer** of the architecture in Section 1, filling the gap between spoken language (almost entirely lost) and the resonant/architectural record (preserved but unparseable):

- More durable than spoken language
- More fragile and rarer than the resonant/architectural record
- Represents a deliberate, personal act of inscription — something written by one Penumbran for another to read, possibly across time — distinct from both architecture-as-record and speech-as-ephemeral-utterance

Corpus size

Modest — dozens of confirmed pieces exist across known Installations and private collections, not a handful and not a flood. Rare enough that each piece is precious; common enough that Wren can have built real expertise and a real career around them before the book begins.

Three Behavioural Tiers

Tier 1 — Common pieces. Triggered by mundane physical conditions: angle, polarisation, and simple light exposure. Repeatable and nondestructive — once the triggering angle/condition is known, the text can be re-revealed indefinitely. These make up the bulk of the modest corpus and are the kind of find a careful conservator stumbles into by accident, rotating a specimen under a lamp. Wren herself may have personally identified the triggering mechanism for several of these — meaning her expertise is real and earned before the book introduces the tiers that defeat skill entirely.

Tier 2 — Rare pieces. Require more specific or extreme conditions (UV exposure, thermal cycling, etc.) to reveal text. Reveal is **costly or degrading** — repeated exposure causes the internal lattice to relax, and the text fades for good after a finite number of readings (exact number varies by piece/material quality — not a fixed rule). This tier is the natural home for institutional scarcity politics: who gets to "spend" a reading on a precious, finite-use artifact, and who decides. Strong potential source of friction between Wren and Tabularium/Council authority.

Tier 3 — Hum-tied pieces. The rarest and most dangerous tier. Legible only under light or conditions adjacent to Aetheris/the Hum itself. Reading one requires exposing the artifact — and the reader — to Hum-adjacent conditions. Strong implication that the Penumbrans deliberately encoded their most dangerous or most sacred material this way, so that only conditions resembling the Convergence/Aetheris event itself could unlock it — meaning some content was never meant for casual readers, Penumbran or human. Consistent with the established ambiguity that the Penumbrans' transformation may have been deliberately pursued via their own installations.

Recommended pacing: Tier 3 pieces should be rare and **late** — Wren likely shouldn't encounter a confirmed Hum-tied piece until well into Act Two, so her exposure escalates rather than being available from the start. This also sets up a possible engine for her arc: her growing proximity to danger could become diegetically tied to her growing ability to read the Penumbran record, rather than her research progress happening on a separate, safe track from her personal horror arc. (Flagged as a major structural choice, not yet committed — revisit when Act Two gets its chapter-level breakdown.)

4. Naming Reference

Sempiterni consistently uses **dual naming** across major unknowns in the world: a formal/scholarly register (cold, taxonomic, used in Council and institutional contexts) paired with a vernacular register (worn smooth by use, born of lived experience rather than classification). This pattern now spans three separate concepts, which makes it a structural feature of the world rather than a one-off device — readers who notice it should read it as intentional.

| Concept | Formal / Scholarly | Vernacular | Notes |
|---|--|--|--|
| The dead native civilisation | Penumbrans | The First-Walked (Wayfarer oral tradition) | "The First-Walked" deliberately echoes "being walked" (Obsidian Branch public detention) — implies the Wayfarer cosmology frames the Penumbrans' fate as the <i>original instance</i> of something Arbour still does to its own people. Not necessarily a connection any character consciously draws. |
| Their sites/structures | Installation (category term) | — | No vernacular counterpart yet identified — "Installation" functions as the universal term across all communities (Arbour, Wayfarer, Badlands). Specific subtypes are identified once a site's purpose is understood: reliquary (memorial/ritual sites), observatory, habitation site, wellspring (energy generation/storage — see Penumbrans, Section 3), and others as needed. Not every installation is a reliquary; every reliquary is an installation. |
| The antagonist entity | Aetheris | The Hum (Sprawl) | Aetheris is what the Council writes in a report after the fact — classification from a safe distance. The Hum is what the Sprawl says because they felt it before anyone official arrived to name it. The gap between the two terms mirrors the book's Council/Twelve political duality. |
| Light-fixed Penumbra n writing material | Latensite | — <i>open, parked</i> | See Section 3. Vernacular counterpart deliberately left unresolved rather than forced; revisit later. |

Naming notes for continuity

- Vernacular terms in this world tend to be **short, plain, and worn down by repetition** — compare "the shed" (load-shedding), "being walked," "the Gloaming." Multi-word compounds (e.g. "Pocket-glass," "Stillglass") have been tried and rejected for the Latensite counterpart specifically — whatever fills that gap should likely be one word, ideally one syllable, in keeping with "the Hum."
- Formal terms favor real-language roots, slightly defamiliarised (Aetheris ← aether; Penumbrans ← penumbra; Latensite ← latent + mineralogical "-ite" suffix), rather than invented-from-nothing fantasy coinage.

5. The Penumbrans — Cosmological Framing

Cross-reference: this section also informs World & Lore → The Convergence & Cosmology; at minimum, it should link back here rather than duplicate it.

The Wayfarers' oral tradition (Sage Yahari's "Unknowable God" stories) already frames Aetheris theologically. **The First-Walked** sits inside that same cosmology rather than as an unrelated legend: the Penumbrans are understood, in Wayfarer tradition, as the people who first encountered the Unknowable God, and the installations are the wreckage of that meeting.

This gives the Wayfarers one continuous mythology rather than two disconnected legends, and lets the book's central ambiguity (ascension vs. erasure) live *inside* the religion as an unresolved theological argument. Different Wayfarer elders can disagree — in dialogue, not narration — about whether the Penumbrans were saved or devoured. The ambiguity should never be fully resolved, for the reader or for any character, including Cassan.

6. Open Items / Next Steps

- [] Vernacular counterpart for **Latensite** — parked, revisit later
- [] Full phonology design for the **spoken layer** (what phonemes are inferred to have existed, and by what method Wren infers them)
- [] Script/notation design for the **resonant/architectural layer** — visual logic, how it reads as "notation" rather than alphabet
- [] Script/notation design for the **written/Latensite layer** — confirm it is visually/structurally distinct from the architectural script, with only partial, ambiguous points of connection
- [] Formal grammar rules for **relational grammar** — define the actual categories (relationship-to-speaker, relationship-to-place, proximity-to-Convergence "tense," others TBD)
- [] Decide and document how much of this Wren can prove vs. merely infer, scene by scene, for Act One through Three pacing purposes
- [] Human sociolects layer (Sprawl / Council / Wayfarer speech patterns) — not yet started, separate work item from Penumbran language proper