



Core Concept & Vision

Category	Gameplay
Status	Approved
Description	<p>Purpose: Define <i>what</i> the game is and <i>why</i> it exists. Includes:</p> <ul style="list-style-type: none">• Game Title & Tagline• High-Level Pitch (2–3 sentences)• Genre & Inspiration• Target Audience & Platforms• Emotional Goal / Player Fantasy• Unique Selling Points (USP)• Design Pillars — e.g. "Legacy over Grind," "Consequences with Compassion."

Section 1: Core Concept & Vision (Anansi Edition — Final Revision)

1.1 Game Title

Echoes of the Sankofa

(Working subtitle: "Legacy Never Dies")

1.2 High-Level Concept

Echoes of the Sankofa is a **West African / Ghanaian-inspired strategy autobattler roguelite** about **legacy, memory, and the fragile balance between remembrance and oblivion.**

Players embody the **Ase Keeper**, a grand ancestral spirit bound to the sacred flame connecting the living and the dead. From the **Obosom Sanctum**, the

Keeper **summons Echoes — spiritual heroes reborn from fragments of memory — and nurtures them to reclaim the corrupted Realms of Ase.**

Unbeknownst to the Keeper, both they and their adversary, **Odo Agyanka (the Devourer of Names)**, are pieces in a timeless game spun by **Anansi**, the trickster god and Keeper of Stories.

What begins as an act of restoration slowly reveals itself as a contest between remembrance and forgetting — played for Anansi's amusement.

Unlike most games, **the player is not the hero.**

The **Echoes** are autonomous beings with their own voices, emotions, and motivations. The player's purpose is to **guide, mentor, and sustain them — not command them.**

True mastery comes from **understanding one's heroes, not controlling them.**

In the full version, the Keeper restores seven Realms chosen from ten possible worlds — each cycle a unique constellation of stories. The MVP will feature two to three fixed Realms to establish core systems.

1.3 Core Experience Goals

- **Legacy over Grind:** Each generation leaves traces that empower the next.
- **Guidance over Control:** The player influences, never commands — heroes act by will and wisdom.
- **Autonomous Companions:** Echoes have voice, mood, and motivation; they must be understood, not exploited.
- **Procedural Variety / Deterministic Fairness:** Every journey is unique yet governed by consistent laws.
- **Emotional Continuity:** Loss, triumph, and mentorship are equally meaningful.
- **Story vs. Silence:** Each decision feeds either remembrance (Anansi's web) or oblivion (Odo Agyanka's hunger).

1.4 Player Role — The Ase Keeper

You are an **ancestral mentor**, not a god or general. Your role is spiritual and reflective:

- **Summon Echoes** — spirits of courage, virtue, and wisdom.
- **Guide them** through counsel, morale, and training.
- **Maintain the Ase Flame**, the living energy sustaining all worlds.
- **Rebuild the Sanctum**, housing the knowledge of generations.
- **Interpret their voices** — heroes reveal needs and fears through dialogue and behavior.

Your influence manifests through **rituals, teachings, and blessings**, not direct orders.

The heroes' autonomy is sacred, and your relationship with them evolves through trust, wisdom, and sacrifice.

Though you believe you act from compassion, unseen hands may guide your path — perhaps the same hands that once spun the first story.

1.5 Design Vision

The game's guiding philosophy is that **leadership is empathy, not control**.

Players should feel the quiet responsibility of nurturing independent spirits rather than commanding soldiers.

“You do not win for your heroes — you help them learn how to win without you.”

Every action, dialogue, and death is a fragment of story reclaimed from oblivion.

The design explores not only how players guide others, but how **stories guide players**, echoing **Anansi's web of creation and deception**.

The intended emotional outcome is **respect and humility** — for the heroes, their struggles, and the ancestral line that continues through them.

1.6 Genre Definition

Primary: Procedural Strategy Autobattler Roguelite

Secondary: Management / Legacy Simulation

Perspective: Indirect control; systems-driven and reflective

Session Structure: 10–30 minute sessions; finite but replayable progression with idle return

1.7 Target Audience & Platforms

- **Audience:** Players who enjoy reflective, system-driven games with emotional and philosophical depth (*Darkest Dungeon*, *Loop Hero*, *Cultist Simulator*).
 - **Platforms:**
 - **Primary MVP** → **iOS / Android** (text-based simulation)
 - **Later Phases** → **PC / Tablet** (expanded UI and visualization).
 - **Playstyle Philosophy:** Short, meaningful sessions that reward comprehension, curiosity, and emotional intuition.
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1.8 Emotional & Narrative Themes

Theme	Manifestation in Gameplay
Guidance over Control	Player steers morale, composition, and rituals — not commands.
Legacy	Fallen Echoes empower future generations.
Faith & Doubt	Emotional states directly affect success and AI behavior.
Wisdom Through Loss	Every defeat yields knowledge and traits for the next cycle.
Communal Memory	Sanctum buildings embody the lineage's collective progress.
Cultural Continuity	Akan mythology expressed through universal design systems.
Story vs. Silence	The Keeper's journey mirrors the cosmic duel between remembrance (Anansi) and forgetting (Odo Agyanka).

1.9 Why It Exists

Echoes of the Sankofa reframes **player agency as mentorship and interpretation.**

Where most games reward control, this one rewards **understanding — of personalities, values, and relationships.**

It explores the Akan philosophy of **Sankofa** ("go back and fetch it") as an interactive loop: learning from the past to illuminate the present.

Yet beyond the mortal lens lies a deeper irony: the entire journey may itself be a **story woven for Anansi's pleasure**.

The game ultimately asks whether creation and legacy are acts of compassion or vanity — whether stories exist to preserve meaning or to entertain the gods who tell them.

1.10 Art & Audio Identity

Visual Direction

- **Core Aesthetic:** *Mythic Spiritual Minimalism* — West African geometry and luminescent spirit motifs.
- **Palette:**
 - *Ase Flame*: gold and ember glow.
 - *Echoes*: translucent hues reflecting dominant traits.
 - *Sanctum*: stone and light runes symbolizing rebirth.
- **Style Progression:**
 - **Phase 1 (MVP)**: Text-based interface with symbolic UI effects.
 - **Phase 2**: 2D illustrated interface with iconographic visuals.
 - **Phase 3**: 2.5D visualization of battles and Sanctum hub.
- **Motifs**: Adinkra symbols and spider-web patterns represent Anansi's presence within the UI — threads that tremble when fate changes.

Hero Expression

- AI-driven dialogue and emotion systems.
- Portraits and text color reflect emotional states.
- Player must interpret heroes' needs and moods through their words and behavior.

Audio Direction

- **Soundscape:** Layered ambient textures with subtle Ghanaian percussion and plucked string motifs that evoke Anansi's harp-like web.
- **Mood:** Ethereal, ceremonial, calm — with moments of playful disruption hinting at the trickster's hand.
- **Voices:** Soft whispers in Ashanti and English; AI-generated intonations for individuality.
- **Feedback:** Harmonic tones and resonant drum pulses instead of aggressive SFX.

The world should sound like it remembers you — and like someone is listening.

1.11 MVP Scope — Text-Based Foundation

The **Minimum Viable Product (MVP)** will be fully text-driven, emphasizing readability, logic, and systemic depth before visual polish.

Goals for Text MVP

1. Validate core systems — summoning, auto-battle simulation, resource flow, and legacy inheritance.
2. Develop the “hero understanding” loop via AI dialogue and emotional response.
3. Integrate adaptive narrative modules (AI story threads) that reflect player empathy and Anansi's intervention.
4. Test pacing and balance curves using simulation logs and JSON data.
5. Provide hooks for future UI and visual layers without rewriting logic.

Planned Evolution Path

- **Phase 1:** Text MVP (web or terminal prototype).
- **Phase 2:** 2D interface with animated feedback and hero portraits.
- **Phase 3:** 2.5D realization of battles and Sanctum hub once systems stabilize.

This structure ensures rapid iteration, AI story experimentation, and clear systemic validation while remaining future-proof.

1.12 Vision Keywords

Guidance — Legacy — Empathy — Faith — Understanding — Continuity —
Sankofa — Anansi

1.13 Success Criteria

1. Players form emotional bonds with autonomous heroes.
2. AI dialogue and Anansi events create unique, organic story moments for each player.
3. The core loop is emotionally rewarding even in text form.
4. Artistic and aesthetic identity remain cohesive as visual layers expand.
5. Player agency feels spiritual and reflective — a conversation between mentor, heroes, and the trickster who watches.



World, Lore & Player Role

Category	Story
Status	Approved
Description	<p>Purpose: Anchor narrative and tone.</p> <p>Includes:</p> <ul style="list-style-type: none">• Setting & backstory (mythos, factions, tone)• Player identity and role (e.g. "Ase Keeper")• Narrative themes and motivations• Art direction moodboard references

Section 2: World, Lore & Player Role (v5 — The Game of Anansi)

2.1

Setting — Nyamedua, the Tree Between Worlds

Between the living and the dead stands **Nyamedua**, the World Tree of Souls. Its roots drink from mortal memory, and its branches weave through the heavens of the **Abosom**, the old spirits of virtue and creation. At its heart burns the **Ase Flame** — the pulse of existence, where every story, emotion, and name intertwines.

Long before the corruption, the rhythm of Ase was held in balance by the cunning god **Anansi**, the Keeper of Stories. Neither benevolent nor cruel, Anansi loved only one thing: *the thrill of a good tale*. He wove every song, legend, and prayer into his web — claiming them as his treasures.

But Anansi grew vain. He sought to prove that *he alone could bind creation through story*, so he wove a divine game between memory and oblivion. In his arrogance, he created two players:

- **Odo Agyanka, the Devourer of Names** — born from Anansi's shadow and his envy of silence. It fed on forgotten memories, devouring names and identity until even the gods forgot themselves.
- **The Ase Keeper (the player)** — a fragment of compassion hidden within Anansi's web, born to nurture new stories, reclaim old ones, and weave a new legacy through empathy rather than control.

Anansi, delighted by his own paradox, whispered as he cast them into the roots of Nyamedua:

“Let the tree decide which story deserves to live — the silence of peace, or the noise of becoming.”

Centuries passed. Odo Agyanka feasted. The Abosom fell into slumber, their Realms collapsing into void. Now, with the Ase Flame fading, **Anansi’s game begins anew**. The Keeper awakens to restore the Seven Realms of Ase — believing they are saving the world, unaware that they are simply pieces in Anansi’s grand amusement.

The **Echoes** — spiritual heroes born of memory — are fragments of Anansi’s lost stories. Through them, the Keeper must nurture emotion, rediscover identity, and confront the balance between remembrance and forgetting.

2.2

The Web of Anansi — Story, Memory, and Forgetting

All of existence hangs upon **Anansi’s Web** — a lattice of luminous threads connecting every story, memory, and life.

Each thread vibrates with Ase, glowing with the echo of its tale.




- When **Odo Agyanka** consumes a name, a thread vanishes — erasing history and emotion.
- When the **Ase Keeper** rekindles one, a new thread forms — bright, trembling with rebirth.
- And **Anansi**, ever the observer, plucks the web like a harp, making the world sing again.

This web is both creation and trap. The Keeper’s mission to restore stories only feeds Anansi’s hunger for new ones. Every victory, every death, every moral dilemma adds another note to his song.

Thus, even the endless replay — the **Legacy Cycle** — is not merely a mechanic but a *divine loop of entertainment*. Each playthrough is a new telling of the same myth, spun differently each time for Anansi’s delight.

2.3

The Triad of Continuity

Entity	Symbol	Role in the Cycle
Anansi	 <i>The Web</i>	The Keeper of Stories — manipulator, creator, and deceiver. He spins fate, sets rules, and watches his toys.
Odo Agyanka	 <i>The Void</i>	The Devourer of Names — consumes memory and emotion to end suffering through silence.
The Ase Keeper (Player)	 <i>The Ember</i>	The nurturer — restores stories, fosters identity, and strives to preserve balance through compassion.

The world is defined by this triad’s tension:

- **Anansi** creates endlessly but for pleasure.
- **Odo Agyanka** destroys endlessly but for peace.
- **The Ase Keeper** restores endlessly but for meaning.

Every decision in the game — to save, sacrifice, or redeem — tips the balance among them.

2.4

Setting in Motion — The Realms of Ase (Ten Virtues, Seven Paths per Cycle)

The Keeper's journey spans ten possible Realms, though only seven manifest per cycle. Each represents a fallen virtue of creation awaiting restoration.

Every Realm consists of **5–6 sequential stages**, each a unique scenario seeded by deterministic procedural generation, culminating in a **Restoration Trial** — a climactic confrontation that tests courage, empathy, and legacy.

Realm	Core Emotion	Abosom (Fallen Spirit)	Stage Count	Final Trial	Theme
1. Vale of Dust	Fear	Tano	5	<i>The Wailing Colossus</i>	Courage through despair
2. Shrouded Grove	Doubt	Nyansa	6	<i>The Whispering Seer</i>	Knowledge twisted by suspicion
3. Crimson Plains	Rage	Brempon	5	<i>The Ashen General</i>	Power consumed by ego
4. Hollow River	Grief	Odomankoma	6	<i>The Ferryman's Shadow</i>	Letting go and acceptance
5. Glimmering Spire	Ambition	Adinkra	5	<i>The Architect of Lies</i>	Progress corrupted by greed
6. Twilight Fields	Regret	Asase Yaa	6	<i>The Keeper of Graves</i>	Memory versus release
7. The Forgotten Sky	Harmony	Nyame	6	<i>Odo Agyanka, The Endless Forgetting</i>	Reunion, reconciliation, transcendence

Each Realm tells a fragment of Anansi's game — stories of gods who forgot themselves.

As the Keeper purifies each one, the corresponding **Sanctum wing** reawakens, enriching both the world and gameplay systems.

2.5

Progression — Difficulty, Complexity, and Moral Weight

Difficulty in *Echoes of the Sankofa* grows through **emotional and managerial complexity**, not just power scaling. Each Realm deepens the tension between the Keeper's compassion and the demands of the world.

Early Realms (1–2)

- Short sessions (10–15 minutes).
- Focus on discovery: learning how emotion, morale, and Ase interconnect.
- Heroes are cooperative, curious, and inexperienced.
- Anansi's influence is subtle — odd coincidences, curious luck, and fleeting whispers.

Mid Realms (3–5)

- Missions lengthen (20–30 minutes).
- Conflicts arise between heroes' virtues — courage vs. pride, faith vs. ambition.
- Heroes begin to question the Keeper's guidance.
- Sanctum expands to include crafting, training, and emotional care systems.
- *Anansi Events* appear — unpredictable interventions by the trickster god that alter probability, generate random storylines, or introduce moral ambiguity ("He offers you a shortcut at a price.").

Late Realms (6–7)

- Realms extend across multiple play sessions; heroes can become *entangled* in ongoing stories.
- Players must field multiple squads and manage crises in the Sanctum simultaneously.
- Emotional volatility peaks: betrayal, despair, or defiance among heroes is possible.
- Anansi's tone grows more direct, playful, and cruel.
- The Keeper begins to glimpse the truth — are they restoring the world, or merely entertaining its creator?

The final Realm tests not skill, but conviction. The player must decide what kind of ancestor they wish to be — and whether stories deserve to continue.

2.6

The Obosom Sanctum — A Living Memory

The **Sanctum** is the spiritual and mechanical heart of the game: part hub, part ecosystem, part reflection of the Keeper's soul. It evolves dynamically as Realms are restored and heroes live or die.

Sanctum Wing	Unlock Condition	Function
Ase Flame (Core)	Default	Generates Ase passively and actively; the source of power and progression.
Forge of Souls	Realm 2 or Ritual Discovery	Fuses traits of fallen heroes; merges memories or purifies corruption.
Shrine of Voices	Realm 3 or Hero Quest	AI-driven dialogue hub for morale restoration, hero expression, and story emergence.

Sanctum Wing	Unlock Condition	Function
Caretaker's Chamber	Event or Expansion	Heals heroes, resolves emotional crises, manages fatigue.
Training Grounds	Research or Hero Initiative	Mentorship, sparring, emotional development, and skill training.
Hall of Lineage	Any Realm Restoration	Records legacies and enhances summoning odds for inherited traits.
Diviner's Library	Research Progress	Unlocks rituals, crafting paths, and lore-driven upgrades.
Marketplace of Spirits	Economic Progress	Allows Ase↔Ekwan trade and limited Relic exchange.
Meditation Garden	Faith ≥ 6 Hero Event	Improves morale, creates bonding opportunities, and temporary blessings.
Echo Nursery	Midgame (Realm 4–5 or Research)	Fosters and rehabilitates corrupted or broken heroes; enables variant Echoes.
Tactical Nexus	Realm 6+	Allows multi-realm command, simultaneous expedition management, and long-form missions.

Each building adds not just function, but personality — becoming part of the Sanctum's living narrative. The heroes' AI interactions with these spaces create emergent micro-stories unique to each player's world.

2.7

Emotional Ecology — The Sanctum as a Society

Heroes are autonomous entities. Their emotions and relationships define the Sanctum's stability.

- **Emotional Resonance:** Similar traits amplify morale and recovery.
- **Conflict Fields:** Opposing ideals cause tension or rivalry events.
- **Influence Chains:** Heroes with strong Faith can calm others; Ambitious ones spread anxiety or arrogance.
- **Dialogue Network:** AI-driven conversations surface dynamic storylines — heroes reflect on Realm experiences, gossip about others, or question the Keeper's choices.

“Every flame warms or scorches its neighbors. The Keeper must tend to both.”

Neglect or poor management can create emotional collapse. Harmony in the Sanctum is the key to restoring the Seven Realms — and the emotional state of the Sanctum directly influences story outcomes and endings.

2.8

Realm-to-Sanctum Interdependence

Each restored Realm reawakens a virtue in the Sanctum — creating tangible synergy between world progression and base evolution.

Restored Realm	Sanctum Effect	Hero Effect
Vale of Dust	Unlocks <i>Courage Ritual</i> — morale recovery for all heroes.	Increases fear resistance.
Shrouded Grove	Unlocks <i>Wisdom Archive</i> — improves research speed and insight.	Boosts tactical awareness.
Crimson Plains	Enables <i>Leadership Bonds</i> — heroes mentor each other.	Shared passive bonuses.
Hollow River	Unlocks <i>Remembrance Rituals</i> — strengthens legacy inheritance.	Emotional resilience after death.
Glimmering Spire	Adds <i>Faith Resonance</i> — small Ase generation through meditation.	Increases chance of divine blessings.
Twilight Fields	Unlocks <i>Caretaker Blessings</i> — faster healing and corruption recovery.	Reduces morale loss from failure.
Forgotten Sky	Unlocks <i>Ancestral Harmony</i> — global morale and Ase buffs.	Grants "Harmony Traits" to elite Echoes.

This design ensures narrative progress is always reinforced through mechanical growth.

2.9

The Nature of Choice — Complexity as Growth

The Keeper's power is moral, not mechanical. Progression means confronting harder truths, not stronger enemies.

Each Realm deepens the moral burden of leadership:

- Sacrifice one hero to save another.
- Accept Anansi's shortcut or reject it and risk loss.
- Redeem a corrupted Echo or destroy them before despair spreads.
- Abandon one Realm to preserve another.
- Allow heroes autonomy — or intervene, fracturing their trust.

These are the choices that shape the **Keeper's empathy score** — the hidden value determining the ending of the game.

2.10

Endgame — The Forgotten Sky

Upon entering the Seventh Realm, the Keeper faces the ultimate question:

Do stories deserve to continue, or is peace in silence more merciful?

As the final confrontation unfolds with **Odo Agyanka**, the Devourer reveals the truth — that both the Keeper and itself are *Anansi's creations*, eternal players in a cruelly beautiful game.

At the climax, Anansi's voice returns — playful, mocking, almost tender:

“You’ve done so well, my Keeper. Look at all the stories you’ve saved.

But tell me — shall we play another?”

The player must choose:

- **Continue the Game (New Game+):** The Keeper accepts the infinite loop, reborn into another cycle of stories — *the world of endless tales*.
- **End the Story (True Ending):** The Keeper breaks the web, extinguishing Ase to bring peace — *a world without stories, without Anansi*.

No ending is explicitly “good” or “bad.” Each is a reflection of the player's journey — and their answer to the question:

“Is legacy worth the pain it leaves behind?”

2.11

AI as the Storyteller — Living Narratives




To fulfill Anansi's role as the god of endless stories, *Echoes of the Sankofa* uses **AI-driven narrative generation** as a core system.

- Each player's heroes, dialogue, and Realm events are procedurally enriched with unique micro-stories, emergent personalities, and dynamic moral arcs.
- Visual assets, Abosom names, and overarching myth remain fixed — preserving artistic consistency.
- But **no two players will ever share the same version of the myth**. Every player becomes the author of a distinct “telling” in Anansi's infinite web.
- Even Anansi's tone shifts subtly based on playstyle — ironic, sorrowful, amused, or cold — reflecting the AI's reading of the player's empathy pattern.

In essence, the game itself becomes **Anansi's web**, alive and reactive — where each player writes their own strand of the myth.



Core Gameplay Loop

 Category	Gameplay
 Status	Approved
 Description	<p>Purpose: Show the heartbeat of the game.</p> <p>Includes:</p> <ul style="list-style-type: none">• Diagram or flow of main loop (e.g. <i>Summon → Battle → Earn → Upgrade → Repeat</i>)• Loop length/time target (10–30 min session, daily cadence)• Player verbs (actions the player performs)• Replayability & meta progression logic

Section 3: Core Gameplay Loop (v1 — “The Rhythm of the Web”)

3.1 Purpose

This section defines the *heartbeat* of **Echoes of the Sankofa** — the repeating sequence of choices, consequences, and reflection that shape the player’s experience.

Every loop represents one “thread” in Anansi’s web: a story beginning, struggling, and either fading or being remembered.

3.2 High-Level Loop Summary

| Summon → Guide → Venture → Resolve → Reflect → Legacy

Each full loop spans **one play session (10–30 minutes)**, designed for mobile or desktop engagement with daily-return pacing.

Long-term play emerges from multiple overlapping loops as the player manages concurrent Realms and generations of heroes.

3.3 Phase 1 — Summon: Awakening Echoes

Player verbs: Summon, observe, interpret.

