Action Learning Pathway

My journey through the **Diploma in Applied Permaculture Design** Mark D'Cruz



DIPLOMA IN APPLIED PERMACULTURE DESIGN

DESIGN No. 10:

Action Learning Pathway

Tutor: Dr. Tom Henfrey

Date: March 2025

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Design Summary: Design 10 - Action Learning Pathway

A Living Web of Regenerative Design

Design 10 represents the culmination of a deeply personal and ecological transformation. More than a capstone project, it is a meta-design, a living reflection on nine interconnected designs that span bonsai, permaculture, Ayurveda, and community regeneration. Rooted in Looby McNamara's **Design Web** and shaped through **Action Learning**, this design weaves threads of philosophy, practice, pattern, and purpose into a unified tapestry. It does not merely review past achievements; it regenerates the very frameworks through which my learning, living, and designing evolved.

Core Functions & Purpose

- Meta-Integration: Synthesises all 9 prior designs into a coherent living system, ecological, cultural, and spiritual.
- Action Learning: Cycles of reflection, application, and adaptation guide growth at both personal and project levels.
- Pattern Literacy: Identifies patterns (functional and limiting) within land, self, and systems, using them as tools for design evolution.
- Living Principles: Moves beyond checklist ethics to embodied principles, rooted in practice, ritual, and relationship.

Key Insights & Outcomes

- Philosophical Depth: The Mă-Kè Bonsai Way, Permaculture, and Vrikshayurveda converge as a regenerative worldview, striking a balance between tradition and innovation.
- Place-Based Vision: Vila Pinheiro emerges as a seasonal sanctuary, a regenerative classroom, and a spiritual ecosystem.
- Design as Dharma: Each decision becomes a thread in a wider web of meaning, designing not only the land, but also life and legacy.
- Tools in Action: GRAZER, GOCEAPER, and GODREAMET are refined into reusable templates for broader regenerative education.

Achievements

- Established a rhythm of seasonal practice, rooted in permaculture ethics and Ayurveda's cyclical wisdom.
- Designed Vila Pinheiro as a model for regenerative homesteading, integrating trees, animals, and learners into a circular ecosystem.
- Validated Action Learning as a lifestyle tool, not only structuring growth but also transforming experience into wisdom.
- Developed a regenerative offering: workshops, mentorships, rituals, and a living curriculum.

Regenerative Legacy

Design 10 is not an endpoint; it is a spiral opening outward. With its web of ideas, patterns, stories, and rituals, this design becomes a seed bank for future learners, a reflective tool for systems thinkers, and a regenerative rhythm for those who walk slowly and design deeply.

"This isn't just a design about design. It is a dharma. A compost pile of learning. A rhythm. A return to wholeness."

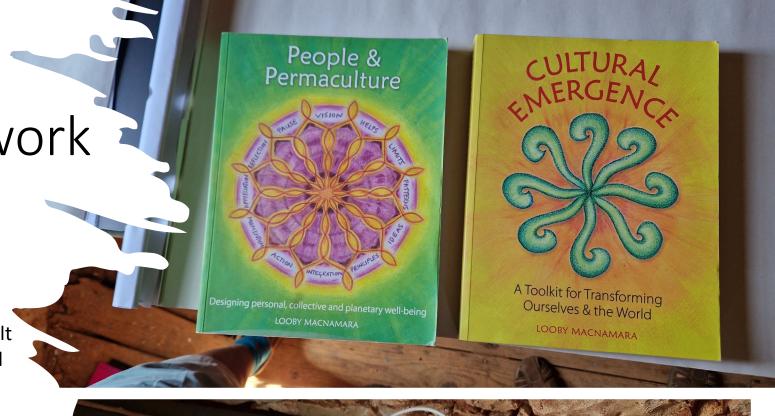
(Preamble)
The Design Framework

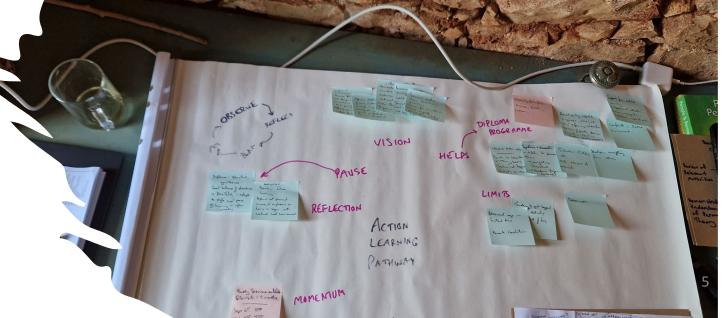
It was during my *Permaculture Diploma Induction*Tutorial with Dr. Tom Henfrey in July 2023 that we chose to apply Looby McNamara's Design Web

Framework to shape the Action Learning Pathway, one of my ten core designs. Though the framework was still new to me, its organic, non-linear nature felt like the most intuitive and regenerative approach I'd encountered. Complex, yes - but unmistakably the right choice for a design intended to mirror both personal evolution and systemic transformation.

What began as my first design in process ultimately became the final design presented, bringing a poetic symmetry to the journey and beautifully capping my Diploma experience with a web that wove all others together.

After all, if you're going to get tangled in something, let it be a well-designed web.







A Shared Dream Takes Root

For years, my wife and I have shared a simple but emotive dream: to live self-sufficiently, free from debt, and in harmony with the land.

Our early ambitions centred on financial independence, autonomy, and a deep sense of environmental responsibility.

Nearly a decade ago, we began searching for the right place to bring that vision to life, knowing we'd only make the move once our children had completed university and were ready to begin their journeys.

That time has come. And with it, the dream begins to take root.



A Vision Takes Shape

When I first set my sights on Portugal, the plan was clear: to build a bonsai nursery and teaching centre.

I found the land and named it *Vila Pinheiro, e*nvisioning it as the future home of *The Mă-Kè Bonsai School*.

A place where roots run deep, and learning grows with the trees.

Reflection: Not a Farmer... Yet Here I Stand

I'm not a farmer, never claimed to be. (People Care, Observe and interact)

And yet, here I am, boots on the soil, heart in the work, standing at the edge of a journey that asks more than just planting and pruning. (People Care, Use and value diversity)

It asks me to listen, to adapt, to become part of a living system that doesn't follow spreadsheets or schedules. (People and Earth Care, Integrate rather than segregate)

This isn't about control, it's about the relationship. About learning to work with the land, not on it. (Earth Care, Catch and Store Energy)

I may not have all the answers, but I'm here, shovel in hand, ready to ask the questions. (People Care, Value diversity)

Let the journey begin.



Reflection on Land Stewardship

I never set out to be a farmer; I'm not one.

Yet, stewarding this land requires skills that extend far beyond growing food. It's about heeding, observing patiently, and responding with care. (Earth Care, Catch and Store Energy)

The work is physical, yes, but also emotional, ecological, and spiritual. It's less about "owning" the land and more about being in an ongoing relationship with it.

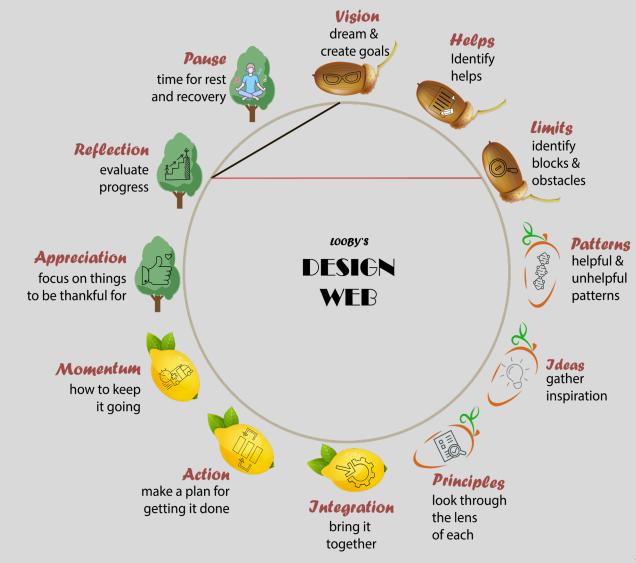
Some days it feels like chaos management. Other days, like co-creating a symphony with goats, trees, fungi and weather systems.

I'm learning that sustainability doesn't require perfection, just presence, humility, and a good pair of boots

Knowing My Limits

- I'm **not a farmer**, and that quickly became clear. (*People Care, Integrate rather than segregate*)
- I knew I **needed help**, guidance, and a solid foundation.
- It was the **first real step** from **vision to** reality.

The next few slides will further explore the limits.



Limits: Identifying Blocks on the Path

- Time scarcity: Balancing teaching, bonsai, homestead work, and design demands stretches our capacity to the limit. (Design from patterns to details)
- Financial constraints: Implementing infrastructure (e.g., energy systems, irrigation systems, fencing) requires a significant upfront investment. (Fair share, Produce no waste)
- Site recovery pace: Vila Pinheiro's degraded monoculture landscape regenerates slowly, allowing soil building and ecosystem succession to occur over time. (Earth Care, Small and slow steps)
- **System interdependencies:** Success in one design (e.g., food) relies on progress in another (e.g., water systems).

"What blocks the path also defines the path."

Limits: Emotional & Psychological

"Sometimes, the block is within."

(People care, Accept feedback)

- Fear of over-extension: Spinning many plates; bonsai business, permaculture, Ayurveda, community learning. (People care, accept feedback)
- Holding high standards: The desire for excellence may delay launching or scaling. (People care, Small and slow solution)
- Comfort in old rhythms: Bonsai practice instils deep patience; scaling up may feel rushed or unnatural.
- Inner critic: The voice that asks, "Am I regenerating enough?" instead of "Am I regenerating well?"

Limits: Social & Systemic Factors

- Rural resistance to change: Ayurveda, permaculture, and animal welfare practices may be seen as "alternatives." (Integrate rather than segregate)
- Isolation: Distance from like-minded practitioners or markets may inhibit collaboration. (Use edge and value the marginals)
- Language barrier: Limits access to local traditional knowledge and support systems. (Integrate rather than segregate)
- Regulation & red tape: Land use, animal keeping, and water harvesting face bureaucratic inertia. (Fair share, Apply self-regulation and accept feedback)

"Culture eats strategy for breakfast."

Limits: Why Might I Not Want to Change?

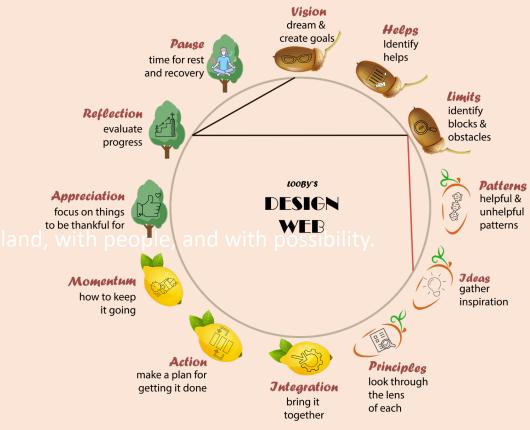
"Change costs something - even when it's good."

- Reluctance to delegate: Deep personal connection to each design might make it hard to hand off or scale.
- Attachment to identity as a practitioner rather than a facilitator or organiser.
- Concern: Will wider outreach dilute the integrity of The Mă-Kè Way?
- Uncertainty around economic return: Especially for community-driven and cultural work.

Ideas That Took Root

While searching for guidance on how to surmount my limits, I discovered and took the Permaculture Design Course (PDC), a turning point that offered exactly what I needed:

- ☐ Theoretical insights into systems, ethics, and design thinking (People care, Apply self-regulation and accept feedback)
- ☐ Practical tools and real-world strategies (People care, Obtain a yield)
- But more than that, it sparked a shift: es a conversation with the
 - From landowner to land steward (catch and store energy)
 - From fixed plans to flexible patterns (design from patterns to details)
 - From solo visioning to community learning (use and value diversity)



It opened up a world where design becomes a conversation with the land, with people, and with possibility.

(Earth and People care, Observe and interact)

Big, Bold, Visionary Ideas

"Ideas are like seeds - some sprout quickly, others need time in the soil."

Create the Mă-Kè Living Learning Landscape

Transform Vila Pinheiro into a year-round regenerative learning centre that blends Ayurveda, Vrikshayurveda, Bonsai, and Permaculture.

Forest as Pharmacy

Build on the Ayurvedic Food Forest and Silviculture designs to offer herbal healing walks and plant-based wellness retreats.

Circular Culture Lab

Develop a small-scale incubator where regenerative designers trial circular economy projects using food, fibre, fungi, and forest resources.

Animal-Assisted Orchard Stewardship

Expand silvopasture experiments with goats and chickens co-grazing among coppiced trees to close nutrient loops.