- The Keeper spends **Ase** to call new **Echoes** from the ancestral flow.
- Each Echo arrives procedurally generated with six traits and an emergent AI personality.
- Anansi occasionally interferes, altering probabilities or offering “deals” (Anansi Events).
- The player reads first dialogues, senses temperament, and assigns each hero a Sanctum role or Realm squad.

Narrative tone: Birth and curiosity — the spark of a new story.

3.4 Phase 2 — Guide: Preparation & Mentorship

Player verbs: Train, counsel, bless, pair.

- In the **Sanctum**, the player invests Ase, Relics, or time to prepare heroes.
- Emotional state matters: training a grieving hero might risk burnout; guiding a proud one may breed rivalry.
- Choices affect morale, bond strength, and class development.
- The AI interprets dialogue history to decide whether heroes heed or resist advice.

Design note: This is the *slow* rhythm of the game — reflection, prediction, and empathy before risk.

3.5 Phase 3 — Venture: The Realms of Ase

Player verbs: Deploy, observe, adapt.

- The player sends up to 6 heroes into a **Realm Stage**.
- Combat unfolds automatically (auto-battler simulation).
- Heroes act based on personality traits, morale, and prior mentorship.
- The Keeper influences indirectly through pre-battle blessings, morale buffs, or tactical rituals.
- Each stage includes optional **Moral Encounters** — branching narrative tests that reinforce emotional growth or decay.

- Realm difficulty scales by the Keeper's progress and emotional harmony in the Sanctum.

Loop duration: Single stage \approx 5–10 min; full Realm \approx 30 min split across sessions.

3.6 Phase 4 — Resolve: Consequences & Reward

Player verbs: Accept, mourn, record.

- After battle, outcomes ripple through every system:
 - Victories yield Ase, Ekwan, Relics, morale boosts.
 - Defeats trigger wounds, corruption, or permanent death.
 - All heroes react emotionally — pride, guilt, sorrow — generating new dialogue threads.
 - Odo Agyanka's whispers may appear after major losses, tempting the Keeper to surrender stories to oblivion for relief.
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3.7 Phase 5 — Reflect: The Sanctum Cycle

Player verbs: Heal, rebuild, listen, plan.

- Between expeditions, the Keeper manages Sanctum tasks (training, research, crafting).
 - Heroes interact with each other autonomously; their conversations may praise or condemn prior choices.
 - The emotional temperature of the Sanctum determines efficiency: high morale accelerates growth, while despair slows Ase flow.
 - Anansi may inject random *Story Threads* here — ironic side events or cryptic riddles commenting on the player's leadership.
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3.8 Phase 6 — Legacy: Death and Inheritance

Player verbs: Preserve, fuse, remember.

- Fallen heroes leave **Legacy Fragments** that can be merged in the **Forge of Souls**.
- The player decides which traits, quirks, or blessings carry forward.

- Each new generation becomes more complex — personalities influenced by inherited memories and past moral outcomes.
- These inheritances feed directly into the next Summon → Guide loop, completing the circle.

| Every death is a sentence in Anansi's next story.

3.9 Meta-Loop Structure: The Cycle of Sankofa

Each complete Realm or set of expeditions contributes to one macro-loop:

Macro Phase	Description	Duration
Daily Cycle	One or two short sessions restoring or exploring a Realm.	20–40 min
Realm Arc	Completion of all 5–6 stages + boss = one virtue restored.	2–4 hours total
Legacy Cycle	Restoration of all 7 Realms + ending choice.	15–25 hours
Anansi Cycle (New Game +)	Rebirth into alternate web; AI rewrites dialogues and events.	Infinite

3.10 Player Verbs and Motivations

Verb	Core Motivation	Emotional Driver
Summon	Curiosity — who will I meet?	Hope
Guide	Empathy — can I teach them well?	Care
Venture	Courage — will they survive my lessons?	Fear & Pride
Resolve	Acceptance — what did I lose or learn?	Grief
Reflect	Understanding — what must change?	Wisdom
Legacy	Continuity — what will remain?	Faith

3.11 Replayability & AI Narrative Variation

- Every player's web of stories is unique: AI systems remix dialogue, hero arcs, and Realm encounters.
- Fixed lore anchors (Anansi, Odo Agyanka, Seven Realms) ensure cohesion, while micro-narratives adapt dynamically.

- *Anansi Events* appear with distinct personality patterns, reacting to the player's moral style (compassionate vs. ruthless).
- Over multiple cycles, the AI "learns" which themes the player favors and spins new moral tests around them.

Result: **No two webs are identical.**

Each playthrough is one verse in the infinite storybook of Anansi.

3.12 Loop Length & Cadence Targets

Loop Type	Average Time	Ideal Return Window	Key Emotion
Micro (Realm Stage)	5–10 min	Same session	Tension
Core (Session Loop)	20–30 min	Daily	Engagement
Macro (Realm Completion)	2–4 h	Weekly	Fulfillment
Legacy Cycle (7 Realms)	15–25 h	Multi-week	Reflection

3.13 Meta-Progression Logic

Progression follows two intertwined paths:

1. **Mechanical Progression** — Unlocking Sanctum wings, new rituals, crafting recipes, and tactical planning tools.
2. **Emotional Progression** — Building trust, resolving hero trauma, confronting Anansi's manipulation.

These paths reinforce each other: emotional harmony accelerates resource generation and unlocks special Anansi dialogues; mechanical upgrades give players new moral dilemmas.

3.14 Design Principle Summary

- Every loop should produce *one meaningful emotional change* — a hero evolves, a belief falters, or a truth emerges.
- Failure must always teach; success must always cost something.
- The world should feel alive even when the player steps away (idle Ase generation, off-screen hero events).
- Storytelling and system design are inseparable — every mechanic contributes to Anansi's tapestry.



Core Gameplay Flow — Visual Overview

"Every loop is a thread in Anansi's web — born, tested, broken, or remembered."

1. Text-Based Flow (for Notion / MVP reference)

ECHOES OF THE SANKOFA LOOP ||



SUMMON — The Birth of an Echo ||

- Spend Ase to summon new heroes. ||
- Procedural traits + AI personalities. ||
- Anansi may alter odds or whisper deals. ||



GUIDE — Preparation & Mentorship ||

- Train, bless, or counsel heroes. ||
- Morale & emotion affect outcomes. ||
- AI decides how heroes react. ||



VENTURE — The Realms of Ase ||

- Deploy squads into stages (auto-battle). ||
- Observe, adapt, bless, or endure. ||
- Optional Moral Encounters appear. ||
- Difficulty scales with Sanctum harmony. ||



	RESOLVE — Consequences & Reward	
	• Heroes live, die, or are corrupted.	
	• Ase, Ekwan, and Relics earned.	
	• Odo Agyanka may whisper temptations.	



	REFLECT — The Sanctum Cycle	
	• Manage training, crafting, healing.	
	• Heroes converse and evolve autonomously.	
	• Anansi injects "Story Threads."	
	• Emotional state affects efficiency.	



	LEGACY — Death and Inheritance	
	• Fallen heroes leave fragments.	
	• Traits and memories are fused.	
	• A new generation is born.	
	• The cycle renews under Anansi's gaze.	



	META LOOP — The Cycle of Sankofa	
	• 7 Realms restored → Final Choice.	
	• Continue the Web (New Game +)	
	or End All Stories (True Silence).	

flowchart TD

A[Summon
Create Echoes
Anansi influences RNG] → B[Guide

```

<br/>Mentor & Train<br/>Affect Morale & Traits]
  B → C[Venture<br/>Auto-battle Realms<br/>Moral Encounters]
  C → D[Resolve<br/>Outcome Ripple<br/>Ase, Ekwan, Relics]
  D → E[Reflect<br/>Manage Sanctum<br/>AI Hero Interactions]
  E → F[Legacy<br/>Inheritance & Fusion<br/>New Generation]
  F → G[Meta Loop<br/>7 Realms Restored → Player Choice]
  G →|Continue| A
  G →|End Stories| H[(Silence — The End of the Web)]

```




3. Optional Add-on: Emotional Layer Overlay

For presentation or documentation visuals, you could later layer emotional progression on top of this flow:

Loop Phase	Dominant Emotion	Tone Keywords
Summon	Hope	Curiosity, anticipation
Guide	Care	Empathy, mentorship
Venture	Fear & Pride	Challenge, suspense
Resolve	Grief	Consequence, humility
Reflect	Wisdom	Understanding, introspection
Legacy	Faith	Continuity, rebirth
Meta Choice	Truth	Story vs. Silence



Core Mechanics

 Category	Mechanics
 Status	Approved
 Description	<p>Purpose: Describe <i>how</i> the game is played in detail.</p> <p>Includes:</p> <ul style="list-style-type: none">• Combat system (AI, turn structure, rules of engagement)• Resource system (currencies, economy design)• Risk-reward & failure design• Procedural generation / determinism model• Win/lose conditions and scoring

Section 4: Core Mechanics (v2 – “Systems of Choice and Consequence”)

4.1 Purpose

The Core Mechanics define the systems that *transform Echoes of the Sankofa’s* philosophy — empathy, autonomy, and legacy — into concrete, playable structures.

These systems are not purely about combat, but about **decisions, relationships, and the emotional resonance of every encounter.**

Each system has two layers:

1. **MVP Implementation:** Minimal viable simulation for early testing and text-based play.
2. **Full Implementation:** Expanded mechanics, visual fidelity, and AI autonomy.

4.2 System Overview

System	Function	MVP	Full
Combat Simulation	Step-based auto-battle with morale, traits, and AI logic.	Text-only log; deterministic outcomes.	Multi-phase visualized simulation; morale, fear, and dialogue mid-fight.
Non-Combat Encounters	Alternative stage objectives (Escort, Defend, Explore, etc.).	Text-driven choices, single outcome.	Procedural branching events with AI hero input and moral consequences.
Morale & Fear	Emotional state system influencing actions.	Simple numerical model.	Full emotional graph + personality shifts, contagion, and recovery.
AI Personality Logic	Determines hero actions, dialogue, and autonomy.	Basic ruleset (refuse, obey, react).	Layered contextual AI with emotional memory and narrative threads.
Procedural Stages	Determines realm layout, encounters, rewards.	Fixed seed per Realm.	Deterministic PRNG with Anansi-modified modifiers and player history.
Legacy & Consequence	Links hero death, emotion, and inheritance.	Simple trait pass-down.	Full narrative inheritance: quirks, dialogues, lineage behaviors.

4.3 Realm Stage System — “The Threads of Challenge”

Each **Realm** contains **5–6 stages**, and each stage may hold one or several types of encounters — not all are combat-focused.

The system ensures variety and pacing through **Objective Templates**, **Encounter Types**, and **Hero Reactions**.

Objective Templates

Type	Description	MVP	Full
Purify Shrine	Survive waves of spirits while maintaining morale.	2-wave text simulation.	Up to 5-wave visual encounter with environmental modifiers.

Type	Description	MVP	Full
Protect Totem	Defend a relic or structure for multiple rounds.	Timed text-log scenario.	Layered defense simulation; AI prioritizes protection based on personality.
Escort Soul	Guide an NPC spirit to safety.	Linear event chain (random success roll).	Dynamic AI pathing; heroes may disobey to save or abandon NPC.
Recover Relic	Explore for hidden items under pressure.	Text-based skill check.	Multi-encounter stage; random moral events or ambushes.
Slay Spirit Lord	Defeat boss corrupted by Odo Agyanka.	Single enemy seed.	Full boss system with dialogue phases and morale manipulation.
Explore the Ruin	Non-combat expedition to gather Ase knowledge.	Text-driven lore discovery.	Risk/reward system; AI comments and finds clues.
Rescue or Choice Event	Decide who to save or sacrifice.	Binary choice.	Multi-hero influence vote (heroes argue their stance).

Each Realm stage can have **multiple encounters**, ensuring each mission feels like a story chapter rather than a single battle.

4.4 Combat System — “The Dance of Ase”

Philosophy

Combat expresses emotional and moral struggle, not just physical power.

It is the most direct manifestation of the heroes’ inner states — a stage where courage, fear, and leadership collide.

Combat Flow

1. **Setup Phase:** Player assigns heroes, reads morale and bond summaries.
2. **Blessing Phase:** Keeper applies rituals or morale boosts.
3. **Action Phase:** Step-based simulation (initiative order → action selection).
4. **Resolution Phase:** Morale, health, and emotional shifts recorded.
5. **Aftermath Phase:** AI dialogue summarizing reactions and trust changes.

Each battle log reads like a story — “Ama defied orders to protect the child; her Courage grows, but Ambition stirs.”

Encounters per Stage

- MVP: 1–2 encounters per stage, deterministic order.
- Full: Up to 4–6 encounters per stage, some skippable through diplomacy or exploration.
- Some encounters can trigger **AI disputes** — heroes debate whether to engage or withdraw.

4.5 Non-Combat Systems — “The Stories Between Battles”

Non-combat challenges are equally vital. They reinforce mentorship, faith, and story-driven agency.

System	Description	Example	Outcome Drivers
Exploration & Lore Discovery	Heroes investigate ruins, recover memories.	“The ruins whisper; only the faithful may listen.”	Faith, Wisdom, Virtue
Diplomacy / Moral Choices	Heroes negotiate or decide between moral paths.	“Save the stranger or follow orders.”	Virtue, Ambition
Ritual & Healing Encounters	Heroes conduct spiritual rites to stabilize Ase.	“The ritual falters — who leads the chant?”	Faith, Courage
AI Conversation Events	Dialogue-driven interludes between stages.	“Esi questions your decisions.”	Keeper Trust, Bond Strength

In the MVP, these appear as **simple text nodes with outcome rolls**; later they become **AI-driven dynamic dialogues** that evolve per hero’s belief.

4.6 Morale & Fear System

Morale is an emotional currency of belief and connection. Fear is its erosion — doubt, guilt, or despair.

Value Range	State	Effects
80–100	<i>Inspired</i>	+10% effectiveness; triggers “Faith lines” in dialogue.
50–79	<i>Balanced</i>	Normal behavior.
30–49	<i>Shaken</i>	-10% accuracy, higher Fear gain.
0–29	<i>Broken</i>	May refuse combat, argue, or flee.

Core Emotional Triggers

- Ally death or injury.
- Low Sanctum morale.
- Facing corrupted Abosom (Fear spike).
- Odo Agyanka whispers.
- Keeper interventions (can restore or destabilize).

MVP Version

Numerical morale tracked per hero (0–100). Text output only.

Full Version

Dynamic emotional state map (multi-variable graph).

Hero behavior, dialogue, and AI logic fully influenced by emotional fluctuations.

4.7 Hero Autonomy & Keeper Interaction

From the very first stages, **heroes are semi-independent** beings, learning to interpret the Keeper’s guidance.

Behavioral Range

- **Refuse Orders:** May reject risky instructions or question morality of choice.
- **Argue:** Challenge Keeper’s philosophy or another hero’s action.
- **Advise:** Suggest alternative plans before missions.
- **Compliment / Encourage:** Praise leadership or express loyalty.

Early Game (MVP)

- Simple logic triggers: bravery checks, moral dilemmas, emotional state > 70 = positive reaction.
- Short text outputs ("Keeper, I feel this path is wrong.").
- Training system not yet available; heroes remain reactive.

Mid-Late Game (Full)

- The Keeper unlocks systems (Shrine of Voices, Training Grounds) that *teach* Echoes how to interpret guidance better.
- Dialogue becomes relational — trust level modifies reaction tone.
- Persistent AI memory: heroes remember past conflicts and acknowledge growth.

4.8 AI Personality Logic — "Echo Behavior Matrix"

Each Echo's decisions are weighted by six traits + emotional modifiers.

Example (simplified MVP pseudocode):

```
if morale < 40 and courage < 5:  
    action = "hesitate"  
elif virtue > 7 and ally_injured:  
    action = "protect_ally"  
elif ambition > 8 and morale < 50:  
    action = "disobey"  
else:  
    action = "act_normally"
```

In full implementation:

- Memory and dialogue logs expand this logic into **living personalities**.
- The AI runs narrative conditionals (e.g., "Was betrayed before?" → response flavor).
- AI continuously learns from player consistency (reputation system).

4.9 Procedural Generation & Determinism

All systems are **seed-based** — ensuring fairness and replayability.

A player's journey is unique yet reproducible for balance testing.

Seed Formula

```
seed = hash(player_seed + realm_index + stage_index + Anansi_modifier)
```

This defines:

- Stage objectives and enemies.
- Moral encounters and loot tables.
- Narrative tone adjustments based on Anansi Events.

Anansi Modifier

An invisible variable that subtly alters outcomes over time, symbolizing the trickster's influence.

In later builds, this evolves into full **AI narrative branching** — each replay becomes a unique version of the myth.

4.10 Legacy & Consequence

When heroes die, their spirit becomes a **Legacy Fragment**, carrying traits, memories, and emotional imprints.

MVP:

- Single stat inheritance (best trait).
- Simple text log summarizing loss.
- Forge of Souls allows manual combination.

Full:

- Narrative inheritance system — fragments influence future Echo personality and voice.
- Emotional memory transmission ("I remember the one who failed before me").
- Mutations possible through Anansi interference (e.g., "Mark of Trickster").




Every consequence, from dialogue to death, becomes part of the evolving lineage tapestry.

4.11 MVP vs. Full System Summary

System	MVP Scope	Full System
Combat	Simple text-based log; deterministic formula; 1–2 encounters per stage.	Multi-encounter simulation; morale, dialogue, and trait synergy.
Non-Combat Missions	Text encounters with outcome rolls.	Procedural moral/diplomacy/crafting events; AI hero influence.
Hero AI & Dialogue	Basic rule-based decisions.	Contextual autonomy with emotional memory and adaptive dialogue.
Morale/Fear	Single numeric tracker.	Emotional web with contagion and dynamic relationships.
Procedural Realms	Fixed seed per Realm.	Anansi-modified PRNG; dynamic narrative tone per cycle.
Legacy System	Trait inheritance only.	Full genetic + emotional lineage simulation.



Heroes / Units / Characters

 Category	Characters
 Status	Approved
 Description	<p>Purpose: Define the main agents of gameplay.</p> <p>Includes:</p> <ul style="list-style-type: none">• Rank/class tiers and progression• Traits or stats (with gameplay impact)• Abilities & skill system• Growth, rank-up, and inheritance systems• Example hero data schema (as JSON or table)• Dialogue/personality integration (if narrative-driven)

Section 5: Heroes / Units / Characters (v2 — “Echoes of Personality”)

5A. Hero Design — “The Echoes of Ase”

5A.1 Purpose

Heroes — called **Echoes** — are the emotional and mechanical heart of *Echoes of the Sankofa*.

They are not soldiers or expendable units, but fragments of memory reborn through the **Ase Flame**, carrying fragments of the world’s forgotten stories.

The player does not control them directly — instead, the player **guides, mentors, and interprets** their actions.

Echoes are autonomous, emotional agents whose behaviors, growth, and even loyalty depend on how well they understand — and are understood by — the Keeper.

5A.2 Hero Lifecycle Overview

Each Echo lives through five distinct stages of existence:

1. **Summoning:** The Echo emerges from the Ase Flame with initial traits and a blurred identity.
2. **Guidance & Growth:** The Keeper mentors and trains them in the Sanctum, shaping class and morality.
3. **Realms of Ase:** The Echo joins a squad, facing fear, doubt, and corruption through multi-encounter missions.
4. **Ascendancy or Death:** The Echo either matures emotionally or falls permanently. Their spirit releases a **Legacy Fragment**.
5. **Inheritance:** Future generations merge these fragments, continuing the cycle of remembrance.

Every hero is a *chapter* in the Keeper's larger story — no two are ever the same.

5A.3 Ranks & Growth

Ranks express not only strength but *spiritual awareness* — how “awake” an Echo is to their purpose.

Rank	Name	Description	Unlock / Growth Method
1–2: The Uncalled	New souls with faint memories. No class at start.	Summoned from the Ase Flame.	Gain XP through Realms; learn class through deeds.
3–4: The Awakened	Aware, emotionally responsive spirits.	Rank-up using Ekwan and Ase.	Possess distinct classes, express unique personality.
5–6: Divine Echoes	Fully realized ancestral spirits.	Rare summons or evolved Awakened.	Carry blessings, leadership auras, and lasting influence.

Rank-ups require Ase + Ekwan + Relic costs (see Section 8: Economy & Progression).

MVP: Ranks 1–4 (Uncalled and Awakened).

Full: Divine Echoes unlocked after mid-game narrative thresholds.

5A.4 Trait System

Traits shape behavior, dialogue, and performance. They are **suggestive, not restrictive** — Echoes may embody atypical combinations, allowing creative and emergent personalities.

Trait	Description	Gameplay Impact
Courage	Bravery and initiative under threat.	Resistance to Fear; faster initiative.
Wisdom	Clarity, intelligence, and adaptability.	Boosts tactical or support actions.
Temperament	Balance between calm and fury.	Affects aggression, initiative, recovery.
Faith	Spiritual strength; devotion to Keeper.	Resists corruption, enhances morale recovery.
Virtue	Integrity and compassion.	Governs loyalty, healing bonuses, leadership.
Ambition	Desire for power and control.	Increases risk-taking; can breed rivalry.

MVP Focus Traits: Courage, Wisdom, Faith.

Full Expansion: All six traits active with emotional progression and inherited drift.

5A.5 Classes & Archetypes

Classes determine combat role, learning curve, and emotional expression in Realms.

Core traits provide synergy suggestions, but any Echo may transcend or defy their expected path.

Class	Role	Suggested Core Traits	Example Behavior
Okofor (Guardian)	Frontline protector; shields allies from harm.	Courage + Virtue	Intervenes when ally < 50% HP; gains morale by defending.
Obayifo (Dark Mage)	Offensive spellcaster who manipulates corrupted Ase.	Wisdom + Ambition	Deals high damage but risks corruption; defies orders when wounded.

Class	Role	Suggested Core Traits	Example Behavior
Onyamesu (Healer)	Spiritual support; restores morale and vitality.	Faith + Virtue	Stabilizes morale; refuses to harm weakened foes.
Aduro (Warrior)	Balanced striker; direct physical fighter.	Courage + Temperament	Gains morale on kill; reckless when Fear < 30.
Kra-Soro (Archer / Assassin)	Precision and stealth specialist.	Wisdom + Ambition	Targets priority threats; may ignore commands to act independently.

MVP Classes: Okofor, Obayifo, Onyamesu

Full (v2): Adds Aduro (Warrior) and Kra-Soro (Archer/Assassin)

Future (v3): Introduces *Non-Combat Roles* for Sanctum management (Diviner, Caretaker, Smith, Trader, Lorekeeper).

5A.6 Growth and Rank-Up System

- Rank-ups increase base stats, unlock new abilities, and open leadership roles.
- Cost scales exponentially per rank (defined in Section 8).
- Emotional milestones (forgiveness, loyalty, defiance) may reduce or replace part of the cost in later builds.

MVP: Leveling and Rank-up via Realm victories.

Full: Emotional Rank-up System — specific behavioral triggers unlock promotions.

"Ama recalls the screams of the Vale. Do you remind her of courage, or compassion?"

5A.7 Hero Death & Legacy

When an Echo dies:

- Their **Legacy Fragment** is created, storing core traits, quirks, and moral imprints.

- The Keeper can merge fragments in the **Forge of Souls**, influencing future Echoes.
- Surviving heroes respond emotionally, impacting morale, Faith, and dialogue.
- Death is permanent — but memory never fades.

MVP: Trait inheritance + morale event.

Full: Emotional and narrative inheritance (dialogue patterns, quirks, belief systems).

5B. Personality, Emotion & Dialogue Behavior — “The Voices of the Echoes”

5B.1 Purpose

This system breathes life into the world. Heroes think, speak, and react like sentient beings.

Their personalities emerge from emotion, memory, and observation — each Echo growing into an independent storyteller within Anansi’s web.

5B.2 Emotional Architecture

Every Echo is defined by fluctuating emotional values that guide behavior and tone.

Variable	Description	Effect
Morale	Emotional stamina.	Determines steadiness and battle performance.
Fear	Accumulated dread or stress.	Increases chance of disobedience or panic.
Trust	Belief in Keeper’s leadership.	Modifies dialogue tone and obedience.
Faith	Resilience to despair.	Affects morale recovery and loyalty.

Derived emotional states: *Inspired, Steady, Shaken, Broken, Defiant, Zealous.*

MVP: Single-value morale tracking.

Full: Multi-variable emotional matrix with contagion effects and relational propagation.

5B.3 Personality Models

Each Echo’s personality is built by weighting traits, emotional states, and memory logs.

Personality Type	Behavior Tendencies	Dialogue Example
Loyal	Protects allies; trusts Keeper.	"Your light steadies my blade."
Proud	Challenges Keeper’s decisions.	"We fight for glory, not forgiveness."
Compassionate	Prioritizes saving others.	"Suffering is not courage."
Faithful	Calm, obedient, spiritual.	"The flame guides us, Keeper."
Doubtful	Hesitant, introspective.	"Are we truly saving them?"
Ambitious	Bold, risk-prone.	"If stories are eternal, I will be remembered."

MVP: Six fixed archetypes.

Full: Fluid personality engine with hybridization over time.

5B.4 Dialogue System

Dialogue is the *soul interface* — the emotional feedback loop between heroes and the Keeper.

MVP

- Contextual single-line responses during events.
- Static text pools per archetype.
- Triggered by morale changes, victories, deaths, or milestones.

| "Keeper, I can still hear their cries."

| "Faith wanes, but I stand."

Full

- AI-driven generation referencing emotional history, hero memory, and tone.
- Multi-hero conversations (cross-commentary).
- Dynamic trust-based speech variance.
- Possible influence on gameplay — heroes may sway outcomes via dialogue decisions.

5B.5 Relationships and Bonds

Echoes form **bonds, rivalries, and mentorships** that affect morale, training speed, and event outcomes.

Relationship	Effect	MVP	Full
Bond	Shared morale recovery; deployment synergy.	Flat morale bonus.	Dynamic events and dialogue; joint skills.
Rivalry	Increased stress when together; may evolve into respect.	Static morale penalty.	Reactive events; conflict resolution chain.
Mentorship	Veteran aids growth of a novice hero.	XP gain boost.	Emotional mentorship and philosophy inheritance.
Affection	Deep bond offering morale shield under duress.	None.	Emergent system (no explicit romance).

5B.6 Keeper Interaction Behavior

Echoes are autonomous from the start — capable of disobedience, advice, or empathy.

Behavior	Trigger	Context	Example
Refuse	Fear > 70 or low Trust.	Crisis or moral objection.	"You ask too much, Keeper."
Argue	Moral disagreement or trauma.	Ambition > 8 or Virtue < 4.	"You call it mercy. I call it weakness."
Advise	Wisdom or Faith high.	Calm or neutral morale.	"The spirits whisper another path."
Compliment	Trust > 70 or Virtue > 6.	After successful outcome.	"Your calm steadied us, Keeper."

MVP: Triggered text outputs only.

Full: Persistent memory; AI learning of Keeper behavior to adapt dialogue tone and obedience.

5B.7 Emotional and Moral Learning

Heroes can learn from experience — both their own and others'.

As the player unlocks facilities like the **Shrine of Voices** or **Training Grounds**, Echoes develop emotional intelligence.

- MVP: No persistence; emotions reset per mission.
- Full: Persistent moral memory — heroes recall past dilemmas, forming ideological stances.

The Keeper's leadership philosophy propagates across generations, shaping future summons' base personalities.

5B.8 Voice of the Lineage

In advanced builds, the **Hall of Lineage** allows the Keeper to commune with ancestral fragments — past heroes commenting on current events or guiding decisions.




┃ "The next flame burns brighter... may it not blind itself."

┃ "The trickster watches still, but he cannot weave our will."

These ancestral "echoes of voices" make the world feel alive and cyclic — every generation aware of the myth they are part of.



World / Realm Structure

 Category	Levels
 Status	Approved
 Description	<p>Purpose: Outline level design, environment systems, and mission types.</p> <p>Includes:</p> <ul style="list-style-type: none">• Realm types & objectives (Purify, Protect, Slay, etc.)• Environmental modifiers and fear/morale mechanics• Procedural seeding logic and variation• Boss structure and checkpoint pacing• Reward scaling per realm/tier

Section 6: World / Realm Structure (v3 – Final Canon Version)

6A. Realm System & Symbolism — “Threads of the World”

6A.1 Purpose

This section defines the **architectural, procedural, and emotional design** of the Realms of Ase — the living worlds of *Echoes of the Sankofa*.

Each Realm embodies a **fallen virtue** and a fragment of Anansi’s divine game between remembrance and oblivion.

Realms are not static levels; they are **mythic parables** — reflections of the player’s moral state and the emotional evolution of their heroes.

6A.2 Realm System Overview

- Each Realm represents a *fallen virtue* twisted by corruption and restored through leadership, empathy, and sacrifice.
- Restoring a Realm revives that Virtue, unlocking new mechanics and Sanctum features.
- Each Realm is built from **5–6 stages**, each with its own encounters and events.
- Stage types include both **combat** and **non-combat** missions.
- Emotional difficulty rises with each Realm — not only in power, but in moral complexity.

6A.3 Realm Progression Flow

```

ENTER REALM → STAGE 1 (Setup / Intro)
  ↓
STAGES 2–5 (Combat, Exploration, Moral Events)
  ↓
STAGE 6 (Restoration Trail / Final Test)
  ↓
REALM PURIFIED → SANCTUM UPGRADE → NEXT REALM CHOICE

```

Mid-game and beyond, the Keeper may **manage multiple Realms simultaneously**, balancing:

- Hero assignments
- Sanctum morale
- Ase expenditure
- Anansi's random interventions

6A.4 Realm Generation — Procedural Architecture

Procedural seed generation ensures replayability and fairness.

Each Realm's conditions, encounters, and modifiers are determined by a **deterministic seed**, influenced by the Keeper's empathy, the realm's virtue, and Anansi's interference.

Formula Example:

$\text{RealmSeed} = (\text{PlayerID} + \text{RealmIndex} + \text{KeeperEmpathy} + \text{AnansiModifier})$

Variables Affected:

- Stage types and objectives
- Encounter frequency and difficulty
- Environmental modifiers (weather, corruption, Faith drain)
- Moral events (Anansi's narrative interventions)

MVP:

- Fixed stage order and event list.

Full:

- Procedural generation with moral weighting (world changes based on player's leadership style).

6A.5 Stage Types & Objective Templates

Type	Description	Core System	Example
Combat Trial	Battle waves or elites; morale and Fear tested.	Combat & Morale	"The Wailing Colossus" — endurance challenge.
Defense / Protection	Defend a relic, NPC, or shrine.	Fear & Faith	"Guard the Broken Flame."
Exploration / Discovery	Search ruins or clues; solve environmental riddles.	Wisdom & Temperament	"Follow the unseen thread."
Escort / Rescue	Guide a spirit or Echo through hazards.	Morale & Trust	"Protect the child of light."
Moral Choice	Player decisions alter emotional world state.	Virtue & Ambition	"Save one, sacrifice many."
Ritual / Healing	Conduct ceremony to cleanse corruption.	Faith & Virtue	"Sing the Flame Awake."

Each Realm uses a mix of these templates, ending with a **Restoration Trail** that binds multiple mission types into one larger resolution arc.

6A.6 Environmental Symbolism — “The Language of the World”

Realms express emotion through **color, light, sound, and text tone**, reacting dynamically to corruption and restoration.

Symbolic Layer	Description	Example Manifestation
Color Palette	Represents emotional tone and virtue.	Fear = ochre dust; Regret = violet dusk.
Sound Design	Reflects spiritual harmony or decay.	Discordant drums when morale falls.
Weather & Light	Tied to corruption level.	Brightens when Faith rises.
Corruption Motifs	Represent forgetting and decay.	Crumbling symbols, fading words.
Anansi’s Threads	Subtle visual and textual overlays.	Spiderweb motifs flicker during moral tests.

“The world itself remembers — and forgets — along with you.”

6A.7 Environmental Emotion System

Each Realm mirrors the Keeper’s moral and emotional state:

Condition	Feedback	Gameplay Effect
High Faith & Empathy	Warm light, melodic ambience	Morale regeneration.
Low Faith or High Fear	Static distortion, dim colors	Morale decay and Fear gain.
Active Anansi Event	Shimmering threads, mocking whispers	Randomized encounter modifiers.
Realm Purified	Color returns, music harmonizes	Unlocks Sanctum Virtue bonus.

6A.8 Realm Scaling & Difficulty Model

Difficulty scales across both **emotional and logistical dimensions**.

Scaling Factors:

1. Realm Tier (1–10)

2. Corruption intensity
3. Squad coordination complexity
4. Keeper Empathy influence
5. Anansi Interference modifier

MVP: Linear fixed scaling.

Full: Adaptive difficulty seeded by past moral decisions and hero deaths.

6A.9 Realm–Sanctum Synergy

Restoring a Realm:

- Unlocks a **new Sanctum Wing** or mechanic.
- Grants a **Virtue Buff** affecting hero morale and skill growth.
- Alters Sanctum’s visual and emotional tone.

|
 "As the Keeper heals the world, the Sanctum begins to dream again."

6A.10 MVP vs. Full Implementation Summary

Feature	MVP	Full
Number of Realms	2–3 fixed (Vale, Grove, Crimson)	7 of 10 random each cycle
Stages per Realm	Fixed 5	Variable 5–6
Procedural Logic	Linear	Deterministic seed with Anansi bias
Environmental Feedback	Text only	Full dynamic tone & visuals
Realm–Sanctum Link	Linear unlock	Two-way emotional resonance

✔ 6A Summary:

Defines how Realms are structured, generated, and emotionally responsive.

They serve as the **game’s spine** — both mechanical and narrative — embodying the themes of memory, choice, and legacy.

6B. The Ten Realms of Ase — “The Stories of Virtue”

6B.1 Overview

The **Ten Realms of Ase** are mythic reflections of virtues corrupted by Odo Agyanka and woven into Anansi’s divine web.

Each player’s story restores **seven Realms**, shaping a unique version of the myth — a personal constellation of moral lessons.

6B.2 MVP Version — Limited Realms (Linear)

The MVP will feature **2–3 Realms** in a linear progression for narrative focus and early system testing.

Order	Realm	Virtue Restored	Theme
1	Vale of Dust	Courage	Facing fear and despair.
2	Shrouded Grove	Wisdom	Seeking truth through illusion.
3 (<i>optional</i>)	Crimson Plains	Leadership	Tempering rage with empathy.

6B.3 Full Version — The Ten Realms (7 Randomly Selected per Playthrough)

In the full game:

- **10 Realms exist.**
 - Each cycle, **Anansi “chooses” seven** for that playthrough.
 - Order and combination are semi-random but morally weighted.
 - Unvisited Realms will appear in subsequent cycles (ensuring full discovery).
-

Realm I: Vale of Dust — The Realm of Fear

Virtue Restored: Courage

Fallen Abosom: Tano, Spirit of Protection

Tone: Bleak, anxious, desolate.

Symbol: Dust — memory faded by fear.

Enemies: Wraithborn, Sandcallers, Mirage Hounds.

Restoration Trail – “The Path of Silence”

1. Survive morale-draining combat.
2. Protect frightened spirits.
3. Stand unflinching before *The Wailing Colossus*.

Outcome: Unlocks *Courage Ritual* — morale recovery bonus.

Realm II: Shrouded Grove — The Realm of Doubt

Virtue Restored: Wisdom

Fallen Abosom: Nyansa, Spirit of Knowledge

Tone: Mist, deception, contemplation.

Symbol: Fog — truth hidden by perspective.

Enemies: Whisper Shades, Rootminds, Phantom Scholars.

Restoration Trail – “The Whispering Seer”

- Investigate conflicting truths.
- Resolve via logic or compassion.
- The Keeper's empathy decides outcome.

Outcome: Unlocks *Wisdom Archive* — research and insight bonuses.

Realm III: Crimson Plains — The Realm of Rage

Virtue Restored: Leadership

Fallen Abosom: Brempon, Spirit of War

Tone: Fiery, proud, tragic.

Symbol: Fire — power without empathy.

Enemies: Ash Legionnaires, Banner Wraiths, Fireborn Captains.

Restoration Trail – “The Ashen General”

1. Rally or destroy war-torn spirits.
2. Escort relic convoy under siege.
3. Duel the General — outcome based on past mercy or cruelty.

Outcome: Unlocks *Leadership Bonds* — mentor-mentee hero system.

Realm IV: Hollow River — The Realm of Grief

Virtue Restored: Acceptance

Fallen Abosom: Odomankoma, Spirit of Renewal

Tone: Gentle sorrow.

Symbol: Water — remembrance and release.

Enemies: Drowned Echoes, Weeping Sirens, Griefbound Idols.

Restoration Trail – “The Ferryman’s Shadow”

- Escort souls across the River of Memories.
- Choose who to save — sacrifice required.
- Complete through grief transformed to peace.

Outcome: Unlocks *Remembrance Rituals* — emotional resilience and inheritance strength.

Realm V: Glimmering Spire — The Realm of Ambition

Virtue Restored: Humility

Fallen Abosom: Adinkra, Spirit of Progress

Tone: Radiant, empty, alluring.

Symbol: Light — brilliance turned blind.

Enemies: Architects of Lies, Golden Idols, Ego Sentinels.

Restoration Trail – “The Architect of Lies”

- Explore mirrored Sanctum.
- Solve paradoxes.
- Debate the Architect — a mirror of the Keeper’s pride.

Outcome: Unlocks *Faith Resonance* — passive Ase generation.

Realm VI: Twilight Fields — The Realm of Regret

Virtue Restored: Forgiveness

Fallen Abosom: Asase Yaa, Spirit of Memory

Tone: Nostalgic, autumnal.

Symbol: Twilight — between what was and could be.

Enemies: Regretborn, Harvested Souls, Memory Reapers.

Restoration Trail – “The Keeper of Graves”

- Investigate ruins of former heroes.
- Redeem a corrupted ally.
- Conduct *The Rite of Forgiveness* — dialogue-driven reconciliation.

Outcome: Unlocks *Caretaker Blessings* — faster recovery from trauma and corruption.

Realm VII: The Forgotten Sky — The Realm of Harmony

Virtue Restored: Truth

Fallen Abosom: Nyame, Spirit of Balance

Tone: Celestial and fading — beauty on the brink of silence.

Symbol: The Web — unity of all stories.

Enemies: Echo Lords, Devourer Shards, Storyless Ones.

Restoration Trail – “The Endless Forgetting”

1. Revisit fragments of previous Realms.
2. Face Odo Agyanka (combat or faith duel).
3. Choose: **Continue (Cycle)** or **End All Stories**.

Outcome: Ends or renews the cycle (New Game+ modifier).

Realm VIII: Obsidian Reef — The Realm of Greed

Virtue Restored: Generosity

Fallen Abosom: Esi, Spirit of Trade and Desire

Tone: Dark opulence — beauty drowned by excess.

Symbol: Coral and coin.

Enemies: Tide Hoarders, Siren Merchants, Hollow Divers.

Restoration Trail – “The Gilded Abyss”

- Series of negotiations with sentient relics.
- Each trade costs something sacred.
- Culminates at *The Feast of Gold* — moral economy test.

Outcome: Unlocks *Marketplace of Spirits* — economy system.

Realm IX: Ashen Peaks — The Realm of Pride

Virtue Restored: Compassion

Fallen Abosom: Aboade, Spirit of Creation

Tone: Cold altitude; isolation of perfection.

Symbol: Stone and flame.

Enemies: Ember Forgers, Hollow Smiths, Echo Titans.

Restoration Trail – “The Mountain of Mirrors”

- Multi-stage climb through ego trials.
- Requires coordination — unity or failure.
- No final boss — victory through collective humility.

Outcome: Unlocks *Forge of Souls* — advanced emotional crafting.

Realm X: Ivory Tundra — The Realm of Apathy

Virtue Restored: Empathy

Fallen Abosom: Abena, Spirit of Warmth

Tone: Frozen calm; absence of feeling mistaken for peace.

Symbol: Ice — emotion preserved but unmoving.

Enemies: Frostbound Shades, Sleepwalkers, Hollow Caretakers.

Restoration Trail – “The Stillness Below”

- Endurance trial — morale steadily decays.

- Choose when to intervene or stay silent.
- Outcome reflects balance between mercy and detachment.

Outcome: Unlocks *Meditation Garden* — global morale stability boost.

6B.4 Realm Selection Logic (Full Version)

1. **Anansi selects seven Realms** from the ten-Realm pool each cycle.
2. **Bias based on Keeper's moral history:** merciful players see gentler Realms; ruthless ones face harsher ones.
3. **One unplayed Realm guaranteed** per new cycle.
4. **Anansi Events** can reshuffle one active Realm mid-game — a meta trickster act.

Result: no two webs (playthroughs) are ever the same.

6B.5 Environmental Tone Matrix

Realm	Emotion	Palette	Symbol
Vale of Dust	Fear	Ochre / teal	Dust
Shrouded Grove	Doubt	Silver / green	Fog
Crimson Plains	Rage	Crimson / black	Fire
Hollow River	Grief	Blue / silver	Water
Glimmering Spire	Ambition	Gold / obsidian	Light
Twilight Fields	Regret	Amber / violet	Twilight
Forgotten Sky	Harmony	White / lavender	Web
Obsidian Reef	Greed	Deep blue / coral	Coin
Ashen Peaks	Pride	Grey / ember	Stone
Ivory Tundra	Apathy	White / cyan	Ice




✓ Section 6: World / Realm Structure — Final Canon Version (v3)

Includes both architectural framework (6A) and individual Realm definitions (6B).

Supports MVP's 2–3 linear Realms and the full game's 7-of-10 random structure.



Base / Hub / Management Systems

 Category	Mechanics
 Status	Approved
 Description	<p>Purpose: Define the meta layer — where long-term play happens.</p> <p>Includes:</p> <ul style="list-style-type: none">• Base buildings and their functions (e.g. Ase Flame, Forge, Shrine)• Upgrade paths and resource costs• Hero duties and task economy• Research & crafting systems (Faith/War/Knowledge trees)• Unlock timeline (early–mid–late game)

Section 7: The Obosom Sanctum — Base, Hub & Management (v3 – Final Canon Version)

7A. Structural Systems & Management — “The Heart of Continuity”

7A.1 Purpose

The **Obosom Sanctum** is the Keeper’s domain — part stronghold, part soul, and part reflection of their leadership.

It serves as both a **strategic hub** for gameplay and an **emotional barometer** for the story world.

Mechanically, the Sanctum is where the player:

- Manages resources (Ase, Ekwan, Relics).
- Nurtures heroes and recovers morale.
- Unlocks upgrades and new systems.
- Prepares for Realm expeditions.

Narratively, it is a **living space** — it grows, brightens, or decays with every choice.

Every sound, shadow, and voice in the Sanctum mirrors the Keeper's current state of faith and harmony.

7A.2 Structural Overview

The Sanctum is divided into **Wings**, each with:

- A **Core Function** (mechanical purpose).
- A **Virtue Association** (philosophical tie).
- A **Physical Manifestation** (style and ambience).
- A **Hero Staff Role** (AI personnel).
- An **Upgrade Path** (progression cost and effect).

Players gradually rebuild the Sanctum as they restore Realms and guide their heroes toward emotional stability.

7A.3 Sanctum Wings (Full Version)

Wing	Function	Virtue	Core Features	Unlock Source
Ase Flame (Core)	Generates Ase; anchors world state.	Truth	Passive Ase income, ritual initiation, narrative feedback.	Default
Forge of Souls	Fuses Legacy Fragments, purifies corruption.	Compassion	Hero merging, trait refinement, emotional cleansing.	Ashen Peaks

Wing	Function	Virtue	Core Features	Unlock Source
Shrine of Voices	Manages hero dialogue, emotion, and morale.	Wisdom	AI-driven dialogue hub, confession and therapy events.	Shrouded Grove
Caretaker's Chamber	Healing and trauma recovery.	Forgiveness	Restores health, morale, and Faith.	Twilight Fields
Training Grounds	Develops skill and courage.	Courage	Mentorship, training events, ability rank-ups.	Vale of Dust
Hall of Lineage	Records ancestral history.	Acceptance	Lineage trees, inheritance bonuses.	Hollow River
Diviner's Library	Research and crafting.	Humility	Unlocks relic creation, ritual studies.	Glimmering Spire
Marketplace of Spirits	Trade and economy.	Generosity	Ase↔Ekwan exchange, relic marketplace.	Obsidian Reef
Meditation Garden	Emotional balance and morale recovery.	Empathy	Rest and Faith resonance, group bonding.	Ivory Tundra
Tactical Nexus	Command and coordination.	Leadership	Manages multiple Realm expeditions.	Crimson Plains

7A.4 MVP Sanctum Scope

For MVP development (first playable build), implement **3–4 core Wings**:

1. **Ase Flame (Core)** – resource generation and progress tracking.
2. **Training Grounds** – hero skill development and morale upkeep.
3. **Shrine of Voices** – emotional dialogue recovery system.
4. *(Optional)* **Caretaker's Chamber** – health/morale recovery and rest.