These ideas embody permaculture ethics - *Earth Care, People Care, and Fair Share* - while applying principles like *Responding to change, Using renewables*, and *Producing a yield* for regenerative, community-rooted outcomes

Small but Beautiful & Practical Ideas

"Adopt-a-Bonsai" Programme

Connect urban learners with a tree at Vila Pinheiro. They follow its journey remotely while learning bonsai skills and regenerative care. (People care, Use and value diversity)

Rain Ballet Installation

An art-meets-utility project where rainwater harvesting tanks double as sculptural features, inspired by the seasonal rhythms of the monsoon. (Earth care, Integrate rather than segregate)

Seasonal Ritual Calendar

Revive Vedic rhythms: e.g., planting on Akshaya Tritiya, harvesting on Sankranti - syncing farming to cosmic cycles. (*People care, Use and value renewable resources & services*)

Wild Wisdom Subscription Box

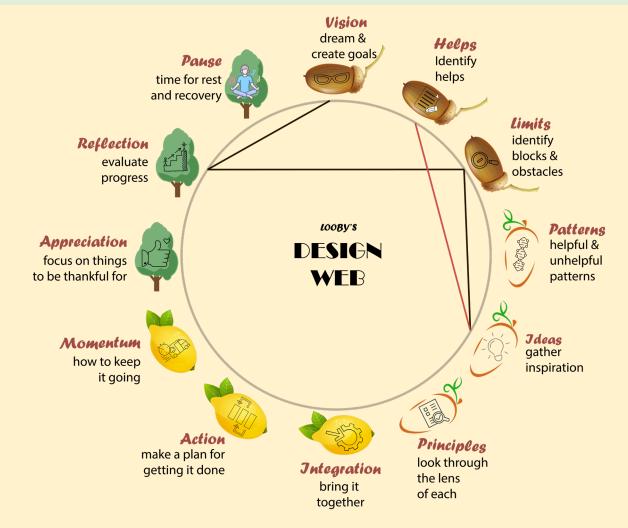
Send seasonal produce, herbs, seeds, and teachings from Vila Pinheiro to subscribers – each box tells a story of seasonal, regenerative living. (Fair share, Produce no waste)

Helps: Gathering My Allies

Having completed the PDC and begun my Diploma journey, I found myself seeing the world through a new lens. Permaculture, sustainability, and holistic thinking offered a perspective that resonated deeply with me and aligned beautifully with The Mă-Kè Bonsai Way.

And as that vision sharpened, the right people and tools appeared:

- Teachers and mentors who challenged and inspired (People Care, Obtain a yield/Apply self-regulation)
- A growing network of practitioners and peers (People Care, Use and value diversity)
- Books, podcasts, and practices that grounded the learning (People Care, Use and value diversity)
- My wife steadfast, spirited, and rooted in the dream (People Care, Integrate rather than segregate)



I realised I didn't need to know it all, only to learn, connect, and adapt. (People Care, Creatively use and respond to change)

Helps: What Helped Me Along the Way

Support came from both within and beyond

Internal Helps

- Passion for bonsai
- Openness to learning
- Curiosity for tradition (e.g. Ayurveda, Vrikshayurveda)
- Patience
- Reflection

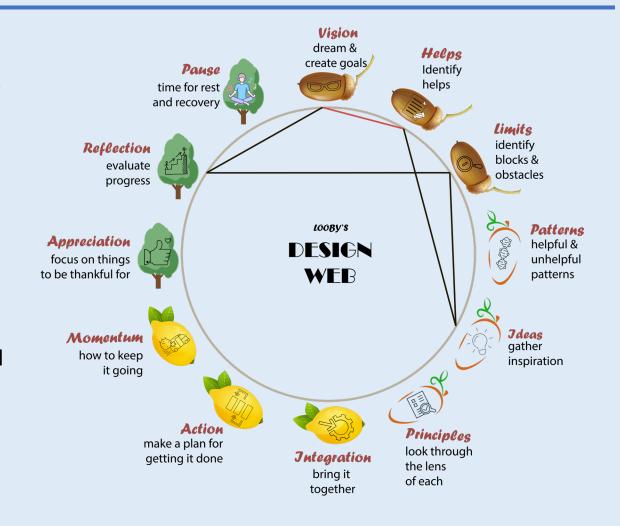
External Help

- Mentorship from Dr Tom Henfrey
- Community feedback (Guild and Learning Forums)
- Permaculture frameworks (Design Web, SADIMET)
- Ancient texts (Atharva Veda, Ayurveda)
- Practical tools (e.g. zones & sector analyses, PASTE)
- Internet and Apps (like Adobe Suite, Miro, Al Research, ChatGPT, Gemini, etc)
- Nature itself

Vision-Inspired Goals (2023)

With a clearer sense of my capabilities and the support and inspiration that soon followed, I set out a grounded set of goals, each rooted in a vision of sustainability. These goals guided my early design journey:

- Establish a working bonsai nursery and teaching facility (People Care, Apply self-regulation and accept feedback)
- Transform Vila Pinheiro into a sustainable homestead (Earth Care, Integrate rather than segregate), selfsufficient in food, water and energy (Catch and store energy)
- Practice and master permaculture to restore degraded land (Earth Care, Use small and slow solutions)
- Design and deliver beginner bonsai workshops to share knowledge and spark inspiration (People Care, Use and value diversity)



Each goal became a purposeful stepping stone, shaped by values and guided by vision.

Vision - Inspired Design Goals

These five design goals formed the foundation of my Diploma in Applied Permaculture Design journey, each one deepening my skills and refining my vision.

Design 01 - The Mă-Kè Bonsai Way

Regenerative Bonsai Culture

Bonsai as an Ecological and Ethical Practice.

(Earth Care, Observe and interact)

Design 02 - Growing Bonsai Sustainably

Course Creation

A structured, values-led bonsai training programme.

(People Care, Obtain a yield)

Design 03 - Vila Pinheiro: Sustainable Homestead

Whole Systems Thinking

Integrated food, community, and lifestyle systems.

(Earth Care, Design from patterns to details)

Design 04 - Energy Self-Sufficiency

Off-Grid Vision

Renewable solutions tailored to site and need.

(Fair Share Use renewable resources and services)

Design 05 - Water Self-Sufficiency

Catchment & Storage Systems

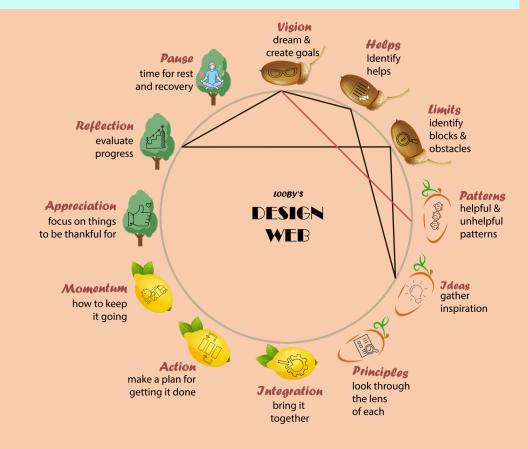
Designing for abundance and drought resilience.

(Earth Care, Catch and store energy)

Patterns: The Threads That Connect

With an updated set of Goals, I Explore Patterns in:

- Permaculture and Bonsai natural growth, pruning, and adaptation (Succession & feedback loops)
- **People and Behaviour** how we learn, repeat, and evolve (*Edge effect & cyclical learning*)
- The Landscape and the Self rhythms, relationships, and renewal (Zones and sectors)



Looking for patterns isn't just about observation; It's the art of recognition, of seeing the invisible threads that weave life into a design. (Web of connections / Patterns of permanence)

Recognising Current Patterns

"Patterns are the language of life. What repeats, teaches."

Current Patterns

- "Stacking functions" and creating polycultural solutions in food forests, silviculture, and animals.
- Frequent return to reflection and redesign-embracing emergent strategy. (Adaptive cycling, iterative design)

Erosive Spirals

- Tendency to micro-manage may reduce time for bigpicture movement. (Over-control disrupts feedback cycles)
- Energy dips during complex multi-system integration. (Disconnection from energy efficiency loop)
- Occasional over-reliance on one's effort; "If I don't do it, it won't happen." (Lack of community guild dynamics)

Patterns from Nature

Succession: Apply to project planning, letting each stage build on the soil for the next.

Guilds & Layers: Utilise social guilds as well - build support networks, just as I do with plants.

Mycelial Networking: Share my knowledge, such as fungi, which is decentralised, adaptive, and regenerative.

Edge Effect: Utilise interdisciplinary edges -Ayurveda meets agroforestry, bonsai meets biophilia. "Nature doesn't rush. But everything gets done."

Behavioural & Thinking Patterns

"The design is not just in the land.

It's in the mind."

Helpful Patterns

- Recurring use of *Permaculture ethics and frameworks* (Design Web, GoSADIMET).
- *Phased implementation*: Starting small and refining (seen in energy, silviculture, and animal designs).
- Cross-pollination of traditional knowledge systems (Vrikshayurveda, Ayurveda, Montado).

Unhelpful Patterns

- Perfectionist delays: Waiting for optimal conditions before acting.
- Cycles of solo-working: Collaboration arises less frequently than needed.
- Interruptions from infrastructure gaps (e.g. fencing, water storage) are slowing flow

Principles: Roots That Guide



Exploring ethics and principles in:

- **Permaculture** care for Earth, care for people, fair share
- The Mă-Kè Bonsai Way patience, presence, and purpose

Principles offer more than structure; they're living guidelines, helping us stay grounded while responding to change.

Applying the Inner & Social Principles

"Principles are not rules - they're ways of seeing."

Principle	What Do I See Now?	What Direction Might It Suggest?	
Use Edges & Value the Marginal	My Designs thrive at the intersection of systems: Permaculture + Bonsai.	Make that unique edge my message - teach from the fringe.	
Obtain a Yield	Many spiritual and ecological yields; economic yields lagging behind.	Develop regenerative products (soaps, teas, experiences) that tell our story.	
Respond Creatively to Change	COVID, drought, and design pivots have sparked creative shifts.	Formalise a seasonal <i>Adaptive Management Ritual</i> to welcome change.	
Integrate Rather Than Segregate	Bonsai wisdom beautifully woven into ecological designs.	Start building human guilds - apprentices, elders, volunteers - as systems.	

Ecological & Cultural Principles in Action

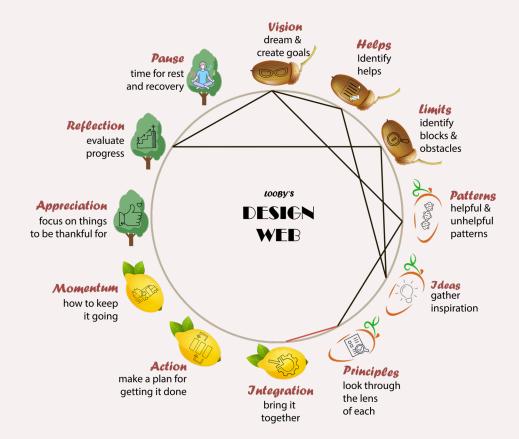
Principle	What Do I See Now?	What Direction Might It Suggest?
Use and Value Diversity	Rich species palette: herbs, fruit trees, animals. Human diversity less tapped.	Attract diverse collaborators - practitioners, local farmers, storytellers.
Use Small and Slow Solutions	Strong foundation in bonsai and silviculture; slow but sure.	Communicate the power of slow to wider audiences - a campaign: "Stillness Grows."
Catch and Store Energy	Great systems for water & solar. Human energy gets overdrawn.	Design a <i>self-care zone</i> : shaded bench, barefoot path, bonsai retreat.
Use and Value Renewable Resources	Rich in natural cycles; financial and social cycles less renewable.	Circular economy pilot: local barter, herbal surplus exchange, bonsai tool co-op.

Designing Forward with Principle-Aligned Intention

"Principles help us remember how to remember."

- Where are we now?
 Living many principles instinctively, especially Pause, Slow & Small, and Use Patterns.
- Where are we headed?
 Toward integration of inner, outer, social, ecological, and economic layers of regeneration.
- New Directions to Explore:
 - Design Permaculture Code of Practice for Vila Pinheiro a living agreement.
 - Build Principle Spotting into your reflection journals "Which ones showed up today?"
 - Create a public-facing Living Principles Mural where visitors learn and contribute insights.
 - Apply Principles-as-Practice in courses, tours, and collaborative work teaching by doing.

Integration: Weaving It All Together



Exploring integration across:

- Systems and Structures -aligning water, soil, plants, and animals (Earth Care, Integrate rather than segregate)
- Personal and Practical -merging lifestyle, learning, and livelihood (People care, Use and value diversity)
- Traditions and Innovations -blending ancient wisdom with modern tools (Earth Care, People Care, Use edges and value the marginal)

Integration is where the threads become a tapestry, where vision, values, and action meet in living harmony.

(Earth Care, People Care, Design from patterns to details)

Integration: Designing for Synergy

"Integration is where the design becomes whole, not just complete."

- Bonsai & Permaculture (Design 1 The Mă-Kè Bonsai Way)
 Regenerative design principles are woven into miniature and landscape ecosystems.
 (Earth Care, Use and value renewable resources)
- Learning & Living Spaces (Design 2 Growing Bonsai Sustainably Course)
 The Mă-Kè Bonsai School and homestead evolve together, function and philosophy meet.