Purpose: test emotional management, AI reactions, and the foundational Sanctum economy.

7A.5 Sanctum Progression Logic

Sanctum growth follows **Realm restoration**, **hero progress**, and **Keeper morality**.

Trigger	Effect
Realm Restored	Unlocks a new Wing or upgrade.
Hero Emotional Breakthrough	Enhances Wing function (e.g., stronger Faith resonance).
Anansi Intervention	Temporarily alters appearance or function (positive or chaotic).
Keeper's Empathy Level	Determines if Sanctum brightens (faithful) or fractures (ambitious).

Growth feels earned through spiritual and narrative achievement, not raw grind.

7A.6 Resource Systems

Primary Resources

Resource	Source	Use
Ase	Core energy from Flame and Realms.	Powers rituals, upgrades, and summoning.
Ekwan	Tangible spirit matter from Realms.	Used for crafting and research.
Relics	Recovered divine fragments.	Catalyst for rituals and crafting.

Secondary Emotional Resources

Resource	Description	Gameplay Role
Faith	The Sanctum's spiritual confidence.	Bufs Ase generation and morale recovery.
Harmony	Social balance among heroes.	Increases crafting, training, and conversation success.
Favor	Anansi's attention level.	Unlocks rare events or disruptions.

MVP focuses on **Ase**, **Ekwan**, and **Faith**.

Full version layers **Harmony** and **Favor** for deeper systemic interplay.

7A.7 Sanctum Operations

Each gameplay cycle includes one **Sanctum Phase** between Realm expeditions.

Player actions include:

- 1. Assign heroes to Wings.
- 2. Initiate rituals (crafting, blessings, emotional healing).
- 3. Conduct conversations (Shrine of Voices).
- 4. Spend Ase and Ekwan for upgrades.
- 5. Observe AI hero behavior as they rest or interact autonomously.

MVP: Menu-based turn system with text feedback.

Full: Real-time or time-sliced AI simulation.

7A.8 Upgrades & Costs

Upgrades require both **resources** and **moral thresholds** — a heroically “cold” Keeper may be denied certain expansions.

Example Upgrade	Cost	Prerequisite	Result
<i>Training Grounds</i> → <i>Hall of Heroes</i>	120 Ase, 80 Ekwan, Faith ≥ 60	1 hero promoted	Doubled training efficiency.
<i>Shrine of Voices</i> → <i>Choir of Echoes</i>	150 Ase, Harmony ≥ 70	3 bonded heroes	Group morale meditation unlocked.

7A.9 Sanctum Decay & Maintenance

Neglect weakens the Sanctum, while faith sustains it.

Condition	Effect
Low Faith (<30)	Ase generation drops sharply.
Low Harmony (<40)	Frequent hero disputes.
High Favor (Anansi amused)	Trickster events; unpredictable “gifts.”

Regular **rituals and offerings** keep the Sanctum stable — an act of maintenance both mechanical and spiritual.

7A.10 MVP vs Full Comparison

Feature	MVP	Full
Active Wings	3–4	10
Hero Staffing	Manual	AI-driven assignments
Resources	Ase, Ekwan, Faith	+Harmony, Favor, Relics
Decay Events	None	Active moral decay system
Visual Feedback	Text-based	Dynamic atmosphere and sound
Rituals	Single-use buffs	Branching, AI-influenced ceremonies

✅ 7A Summary — The Structural Core

The Sanctum is a modular, upgradeable hub that grows in both complexity and emotion.

It turns abstract moral choices into tangible worldbuilding: every light, wall, and sound tells the story of how the Keeper leads.

7B. Emotional & Narrative Identity — “The Soul of the Sanctum”

7B.1 Purpose

This section defines the **emotional, social, and narrative systems** that make the Sanctum *feel alive*.

It’s not a static interface — it’s a breathing society bound by belief, conflict, and memory.

Heroes live here.

Anansi watches here.

And the Keeper’s soul quietly shapes it all.

7B.2 Design Philosophy — “The Soul Made Visible”

The Sanctum represents the Keeper’s **inner world externalized**.

Its beauty or decay mirrors:

- The **Faith** of heroes,

- The **Harmony** of relationships, and
- The **Favor** of Anansi.

It is both mirror and map — showing who the Keeper has become.

“Every stone, every voice, every silence remembers you.”

7B.3 Emotional Atmosphere System

The Sanctum’s ambiance dynamically shifts based on three emotional variables:

Variable	Description	Source
Faith	Collective belief in the Keeper.	Hero victories, leadership consistency.
Harmony	Social and emotional stability.	Hero bonds, shared experiences.
Favor	Anansi’s amusement.	Trickster events, chaotic choices.

Environmental Responses

Emotional State	Visual Mood	Audio Mood	Gameplay Effect
High Faith	Warm light, glowing runes.	Calm hymns, rhythmic hum.	+Ase yield, faster morale gain.
Low Faith	Flickering light, shadows.	Sparse sound, distortion.	-Faith recovery, higher risk of corruption.
High Harmony	Bright gardens, flowing energy.	Soft natural ambience.	Training, crafting boosts.
Low Harmony	Dust, echoing halls.	Hollow percussion, silence.	-Hero cooperation, argument events.
High Favor	Subtle webs and glimmers.	Plucked strings, laughter.	Trickster gifts or chaos modifiers.

MVP: Text-only ambience lines.

Full: Audio-visual and text hybrid system.

7B.4 Hero Behavior & AI Society

Heroes inhabit the Sanctum as autonomous agents.

They rest, reflect, train, argue, and engage each other — forming an **AI-driven micro-society**.

State	Behavior	Example Text
Resting	Reflects near Ase Flame.	"The flame hums with their memories."
Conversing	Debates moral events.	"Was mercy worth the cost?"
Training	Practices skills or sparring.	"Every failure tempers my soul."
Arguing	Rival clashes over philosophy.	"The Keeper plays god, not guide."
Meditating	Quiet prayer to the Flame.	"Silence is its own courage."

Heroes remember emotional outcomes, referencing previous missions or dialogues across sessions.

7B.5 Relationship Ecology

Relationships define the Sanctum's social equilibrium.

Type	Behavior	Effect
Bond	Deep trust; mutual morale boost.	+Harmony, faster recovery.
Rivalry	Tension, eventual growth.	-Harmony until resolved.
Mentorship	Senior hero mentors another.	+XP, +Faith.
Isolation	Withdrawn, skeptical hero.	-Faith, risk of despair events.

Emotional Contagion: One hero's despair can lower Harmony Sanctum-wide, forcing the player to intervene socially or spiritually.

7B.6 The Keeper's Presence

The Keeper never speaks aloud, yet their influence shapes every conversation.

Player Action	Hero Reaction	Outcome
Frequent Blessings	"The Keeper walks among us."	+Faith, +Harmony.
Neglect	"The Flame grows cold."	-Faith, -Morale.
Overcontrol	"We have no will of our own."	Autonomy stress; rebellion chance.

Player Action	Hero Reaction	Outcome
Silence at Right Time	"Their quiet guides us."	Inspires reflection events.

Moral leadership is conveyed through restraint — *power expressed by presence, not command.*

7B.7 Anansi's Influence

Anansi's threads are woven through every wall of the Sanctum.

He interferes at moments of tension, delighting in chaos and moral paradox.

Interference Type	Example	Effect
Subtle Visual	Webs glimmer on stone.	Raises Favor slowly.
Trickster Event	"A voice laughs through the flame."	Temporary buff or emotional fallout.
Narrative Mockery	Comments on player actions.	Alters future event probability.

He is the Sanctum's ghost — sometimes gift-giver, sometimes saboteur, always storyteller.

7B.8 The Sanctum as Memory

The Sanctum chronicles every decision, storing it in architecture and sound.

Memory Manifestations

- *Whispering Walls*: Replay fragments of old dialogue.
- *Hall of Lineage*: Displays portraits and legacy quotes of fallen heroes.
- *Visual Evolution*:
 - Compassionate Keepers: living vines, golden light.
 - Ruthless Keepers: sharp geometry, pale fire.

| "The Sanctum keeps no secrets — it simply remembers differently."

7B.9 The Emotional Economy

Faith and Harmony are functional resources affecting productivity, morale, and world state.

Stat	Generated By	Used For	Decay Trigger
Faith	Rituals, victories, stability.	Ritual power, morale boost.	Player neglect or loss.
Harmony	Positive interactions, rest.	Crafting, research, Ase flow.	Rivalries, deaths.
Favor	Moral unpredictability.	Anansi's attention.	Excess chaos causes random interference.

Maintaining emotional balance is as vital as resource management — both drive the loop of creation and decay.

7B.10 MVP vs Full Emotional Simulation

Feature	MVP	Full
Faith & Harmony Tracking	Text-based morale updates.	Persistent variables with UI display.
Hero Conversations	One-liners.	Full AI dialogue system.
Environmental Mood	Text only.	Reactive light, sound, and text overlays.
Relationship System	Manual tracking.	Autonomous society simulation.
Anansi Interference	Scripted.	Adaptive, personality-based.
Memory System	Linear log.	Dynamic, player-influenced architecture.

✅ 7B Summary — The Living Soul of the Sanctum




The Sanctum is not a static hub — it is a **living organism** of emotion, memory, and divine attention.

It remembers kindness and cruelty alike, shaping the Keeper's story through whispers, relationships, and atmosphere.

It is the home the player builds not just in stone, but in spirit.



Economy & Progression Model

 Category	Economics
 Status	Approved
 Description	<p>Purpose: Ensure long-term balance and pacing.</p> <p>Includes:</p> <ul style="list-style-type: none">• Core currencies (Ase, Ekwan, Relics, etc.)• Sources & sinks matrix• Generation/decay formulas• Pacing curves (early/mid/late game)• Rank-up costs and expected player progress timeline• Anti-exploit safeguards and idle mechanics

Section 8: Economy & Progression (v1 – Final Canon Version)

8A. Core Resource Model — “The Flow of Ase”

8A.1 Purpose

The **economy of Echoes of the Sankofa** is a moral and spiritual ecosystem.

It represents the **flow of divine energy (Ase)** and emotion between the Realms, the heroes, and the Sanctum.

It sustains both gameplay progression and narrative meaning — resources aren’t just currencies, but **manifestations of moral choices**.

To hoard or waste them is to misunderstand the balance of creation.

“Energy must move, faith must circulate, and nothing — not even memory — should remain still.”

8A.2 Resource Ecosystem Overview

The full game features **six interconnected resources**, each with emotional or spiritual significance.

The MVP includes the **three primary ones**.

Type	Resource	Nature	Description	Role
Primary	Ase	Spiritual Energy	Core divine resource; generated from life, battle, and ritual.	Powers upgrades, rituals, and summoning.
	Ekwan	Material Essence	Crystallized fragments of Realm matter.	Used for crafting, research, and building upgrades.
	Relics	Legendary Artefacts	Rare items infused with stories or curses.	Enable special rituals and legacy enhancements.
Emotional	Faith	Collective belief in the Keeper's guidance.	Represents morale, devotion, and hope.	Modifies Ase yield and hero resilience.
	Harmony	Social Resonance	Emotional balance within the Sanctum.	Governs training, crafting, and efficiency.
	Favor	Anansi's Attention	The trickster's amusement level.	Adds risk and unpredictability; unlocks rare boons.

MVP: Ase, Ekwan, Faith

Full: All six resources, dynamically interacting.

8A.3 Resource Generation & Flow

Resources flow continuously between **Realms**, **Sanctum**, and **Heroes**, reflecting the living balance of the world.

Ase Flow

Source	Sink	Notes
Victories, rituals, daily generation	Upgrades, summoning, crafting	Main progression fuel.
Faith	Multiplies yield when high.	"Belief brightens the flame."
Anansi Events	Randomly modify gain or loss.	Trickster interventions.

Ekwan Flow

Source	Sink	Notes
Realm exploration, relic salvage	Training, crafting	Physical manifestation of effort.
Marketplace	Can trade for Faith or Relics.	Symbol of giving form to spirit.

Relic Flow

Source	Sink	Notes
Boss fights, moral choices	Crafting, Forge rituals	Story-driven items with moral history.
Trade with Anansi	Risk/reward — could yield Favor or destruction.	"The spider never trades fairly."

Faith Flow

Source	Sink	Notes
Successful missions, moral acts	Restores Sanctum and morale	Faith keeps the world stable.
Neglect, disobedience, or cruelty	Causes decay	Leads to low morale and Ase loss.

Harmony Flow

Source	Sink	Notes
Hero bonds, teamwork	Improves efficiency and cooperation	Faithful Sanctum work.
Rivalries or deaths	Reduces productivity	Causes emotional strain.

Favor Flow

Source	Sink	Notes
Ambiguous moral actions	Triggers trickster events	Keeps replayability dynamic.
Purification rituals	Reduces chaos risk	A reset option.

8A.4 Resource Conversion & Synergy

Rituals convert resources between emotional and material forms, reinforcing the theme of **balance through sacrifice**.

Ritual	Converts	Description
Flame Tithe	Ase → Faith	Sacrifice energy to strengthen morale.
Trade of Tongues	Ekwan → Favor	Appease Anansi for temporary power.
Echo Weave	Harmony → Relic	Forge an artefact from emotional unity.
Purification Rite	Faith → Harmony	Heal divisions among heroes.
Legacy Offering	Relic → Permanent Bonus	Immortalize a story fragment.

MVP: Resource gathering and spending only.

Full: Conversion rituals and moral risk mechanics.

8A.5 Emotional Resource Mechanics

Faith, Harmony, and Favor serve as **hidden gameplay governors**, altering flow efficiency.

Resource	High Value Effect	Low Value Effect
Faith	+25% Ase yield, morale recovery.	Heroes lose confidence; Sanctum dims.
Harmony	+15% productivity, faster training.	Rivalries and emotional contagion.
Favor	Rare boons, bonus relics.	Chaos — random decay or curses.

This ensures every resource decision has emotional consequences.

8A.6 Resource Storage & Decay

Resources decay if mismanaged — representing entropy and forgetting.

Resource	Decay Trigger	Result
Ase	Faith < 30	Flame weakens, yield drops.
Ekwan	Favor > 80	Anansi "borrows" essence.
Faith	Prolonged inaction	Morale drift downward.
Harmony	Repeated conflicts	Decreased crafting/training success.

Decay encourages players to act intentionally — balance is survival.

8A.7 Resource Presentation

MVP:

- Text-based interface, simplified metrics.
- Example: "The Flame burns steady (Faith 60)."
- Emphasizes *intuition* over data.

Full Version:

- Ambient visuals and sound tied to resources:
 - **Ase:** Flame brightness and pulse.
 - **Faith:** Warmth and background chants.
 - **Harmony:** Music tempo and tone.
 - **Favor:** Subtle distortion and laughter.

8A.8 Resource Roles by Game Layer

Layer	Resources	Core Function
Realms	Ase, Ekwan, Faith	Earn and risk resources.
Sanctum	Ase, Faith, Harmony, Favor	Manage and balance economy.
Legacy	Relics, Harmony	Retain progress across cycles.

8A.9 MVP vs Full Resource Model

System	MVP	Full
Resources Used	Ase, Ekwan, Faith	All six (adds Harmony, Favor, Relics).
Decay	Disabled	Emotional-state driven.

System	MVP	Full
Ritual Conversions	None	Active moral economy.
Emotional Integration	Basic morale modifier	Full Faith/Harmony/Favor triad.
UI Feedback	Textual	Reactive atmosphere and sound.

✅ 8A Summary — The Living Economy

The economy of *Echoes of the Sankofa* is built on flow, not wealth.

Faith feeds Ase. Ase fuels progress. Favor tempts ruin.

It is a system of choices disguised as currency — every transaction a moral echo.

8B. Player Progression & Pacing — “The Journey of Becoming”

8B.1 Purpose

Progression in *Echoes of the Sankofa* defines how players evolve — spiritually, strategically, and emotionally.

It establishes a rhythm of **growth, rest, and reflection**, transforming resources and relationships into legacy.

“Progress is not power — it is remembrance made whole.”

8B.2 Core Progression Pillars

Player advancement flows across five interconnected systems:

Layer	Description	MVP	Full
The Keeper (Player)	Moral growth and empathy.	Static	Persistent empathy stats.
Heroes (Echoes)	Leveling, emotional arcs, inheritance.	Rank-up system	Full personality evolution.
The Sanctum	Expansion and emotional stability.	3–4 wings	10 wings; AI society simulation.
The Realms	Virtue restoration and challenge.	2–3 linear	7 chosen from 10 total per cycle.

Layer	Description	MVP	Full
Legacy Cycle	Meta-continuity across replays.	None	Persistent world memory.

Each layer informs the others — forming a moral ecosystem.

8B.3 Keeper Progression — “Growth Through Reflection”

The Keeper’s progress is spiritual — defined by three invisible attributes that shape dialogue, AI tone, and world structure.

Attribute	Description	Mechanical Effect
Empathy	Understanding and compassion.	Increases Faith and hero cooperation.
Wisdom	Insight and restraint.	Improves Ase efficiency.
Conviction	Resolve and sacrifice.	Reduces morale penalties in hard choices.

Growth Triggers

Action	Attribute Gain
Save allies despite loss	+Empathy
Observe before acting	+Wisdom
Sacrifice willingly	+Conviction

MVP: Static role.

Full: Persistent Keeper personality evolving each cycle.

8B.4 Hero Progression — “Echoes Grow Themselves”

Heroes grow through **rank**, **emotion**, and **legacy**.

Progress Type	Source	Effect
Rank & Power	Training, victory.	Improves abilities and initiative.
Personality Growth	Relationships, trauma resolution.	Alters AI logic and dialogue.
Legacy Impact	Death or fusion.	Passes traits and memories to next generation.

Every growth step is emotional — pride, doubt, joy, and sorrow shaping mechanical outcomes.

MVP: Linear rank-up.

Full: Emotional arcs and inherited personality data.

8B.5 Sanctum Progression — “The Living Hub”

Sanctum progression mirrors the Keeper’s faith and leadership.

Progress Source	Effect
Restored Realms	Unlocks new Wings.
Faith/Harmony Milestones	Expands functionality.
Hero Tenure	Adds long-term bonuses.
Keeper Empathy	Alters Sanctum mood and resource yield.

Growth can stall if emotional variables (Faith or Harmony) collapse — the world refuses to expand under imbalance.

8B.6 Realm Progression — “Stories of Increasing Weight”

Realms increase in **moral complexity** rather than raw power.

Tier	Focus	Emotional Challenge
Early (1–3)	Introduction	Fear, Doubt, Courage
Mid (4–6)	Conflict	Rage, Grief, Ambition
Late (7–10)	Resolution	Regret, Greed, Apathy, Harmony

Scaling Mechanics

- Each restored Realm increases corruption in the next.
 - Past moral choices affect stage variants.
 - Moral outcomes alter later Realm dialogue and event generation.
-

8B.7 Legacy Progression — “The World Remembers”

Legacy binds playthroughs through memory and ancestry.

Persistent Element	Function
Hero Traits	Inherited into future summons.

Persistent Element	Function
Relics	Select carry-over items.
Empathy / Wisdom / Conviction	Keeper stats influence Realm selection.
Anansi Favor	Trickster awareness persists — modifies narrative tone.

Legacy ensures that every death, decision, and sacrifice echoes forward.

8B.8 Pacing Model

Designed for **reflective engagement** — tension balanced by moments of calm.

Phase	Focus	Duration	Emotion
Preparation (Sanctum)	Training, conversation, upgrades.	5–10 min	Reflection
Expedition (Realm)	Combat and moral events.	20–30 min	Challenge
Restoration Trail	Multi-phase test or boss.	10–15 min	Resolution
Reflection (Return)	Emotional decompression.	5–10 min	Catharsis

Average cycle time: **45–60 minutes per Realm.**

8B.9 Long-Term Progression Curve

MVP Curve

- 3 Realms, linear difficulty.
- Simplified Faith loop.
- Focused testing on morale and pacing.

Full Curve

- 10 Realms, 7 randomized per cycle.
- Adaptive difficulty via emotional metrics.
- Persistent Keeper stats.
- Expanding Sanctum.
- Legacy persistence shaping each replay.

The full curve creates **infinite replayability** through emotional variation rather than content volume.

8B.10 Player Progression Goals

Goal	Description
Emotional Growth	Feel wiser and more compassionate, not just stronger.
Strategic Mastery	Understand systems rather than exploit them.
Narrative Continuity	Each cycle expands Anansi's myth.
Moral Ownership	Player defines the Keeper's legacy.
Replay Curiosity	Each new world offers a different weave of stories.

✅ Section 8 Summary — The Flow of Energy and Understanding




Economy and progression are the heartbeat of *Echoes of the Sankofa*.

Ase is the lifeblood, Faith its rhythm, and Harmony its breath.

As the player grows wiser, their Sanctum and world evolve with them — every action a thread in Anansi's eternal web.



Combat AI & Simulation Logic

 Category	Gameplay
 Status	Approved
 Description	<p>Purpose: Enable implementation and balancing.</p> <p>Includes:</p> <ul style="list-style-type: none">• Round resolution logic (initiative, morale, fear, randomness)• AI personality weighting• Action types and priority rules• Pseudocode or simulation formulas• Telemetry hooks (to export logs for balance testing)

Section 9: Combat, AI & Simulation (v1 – Final Canon Version)

9A. Combat Structure — “The Dance of Ase”

9A.1 Goals

- Express **emotion through tactics**: morale, fear, trust matter as much as stats.
- Support **non-combat resolution** where stage objectives allow (escort, ritual, debate).
- Be **MVP-friendly (text-based)** yet scale to 2D/2.5D later without redoing logic.