 (People Care, Integrate rather than segregate)
- Land Stewardship (Design 3 Vila Pinheiro: Sustainable Homestead)
 Designing not just a homestead, but a way of living well with the land.
 (Earth Care, People Care, Catch and store energy)
- Personal Values & Practical Systems (Design 4 Energy Self-Sufficiency Design)
 Lifestyle choices are reflected in energy use, planting schedules, and care routines.
 (Fair share, People Care, Apply self-regulation and accept feedback)
- Water, Waste & Wildlife (Design 5 Water Self-Sufficiency Design)
 Greywater reuse, composting, animal nutrient cycles, and habitat design.
 (Earth Care, Produce no waste)

Action: Turning Vision Into Motion

Exploring action through:

- Planning and Implementation setting priorities, timelines, and milestones
- Practice and Participation learning by doing, involving people and place
- Momentum and Maintenance keeping energy flowing and systems evolving



Action is where intention becomes impact, where the web comes alive through hands, heart, and habit.

Integration into Action: The Big Picture

"Integration is insight. Action is intention in motion."

Overarching Vision: Vila Pinheiro becomes a living classroom for regenerative culture, rooted in permaculture, Vrikshayurveda, and the wisdom of bonsai.

Top Priorities for Action:

- Activate key systems: animal rotation, water catchment, herbal zones (Designs 5, 7, 9)
- Launch offerings: workshops, wildcrafted products, bonsai apprenticeships (Designs 1, 2, 10)
- Build infrastructure: fencing, nursery beds, shade spaces, compost bays

Timeframe: April-December 2025 (Spring planting through Autumn harvest & course delivery)

Action Plan: From Roots to Readiness

"Each design planted a seed - together they form the forest."

Completed Action	When	Design(s)	Impact
Developed <i>The Mă-Kè Bonsai Way</i> as a regenerative framework	2023	1	Anchored all designs in ethical, mindful philosophy
Delivered first Growing Bonsai Sustainably workshop	2023	2	Tested curriculum; proved demand for regenerative bonsai learning
Mapped Vila Pinheiro zones, sectors, and resources	2023	3	Provided essential layout for all ecological systems
Designed hybrid solar-wind energy system	Q1 2024	4	Ensures long-term energy resilience and autonomy
Created integrated water self-sufficiency plan	Q3 2024	5	Combines rainwater, swales, reuse -aligned with natural flow

Pause: Space to Breathe and Reflect

Exploring **Pause** through:

- Stillness and Observation letting the land speak before we act (Earth care, Observe and interact)
- Rest and Renewal recharging body, mind, and spirit (People care, Apply selfregulation and accept feedback)
- Reflection and Reconnection checking in with values, vision, and direction (People Care, Small and Slow solutions)



Pause is where clarity finds us, a breath between steps, a moment to realign with purpose. (Earth care and People care, Catch and Store Energy)

Pause: Resting in the Pattern

Why Pause Now?

- 5 designs completed a regenerative system unfolding. (Earth care, Design from patterns to details)
- Rich interweaving of permaculture, bonsai, and teaching, pause helps see the whole forest, not just each tree. (Earth care and People care, Integrate Rather than Segregate)
- It's time to reflect before the next planting, workshops, apprenticeships, and silvopasture implementation. (*People care, Apply self-regulation and accept feedback*)

Questions in the Stillness:

- What's truly working?
- What no longer fits?
- Where is the design leading me now?

"Pause is not inactivity. It is active reflection, composting insight into wisdom."

The Gift of Pause Going Forward

"The pause is where the root meets the water."

What I Honour in Myself

- The ability to stop and reassess with honesty
- The willingness to sit with not-knowing
- The courage to listen to the land, even when the world rushes on

What the Pause Enables

- Clearer priorities
- Kinder pacing
- Deeper joy in the doing

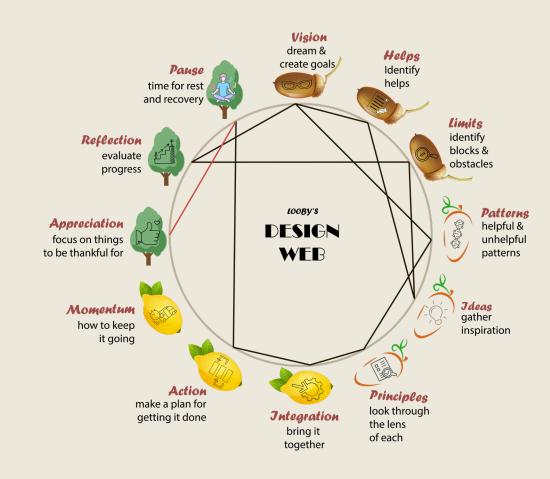
Pause is embraced as a deliberate design element, aligning with the principles of using small and slow solutions, Observing and interacting, and Obtaining a yield-valuing insight as much as the outcome.

"I trust that regeneration isn't a sprint - it's a spiral. And pausing allows the spiral to deepen."

Appreciation: Honouring the Journey

Take a moment to reflect and acknowledge:

- Who or what has supported you on this journey?
- What lessons, tools, or insights have truly made a difference?
- Where have you seen growth in yourself, your land, or your understanding?
- How can you express gratitude to people, to place, to process?



Appreciation isn't the end of the path; it's the pause that reminds us how far we've come and who walked beside us.

Appreciation: Seeing the Good That Grows

"Appreciation waters the roots of momentum, giving meaning and joy."

What I Appreciate About This Journey

- The designs aren't just academic they're alive and growing.
- Vila Pinheiro has become more than a homestead it's a living classroom, sanctuary, and cultural expression.
- Every design decision has strengthened a personal alignment with *The Mă-Kè Way* and Permaculture.

About Myself, I Appreciate...

- My ability to grasp and evolve with modern tools.
- The resilience it took to keep going despite slow starts and steep slopes.
- The creativity and care with which I've built a regenerative world from bonsai pots to forest plots.

Appreciation for People and Place

"Gratitude reveals the ecosystem of support we often forget we're part of."

People I Am Grateful For

- **Dr. Tom Henfrey** -for steady mentorship and provocations that deepened every design.
- Workshop participants who brought energy, curiosity, and stories that shaped the teaching landscape.
- Family -for being both roots and wings in this journey.

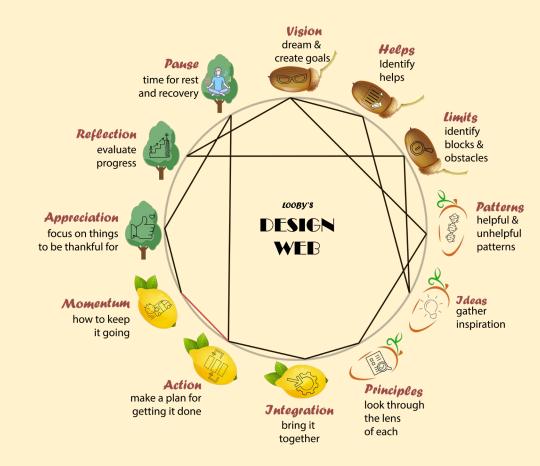
The Land That Holds Me

- Vila Pinheiro's soil, even in recovery, has been generous and patient.
- The returning rains. The unexpected mushrooms. The whispering cork oaks.
- The seasons themselves designing their patterns alongside mine.

Momentum: Keeping the Pulse Alive

Exploring how to carry energy forward:

- Consistency in Practice small, regular steps build lasting change
- Feedback Loops observe, adapt, evolve
- Community Engagement sharing wins, learning together
- Resilience Rhythms balancing action with rest and renewal



Momentum isn't speed - it is purposeful motion, guided by pattern, and fuelled by presence.

Strategies for Sustaining Momentum

"Design energy just like designing water systems: store it, channel it, use it wisely."

Strategies to Maintain Flow

- Use **Seasonal Planning Blocks**: spring build, summer share, autumn harvest, winter reflect
- Create a Weekly Regenerative Rhythm (e.g. Mondays for land care, Fridays for teaching prep)
- Schedule **Energy Check-ins**: fortnightly walks, journal reflections, or "tea with the trees"
- Track small wins: visible progress in the nursery, feedback from learners, etc.

Tools for Tracking & Adapting

- **Digital action board** (Notion/Trello) linked to designs
- Monthly "Momentum Circle" with mentors, peers, learning guild or family
- Rainy day energy list: low-effort, high-impact tasks when motivation dips

Momentum: Community, Cycles, and Celebrations

"Momentum grows where life is seen, shared, and celebrated."

People to Power the Process

- Invite returning learners into stewardship roles
- Build human guilds: someone for stories, someone for systems, someone for goats!
- Offer "pay-it-forward" options in workshops share the load, seed the cycle

Rituals and Celebrations

- Host **Seasonal Markers** (Equinox pruning, Solstice planting, Monsoon meditation)
- Plan Micro-celebrations: finish fencing? Light a fire. Finish a compost system? Toast the microbes!
- Use community feedback as a momentum mirror share progress and ask what they notice growing

Momentum: Creating a Culture of Sustained Regeneration

"True momentum is a collective journey: one that blends effort, passion, and adaptability."

Fostering Community Engagement:

- Host regular 'Field Days' and community gatherings at Vila Pinheiro
- Share success stories and case studies from each design phase to inspire renewed vigour

•Embedding Practice into Culture:

- Create a living documentation or journal that records challenges, innovations, and breakthroughs
- Encourage everyone involved to contribute ideas and act as ambassadors for regenerative practices

Vision for the Future:

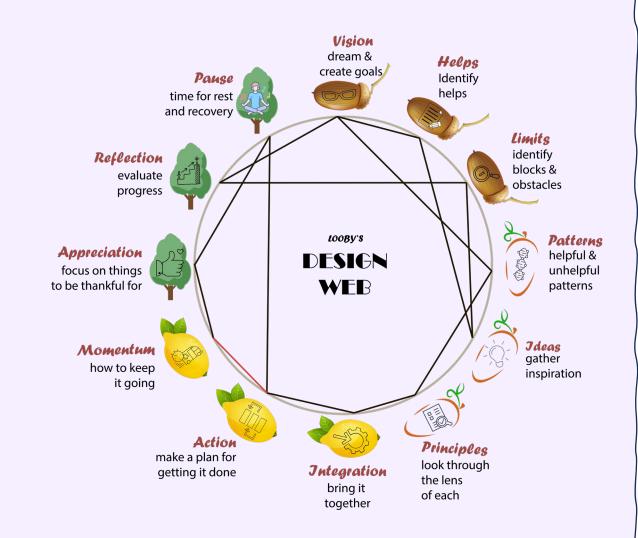
- Align your regular actions with the overarching regenerative ethos of The Mă-Kè Bonsai Way
- Cultivate rituals and celebrations harvest festivals, seasonal planting celebrations, reflective walks that feed both the land and spirit

"When each small movement echoes with collective energy, momentum becomes an unstoppable force for regeneration."

Momentum: Begets Action

Keeping regenerative energy alive through:

- Rhythmic Practice small steps, regularly taken
- Adaptive Feedback refine, respond, repeat
- Shared Energy learning and building with others
- Purposeful Flow staying aligned, not just busy



Action: From Plans to Practice - What Comes Next

"Integration blossoms when vision meets timing and care."

Planned Action	When	Design(s)	Impact
Designed seasonal food self-sufficiency calendar	Q1 2025	6	Informs forest planting, crop rotation, and harvest timing
Finalised Ayurvedic Food Forest species and zones	Q1 2025	7	Combines ancient knowledge with local ecology for healing yields
Designed regenerative silviculture system	Q1 2025	8	Introduces coppicing, herbal groves, and forest resilience
Completed Animal Husbandry plan with GRAZER framework	Q1 2025	9	Multi-species rotation system ready; builds fertility and resilience

Action in Motion: Cultivating the Next Layer of Regeneration

"From vision to fieldwork - growing systems, stories, and synergy at Vila Pinheiro."

Planned Action	When	Design(s)	Impact
Host Harvest & Reflection Festival at Vila Pinheiro	Oct 2025	3, 6, 10	Community celebration of yields, gratitude, and feedback
Build nursery beds and shaded teaching canopy	2025- 2027	2, 7, 10	Supports plant propagation, apprenticeships, outdoor classes
Construct fencing for animal rotation zones.	2026	8, 9	Enables silvopasture and tree-animal-soil synergy
Launch Summer School: Bonsai, Ayurveda & Regeneration	Jul 2027	1, 2, 6, 10	Weaves cultural wisdom, ecosystem learning, and hands-on skills
Install compost toilets and rain-fed wash station	Jul–Aug 2028	5, 6, 10	Supports events and showcases off-grid design principles

Grounded in permaculture ethics of community and ecological care, these actions reflect principles such as *catching and storing energy, applying self-regulation, using and valuing diversity through varied community roles, and using edges and valuing the marginal* by welcoming the curious and unconventional.

Action: Resources & Allies Needed

"Every action needs a little sunlight, a little compost, and the right company."

Resources Required:

- Physical: fencing, tree guards, herbal seed stock, teaching canopy, compost bins
- Human: volunteers, workshop co-facilitators, video editor for course content
- Financial: potential for EU or local grants or community-supported funding

Potential Allies:

- Local permaculture groups and eco-cooperatives
- Ayurveda or herbal medicine practitioners
- Previous workshop participants and online followers
- Cultural centres or tourism bodies interested in nature-based education

Support Systems:

- Action Learning Cycles (Design 10)
- Seasonal Review & Planning Circles
- Digital Task Board & Shared Calendar (Trello, Notion, etc.)

Action: Yields and Benefits - What Will Grow from This?

Ecological Yields

- Improved soil fertility, increased biodiversity, resilient water and food systems
- Integration of animals, trees, and herbal systems for circular fertility

Personal & Cultural Yields

- Deepened embodiment of The Mă-Kè Way
- Joy, stillness, and fulfilment from living the design

Educational & Social Yields

- Engaged learners in bonsai, permaculture, Ayurveda
- Knowledge-sharing community built on mutual care

Economic Yields

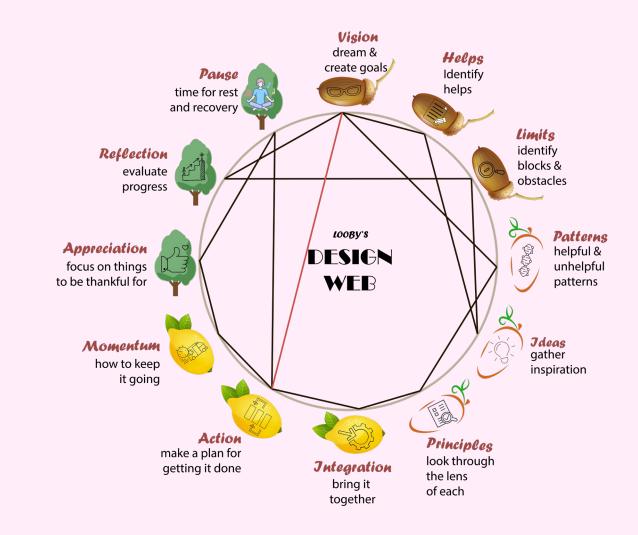
- Income from workshops, herbal products, educational content
- Pathways for self-reliance and reinvestment into the land

"From seed to system, from vision to yield the act of regeneration begins with a plan, and blossoms with action."

Actions Aligned → Transformation → Goals Reset

Exploring the cycle of purposeful action:

- Alignment ensuring every step echoes the core vision
- Transformation systems, skills, and self evolve over time
- Reflection pausing to assess, learn, and adjust
- Goal Reset letting new insights shape the next direction – Sustainability to Regeneration



Vision Looking Toward Tomorrow

When I first planned to move to Portugal, my intention was straightforward: to establish a bonsai nursery and teaching centre. I acquired land for this purpose and named it **Vila Pinheiro**, imagining it as the future home of the Mă-Kè Bonsai School. However, as I began exploring how to do this *properly*, I enrolled in a Permaculture Design Certificate (PDC) course.

The PDC cracked open a much deeper question, not just *how* to build a sustainable nursery, but *what kind of relationship* I wanted to cultivate with the land. Through the **Sustainable Homestead Design**, I came to realise that sustainability alone would not be sufficient. The land, a former farm, had been partly converted into a monoculture forest and suffered from soil depletion. Simply sustaining it wasn't enough. I needed to regenerate it, to *care for both the earth and people*.

This realisation changed everything.

To meet the land's and my own needs, I began to *apply and value indigenous knowledge systems*. I turned to the ancient insights of Ayurveda, particularly Vrikshayurveda, which I had encountered growing up in India, alongside the ecological wisdom of the European Montado system. Simultaneously, I leaned into the core teachings of The Mă-Kè Bonsai Way, a bonsai cultivation philosophy I developed over decades of teaching, grounded in observation, patience, and care.

It was at the meeting point of these streams, Permaculture, Ayurveda, Bonsai, and lived experience, that my vision emerged.

I'm shaping Vila Pinheiro into a living expression of a regenerative lifestyle.

A place where Permaculture, Vrikshayurveda, The Mă-Kè Bonsai Way, and Community Learning all grow together.

The **goal:** a living classroom, a regenerative sanctuary, and a demonstration ground where ancient wisdom takes form through practical, evolving design..

Vision, Inspired Goals

Core Goals (2023)

- Establish a working bonsai nursery and teaching facility.
- Make Vila Pinheiro a sustainable homestead (food, energy, water).
- Learn permaculture and apply it to restore degraded land.
- Design and deliver beginner bonsai workshops.

Expanded Goals (2025)

- Develop Vila Pinheiro as a regenerative learning hub rooted in Ayurveda, permaculture, and the art of bonsai.
- Shift from sustainability to regeneration: healing ecosystems, soil, and spirit.
- Cultivate a thriving food forest aligned with Ayurvedic principles.
- Teach and model ecological literacy through seasonal cycles and community engagement.
- Co-create educational materials, courses, and residencies grounded in lived experience.

Goals Evolving Over Time

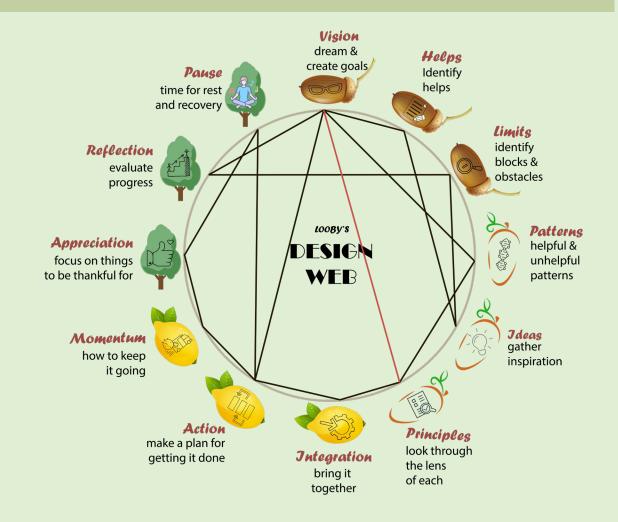
Nursery to Network: A Two-Year Evolution

PHASE	FOCUS	KEY GOALS	NOTES
Year 1	Foundation & Immersion	Set up nursery, complete PDC, launch workshops, basic site mapping	Goals were project-based and practical.
Year 2	Integration & Expansion	Regenerative systems, Ayurveda-aligned forest, open learning events, publish teaching material	Goals became ecosystemic, spiritual, and educational.
Ongoing	Legacy & Resilience	Cultivate Zone 000 (inner ecology), embed cultural knowledge, build community resilience	Goals are now relational and intergenerational.

From Vision to Principles

Tracing the thread from inspiration to intention:

- Turning big dreams into grounded decisions
- Linking personal values to regenerative ethics
- Aligning actions with patterns that endure
- Honouring tradition while designing for change



This is where ideas meet their roots, where 'why' becomes 'how'.

People & Permaculture Principles as Lenses

Using principles, we can reflect and design for resilience, balance, and transformation:

Principle	What Do I See Now?	What Direction Might It Suggest?
Pause	Frequent evaluation, but sometimes only after exhaustion.	Embed micro-pauses into the seasonal flow: stillness days, reflection corners.
Patterns to Details	Strong macro-level designs across systems; some gaps in micro-actions.	Translate bonsai patterning to animal systems & daily tasks.
Each Element Performs Many Functions	Trees, animals, and people already multifunctioning.	Tell richer stories of their roles to deepen value and connection.
Design for Cooperation not Competition	Designs support inter-species harmony, but human collaboration is sporadic.	Co-design events, seed-saving circles, or shared harvest days.

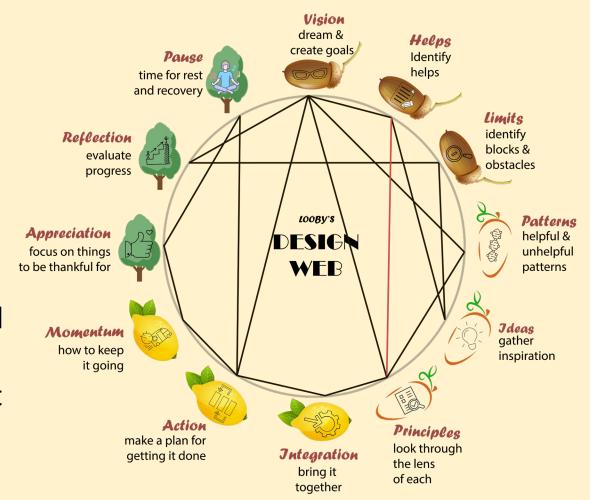
Designing Forward with Principle-Aligned Intention

Principle	What Do I See Now?	What Direction Might It Suggest?
Use and Value Diversity	Rich species palette: herbs, fruit trees, animals. Human diversity is less tapped.	Attract diverse collaborators - Ayurveda practitioners, local farmers, storytellers.
Use Small and Slow Solutions	Strong foundation in bonsai and silviculture; slow but sure.	Communicate the power of slow to wider audiences - a campaign: "Stillness Grows."
Catch and Store Energy	Great systems for water & solar. Human energy gets overdrawn.	Design a <i>self-care zone</i> : shaded bench, barefoot path, bonsai retreat.
Use and Value Renewable Resources	Rich in natural cycles; financial and social cycles less renewable.	Circular economy pilot: local barter, herbal surplus exchange, bonsai tool co-op.

Principles to Helps

Moving from what guides us to what supports us:

- Applying ethics through real-world tools and relationships
- Recognising the people, skills, and resources already present
- Turning guiding principles into grounded practice
- Mapping the inner and outer assets that make change possible



Principles show the path, Helps are the companions we walk it with.

Helps: Design Helping Designs

A clear *pattern of reinforcement* emerged:

- Design 1's narrative style and language flowed into Design 6 (Food Self-Sufficiency), helping structure planting. (People care, design from pattern to detail)
- Water & Energy Designs (5 & 4) laid the groundwork for Designs 6 to 9, forming a holistic feedback system. (Earth care, Integrate rather than segregate)
- Animal husbandry (Design 9) brought full-circle integration, linking trees, animals, soil, and people with ancient and modern knowledge. (Earth and People Care, use and value diversity)

Helps: Recognising My Internal Assets

In **Designs 1** and **2**, I discovered a real **strength in teaching, storytelling, and designing learning experiences**-especially when grounded in regenerative values.

These skills proved essential in engaging my community and making complex ideas feel accessible and meaningful. Sharing *The Mă-Kè Bonsai Way* reminded me how much I enjoy crafting experiences that inspire and empower others.

From **Designs 5 through 9**, I began to notice how naturally I think in terms of **systems and patterns**. Whether designing water systems or integrating animals into silvopasture, I instinctively linked elements, spotted feedback loops, and applied resilience thinking. Frameworks like GOCEAPER and PASTE weren't just tools-they became part of how I understand the world.

One of the most valuable assets I've discovered is the power of **reflection**-what I now consider *my superpower*.

In **Design 1**, through *The Art of Pausing*, I learned to step back, observe, and allow deeper insights to surface. Reflection became my compass-it helped me navigate complexity, refine decisions, and stay aligned with both ethics and intuition.

Helps: External Assets That Supported Me

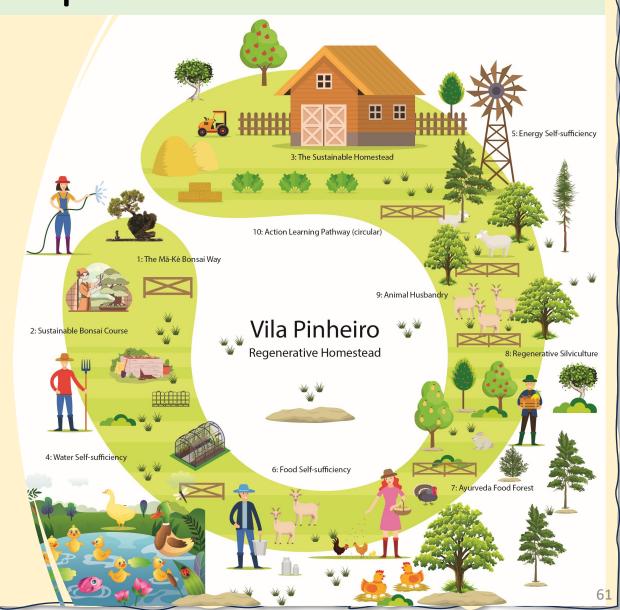
- My **tutors**, especially Dr Tom Henfrey, and the **participants in my workshops** were invaluable. Their feedback, curiosity, and challenges constantly pushed me to refine my thinking and deepen my practice. They didn't just validate my decisions, they expanded them. (*People care, use and value diversity*)
- I leaned heavily on design tools and frameworks, such as **GRAZER**, **SWOC**, **and CEAPER**. These weren't just academic models; they became the scaffolding for my thinking. They helped me bring order to complexity and translate vision into action across multiple systems. (*People care, use and value renewable resources*)
- Cultural traditions such as Ayurveda, Vrikshayurveda, and the Montado system provided a rich ethical and ecological foundation. They reminded me that what I was designing wasn't new. It was a continuation of ancient regenerative practices aligned with Earth care, people care, and fair share. (Earth and people care, integrate rather than segregate)
- I also benefited from a suite of **software tools, digital mapping technologies, and monitoring applications**. These helped me visualise flows, track change, and communicate ideas clearly, making the invisible visible and the complex coherent. (People care, catch and store energy)

Helps: A Journey of Growth Map

A visual map illustrates a clear application of key permaculture principles: *Use and value diversity, Apply self-regulation and accept feedback* (through Action Learning), and *Use small and slow solutions* (via phased implementation and iterative refinement).