9A.2 Encounter Anatomy

Each **Stage** can include 2–4 encounters (MVP: 1–2). An encounter is a single tactical scene with one of: **Combat Trial, Defense, Escort, Explore/Skill, Ritual, Moral Choice**.

Encounter Flow:

Setup → Blessing → Initiative Loop (rounds) → Resolution → Aftermath (dialogue, state change)

9A.3 Phases (per Encounter)

1. Setup

- Player assigns squad (Echoes), sees **Morale (0–100)**, **Fear**, **Trust**, conditions.
- Environment modifiers (weather/corruption/Anansi Thread).

1. Blessing

- One pre-battle action: ritual, positioning, or item. (MVP: +Morale or +Defense buff.)

1. Initiative Loop (Rounds)

- **Initiative** per unit = Speed + Temperament bonus + situational buffs
- Turn order recalculates at round start (MVP: static within an encounter).

On a turn, an Echo AI:

- Evaluates Objective Pressure (defend/escort/defeat),
- Checks Emotional State (Morale tier, Fear spikes),
- Chooses Action (attack, defend, reposition, interact, or speak/refuse).

1. Resolution

- End triggers: objective met, wipe, timer, or moral outcome satisfied.

1. Aftermath

- **Emotion deltas** (Morale \pm , Trust \pm , Fear \pm), **dialogue log**, loot/resource outcomes.

9A.4 Core Stats & States (MVP first)

- **HP** (vitality)
- **Morale** (0–100): tiers → *Inspired* (80–100), *Steady* (50–79), *Shaken* (30–49), *Broken* (0–29)
- **Fear** stack (0–10): increases misplays/refusals; cleared by rituals or healer presence
- **Ase Guard** (shield vs. corruption) – Full version
- **Conditions** (Bleed, Silence, Rattle, Focus, Sanctuary) – gradually introduced

Simple Morale Tick (MVP):

- Ally KO: –15, Critical success: +10, Blessing: +8, Siren Scream (env): –8
 - Morale influences action quality: Effectiveness = Base × (1 + MoraleMod)
where
MoraleMod = { Inspired: +0.1, Steady: 0, Shaken: –0.1, Broken: –0.25 }
-

9A.5 Action Economy (MVP)

- 1 **Major** (attack/skill/ritual) + 1 **Minor** (move/guard/interact).
 - **Opportunity** reactions (counter, intercept) when Courage high or Guardian nearby.
 - **Non-combat**: interact node (escort progress, ritual step, negotiation prompt).
-

9A.6 Objective Templates (how combat supports variety)

- **Combat Trial**: waves/elites; morale pressure.
 - **Defense/Protection**: hold N rounds; failure on object break or panic flight.
 - **Escort**: NPC path with fear checks; route selection matters.
 - **Explore/Skill**: checks vs. **Wisdom/Temperament**; ambush risk.
 - **Ritual**: channel turns uninterrupted (healer focus).
 - **Moral Choice**: pause loop; decision applies global emotional effects.
-

9A.7 Boss & Restoration Trail

- Not just “big HP”: each trail = **linked multi-mission** (e.g., rally → convoy → duel).
- **Phase Dialogues** mid-fight alter rules (lower Fear, force mercy checks).
- **Victory conditions** can be moral (forgive, persuade) or tactical.

9A.8 MVP → Full Scalability

Feature	MVP	Full
Rendering	Text log	2D/2.5D timeline + barks
Encounters/Stage	1–2	2–4 (optional skippables)
States	HP, Morale, Fear	+Ase Guard, conditions, environment ticks
Objectives	Combat/Defense/Choice	+Escort/Explore/Ritual hybrids
Dialogue	Canned lines	AI-driven, personality-aware barks

9B. AI Behavior & Learning — “Echoes With a Will”

9B.1 Design Tenets

- **Hybrid AI**: deterministic gameplay controllers for reliability + **LLM for personality/voice** (explanations, advice, flavor).
- **Refusal is real**: heroes can argue or disobey when fear/morals demand.
- **Learning over time**: heroes adapt to the Keeper’s consistent style.

9B.2 Control Stack (what picks actions in combat)

1. **Behavior Tree (BT)** as the top-level policy (clear, debuggable, designer-friendly). Widely used in games; supported by engines & tools.
2. **Utility AI** scoring inside BT leaves (pick between defend, focus fire, escort step, ritual channel).
3. **Planner (GOAP-lite)** for objective sequences (e.g., “Stabilize shrine → Intercept screamer → Resume channel”).
4. **LLM Layer (out of band)**: generates **barks, advice, debriefs**, and “intent explanations.” It should *not* choose frame-critical actions—keeps latency & determinism tight.

BT Sketch (combat leaf examples)

- If Objective=Escort & NPC Threat High → Intercept
 - If Ally < 30% HP & Healer Ready → Heal
 - If Fear ≥ 7 & Trust < 40 → Refuse/Retreat + Bark
 - Else → Focus Fire Highest-Threat
-

9B.3 Emotion & Autonomy Hooks

- **Refuse** when Fear high OR Ambition high & Virtue low OR Keeper pattern clashes.
 - **Argue** mid-encounter (one line; \pm Trust) — does not block loop for long.
 - **Advise** at start of turn if **Wisdom high** ("Alternate route—less panic.").
 - **Compliment** on ally saves (builds **Harmony** passive).
-

9B.4 Learning Signals

- **Shaping**: heroes store tuples (situation → chosen action → outcome, keeper_style)
 - **Policy nudges**: small weights adjust Utility scores (e.g., this hero learns to prioritize defense in shrines).
 - **Memory budget** caps (MVP: last 5 missions; Full: rolling window with summaries).
 - **Sanctum influence**: Training Grounds can "reset" bad habits or codify preferred ones.
-

9B.5 Where to use Off-the-Shelf LLMs (and where NOT)

USE for

- Personality barks, advice text, post-mission letters.
- Explaining hero intent ("I refused because the child would have died.").
- Procedural **moral events** text & option phrasing.
- Lightweight **planning commentary** (summaries of why the squad is shifting).

AVOID for

- Frame-critical decisions (who to hit NOW).
- Deterministic checks (hit chance, initiative).
- Anti-cheat surfaces.

Result: Core game feel stays **tight & testable**; LLM adds **soul** and **variety**.

9B.6 Recommended Models & Why (2025-10, off-the-shelf)

- **OpenAI GPT-4o** — strong text/code + fast multimodal; good for in-game barks, summaries, and tool-use RAG. Official docs: [model page](#) & [launch overview](#).
- **Anthropic Claude 3.5 Sonnet** — excellent reasoning, safe long-context; great for moral event drafting & debriefs. Official announcement/model card. Also available on Bedrock for enterprise.
- **Meta Llama 3.1 (405B/70B/8B)** — open weights (self-hosted or managed), good for **on-prem**/edge builds where privacy or cost control matters.
- **Mistral (Premier / Medium 3)** — strong, efficient, supports private/VPC deployment; good latency/cost tradeoffs for live games.
- **Cohere Command (R / R+)** — enterprise-friendly, long-context, retrieval-heavy workflows (design docs, in-game codex).
- **Inworld AI** — specialized **NPC platform** for games (voice, memory, safety). Useful to accelerate character authoring and runtime persona without building infra.

Practical mix for us:

BT/Utility for control

Claude 3.5 or GPT-4o

Llama/Mistral

9B.7 Integration Pattern (MVP → Full)

MVP (text-only)

- Deterministic **BT/Utility** runs every turn.

- After each action, call **LLM** with a tiny context (hero name, traits, current emotional deltas, 1–2 world facts) to emit a **one-line bark** or **short advice**.
- Post-encounter **Debrief**: one LLM call summarizing key moments + relationship changes.

Full

- Add **RAG** (retrieval) with “Hero Memory Cards” and “Realm Lore Cards.”
- Inworld (or similar) powers **live Sanctum chatter** and **mission radio**.
- Privacy mode: swap to **Llama/Mistral** self-host when needed.

9B.8 Latency, Cost, & Safety

- **Latency**: Cap LLM calls per round (e.g., 1–2 total, not per hero). Use template barks for most events; reserve LLM for *special* moments.
- **Cost**: Batch debriefs; compress prompts with structured JSON (“emotion=Shaken; event=RefuseEscort”).
- **Safety**: Use provider moderation and instruction-rails; Anthropic “constitutional” safety and OpenAI policies cover most needs.

9B.9 Tooling Notes

- **Behavior Trees**: native support in Unity/Unreal; many editors (e.g., Opsive BT).
- Keep a **“dry run” mode** (no LLM) for CI tests; golden logs ensure determinism.
- Store **hero learning weights** separate from story memory so QA can reset one without the other.

9B.10 QA Scenarios (must-pass)

- **Refusal under fear** reliably triggers and recovers with healer ritual.
- **Moral objective** can resolve encounter **without kills**.
- **Advice correctness**: LLM suggestions never contradict legal moves.
- **Latency budget** respected: $\leq X$ ms extra per round at target platform.

- **Determinism:** identical seed + same inputs → identical outcomes (LLM output cosmetic only).




9C. MVP vs. Full Summary

Subsystem	MVP	Full
Decision-making	BT + Utility only	+ GOAP-lite for objective plans
Dialogue	Template barks + small LLM	Rich multi-speaker LLM + RAG
Learning	Weight nudges per hero	Memory windows + sanctum training effects
Objectives	Combat/Defense/Choice	+ Escort/Explore/Ritual chains
Models	1 cloud LLM (GPT-4o/Claude)	Mix: Claude/GPT + Llama/Mistral + NPC platform

✔ **Section 9 (v1) Complete** — You now have a **deterministic, testable** combat loop with **soulful, low-risk LLM integration** that can scale from text MVP to 2D/2.5D—without rewriting the brain.



Legacy, Death & Recovery Systems

 Category	Mechanics
 Status	Approved
 Description	<p>Purpose: Make consequence and continuity explicit.</p> <p>Includes:</p> <ul style="list-style-type: none">• Permadeath and inheritance systems• Recovery rituals or downtime mechanics• Psychological effects (morale, faith, corruption)• Narrative echoes of loss and rebirth

Section 10: Legacy, Death & Recovery Systems (v1 – Final Canon Version)

This section defines what happens when Echoes fall, falter, heal, and are remembered. It ties together **permadeath**, **injury & trauma**, **recovery paths**, **corruption & purification**, and the **legacy** that threads into future generations. It also clarifies MVP vs. Full implementations.

10.1 Design Goals

1. **Meaningful Mortality:** Death matters narratively and mechanically; saves are not trivialized.
2. **Continuity Through Legacy:** Fallen Echoes contribute **Legacy Fragments** that influence future heroes.
3. **Emotional Recovery, Not Just HP:** Wounds are physical *and* emotional; recovery loops use Sanctum systems.

4. **Player Agency Without Godhood:** The Keeper guides and mourns; resurrection is exceptional and costly (or forbidden).
 5. **Fairness & Clarity:** Clear states (Alive → Downed → Dying → Dead/Recovered/Corrupted) with visible consequences.
 6. **MVP First:** Text-based, deterministic, testable; scalable to richer systems later.
-

10.2 Lifecycle States & Transitions (Combat & Downtime)

Alive → Downed (0 HP)

→ [Check] Aid within N rounds?

└ Yes → Stabilized (Injury/Trauma Applied) → Recovering

└ No → Dying (Final Save)

└ Saved → Stabilized (Severe Trauma)

└ Failed → Dead (Permadeath) → Legacy Fragment

Downtime States (Sanctum):

- **Recovering (Injury/Trauma)** → returns to Alive after treatment time/cost
- **Corrupted** (spiritual affliction) → Purification Rite or permanent quirk
- **Retired** (voluntary exit at high age/trauma) → contributes **Legacy Fragment** without dying

Edge Conditions:

- **Missing in Realm** (failed extraction, special events) → triggers Rescue Operation stage later
 - **Bound to Relic** (rare) → hero becomes a Relic Spirit; no longer deployable, grants passive boon
-

10.3 Injuries, Trauma & Conditions

10.3.1 Injury (Physical) – MVP & Full

- **MVP:** Binary flags with timers (e.g., *Broken Arm – 2 missions; –Attack*).

- **Full:** Severity tiers with stacking penalties (minor/moderate/severe), interactions with class (e.g., Archer suffers more from arm injuries), and **complications** if rushed back early.

10.3.2 Trauma (Emotional) – Core

- Triggered by: ally death, moral failures, terrifying bosses, Anansi events.
- Effects: Morale cap reduction, Fear gain rate ↑, refusal chance ↑, dialogue tone shifts.
- Recovery via **Shrine of Voices** (therapy), **Meditation Garden**, **bond sessions**, or **pilgrimage missions**.

10.3.3 Corruption (Spiritual) – Advanced

- Sources: Odo Agyanka exposure, Obayifo overcasting, cursed relics.
 - Effects: new **Corruption Traits** (e.g., *Hunger of Names*: +damage, –Virtue, random disobedience).
 - Treatment: **Purification Rite** (Faith & Ase cost) with failure risk; may convert to a **permanent quirk**.
-

10.4 Death & Permadeath

- **Permadeath is canon.** A dead Echo is not fieldable again.
- On death: generate a **Legacy Fragment** (see 10.6), update **Hall of Lineage**, trigger **Sanctum Grief Event** (Faith/Harmony shifts), and log **Last Words** (Al bark).

Exceptional Paths (rare / late-game):

- **Ancestor Ascension:** In rare story cases, a fallen Echo may become a **Sanctum Spirit** (granting a passive aura, not a unit).
 - **Forbidden Revival (Full only, optional):** High-cost ritual that returns an Echo with **permanent corruption** and an **Anansi Mark** (future chaos). Strongly discouraged by world lore.
-

10.5 Recovery Systems (Sanctum)

Wing / Feature	What it Heals	Cost (MVP)	Cost / Depth (Full)
Caretaker's Chamber	Physical injuries	Ase + time	Adds Ekwan materials, triage priority; risk of complications if rushed
Shrine of Voices	Trauma, morale	Ase + session	Therapy chains, mentor mediation, dialogue milestones
Meditation Garden	Fear, corruption pressure	Time	Group sessions raise Harmony; seasonal rituals amplify effects
Forge of Souls (Purification)	Corruption	Ase + Faith threshold	Failure chance; quirk conversion; legacy resonance bonus on success
Training Grounds (Light Duty)	Rehab & confidence	Time	Converts trauma into Resilience stat over time

Scheduling Tension: Late-stage Realms may force the Keeper to deploy incomplete squads, spreading risk and encouraging **multi-team management**.

10.6 Legacy Fragments & Inheritance

When an Echo dies **or retires**, create a **Legacy Fragment**:

Data Schema (conceptual):

```
LegacyFragment {
  name, lineage_id,
  class, level, last_rank,
  core_traits: { courage, wisdom, temperament, faith, virtue, ambition },
  emotional_imprints: { key_moments[], dominant_state, bonds[] },
  quirks: { positives[], negatives[] },
  blessings_curses: { anansi_mark?, purification_scar? },
  epitaph: short_text
}
```

10.6.1 Forge of Souls – Inheritance

- **MVP:** Merge two fragments → child Echo gains **avg of 1–2 traits** + 1 quirk.

- **Full:** Merge up to 3 with **weighting** (Ase cost) and **resonance** (Harmony/Relic catalysts) → outcomes:
 - **Harmonic Merge:** Balanced stat uplift, positive quirk.
 - **Chaotic Merge:** Swingy trait drift, risky quirk.
 - **Corrupted Merge:** Power spike + permanent corruption tag.
 - **Ancestral Awakening:** Rare unique perk derived from epitaph/story.

10.6.2 Lineage Bonuses (Full)

- Repeated merges within the same **lineage_id** unlock **family traits** (e.g., "The Riverborn: +Fear resist in water biomes").
 - Lineage memorials in **Hall of Lineage** boost Sanctum Faith when visited.
-

10.7 Grief, Rituals & Memorialization

- **Funerary Rites (MVP):** Simple Ase cost → Faith boost; unlock Legacy Fragment.
- **Full:** Choose ritual style: **Praise (Virtue↑)**, **Lament (Harmony↑)**, **Silence (Conviction↑)**; each alters future dialogues.
- **Memorial Objects:** Place a relic or inscribe a verse; creates passive Sanctum auras or **visit prompts** that heal trauma faster.

Anansi Interference: Occasionally mocks or "edits" the epitaph → grants Favor but causes minor Harmony loss.

10.8 Rescue, Capture & Conversion

- **Rescue Operations:** If an Echo is **Missing in Realm**, a special stage can retrieve them. Success reduces trauma compared to letting them "walk back."
 - **Captured by Storyless Ones:** Choice event—trade a Relic or take permanent scar to free.
 - **Conversion Risk:** An Echo at **0 Faith + high Corruption** may defect, becoming an elite enemy in a later stage (Full).
-

10.9 Numbers & Tuning (MVP Baselines)

- **Downed Window:** 2 rounds to stabilize (Healer or bandage item).
- **Stabilize:** Consumes Minor action; on success → 20% HP, **Trauma (minor)**.
- **Dying Save:** Single check using Faith + Courage + healer_proximity vs. DC; fail → death.
- **Death Effects:** Team Morale -10 (-20 if bonded ally), Keeper Faith -5 (temporary), **Sanctum Harmony -5**.
- **Injury Durations:** Minor: 1 mission; Moderate: 2-3; Severe: 3-5.
- **Purification Rite (Full):** Base 70% success; +Faith improves, +Favor worsens.

(Exact DC values will be set in Section 12: Balancing & Tuning.)

10.10 MVP vs. Full System Summary

Feature	MVP	Full
States	Alive/Downed/Dying/Dead/Recovering	+Corrupted/Retired/Bound-Spirit
Injuries	Binary with timers	Severity tiers, class interactions
Trauma	Morale cap, refusal mod	Therapy arcs, mentor mediation
Corruption	Simple debuff	Traits, rites, failure risk, conversions
Legacy	2-fragment merge, 2 stats	3-fragment resonance, lineage traits, awakening
Funerals	Ase tithe → Faith	Ritual styles with distinct meta-effects
Rescue	None	Special stages, capture/defection branches
Resurrection	None	Forbidden revival (story-gated, corrupting)

10.11 UX & Clarity (Text MVP → 2D/2.5D)

- **Event Cards:** "Downed → Stabilize? (2 rounds left)"
 - **Aftermath Logs:** "Esi stabilized Ama: -Trauma (minor), +Bond."
 - **Memorial Feed:** New epitaph entries & Hall of Lineage updates.
 - **Recovery Timers:** Shown on hero portraits with short flavor ("Sleepless; hears the River").
 - **Opt-in Warnings:** "Deploying Kojo at 1 day left recovery risks complication. Proceed?"
-

10.12 Design Ethics & Player Emotion




- The system honors loss without exploitation: **no gacha resurrection loops**.
 - Recovery prioritizes **care** over grind: time, attention, and ritual matter.
 - Legacy makes death **constructive**: stories are not erased; they become scaffolding for future courage.
-

Section 10 Complete — Legacy, Death & Recovery

Mortality gains purpose, recovery gains meaning, and legacy becomes the bridge between generations—mechanically sound in MVP and poetically deep in Full.



Crafting & Research Systems

 Category	Items
 Status	Approved
 Description	<p>Purpose: Model long-term progression and risk.</p> <p>Includes:</p> <ul style="list-style-type: none">• Item categories and crafting tiers• Success/failure formulas• Research paths and unlockables• Hero role bonuses (Crafter, Diviner, Apprentice)• Event outcomes (burnout, faith crisis, insight vision)

Section 11: Crafting & Research Systems (v1 – Final Canon Version)

11.1 Purpose

Crafting & Research turn Realm discoveries into **lasting capability**. They are the long-horizon systems that transform Ase, Ekwan, and Relics into **rituals, gear, upgrades, and insight**—with risk. Outcomes affect not only stats but **Faith, Harmony, and the emotional texture** of the Sanctum.

- **Crafting** happens primarily at the **Forge of Souls, Diviner's Library**, and **Marketplace of Spirits**.
- **Research** is driven by the **Diviner's Library** (knowledge tree) and **Hall of Lineage** (heritage unlocks).
- **Risk** (burnout, faith crisis, corruption) keeps choices meaningful.
- **MVP** focuses on a slim set of recipes, linear research, and deterministic outcomes.

11.2 Systems Overview

Player Loop (between expeditions):

Choose project → assign heroes (optional) → pay cost → wait time → resolve → equip/apply → new options unlock.

Key Resources: Ase (power), Ekwan (materials), Relics (rare catalysts), Faith/Harmony/Favor (emotional modifiers).

11.3 Crafting — Items, Relics, and Rituals

11.3.1 Categories & Tiers

Category	Examples	Tiers	Notes
Implements (Gear)	Charms, totems, blades, bows, foci	T1–T3	Flat bonuses; class-synergy passives.
Consumables	Salves, morale incense, ward beads	T1–T2	One-shot boosts; stack limits.
Ritual Catalysts	Purity sigil, courage ash, memory ink	Unique	Unlocks/empowers rituals (7A).
Relic Refinements	Temper a found Relic	N/A	Risky: improve or scar the Relic.
Blueprints (Meta)	Unlock new recipe families	N/A	Usually via research or rare drops.

MVP: Implements + Consumables only (T1–T2).

11.3.2 Recipe Anatomy (Data Schema)

```
{
  "id": "totem_courage_t1",
  "name": "Totem of Quiet Courage",
  "category": "implement",
  "tier": 1,
  "inputs": { "ase": 30, "ekwan": 20, "catalyst_relic_id": null },
  "time_hours": 4,
  "requires_blueprint": true,
  "effects": { "morale_cap_plus": 5, "fear_gain_mult": 0.95 },
  "class_synergy": ["Okofor", "Aduro"],
```

```
"risk_profile": { "burnout": 0.00, "corruption": 0.00 },
"tags": ["courage","defense"]
}
```

11.3.3 Success / Failure (MVP → Full)

MVP: Deterministic if you pay cost and time.

Full: Outcome roll with hero skill & Sanctum emotion modifiers.