- ➤ Begins with The Mă-Kè Bonsai Way (Design 1) as seed. (Earth care, observe and interact)
- ➤ Roots spread through pedagogy (Design 2) (People care, use and value community) and homestead vision (Design 3). (Earth care, catch and store energy)
- ➤ Trunk grows via water & energy (Designs 4 & 5). (Earth care + Fair share use and value renewable resources)
- ➤ Branches emerge into food, forest, silviculture and animals (Designs 6–9). (Earth and People Care, integrate rather than segregate)

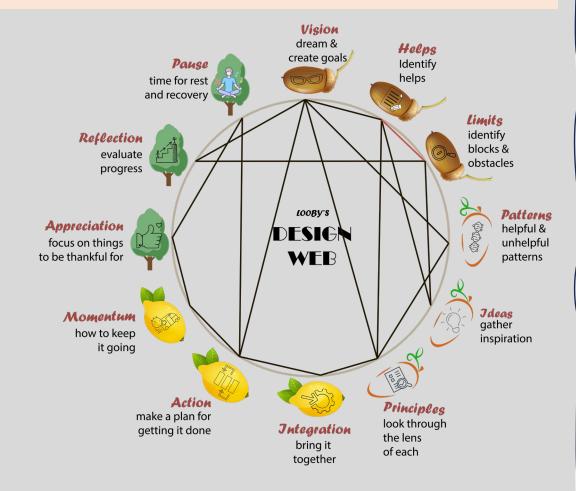
Fruits: a regenerative, living Vila Pinheiro ecosystem with community and cultural relevance.



From Helps to Limits - From Resources to Realities

Exploring the edge between abundance and boundary:

- Acknowledging the tools, allies, and energy we have
- Identifying the constraints: time, knowledge, capacity
- Recognising limits not as obstacles, but as design opportunities
- Navigating what supports us and what shapes us



Where **Helps** show what's possible, **Limits** reveal where creativity begins.

Limits: Ecological & Infrastructure Constraints

"Nature's pace is sacred, but not always aligned with urgency."

- Drought-prone summers challenge tree and food forest establishment (Designs 5, 7).
- Limited on-site structures delay workshop delivery and community learning (Design 2).
- Energy self-sufficiency (Design 4) is incomplete- it slows the expansion of nursery and aquaponics systems.
- Wild animals (boar, deer) disrupt regenerative plantings (Designs 7 & 8).

Limits: Reframing Limits as Design Opportunities

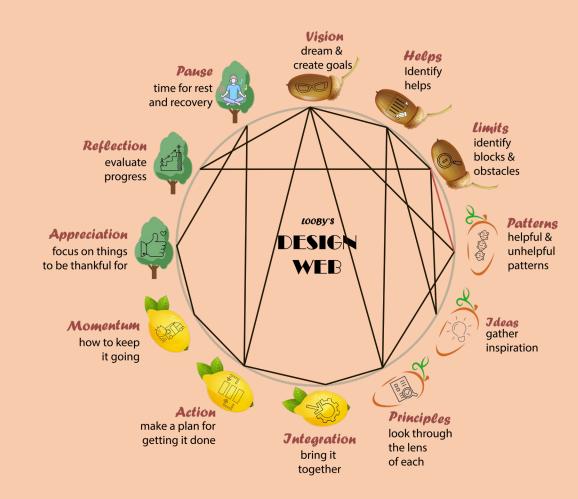
- Use Limits to refine design edges what's fragile can be nurtured with care and clever design.
- Apply permaculture principles: "Use small and slow solutions," "Design from patterns to details."
- Shift from "I can't do this yet" to "What's the smallest version of this I can trial?"
- Lean into community and collective energy -invite co-designers, not just helpers.

"Constraints carve out creativity."

Limits to Patterns: Where Boundaries Become Blueprints

Discovering design through boundaries and repetition:

- Observing how constraints reveal natural rhythms
- Noticing repeated behaviours in land, people, and process
- Using limits as lenses to see what endures and evolves
- Moving from what holds us back to what holds things together



Limits define the edges. Patterns show the way forward.

Translating Patterns of Past Success

"Success leaves trails, follow them consciously."

From The Mă-Kè Bonsai Way:

- **Daily Practice**: Bonsai thrives on slow, intentional care, which applies to homestead stewardship.
- Observation before action: Strength in stillness, used wisely in Design 1, now vital in Design 10.
- **Teaching as Transformation**: Sharing through courses has led to deeper mastery (Design 2, 6).

From Professional/Academic Life:

- **Systematic learning design** (GADIE, CEAPER) brought clarity and replicability.
- **Storytelling**: Use narrative, not just technical reports, to build connections and attract allies.

Cultivating New Patterns Going Forward

"In the forest, every pattern supports another.

We are designers.

But we're also being designed."

"If you want a new story,
plant a new pattern."

Weekly Spiral Checks: Ask, am I feeding abundance or erosion?

Create **Seasonal Rituals** at Vila Pinheiro, including harvest festivals and solstice tree blessings.

Pair every action with reflection: continue using Action Learning Cycles.

Design **supportive human guilds**: a care team, a feedback group, and an inspired apprentice.

From Patterns to Ideas: Inspiration Through Observation

Drawing insight from what repeats, emerges, and endures:

- Letting nature's patterns inform design thinking (Earth care, Design from patterns to details)
- Transforming observed behaviours into practical innovations (People care, Creatively use and respond to change)
- Recognising relationships, rhythms, and feedback loops (Earth care, People care, Integrate rather than segregate)
- Allowing the land, the people, and the process to speak (People care, Observe and interact)



Patterns reveal the shape of the system.

Ideas give it voice and direction.

(Earth care, Use edges and value the marginal)

Small but Beautiful & Practical Ideas

• "Adopt-a-Bonsai" Programme

Connect urban learners with a tree at Vila Pinheiro. They follow its journey remotely while learning bonsai skills and regenerative care. (Earth Care, People Care, Use and value diversity)

Rain Ballet Installation

An art-meets-utility project where rainwater harvesting tanks double as sculptural features, inspired by the seasonal rhythms of the monsoon. (Earth care, Fair share, Catch and store energy)

Seasonal Ritual Calendar

Revive Vedic rhythms: e.g., planting on Akshaya Tritiya, harvesting on Sankranti - syncing farming to cosmic cycles. (Earth Care, People Care, Design from patterns to details)

Wild Wisdom Subscription Box

Send seasonal produce, herbs, seeds, and teachings from Vila Pinheiro to subscribers, each box tells a seasonal regenerative story. (Earth Care, People Care, Obtain a yield / Creatively use and respond to change)

Wacky, Curious, Experimental Ideas

Regenerative Tinkering Days

Invite community and guests to try small experiments together - bokashi trials, hugelkultur beds, goat-drawn carts, or forest bathing rituals. (Earth Care, People Care, Use and value diversity)

Radio Vila Pinheiro

A hyper-local podcast channel combining permaculture news, folk music, elder interviews, and moon cycle updates. Portable knowledge, deep roots. (Earth Care, Fair share, Catch and store energy)

Bonsai Myth-Making Studio

Invite writers and artists to co-create a mythos around the trees of Vila Pinheiro; each bonsai receives its own legend and spirit story. (Earth Care, People Care, Design from patterns to details)

"Soap from the Silvopasture"

Try goat milk + native herbs + Ayurvedic essential oils - a product that tells the land's story while nourishing the skin. (Earth Care, People Care, Obtain a yield / Creatively use and respond to change)

Ideas: Seeds of Future Design Directions

Regenerative Apprenticeship Pathway

Blend permaculture, bonsai, animal systems, Ayurveda, and digital storytelling into a year-long diploma - hands-in-the-soil meets head-in-the-cloud.

Living Mandala Lab

A pattern-based garden using sacred geometry, edible plants, and healing herbs - becomes a living classroom of pattern literacy.

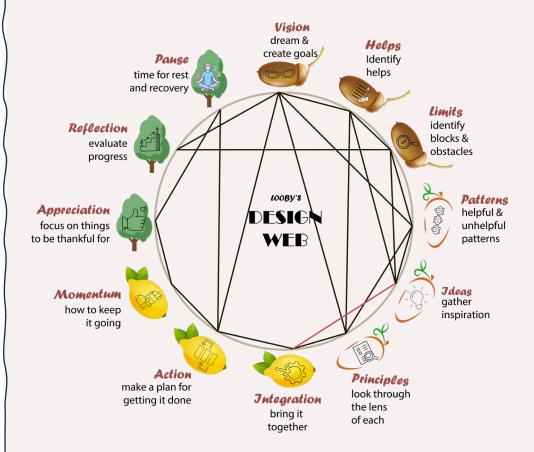
Open-source Library of Regenerative Design Templates Based on my diploma work - offer frameworks like GRAZER, GOCEAPER, and GODREAMET for others to adapt and remix.

"Stillness Spaces"

Design intentional zones of pause - bonsai meditation platforms, shaded stone circles, and tree-led walks - because deep change grows in silence.

"An idea is not just a thought - it's a pattern in the making."

Ideas to Integration: Stitching a Living System



Turning creative sparks into cohesive systems:

- Aligning ideas with purpose, place, and people (People Care, Integrate rather than segregate)
- Mapping connections between elements and ethics (Earth Care, Design from patterns to details)
- Designing relationships, not just components (People Care, Use and value diversity)
- Ensuring each idea strengthens the whole (Fair Share, Integrate rather than segregate)

Ideas are seeds.
Integration is the garden in which they grow.

Integration: Systems to Meet Key Needs

"What helps the system help itself?"

Need	System or Tool to Integrate
Coordinated action across projects	Seasonal Implementation Calendar (link to Ayurvedic & permaculture rhythms)
Shared learning and feedback	Regenerative Learning Journal & peer group reviews (Design 10)
Economic viability	Circular business systems (e.g. product-to-workshop loop: bonsai soap → self-care class)
Energy & water synergy	Central Dashboard showing water, solar, compost, and animal activity inputs/outputs
Whole-farm feedback	Monthly Sensing Walks (land, trees, animals, self) to guide adaptive design

Integration: Weaving the Web

"Integration is where the design becomes whole, not just complete."

Across 10 designs, we have cultivated:

- A regenerative **landscape** (Designs 3–8)
- A regenerative **culture** (Designs 1, 2, 10)
- A regenerative **ecosystem** of animals, plants, people, and knowledge (Designs 6–9)

What integration needs are emerging?

- Aligning action across seasons, sectors, and stakeholders
- Harmonising systems of energy, water, food, and learning
- Creating emotional and relational coherence alongside ecological regeneration

Designing an Integrated Living System

"Let the whole be more than the sum of its designs."

Integration Opportunities by Design Cluster:

Cluster	What to Integrate		
Land-Based (3–8) Stack functions: water catchment under fruit trees, grazed by goats, fertilising			
Learning & Culture (1, 2, 10) Use workshops to share progress from Designs 5–9; gather input for tweaks			
Animal & Forest (8, 9)	Develop an integrated Silvopasture & Herbal Livestock Care Loop		
Food & Medicine (6, 7)	Create a living Harvest Map - when, what, and how things nourish		

These integrated systems foster resilience and efficiency by embodying principles like *Integrating rather than* segregating, *Using feedback*, and *Obtaining a yield*. Goats, trees, and humans form a mutually supportive loop, demonstrating how each element can serve multiple functions within a regenerative system.

From Integration to Emergence

"When we integrate, something new becomes possible."

Where we've integrated well:

- Philosophical through-line of *The Mă-Kè Way* across all designs
- Application of permaculture ethics across sectors (Designs 1–10)
- Designing with living feedback loops: observation → tweak → reflect → evolve

Next integration steps:

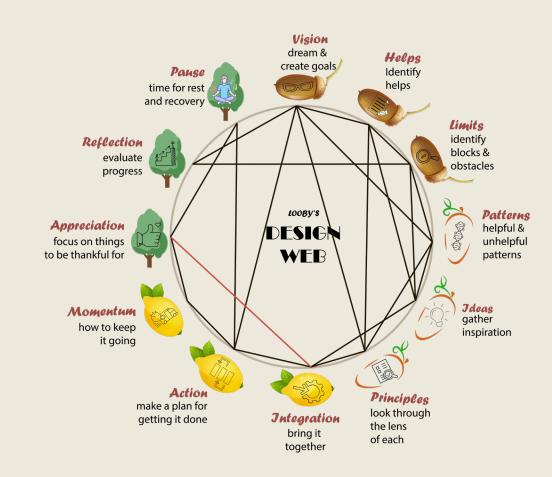
- Design a Seasonal System Dashboard to align all activities
- Facilitate Community Integration Days open workdays that include story-sharing
- Introduce Reflective Circles: weekly or monthly gatherings to process the emotional/energetic flows
- Publish an Integration Journal: a physical or digital log tracking how your systems interrelate over time

"When the food forest feeds the goats, who fertilise the trees, which become living lessons in bonsai - that's the art of integration."