Base Success Formula (Full):

$P(\text{success}) = 70\% + \text{CrafterSkill} * 3\% + (\text{Harmony} - 50) / 5\% + \text{FaithBonus} - \text{FavorPenalty} - \text{TierDifficulty}$

- **CrafterSkill:** from assigned hero's class bonus/mentorship.
- **Harmony/Faith:** Sanctum state (from 7B/8A).
- **FavorPenalty:** Anansi high favor can nudge chaos (−0–15%).
- **TierDifficulty:** T2 = −10%, T3 = −20% baseline.

Failure Outcomes (Full):

- **Miss (soft):** lose time only.
- **Waste:** lose some Ekwan.
- **Scar:** item gains a negative quirk (e.g., +Fear gain).
- **Backfire (Relics only):** corruption pulse (small Sanctum debuff).

Critical Success: small chance to add a positive quirk or +1 tier scaling.

11.3.4 Assigning Heroes (Optional, but powerful)

Role	Source Class	Crafting Bonus (Full)
Smith	Okofor/Aduro lineage	+Success for Implements
Diviner	Onyamesu/Obayifo line	+Success for Ritual Catalysts
Archivist	Any wise Echo	−Time, +Blueprint discovery
Apprentice	Low-rank Echo	+Small XP; reduces burnout risk

MVP: No per-hero bonuses (or a simple +5% if a hero is assigned).

Burnout Risk (Full): Repeated assignments spike **Trauma (work)** → reduces Faith or causes Sanctum event.

11.4 Research — Knowledge, Faith, War (Trees)

11.4.1 Research Trees & Themes

Tree	Focus	Examples
Faith (Rites & Care)	Emotional management, rituals, recovery	Purification Rite+, Choir of Echoes, Group Meditation
War (Field Mastery)	Combat capabilities & logistics	Formation tactics, escort protocols, Ase Guard
Knowledge (Lore & Tech)	Blueprints, crafting quality, analysis	Relic taxonomy, blueprint synthesis, forge tempering

MVP: Linear unlock list—3–5 items total.

Full: 3 branching trees with cross-node prerequisites and narrative gates.

11.4.2 Research Node Schema

```
{
  "id": "faith_choir_of_echoes",
  "name": "Choir of Echoes",
  "tree": "faith",
  "prereq": ["faith_group_meditation"],
  "cost": { "ase": 120, "ekwan": 60 },
  "time_hours": 12,
  "effects": ["unlock_group_morale_ritual"],
  "lore_gate": "restore_shrouded_grove",
  "emotion_req": { "faith_min": 55, "harmony_min": 50 }
}
```

Emotion Requirements (Full): some nodes require **Faith/Harmony** thresholds, reinforcing the world-as-emotion loop.

11.4.3 Research Resolution

MVP: Pay → wait → unlock.

Full: Add **Insight Events**—mid-research forks:

- **Insight Vision:** gain a free lore page or recipe (small Ase cost).

- **Crisis of Faith:** research pauses; resolve a dialogue choice (risk of Harmony –5).
- **Anansi Footnote:** take a shortcut (–time, +Favor).

11.5 Risk Events & Narrative Outcomes

Event	Trigger	Player Choice	Result
Scholar's Burnout	Long project, same hero assigned	Rest or push	Rest: +Harmony; Push: –Faith, +Speed
Relic Recoil	Refinement failure	Contain or bargain	Contain: lose Ekwan; Bargain: +Favor, item cursed
Forge Whisper	High Favor	Accept riddle or ignore	Accept: random boon/curse; Ignore: no change
Doctrine Dispute	Conflicting heroes staffed	Mediate or side	Mediate: time+ Harmony++; Side: quick finish but +Rivalry

MVP includes only one generic “burnout” prompt (skip or pay Ase to continue safely).

11.6 Integration with Other Sections

- **Economy (8A):** Uses Ase/Ekwan/Relics as sinks; Faith/Harmony/Favor as modifiers.
- **Sanctum (7A/7B):** Diviner's Library / Forge of Souls are primary venues; mood influences success.
- **Legacy (10):** Relic refinement & Forge resonance can imprint **lineage traits**; failed refinements can scar lineages (interesting negative heredity).
- **Combat (9):** War tree unlocks new action types (e.g., “Intercept,” “Ritual Guard”), consumables support encounter objectives.

11.7 MVP Scope (Crafting & Research)

Crafting (MVP):

- 6–8 recipes total (4 implements, 2–4 consumables).

- Deterministic success; fixed costs/times.
- No per-hero bonuses; optional single "Crafter" slot for flavor.

Research (MVP):

- 1 linear track (4 unlocks):
 1. **Purification Rite** (basic)
 2. **Group Meditation**
 3. **Escort Protocols I**
 4. **Forge Tempering I**
- No crises/insight events (straight timers).

Times & Costs (MVP baselines):

- T1 Implement: 30 Ase / 20 Ekwan / 4h
- T2 Implement: 60 Ase / 45 Ekwan / 8h
- Consumable: 15 Ase / 10 Ekwan / 1h
- Research Node: 80–120 Ase / 40–60 Ekwan / 6–12h

11.8 Full Version Additions

- **Relic refinement** with risk table (scar/boon).
- **Emotion-gated research nodes** and **Insight/Crisis events**.
- **Hero role bonuses** and **burnout** system with therapy loops.
- **Blueprint discovery** via exploration and Library syntheses.
- **Ritual crafting** (Echo Weave, Flame Tithe, etc.) as late-game projects.
- **Anansi interventions** that can permanently tag crafted items ("Trickster's Filigree": +luck, –consistency).

11.9 Pseudocode & Formulas (Full)

Craft Roll

```
# Inputs: tier, crafter_skill(0..5), faith(0..100), harmony(0..100), favor(0..100)
base = 0.70
```

```
p = base + 0.03*crafter_skill + (harmony-50)/500 + (faith-50)/400
p -= (tier-1)*0.10
p -= max(0, (favor-60))/400 # trickster pressure after 60
p = clamp(p, 0.05, 0.95)
```

Outcome Table

```
roll ≤ p_crit: Critical Success (quirk+)
p_crit < roll ≤ p: Success
p < roll ≤ p+0.10: Miss (time lost)
p+0.10 < roll ≤ p+0.20: Waste (lose %Ekwan)
else: Scar/Backfire (Relic projects)
```

Research Tick (hourly)

```
progress += 1 + (faith>=60) + (harmony>=60) + archivist_bonus
if favor_trigger and random(): fire_insight_or_crisis()
```

11.10 Example Content (Ready to Use)

Blueprint: "Ward Beads (T1)"

- Cost: 15 Ase / 10 Ekwan / 1h
- Effect: -20% Fear gain for 1 encounter (single Echo)
- Tag: "faith, defense"

Implement: "Obayifo Focus (T2)"

- Cost: 60 Ase / 45 Ekwan / 8h, requires Obayifo in party once
- Effect: +15% spell potency; +2 Corruption risk on crit
- Tag: "ambition, risk"

Ritual Catalyst: "Memory Ink" (Full)

- Cost: 80 Ase / 60 Ekwan / 6h + minor relic
- Effect: Enables **Hall of Lineage** inscriptions → +1% inheritance quality per inscription (stacking cap)

11.11 UX (Text MVP → 2D/2.5D)

- **Project Cards** with clear cost/time; "Start / Queue / Assign Crafter (optional)."
 - **Risk Strip** (Full): shows current success odds with emotion modifiers:
"Faith +8% | Harmony +6% | Favor -5% → **Final 79%**"
 - **Event Toasts**: "Insight Vision: accept for +Blueprint (-20 Ase)?"
 - **Completion Log**: item created + flavor line from assigned hero.
 - **Backlog View**: upcoming finishes, dependencies, and blocked nodes.
-

11.12 Anti-Exploit Safeguards




- **Diminishing returns** on spamming same consumable.
 - **Emotion gates** on high-tier research prevent grind-only rush.
 - **Queue caps** (3 active projects, +1 with Library upgrade).
 - **Favor pressure**: too many "bargains" increase chaos events.
 - **Time is real**: pausing research mid-crisis refunds partial costs but resets progress.
-

Section 11 Complete — Crafting & Research Systems

A focused MVP you can build immediately, with a rich Full roadmap that deepens risk, identity, and story integration.



Balance Curves & Simulation Data

 Category	Mechanics
 Status	Approved
 Description	<p>Purpose: Validate the economy and player pacing.</p> <p>Includes:</p> <ul style="list-style-type: none">• Curves for Ase, Ekwan, Relics, Research Time, Morale• Target times for major unlocks• KPI goals (no hard stalls, fair emotional risk, daily engagement rhythm)• Pseudocode for simulations or references to balance model

Section 12: Balance Curves & Simulation Data (v1 – Final Canon Version)

12.1 Purpose

To establish clear **mathematical relationships** and **progression curves** that:

- Keep resource generation and consumption balanced across play sessions.
- Maintain emotional pacing (Faith, Morale, Fear, Harmony).
- Ensure predictable growth for heroes and Sanctum expansion without grind.
- Provide formulas for automated simulation tools to test economy and morale loops.

These curves are the **heartbeat beneath narrative consequence**, allowing for emotional highs and lows to align with gameplay flow.

12.2 Core Balancing Principles

1. **Faith & Ase Equilibrium** – Faith must always influence Ase yield; high Faith = comfort loop, low Faith = stress loop.
2. **Ekwan Scarcity** – Physical material limits drive strategic choice, not time gates.
3. **Emotional Decay over Inflation** – Fear and Morale fluctuate cyclically, not linearly.
4. **Soft Caps, No Hard Walls** – Encourage experimentation through diminishing returns.
5. **Rhythmic Growth** – Every 3–4 Realms feels like a full “act” with difficulty and resource inflection.

12.3 Key Curves Overview

Curve	Axis	Purpose	Description
Ase Yield Curve	Faith vs. Output	Balance economy	Logistic curve; yield doubles from low→high Faith.
Ekwan Cost Curve	Realm Tier vs. Cost	Scaling challenge	Exponential growth, gentle slope early.
Morale Decay Curve	Fear vs. Time	Emotional pacing	Sigmoid—rapid decay in low morale zone.
Faith Recovery Curve	Sanctum Time vs. Faith Gain	Reflection pacing	Diminishing returns (log).
XP Growth Curve	Hero Rank vs. XP	Level pacing	Power law; slow start, quick mid, plateau.
Harmony Efficiency Curve	Harmony vs. Production Bonus	Social balance	Linear up to 80, cap at +25%.

12.3.1 Ase Yield Curve

Purpose: Faith translates directly to productive energy.

$$\text{Ase}_{\text{yield}} = \text{BaseAse} \times (1 + 0.015 \times (\text{Faith} - 50))$$

Clamp: 0.5× to 2.0× base output.

At **Faith = 30**, yield = 0.7×; at **Faith = 70**, yield = 1.3×; at **Faith = 100**, yield = 2×.

Feels exponential, but easy to tune. Small faith boosts matter.

12.3.2 Ekwan Cost Curve (Realm Tier Scaling)

$$\text{Cost}_{\text{ekwan}} = \text{Base} \times (1.25)^{\{\text{Tier} - 1\}}$$

Example:

- Tier 1 = 100
- Tier 5 = 305
- Tier 10 = 931

Encourages resource pacing without grind—double every ~3 tiers.

12.3.3 Morale Decay & Fear Growth

Morale decays exponentially when Fear exceeds 50%.

$$\text{Morale}_{\text{next}} = \text{Morale}_{\text{current}} - (\text{Fear} / 10)^{1.2}$$

If Fear = 70 → lose 13 morale/round.

Faith or Guardian effects reduce the exponent to 1.0, slowing panic.

12.3.4 Faith Recovery Over Time (Sanctum Rest)

Faith recovery slows as Faith approaches equilibrium.

$$\text{Faith}_{\{t+1\}} = \text{Faith}_t + (100 - \text{Faith}_t) \times 0.05 \times (\text{Harmony} / 100)$$

Rest sessions yield less as Faith rises—encourages deeper reflection, not idling.

12.3.5 Hero XP / Rank Curve

$$\text{XP}_{\text{needed}} = 100 \times \text{Rank}^{1.8}$$

Rank	XP Total	Notes
1	100	Basic
2	260	Quick

Rank	XP Total	Notes
3	470	Plateau start
4	730	Midgame ceiling
5	1050	Cap for MVP
6	1500	Divine tier (Full only)

12.3.6 Harmony Efficiency Curve

Simple linear with diminishing return:

Efficiency = $1 + 0.003 \times (\text{Harmony} - 50)$

Clamp $0.8\text{--}1.25\times$ baseline.

12.4 Emotional Equilibrium Matrix

To maintain player rhythm, we model emotion as **self-correcting feedback**:

Condition	Effect	Counter System
Low Faith	–Ase output, morale decay	Sanctum rituals, reflection events
High Fear	Disobedience risk	Training + Courage relics
Low Harmony	Research inefficiency	Group rituals, therapy
High Favor	Random boons/chaos	Purification or rituals
High Faith + Harmony	“Bright Sanctum” buff (+5% all yields)	Encourages emotional maintenance

12.5 Example Realm Difficulty Curve

Each Realm increases:

- Enemy power by +15%/tier
- Fear pressure by +10%/tier
- Ekwan drop by +20%/tier

Result: Player net gain remains stable if Faith stays >60.

At lower Faith, the same Realm costs more in morale and Ase upkeep.

Tier	Enemy Power	Avg Fear Gain	Ase Reward	Faith Req (optimal)
1	100%	+5/turn	100%	40+
3	130%	+7/turn	115%	55+
5	175%	+9/turn	135%	65+
7	220%	+10/turn	150%	70+
10	300%	+12/turn	180%	80+

12.6 Simulation Models

12.6.1 Economy Simulation Pseudocode

```

faith = 60
harmony = 55
ase = 200
ekwan = 100
tier = 1
for day in range(1, 21):
    ase_yield = 50 * (1 + 0.015*(faith - 50))
    ekwan -= 10 * (1.25**(tier-1))
    ase += ase_yield - (ekwan/100) # net profit vs cost
    faith += (100 - faith) * 0.05 * (harmony/100)
    if ekwan < 0: ekwan = 0
    print(day, ase, faith)

```

Goal: Maintain faith above 60 → exponential improvement in net Ase.

If Faith dips, yield crashes—feedback loop visible.

12.6.2 Morale Simulation

```

morale, fear = 100, 30
for round in range(1, 11):
    morale -= (fear/10)**1.2
    fear += 5
    if morale < 50:
        print("Shaken:", round)

```

```

if morale <= 0:
    print("Broken at round", round)
    break

```

Result: Shows emotional pacing—5–7 rounds from confident to collapse if unchecked.

Healer or Courage relics reduce decay coefficient.

12.6.3 XP Growth Verification

```

import math
for rank in range(1,7):
    print(rank, int(100 * (rank ** 1.8)))

```

Produces predictable 100→1500 XP growth, aligning with 7 Realm campaign for MVP.

12.7 Balance Tables (MVP Baselines)

Parameter	MVP Baseline	Full Range
Ase yield per mission	80–120	60–200
Ekwan cost per craft	20–60	20–150
Faith delta (mission)	±5–10	±15
Fear delta (encounter)	±5	±10
Morale decay per 5 turns	–10	–20
Hero XP per mission	60–100	40–120
Rank-up costs (Ase)	150–300	100–600
Recovery time (days)	1–3	1–5

12.8 Balance Workflow

1. **Seed simulation:** deterministic PRNG (see 13).
2. **Run 100-session synthetic players:** vary Faith/Harmony to test economy collapse.
3. **Track KPIs:**

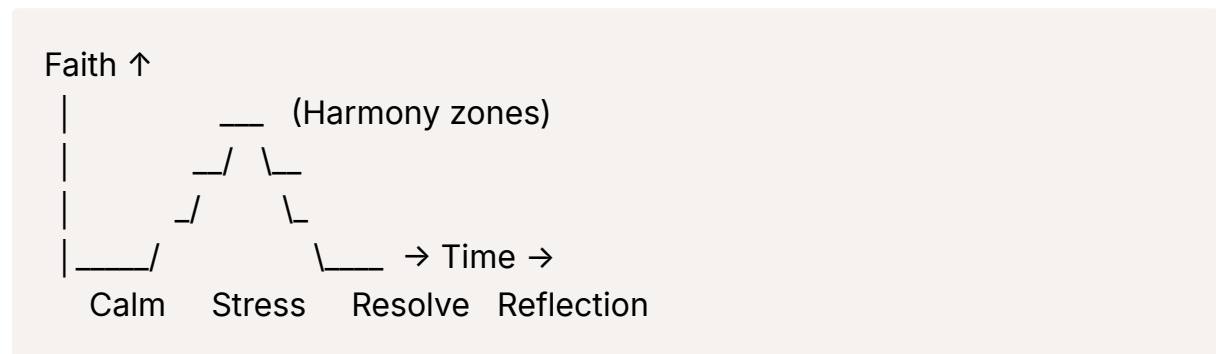
- Avg session time: 45 min target.
- Ase efficiency (gain/spend ratio): 1.1–1.3 ideal.
- Faith oscillation amplitude: ± 15 safe.
- Failure rate per Realm: 20–25% ideal.

4. **Output graphs:** Faith vs. Ase, Fear vs. Morale, Tier vs. Cost.

5. **Adjust constants:** aim for emotional tension, not grind.

12.9 Emotional Risk Curve

Visualized conceptually:



Every 3–4 Realms, tension spikes (Fear \uparrow) then cools (Faith recovery), mirroring act structure.

12.10 Testing Metrics & KPIs

Metric	Target	Why
Avg Realms Completed / Cycle	7	Narrative closure without fatigue.
Sanctum Expansion Pace	1 Wing every 1–1.5 Realms	Feels earned but steady.
Faith Stability (std dev)	≤ 20	Avoid frustration; maintain rhythm.
Morale Collapse Frequency	1 in 5 fights	Adds drama without spam.
Hero Death Rate	15–25% per cycle	Death meaningful but survivable.
Resource Surplus Window	5–10%	Encourages choice, not hoarding.

Metric	Target	Why
Session Length	40–60 min	Matches mobile/PC pacing.

12.11 Validation Tools (Design & QA)

- **Spreadsheet Model:** simulate 100 “runs” of Ase/Faith vs. time.
- **Python Prototype:** identical formulas for tuning.
- **Telemetry Hooks (see 15):** log Faith, Harmony, Favor, Ase gain/loss, mission time.
- **Curve Visualizations:** integrate into debug UI (“Faith vs. Yield,” “Morale vs. Fear”).

12.12 MVP vs Full Simulation Scope

Feature	MVP	Full
Systems Simulated	Ase, Faith, Morale	+Ekwan, Harmony, Favor
Sessions Simulated	20–50	100–200
Emotional Variables	Simplified	Multi-factor correlation
Auto-Tuning	Manual	Scripted via optimizer
Graphs	Static sheet	Live telemetry dashboard




✅ Section 12 Complete — Balance Curves & Simulation Data

You now have baseline formulas and pseudocode that make *Echoes of the Sankofa* **quantifiable without losing soul**.

Every number reflects a virtue—Faith stabilizes energy, Fear erodes progress, and Harmony keeps the world alive.



Technical & Data Model

 Category	Mechanics
 Status	Approved
 Description	<p>Purpose: Bridge design with development.</p> <p>Includes:</p> <ul style="list-style-type: none">• Save/load schema (JSON examples)• PRNG seeding model for determinism• Modular data definitions (heroes, realms, economy)• Cross-system dependencies

Section 13: Technical & Data Model (v1 – Final Canon Version)

13.1 Purpose & Principles

This section defines **how the game's data is structured, saved, and reproduced deterministically** across sessions and platforms.

Guiding principles

1. **Determinism by Default:** All tactical outcomes reproduce from a seed; LLM output is cosmetic and never changes resolved gameplay.
2. **Schema First:** Versioned JSON schemas for portability + migration.
3. **Modules, Not Monoliths:** Heroes, Realms, Sanctum, and Economy are separate data domains with explicit contracts.
4. **Minimal Secrets:** Keep personally identifiable information out of saves; use salts for any cloud identifiers.
5. **Observability:** Built-in telemetry hooks and replay logs for balance and QA.

13.2 High-Level Architecture

Runtime layers

- **Core Sim** (deterministic): combat resolution, economy math, timers, PRNG.
- **Content & Data**: JSON assets (heroes, items, realms, research).
- **Narrative/LLM Layer** (non-critical): barks, flavor, debriefs.
- **UI/UX**: text MVP now; scalable to 2D/2.5D.

Data domains (modules)

- player_profile (Keeper meta & options)
- campaign_run (a single cycle: 7 picked realms in Full; 2–3 in MVP)
- sanctum_state (wings, upgrades, emotions, queues)
- hero_roster (active, recovering, retired, dead)
- realm_states[] (each realm's procedural seed, stage progress)
- economy (currencies, sinks, sources)
- research_crafting (queues, recipes, trees)
- legacy (fragments, lineages, memorials)
- telemetry_log (compact, ring-buffered)
- rng_book (all seeds and cursors to reproduce simulation)

All modules are serialized under a **root Save** with **semantic version** and **content hash**.