Integration to Appreciation: Honouring What Holds It All Together

After the systems are woven, we pause to notice:

- The people, patterns, and moments that made it possible
- The quiet resilience behind each regenerative choice
- The support, seen and unseen, that sustained the journey
- The learning, growth, and generosity that emerged through design



Appreciation for How I Feel Supported Right Now

"Support doesn't always shout. Sometimes, it's just quietly holding your hand."

Internal Supports

- A clear design framework that keeps me steady
- The daily rituals: tea with trees, notebook reflections, shared meals
- The clarity of vision that continues to call me forward

External Supports

- The permaculture network: peers, teachers, authors, listeners
- Software and tools that translate patterns into practice
- Cultural traditions that nourish identity, rhythm, and purpose

Support I Didn't Expect

- The way our animals have become gardeners
- The way workshop stories became seeds for new systems
- The way each design taught me something about myself

Anchoring in Appreciation Going Forward

"Gratitude isn't the end of the design - it's the place from which we begin again."

Practices to Keep Appreciation Alive

- Start each design session with "What's going well?"
- End each season with a *Gratitude Circle* or journal entry
- Write appreciation letters to the land, the animals, the trees, the people

Appreciation as Permaculture Practice

- It builds resilience.
- It maintains energy.
- It reconnects us with the living, loving world we're designing within.

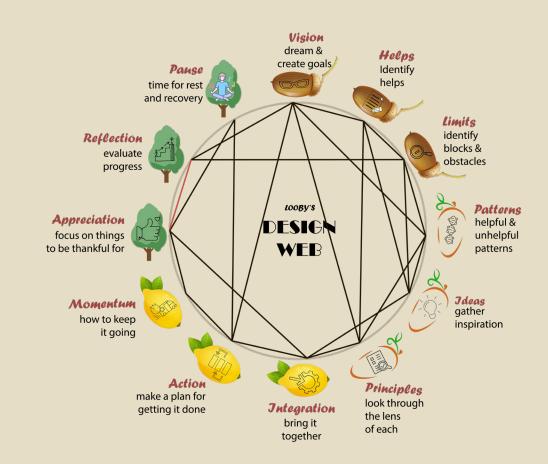
Appreciation embodies *People Care* and *Fair Share*, recognising the value of relationships, ecology, and systemic support. At the same time, the principle of *Pause and reflection* is not just acknowledged but intentionally woven into the design.

"Thank you, past self, for planting. Thank you, present self, for tending. Thank you, future self, for harvesting with grace."

Appreciation to Reflection: Learning from the Journey

Letting gratitude guide deeper understanding:

- Looking back to see what truly mattered
- Noticing patterns of growth, challenge, and support
- Distilling insight from experience
- Honouring the process before setting new intentions



Appreciation softens the gaze.
Reflection sharpens the understanding.

Reflection: What Have I Learned? How Have I Changed?

From Cultivator to Co-Creator (People care, Integrate rather than segregate)

- I began as a bonsai master and teacher, but through permaculture, Ayurveda, and deep land engagement, I evolved into a pattern weaver, listening as much as shaping.
- My approach shifted from productivity to **regenerativity**—learning to work with the land's rhythms, not upon them.
- I discovered that failure isn't a flaw, but rather **feedback**. That silence teaches. That soil, trees, goats—even students—offer continual reflection if I stay open.
- The frameworks (GRAZER, GODREAMET, GOBRADIMET) became more than tools—they became lenses through which I see interconnectedness, emergence, and ecological humility. (Earth+People care, Design from patterns to details)

Reflection: What Worked, What I'd Do Differently, and the Feedback Loops That Emerged

Design as Dialogue

- Wins: Design 1 rooted a philosophy. Designs 3 to 5 built a core homestead resilience. Designs 6 to 9 created integrative feedback loops of water, food, trees, and animals. Each step informed the next.
- **Tweaks:** Start smaller, apply sooner, and trust collaboration earlier. Built in time to rest and reflect, regeneration is as much about *stillness* as it is about strategy. (People care, Small and slow solutions)
- **Feedback Loops:** Real-time adaptation became essential, soil speaks, systems responded. Energy from Design 4 powered water in 5. Goat manure from 9 nourished food systems in 6. People, land, and tradition all became part of the learning ecosystem. (Earth care, Catch and store energy)
- Reflection isn't an afterthought; it's an integral part of the design itself.

Reflection: Closing Reflection

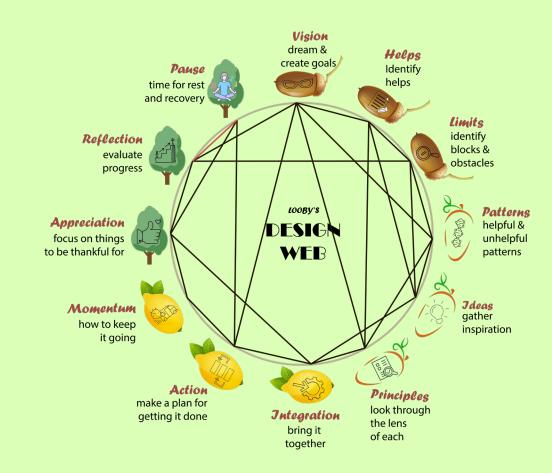
A Journey of Becoming

I'm not a farmer, never claimed to be. And yet, here I am, boots on the soil, heart in the work, standing at the edge of a journey that asks more than just planting and pruning. It asks me to listen, to adapt, to become part of a living system that doesn't follow spreadsheets or schedules. I may not have all the answers, but I'm here, shovel in hand, ready to ask the right questions. Let the journey begin.

Reflection to Pause: Rest as a Design Principle

Honouring stillness as part of the process:

- Letting insights settle before the next step
- Creating space for renewal and clarity
- Trusting that rest nurtures resilience
- Embracing the fertile silence between cycles



In nature, nothing blooms all year.
Pause is not a break, it's part of the rhythm

The Power and Practice of Pause

Stillness is not empty. It's full of answers.

- After the momentum of Designs 1 to 9, the 10th design invites a deep breath—a space to gather insight, not just action.
- Pause is not retreat. It's **integration**, letting the lessons of bonsai, silviculture, and animal husbandry settle like compost into fertile mind soil.
- In stillness, threads begin to weave: from Vrikshayurveda to GRAZER, from sacred groves to goat pastures.
- Observation without an agenda becomes the most powerful tool:
 "When I stop to listen, the land speaks."

How I Pause, What Emerges

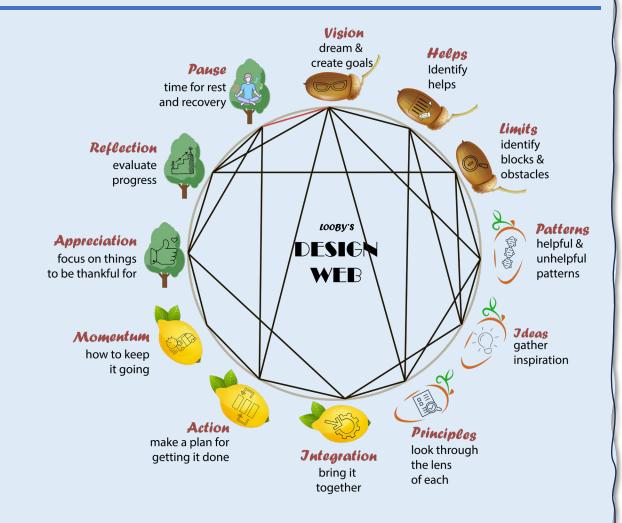
Rooting Reflection Into Daily Design.

- Practices of Pause: Morning walks under cork oaks. Journaling insights (Observe and Interact). Ritual tea in the nursery. Reading Vedic verses (Use edges and value the marginal) beside newly dug swales. (People and Earth care)
- The 10th design no longer feels like a conclusion; it feels like confluence. (People care, Creative use and respond to change)
- I see where systems tried to run too fast (livestock onboarding, water logic). The land asked
 me to slow down to the speed of relationship.
- The emerging design mantra: "Pause is design. Reflection is action. Stillness is regenerative."

Pause to Vision: Emergence with Intention

Rising from stillness into renewed clarity:

- Letting rest spark fresh imagination
- Returning to purpose with deeper presence
- Re-envisioning with what's been learned and felt
- Preparing to begin again, more rooted, more aware



Out of the pause, the next vision rises.

Not rushed, but ready.

A Regenerative Vision for Vila Pinheiro

"Design is the act of imagining a better world, and then making it compostable."

My Vision:

To transform Vila Pinheiro into a living, breathing demonstration of regenerative culture (*Earth care, Catch and store energy*), where **permaculture**, **Vrikshayurveda**, **and The Mă-Kè Bonsai Way** harmonise (*Use and value diversity*) into a sanctuary for soil, soul, and society.

Rooted in the Past, Growing into the Future:

- From Design 1 (Bonsai Culture) to Design 9 (Animal Integration), the thread is clear: a living system of interdependence, where each component, tree, goat, water, and human feeds the whole. (Earth Care, Integrate rather than segregate)
- The vision is not just land-based; it is also educational, cultivating students, sharing stories, and developing systems that can be replicated elsewhere. (Earth Care, Integrate rather than segregate)
- Regeneration isn't a destination; it's a daily, seasonal, and **spiritual practice**. It's about listening to the land's needs and evolving with it. (*Earth Care, Creatively use and respond to change*)

Core Aspirations:

- A resilient, self-sufficient homestead.
- A hub for learning, healing, and community connection.
- A place where the **sacred and scientific meet** in the compost heap and classroom alike.

Vision Through the Lens of the 10 Designs

"This is more than design. This is a dharma."

The Vision Emerges Through Each Design:

- **Designs 1–2**: Set the philosophical foundation. Bonsai as a metaphor. Education as activism. Care as cultivation. (*People care, Use and value diversity*)
- **Designs 3–5**: Establish the physical infrastructure, energy, water, and homestead resilience. (Earth care + Fair share, Catch and store energy)
- **Designs 6–9**: Embody complex, living systems, food forests, silviculture, animals, Ayurveda, succession, and feedback. (Earth & People care, Integrate rather than segregate)
- **Design 10**: Synthesises it all into a **meta-design for regenerative life** where patterns become teachings, and teachings become offerings. (*People care, Observe and Interact*)

This Vision Is...

- Bioregional: rooted in Central Portugal, yet connected to global wisdom.
- Cultural: honouring Indian traditions, local ecology, and contemporary permaculture.
- Legacy-driven: a regenerative inheritance for future stewards and students.

"To build a regenerative system is to plant a seed whose fruit I may never eat

But whose roots will hold the soil for generations to come?"

(Future Care)

Design Evolution: Action Learning as Living Design

"Action Learning is not just a framework.

It's a compost pile - collecting insights, breaking them down, and feeding the next layer of growth."

How the Action Learning Pathway Worked:

- It **anchored each step** in reflective practice nothing was wasted; everything was integrated.
- It provided a mirror and a compass helping me track both where I was and where I was becoming.
- It bridged the **inner and outer landscapes** making sure that observation, implementation, pause, and momentum weren't just ideas but lived rhythms.

What It Proved:

- That learning is not linear it's spiralled, seasonal, and deeply personal.
- That a regenerative life is one in which the design process itself regenerates the designer.

Action Learning embodies the principles *Use feedback*, *Apply self-regulation*, and *Design from patterns to details*, forming a recursive spiral of growth that reflects permaculture as a living, evolving pattern language...

"The process didn't just support the work."

Design Evolution: Meta-Design Integration

"Weaving Wisdom Through Action -A Living Design of Regeneration"

Main Points:

- Action Learning serves as the living tapestry where insights from all previous designs are reflected, refined, and re-rooted.
- It synthesises **Ethics**, **Permaculture Principles**, **The Mă-Kè Bonsai Way**, **Vrikshayurveda**, and **Applied Tools** into one regenerative system.
- Embraces whole-site consciousness with ecological, social, cultural, and spiritual dimensions.

"A tree is strongest where its branches meet — so too is a design, where wisdom finds strength in the harmony of its learnings."

The Mă-Kè Way.