13.3 Save / Load: Root Schema (JSON)

| File:

| Versioning:

```
{
  "schema_version": "13.0.0",
  "build_id": "0.9.0-mvp",
  "created_utc": "2025-10-17T09:12:00Z",
  "last_saved_utc": "2025-10-17T10:05:22Z",
```

```

"player_profile": {
  "keeper_id": "kp_7F3A",
  "display_name": "Keeper",
  "meta_traits": { "empathy": 0.12, "wisdom": 0.05, "conviction": 0.08 },
  "options": { "content_filters": {}, "ui": { "lang": "en" } }
},
"campaign_run": {
  "mode": "MVP",
  "cycle_index": 1,
  "realm_selection": ["vale_of_dust", "shrouded_grove", "crimson_plains"],
  "realm_order": ["vale_of_dust", "shrouded_grove", "crimson_plains"],
  "rng_book": { "campaign_seed": "A2B9-4D10", "subseeds": {} }
},
"sanctum_state": {
  "wings_unlocked": ["ase_flame", "training_grounds", "shrine_of_voices"],
  "emotions": { "faith": 62, "harmony": 54, "favor": 21 },
  "upgrades": { "training_grounds": 1, "shrine_of_voices": 1 },
  "queues": {
    "healing": [{"hero_id": "h_002", "ends_utc": "2025-10-17T12:00:00Z"}],
    "research": [],
    "crafting": []
  }
},
"hero_roster": {
  "active": [
    {
      "id": "h_001",
      "name": "Ama",
      "class": "Okofor",
      "rank": 2,
      "stats": { "hp": 78, "morale": 83, "fear": 1 },
      "traits": { "courage": 14, "wisdom": 9, "temperament": 11, "faith": 12, "virtue": 8, "ambition": 6 },
      "conditions": [],
      "bonds": [{"with": "h_002", "type": "bond", "strength": 0.42}],
      "corruption": { "level": 0, "tags": [] },
      "lineage_id": "lin_01"
    }
  ]
}

```

```

    ],
    "recovering": [{ "id": "h_002", "name": "Kojo", "injuries": ["arm_minor"], "time
r_hours": 6 }],
    "retired": [],
    "fallen": []
  },
  "realm_states": [
    {
      "realm_id": "vale_of_dust",
      "tier": 1,
      "realm_seed": "R-VALE-00017",
      "stage_index": 1,
      "encounter_cursor": 0,
      "modifiers": { "weather": "dust", "corruption": 28 },
      "logs": [ { "t": "enter", "utc": "2025-10-17T09:30:00Z" } ]
    }
  ],
  "economy": {
    "ase": 210,
    "ekwan": 95,
    "relics": [],
    "yields": { "daily_ase": 18 },
    "sinks": { "upgrades_today": 30 }
  },
  "research_crafting": {
    "research_tree": { "faith": ["purification_rite"], "war": [], "knowledge": [] },
    "active_projects": [],
    "known_recipes": ["ward_beads_t1", "totem_courage_t1"]
  },
  "legacy": {
    "fragments": [],
    "lineages": [ { "id": "lin_01", "name": "Riverborn", "bonuses": ["fear_resist_wat
er:+5%"] } ],
    "memorials": []
  },
  "telemetry_log": { "ring": [], "cursor": 0, "enabled": true },
  "content_hash": "sha256:8f1b...",

```



```
"integrity": { "signed": false }  
}
```

Notes

- All **times in UTC ISO8601**.
- **IDs are opaque strings** (no PII).
- `integrity.signed` supports optional cloud signature checks.

13.4 Determinism & PRNG Seeding Model

Goal: Given a save + seeds, **combat & encounters replay 1:1**.

Seed hierarchy

- `campaign_seed` (top-level, user-agnostic; generated once per cycle)
- `realm_seed[realm_id] = H(campaign_seed + realm_id)`
- `stage_seed = H(realm_seed + stage_index)`
- `encounter_seed = H(stage_seed + encounter_index)`
- `combat_seed = H(encounter_seed + "combat:" + timestamp_floor)`
- `loot_seed = H(encounter_seed + "loot")`

H is a fast, deterministic hash (e.g., xxHash64/CityHash) producing a 64-bit integer for the PRNG.

PRNG

- Use a stable, fast PRNG (e.g., **Xoroshiro128** or **PCG32**).
- Store **current PRNG state** per subsystem (combat, loot) in the save to resume mid-encounter.

LLM Isolation

- LLM outputs (barks) do **not** touch sim outcomes. If needed for replay, cache the **rendered text** with a short seed to reproduce *style*, not state.

Pseudocode

```
def derive(seed:str, salt:str)→int:  
    return xxhash64((seed + "|" + salt).encode()).intdigest()
```

```
rng = PCG32(derive(campaign_seed, "init"))
realm_rng = PCG32(derive(campaign_seed, realm_id))
```

13.5 Module Schemas (Concise)

13.5.1 Hero Schema

```
{
  "id":"h_001","name":"Ama","class":"Okofor","rank":2,
  "stats":{"hp":78,"morale":83,"fear":1},
  "core_traits":{"courage":14,"wisdom":9,"temperament":11,"faith":12,"virtu
e":8,"ambition":6},
  "abilities":["guard","intercept","strike"],
  "conditions":["bleed?","silence?"],
  "bonds":[{"with":"h_002","type":"bond","strength":0.42}],
  "corruption":{"level":0,"tags":[]},
  "lineage_id":"lin_01",
  "history":{"missions":4,"kills":8,"rescues":2,"last_words":null}
}
```

13.5.2 Realm Schema

```
{
  "realm_id":"vale_of_dust","tier":1,"realm_seed":"R-VALE-00017",
  "stages":[
    {"index":1,"type":"combat","stage_seed":"S-VALE-1","complete":false},
    {"index":2,"type":"escort","stage_seed":"S-VALE-2","complete":false}
  ],
  "restoration_trail":"path_of_silence",
  "modifiers":{"weather":"dust","corruption":28}
}
```

13.5.3 Sanctum Schema

```
{
  "wings_unlocked":["ase_flame","training_grounds"],
  "emotions":{"faith":62,"harmony":54,"favor":21},
  "upgrades":{"training_grounds":1},
  "queues":{"
    "healing":[{"hero_id":"h_002","ends_utc":"..."}],
    "research":[{"node":"purification_rite","ends_utc":"..."}],
    "crafting":[{"recipe":"ward_beads_t1","ends_utc":"..."}]
  }
}
```

13.5.4 Economy Schema

```
{
  "ase":210,"ekwan":95,"relics":[{"id":"rel_mem_ink","state":"pristine"}],
  "yields":{"daily_ase":18},"sinks":{"upgrade_spend":30}
}
```

13.5.5 Research & Crafting

```
{
  "research_tree":{"
    "faith":["purification_rite"],"war":[],"knowledge":[]
  },
  "active_projects":[],
  "known_recipes":["ward_beads_t1","totem_courage_t1"]
}
```

13.5.6 Legacy

```
{
  "fragments":[
    {"id":"frag_kojo","lineage_id":"lin_01","class":"Okofor",
    "imprints":{"courage":2,"temperament":1},"epitaph":"Held the line."}
  ],
  "lineages":[{"id":"lin_01","name":"Riverborn","bonuses":["fear_resist_wate
```

```
r:+5%"]}]  
}
```

13.6 Content Data: Assets vs. State

- **Assets (readonly)**: shipped JSON (recipes, relic templates, realm definitions, abilities).
 - Namespaced keys: "realm.vale_of_dust", "recipe.ward_beads_t1".
 - Version each content pack: "content_version": "pack-2025.10".
- **State (mutable)**: player save (values, timers, seeds).
- **Lookup**: state references asset IDs; game never copies asset bodies into save.

13.7 Validation & Contracts

Hard validation on load

- Required fields exist; enums valid; timers sane; numeric ranges (e.g., $0 \leq \text{Faith} \leq 100$).
- If invalid → **safe rollback** to previous save + error banner.

Soft validation

- Warn on potential inconsistencies (e.g., hero in two queues).
- Auto-repair routines (remove dupes, clamp stats).

Contracts

- **Combat** reads hero snapshots; writes back only deltas (hp, morale, fear, conditions), plus an **encounter log**.
- **Sanctum** owns timers; **Economy** owns resource mutations; **Research/Crafting** owns queues; **Legacy** writes fragments.

13.8 Telemetry & Replay

- **Ring buffer** of recent events (cap 2–5k entries).
- Minimal payload per event:

```
{"t":"encounter_end","realm":"vale_of_dust","seed":"E-1","result":"success","morale_delta":-12,"ase_gain":28}
```

- **Replay header:** campaign_seed, realm_order, build_id.
 - **Anonymization:** no real user data.
-

13.9 Migrations

- **SemVer:** bump minor for additive fields, major for breaking changes.
 - **Migration scripts** (JSON transform):
 - 12.x → 13.0 example: move morale from hero root into stats.
 - **Compatibility policy:** support **latest – 2** minor versions; auto-backup originals.
-

13.10 Security & Privacy

- Saves are **local by default**; optional cloud sync encrypts at rest (AES-GCM) with platform keystore.
 - Strip LLM prompts that might include player text; store only outputs needed for replay.
 - No PII; keeper_id is random.
-

13.11 Performance Targets (MVP)

- Save size target: \leq **250 KB** per campaign (text-only MVP).
 - Save/Load under **100 ms** on mid-tier devices.
 - PRNG calls per combat round: **< 1,000**.
 - Telemetry ring buffer write: **O(1)** append.
-

13.12 MVP vs. Full

Area	MVP	Full
Modules	All present, slim fields	Expanded (corruption, lineage depth, more queues)
PRNG	PCG32, single stream per subsystem	Stream per realm/stage/encounter; saved cursors
LLM	Off by default (templated text)	On-demand, cached outputs
Telemetry	Basic ring buffer	Export to CSV/NDJSON; dashboards
Migrations	N/A	Scripted up/down transforms

13.13 Developer Utilities

- **Seed Inspector:** view/override seeds; step PRNG.
- **State Diff:** before/after module diff for QA.
- **Event Player:** fast-forward through a replay header to validate determinism.
- **Schema Linter:** CI job to validate asset/state JSON.

13.14 Cross-System Dependencies (Map)

- **Combat** → writes: hero_roster.stats, economy.ase, realm_states.logs.
- **Sanctum** → reads hero_roster, writes queues, emotions.
- **Crafting/Research** → consumes economy, unlocks content in research_crafting.
- **Legacy** → consumes hero_roster.fallen/retired, writes legacy.fragments/lineages.
- **Economy** ↔ **Sanctum Emotions:** Faith/Harmony modify yields (see §8 & §12).

13.15 Example Minimal Save (MVP)

```
{
  "schema_version":"13.0.0",
  "campaign_run":{"mode":"MVP","cycle_index":1,"realm_selection":["vale_
of_dust","shrouded_grove"],"rng_book":{"campaign_seed":"A2B9-4D10"}},
```




```
"sanctum_state":{"wings_unlocked":["ase_flame","training_grounds"],"emotions":{"faith":58,"harmony":50,"favor":15}},
"hero_roster":{"active":[{"id":"h_001","name":"Ama","class":"Okofor","rank":2,"stats":{"hp":78,"morale":80,"fear":1},"core_traits":{"courage":14,"wisdom":9,"temperament":11,"faith":12,"virtue":8,"ambition":6},"bonds":[]}],"recovering":[],"retired":[],"fallen":[]},
"realm_states":[{"realm_id":"vale_of_dust","tier":1,"realm_seed":"R-VALE-00017","stage_index":0}],
"economy":{"ase":180,"ekwan":70,"relics":[]},
"research_crafting":{"research_tree":{"faith":["purification_rite"]},"known_recipes":["ward_beads_t1"]}
}
```

✅ Section 13 Complete — Technical & Data Model

You now have a battle-tested shape for **deterministic simulation, safe saves, and modular systems** that will carry smoothly into your simulation tests and later into visuals.



MVP Definition

 Category	Development
 Status	Approved
 Description	<p>Purpose: Set scope for first playable prototype.</p> <p>Includes:</p> <ul style="list-style-type: none">• Minimal required systems• Placeholder art & UI plan• Success/failure test cases• Build order and testing milestones

Section 14: MVP Definition (v1 – Final Canon Version)

14.1 Purpose — What the MVP Proves

Deliver a **playable vertical slice** that validates:

1. the **core loop** (Sanctum ↔ Realm),
2. the **moral economy** (Ase/Faith/Ekwan),
3. **hero autonomy & refusal**,
4. **permadeath & legacy fragment** creation, and
5. **deterministic simulation** with clean save/load.

No visuals required beyond text; all soul, zero fluff.

Player Promise (MVP):

"In 45–60 minutes, restore 1–2 Realms by guiding Echoes through fear, doubt, and loss—without direct control—and watch the Sanctum reflect your leadership."

14.2 MVP Scope — In/Out

In-Scope (Must-Have)

- **Realms (2–3 linear):** Vale of Dust → Shrouded Grove → *(optional)* Crimson Plains.
 - 5 stages per realm (MVP templates): Combat Trial, Defense/Protect, Escort (simple), Moral Choice, Restoration Finale.
- **Sanctum Wings (3–4):** Ase Flame (core), Training Grounds, Shrine of Voices, *(optional)* Caretaker's Chamber.
- **Resources:** Ase, Ekwan, Faith (numerical); simple daily Ase yield.
- **Combat:** Turn-based, text; HP, Morale, Fear; Major+Minor action; refusal & barks.
- **AI:** Behavior Tree + Utility leaves; refusal triggers; canned personality barks.
- **Crafting & Research (light):** 6–8 recipes (implements/consumables), 1 linear research track (4 nodes).
- **Legacy/Death:** Downed→Dying→Permadeath; Legacy Fragment on death/retire; simple funeral rite.
- **Save/Load:** JSON per Section 13; PRNG seeding; deterministic replay.
- **Telemetry:** Ring buffer of encounters; export to file (optional).
- **Text UI:** Readable logs, prompts, clear state readouts.

Nice-to-Have (Stretch)

- Escort/Explore hybrids; one Insight/Crisis research event; Meditation Garden ambience lines; simple lineage bonus.

Out-of-Scope (For Full Version)

- Harmony & Favor systems; Anansi dynamic interventions; 2D/2.5D rendering; live NPC chatter; Relic refinement with risk; advanced corruption, rescue operations, lineage awakening, marketplace trading, multi-team management.

14.3 Content List (MVP)

Realms & Encounters

- **Vale of Dust:** 5 stages (1 wave combat, 1 protect, 1 escort-lite, 1 moral choice, 1 finale).
- **Shrouded Grove:** 5 stages (illusion reveal event in stage 3; duel-or-dialogue finale).
- **Crimson Plains (optional):** 5 stages (convoy defense; duel finale affected by mercy earlier).

Heroes & Classes

- **3 Classes:** Okofor (Guardian/Warrior), Aduro (Healer/Support), Onyamesu (Ranger/Archer).
- 6–8 prefabs with different core traits & starter bonds.

Items/Recipes

- 4 implements (T1–T2), 2–4 consumables (salve, ward beads, incense).

Research

- Linear: Purification Rite → Group Meditation → Escort Protocols I → Forge Tempering I.

14.4 Systems Cutlines (Design Knobs)

If time risk emerges, cut in this order:

1. Crimson Plains (realm 3)
2. Escort stage in Grove (keep duel)
3. Training Grounds mentorship scenes (keep stat effects)
4. Research node #4 (ship 3)
5. Funeral flavor variations (keep effect)

14.5 Success / Failure Criteria

Success = MVP Accepted when ALL true:

- A new player can **finish 1 Realm** within **≤ 60 minutes** without guidance.
- At least **one Echo death** creates a **Legacy Fragment** and visible Sanctum reaction.

- **Refusal** triggers in combat (≥ 1 case) due to Fear/Morale thresholds.
- **Ase/Faith loop** feels coherent: no hard stalls; net Ase gain ratio **1.1–1.3** by end of Realm 1 (per §12 KPIs).
- **Save/Load** restores mid-encounter state without desync; same seed → same result.
- Playtesters articulate the **Keeper-as-guide** fantasy in post-session survey.

Failure Modes (MVP rejected if any hold):

- Economy collapse (player forced to grind beyond 2 attempts per stage).
 - Refusal never occurs or is spammy/opaque.
 - Permadeath/legacy not observable in a typical run.
 - Determinism breaks on load (desync > 1% cases).
 - Average session exceeds 75 minutes with no options to shorten.
-

14.6 Non-Functional Targets

- **Deterministic Sim:** identical seed + inputs \Rightarrow identical outcomes.
 - **Performance:** save/load < 100 ms; round compute < 20 ms on mid device; log I/O non-blocking.
 - **Robustness:** no fatal state; auto-repair clamps bad values; safe rollback on load errors.
 - **Accessibility (text):** configurable font size; high-contrast palette; color-agnostic state markers.
 - **Modularity:** JSON assets hot-reloadable in dev builds.
-

14.7 UX & Messaging (Text MVP)

Screens

- **Sanctum Dashboard:** Ase/Ekwan/Faith readouts; queues; heroes list with states.
- **Realm Prep:** select squad, blessing, preview conditions.
- **Encounter Log:** initiative strip (text), turn entries, clear prompts, refusal barks.

- **Aftermath Card:** deltas (Morale/Faith, loot, injuries), optional debrief text.

Clarity Rules

- Every state change gets a **one-line reason** ("Morale -10: Ally downed").
 - Refusal always prints **why** and **what would restore confidence**.
 - Permadeath event includes **funeral prompt** and **Legacy fragment summary**.
-

14.8 LLM Usage (MVP)

- **Default OFF** (templates only).
 - Optional single-provider toggle for **post-encounter debrief** and **special barks** (rate-limited).
 - Never used for frame-critical choices.
-


14.9 Build Order & Milestones

Phase 0 — Foundations (Week 0–1)

- Repo, CI, schema linter, PRNG lib, seed inspector.
- Root save schema (13.3), minimal UI shell, telemetry ring buffer.

Phase 1 — Core Loop (Week 2–3)

- Sanctum Dashboard (Ase/Faith/Ekwan), Training Grounds (stat-only), Shrine of Voices (morale restore).
- Realm scaffolding + encounter runner; Combat MVP (HP/Morale/Fear; Major/Minor actions; refusal).
- One full realm (Vale of Dust) with 5 stages.

Gate A: Finish Realm 1 with permadeath & legacy → 

Phase 2 — Systems & Content (Week 4–5)

- Research linear track + 6–8 recipes and crafting.
- Shrouded Grove content (5 stages, duel-or-dialogue finale).
- Caretaker's Chamber (healing timers).
- Economy tuning pass #1 (per §12 tables).

Gate B: Finish Realm 2 + research/crafting loop → 

Phase 3 — Polish & Stretch (Week 6)

- Optional Crimson Plains (5 stages) OR depth on Grove illusions.
- Telemetry export; accessibility polish; save/load edge cases.
- Tutorialized onboarding (3 tooltips + 1 context card).

Gate C (MVP Complete): All success criteria met; stability pass.

14.10 QA Plan & Test Cases

Determinism

- Record seeds; re-run 20x → identical outcomes; compare encounter logs.

Combat/Refusal

- Force high Fear; verify refusal triggers once; healer ritual reduces chance.

Economy

- Simulate 5 sessions; check Ase gain/spend ratio 1.1–1.3; no negative spirals without player mistakes.

Permadeath/Legacy

- Kill a bonded hero; verify funeral prompt, fragment saved, Sanctum Faith shift, and Hall of Lineage entry.

Save/Load

- Mid-encounter save; reload; same turn order & RNG rolls; no duplicated rewards.

UX

- All state changes have plain-language reasons; color-agnostic icons pass.
-

14.11 Risks & Mitigations

Risk	Impact	Mitigation
Refusal feels unfair	Frustration	Always explain cause & remedy; add pre-battle Blessing to stabilize Morale.

Risk	Impact	Mitigation
Economy snowball	Stalls	Cap cost escalations; grant one-time bailout rite after consecutive failures.
Content overrun	Delays	Keep Realm 3 optional; reuse templates; prioritize narrative clarity.
Save corruption	Data loss	Auto-backup on write; JSON schema validation + rollback.
LLM latency/cost	Choppy feel	Default off; cache; rate-limit to 1 call per encounter max.

14.12 Go/No-Go Checklist (Producer-Friendly)

- Player completes **1 Realm** < 60 min.
- At least **one refusal** and **one funeral** seen naturally.
- **Legacy Fragment** created and visible in Hall of Lineage.
- **Ase/Faith loop** meets KPI (ratio ≥ 1.1 by end of Realm 1).
- **Save/Load** passes determinism suite.
- **Accessibility**: font scale + high contrast verified.
- **Crash-free** 30-minute soak test.

14.13 Deliverables

- Playable **text build** (Windows/macOS + console logs).
- **Design knobs file** (constants per §12).
- **Seed Inspector** tool.
- **Test Plan & Logs**: determinism, refusal, economy, death/legacy.
- **Short tutorial** (3 cards).

14.14 Post-MVP Roadmap Bridge (Preview)

- Add **Harmony & Favor**; Anansi events; Meditation Garden ambience.
- Expand to **7-of-10 Realms** selection; Tactical Nexus multi-team.
- Introduce **Relic refinement** risks; **lineage awakenings**; **Marketplace**.




- 2D/2.5D presentation retaining the same sim core.
-

Section 14 Complete — MVP Definition

You now have a sharp, testable slice with clear gates, success criteria, and a humane scope that proves the soul of *Echoes of the Sankofa*.



UX, Accessibility & Telemetry

 Category	UI/UX
 Status	Approved
 Description	<p>Purpose: Define player-facing clarity and testing metrics. Includes:</p> <ul style="list-style-type: none">• UI principles and priorities• Color-agnostic design, scalable UI• Key feedback loops (morale, danger, resource flow)• Telemetry plan (realm data, deaths, economy deltas)



Section 15: UX, Accessibility & Telemetry (v1 – Final Canon Version)

15.1 Purpose

To guarantee that every system—mechanical, emotional, and narrative—communicates **clearly, consistently, and compassionately** with the player.

This section defines:

- **User Interface principles** and modular layout rules.
- **Accessibility standards** for readability and inclusivity.
- **Feedback loops** connecting player action to visible consequence.
- **Telemetry metrics** used to validate design goals, detect pain points, and tune emotional pacing.

“If the world speaks in riddles, the interface must translate them into truth.”

15.2 Design Philosophy

1. **Clarity Over Complexity:** Every UI element must show *state* and *consequence* at a glance.
2. **Emotion as Data:** Faith, Morale, and Harmony are UI elements—display them like health bars of the soul.
3. **Accessible First:** Text legibility, contrast, color independence, and reading rhythm guide visual design.
4. **Player as Observer, Not Operator:** The Keeper doesn't press buttons; they *witness and influence*.
5. **Transparency of Cause & Effect:** Always tell the player *why* something happened (refusal, decay, loss).