Design Evolution: Ethics, Principles, and Tools

"Where Practice Meets Philosophy"

Permaculture Ethics

- Earth Care -Soil health, tree stewardship, water reverence
- People Care -Community inclusion, learning spaces, inner harmony
- Fair Share -Open source knowledge, surplus sharing, intergenerational thinking

Tools in Action (selected highlights from the matrix *)

- **Design Tools**: Zones, Elevation Planning, Law of Three, Relative Location
- Analysis Tools: SWOT, Needs & Limits, Stakeholder Analysis
- Survey Tools: Base Maps, Shadow Mapping, Soil Samples
- Implementation Tools: GANTT Chart, Budgeting, Work Plans
- Evaluation: Roses—Thorns—Buds, Four Questions, Goals-Based Review

(See Appendix 1 - Summation of - Frameworks - Ethics - Principles and Design Tools used in the Designs for Vila Pinheiro - April 2025)

Design Evolution: The Soul of the Design

"Soulful Systems -Wisdom from Bonsai and Ayurveda

Vrikshayurveda Principles Embedded

- Soil & Roots -Regenerative composting, mulching, root-zone care
- Water & Nourishment Herbal tonics, moon-phase irrigation, rain harvesting
- Plant Health Natural pest balance, tree immunity, diversity planting
- Cosmic Alignment -Seasonal planting, lunar cycles, ritually timed interventions

The Mă-Kè Bonsai Way Realised

- Mindfulness and Patience: Design as meditation
- Styling with Intent: Minimal intervention, maximum harmony
- Sharing Knowledge: Teaching, storytelling, legacy-building
- Inner and Outer Harmony: Cultivation of self and system

(See Appendix 1 - Summation of - Frameworks - Ethics - Principles and Design Tools Used in the Designs for Vila Pinheiro - April 2025)



My Evolution as a Designer

"As the forest grew, so did I."

Who I Was When I Began:

- A bonsai master, a sustainability enthusiast, a seeker with a vision.
- Focused on building systems food, water, energy, land.

Who I Am Now?

- A regenerative weaver of systems and stories.
- More attuned to pattern and process, not just product.
- Comfortable with emergence. Willing to pause. Able to share the stage.

What I've Learned:

- That every design also designs the designer.
- That humility, humour, and observation are just as essential as compost, contour, and carbon.
- That The Mă-Kè Way is not just a method it is a rhythm I now live by.

"Designing regeneratively taught me not just how to shape land, but how to let land shape me."

My Evolution as a Permaculture Designer (Designs 1-5)

When I first set foot on this path, I was a bonsai master with decades of tree wisdom, a sustainability enthusiast, and a seeker guided by instinct more than structure. My mind was focused on systems – food, water, energy, and land – and my hands were skilled in pruning with precision and patience.

Back then, **Design 1 – The Mă-Kè Bonsai Way** emerged as my rootstock. It was my anchor, blending ancient artistry with permaculture principles. It gave voice to my philosophy: that even in miniature, nature teaches scale-less lessons. From shaping trees, I began shaping landscapes.

Design 2 – Growing Bonsai Sustainably pushed me further. It wasn't just about technique anymore; it was about pedagogy and transmission. I began to see education not as curriculum delivery, but as ecosystem cultivation, tending to learning journeys like young saplings. I started designing not just content, but transformation.

With **Design 3 – Vila Pinheiro: Sustainable Homestead**, I entered the forest. Literally. What began as a bonsai sanctuary became a living experiment in homesteading, resilience, and humility. Systems overlapped. Dreams hit the soil. And so did I. I learned quickly that the land does not wait for perfection; it invites participation.

Designs 4 and 5 – Energy and Water Self-Sufficiency deepened my understanding of flows. They were no longer just utilities; they were stories of relationship, feedback, and rhythm.

In seeking autonomy, I found attunement. These designs taught me that self-sufficiency is less about independence and more about intimacy with place.

IPA: I grew in insight, patience, and adaptability – embracing systems thinking, listening to feedback, and letting life be the teacher.



Integration of Spirit and Soil (Designs 6-10)

My Journey Continues

At this point, I paused. A breath. A turning inward. That pause was not idle. It was composting. Reflection became its own design.

Design 6 – Sacred Garden Infrastructure brought together form and function. I began to sense the sacred not just in rituals or herbs, but in how we laid a path, sited a bench, or harvested rain. My spatial awareness shifted from layout to alignment, with an emphasis on energy, elements, and spirit.

Design 7 – Ayurvedic Food Forest was a symphony. Ayurveda meets permaculture. Medicinals are met by mycorrhiza. I wasn't just layering plants anymore; I was layering traditions. Designing ecosystems where healing wasn't just a harvest, but a presence.

With **Design 8 – Regenerative Silviculture & Vrikshayurveda**, I finally embraced my role as a pattern weaver. The trees were no longer a backdrop or a resource. They were teachers, kin, climate buffers, and cultural archives. I began designing time – years, decades – not just outputs.

Design 9 – Animal Integration & GRAZER humbled me anew. Animals are not components; they are collaborators. With goats, chickens, and pondlife, I learned to observe differently. Movement mattered, behaviour mattered, and ethics mattered more. GRAZER became a living covenant, not just a framework.

Design 10 – Meta Design & Action Learning Pathway was the moment the design turned back on me. I saw it all as a web. Interlinked, evolving. The "A" in GODREAMET stood for Apply, but it also meant Alignment. And that is what I found: an alignment of vision, vocation, and values.

Becoming the Designer the Land Needed

I no longer see myself merely as a designer.

I am a storyteller of soil, a listener of lichens, a weaver of wind, root, and rhythm.

Where once I sought to plan, I now participate.

Where once I arranged,

I now **attune**.

Design has become a dance

with weather, with goats, with unseen threads beneath the surface.

It is no longer about control.

It is about **consent**, **conversation**, **co-creation**.

The Mă-Kè Way is no longer just a method.

It is the music I move to,

the silence I honour,

the breath of the land as it breathes me back into alignment.

"Designing regeneratively taught me not just how to shape land, but how to let land shape me."

	1			Design 1	Donigo 2	Dooign 2	Dooldn 4	Doolen E	Design 6 Design 7	Donign 9	Decign 0	Design 10
				Design 1 - Regenerative Bonsai	Design 2 - Growing Bonsai	Sustainable	Design 4 - Energy Self-	Design 5 - Water Self-sufficiency	Food Self- Avurveda F	ond Silviculture	Design 9 - Husbandry	Design 10 - Action Learning
Design	Framework/Principle/Design Tools	Description	Category	Culture	Sutainably	Homestead	Sufficiency Design	Design	Sufficency Forest	Strategy	Rotational Paddock	k Pathway
	Design Web	A flexible, non-linear approach that encourages designers to explore multiple elements and relationships in permaculture projects.		~								~
	GADIE	A structured process involving the steps of Gather, Analyse, Design, Implement, and Evaluate, commonly used in project management.			~							
	(Go)SADIM(ET)	A popular permaculture design method involving Survey, Analysis, Design, Implementation, Maintenance (Evaluation and Tweaks).				v						
	CEAP	Stands for Client, Evaluate, Analyse, and Plan; focuses on understanding client needs and designing with them in mind.					v		v			
	GOBRADIME	A structured approach stands for Goals, Observation, Boundaries, Resources, Analysis, Design, Implementation, Maintenance, and Evaluation.							V			
	GoDREAMET	Another comprehensive framework "Goals, Research, Evaluate, Apply, Maintain, Evaluate, and Tweak, for continuous improvement.								~		+
	Vision Tree PERMA-SADIMET	A visual approach to design that centres on establishing a clear vision and branching out goals and actions.						v				+
Design Frameworks		A blend of permaculture and SADIMET adds psychological resilience to the design.						V				+
	Regenerative Design (Abrah Dresdale) GROW	Focuses on design that restores ecosystems, communities, and individuals, promoting regeneration rather than sustainability alone. Stands for Goals, Reality, Options, and Way Forward, a framework for setting and achieving objectives.										+
	Yeomana's Scale of Permanence	A design system prioritising elements in land planning, focusing on permanence and resilience.										
	James Design Tree	A method that utilises tree-like structures to visualise project elements and their relationships in a holistic design.										
	REAPMORE	A comprehensive framework meaning Resources, Ethics, Analysis, Planning, Management, Observation, Reflection, and Evaluation.										
	AEIOU	A process-based design focusing on Actions, Environment, Interactions, Objects, and Users for a well-rounded understanding.										
	Appreciative Inquiry PRIME	A positive approach involving Discover, Dream, Design, and Deliver, focusing on strengths and potential.										~
	GRAZER	Stands for Prepare, Research, Implement, Manage, and Evaluate; it's geared towards structured, iterative project design.									.,	
	Earth Care	A Framework for Regenerative Animal Husbandry (Goals, Resources, Analysis, Zone-Design, Evaluation, Refinement) Respecting and restoring natural systems to maintain ecological balance.			~	<i>y</i>	v	~	· · ·		~	~
	People Care	Ensuring the well-being of individuals and communities through equitable practices.		~	~	· ·		· ·	v v		~	~
	Fair Share	Redistributing surplus resources to foster equity and minimise waste.		v		v	~	v				
	Future Care	Designing systems with a long-term perspective, safeguarding resources for future generations.			v				v v	v	v	v
Estina	Venn Diagrams	Using intersecting areas to visualise and understand complex relationships within systems.							· ·			
Ethics	Principle Zero	Observing and understanding natural systems as a foundation for any design.			v				· · ·	· ·	· · ·	
	Diversity and Inclusion Intergenerational Equity	Valuing biological and cultural diversity for resilience and inclusiveness. Creating a legacy for future generations without compromising their resources.			· ·				V V		· ·	
	Right Livelihood	Creating a legacy for future generations without compromising their resources. Promoting livelihoods that are ecologically and socially beneficial.							~			~
	Redistribution and Reciprocity	Fostering cycles of sharing and mutual support within communities.							~			
	Relational Health	Maintaining healthy relationships with people, land, and ecosystems.							V			
	Observe and Interact	Engage with nature to design thoughtful solutions.		v	~	v	✓	~	v v	~	~	✓
	Catch and Store Energy	Harness and save resources for future use.				v	· ·	· ·	V V	v	· ·	4
	Obtain a Yield Apply Self-Regulation and Accept Feedback	Ensure that your efforts provide a measurable benefit. Learn and adjust from the outcomes of your actions.		· · ·	· ·	<i>y</i>	✓ ✓	· · · · · · · · · · · · · · · · · · ·	· · ·	· ·	· ·	~
	Use and Value Renewable Resources and Services	Prioritise sustainable and renewable options.			· ·				V V		· ·	<u> </u>
Holmgren Principles	Produce No Waste	Maximise resource efficiency by recycling and reusing.			~	v	· ·	·	v v		· /	
	Design From Patterns to Details	Focus on holistic designs before refining specific elements.		v	~	~	~	✓	✓ ✓	· ·	~	v
	Integrate Rather Than Segregate	Create systems that foster cooperative relationships.		~	~	~	✓	✓	✓ ✓	~	~	✓
	Use Small and Slow Solutions	Adopt gradual, steady approaches that build resilience.		· · ·	V	· ·	· ·	· · · · · · · · · · · · · · · · · · ·	· · ·	· ·	· ·	· ·
	Use and Value Diversity Use Edges and Value the Marginal	Encourage varied inputs to strengthen systems.			<i>y</i>	<i>y</i>	· · · · · · · · · · · · · · · · · · ·	· ·	V V	· ·	./	~
	Creatively Use and Respond to Change	Recognise the richness in transitional spaces and fringes. Adapt creatively to challenges and opportunities.		_	~		~		· · ·	-	~	~
	Relative Location	Place elements strategically to optimise relationships and functions.		· ·	~	v	·		v v		· /	~
	Each Element Performs Many Functions	Design each component to contribute multiple benefits to the system.		v	~	v	~	v	v v	· ·	v	~
	Each Function Supported by Many Elements	Ensure critical functions are backed by multiple elements to build resilience.		v	~	~	· ·	~	v v	· ·	~	~
	Efficient Energy Planning	Arrange systems to minimise energy inputs and maximise outputs.		· · ·	· ·	· ·		· · ·	· · ·	· ·	· ·	· · ·
Mollison and Slay (ecologica	Using Biological Resources Cycling of Energy, Nutrients, Resources	Prioritise natural, living systems over mechanical or synthetic ones.		· ·	· ·	· ·	<u>`</u>	· ·	V V		· ·	· ·
	Small-Scale Intensive Systems	Reuse outputs of one system as inputs for another to reduce waste. Focus on productivity within compact areas, emphasising efficiency.		~	,				· · ·		,	~
	Accelerating Succession	Actively guide and speed up natural processes to establish stable ecosystems.		~	~	~	~	~	v v	~	v	~
	Diversity	Foster a variety of species, elements, and functions for greater system stability.		v	~	~	v	v	v v	· ·	v	v
	Edge	Utilise the richness of boundaries and transition zones where systems meet.		~	~	~	~	~	v v	~	~	· ·
	Work with Nature Rather Than Against	Align with natural processes to reduce effort and increase harmony in design.		~	~	~	~	~	v v	~	~	· ·
	The Problem Is the Solution	See challenges as opportunities to create innovative solutions.		~	~	~	~	v	v v	~	v	~
AA III	Least Change for Maximum Effect	Focus on small adjustments that yield significant results.		~	~	~	~	v	· ·	~	~	~
Mollison (attitudinal)	Yield Limited Only by Imagination	Creativity and innovation can unlock untapped potential in systems.		~	~	~	· ·	v	v v	~	~	~
	Everything Gardens	Recognise that all elements in a system impact and shape their surroundings.		~	~	~	· ·	v	v v	~	~	· ·
		Success relies on observation, knowledge, and creativity rather than high resource input.		~	~	~	~	v	· ·	~	~	~
	Work Is Pollution	Aim to minimise unnecessary labour by designing systems that work efficiently.		· ·	v	v	v	· ·	v v	v	~	~
	Soil and Roots (Bhumipradhāna)	Focuses on building and nourishing living soil through composting, mulching, and root zone care.		~		· /		· · · · · · · · · · · · · · · · · · ·	· · ·	· · ·		
Vrikshayurveda Principles	Plant Propagation and Growth (Bija, Ankurita, V _f ddhi) Water and Nourishment (Jala Pradhāna)	Emphasises healthy seed selection, germination practices, and guided plant development aligned with nature. Regulates watering techniques, lunar-phase irrigation, and natural tonics to hydrate and nourish plants.			~	· ·		~	· · ·	~	~	+
	Plant Health and Protection (Roga Nivāraņa)	Focuses on strengthening plant immunity using natural pest repellents, diversity, and balanced environments.						v	· · ·		~	
	Tree Management (Vrksha Cikitsā)	Involves pruning, grafting, and surgical techniques that align with tree health and seasonal rhythms.		~						v		
	Cosmic and Rhythmic Alignment	Synchronises planting and care with cosmic cycles, lunar phases, and seasonal energies.		v	v	~			v v	~	v	4
The Ma-Ke Bonsai Way Tenets	Herbal Preparations & Ferments (Dravyaguna Shastra)	Uses botanical ferments and herbal tonics to feed, treat, and enhance plant resilience.				v			V V	V		
	Understanding and Respect for Nature	Study natural growth patterns, mimic ecosystems, adopt regenerative and eco-friendly practices.		V	✓	· /	✓		V V	✓	· · ·	
	Health of the Tree Styling with Intent	Prioritise tree vitality with careful watering, feeding, and pest control aligned with its seasonal rhythms. Shape trees with clarity and purpose respecting their natural form and energy flow		· · · · · · · · · · · · · · · · · · ·		<i>y</i>	y		<i>y</i>		~	+
	Continuous Learning and Experimentation	Shape trees with clarity and purpose, respecting their natural form and energy flow. Experiment with new techniques and species, and share findings to foster communal learning.		~			•	~		~	~	1
	Sharing Knowledge and Building Community	Engage in workshops, online platforms, and social media to create an inclusive learning space.		· /			v	· ·		· /	· ·	4
	Mindfulness and Patience	Use bonsai as a meditative practice, cultivating inner calm and patience.		v		~	-				v	4
	Embracing Nature's Cycle and Environment	Observe seasonal changes, soil preferences, and climate to align bonsai care with natural cycles.		~	v	v			v v	~		4
	Creating a Bonsai Ecosystem	Design a supportive micro-habitat with companion plants, beneficial insects, and ecological balance. Prostice precise wetering utilize reinweter, and reduce weste with efficient customs.		· ·					· ·	✓	~	
	Balanced Watering and Efficient Water Use Mindful Pruning and Training	Practise precise watering, utilise rainwater, and reduce waste with efficient systems. Train trees respecting their essence, focusing on energy flow and natural development.					~		V V		· ·	+
	Organic Fertilisation	Train trees respecting their essence, focusing on energy flow and natural development. Use organic nutrients to support soil life and tree resilience without chemical imbalances.		,			•			•	~	
				-						_		4