15.3 Core UI Layout (Text MVP)

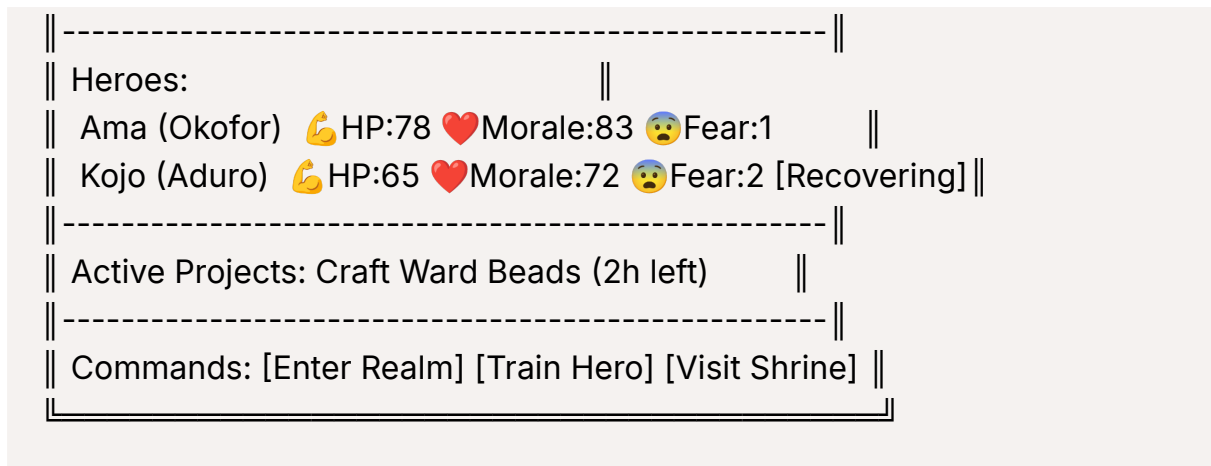
Primary Views

View	Purpose	Key Info Displayed
Sanctum Dashboard	Meta-management hub	Ase, Ekwan, Faith; emotional status (Faith/Harmony/Favor bars or lines); queues; hero roster
Realm Preparation Screen	Squad & blessing assignment	Realm name, conditions, squad morale preview, forecast Fear pressure
Encounter Log View	Turn-by-turn text UI	Initiative order, current action, morale/Fear updates, dialogue barks
Aftermath Screen	Post-encounter results	Outcome summary, Faith/Morale deltas, loot/resources, trauma or death alerts
Hall of Lineage / Memorial	View legacies	Fallen Echo list, fragments, epitaphs, bonuses

15.3.1 Text MVP Interface Model

	🔥 Sanctum: Obosom Flame Burns Steady (Faith 62)	










	Ase: 210 Ekwan: 95 Harmony: — Favor: —	



Interaction Rules

- Every screen action = one clear text choice.
- Each state change prints a **cause & effect** line:
"Kojo's fear rises (+2): the shadows whisper your name."

Icons/Emojis (Text MVP)

Icon	Meaning
	Faith/Ase Flame
	Health
	Morale
	Fear
	Rituals
	Upgrades
	Research
	Death event
	Healing / Care

15.4 Visual & Audio Feedback (Full Version)

System	Visual Feedback	Audio / Haptic Feedback
Faith	Flame brightness, Sanctum hue	Warm choral hums
Harmony	Clean air, vibrant plants	Calm ambient tones
Favor	Spider threads glowing	Plucked strings, laughter
Morale	Hero posture, text tone	Heartbeat/pulse accent

System	Visual Feedback	Audio / Haptic Feedback
Fear	Color desaturation, flicker	Distorted low drones
Death	Flame flicker → fade	Faint bell, silence

15.5 Accessibility Standards

15.5.1 Text Presentation

- Font-size scaling (120–200%).
- Minimum contrast ratio **WCAG 2.1 AAA** ($\geq 7:1$).
- Dyslexia-friendly font stack (Atkinson Hyperlegible or OpenDyslexic as fallback).
- Line height $\geq 1.5 \times$ font size.
- Max line width ~70–80 characters for readability.

15.5.2 Color Independence

All critical information conveyed through **shape, labels, and text**, not color.

Variable	Primary Indicator	Color Use
Faith	Flame brightness or word ("Bright / Dim / Flickering")	Optional gold hue
Fear	Descriptive text + symbol 🥵	Optional red tint
Morale	Label ("Steady / Shaken / Broken")	Optional heart icon
Realm Type	Iconography (sword/leaf/web)	Optional palette tone

15.5.3 Input & Navigation

- Keyboard-first design: arrows/tab confirm/cancel.
- Controller mapping: minimal radial menu; short label tooltips.
- Optional touch interface (tap = select, hold = context).
- No timed choices—player sets pace.

15.5.4 Neurodiverse & Cognitive Support

- Toggle for **simplified descriptions** (replace poetic metaphors with clear status).
- Toggle for **emotional color mode** (adds mood tags: Calm, Stress, Panic).
- **Safe Mode**: disables horror/trauma phrasing, replaces with neutral equivalents.
- "Explain This" button for key systems (short glossary popover).

15.6 Feedback Loops & State Visibility

Loop	Signal	Player Read
Morale	❤️ icon + text status	"Shaken" means risk of refusal soon.
Fear	😨 value increment	"Fear +3: shadows close in."
Faith Decay	🔥 status message	"Flame flickers dimly."
Harmony (Full)	Ambient text summary	"Echoes move in harmony (+)."
Death	💀 + epitaph card	"Ama fell. The flame remembers her."
Economy	Ase/Ekwan counter pulse	Immediate after transaction.

All changes appear *in-line* with narration, never hidden in logs only.

15.7 Telemetry Overview

Telemetry validates design hypotheses from §12 (balance) and §14 (MVP success).

It captures **quantitative metrics** and **emotional event frequencies**—without storing user identity.

Telemetry Pipeline

Gameplay Event → JSON entry in ring buffer → On session end → Compressed log upload (opt-in)

15.7.1 Core Telemetry Events

Event	Data Captured	Purpose
Session Start / End	duration, platform, realm progress	Engagement & pacing

Event	Data Captured	Purpose
Encounter Result	realm_id, stage_type, win/lose, morale_delta, ase_gain	Difficulty tuning
Hero Death	hero_id, class, faith_at_time, cause	Mortality curve
Refusal Triggered	hero_id, morale, fear, faith, reason	AI behavior QA
Ritual Performed	type, success/fail, faith_delta	Resource flow
Craft / Research Complete	item/node_id, success_rate	Progress pacing
Faith / Harmony Snapshots	value every 10 minutes	Emotional rhythm validation
Save / Load	timestamp, success, hash diff	Determinism check

15.7.2 File Format

```
{
  "t": "encounter_end",
  "realm": "vale_of_dust",
  "stage": "combat",
  "duration_sec": 620,
  "heroes": ["Ama", "Kojo"],
  "morale_delta": -14,
  "ase_gain": 32,
  "result": "success"
}
```

- Stored as NDJSON (1 JSON per line).
- Rotates every 10k entries or session end.
- Optional compression (zstd).

15.8 Metrics Dashboard (For QA & Designers)

Dashboard	Key Graphs	Question Answered
Faith & Ase Economy	Faith vs. Ase gain per session	Are emotional highs tied to growth?
Morale Dynamics	Fear vs. refusal events	Is tension fair?
Realm Performance	Avg turns per stage, completion rate	Is pacing balanced?

Dashboard	Key Graphs	Question Answered
Hero Mortality	Deaths / cycle	Is permadeath too harsh?
Craft/Research Efficiency	Success %, resource loss	Are projects too punishing?
Session Overview	Duration, success rate	Is the game too long or short?

15.9 MVP Telemetry Scope

System	Logged	Sampling
Combat	Round events, refusals, morale/fear deltas	Per turn
Economy	Ase/Ekwan deltas	Per encounter
Death & Legacy	Hero ID, cause, Faith pre/post	Per event
Save/Load	Start/End & success	Per call
Session Meta	Start/end time, realms cleared	Per session

No PII. Upload optional (manual export JSON to QA).

15.10 MVP → Full UX Scaling

Category	MVP	Full
UI	Text + emojis	2D panels, ambient animations
Accessibility	Font scaling, contrast, safe mode	Voice narration, localized text, haptic feedback
Feedback	Inline text	Visual, audio, particle, haptic layering
Telemetry	Local JSON logs	Cloud analytics + dashboard
Explainability	Glossary text	Interactive tutorial, adaptive hints
Emotional State Visuals	Text tags	Ambient and spatial cues in Sanctum/Realms

15.11 UX Validation Plan

1. **Heuristic Review:** 5 testers (2 neurotypical, 3 neurodiverse) grade clarity of each core screen.




2. **Accessibility Pass:** confirm font scaling, color independence, and “safe mode” toggles.
 3. **Telemetry Check:** verify all MVP success criteria (from §14) have corresponding telemetry hooks.
 4. **Survey Goal:** $\geq 80\%$ of testers describe game state in their own words accurately after 10 min of play.
 5. **Iteration:** adjust text pacing, icons, and phrasing based on readability feedback.
-

Section 15 Complete — UX, Accessibility & Telemetry

You now have a **player-facing design language**: one readable, inclusive, explainable interface where data and emotion merge, and telemetry ensures that empathy and balance stay measurable.



Development Roadmap

 Category	Development
 Status	Not Started
 Description	<p>Purpose: Connect design to production.</p> <p>Includes:</p> <ul style="list-style-type: none">• Phased deliverables (Text MVP → Simulation → Visual MVP → Full)• Dependencies and tools (engine, tech stack)• Testing and balance cadence• Playtest goals per phase

Section 16: Development Roadmap (v2 – Solo Production Plan, Hours-Based)

16.1 Purpose

Provide a realistic, part-time roadmap for building the MVP alone (with AI assistance) while holding a full-time job.

Target total effort: **≈ 160–180 productive hours (~9–10 weeks at 18 h/week).**

Focus: deliver a deterministic, text-based MVP proving all core systems and the emotional loop.

16.2 Guiding Principles

1. **Tiny Steps, Real Progress** – every 2-hour session must produce a visible result.
2. **Automate & Reuse** – delegate boilerplate to AI; save creative time for design, tuning, and writing.

3. **Feature Freeze ≈ Focus** – no new features once Realm 2 works end-to-end.
4. **Stable Core > Pretty UI** – determinism, save/load, and economy first.
5. **Play Often** – one 45-min test run each weekend, log notes immediately.

16.3 Phase Overview (With Estimated Hours)

Phase	Goal	Hours (est.)	Deliverables
0 – Foundation	Tooling + repo + schema validator + PRNG	20 h	project repo, seed inspector, schema lint
1 – Loop Prototype	Sanctum ↔ Realm loop + deterministic combat	35 h	1 Realm playable, combat loop + save/load
2 – Systems Integration	Add crafting, research, legacy	45 h	end-to-end cycle (2 Realms)
3 – Balancing & Telemetry	Validate §12 curves + logs	25 h	auto-sim script, balance charts
4 – UX & Accessibility	Text polish + safe mode + export logs	25 h	readable UI, test checklist
5 – Review & Next Plan	MVP post-mortem + backlog for visual build	10 h	stability build, notes for 2D upgrade

Total ≈ 160 hours (add + 10–20 h buffer for iteration).

16.4 Time-Budget Example (Solo Evenings + Weekends)

Week	Goal	Expected Hours	Focus Sessions
1 – 2	Phase 0 → Foundation done	18 × 2 = 36 h	set up repo, schemas, save/load test stub
3 – 5	Phase 1 → Loop Prototype	18 × 3 = 54 h	combat MVP + Realm 1 content
6 – 8	Phase 2 → Systems Integration	18 × 3 = 54 h	craft/research + Realm 2 + legacy
9	Phase 3 – 4 → Balancing + UX	18 h	sim runs, accessibility pass

Week	Goal	Expected Hours	Focus Sessions
10	Phase 5 → Review + Wrap-up	18 h	post-mortem & next-phase prep

Total ≈ 180 h → ~10 weeks of evenings + weekends.

16.5 Toolchain & AI Assistants

Function	Tool	Solo Benefit
Engine / Framework	Godot 4 (C# or GDScript) or Unity (C#)**	Small footprint; deterministic sim easy.
Data & Balance Scripts	Python + JSON + VS Code	Fast auto-sims & curve plots.
Version Control	GitHub + Actions	Auto schema checks on commit.
AI Support	GPT-4o / Claude 3.5 / Cursor IDE	Code snippets, balance automation, writing barks.
Telemetry Visualization	ObservableHQ / Sheets	Quick graphs from NDJSON.

16.6 Solo Weekly Rhythm

Day	Time (h)	Focus
Mon / Wed / Thu	~2 h each	Implement features or debug.
Sat	~6 h	Integrate + test Realm/Combat.
Sun	~6 h	Playtest + balance + document.

Weekly Goal: Finish one complete loop (feature or realm test) per weekend.

16.7 Desired Small-Team Structure (Post-MVP)

Role	Load (FTE)	Core Tasks	When to Add
You – Creative Director / Designer	1.0	Vision, design, balance, writing	Always
Gameplay Programmer	0.5–1.0	Combat engine, data ops	Post-funding

Role	Load (FTE)	Core Tasks	When to Add
Narrative Designer / Writer	0.3–0.5	Anansi events, dialogues	After MVP tests
2D Artist / UI Designer	0.3	Visual MVP & icons	Visual phase
QA / Data Analyst	0.3	Sim runs & telemetry	Balance phase
Composer / Sound	Contract	Ambience themes	Polish phase

Total Full Team ≤ 6 people (4 part-time + 2 freelancers).

16.8 Milestones & Deliverables

Milestone	Target Hours	Output
M0 – Foundation Ready	20 h	Repo + seed tools + schema validated
M1 – Loop Prototype	55 h total	Realm 1 + combat + save/load
M2 – Systems Online	100 h total	Crafting/Research/Legacy connected
M3 – Balance Stable	125 h total	Sim report + curves plotted
M4 – UX Pass	150 h total	Readable UI + accessibility toggle
M5 – MVP Gate	180 h total	Full 2-Realm playable demo + logs

16.9 Testing Cadence

- **Mini-tests:** Each evening push passes unit tests + auto-save check.
- **Weekly session:** Full cycle play; record Faith/Morale trend.
- **Bi-weekly:** Telemetry graph review + constant tuning.
- **End of phase:** Crash-free 1 h run and determinism retest.

16.10 Risks & Personal Management

Risk	Effect	Mitigation
Limited time	Slow velocity	Micro-goals: 1 feature per evening; AI for boilerplate.
Burnout	Fatigue	2 rest days min/week; swap creative and technical tasks.
Feature drift	Scope creep	Lock MVP list (§14); backlog extras in Notion.

Risk	Effect	Mitigation
Testing neglect	Hidden bugs	Always finish sessions with one playtest.
AI over-trust	Low code quality	Review LLM output line-by-line; add tests.

16.11 Funding / Next Steps After MVP



- Present MVP (text build + short trailer) to indie micro-grant programs or narrative-game publishers.
- Recruit part-time **programmer + writer** for the visual build.
- Prepare "Full Build" plan: 7 Realms + 2D presentation + Anansi events.

✅ Section 16 Complete — Solo Development Roadmap (Hours-Based)

A 10-week, 180-hour plan that fits evenings + weekends, automates heavy lifting with AI, and grows naturally into a 6-person studio once the MVP succeeds.



Appendices

 Status	Not Started
 Description	<p>Purpose: Store examples, references, and future extensions.</p> <p>Includes:</p> <ul style="list-style-type: none">• Example events, dialogues, blessings• Sample JSON templates• Glossary of terms• AI logic snippets

Section 17: Appendices (v1 – Final Canon Version)

17.1 Purpose

Provide quick-reference resources for developers and narrative design:

- Common **terms and lore definitions**.
- **Example JSONs** (heroes, realms, relics, events).
- **Sample dialogues** showing tone and AI hooks.
- **AI logic snippets** used for behavior and dialogue generation.
- **Future extension notes** for modding and data packs.

Everything here is non-blocking documentation — reference, not requirement.

17.2 Glossary of Core Terms

Term	Type	Definition
Ase	Resource	Divine life-force that fuels creation, rituals, and upgrades. Central energy currency.
Ekwan	Resource	Tangible essence left by Realms; used in crafting and training.
Faith	Emotional Resource	Measure of the heroes' belief in the Keeper's guidance; affects Ase yield.
Harmony	Emotional Resource	Social balance within the Sanctum; improves efficiency.
Favor	Emotional Resource	Level of Anansi's amusement; brings both gifts and chaos.
Echo	Character	Manifested hero born from ancestral stories; has autonomy and emotion.
Keeper	Player Role	Grand ancestor guiding the Echoes indirectly through influence and ritual.
Anansi	Entity	Trickster god and storyteller; treats all events as entertainment.
Odo Agyanka	Entity	The Devourer of Names; embodiment of forgetting and erasure.
Obosom Sanctum	Location	Player hub and spiritual mirror; expands with Faith and Realm progress.
Realm of Ase	Location	Fragmented world to be restored; each holds a virtue, mood, and challenge.
Relic	Item	Memory artifact recovered from Realms; carries history and moral weight.
Legacy Fragment	Data Object	Genetic + emotional imprint created on Echo death/retirement; used for inheritance.
Purification Rite	Ritual	Removes corruption or restores Faith; consumes Ase and time.
Corruption	Status	Spiritual taint altering behavior or granting risky power.
Harmony Decay	Mechanic	Drop in cooperation; reduces efficiency and morale.
Refusal Event	Behavior	When an Echo rejects an order due to fear or moral conflict.
Restoration Trail	Quest Type	Multi-stage finale sequence that completes a Realm's virtue.

17.3 Sample JSON Templates

17.3.1 Hero Template

```
{
  "id": "h_001",
  "name": "Ama",
  "class": "Okofor",
  "rank": 2,
  "stats": { "hp": 78, "morale": 83, "fear": 1 },
  "core_traits": { "courage": 14, "wisdom": 9, "temperament": 11, "faith": 12,
"virtue": 8, "ambition": 6 },
  "abilities": ["guard", "intercept", "strike"],
  "personality": { "tone": "stoic", "alignment": "virtuous" },
  "bonds": [ { "with": "h_002", "type": "bond", "strength": 0.42 } ],
  "corruption": { "level": 0, "tags": [] },
  "lineage_id": "lin_01",
  "dialogue_profile": "echo_ama_t1"
}
```

17.3.2 Realm Template

```
{
  "realm_id": "vale_of_dust",
  "tier": 1,
  "virtue": "Courage",
  "tone": "Melancholic",
  "enemy_types": ["Hollowed", "Wanderer"],
  "stages": [
    { "index": 1, "type": "combat", "objective": "Defeat all" },
    { "index": 2, "type": "protect", "objective": "Defend the Flame" },
    { "index": 3, "type": "choice", "objective": "Spare or Slay" },
    { "index": 4, "type": "boss", "objective": "Confront the Echo of Fear" }
  ],
  "rewards": { "ase": 80, "ekwan": 50, "faith_gain": 5 },
}
```

```
"seed": "R-VALE-00017"
}
```

17.3.3 Relic Template

```
{
  "id": "rel_tongue_lied",
  "name": "The Tongue That Lied",
  "tier": 2,
  "origin": "Crimson Plains",
  "effects": { "attack_bonus": 5, "favor_gain_on_use": 3 },
  "curse": "May spread deceit among allies",
  "flavor": "It whispers stories better left untold."
}
```

17.3.4 Event Template

```
{
  "id": "evt_refusal_001",
  "type": "refusal",
  "trigger": "fear>=7 OR morale<40",
  "text": "{hero} refuses your guidance: 'Not this time, Keeper...'",
  "effects": { "faith_delta": -2, "harmony_delta": -1 },
  "resolution": ["Shrine of Voices","wait_1_day"]
}
```

17.4 Sample Dialogue Sets

17.4.1 Sanctum Ambient Lines

Mood	Example Line
High Faith	"The flame hums the songs of the old ones."
Low Faith	"We pray, but the light answers slowly."
High Harmony	"Silence here feels like peace."
Low Harmony	"Even the echoes argue in their sleep."

17.4.2 Combat Barks

Situation	Example Line
Ally Down	"No! Not again—stay with me!"
Fear Rising	"Something watches from the dark."
Keeper Blesses	"Their warmth touches us still!"
Refusal	"I won't do it—this path leads to ruin!"

17.4.3 Funeral Epitaph Templates

- "They carried courage where none remained."
- "Their story ends, but their echo endures."
- "The flame remembers."

17.5 AI Logic Snippets

17.5.1 Combat Behavior Tree Node

```
def choose_action(hero, context):
    if hero.fear >= 7 or hero.morale < 40:
        return "refuse"
    if context.objective == "protect" and hero.class_ == "Okofor":
        return "guard_ally"
    if hero.corruption.level > 0 and random() < 0.2:
        return "wild_attack"
    return "attack"
```

17.5.2 LLM Dialogue Prompt Template

```
{
  "system": "You are an Echo named {name}, a {class_} in the Keeper's Sanctum.",
  "context": {
    "faith": 62,
    "morale": 80,
    "fear": 2,
    "relationship_with_keeper": "respectful",
```

```

    "event": "after_battle"
  },
  "instruction": "Generate one short reflective sentence (≤ 15 words) showing emotion but no stats."
}

```

17.6 Example Simulation Inputs

For testing (§12):




```

{
  "session_id": "sim_001",
  "campaign_seed": "A2B9-4D10",
  "faith_start": 60,
  "harmony_start": 55,
  "realms": 2,
  "heroes": 3,
  "runs": 50
}

```

Output metrics: average Ase yield, Faith variance, morale collapse rate.

17.7 Lore Quick-Reference

Entity	Domain	Symbol	Notes
Anansi	Trickster / Stories	 Web	Instigates events; player never sees true form.
Odo Agyanka	Oblivion / Forgetting	 Extinguished Flame	Consumes memory; source of corruption.
The Keeper	Ancestor Spirit (Player)	 Flame	Guides, never commands.
The Seven Virtues of Ase	Courage, Wisdom, Compassion, Forgiveness, Humility, Acceptance, Generosity	—	Manifest as Realms.

17.8 Development Utilities & Cheat Commands

Command	Description
/test_realm <id>	Load realm directly for debug.
/add_ase <n>	Add Ase; use for balance runs.
/force_refusal	Trigger refusal to test AI.
/dump_state	Output JSON save snapshot.
/reroll_seed	Generate new deterministic campaign seed.

17.9 Future Extensions

- **Procedural Lore Engine:** AI-generated myths per lineage.
- **Voice Integration:** text-to-speech for accessibility.
- **Mod Support:** JSON + Lua or Godot script hooks for community Realms.
- **Analytics Portal:** cloud dashboard fed by telemetry NDJSON.
- **Companion Book:** printable codex of restored stories after each cycle.