Eco-friendly Practices Implement low-impact techniques—local sourcing, rainwater use, natural pest control lealthy Soil Management Create soil mixes that support microbial life, moisture retention, and root health. ~ Encourage biodiversity, attract beneficial insects, and avoid chemical pesticides. Natural Pest Control The Ma-Ke Bonsai Way Regenerative Practices Recycle materials, compost organic waste, and enhance biodiversity through design Application/Principles Mindful Cultivation Approach bonsai care with full presence, deepening connection with the tree Regenerative Soil Managemen Improve fertility through compost, mulching, and living soils. Regenerative Sourcing Choose sustainably-made tools, pots, and resources to reduce environmental impact. Cultivating Inner Harmony Develop personal balance and insight through the slow, attentive art of bonsai. Working with the Environment Apply permaculture principles to bonsai placement and nursery design. ~ Choosing Suitable Tree Species Select species that thrive in the local microclimate and harmonise with the environment **V** Natural and Organic Soil Build healthy, living soils tailored to each tree's needs. **~** ~ Seasonal Awareness Adjust practices with the seasons-watering, feeding, pruning-all in sync with nature. ~ ~ ~ Sharing Knowledge Mentor others, record experiences, and build regenerative bonsai communities. ~ ~ **~** SMART/SMARTER Goals Goal-Setting Observation Careful examination of natural patterns, weather, and existing ecosystems on the site to inform design choices. Survey Dreaming Creative process to envision possibilities, allowing for exploration of ideas without constraints. Goal-Setting Goal-Setting Visioning Setting a clear, long-term goal for the design, guiding all subsequent planning and implementation Base Map A fundamental map showing key site features, boundaries, and context for further design layers. Survey Geographic Information System, a tool for mapping and analysing spatial data to enhance design precision. Survey, Analysis Layered maps displaying different elements (water flow, soil types, etc.), showing how systems interact on the landscape Design ~ Overlays **~ V** Biotime Diary A log of seasonal and biological changes, recording observations that influence planting and harvesting times. Survey, Maintenance Holistic Goal Setting Establishing overarching goals that reflect the ecological, social, and personal outcomes desired from the design Goal-Setting Desire Lines Informal paths created by site users, providing insight into natural movement patterns and ideal access routes. Survey Shadow Mapping Tracking sunlight and shadow patterns to inform plant placement and solar access for various areas. Survey Site Survey A comprehensive study of site conditions, including slope, soil, water, and vegetation. Survey A detailed mapping of land elevation, assisting in water management, soil conservation, and building placement. Topographic Survey Survey **V** Zones Organising space based on frequency of use and needs, from most visited (Zone 1) to least (Zone 5, wild zone). Design **V** Sectors Analysing external energies (sun, wind, water) that influence the site, helping with element placement. Analysis ~ Pattern Observation Identifying natural and social patterns to guide sustainable and regenerative design strategies. Survey, Analysis Landscape Modelling Creating a physical or digital model to visualise the design and test ideas in a scaled representation. Design Whole under Management and Holistic Context Ensuring all elements are aligned with the larger ecological and social goals for sustainable integration Goal-Setting Boundary Mapping Marking physical and ecological boundaries of the site, clarifying areas for development or conservation Survey Resource Inventory A catalogue of all resources available, including natural, human, and built elements Survey, Analysis Client Interview Gathering insights from stakeholders to align the design with their needs, preferences, and values. Survey Stakeholder Consultation Involving all parties affected by the design to foster collaboration and minimise conflict. Survey Stakeholder Analysis Evaluating the interests, needs, and influence of all involved parties to design inclusively Analysis Focus Groups Engaging small, representative groups for feedback and insights, refining design elements. Survey Oral History Gathering past knowledge about the land, climate, and local ecology from community members Survey Local Knowledge Using indigenous and local practices to inform design choices that align with regional ecology. Survey, Analysis Local History Understanding past land uses, ownership, and changes to anticipate potential challenges Archival Research Reviewing historical documents to understand past ecological and social dynamics of the area. Survey Library Research Conducting in-depth research on ecological principles, plant species, and sustainable practices. Survey Online Research Using digital resources to expand knowledge on specific techniques, species, and permaculture practices. Survey PASTE Analysis of Plants, Animals, Structures, Tools, and Events on the site to plan sustainable interact Analysis Vegetation Survey Cataloguing existing plants and habitats, assessing biodiversity, and identifying key species. Survey Scale for assessing vegetation abundance (Dominant, Abundant, Frequent, Occasional, Rare) DAFOR Analysis Prioritising resource use based on sustainability, resilience, and ecological impact. Hierarchy of Resource Use Analysis Identifying small areas with unique climates, helping with plant placement and system design Microclimates Soil Samples Analysing soil composition, fertility, and structure to support soil health and plant growth. PNI/PMI Pluses, Negatives, and Implications, a tool for evaluating design elements or decisions Analysis Pattern Analysis Studying recurring natural patterns (e.g., branching, waves) to apply them to design solutions Analysis SWOC/SWOT Strengths, Weaknesses, Opportunities, and Constraints/Threats analysis for strategic planning Analysis Needs, Resources, Limits Understanding the requirements, available assets, and constraints for each design elemen Analysis Limiting Factors Identifying elements that restrict productivity or growth, and finding ways to mitigate them Analysis ssessment Diagrai A visual tool to summarise findings from surveys and research, informing the design process. Analysis Elevation Planning Using elevation to plan water flow, building placement, and energy conservation. Design Analysis Ecological Impact Evaluating the potential environmental effects of design choices to enhance sustainability. Footprinting Calculating the ecological footprint to measure the design's resource use and environmental impact. Analysis Roses, Thorns, Bud Identifying positive aspects (roses), challenges (thorns), and opportunities (buds) in the design. Evaluation 6 Thinking Hats A brainstorming method that encourages thinking from multiple perspectives. Analysis, Goal-Setting Law of Three Ensuring each design element serves at least three functions, building resilience. Design Four Quadrants Framework for analysing social, ecological, economic, and spiritual aspects of the design Analysis Examining each element's inputs and outputs to identify opportunities for mutual support Analysis Input-Output Analysis Risk Analysis Evaluating risks and vulnerabilities to design with resilience and adaptability in mind. Analysis An ideation tool to generate diverse ideas, promoting collaborative thinking to find sustainable solutions. Goal-Setting, Analysis Brainstorm Mind Map A visual tool for organising complex ideas by branching out interconnected elements and functions. Goal-Setting, Analysis Flow Map A process map tracking sequences and transitions, especially for planning logical flow in systems. Design Functions, Systems, Elements Analysing essential components to ensure each element has multiple functions and systems, promoting resilience. Analysis A model of interconnectedness that considers relationships between elements, supporting biodiversity and ecosystem health Web of Life Design, Analysis Planning for Real An interactive approach involving community engagement to model potential designs with input from stakeholders. Design, Goal-Setting Wild Design A concept that embraces natural patterns, allowing design to evolve organically, promoting biodiversity. Design Random Assembly A creative technique involving the random combination of elements, embracing trial and error for innovation Design Design Patterns Applying commonly observed natural or social patterns to create sustainable, nature-based solutions. Design Incremental Design An adaptive approach that implements designs in phases, allowing for feedback and adjustments. Design, Tweaking Stacking Layering different functions or systems within the same space to optimise resources and promote diversity McHarg's Exclusion Method A mapping method that excludes unsuitable areas for specific functions, protecting ecological balance. Design, Analysis Scale of Permanence A hierarchy of design elements from least to most changeable, prioritising long-term resilience. Design, Analysis Flevation Profile A visual representation of land topography, aiding in water flow and placement decisions. Survey 8 Forms of Capital A holistic approach recognising different types of value beyond monetary (e.g., intellectual, social, ecological). Analysis

Implementation

Design Plan

A detailed roadmap of the design layout, elements, and flow to ensure coherent implementation.

Placement Map	A spatial layout positioning each element for optimal relationships and resource flow.	Design					
Relative Location	Placing elements in relation to others for mutual benefit, optimising energy flow and reducing effort.	Design					
Implementation Plan	A strategy outlining steps and resources needed to bring the design into reality.	Implementation			✓	✓	
Work Plan	A detailed breakdown of tasks, roles, and schedules for efficient project progress.	Implementation					
Budget	A financial outline of costs and resources, balancing feasibility with ecological goals.	Implementation					
Maintenance Plan	A schedule for ongoing care and improvements to support the design's longevity.	Maintenance	✓		✓	✓	
GANTT Chart	A visual tool tracking project timelines, useful for coordinating complex tasks.	Implementation			✓		
Activity Schedule	Aligns activities with seasonal or cyclical events, timing tasks with natural cycles.	Implementation					
Ritual Calendar	A calendar marking significant dates for ecological or cultural activities, connecting to natural rhythms.	Maintenance					
Four Questions	A reflective tool for evaluating decisions, ensuring alignment with permaculture ethics.	Evaluation					
Eight Shields	A framework for community building, promoting social resilience based on natural cycles and indigenous wisdom.	Goal-Setting, Social					
Timelines	A tool for organising tasks chronologically to manage the sequence and timing of activities within a project.	Implementation Tool	✓				
Energy Audit	A comprehensive assessment of energy use, identifying inefficiencies and areas for potential conservation.	Analysis Tool		V			
Energy Resource Inventory	Cataloguing all available energy resources, including renewable sources, to support sustainable energy planning.	Survey Tool, Analysis Tool		V			
Lighting Assessment	An evaluation of lighting needs and sources, particularly for energy efficiency and suitability for plant growth or other needs.	Analysis Tool		V			
Goals-Based Evaluation	A method for assessing outcomes based on pre-established goals, ensuring alignment with the project's vision and objectives.	Evaluation Tool	✓				
Action Priority Matrix	A tool that helps prioritise tasks by evaluating their impact and feasibility, guiding efficient resource allocation.	Implementation Tool, Analysis Tool	V				
Action Learning Question	Are thought-provoking prompts that drive reflection, critical thinking, and practical problem-solving through experiential learning	Evaluation Tool				~	✓